



**Programmateur ESP modulaire**

**Programador Modular ESP**

**Steuergerät ESP Modular**

**ESP Modular Controller**

**Programmatore ESP Modulare**

*Guide d'installation, de  
programmation et de  
fonctionnement*

*Guía de Instalación,  
Programación y Funcionamiento*

*Anleitung zu Installation,  
Programmierung und Bedienung*

*Installation, Programming  
& Operation Guide*

*Manuale di installazione,  
programmazione e funzionamento*

*Gids voor installatie,  
programmeren en bediening*

*Guia de Instalação,  
Programação e Operação*

*Οδηγός Εγκατάστασης,  
Προγραμματισμού και Λειτουργίας*

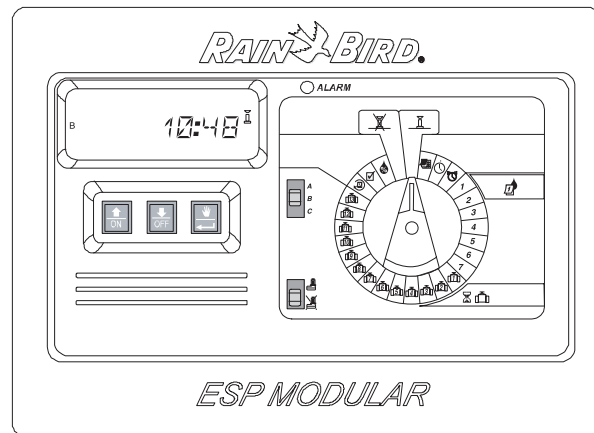
*Montaj, Programlama  
ve Kullanım Kılavuzu Giriş*

**ESP modulaire beregeningsautomaat**

**Programador ESP Modular**

**ESP Σύστημα Ελέγχου**

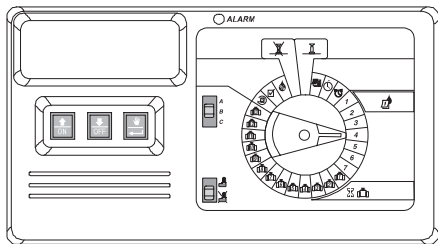
**ESP Modüler Kumanda Cihazı**



<b>Français</b>	.....	2
<b>Español</b>	.....	18
<b>Deutsche</b>	.....	34
<b>English</b>	.....	50
<b>Italiano</b>	.....	66
<b>Nederlandse</b>	.....	82
<b>Português</b>	.....	98
<b>Ελληνικά</b>	.....	114
<b>Türkçe</b>	.....	130

# INSTALLATION

## I. CHOIX DE L'EMPLACEMENT INSTALLATION

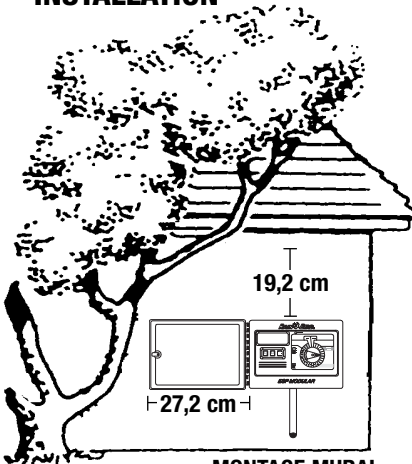


### INTRODUCTION

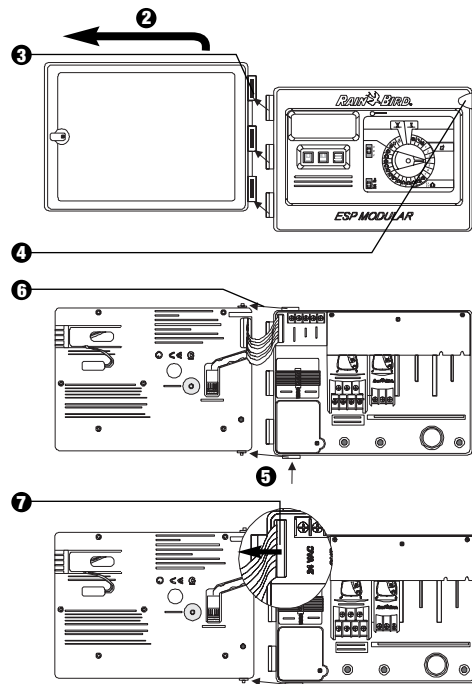
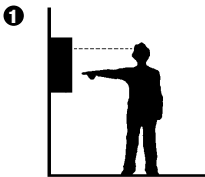
Le programmeur ESP modulaire est un système de programmation destiné aux applications résidentielles et espaces publics de moyenne dimension.

L'ESP modulaire est destiné à un montage intérieur ou extérieur.

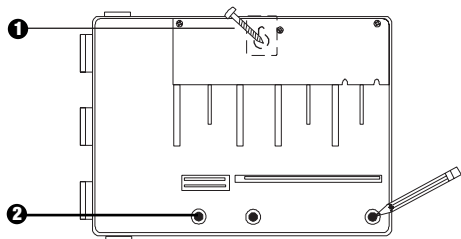
L'unité de base peut piloter quatre vannes et une vanne maîtresse / relais de démarrage de pompe. L'ajout de modules internes optionnels permet de connecter jusqu'à 12 vannes, une vanne auxiliaire plus une vanne maîtresse / relais de démarrage de pompe.



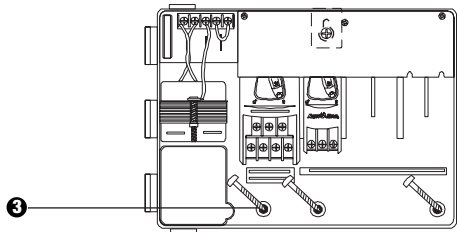
**MONTAGE MURAL  
A L'EXTERIEUR**



## II. MONTAGE DU PROGRAMMATEUR

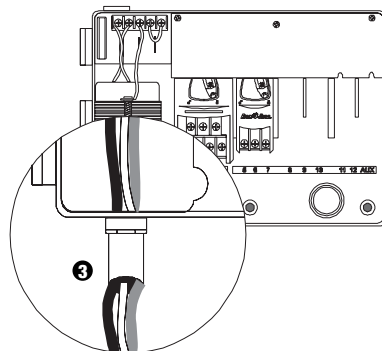
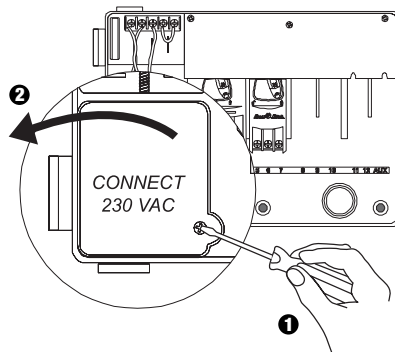


- ❶ Choisissez une fixation adaptée au type de mur. Fixez le programmeur par le trou de fixation en forme de serrure.
- ❷ Équilibrez le programmeur et marquez la position d'un ou plusieurs trous de fixation inférieurs.

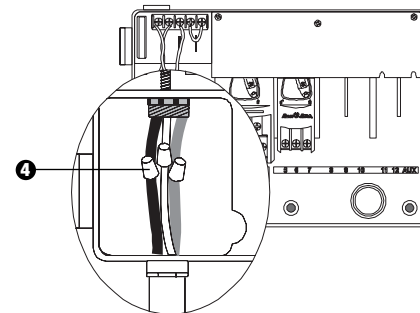


- ❸ Mettez les fixations du ou des trous inférieurs. Vérifiez que le boîtier est stable.

## III. CABLAGE – ALIMENTATION



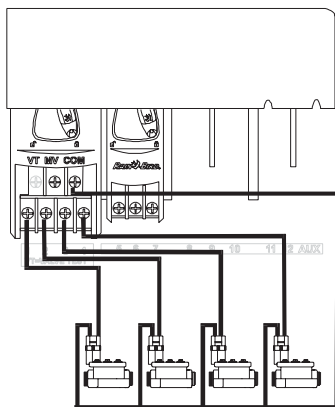
230 VAC  
Pour raccords de gaine 13 mm



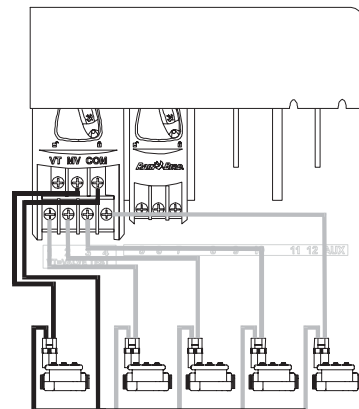
- ❹ En utilisant les connexions agréées, branchez les câbles comme suit :
  - connectez le câble marron au câble marron,
  - connectez le câble bleu au câble bleu,
  - connectez le câble de terre vert/jaune au câble vert/jaune.

**Remarque:** Les câbles de terre verts/jaunes DOIVENT être branchés de manière à assurer une protection anti-surtension.

## IV. CABLAGE – VANNES ELECTRIQUES



Vannes électriques

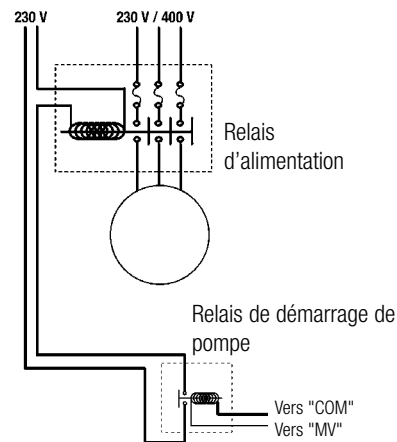
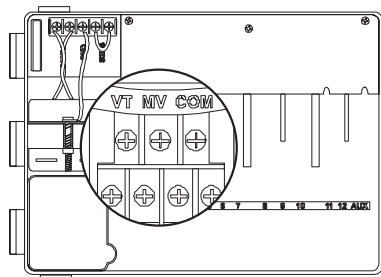


Vanne maîtresse

**Remarque:** Procédez à cette étape seulement si votre système nécessite une vanne maîtresse ou un relais de démarrage de pompe. Le programmeur ne fournit pas directement le courant nécessaire au fonctionnement d'une pompe.

### Borne de test des vannes

La borne de test des vannes (VT) fournit un courant 24 V constant (avec alimentation AC) permettant de vérifier rapidement le câblage des vannes électriques.

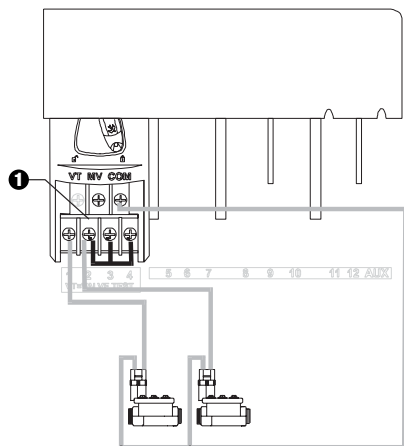


### Démarrage de pompe

La borne marquée MV permet de démarrer automatiquement une pompe avec un relais ou d'ouvrir une vanne maîtresse. La borne MV ne fournit le courant que si l'une des stations est utilisée.

Relais recommandés : FINDER 55 32 80 24, HAGER ES-224, TELEMECANIQUEGC 1610B5 ou équivalent.

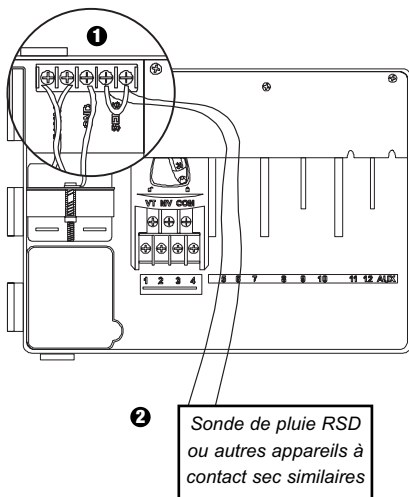
## V. PONTAGE DES STATIONS NON UTILISEES



- 1 ATTENTION:** Pour éviter d'endommager la pompe pilotée par le programmeur par l'intermédiaire d'un relais, pontez les stations non utilisées à une station utilisée.

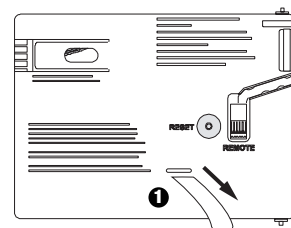
Si les stations non utilisées ne sont pas reliées à une station utilisée, et qu'elles sont activées par accident, la pompe risque de fonctionner sans débit. Cela peut surchauffer la pompe ou la griller.

## VI. OPTION SONDE



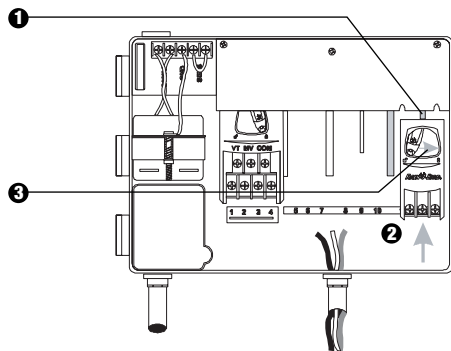
- 1** Si vous ne connectez pas de sonde au programmeur, assurez-vous que le cavalier fourni est installé sur les bornes SENS.
- 2** Les sondes Rain Check et MS-100 ne doivent pas être connectées sur ces bornes, mais elles doivent être uniquement câblées en série sur la borne COM.

## VII. BATTERIE DE SECOURS



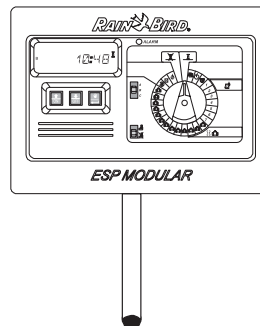
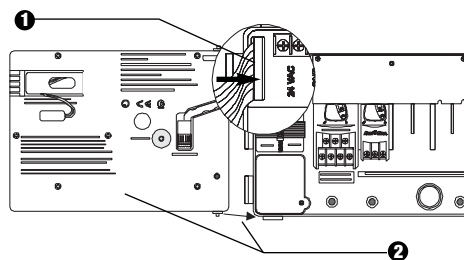
- 1** Tirez pour l'enlever.

## VIII. INSTALLATION DE MODULES (pour des vannes supplémentaires)



- ❶ Vous pouvez installer des modules optionnels dans n'importe quel emplacement libre lorsque le programmeur est sous tension.
- ❷ Placez le module dans un emplacement libre, en vous assurant que le levier est sur la position déverrouillée.
- ❸ Verrouillez le module en place en faisant glisser le levier à droite.





## IX. FIN DE L'INSTALLATION

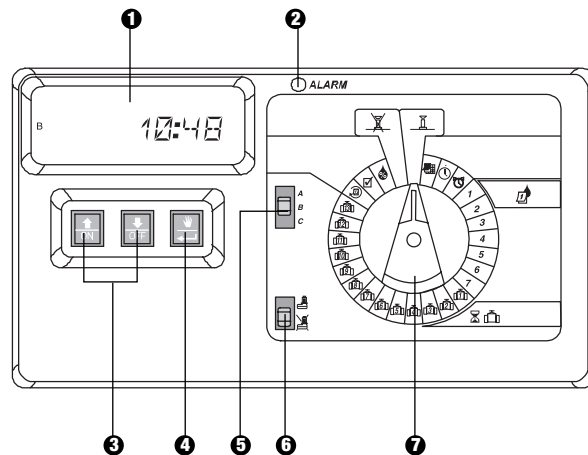


## COMMANDES ET INDICATEURS

L'illustration sur la droite montre les différentes commandes et indicateurs de la face avant du programmeur ESP modulaire :

- 1 Écran LCD** – Pendant le fonctionnement normal, il affiche l'heure courante ; pendant la programmation, il affiche les résultats de vos réglages ; en cours d'arrosage, il indique la vanne activée ainsi que les minutes imparties restantes.
- 2 Voyant Alarme** – Il s'allume si :

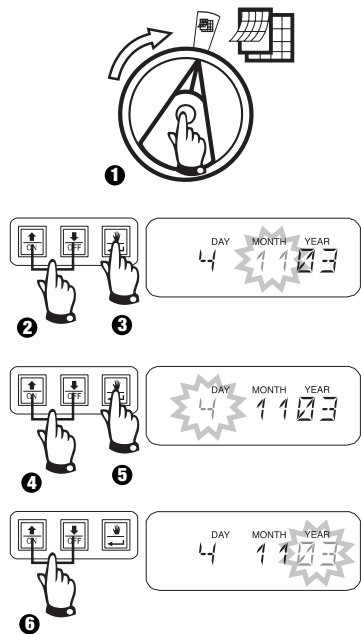
  - l'arrosage est suspendu sous l'action d'une sonde,
  - le programmeur a détecté un court-circuit sur une vanne,
  - une erreur de programmation a été commise.
- 3 Touches Haut-Bas, ON-OFF** — Elles permettent de régler le programme et d'activer ou désactiver les jours d'arrosage.
- 4 Touche Manual Start / Advance (Démarrage manuel / Avancer)** —  Manual Start permet de démarrer manuellement soit le programme soit la ou les vannes.  Advance permet de naviguer entre les différentes étapes ou paramètres de programmation.
- 5 Sélecteur de programme** — Il permet de sélectionner le programme d'arrosage A, B ou C.
- 6 Sélecteur de sonde** — Il permet d'indiquer au programmeur d'obéir () ou d'ignorer () les informations envoyées par une sonde optionnelles.
- 7 Roue de programmation** — Elle permet de mettre en marche ou d'arrêter le programmeur et de choisir d'autres fonctions de programmation.



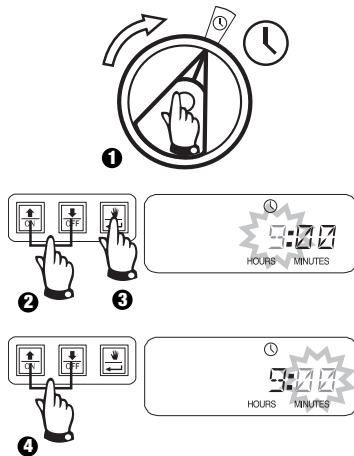


# PROGRAMMATION

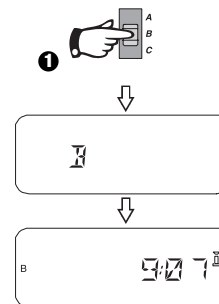
## I. REGLAGE DE LA DATE



## II. REGLAGE DE L'HEURE



## III. CHOIX DU PROGRAMME

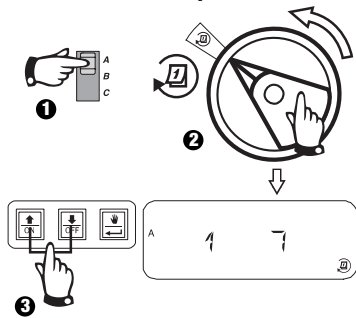


## IV. CHOIX DU CYCLE D'ARROSAGE

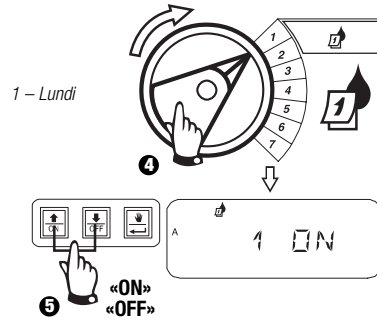
Chaque programme peut fonctionner selon l'un des quatre cycles d'arrosage indiqués ci-dessous. Sélectionnez le cycle désiré et suivez les instructions y afférentes.

- 1 7:** Arrosage les jours sélectionnés.
- 2 4 6:** Arrosage les jours pairs uniquement.
- 1 3 5:** Arrosage les jours impairs uniquement.
- 1 31:** Arrosage suivant un intervalle de jours défini (par ex., tous les deux jours, ou tous les trois jours).

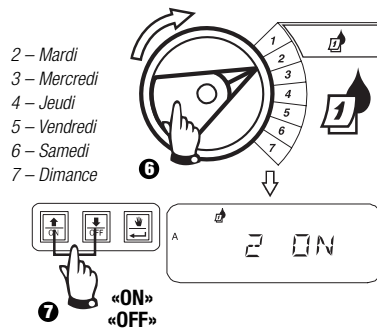
### A. 1 7 (Personnalisé/Jours de la semaine)



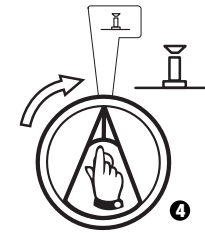
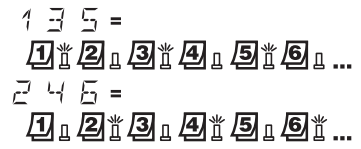
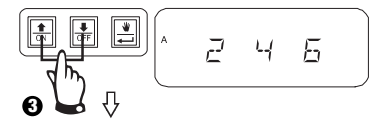
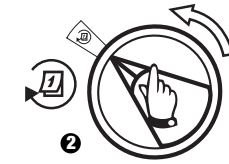
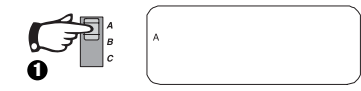
1 - Lundi



- 2 - Mardi
- 3 - Mercredi
- 4 - Jeudi
- 5 - Vendredi
- 6 - Samedi
- 7 - Dimanche

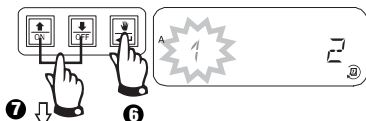
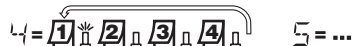
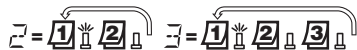
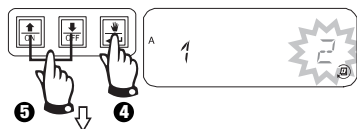
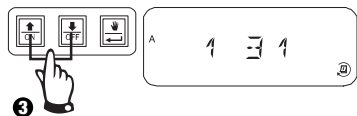
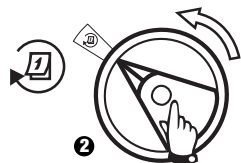
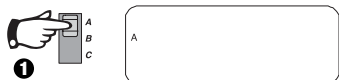







## B. 2 4 6 / 1 3 5 (jours pairs/impairs)

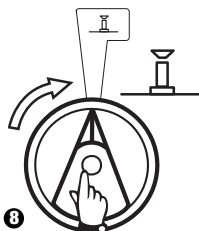


## IV. CHOIX DU CYCLE D'ARROSAGE (suite)

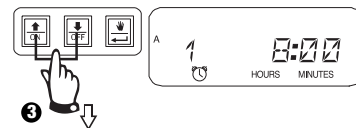
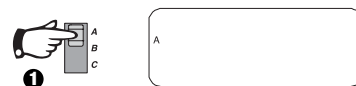
### C. 1 31 (cyclique)





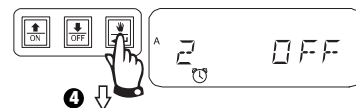
-  = Le cycle d'arrosage démarre aujourd'hui.
-  = Le cycle d'arrosage démarre demain.
-  = Le cycle d'arrosage démarre dans deux jours.
-  ,  ... = Le cycle d'arrosage démarre dans \_\_ jours.




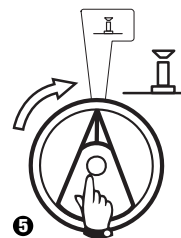
## V. HEURES DE DEMARRAGE DE L'ARROSAGE



Pour supprimer une heure de démarrage, appuyez sur  ou  jusqu'à ce que l'indication OFF apparaisse entre 23:45 et 0:00 H.

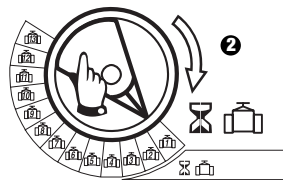


Pour définir des heures de démarrage supplémentaires pour ce programme, appuyez sur  pour afficher la prochaine heure de démarrage. Répétez au besoin.

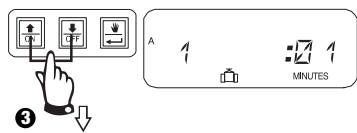


## VI. REGLAGE DE LA DUREE D'ARROSAGE PAR VANNE

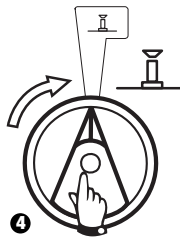
Chaque vanne peut avoir une durée d'arrosage de 0 à 6 heures (pour la première heure, la durée se règle par pas de une minute, pour les heures suivantes elle se règle par pas de dix minutes.)



**Remarque:** Si vous positionnez la roue de programmation sur un numéro de vanne dont le module n'est pas installé dans le programmeur, le message « NO 5 – 8 », « NO 9 – 10 » ou « NO 11 – 13 » apparaît à l'écran.



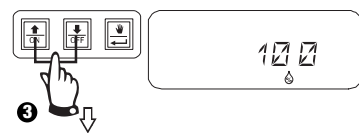
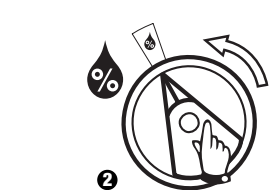
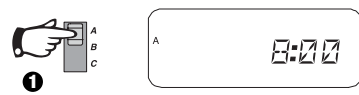
Permet de régler la durée d'arrosage. Si vous souhaitez qu'une vanne ne fonctionne pas durant le programme sélectionné, laissez les minutes à 0. Répétez les points 2 et 3 pour le programme sélectionné. Répétez les points de 1 à 3 au besoin pour les programmes B ou C.



**Attention:** Si la durée d'arrosage de toutes les vannes est réglée à 0, le voyant Alarme s'allume.

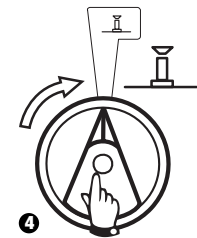
## VII. AJUSTEMENT SAISONNIER (Water Budget)

Cette fonction permet de majorer ou de minorer la durée d'arrosage de toutes les vannes selon un pourcentage. Choisissez un pourcentage compris entre 0 et 200 %. Ce paramètre s'applique à TOUS les programmes.



Permet de régler la durée. La valeur par défaut correspond à 100 %.

L'ajustement saisonnier est calculé sur la durée d'arrosage effective de chaque vanne. Par exemple, si une vanne est programmée pour arroser pendant 10 minutes, et que vous réglez l'ajustement saisonnier sur 120 %, la vanne arrosera pendant 12 minutes.



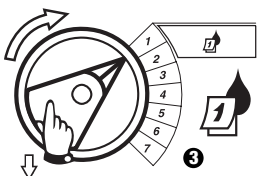
**Attention:** Lorsqu'une valeur autre que 100 % est entrée, l'icône  s'affiche en mode AUTO indiquant que la durée d'arrosage a été modifiée.

## VIII. REGLAGE DE JOURS SANS ARROSAGE

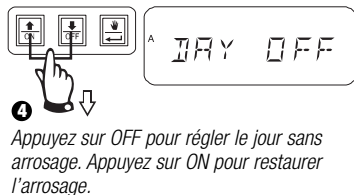
Si vous utilisez les cycles de programmation 2 4 6 (jours pairs), 1 3 5 (jours impairs) ou 1 3 1 (cyclique), vous pouvez régler des jours sans arrosage pour ne pas enfreindre les restrictions d'eau.



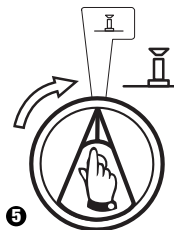
Cette fonction s'applique aux cycles de programmation 2 4 6 (jours pairs), 1 3 5 (jours impairs) et 1 3 1 (cyclique)



Sélectionnez le jour de la semaine.

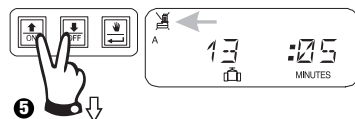
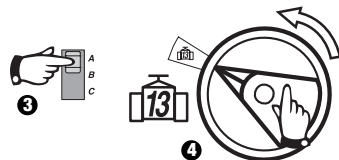
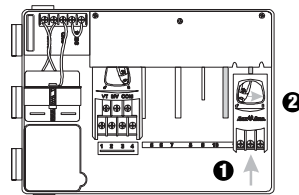




Appuyez sur OFF pour régler le jour sans arrosage. Appuyez sur ON pour restaurer l'arrosage.

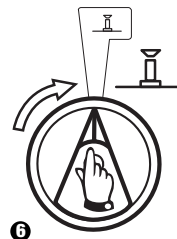


## IX. UTILISATION DE LA VANNE AUXILIAIRE

La borne pour la vanne auxiliaire (vanne 13) peut être utilisée comme une vanne d'arrosage normale, ou peut être programmée de manière à ne pas être affectée par la sonde pluie. En la programmant de cette façon, la borne auxiliaire peut être utilisée pour d'autres applications que l'arrosage telles que l'éclairage d'un jardin ou une fontaine.

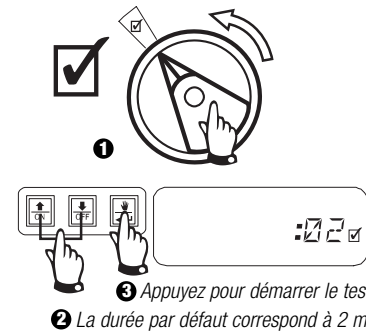


Appuyer simultanément sur les deux touches jusqu'à ce que  apparaisse indiquant que cette vanne n'est pas affectée par la sonde pluie. Pour restaurer l'affectation de la sonde, appuyer simultanément sur les deux touches jusqu'à ce que  disparaisse.



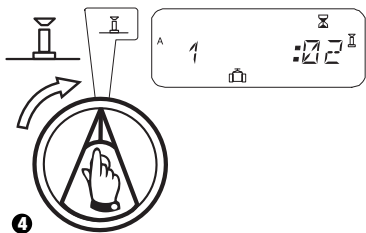
## X. TEST DES VANNES

Cette fonction permet de tester toutes les vannes les unes après les autres pendant la durée définie. La durée par défaut correspond à 2 minutes.

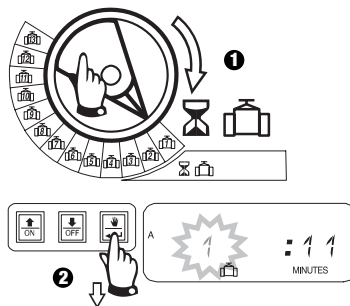


**3** Appuyez pour démarrer le test.

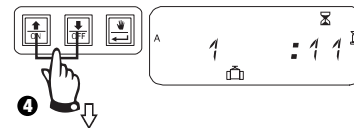
**2** La durée par défaut correspond à 2 minutes.





## XI. DEMARRAGE MANUEL DES VANNES



Répétez les points 1 et 2 pour démarrer manuellement d'autres vannes.



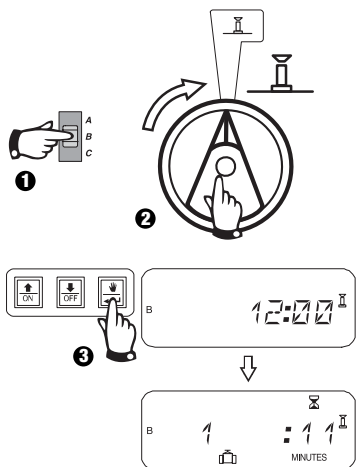
*Vous pouvez régler la durée d'arrosage.*

*Pour annuler, tournez la roue sur  pendant trois secondes. Remettez la roue sur .*

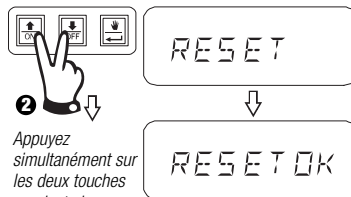


*A la fin de l'arrosage manuel, l'heure actuelle s'affiche.*

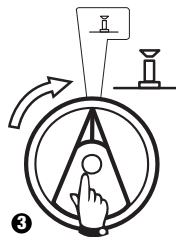
## XII. DEMARRAGE MANUEL D'UN PROGRAMME











## XIII. EFFACEMENT DE LA PROGRAMMATION



Appuyez simultanément sur les deux touches pendant cinq secondes jusqu'à afficher RESET OK (Réinitialisation OK).









## DEPANNAGE








SYMPTOME	CAUSES POSSIBLES	SOLUTION
La programmation ne démarre pas automatiquement	1. La roue est sur la position  OFF.	Tournez la roue sur  AUTO.
	2. Les heures de démarrage n'ont pas été rentrées lors de la programmation.	Tournez la roue sur  REGLAGE HEURE DEMARRAGE et vérifiez que les heures de démarrage ont été définies. Sinon, rentrez-les comme décrit sur la page 10.
	3. Aujourd'hui n'est pas un jour d'arrosage pour la programmé.	Sélectionnez le programme et tournez la roue sur  CYCLE PERSONNALISE. Vérifiez les jours d'arrosage de la programmé.
	4. La fonction Jour d'arrêt permanent empêche l'arrosage.	Si la fonction jour d'arrêt permanent a été correctement réglée, aucune correction n'est nécessaire. Pour changer la fonction jour d'arrêt permanent, voir page 12.
	5. Le  pourcentage de l'ajustement saisonnier est réglé sur 0.	Réglez le pourcentage de l'ajustement saisonnier au-dessus de 0. Voir page 11.
L'écran indique qu'une station est en fonctionnement mais il n'y a pas d'arrosage	6. La sonde pluie empêche l'arrosage.	Mettez le bouton de la sonde sur  DESACTIVE. Si l'arrosage reprend, la sonde fonctionne correctement, et aucune correction n'est nécessaire.
	7. Il n'y a pas de sonde pluie connectée au programmeur, et le bouton de la sonde a été mis sur  ACTIVE.	Mettez le bouton de la sonde sur  DESACTIVE. Pour empêcher d'autres dysfonctionnements, placez le cavalier fourni sur les bornes SENS du programmeur.
Les vannes ne fonctionnent pas	8. Aucune durée d'arrosage n'a été assignée à la vanne	Tournez la roue sur le numéro de la vanne, réglez la programmation et vérifiez la durée d'arrosage de chaque vannes. Pour changer les durées d'arrosage, voir page 12.

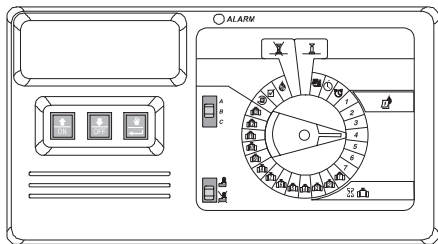


## DEPANNAGE

SYMPTOME	CAUSES POSSIBLES	SOLUTION
	9. Un court circuit au niveau du solénoïde ou du câblage de la vanne a désactivé la station. (La LED d'alarme est allumée)	L'écran indique # ERR , où # est le numéro de la station. Identifiez et réparez la panne sur le circuit. Pour effacer l'alarme LED, positionnez le cadran sur  AUTO, ensuite appuyer sur le bouton  ADVANCE.
	10. La sonde pluie empêche l'arrosage	Voir N° 6
	11. Les heures de démarrage n'ont pas été rentrées lors de programmation	Voir N°2
	12. Le pourcentage de l'ajustement saisonnier est réglé sur 0.	Voir N°5
L'écran est partiellement ou complètement noir	13. Une surtension a endommagé l'électronique du programmeur	Appuyez sur le bouton RESET. Si la surtension électrique n'a pas provoqué de dommages permanents, le programmeur acceptera normalement une programmation.
L'arrosage démarre quand il ne devrait pas	14. Le bouton  DEMARRAGE MANUEL/ AVANCE a été activé	Pour annuler un programme qui a été démarré manuellement, mettez la roue sur  OFF pendant 3 secondes. Ensuite remettez la roue sur  AUTO.
	15. Une heure de démarrage a pu être rentrée involontairement	Tournez la roue sur  REGLAGE HEURE DE DEMARRAGE et vérifiez si les programmes n'ont pas une heure de démarrage non voulue. Voir page 10 pour régler ou supprimer les heures de démarrage.

## DEPANNAGE

SYMPTOME	CAUSES POSSIBLES	SOLUTION
	16. La programmation a pu être reportée	Un programme peut chevaucher un autre programme. Assurez-vous que les programmes A, B et C ne sont pas programmés pour démarrer quand un programme est en cours.
La LED d'alarme est allumée	17. Pas de démarrage d'arrosage	Tous les démarrages ont été effacés. (La programmation par défaut du constructeur est en effet: programme A à 08:00 AM) Entrez au moins un démarrage et tournez la roue sur  AUTO. La LED s'éteindra.
	18. Pas de durée d'arrosage	La durée par défaut de 10 mn a été effacée. Entrez au moins une durée pour une vanne et tournez la roue sur  AUTO. La LED s'éteindra.
	19.  Le pourcentage de l'ajustement saisonnier est réglé sur 0.	Le pourcentage de l'ajustement saisonnier a été réglé sur 0. Rentrez un pourcentage d'ajustement saisonnier  et tournez la roue sur  AUTO. La LED s'éteindra.
	20. Station en court-circuit	Un court circuit au niveau du solénoïde ou du câblage de la vanne a désactivé la station. L'écran indique # ERR , où # est le numéro de la station. Identifiez et réparez la panne sur le circuit. Si « MV Err » apparaît, réparez le problème. Pour supprimer l'alarme LED, positionnez le cadran sur  AUTO, appuyez ensuite sur le bouton  .ADVANCE.



## INTRODUCCIÓN

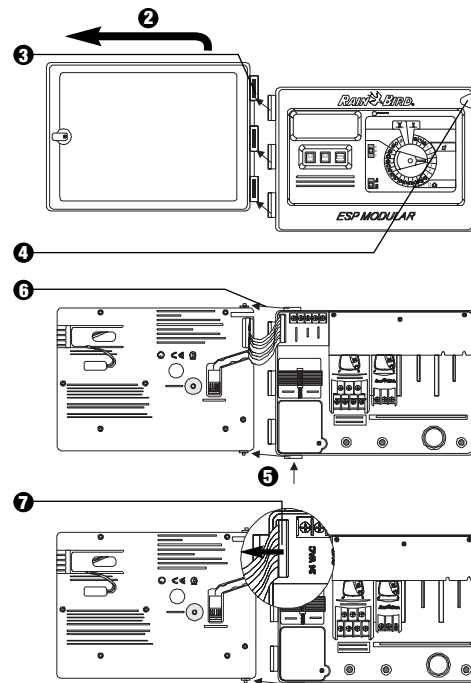
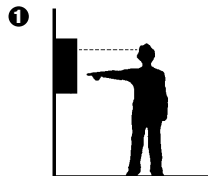
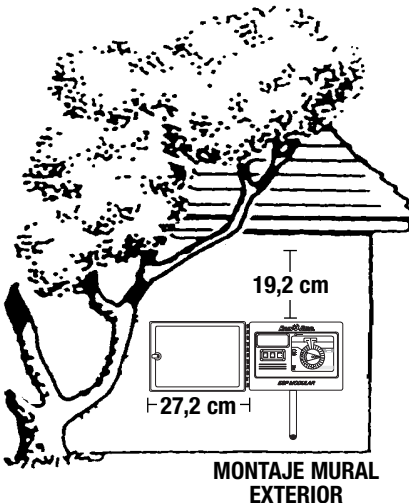
El programador modular ESP es un programador de riego para uso residencial y comercial.

El programador modular ESP modelo IESP-4M está diseñado para ser utilizado tanto al aire libre como en ambientes cerrados.

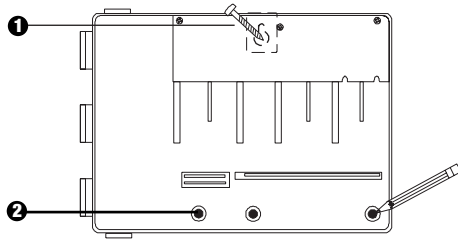
La unidad básica admite cuatro válvulas y un relé de arranque de la bomba/válvula maestra. Si se le agregan módulos internos opcionales, el programador modular ESP puede admitir hasta 12 válvulas, una válvula auxiliar y un relé de arranque de la bomba/válvula maestra.

# INSTALACIÓN

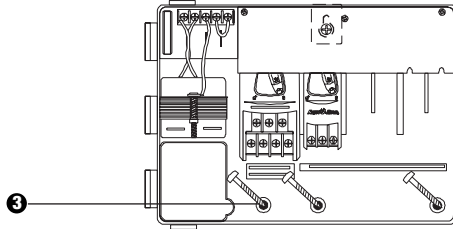
## I. SELECCIONE EL LUGAR DONDE COLOCARÁ EL PROGRAMADOR INSTALACIÓN



## II. CÓMO COLOCAR EL PROGRAMADOR

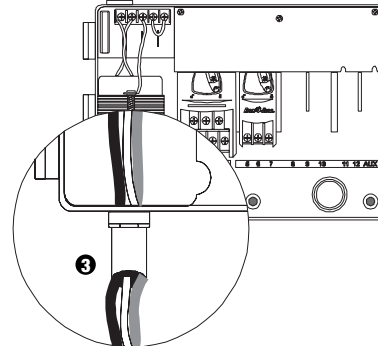
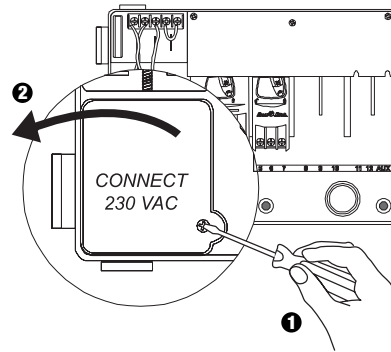


- 1 Coloque el tornillo adecuado para el tamaño del hueco del alojamiento del tornillo del programador. Cuelgue el programador sirviéndose del hueco del alojamiento.
- 2 Nivele el programador y marque la posición en que quedan uno o mel restoás de los orificios de montaje inferiores.



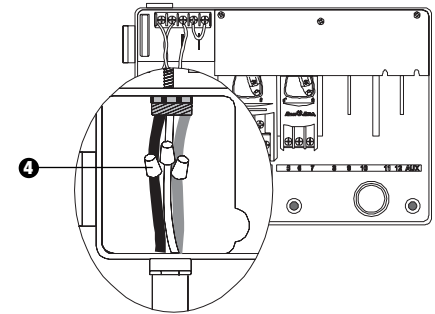
- 3 Introduzca los tornillos adecuados en los orificios de montaje correspondientes. Verifique que el armario quede firmemente asentado.

## III. CABLEADO – ALIMENTACIÓN



230 VAC

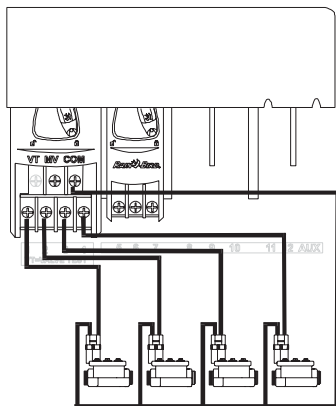
El programador admite piezas de montaje de canalización de 1,3 cm.



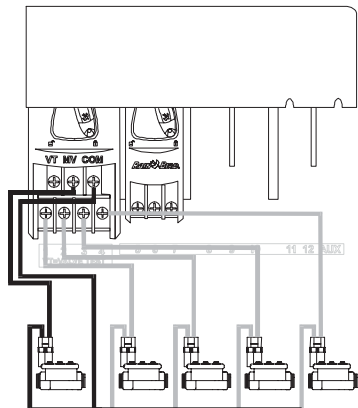
- 4 Conecte los cables, utilizando conectores estancos de especificaciones aprobadas:
  - Marrón con Marrón
  - Azul con Azul
  - Verde/Amarillo con Verde/Amarillo

**Nota:** Los cables verde/amarillo de derivaci a tierra **DEBEN** estar conectados para brindar mayor protección contra una sobrecarga eléctrica.

## IV. CABLEADO - VÁLVULAS ELÉCTRICAS

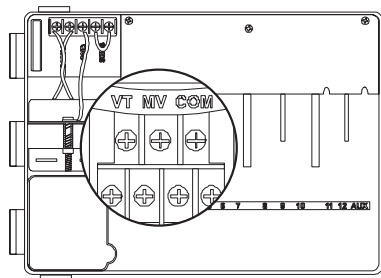


Válvulas de estación



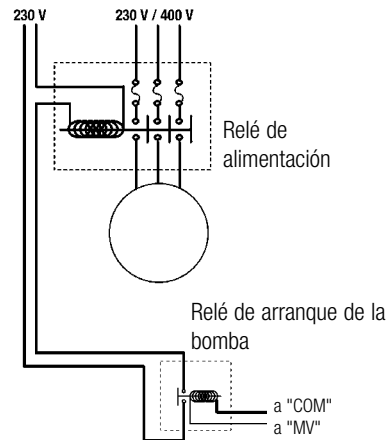
Válvula maestra

**Nota:** Realice los pasos descritos en esta sección sólo si su sistema necesita un relé para arrancar la bomba o para abrir la válvula maestra. El programador no proporciona la alimentación principal para la bomba.



### Terminal de comprobación de las válvulas

El terminal marcado "VT" (verificación de válvulas) proporciona una salida de 24V (con corriente alterna en la instalación) que puede emplearse para verificar rápidamente el cableado de las válvulas de estación.

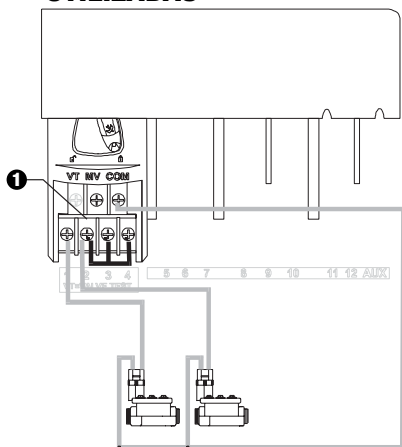


### Arranque de la bomba

El terminal marcado "MV" (válvula maestra) se utiliza para arrancar una bomba automáticamente mediante un relé o para abrir una válvula maestra. El terminal MV proporciona energía sólo cuando una de las estaciones se encuentra en funcionamiento.

Relés recomendados: FINDER 55 32 80 24, HAGER ES-224, TELEMECANIQUEG 1610B5 o alguno equivalente.

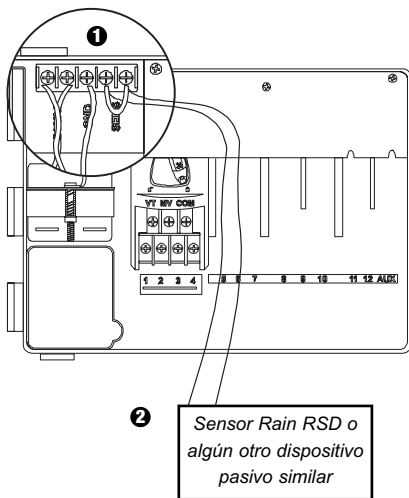
## V. CONFIGURACIÓN DE PUENTE PARA LAS ESTACIONES NO UTILIZADAS



- 1 PRECAUCIÓN:** Con el fin de evitar que se dañe la bomba en los casos en que se utiliza un relé de arranque, emplee un puente para conectar las estaciones no utilizadas a la estación que está siendo utilizada.

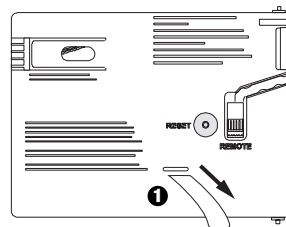
Si las estaciones no utilizadas no poseen una conexión puente y se encienden por error, la bomba podría operar sin caudal (en seco). Si esto llegase a ocurrir, la bomba podría sobrecalentarse o quemarse.

## VI. SENSOR OPCIONAL



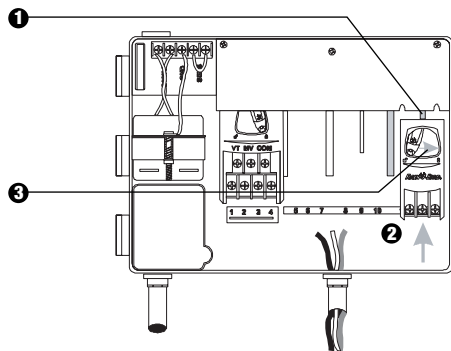
- 1** Si usted no va a conectar un sensor al programador, verifique que el puente suministrado está instalado en los terminales marcados "SENS".
- 2** El Sensor Rain Check o sensores de humedad NO deben conectarse en estos terminales; sólo podrían ser conectados en serie con el terminal marcado "COM".

## VII. BATERÍA DE REPUESTO



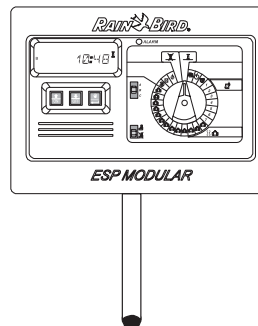
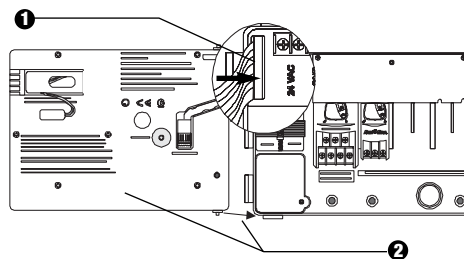
- 1** Tire de ella para sacarla.

## VIII. CÓMO INSTALAR LOS MÓDULOS (para electroválvulas adicionales)







- 1 Puede instalar módulos opcionales en cualquier posición y mientras el programador está en funcionamiento.
- 2 Inserte el módulo en cualquiera de las ranuras abiertas. Verifique que la palanca se encuentre en la posición con el candado abierto.
- 3 Fije el módulo en su lugar. Para ello, deslice la palanca hacia la derecha.

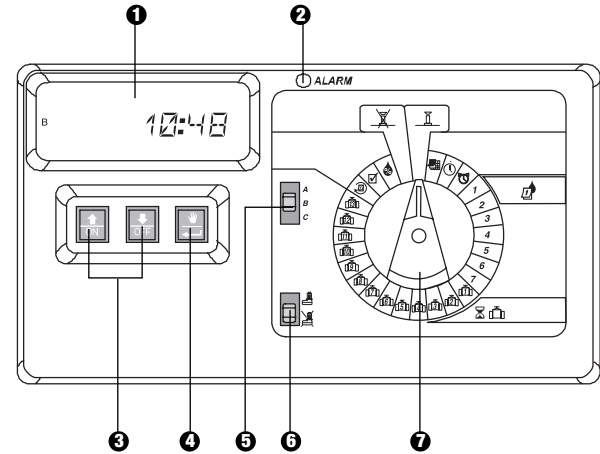
## IX. CÓMO FINALIZAR LA INSTALACIÓN



## CONTROLES E INTERRUPTORES

La ilustración de la derecha muestra los controles, interruptores y los indicadores del programador modular ESP:

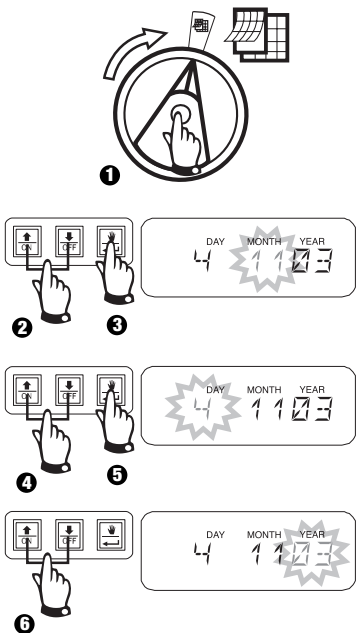
- 1 Pantalla LCD** – durante el modo normal de funcionamiento, muestra la hora; durante la programación, muestra los resultados de las funciones; durante el riego, muestra la válvula que está activa y los minutos que faltan para que finalice su ciclo de riego.
- 2 Indicador luminoso (LED) de alarma** – se enciende cuando existen alguna de las siguientes situaciones:
  - Un sensor suspende el riego
  - El programador detecta un cortocircuito en alguna de las válvulas
  - Ocurre un error de programación
- 3 Botones Arriba (Up)-Abajo (Down); Encendido (ON)-Apagado (OFF)** – se utilizan para ajustar las configuraciones de programación hacia arriba o hacia abajo, o para activar (ON) o desactivar (OFF) los días de riego.
- 4 Botón de Inicio/Avance manual** – El botón  marcado “Manual Start” se emplea para iniciar manualmente un programa de riego o el riego de una válvula de alguna estación. El botón marcado “Advance”  se emplea para ir avanzando por los diferentes pasos de programación o los diferentes valores de configuración.
- 5 Interruptor deslizable de programación** – se emplea para seleccionar los programas de riego A, B o C.
- 6 Interruptor de puenteo del sensor** – se emplea para indicarle al programador que obedezca () o que ignore () la señal emitida por un sensor opcional.
- 7 Dial de programación** – empleado para encender o apagar el programador, y para programar.



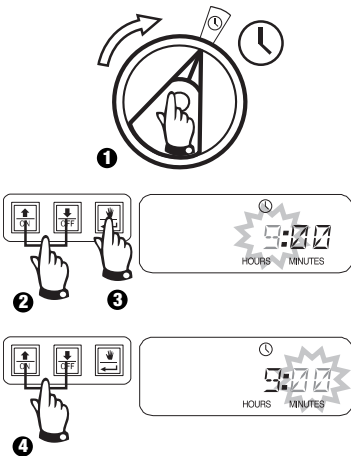


# PROGRAMACIÓN

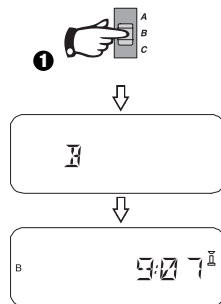
## I. FIJE LA FECHA ACTUAL



## II. FIJE LA HORA ACTUAL



## III. SELECCIONE UN PROGRAMA



## IV. SELECCIONA EL CICLO DE RIEGO



Cada programa puede funcionar con uno de los cuatro ciclos de riego. Seleccione el ciclo que necesita y siga las instrucciones correspondientes.

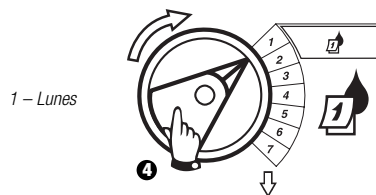
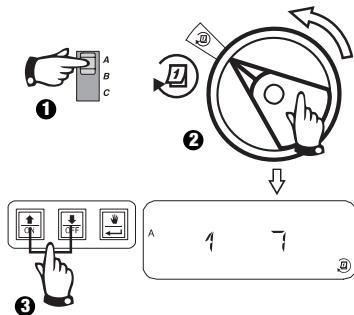
**1 7:** Riega los días de la semana que usted seleccione.

**2 4 6:** Riega los días pares del calendario.

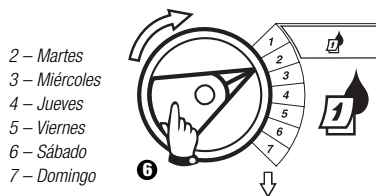
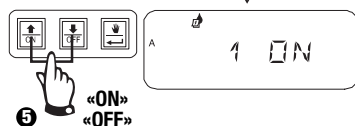
**1 3 5:** Riega los días impares del calendario.

**1 31:** Riega siguiendo el intervalo de \_\_\_ días que usted seleccione (por ejemplo, un día por medio o cada tres días, etc.).

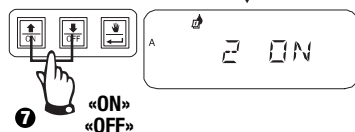
### A. 1 7 (Días de la semana que usted seleccione)



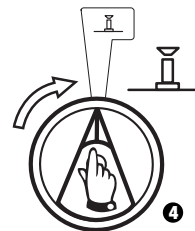
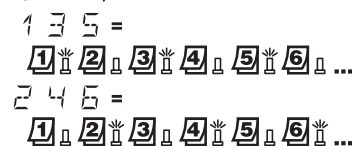
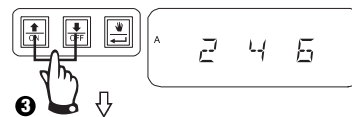
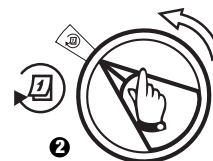
1 - Lunes



2 - Martes  
3 - Miércoles  
4 - Jueves  
5 - Viernes  
6 - Sábado  
7 - Domingo

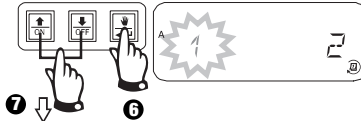
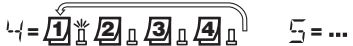
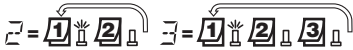
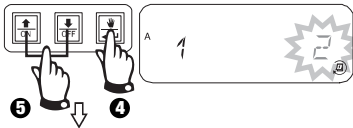
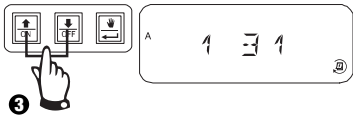
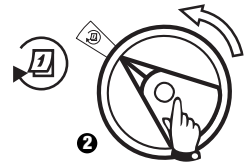


### B. 2 4 6 / 1 3 5 (Días pares/impares)

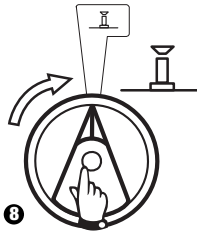


# IV. SELECCIONE EL CICLO DE RIEGO (continuación)

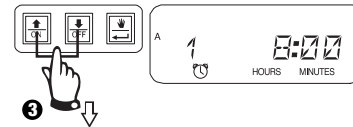
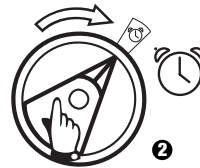
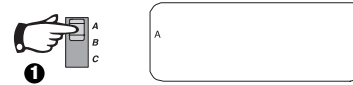
## C. 1 31 (Cíclico)



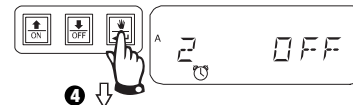
- = el ciclo de riego comienza hoy
- = el ciclo de riego comienza mañana
- = el ciclo de riego comienza en dos días a partir de hoy
- , , ... = el ciclo de riego comienza en \_\_\_ días a partir de hoy



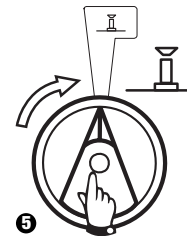
# V. FIJE LA HORA EN QUE COMENZARÁ EL PROGRAMA DE RIEGO



Para eliminar una hora de inicio de riego, presione o hasta que aparezca "OFF" entre las 23:45 y las 0:00 h.



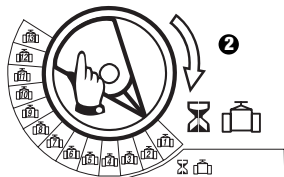
Si desea incluir horas adicionales de inicio en este programa, presione para mostrar la hora de inicio siguiente. Repita cuantas veces sea necesario.



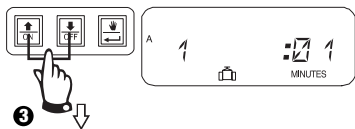
## VI. FIJE EL TIEMPO DE RIEGO DE LAS VÁLVULAS



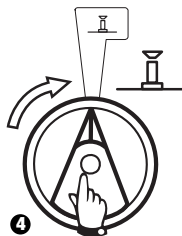
Puede configurar cualquiera de las válvulas para que riegue desde 0 a 6 horas (en incrementos de 1 minuto para la primera hora y en incrementos de 10 minutos para el tiempo restante).



**Nota:** Si gira el dial hasta el número de una válvula en la que no hay un módulo instalado, aparecerá el mensaje "NO 5 - 8", "NO 9 - 10", "NO 11 - 13" en el visor.



Empléelo para aumentar o disminuir el tiempo de riego. Si no desea que la válvula riegue durante el programa seleccionado, coloque el tiempo de riego en 0. Repita los pasos 2 y 3 para el programa seleccionado. Repita los pasos 1 a 3 según sea necesario para los programas B o C.

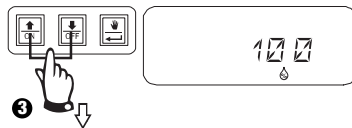
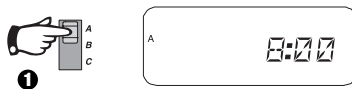


**Precaución:** Si el tiempo de riego de todas las válvulas está fijado en 0, se encenderá el indicador luminoso (LED) de alarma.

## VII. ESTABLEZCA EL % DE WATER BUDGET (Control del aporte del agua)

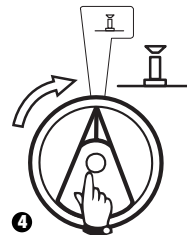



Esta función le permite aumentar o reducir el tiempo de riego de todas las válvulas de forma global según el porcentaje seleccionado. Puede fijar un valor desde 0 a 200%. Este valor se aplicará a TODOS los programas de forma global.



Empléelo para aumentar o disminuir el tiempo de riego. El valor preestablecido es 100%.

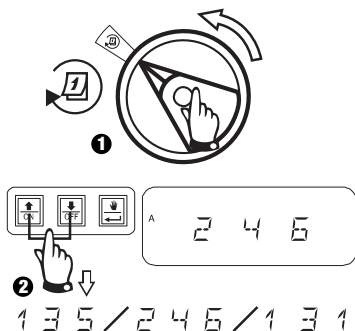
El % de control del aporte del agua se calcula sobre el tiempo de riego normal programado para cada válvula. Por ejemplo, si la válvula 1 está configurada para regar durante 10 minutos, y usted selecciona un ajuste de 120%, la válvula 1 regará durante 12 minutos.



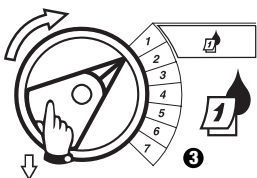
**Precaución:** Si selecciona un valor diferente al 100% preestablecido, aparecerá  en el modo AUTO para indicar que los valores correspondientes al tiempo de riego han sido modificados.

## VIII. ESTABLEZCA LOS DÍAS PERMANENTES EN QUE NO SE REGARÁ

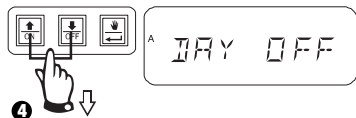
En los ciclos de riego 2 4 6 (Días pares) / 1 3 5 (Días impares) / 1 3 1 (Cíclico), puede establecer cualquier día de la semana como día en que no se regará. Con esta función podrá cumplir con restricciones u otros requerimientos de prohibición de riego.



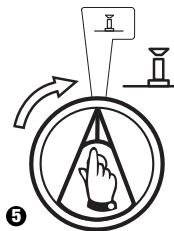
Esta característica se aplica a los ciclos de riego 2 4 6 (Días pares) / 1 3 5 (Días impares) / 1 3 1 (Cíclico).



Seleccione el día de la semana

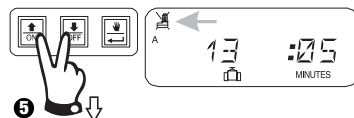
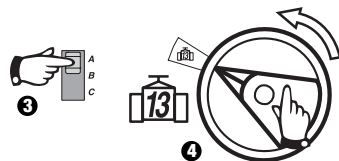
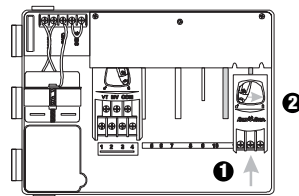


Presione "OFF" para establecer ese día como día en que no se irrigará. Presione "ON" para reestablecer el riego en ese día.

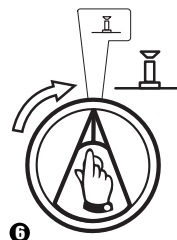


## IX. FUNCIONAMIENTO DE LA VÁLVULA AUXILIAR

El terminal de la válvula auxiliar (13) puede funcionar como una estación normal o se puede programar de modo que no se vea afectado por un sensor activado. Cuando está programado de esta manera, el terminal auxiliar se puede utilizar para conectar un equipo que no es de riego, como puede ser una fuente de patio o la iluminación del parque.

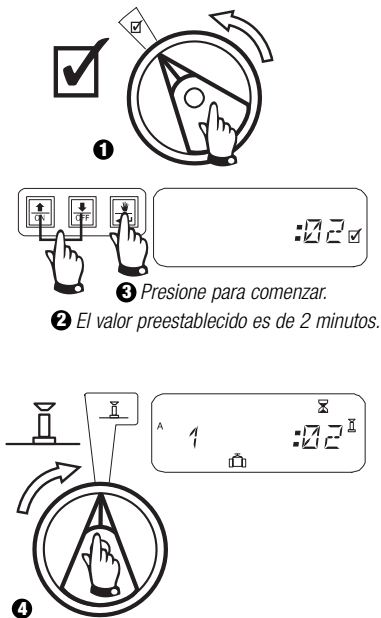


Presione  $\uparrow$   $\downarrow$  de forma simultánea hasta que aparezca  $\text{X}$  para indicar que la válvula no se ve afectada por el sensor. Para reestablecer el parámetro anterior, presione ambos botones otra vez hasta que  $\text{X}$  desaparezca.

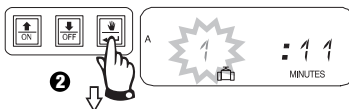
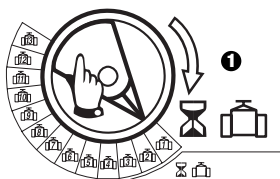


## X. Compruebe todas las válvulas

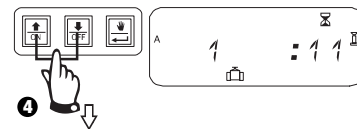
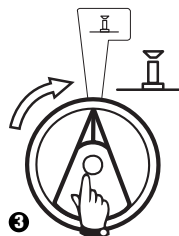
Esta función hará que se ejecuten en secuencia todas las válvulas instaladas durante la cantidad de tiempo establecida. El valor preestablecido es de 2 minutos.





## XI. RIEGOS MANUALES



Repita los pasos 1 y 2 para iniciar manualmente las demás válvulas.



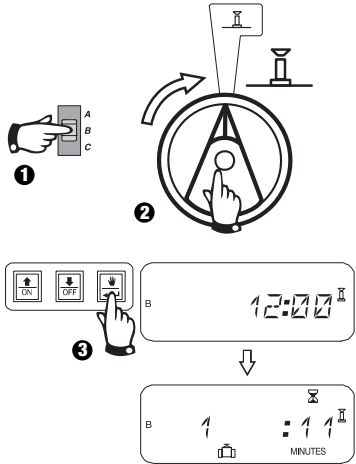
Puede aumentar o disminuir el tiempo de riego manual.

Para cancelar, gire el dial hasta  y manténgalo allí durante 3 segundos. Vuelva a colocar el dial en .

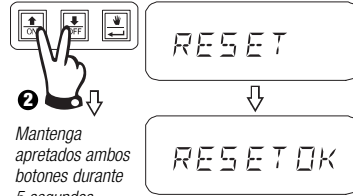


El sistema mostrará la hora actual después de que se complete la riego manual.

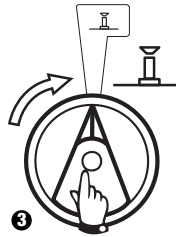
## XII. EJECUTE EL PROGRAMA DE FORMA MANUAL








## XIII. BORRE TODA LA INFORMACIÓN DE PROGRAMA



Mantenga  
apretados ambos  
botones durante  
5 segundos  
hasta que  
aparezca "RESET  
OK". Suéltelos.






## RESOLUCIÓN DE PROBLEMAS






SÍNTOMA	CAUSA POSIBLE	CORRECCIÓN
El programa no se activa de forma automática	1. El disco selector está en la posición de "OFF".	Gire el dial hasta "AUTO".
	2. No se introdujo en el programa la hora de arranque (Start Time).	Gire el dial hasta  "CONFIGURAR HORAS DE ARRANQUE DEL RIEGO" (SET WATERING START TIMES) y controle las horas de arranque ingresadas para el programa. Si falta la hora de arranque (Start Time), ingrésela tal como se describe en la pagina 26.
	3. Puede que el día de hoy no sea un día de riego para el programa.	Seleccione el programa y gire el dial hasta  "CICLOS AVANZADOS" (ADVANCED CYCLES). Verifique los días de riego del programa.
	4. La característica Día(s) sin riego permanente(s) (Permanent Day(s) Off) está impidiendo el riego.	Si la característica Día(s) sin riego permanente(s) (Permanent Day(s) Off) se configuró correctamente, no es necesaria corrección alguna. Para cambiar esta característica, consulte la página 28.
	5. El porcentaje de control del aporte del agua del programa está configurado en 0%.	Configure  el porcentaje de control del aporte del agua por encima de 0%. Consulte las instrucciones en la página 27.
La pantalla indica que una válvula está operativa, pero el riego no ocurre.	6. El sistema sensor del sistema está impidiendo el riego.	Lleve el interruptor del sensor hasta  "IGNORADO" (BYPASSED). Si el riego se reanuda, el sensor está funcionando adecuadamente y no es necesaria una corrección.
	7. Ningún sensor o cable-puente está conectado a los terminales "SENS" del programador, y el interruptor del sensor se ha configurado en "ACTIVO" (ACTIVE).	Lleve el interruptor del sensor hasta  "IGNORADO" (BYPASSED). Para evitar futuros problemas, instale el cable-puente que se suministra en los terminales SENS del controlador.

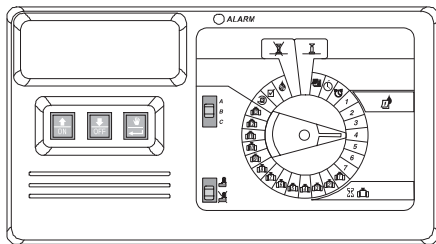


## RESOLUCIÓN DE PROBLEMAS

SÍNTOMA	CAUSA POSIBLE	CORRECCIÓN
La válvula no se activa.	8. No se ha configurado un tiempo de riego (Run Time) para la válvula.	Gire el disco selector hasta el número de la válvula, y configure el interruptor de programas para verificar el tiempo de riego (Run Time) de la válvula en cada programa.
	9. Un cortocircuito en el cableado del solenoide o de la válvula ha desactivado la estación (está encendido el indicador luminoso de ALARMA en el panel frontal).	La pantalla mostrará "# Err" donde # es MV o el número de la válvula que falla. Identifique y repare la avería. Después presione el botón de ← ADVANCE con la perilla en el dial de AUTO para quitar la luz de Alarma.
	10. El sensor del sistema está impidiendo el riego.	Consulte la corrección para la Causa #6.
	11. La hora de arranque (Start Time) no se ingresó para el programa al que se asignó la válvula.	Consulte la corrección para la Causa #2.
	12. El control del aporte del agua para el programa de la válvula está configurado en 0%.	Consulte la corrección para la Causa #5.
La pantalla está total o parcialmente en blanco.	13. Una subida de tensión o un rayo ha dañado el sistema electrónico del programador.	Oprima el botón "RECONFIGURAR" (RESET). Si la subida de tensión no causó daños permanentes, el programador aceptará la programación y funcionará normalmente.
El riego comienza cuando no debería.	14. Se oprimió la tecla  "ARRANQUE MANUAL / AVANZAR" (MANUAL START / ADVANCE).	Para cancelar un programa que ha sido iniciado de forma manual, configure el disco selector en  "APAGADO" (OFF) durante tres segundos. Luego, configure nuevamente el disco selector en  "AUTO".

## RESOLUCIÓN DE PROBLEMAS

SÍNTOMA	CAUSA POSIBLE	CORRECCIÓN
	15. Puede que se haya introducido una hora de arranque (Start Time) no deseada.	Gire dial hasta  "CONFIGURAR HORAS DE ARRANQUE DEL RIEGO" (SET WATERING START TIMES) y verifique si algún programa tiene una hora de arranque (Start Time) no deseada. Para conocer las instrucciones sobre configuración y eliminación de las horas de arranque, consulte la página 26.
	16. Los programas pueden estar solapados.	Los programas se superpondrán si están previstos para arrancar mientras hay otro programa operando. Asegúrese que los programas A, B y C no están previstos para arrancar cuando algún otro programa también lo esté.
El indicador luminoso (LED) de la alarma está encendido.	17. No hay una hora de arranque.	Todas las horas de arranque han sido eliminadas. Introduzca por lo menos una hora de arranque (Start Time) y vuelva a configurar el disco selector en  "AUTO". El indicador luminoso (LED) se apagará.
	18. No hay tiempos de riego (Run Time).	El tiempo de riego (Run Time) por defecto, de 10 minutos para todas las válvulas activas, ha sido eliminado. Ingrese un tiempo de riego para por lo menos una válvula activa y vuelva a configurar el disco selector en  "AUTO". El indicador luminoso (LED) se apagará.
	19. El ajuste por temporada está en 0%.	El valor del  porcentaje de control del aporte del agua ha sido configurado a cero. Introduzca un valor de control del aporte del agua y vuelva a configurar el dial en  "AUTO". El indicador luminoso (LED) se apagará.
	20. Estación en cortocircuito.	Un cortocircuito en el cableado del solenoide o de la válvula ha inutilizado la estación. Consulte la corrección para la Causa #9.



## EINLEITUNG

Der Steuergerät ESP Modular ist ein Bewässerungssteuerungsgerät für den häuslichen und gewerblichen Einsatz.

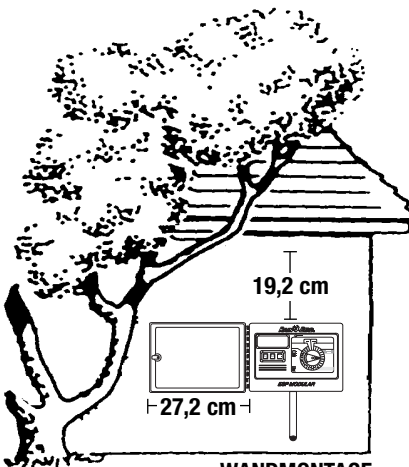
Der Steuergerät ESP Modular IESP-4M ist für den Gebrauch im Innen- und Außenbereich geeignet.

Die Basiseinheit unterstützt vier Ventile und ein Hauptventil-/Pumpenstartrelais.

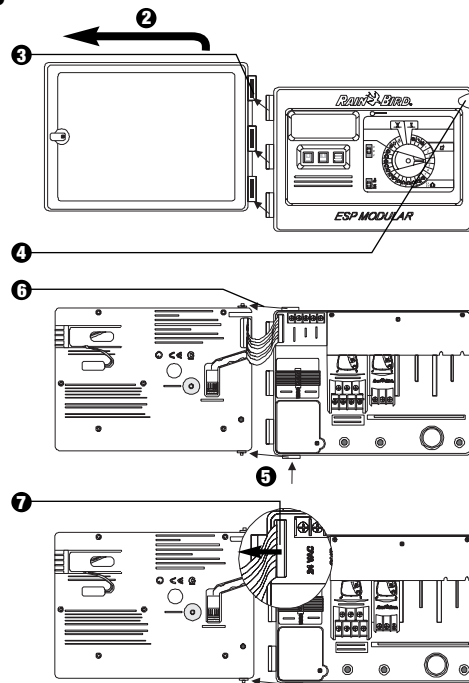
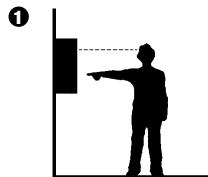
Durch zusätzliche optionale interne Module kann das Steuergerät ESP Modular bis zu 12 Ventile, ein Hilfsventil und ein Hauptventil-/Pumpenstartrelais unterstützen.

# INSTALLATION

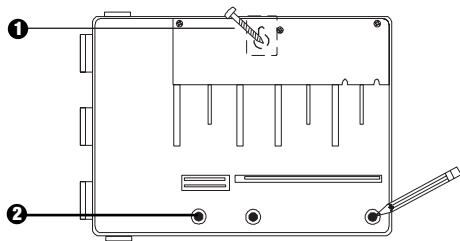
## I. WAHL DES AUFSTELLUNGORTES



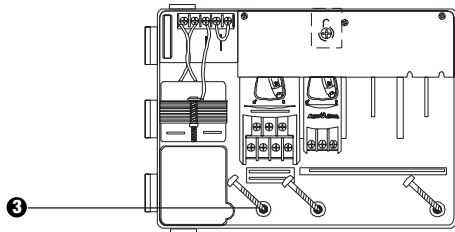
WANDMONTAGE  
AUSSEN



## II. MONTAGE DES STEUERGERÄTES

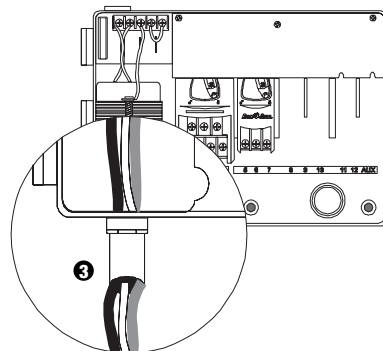
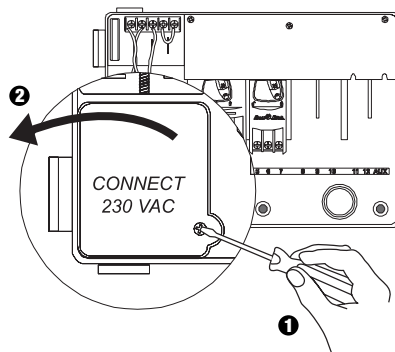


- 1 Installieren Sie die für die Wand geeigneten Verankerungen für den Schlüssellochschlitz. Hängen Sie das Steuergerät am Schlüssellochschlitz auf.
- 2 Richten Sie das Steuergerät aus & markieren Sie die Stelle(n) eines oder mehrerer der unteren Montagelöcher.

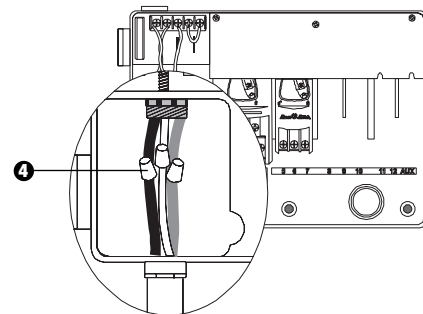


- 3 Drehen Sie die entsprechenden Befestigungen in die unteren Montagelöcher. Vergewissern Sie sich, dass das Gehäuse sicher befestigt ist.

## III. VERKABELUNG - STROM



230 VAC  
Passend für 1,3 cm Leitungsmaterial

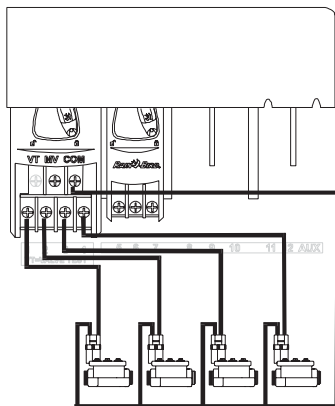


- 4 Schließen Sie die Kabel mit Hilfe von genormten Kabelverbindern wie folgt an:

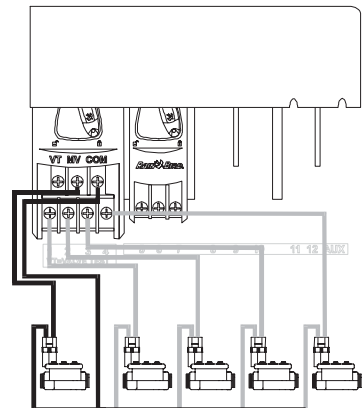
- Braun mit braun
- Blau mit blau
- Grün-gelb mit grün-gelb

**Achtung:** Die grün-gelben Erdungskabel **MÜSSEN** zum zusätzlichen Schutz vor elektrischen Spannungstößen verbunden werden.

## IV. VERKABELUNG – ELEKTROMAGNETVENTILE

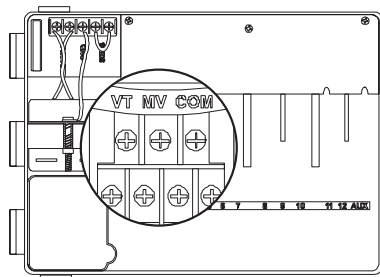


Stationsventile



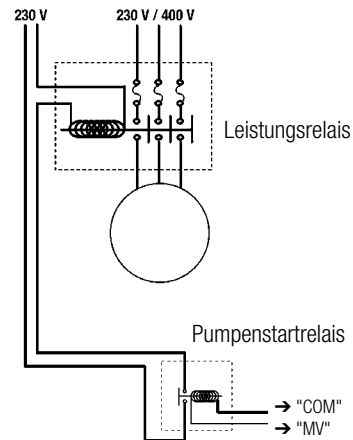
Hauptventil

**Achtung:** Führen Sie diesen Abschnitt nur aus, wenn für Ihr System ein Hauptventil oder ein Pumpenstartrelais notwendig ist. Das Steuergerät bietet keine Hauptstromversorgung für die Pumpe.



### Ventilprüfklemme

Die Ventilprüfklemme (VT) bietet eine ständige 24V-Leistung (bei angeschlossenem Wechselstrom), die zur schnellen Prüfung der Verkabelung von Stationsventilen eingesetzt werden kann.

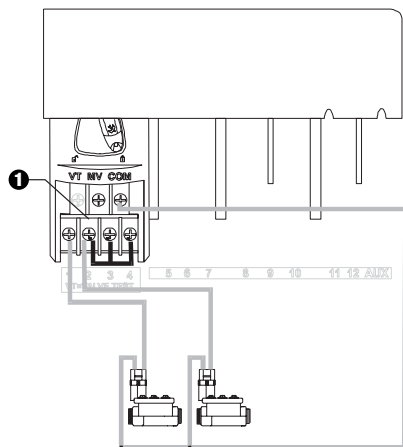


### Pumpenstart

Das mit MV markierte Kabelende wird verwendet, um eine Pumpe automatisch über ein Relais zu starten oder ein Hauptventil zu öffnen. Das MV-Kabelende führt nur Strom zu, wenn eine der Stationen in Betrieb ist.

Empfohlene Relais: FINDER 55 32 80 24, HAGER ES-224, TELEMECANIQUEGC 1610B5 oder gleichwertige.

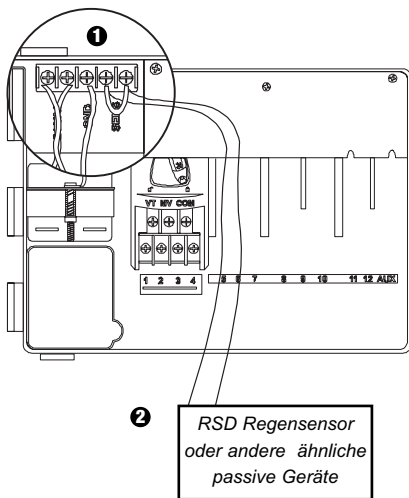
## V. JUMPER-EINSTELLUNGEN FÜR UNBENUTZTE STATIONEN



- 1 VORSICHT:** Um eine Beschädigung an der Pumpe zu vermeiden, wenn ein Pumpenstartrelais eingesetzt wird, verwenden Sie einen Jumper, um unbenutzte Stationen mit benutzten Stationen zu verbinden.

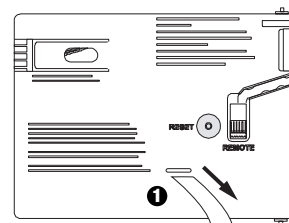
Wenn für unbenutzte Stationen keine Jumbereinstellungen vorgenommen und diese dann versehentlich eingeschaltet werden, kann es passieren, dass die Pumpe ohne Wasserentnahme arbeitet. Hierdurch kann die Pumpe überhitzen oder durchbrennen.

## VI. SENSOROPTION



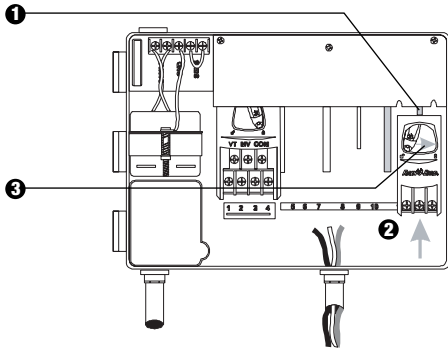
- 1** Wenn Sie keinen Sensor an das Steuergerät anschließen, stellen Sie sicher, dass der mitgelieferte Jumper auf den SENS-Terminals installiert wird.
- 2** Regen- oder Feuchtigkeitssensoren sollten NICHT zwischen diesen Terminals verbunden, sondern nur seriell an das COM-Terminal angeschlossen werden.

## VII. RESERVEBATTERIE



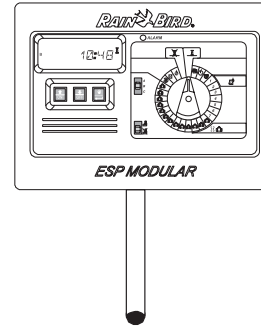
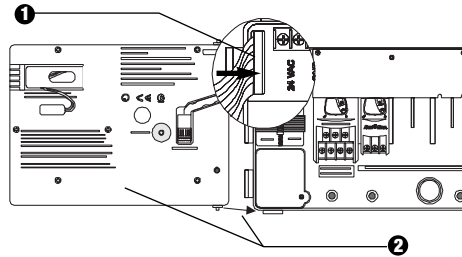
- 1** Zum Entfernen abziehen.

## VIII. INSTALLIEREN VON MODULEN (für zusätzliche Ventile)







- 1 Sie können optionale Module in jeder Position und während des Betriebes des Steuergerätes installieren.
- 2 Schieben Sie ein Modul in einen beliebigen offenen Steckplatz und stellen Sie sicher, dass der Hebel in entriegelter Position steht.
- 3 Verriegeln Sie das Modul, indem Sie den Hebel nach rechts schieben.

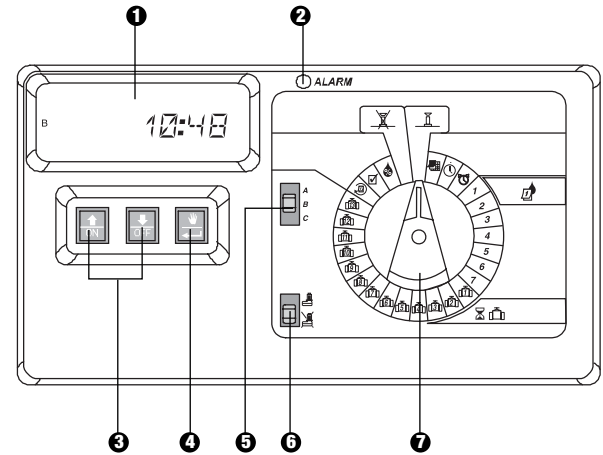
## IX. BEENDEN DER INSTALLATION



## STEUERGERÄT UND SCHALTER

Die Darstellung rechts zeigt das Steuergerät, Schalter und Anzeigen auf dem Steuergerät ESP Modular, einschließlich:

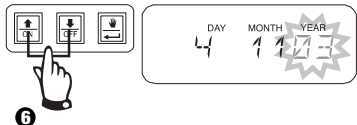
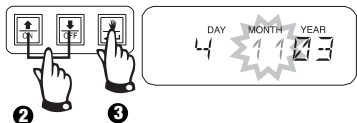
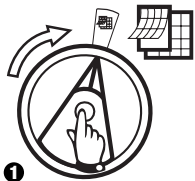
- 1 LCD-Anzeige** – Während des normalen Betriebes wird die Tageszeit angezeigt, während der Programmierung erscheinen die Ergebnisse Ihrer Eingaben, und während der Bewässerung werden das Ventil, das bewässert, sowie die noch verbleibenden Minuten der Laufzeit angezeigt.
- 2 LED-Alarmanzeige** – schaltet sich ein, wenn eine der folgenden Bedingungen vorliegt:
  - Bewässerung wird durch einen Sensor angehalten.
  - Das Steuergerät stellt einen Ventilkurzschluss fest.
  - Es liegt ein Programmierfehler vor.
- 3 Auf-Ab, AN-AUS-Schalter** – diese werden zur Anpassung der Programmeinstellungen (Auf/Ab) oder zum EIN- oder AUSSCHALTEN der Bewässerungstage verwendet.
- 4 Taste Manueller Start / Vortlauf** –  (Manueller Start) wird benutzt, um ein Bewässerungsprogramm oder Stationsventil(e) manuell zu starten.  (Vortlauf) wird verwendet, um Programmschritte oder voreingestellte Werte aufzurufen.
- 5 Programm-Schiebeschalter** – zur Auswahl des Bewässerungsprogramms A, B oder C.
- 6 Sensor-Ableitschalter** – stellt das Steuergerät so ein, dass Eingaben eines optionalen Steuergerätes befolgt () oder ignoriert () werden.
- 7 Programmwählscheibe** – zum Ein- und Ausschalten des Steuergerätes und zur Programmierung.



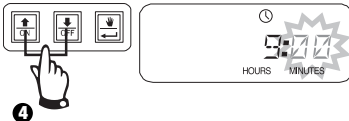
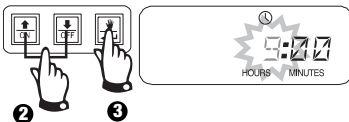
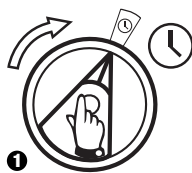


# PROGRAMMIERUNG

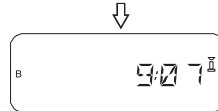
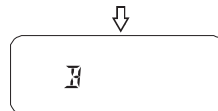
## I. EINSTELLEN DES AKTUELLEN DATUMS



## II. EINSTELLEN DER AKTUELLEN UHRZEIT



## III. PROGRAMMWahl

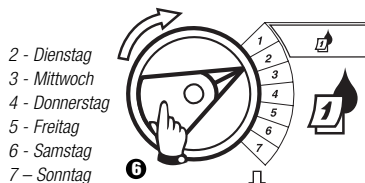
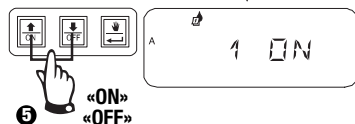
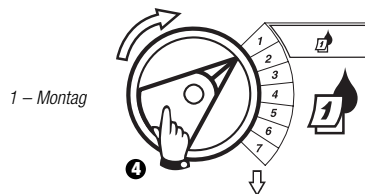
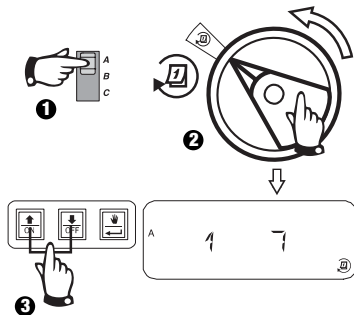


## IV. WAHL DES BEWÄSSERUNGSZYKLUS

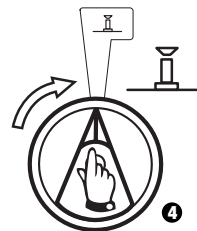
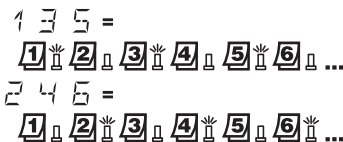
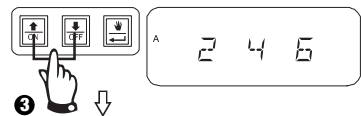
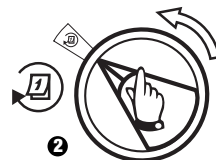
Jedes Programm hat vier verschiedene Bewässerungszyklen. Wählen Sie das gewünschte Programm und befolgen Sie die entsprechenden Anweisungen.

- 1 7:** Bewässerung an den von Ihnen gewählten Wochentagen.
- 2 4 6:** Bewässerung an geraden Kalendertagen.
- 1 3 5:** Bewässerung an ungeraden Kalendertagen.
- 1 31:** Bewässerung zu gewähltem \_\_\_\_ Tagesintervall (d.h. jeden zweiten Tag oder jeden dritten Tag, usw.)

### A. 1 7 (Ihre gewählten Wochentage)

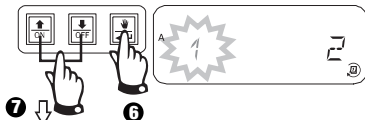
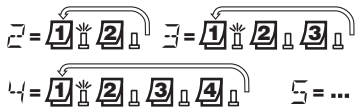
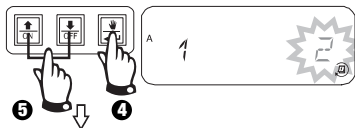
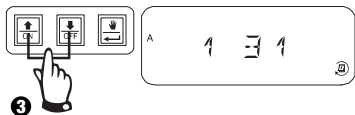
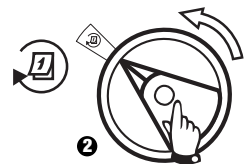


### B. 2 4 6 / 1 3 5 (gerade/ungerade Wochentage)

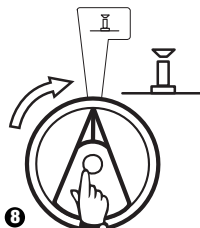


## IV. AUSWAHL DES BEWÄSSERUNGSZYKLUS (Fortsetzung)

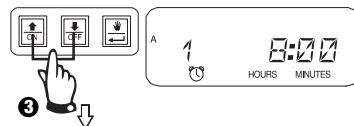
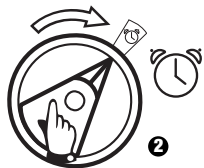
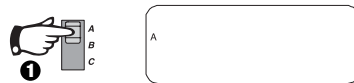
### C. 1 31 (Zyklisch)



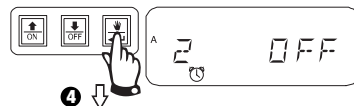
- = Bewässerungszyklus startet heute
- = Bewässerungszyklus startet morgen
- = Bewässerungszyklus startet in zwei Tagen
- = Bewässerungszyklus startet in \_\_ Tagen



## V. EINSTELLEN DER STARTZEITEN FÜR DAS BEWÄSSERUNGSPROGRAMM

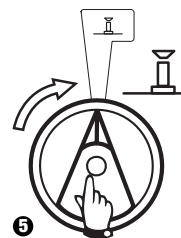


Um eine Bewässerungsstartzeit zu löschen, betätigen Sie die Taste oder , bis die Einstellung "OFF" zwischen 23:45 und 0:00 Uhr erscheint.



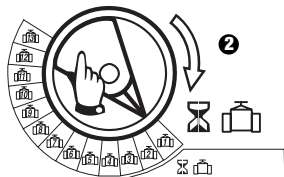
Um zusätzliche Startzeiten für dieses Programm einzustellen, betätigen Sie die Taste , um die nächste Startzeit anzuzeigen zu lassen.

Wiederholen Sie diesen Vorgang nach Bedarf.

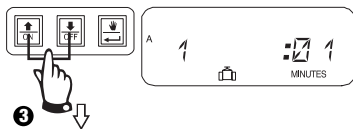


## VI. EINSTELLEN DER LAUFZEIT FÜR VENTILBEWÄSSERUNG

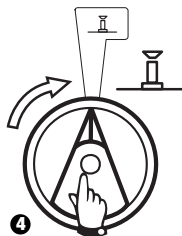
Jedes Ventil kann für eine Laufzeit von 0 bis 6 Stunden (Abstufungen von 1 Minute für die erste Stunde, Abstufungen von 10 Minuten für weitere) eingestellt werden.



**Achtung:** Wenn Sie die Programmwählscheibe auf eine Zahl ohne installiertes Modul stellen, erscheint die Anzeige "NO 5 – 8", "NO 9 – 10", "NO 11 – 13".



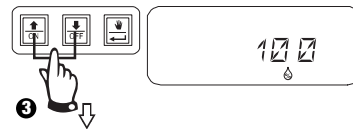
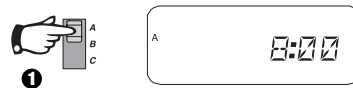
Die Laufzeit kann verlängert oder verkürzt werden. Wenn für das ausgewählte Programm keine Ventilbewässerung gewünscht wird, stellen Sie die Laufzeit auf 0. Wiederholen Sie 2-3 für das gewählte Programm. Wiederholen Sie 1-3 nach Bedarf für die Programme B oder C.



**Vorsicht:** Wenn alle Ventillaufzeiten auf 0 gestellt werden, schaltet sich die LED-Alarmanzeige ein.

## VII. EINSTELLEN DER PROZENTUALEN ANPASSUNG NACH JAHRESZEIT (Wassereinsparung)

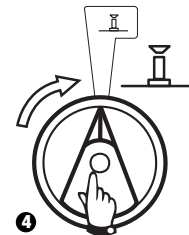
Mit Hilfe dieser Funktion kann die Laufzeit aller Ventile prozentual verlängert oder verkürzt werden. Es ist eine prozentuale Einstellung von 0-200% möglich. Diese Einstellung wirkt sich auf ALLE Programme aus.



Verwenden Sie diese Funktion, um die Zeit zu verlängern oder zu verkürzen. Die Voreinstellung ist 100%.

Die prozentuale Anpassung nach Jahreszeit wird anhand der normal programmierten Laufzeiten für jedes Ventil berechnet.

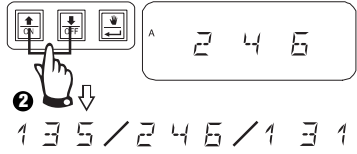
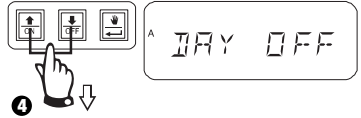
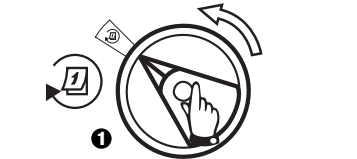
**Beispiel:** Wenn Ventil 1 für eine Laufzeit von 10 Minuten eingestellt ist und Sie 120% auswählen, läuft Ventil 1 für 12 Minuten.



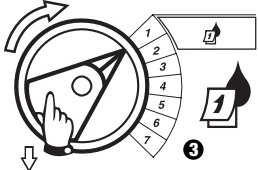
**Vorsicht:** Wenn ein anderer Wert als die Voreinstellung von 100% eingegeben wird, erscheint  im AUTO-Modus als Mitteilung, dass die Laufzeitwerte angepasst wurden.

## VIII. EINSTELLEN EINES STÄNDIGEN ABSCHALTAGES

Für 2 4 6 (gerade) / 1 3 5 (ungerade) / 1 3 1 (zyklische) Bewässerungszyklen kann ein beliebiger Wochentag als Abschalttag (keine Bewässerung) eingestellt werden, um Bewässerungsbeschränkungen oder anderen Anforderungen gerecht zu werden.

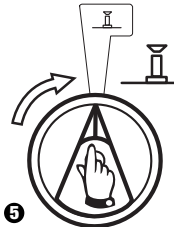


Diese Möglichkeit bezieht sich auf 2 4 6 (gerade) / 1 3 5 (ungerade) / 1 3 1 (zyklische) Bewässerungszyklen.



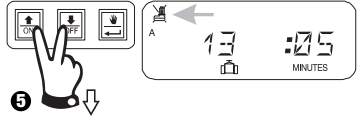
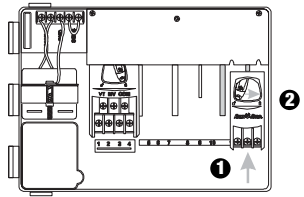
Wählen Sie den Wochentag aus.



4 Drücken Sie OFF, um den Abschalttag einzustellen. Drücken Sie ON, um eine Bewässerung wieder einzuschalten.

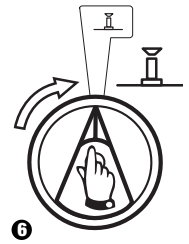


## IX. BETRIEB DES ZUSATZVENTILS

Die Zusatzventilstation (Ventil 13) kann als eine normale Station betrieben oder so programmiert werden, dass sie nicht von einem aktivierten Sensor beeinflusst wird. Wenn sie so programmiert ist, kann die Zusatzstation verwendet werden, um Geräte anzuschließen, die nicht der Bewässerung dienen, wie z.B. Terrassenspringbrunnen oder Gartenbeleuchtung.

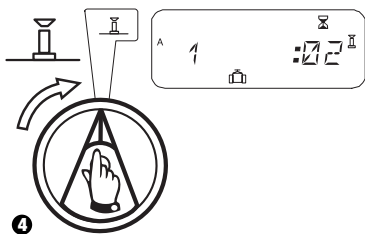


Betätigen Sie  $\uparrow$  und gleichzeitig  $\downarrow$ , bis  erscheint und anzeigt, dass dieses Ventil nicht vom Sensor beeinflusst wird. Um diese Programmierung zu löschen, drücken Sie beide Tasten erneut, bis  erscheint.

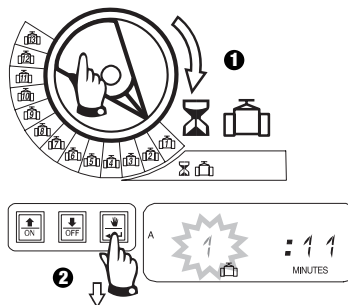


## X. TESTEN ALLER VENTILE

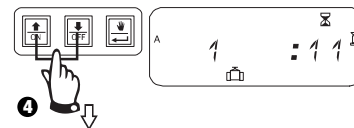
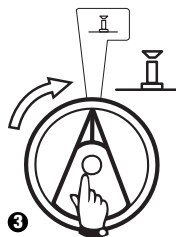
Mit Hilfe dieser Funktion werden alle ausgestatteten Ventile für die eingestellte Zeit der Reihe nach betätigt. Die voreingestellte Zeit beträgt 2 Minuten.



## XI. MANUELLE BEDIENUNG DER VENTILE



Wiederholen Sie die Schritte 1 – 2, um die zusätzlichen Ventile manuell zu starten.



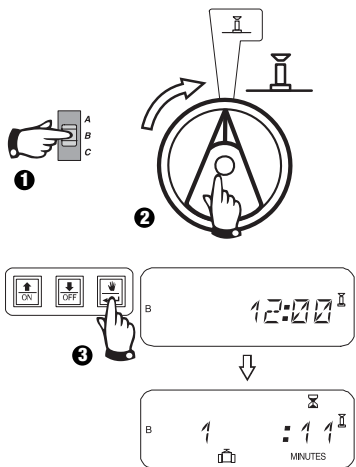
Sie können die manuelle Laufzeit verlängern oder verkürzen.

Um die Einstellung zu löschen, drehen Sie den Wähler für 3 Sekunden auf . Drehen Sie den Wähler wieder auf .

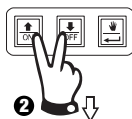


Das System zeigt die aktuelle Zeit an, wenn die manuelle Bewässerung abgeschlossen ist.

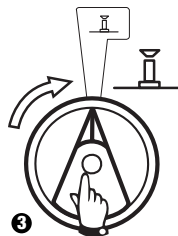
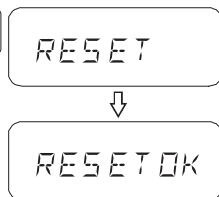
## XII. MANUELLER PROGRAMMABLAUF










## XIII. ALLE PROGRAMMINFORMATIONEN LÖSCHEN



Beide für 5 Sekunden gedrückt halten, bis die Anzeige "RESET OK" (dt.: Löschen OK) erscheint. Loslassen.








## FEHLERSUCHE




SYMPTOM	MÖGLICHE URSACHE	BEHEBUNG
Das Programm startet nicht automatisch.	1. Die Programmwählscheibe steht in der (AUS) Stellung. 	Stellen Sie die Wählscheibe auf  .
	2. Die Startzeit für das Programm wurde noch nicht eingegeben.	Drehen Sie die Programmwählscheibe auf  (Startzeit für Bewässerung einstellen) und überprüfen Sie die für das Programm eingegebenen Startzeiten. Wenn die Startzeit fehlt, geben Sie diese ein, wie auf Seite 42 beschrieben.
	3. Heute ist laut Programm kein Bewässerungstag.	Wählen Sie das Programm und stellen Sie die Programmwählscheibe auf  (dt.: weitere Zyklen). Überprüfen Sie die Bewässerungstage für das Programm.
	4. Die Einstellung "Permanent Day(s) Off" (dt.: ständige Abschalttage) verhindert eine Bewässerung.	Wenn die Einstellung "Permanent Day(s) Off" richtig vorgenommen wurde, ist keine Korrektur notwendig. Eine Anleitung zur Änderung der Einstellung "ständige Abschalttage" finden Sie auf Seite 44.
	5. Die prozentuale Anpassung nach Jahreszeit ist im Programm auf 0% eingestellt.	Stellen Sie die prozentuale Anpassung nach Jahreszeit höher als 0% ein. Eine Anleitung hierzu finden Sie auf Seite 43.
Laut Anzeige ist ein Ventil in Betrieb, aber es erfolgt keine Bewässerung.	6. Das Sensorsystem verhindert die Bewässerung.	Stellen Sie den Sensorschalter auf  (dt.: Umgehen). Falls die Bewässerung wieder einsetzt, funktioniert der Sensor ordnungsgemäß und es ist keine Korrektur notwendig.
	7. Es ist kein Sensor oder Jumper an die SENS-Stationen des Steuergerätes angeschlossen, und der Sensorschalter wurde auf  (dt.: Aktiv) gestellt.	Stellen Sie den Sensorschalter auf  (dt.: Umgehen). Installieren Sie den mitgelieferten Jumper an der SENS-Station des Steuergerätes, um dieses Problem zukünftig zu vermeiden.
Das Ventil schaltet sich nicht ein.	8. Für das Ventil wurde keine Laufzeit eingestellt.	Drehen Sie die Programmwählscheibe auf die Ventildnummer, und stellen Sie den Programmschalter ein, um die Laufzeit für das Ventil in jedem Programm zu überprüfen.

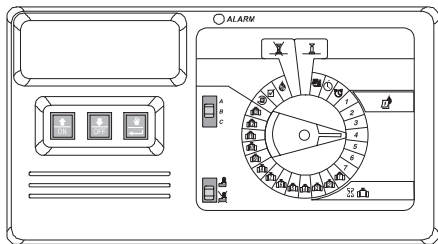


## FEHLERSUCHE

SYMPTOM	MÖGLICHE URSACHE	BEHEBUNG
	9. Ein Kurzschluss in der Elektromagnet- oder Ventilverkabelung hat die Station abgeschaltet. (LED-ALARMANZEIGE auf der Blende leuchtet auf.)	In der Anzeige erscheint "#Err", wobei # die fehlerhafte Ventilnummer ist. Finden und beheben Sie den Fehler im Stromkreis. Falls "MW Err" angezeigt wird, beheben Sie den Fehler. Stellen Sie die Programmwählscheibe auf  und drücken Sie die VORLAUF-Taste, um die LED-Alarmanzeige zu löschen.
	10. Eine Bewässerung wird durch das Sensorsystem verhindert.	Siehe Fehlerbehebung für Ursache Nr. 6.
	11. Es wurde keine Startzeit für das Programm eingegeben, dem das Ventil zugeordnet ist.	Siehe Fehlerbehebung für Ursache Nr. 2.
	12. Anpassung nach Jahreszeit für das Ventilprogramm ist auf 0% eingestellt.	Siehe Fehlerbehebung für Ursache Nr. 5.
Die Anzeige ist zum Teil oder vollständig leer.	13. Ein elektrischer Spannungsstoß oder Blitzeinschlag hat die Elektronik des Steuergerätes beschädigt.	Betätigen Sie den RESET-Knopf hinter der vorderen Blende. Wenn der elektrische Spannungsstoß keinen bleibenden Schaden verursacht hat, übernimmt der Steuergerät die Programmierbefehle und funktioniert normal.
Die Bewässerung startet, obwohl nicht vorgesehen.	14. Die Taste  wurde gedrückt.	Um ein Programm zu löschen, das manuell gestartet wurde, stellen Sie die Programmwählscheibe drei Sekunden lang auf  (dt.: Aus). Stellen Sie dann die Programmwählscheibe wieder zurück auf  .
	15. Es ist vielleicht eine nicht gewünschte Startzeit eingegeben worden.	Drehen Sie die Programmwählscheibe auf  (dt.: Bewässerungs-Startzeit einstellen) und überprüfen Sie, ob irgendwelche Programme eine nicht gewünschte Startzeit enthalten. Anleitungen zum Einstellen und Löschen von Startzeiten finden Sie auf Seite 42.

## FEHLERSUCHE

SYMPTOM	MÖGLICHE URSACHE	BEHEBUNG
	16. Die Programme sind vielleicht gestapelt.	Programme stapeln sich, wenn eine Startzeit in die Laufzeit eines anderen Programms fällt. Stellen Sie sicher, dass die Startzeit für die Programme A, B und C nicht in die Laufzeit eines anderen Programms fallen.
Die LED-Alarmanzeige leuchtet auf.	17. Keine Startzeit	Alle Startzeiten wurden gelöscht. Geben Sie mindestens eine Startzeit ein und stellen Sie die Programmwahlscheibe zurück auf  . Die LED-Anzeige schaltet sich aus.
	18. Keine Laufzeiten	Die vorgegebene Laufzeit von 10 Minuten für alle aktiven Ventile wurde gelöscht. Geben Sie mindestens für ein aktives Ventil eine Laufzeit ein und stellen Sie die Wahlscheibe zurück auf  . Die LED-Anzeige schaltet sich aus.
	19. Anpassung nach Jahreszeit ist auf 0% eingestellt.	Der Wert für die prozentuale Anpassung nach Jahreszeit wurde auf 0 gesetzt. Geben Sie einen Anpassungswert für die Jahreszeit ein und stellen Sie die Wahlscheibe zurück auf  . Die LED-Anzeige schaltet sich aus.
	20. Kurzschluss in der Station	Durch einen Kurzschluss in der Elektromagnet- oder Ventilverkabelung wurde die Station abgeschaltet. Siehe Fehlerbehebung für Ursache Nr. 9.



## INTRODUCTION

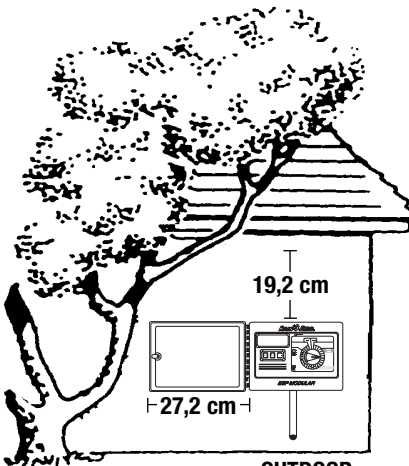
The ESP Modular controller is an irrigation timing device for residential and light commercial use.

The ESP Modular controller IESP-4M is for indoor and outdoor use.

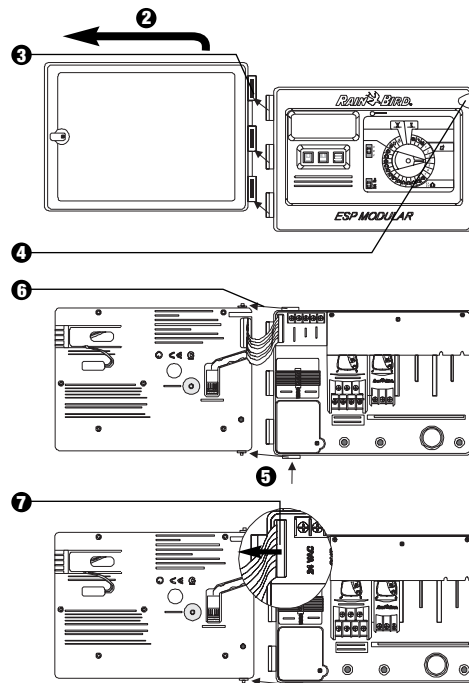
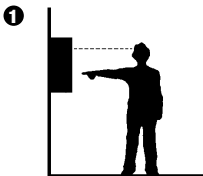
The basic unit supports four valves and a master valve/pump start relay. With the addition of optional internal modules, the ESP Modular can support up to 12 valves, an auxiliary valve, and a master valve/pump start relay.

# INSTALLATION

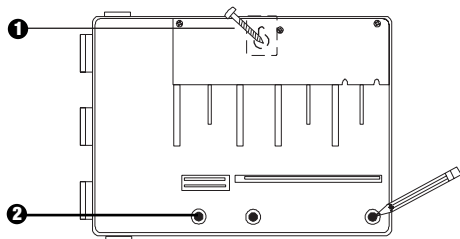
## I. CHOOSE LOCATION



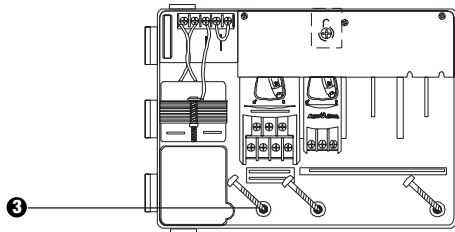
**OUTDOOR  
WALL MOUNT**



## II. MOUNTING THE CONTROLLER

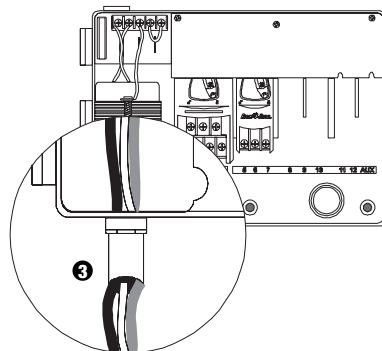
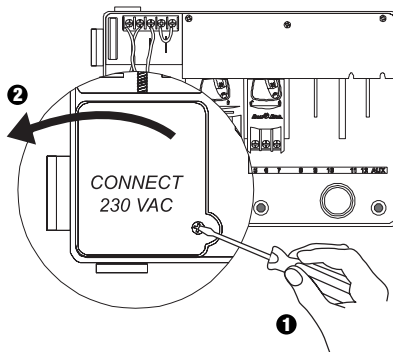


- 1 Install appropriate fastener for type of wall for keyhole slot. Hang the controller by the keyhole slot.
- 2 Level the controller & mark position(s) of one or more of the lower mounting hole(s).

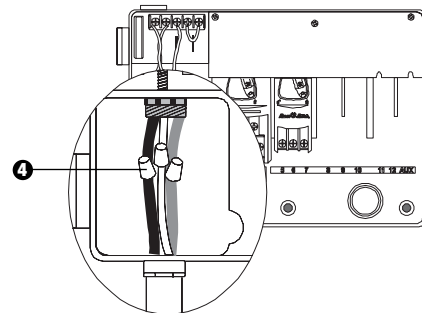


- 3 Drive the appropriate fastener(s) into the lower mounting hole(s). Verify that the cabinet is secure.

## III. WIRING - POWER



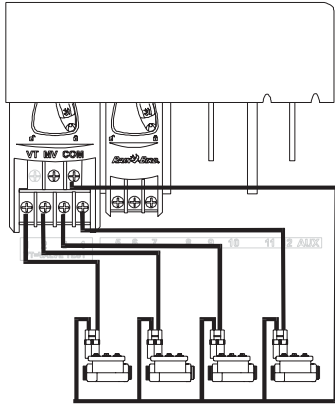
230 VAC  
Fits 1,3cm conduit fittings



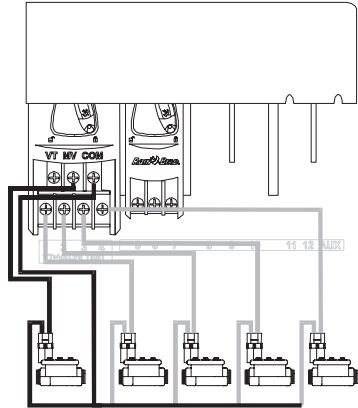
- 4 Using code-approved wire connector, connect the wires:
  - Brown to Brown
  - Blue to Blue
  - Green/Yellow to Green/Yellow

**Note:** The green/yellow ground wires **MUST** be connected to provide additional electrical surge protection.

## IV. WIRING - ELECTRIC VALVES

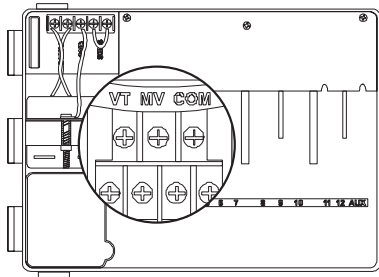


Station Valves



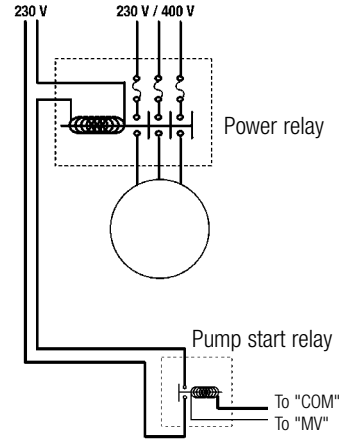
Master Valve

**Note:** Complete this section only if your system requires a master valve or pump start relay. The controller does not provide main power for the pump.



### Valve Test Terminal

Valve Test Terminal (VT) provides a constant 24V output (with applied AC power) that can be used to quickly check station valve wiring.

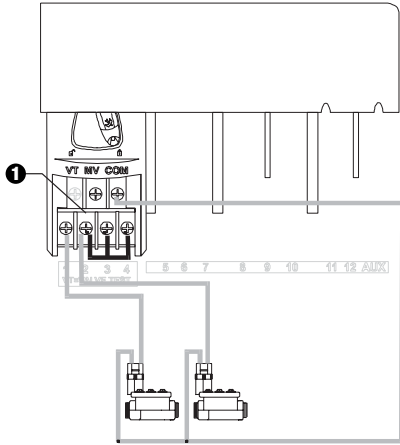


### Pump Start

The terminal marked MV is used to automatically start a pump with a relay or to open a master valve. The MV terminal provides power only when one of the stations is operating.

Recommended relays :FINDER 55 32 80 24, HAGER ES-224, TELEMECANIQUE GC 1610B5 or equivalent.

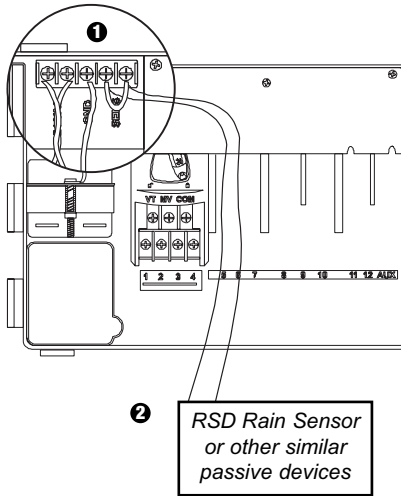
## V. JUMPER SETTING FOR UNUSED STATIONS



- 1 CAUTION:** To prevent pump damage when using a pump start relay, use a jumper to connect unused stations to a station that is being used.

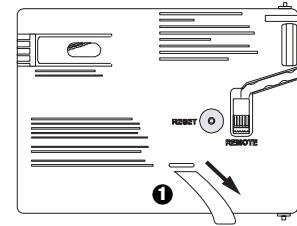
If unused stations are not jumpered and they are accidentally turned on, the pump may operate with no flow (dead-head). Dead-heading could cause the pump to overheat or burn out.

## VI. SENSOR OPTION



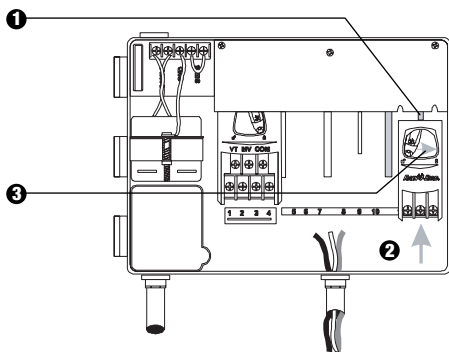
- 1** If you are not connecting a sensor to the controller, make sure the supplied jumper is installed on the SENS terminals.
- 2** Rain check or Moisture Sensors should NOT be connected between these terminals, but should only be connected in series with the COM terminal.

## VII. BATTERY BACKUP



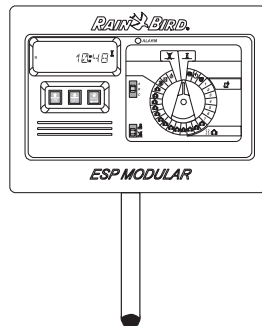
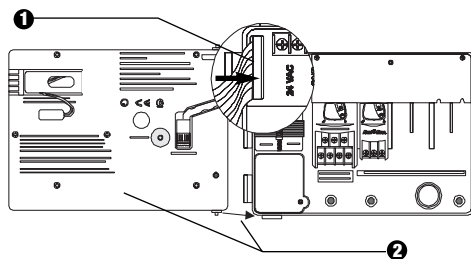
- 1** Pull to remove.

## VIII. INSTALLING MODULES (for additional valves)







- 1 You can install optional modules in any position and while the controller is operational.
- 2 Insert module in any open slot, making sure lever is in the unlocked position.
- 3 Lock module in place by sliding lever to the right.

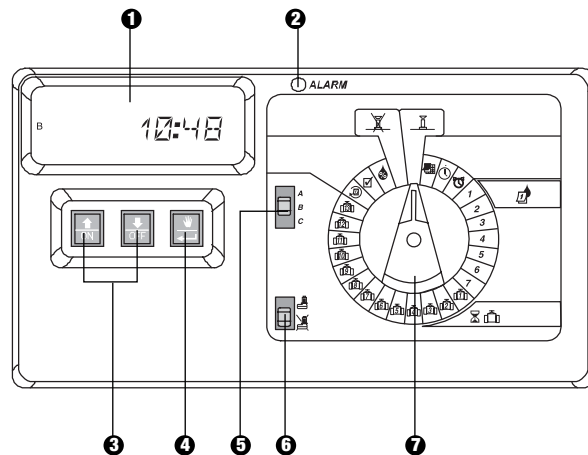
## IX. FINISHING INSTALLATION



## CONTROLS AND SWITCHES

The illustration to the right shows the controls, switches, and indicators on the ESP Modular controller, including:

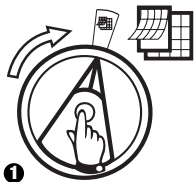
- 1 LCD** — during normal operation, displays the time of day; during programming, shows the results of your commands; during watering, shows the valve that is watering and the minutes remaining in its run time.
- 2 Alarm LED** — turns on when one of the following conditions occurs:
  - Watering is suspended by a sensor
  - The controller senses a valve short circuit
  - A programming error has been made
- 3 Up-Down, ON-OFF Buttons** — used to adjust program settings up or down, or turn watering days ON or OFF.
- 4 Manual Start / Advance Button** —  (Manual Start) is used to start an irrigation program or station valve(s) manually.  (Advance) is used to sequence through programming steps or set values.
- 5 Program Slide Switch** — used to select watering program A, B, or C.
- 6 Sensor Bypass Switch** — used to tell the controller to obey () or ignore () input from an optional sensor.
- 7 Programming Dial** — used to turn the controller off and on, and for programming.



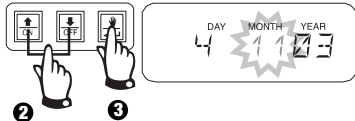


# PROGRAMMING

## I. SET THE CURRENT DATE

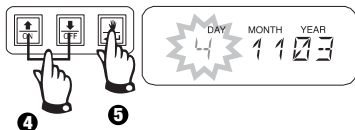


1



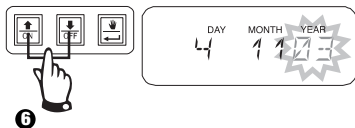
2

3



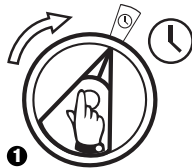
4

5

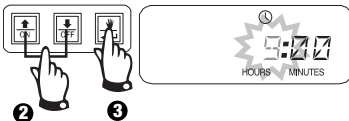


6

## II. SET THE CURRENT TIME

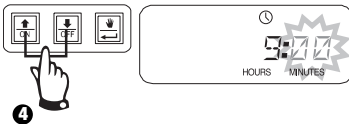


1



2

3

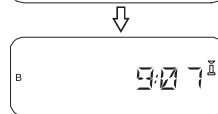
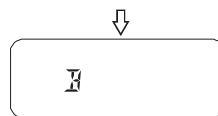


4

## III. SELECT PROGRAM



1

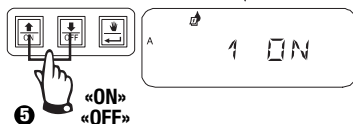
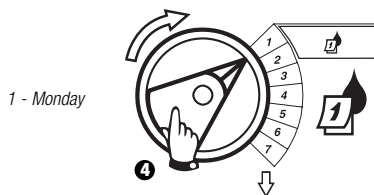
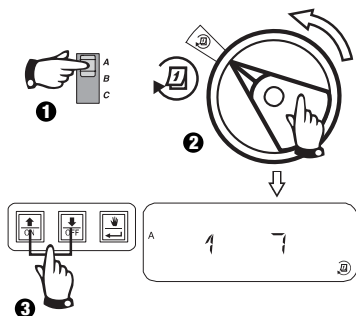


## IV. SELECT WATERING CYCLE

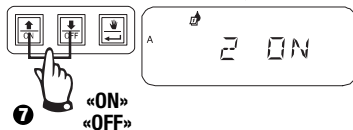
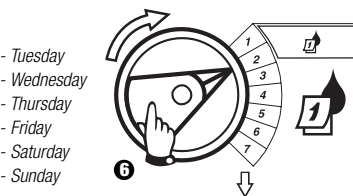
Each program can operate in one of four watering cycles. Select the cycle you need and follow corresponding instructions.

- 1 7:** Waters on the days of the week you select.
- 2 4 6:** Waters on even calendar days.
- 1 3 5:** Waters on odd calendar days.
- 1 31:** Waters on a selected \_\_\_ day interval (i.e. every other day or every third day, etc.)

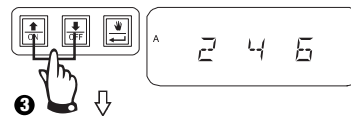
### A. 1 7 (Custom / Day of Week)



- 2 - Tuesday
- 3 - Wednesday
- 4 - Thursday
- 5 - Friday
- 6 - Saturday
- 7 - Sunday

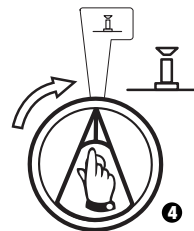


### B. 2 4 6 / 1 3 5 (Even/Odd Calendar Days)



1 3 5 =

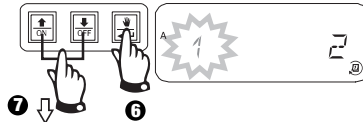
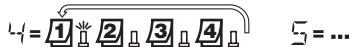
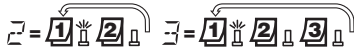
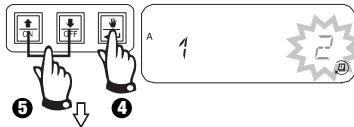
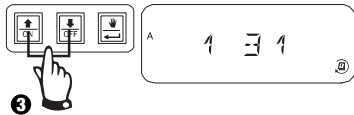
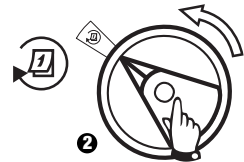
2 4 6 =



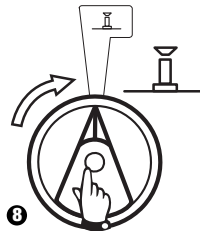
## IV. SELECT WATERING CYCLE (continued)



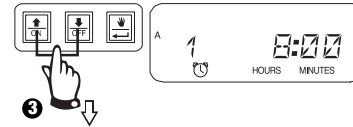
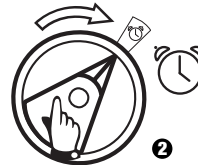
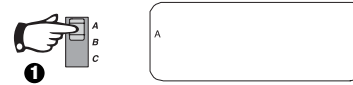
### C. 1 31 (Cyclic)



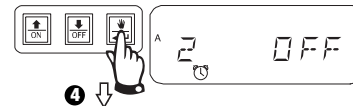
- = water cycle starts today
- = water cycle starts tomorrow
- = water cycle starts 2 days from today
- , ... = water cycle starts \_\_ days from today



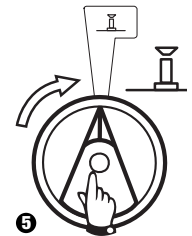
## V. SET PROGRAM WATERING START TIMES



To eliminate a watering start time, press or until "OFF" setting between 23:45 and 0:00H appears.



To set additional start times for this program, press to display next start time. Repeat as needed.

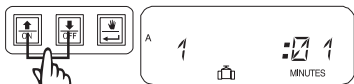


## VI. SET VALVE WATERING RUN TIME

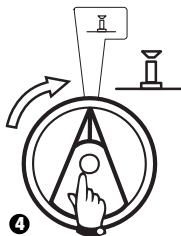
You can set any valve to run from 0 to 6 hours (1-minute increments for the first hour, 10-minute increments for the remaining.)



**Note:** If you turn dial to a valve number with no installed module, the message "NO 5 - 8", "NO 9 - 10", "NO 11 - 13" appears on the display.



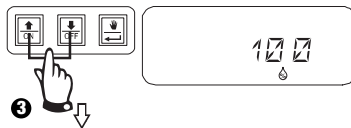
Use to adjust run time up or down. If you do not want the valve to water for the selected program, set run time to 0. Repeat 2-3 for the selected program. Repeat 1-3 as needed for programs B or C.



**Caution:** If all valve run times are set to 0, the alarm LED will turn on.

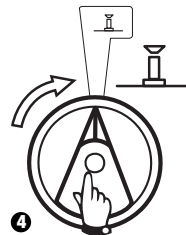
## VII. SET SEASONAL ADJUST % (Water Budget)


This function lets you increase or decrease the run times of all valves globally by a selected percentage. You can set the % from 0-200%. This setting will affect ALL programs globally.



Use to adjust time up or down. Default is 100%.

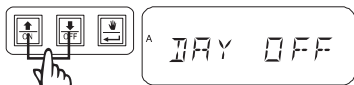
Seasonal adjust % is calculated on the normal programmed run times for each valve. For example, if valve 1 is set to run for 10 minutes, and you set it to 120%, valve 1 will run for 12 minutes.



**Caution:** If a value other than the default 100% is entered, the  will be displayed in AUTO mode to indicate run time values are adjusted.

## VIII. SET PERMANENT DAY OFF

For 2 4 6 (Even) / 1 3 5 (Odd) / 1 3 1 (Cyclic) watering cycles, you can set any day of the week as a non-watering day to accommodate restrictions or other requirements.

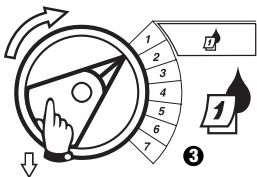


4 Press OFF to set as non-watering day. Press ON to restore watering.

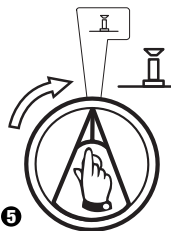


2  
1 3 5 / 2 4 6 / 1 3 1

This feature applies to 2 4 6 (Even) / 1 3 5 (Odd) / 1 3 1 (Cyclic) watering cycles.

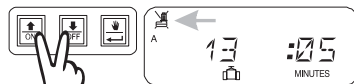
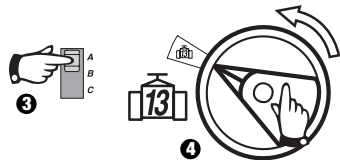
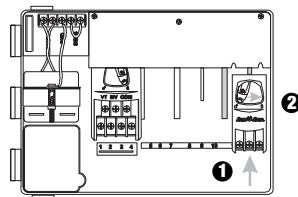




Select day of week

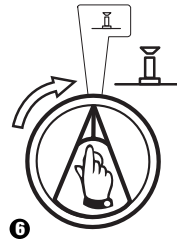


## IX. AUXILIARY VALVE OPERATION

The Auxiliary valve terminal (valve 13) can operate as a normal station or can be programmed so that it is not affected by an activated sensor. When programmed this way, the auxiliary terminal can be used to connect non-irrigation equipment such as patio fountains or landscape lighting.

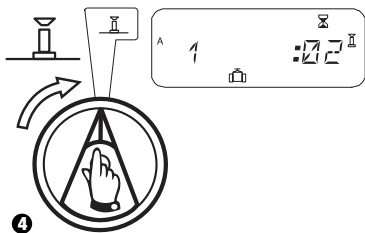
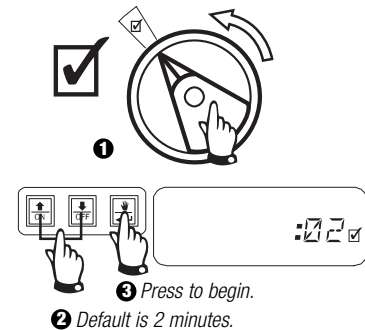


5 Press  $\uparrow$  and  $\downarrow$  at the same time until the  is displayed indicating that this valve is not affected by the sensor. To restore, press both buttons again until  disappears.

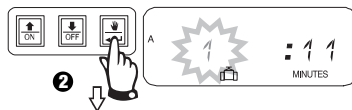
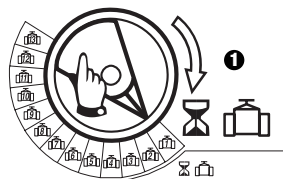


## X. TEST ALL VALVES

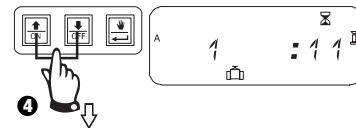
This function will run all equipped valves in sequence for the amount of time set. Default is 2 minutes.



## XI. RUN VALVE(S) MANUALLY



Repeat steps 1 - 2 to manually start additional valves.



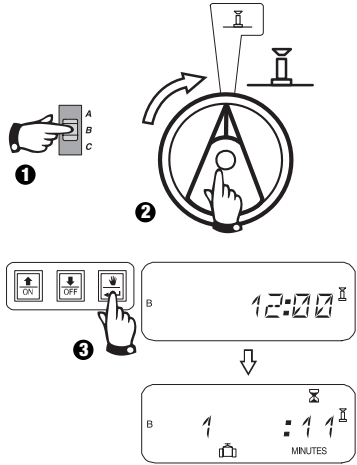
You can adjust manual run time up or down.

To cancel, turn dial to  for 3 seconds.  
Return dial to .

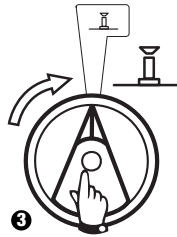
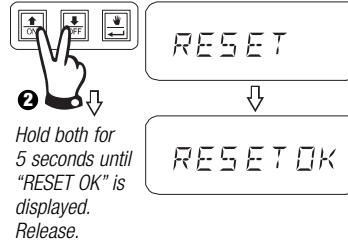
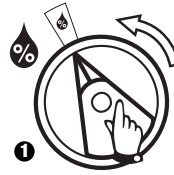


System will display current time after manual watering completes.







## XII. RUN PROGRAM MANUALLY



## XIII. CLEAR ALL PROGRAM INFORMATION







## TROUBLESHOOTING





SYMPTOM	POSSIBLE CAUSE	CORRECTION
Program does not come on automatically.	1. Dial is set to OFF position.	Set the dial to AUTO.
	2. Start time has not been entered for the program.	Turn the dial to  SET WATERING START TIMES and check the start times entered for the program. If the start time is missing, enter it as described on page 58.
	3. Today may not be a watering day for the program.	Select the program, and turn the dial to  ADVANCED CYCLES. Check the watering days for the program.
	4. Permanent Day(s) Off feature is preventing watering.	If the Permanent Day(s) Off feature has been set properly, no correction is needed. To change the Permanent Day(s) feature, see page 60.
	5. Program's Seasonal Adjust percent is set to 0%.	Set the  Seasonal Adjust percent above 0%. See the instructions on page 59.
Display shows a valve operating, but no watering occurs.	6. Sensor system is preventing irrigation.	Turn the sensor switch to  BYPASSED. If watering resumes, the sensor is operating properly, and no correction is necessary.
	7. No sensor or jumper is connected to the controller's SENS terminals, and the sensor switch has been set to ACTIVE.	Turn the sensor switch to  BYPASSED. To prevent future occurrences, install the supplied jumper on the controller's SENS terminals.
Valve does not come on.	8. No run time has been set for the valve.	Turn the dial to the valve number, and set the program switch to check the run time for the valve in each program.
	9. A short circuit in the solenoid or valve wiring has disabled the station. (ALARM LED on the faceplate is lit.)	The display will show "# Err," where # is the valve number at fault. Identify and repair the fault in the circuit. If "MV Err" occurs, repair the fault. With the dial in AUTO, press the  ADVANCE button to clear the Alarm LED.

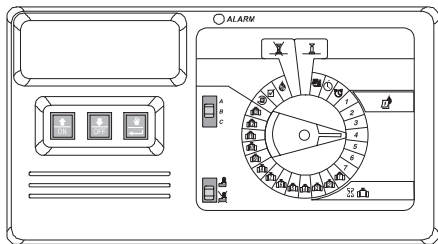


## TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	CORRECTION
	10. The sensor system is preventing irrigation.	See correction for Cause #6.
	11. Start time has not been entered for the program to which the valve is assigned.	See correction for Cause #2.
	12. Seasonal Adjust for the valve's program is set to 0%.	See correction for Cause #5.
Display is partially or completely blank.	13. An electrical surge or lightning strike has damaged the controller's electronics.	Push the RESET BUTTON. If the electrical surge did no permanent damage, the controller will accept programming commands and function normally.
Watering starts when it should not.	14.  MANUAL START / ADVANCE key has been pressed.	To cancel a program that has been manually started, set the dial to  OFF for three seconds. Then set the dial back to  AUTO.
	15. An unwanted start time may have been entered.	Turn the dial to  SET WATERING START TIMES and check to see if any programs have an unwanted start time. See page 58 for instructions on setting and eliminating start times.
	16. The programs may be stacked.	Programs will stack behind each other if they are scheduled to start while another program is running. Make sure Programs A, B, and C are not scheduled to start when any other program is scheduled.

## TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Alarm LED is lit	17. No start time.	All start times have been removed. Enter at least one start time and set the dial back to  AUTO. The LED will turn off.
	18. No run times.	The default 10-minute run time for all active valves has been removed. Enter a run time for at least one active valve and set the dial back to  AUTO. The LED will turn off.
	19. Seasonal adjust is at 0%.	The  seasonal adjust % value has been set to zero. Enter a seasonal adjust value and set the dial back to  AUTO. The LED will turn off.
	20. Shorted station.	A short circuit in the solenoid or valve wiring has disabled the station. See correction for Cause #9.



## INTRODUZIONE

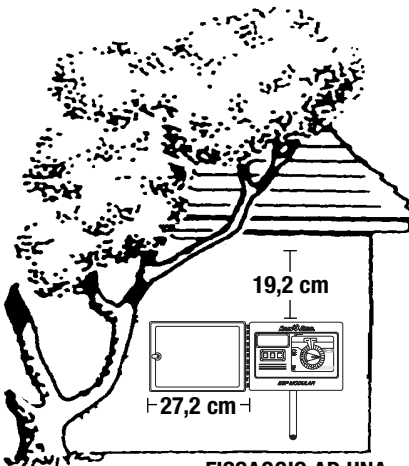
Il programmatore ESP Modulare è un dispositivo per l'irrigazione automatica temporizzata ideale per impianti di irrigazione residenziali o commerciali di piccole dimensioni.

Il programmatore ESP Modulare IESP-4M può essere installato sia in ambienti interni che all'esterno.

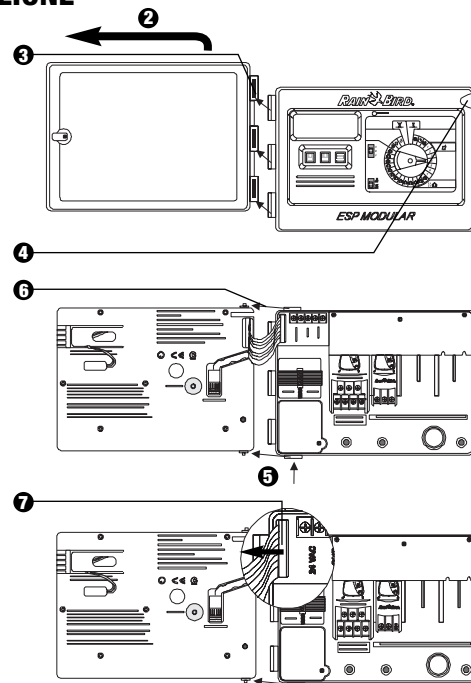
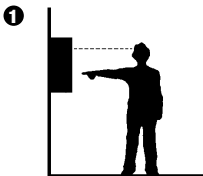
Il modello base supporta quattro valvole e un relè di avvio pompa/valvola principale. Con l'aggiunta di moduli di espansione opzionali, l'ESP Modulare può supportare fino a 12 valvole, una valvola ausiliaria, e un relè di avvio pompa/valvola principale.

# INSTALLAZIONE

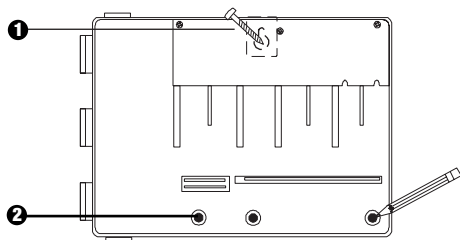
## I. SCELTA DEL PUNTO DI INSTALLAZIONE



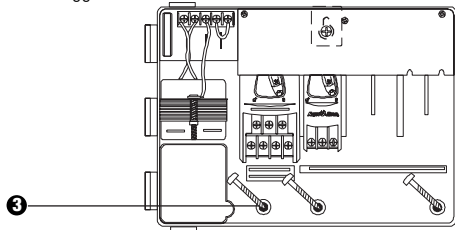
**FISSAGGIO AD UNA PARETE ESTERNA**



## II. FISSAGGIO DEL PROGRAMMATORE

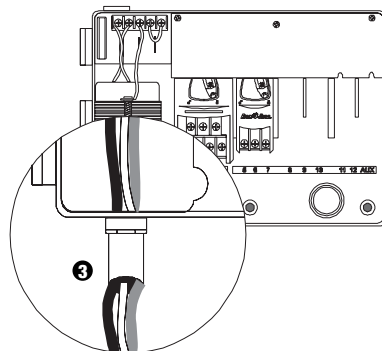
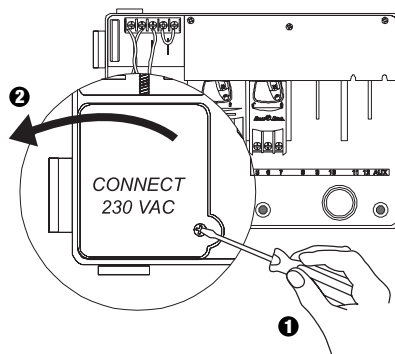


- 1 Installare il dispositivo di fissaggio appropriato al tipo di parete e inserire la vite nel foro ad asola. Appendere il programmatore alla vite mediante il foro ad asola.
- 2 Tenere il programmatore in posizione orizzontale e segnare la posizione di uno o più fori inferiori di fissaggio.

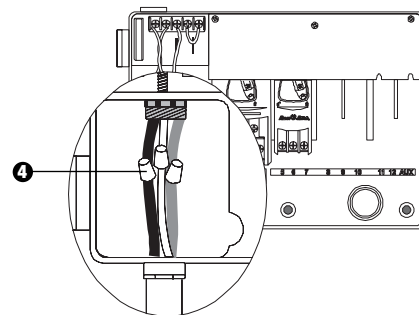


- 3 Praticare i fori nei punti segnati, introdurre i tasselli ed inserirvi le viti attraverso i fori di fissaggio inferiori, quindi avitarle. Verificare che il mobiletto sia fissato in modo sicuro.

## III. COLLEGAMENTI ELETTRICI – TENSIONE DI ALIMENTAZIONE



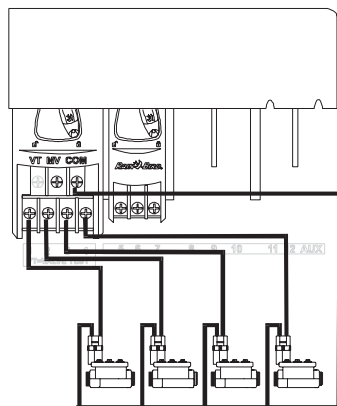
230 VAC  
Inserire tubetto protettivo di 1,3 cm



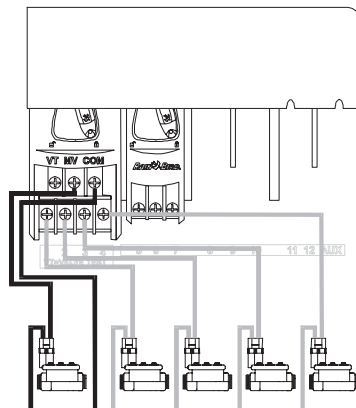
- 4 Utilizzando un connettore serrafili a norma, collegare i conduttori:
  - marrone con marrone
  - blu con blu
  - verde/giallo con verde/giallo

**Nota:** I fili di terra di colore verde/giallo DEVONO essere collegati per fornire ulteriore protezione contro sovralimentazioni momentanee.

## IV. COLLEGAMENTI ELETTRICI – ELETTROVALVOLE

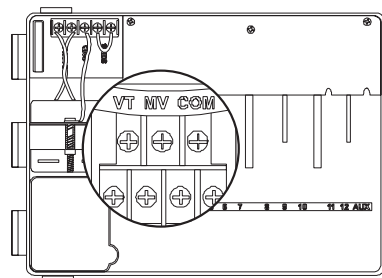


Valvole delle stazioni



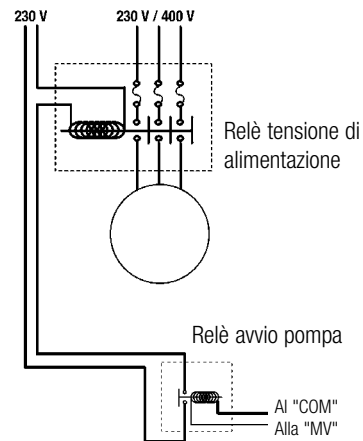
Valvola principale

**Nota:** Completare questa sezione solo se il sistema che si sta installando richiede una valvola principale o un relè avvio pompa. Il programmatore non fornisce la corrente alternata di alimentazione per la pompa.



### Morsetto prova valvola

Il morsetto prova valvola (VT) fornisce una tensione costante di 24 V in uscita (quando è applicata la corrente alternata) che può essere usata per controllare rapidamente il collegamento elettrico della valvola della stazione.

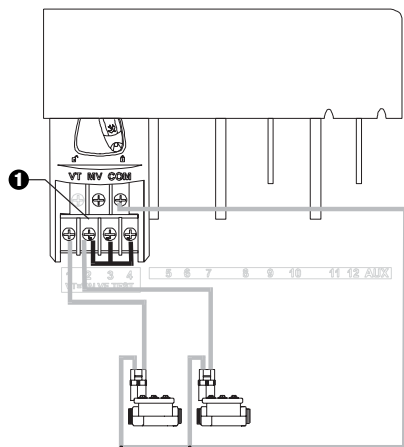


### Avvio pompa

Il morsetto contrassegnato MV è usato per avviare automaticamente la pompa con un relè o per aprire la valvola principale. Il morsetto MV fornisce la tensione di alimentazione solo quando una delle stazioni è funzionante.

Relè raccomandati: FINDER 55 32 80  
24,HAGER ES-224, TELEMECANIQUE GC  
1610B5 o equivalenti.

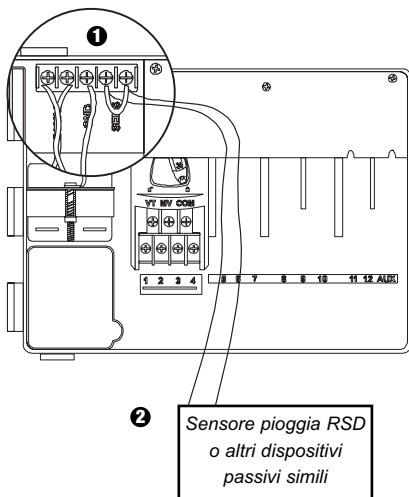
## V. CONFIGURAZIONI DEI PONTICELLI PER LE STAZIONI NON USATE



**1 ATTENZIONE:** Per evitare di danneggiare la pompa quando si utilizza un relè per avviarla, usare un ponticello per collegare le stazioni non usate ad una in uso.

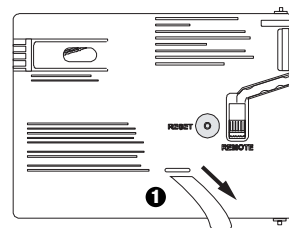
Se stazioni non usate non sono ponticellate e vengono avviate inavvertitamente, la pompa potrebbe funzionare a vuoto con conseguente surriscaldamento o cortocircuito.

## VI. OPZIONE SENSORE



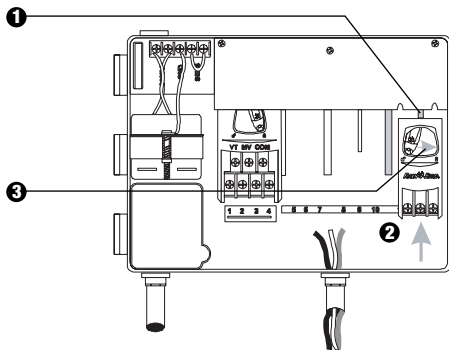
- 1** Se non si connette un sensore al programmatore, accertarsi che il ponticello fornito sia installato sui morsetti SENS.
- 2** I sensori pioggia o umidità NON devono essere collegati tra questi due morsetti, ma devono essere connessi solo in serie con il morsetto COM.

## VII. BATTERIA DI RISERVA

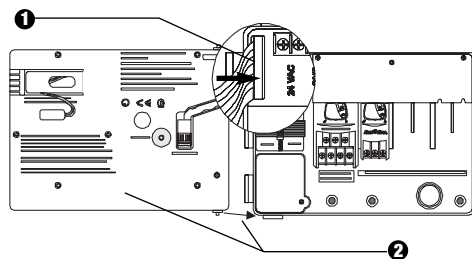


- 1** Tirare per rimuovere.

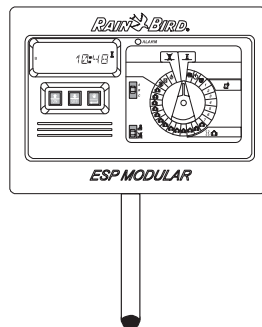
## VIII. INSTALLAZIONE MODULI DI ESPANSIONE (per valvole supplementari)



## IX. COMPLETAMENTO INSTALLAZIONE







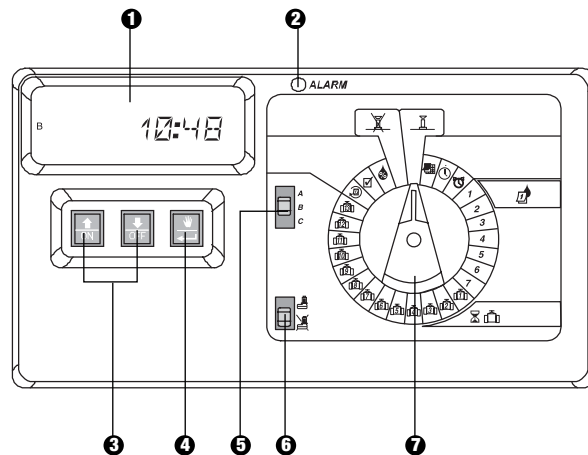
- 1 È possibile installare moduli di espansione opzionali in qualsiasi posizione e mentre il programmatore è funzionante.
- 2 Inserire il modulo in una qualunque sede vuota, accertandosi che la leva sia nella posizione non bloccata.
- 3 Bloccare il modulo nella sua posizione facendo scorrere la leva verso destra.



## COMANDI ED INTERRUTTORI

La figura a destra illustra i comandi, gli interruttori, e gli indicatori presenti sul programmatore ESP Modulare; essi comprendono:

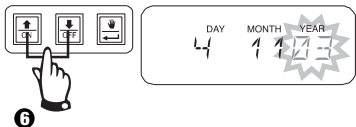
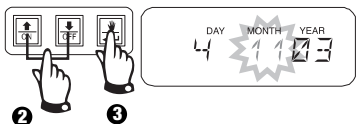
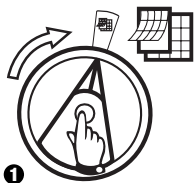
- 1 Display LCD** – durante il funzionamento normale, visualizza l'ora del giorno; durante la programmazione, indica i risultati dei comandi; durante l'irrigazione, indica la valvola che la sta comandando e quanti minuti mancano al termine del suo periodo di funzionamento.
- 2 LED allarme** – si accende in presenza di una delle seguenti condizioni:
  - l'irrigazione è sospesa da un sensore
  - il programmatore rileva un cortocircuito della valvola
  - è stato commesso un errore di programmazione
- 3 Pulsanti ↑ - ↓, ON-OFF (abilitazione-disabilitazione)** – usati per aumentare o diminuire il valore delle impostazioni di programmazione, o per abilitare o disabilitare i giorni di irrigazione.
- 4 Pulsante avvio manuale / avanzamento** –  (Avvio manuale) è usato per avviare manualmente un programma di irrigazione o valvole di stazioni.  (Avanzamento) è usato per muoversi in sequenza lungo i passi di programmazione o i valori impostati.
- 5 Commutatore programmi** – usato per selezionare il programma di irrigazione A, B, o C.
- 6 Interruttore esclusione sensore** – usato per indicare al programmatore di considerare (  ) o ignorare (  ) l'input da un sensore opzionale.
- 7 Disco selettore di programmazione** – usato per accendere e spegnere il programmatore, e per la programmazione.



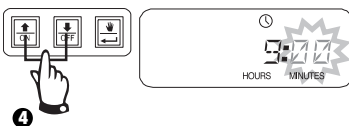
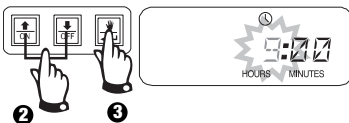
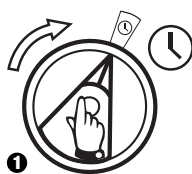


# PROGRAMMAZIONE

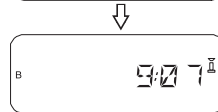
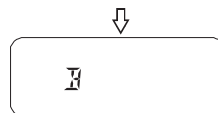
## I. IMPOSTARE LA DATA CORRENTE



## II. IMPOSTARE L'ORA CORRENTE



## III. SELEZIONARE IL PROGRAMMA

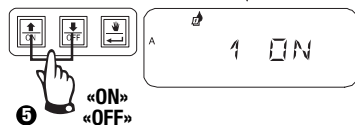
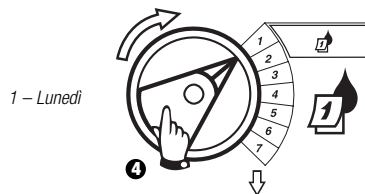
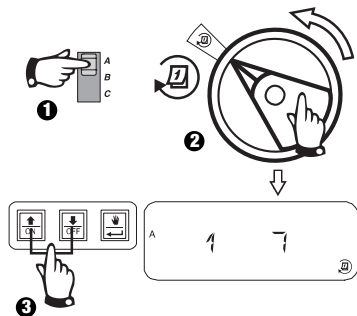


## IV. SELEZIONE DEL CICLO DI IRRIGAZIONE

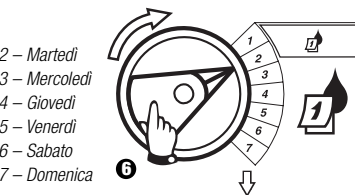
Ciascun programma può essere eseguito in uno dei quattro cicli di irrigazione. Selezionare il ciclo desiderato ed seguire le istruzioni relative.

- 1 7:** Irriga nei giorni della settimana selezionati.
- 2 4 6:** Irriga nei giorni pari di calendario.
- 1 3 5:** Irriga nei giorni dispari di calendario.
- 1 31:** Irriga in un intervallo di giorni \_\_\_\_\_ selezionato (vale a dire, a giorni alterni o ogni tre giorni, ecc.)

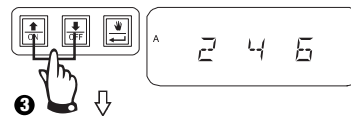
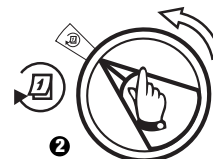
### A. 1 7 (Irriga nei giorni della settimana selezionati)





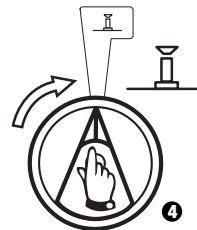
- 2 - Martedì
- 3 - Mercoledì
- 4 - Giovedì
- 5 - Venerdì
- 6 - Sabato
- 7 - Domenica



### B. 2 4 6 / 1 3 5 (giorni pari/dispari di calendario)



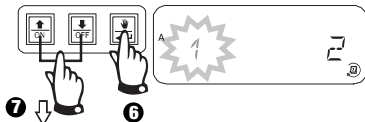
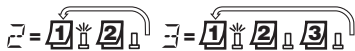
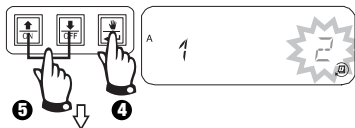
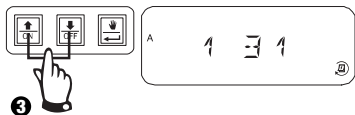
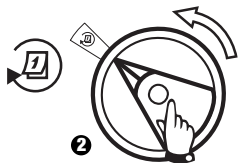
1 3 5 =  
 1 3 5 =  
 2 4 6 =  
 2 4 6 =



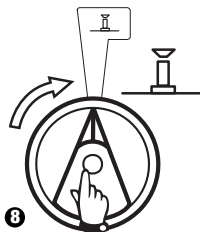
## IV. SELEZIONE DEL CICLO DI IRRIGAZIONE (segue)



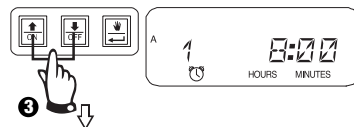
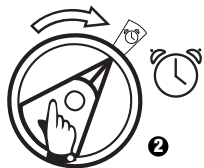
### C. 1 31 (ciclico)



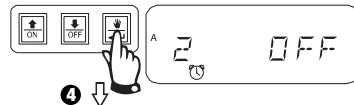
- = il ciclo di irrigazione inizia oggi
- = il ciclo di irrigazione inizia domani
- = il ciclo di irrigazione inizia dopodomani
- = il ciclo di irrigazione inizia \_\_ giorni da oggi



## V. IMPOSTAZIONE DELLE PARTENZE IRRIGUE DEL PROGRAMMA



Per eliminare un partenza irrigua, premere o fino a quando l'impostazione "OFF" appare tra le ore 23:45 e 0:00.



Per impostare ulteriori partenze per questo programma, premere per visualizzare l'ora successiva di inizio.

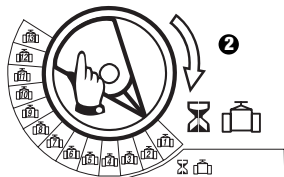
Ripetere per quanto necessario.



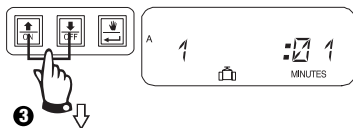
## VI. IMPOSTAZIONE DEL TEMPO DI FUNZIONAMENTO IRRIGUO DELLA VALVOLA



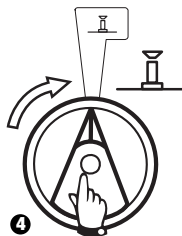
È possibile impostare il tempo di funzionamento di qualsiasi valvola da 0 a 6 ore (incrementi di 1 minuto per le prime ore, incrementi di 10 minuti per le ore rimanenti).



**Nota:** Se si porta l'indice del disco selettore di programmazione su un numero di valvola senza alcun modulo installato, sul display appare il messaggio "NO 5 - 8", "NO 9 - 10", "NO 11 - 13".



Usare  $\uparrow$  o  $\downarrow$  per regolare il tempo di funzionamento. Se non si vuole che la valvola comandi l'irrigazione per il programma selezionato, impostare il tempo a 0. Ripetere 2-3 per il programma selezionato. Ripetere 1-3 secondo necessità per i programmi B o C.

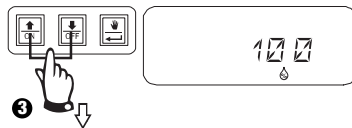
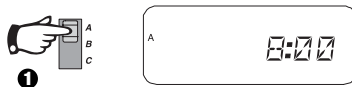


**Attenzione:** Se tutti i tempi di funzionamento della valvola sono impostati a 0, il LED di allarme si accende.

## VII. IMPOSTAZIONE DELLA % DI REGOLAZIONE OPPORTUNA (previsione di irrigazione)

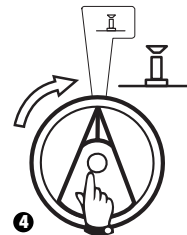


Questa funzione permette di aumentare o diminuire globalmente di una percentuale selezionata i tempi di funzionamento di tutte le valvole. Si può impostare la % da 0 a 200%. Questa impostazione interesserà globalmente TUTTI i programmi.



Usare  $\uparrow$  o  $\downarrow$  per regolare il tempo. L'impostazione di default è 100%.

La % di regolazione opportuna è calcolata sui normali tempi di funzionamento programmati per ciascuna valvola. Per esempio, se la valvola 1 è impostata per funzionare per 10 minuti, e si imposta questo valore a 120%, la valvola funzionerà per 12 minuti.



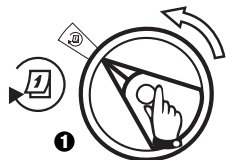
**Attenzione:** Se si immette un valore diverso dal 100% di default,  $\text{💧}$  sarà visualizzato in

modalità AUTOMATICA per

## VIII. IMPOSTAZIONE PERMANENTE DEL GIORNO DI ESCLUSIONE DELL'IRRIGAZIONE



Per i cicli di irrigazione 2 4 6 (giorni pari) / 1 3 5 (giorni dispari) / 1 3 1 (ciclico), è possibile impostare qualsiasi giorno della settimana come giorno di non irrigazione per conformità a eventuali vincoli o requisiti.



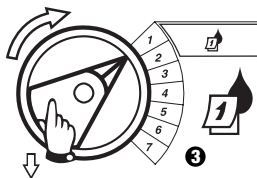
1



2

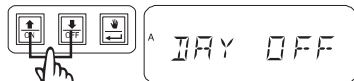
1 3 5 / 2 4 6 / 1 3 1

Questa prestazione si applica ai cicli di irrigazione 2 4 6 (giorni pari) / 1 3 5 (giorni dispari) / 1 3 1 (ciclico).



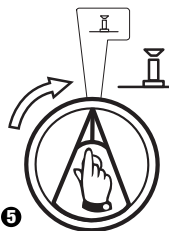
3

Selezionare il giorno della settimana.



4

Premere OFF per impostare "non irrigazione" per il giorno selezionato. Premere ON per ripristinare l'irrigazione.

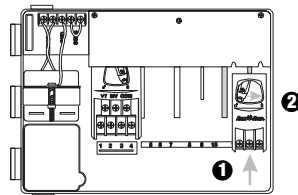


5

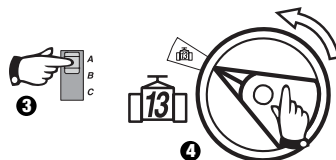
## IX. FUNZIONAMENTO DELLA VALVOLA AUSILIARIA



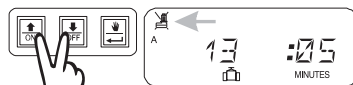
Il morsetto della valvola ausiliaria (valvola 13) può funzionare come una stazione normale o può essere programmato in modo tale da non essere influenzato da un sensore attivato. Quando programmato in questo modo, il morsetto ausiliario può essere utilizzato per collegare dispositivi non irrigui come ad esempio comandi di fontane di patio o di illuminazione di giardino.



2

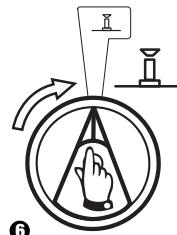


4



5

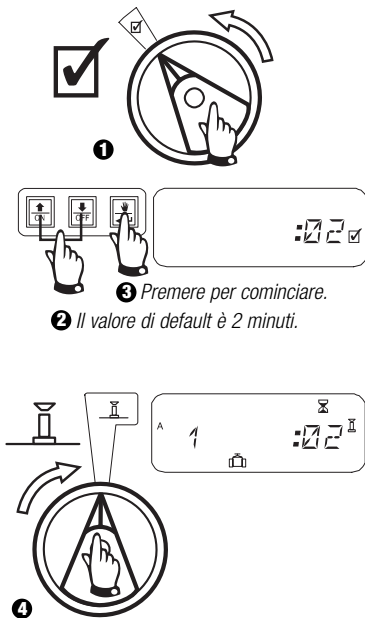
Premere  $\uparrow$  e  $\downarrow$  contemporaneamente fino a quando viene visualizzato  $\text{X}$  indicante che questa valvola non è influenzata dal sensore. Per ripristinare la condizione precedente, premere di nuovo contemporaneamente i due pulsanti fino a quando  $\text{X}$  scompare.



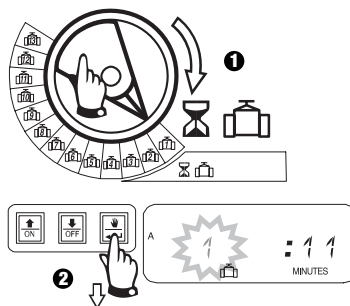
6

## X. PROVA DI TUTTE LE VALVOLE

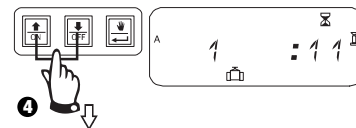
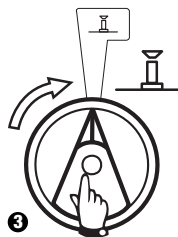
Questa funzione attiverà tutte le valvole installate in sequenza per il periodo di tempo impostato. Il valore di default è 2 minuti.





## XI. FUNZIONAMENTO MANUALE DELLE VALVOLE



Ripetere i passi 1 - 2 per avviare manualmente le valvole supplementari.



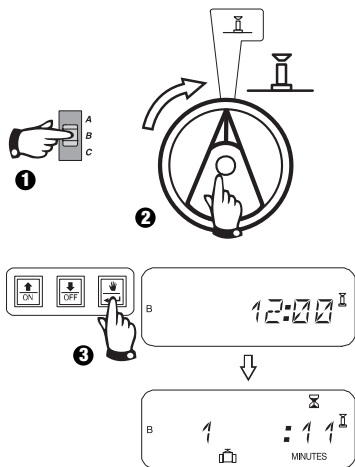
È possibile aumentare o diminuire il tempo di funzionamento manuale.

Per annullare, portare l'indice del disco selettore a  per 3 secondi. Riportare l'indice del disco selettore a .

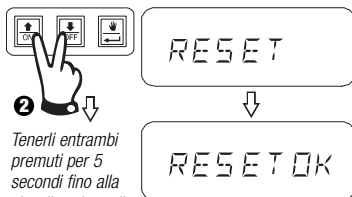


Il sistema visualizzerà l'ora corrente dopo completata l'irrigazione manuale.

## XII. ESECUZIONE MANUALE DEL PROGRAMMA










## XIII. CANCELLAZIONE DI TUTTE LE INFORMAZIONI DEL PROGRAMMA



Tenerli entrambi premuti per 5 secondi fino alla visualizzazione di "RESET OK". Rilasciarli.







## RISOLUZIONE DEI PROBLEMI




PROBLEMA	POSSIBILE CAUSA	CORREZIONE
Il programma non parte automaticamente.	1. L'indicatore è impostato su  .	Impostare l'indicatore su  .
	2. Non è stata inserita l'ora di avvio del programma.	Impostare l'indicatore su  e verificare gli orari di avvio inseriti per il programma. Se manca l'orario di avvio, inserirlo seguendo le istruzioni descritte nel manuale del programmatore ESP modulare.
	3. Il giorno presente potrebbe non essere un giorno di irrigazione in base al programma.	Selezionare il programma ed impostare l'indicatore su  . Verificare i giorni di irrigazione del programma.
	4. La funzione di irrigazione disattivata in modo permanente in determinati giorni impedisce l'irrigazione.	Se la funzione di irrigazione disattivata in modo permanente in determinati giorni è stata impostata correttamente non è necessario effettuare alcuna modifica. Per modificare questo tipo di funzione di irrigazione, consultare pagina 76.
	5. La percentuale di regolazione del programma in base alla stagione è impostata sullo 0%.	Impostare la percentuale di regolazione in base alla stagione sopra lo zero 0%. Seguire le istruzioni contenute nel manuale del programmatore ESP modulare.
Il display visualizza una valvola in funzione ma l'irrigazione non è attiva.	6. Il sistema del sensore impedisce l'irrigazione.	Impostare l'interruttore del sensore su  . Se l'irrigazione riprende, il sensore funziona correttamente e non è necessario effettuare alcuna modifica.
	7. Non è collegato alcun sensore né cavo di accoppiamento ai morsetti SENS dell'unità di controllo e l'interruttore del sensore è stato impostato su  .	Impostare l'interruttore del sensore su  . Per evitare che il problema si ripeta di nuovo, installare il cavo di accoppiamento fornito sui morsetti SENS dell'unità di controllo.
La valvola non si avvia.	8. Non è stato impostato il tempo di esecuzione della valvola.	Impostare l'indicatore sul numero della valvola ed impostare l'interruttore del programma per verificare la fase di esecuzione della valvola in tutti i programmi. Per modificare il tempo di esecuzione, consultare il manuale del programmatore ESP modulare.



## RISOLUZIONE DEI PROBLEMI

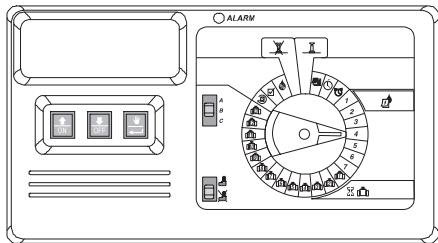
PROBLEMA	POSSIBILE CAUSA	CORREZIONE
	9. Un cortocircuito nel solenoide o nel cavo della valvola ha disattivato la stazione (il LED sul pannello anteriore è acceso).	Il display visualizza “# Err,” dove # è il numero della valvola guasta. Individuare e riparare il guasto nel circuito. Quindi collaudare la valvola attivandola manualmente. Consultare le istruzioni del manuale del programmatore ESP Modulare.
	10. Il sistema del sensore impedisce l'irrigazione.	Consultare la correzione della causa 6.
	11. Non è stato inserito l'orario di inizio del programma al quale la valvola è assegnata.	Consultare la correzione della causa 2.
	12. La regolazione in base alla stagione del programma della valvola è impostato sullo 0%.	Consultare la correzione della causa 5.
Il display è vuoto in parte o del tutto.	13. Un sovraccarico di corrente elettrica o una scintilla ha danneggiato la parte elettrica dell'unità di controllo.	Premere il pulsante RESET.  Se il sovraccarico di corrente elettrica non ha causato un danno permanente, l'unità di controllo accetterà i comandi di programmazione e funzionerà normalmente. Se l'unità di controllo non funziona correttamente, contattare l'assistenza tecnica della Rain Bird.
L'irrigazione comincia quando non dovrebbe.	14. È stato premuto il pulsante  .	Per annullare un programma che è stato avviato manualmente, impostare l'indicatore su  per tre secondi. Quindi impostare di nuovo l'indicatore su  .
	15. Potrebbe essere stato accidentalmente inserito un orario di avvio errato.	Impostare l'indicatore su  e verificare se uno dei programmi ha un orario di avvio errato. Per istruzioni sull'impostazione e sull'eliminazione degli orari di avvio consultare il manuale del programmatore ESP modulare.
	16. I programmi potrebbero essere uno in coda all'altro.	Se viene programmato l'avvio di un programma mentre un altro è già in esecuzione, i programmi potrebbero essere in coda. Assicurarsi che i programmi A, B e C non siano stati programmati per l'avvio quando un altro programma è già stato pianificato. Per istruzioni sulle impostazioni degli orari di avvio consultare il manuale del programmatore ESP modulare.

## RISOLUZIONE DEI PROBLEMI

PROBLEMA	POSSIBILE CAUSA	CORREZIONE
Il LED è acceso	17. Nessun orario di avvio.	Tutti gli orari di avvio sono stati rimossi (il programma predefinito in fabbrica è attivo: programma A alle 8.00).  Inserire almeno un orario di inizio ed impostare nuovamente l'indicatore su  . Il LED si spegnerà.
	18. Nessuna fase di esecuzione.	È stata rimossa l'esecuzione predefinita di 10 minuti per tutte le valvole attive. Inserire una fase di esecuzione per almeno una valvola attiva ed impostare l'indicatore di nuovo su  . Il LED si spegnerà.
	19. La regolazione in base alla stagione è allo 0%.	Il valore percentuale di regolazione in base alla stagione è stato impostato su zero. Inserire un valore di regolazione in base alla stagione ed impostare l'indicatore di nuovo su  . Il LED si spegnerà.
	20. Cortocircuito nella stazione.	Un cortocircuito nel cablaggio del solenoide o della valvola ha disabilitato la stazione. Vedere le correzioni relative alla causa 9.

# INSTALLATIE

## I. KIES EEN LOCATIE

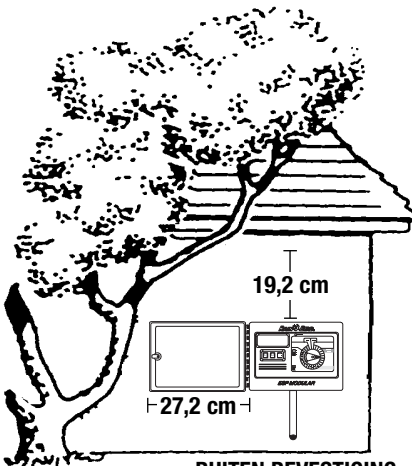


### INLEIDING

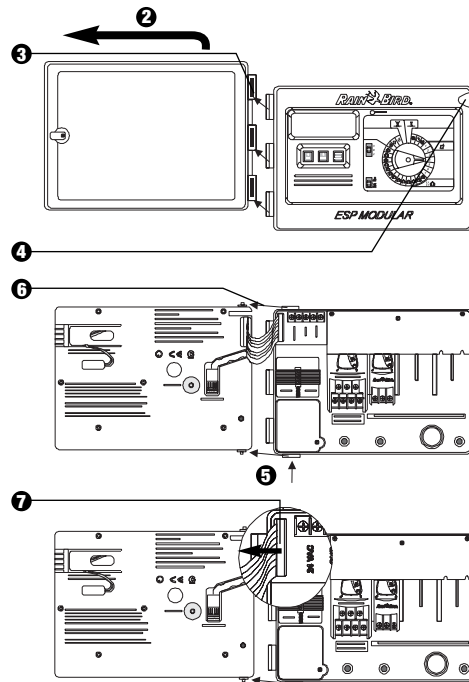
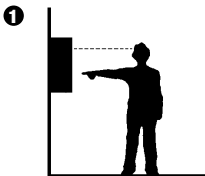
De ESP modulaire controller is een apparaat voor het timen van irrigatie voor huishoudelijk en licht commercieel gebruik.

De ESP modulaire controller IESP-4M is bedoeld voor gebruik binnen en buiten.

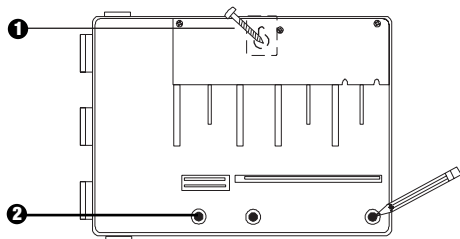
De basiseenheid ondersteunt vier kleppen en een startrelais voor de hoofdklep/pomp. Met de toevoeging van optionele interne modules kan de ESP modulaire controller maximaal 12 kleppen ondersteunen, een extra klep en een startrelais voor de hoofdklep/pomp.



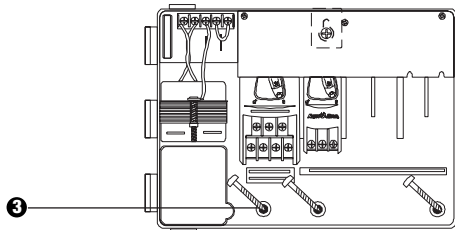
BUITEN BEVESTIGING  
AAN DE MUUR



## II. DE AUTOMAAT BEVESTIGEN

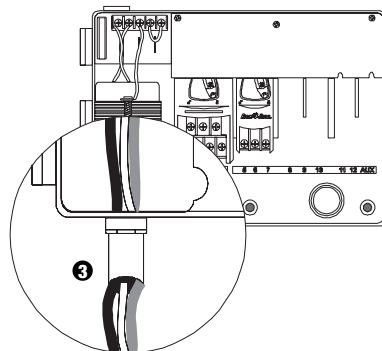
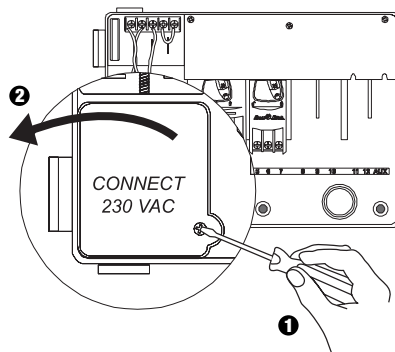


- 1 Installeer de juiste bevestigiger voor het soort muur voor de gleuf van het spiegelat. Hang de automaat op via de gleuf van het spiegelat.
- 2 Zet de automaat en de markeerpositie(s) van één of meer van de onderste bevestigingsgat(en) op één lijn.

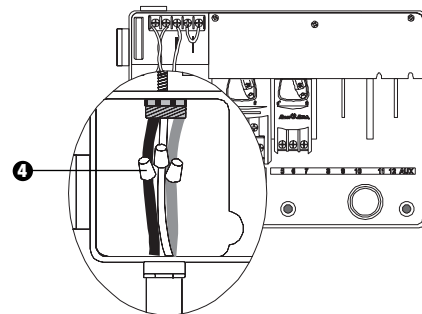


- 3 Drijf de juiste bevestigiger(s) in het onderste bevestigingsgat/de onderste bevestigingsgaten. Ga na dat het kastje goed vast zit.

## III. BEDRADING - STROOM



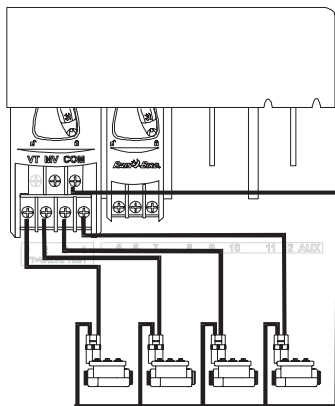
230 VAC  
Geschikt voor 1,3 cm  
buisshulstukken.



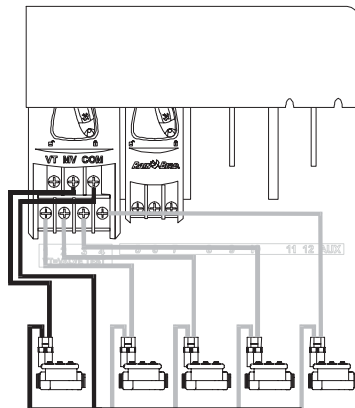
- 4 Met behulp van via een code goedgekeurde draadconnectors, sluit u de draden aan.
  - Bruin op bruin
  - Blauw op blauw
  - Groen/geel op groen/geel

**Opmerking:** De groen/gele aardingsdraden **MOETEN** aangesloten zijn om extra bescherming tegen stroomschommelingen te geven.

## IV. BEDRADING – ELEKTRISCHE KLEPPEN



Stationkleppen

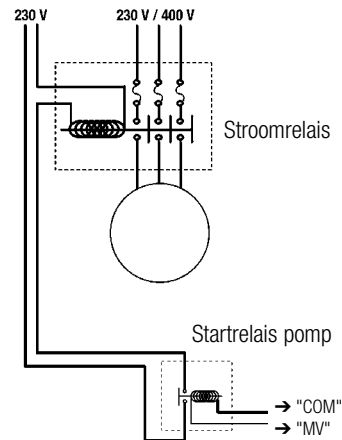


Hoofdklep

**Opmerking:** Voltooi deze sectie alleen, als uw systeem en hoofdpomp of een relais om de pomp te starten nodig heeft. De controller levert niet de hoofdstroom voor de pomp.

### Eindklem voor testen klep

De eindklem voor testen klep (Valve Test Terminal – VT) levert een constante uitvoer van 24 Volt (bij gebruik van AC-stroom) die kan worden gebruikt om de bedrading van de stationsklep snel te controleren.

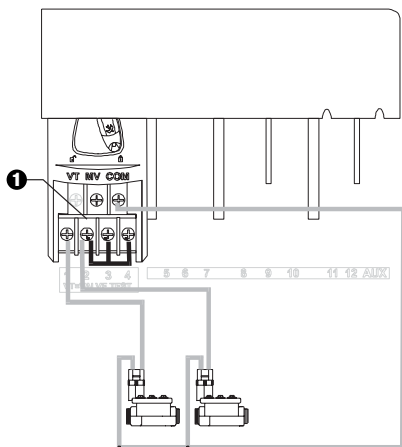


### De pomp starten

De aansluitklem met het label MV wordt gebruikt om een pomp automatisch te starten met een relais of een hoofdklep te openen. De MV-eindklem levert alleen stroom, wanneer één van de stations werkt.

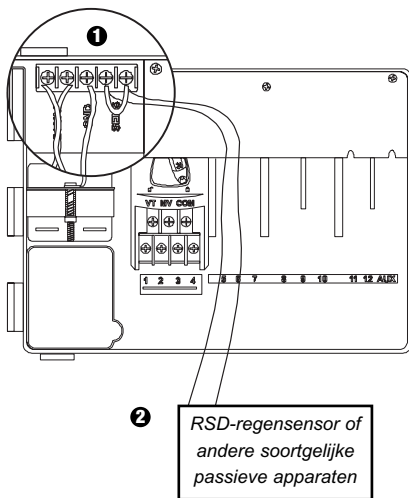
Aanbevolen relais: FINDER 55 32 80 24, HAGER ES-224, TELEMECANIQUEGC 1610B5 of equivalent.

## V. INSTELLING DOORVERBINDING VOOR ONGEBRUIKTE STATIONS



- 1** **VOORZICHTIG:** Om te voorkomen dat de pomp beschadigd wordt, wanneer u een relais om de pomp te starten gebruikt, gebruikt u een doorverbinding om ongebruikte stations aan te sluiten op een station dat gebruikt wordt. Als ongebruikte stations niet doorverbonden worden en ze worden per ongeluk ingeschakeld, kan de pomp zonder waterstroming werken. Dit kan resulteren in een oververhitte of doorgebrande pomp.

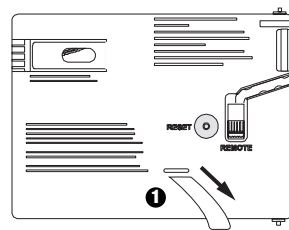
## VI. SENSOR-OPTIE



- 1** Als u geen sensor op de controller aansluit, zorg er dan voor dat de meegeleverde doorverbinding geïnstalleerd is op de SENS-eindklemmen.
- 2** Sensors voor regen of vocht dienen NIET aangesloten te worden op deze eindklemmen, maar dienen alleen in serie met de COM-eindklem te worden aangesloten.

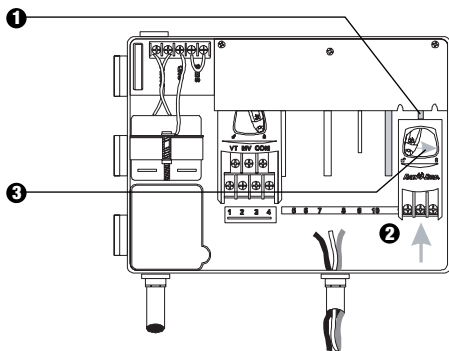
**2** *RSD-regensensor of andere soortgelijke passieve apparaten*

## VII. BACK-UP BATTERIJ



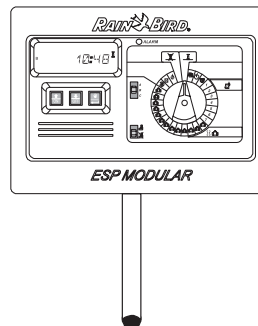
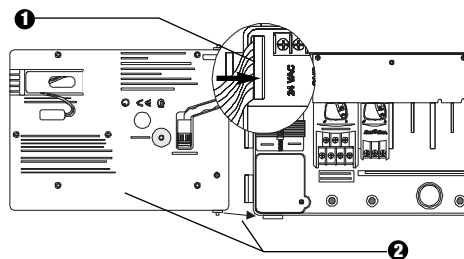
- 1** Trek hieraan om deze te verwijderen.

## VIII. MODULES INSTALLEREN (voor extra kleppen)





- 1 U kunt optionele modules in elke mogelijke positie installeren terwijl de automaat werkt.
- 2 Steek module in een willekeurige open gleuf, waarbij u ervoor zorgt dat de hendel in de onvergrendelde positie staat.
- 3 Maak de module goed vast door de hendel naar rechts te schuiven.

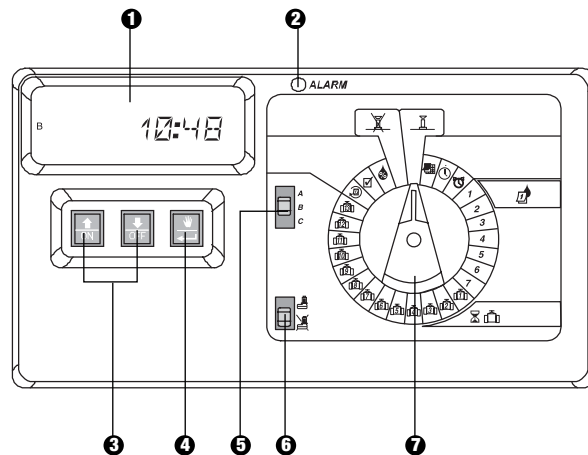
## IX. DE INSTALLATIE VOLTOOIEN



## REGELKNOPPEN EN SCHAKELAARS

De illustratie rechts toont de regelknoppen, schakelaars en indicators op de ESP modulaire controller, waaronder:

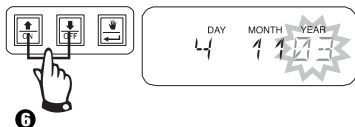
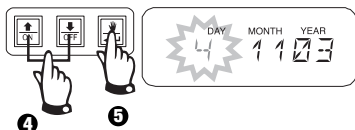
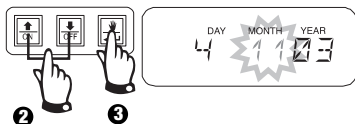
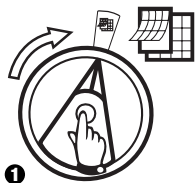
- 1 LCD** – tijdens normale bediening wordt hierop het tijdstip weergegeven. Tijdens programmeren toont dit de resultaten van uw opdrachten. Tijdens bewatering toont de klep die wordt bewaterd en de minuten dat dit nog doorgaat.
- 2 Alarm LED** – gaat aan wanneer een van de volgende condities optreden:
  - Bewatering wordt door een sensor opgeschort
  - De controller merkt kortsluiting in een klep op
  - Men heeft een programmeerfout gemaakt
- 3 Knoppen naar boven-naar beneden, ON-OFF** – gebruikt om programma-instellingen naar boven of beneden aan te passen of bewateringsdagen in (ON) of uit (OFF) te schakelen.
- 4 Knop voor handmatige start/vooruitgaan** –  (handmatige start) wordt gebruikt om een irrigatieprogramma of stationklep(pen) handmatig te starten.  (Vooruitgaan) wordt gebruikt om programmastappen te doorlopen of waarden in te stellen.
- 5 Schuifschakelaar voor programma** – gebruikt om bewateringsprogramma A, B of C te selecteren.
- 6 Schakelaar om sensor te passeren** – gebruikt om de automaat input van een optionele sensor te laten gehoorzamen (  ) of te negeren (  ).
- 7 Programmeerdraaischijf** – gebruikt om de controller in en uit te schakelen en voor programmering.



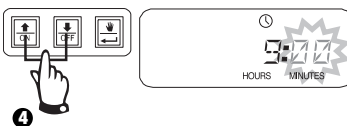
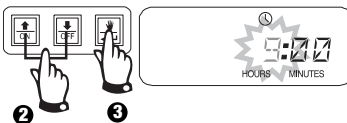
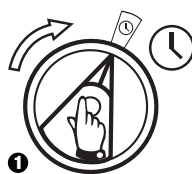


# PROGRAMMEREN

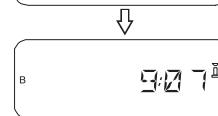
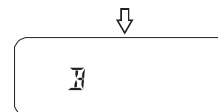
## I. DE HUIDIGE DATUM INSTELLEN



## II. DE HUIDIGE TIJD INSTELLEN



## III. PROGRAMMA SELECTEREN

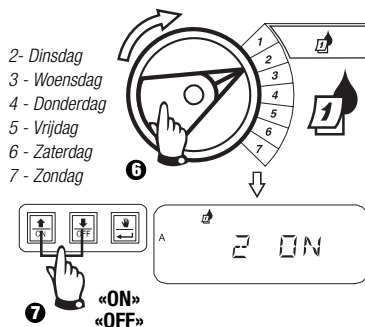
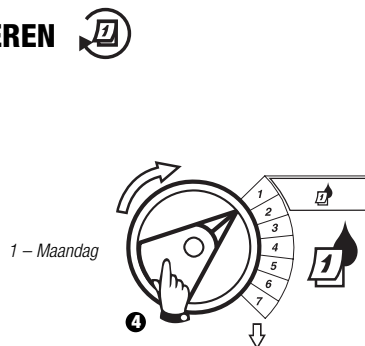
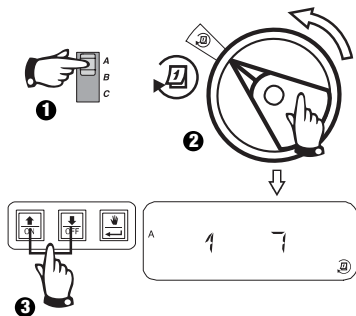


## IV. BEWATERINGSCYCLUS SELECTEREN

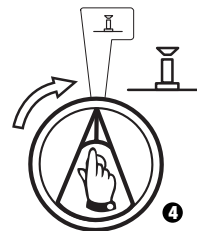
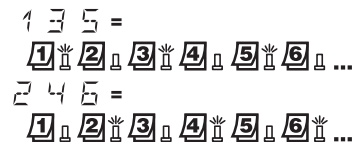
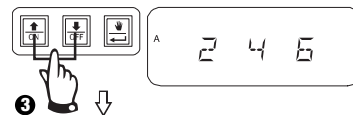
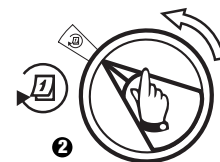
Elk programma kan in één van vier bewateringscycli werken. Selecteer de cyclus die u nodig hebt en volg de overeenkomstige instructies.

- 1 7:** Bewatert op de dagen van de week die u selecteert.
- 2 4 6:** Bewatert op even dagen van de kalender.
- 1 3 5:** Bewatert op oneven dagen van de kalender.
- 1 31:** Bewatert op een geselecteerde \_\_\_\_ dag interval (bijvoorbeeld om de dag of om de drie dagen et cetera)

### A.1 7 (Bewatert op de dagen van de week die u selecteert)



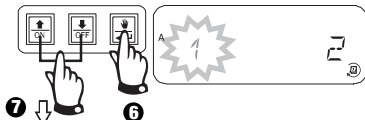
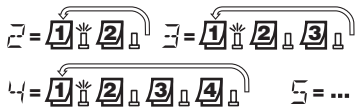
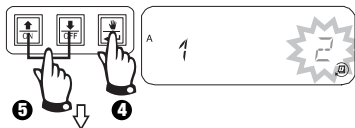
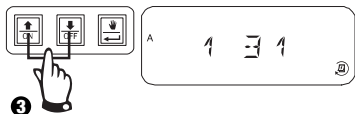
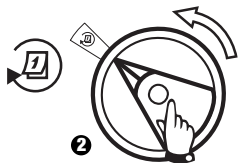
## B. 2 4 6 / 1 3 5 (even/oneven dagen van de kalender)



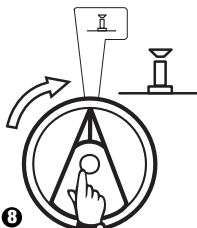
## IV. BEWATERINGSCYCLUS SELECTEREN (vervolg)



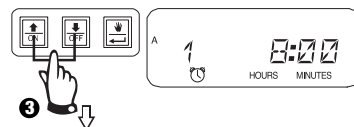
### C. 1 31 (cyclisch)



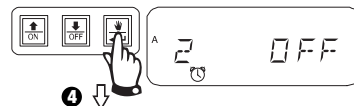
- $\overline{\text{ON}}$  = bewateringscyclus begint vandaag
- $\overline{\text{1}}$  = bewateringscyclus begint morgen
- $\overline{\text{2}}$  = bewateringscyclus begint twee dagen na vandaag
- $\overline{\text{3}}, \overline{\text{4}}, \dots$  = bewateringscyclus begint \_\_\_ dagen na vandaag



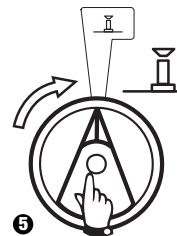
## V. DE STARTTIJDEN VOOR BEWATERING INSTELLEN



Om een starttijd voor bewatering op te heffen drukt u of totdat de instelling "OFF" tussen 23:45 en 0:00H wordt weergegeven.



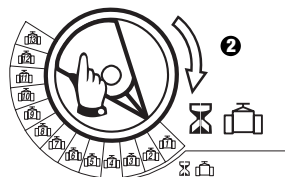
Om extra starttijden voor dit programma in te stellen drukt u om de volgende starttijd te laten weergegeven. Herhaal dit als dit nodig is.



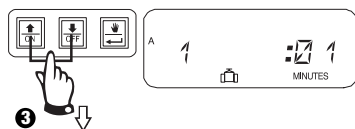
## VI. DE DUUR VAN BEWATEREN DOOR DE KLEP INSTELLEN



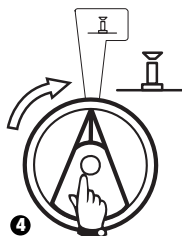
U kunt een klep instellen om te werken van 0 tot 6 uur (stappen van 1 minuut voor de eerste uur, stappen van tien minuten voor de rest).



**Opmerking:** Als u de draaischijf draait op een klepnummer waarbij er geen module geïnstalleerd is, wordt de boodschap "NO 5 - 8", "NO 9 - 10", "NO 11 - 13" op het display weergegeven.



Gebruik deze om de duur waarop het systeem werkt te verlengen of te verkorten. Als u niet wilt dat de klep gedurende het geselecteerde programma bewaert, stel u de werkingsduur in op 0. Herhaal 2 - 3 voor het geselecteerde programma. Herhaal 1 - 3 zoals nodig is voor de programma's B of C.

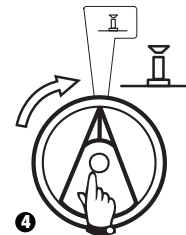
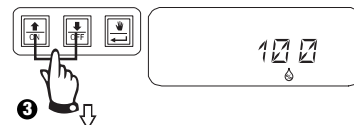
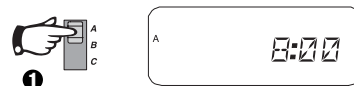


**Voorzichtig:** Als de werkingsduur voor alle kleppen ingesteld is op 0, zal de alarm-LED in geschakeld worden.

## VII. AANPASSINGSPERCENTAGE VOOR SEIZOEN INSTELLEN (waterbudget)



Deze functie stelt u in staat de algemene tijdsduur dat het systeem werkt voor alle kleppen met een geselecteerd percentage in te stellen. U kunt het percentage instellen van 0 - 200%. Deze instelling zal invloed hebben op ALLE programma's in het algemeen.

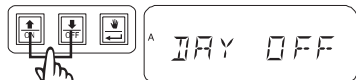
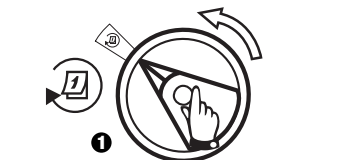


Het percentage voor de seizoenaanpassing wordt berekend aan de hand van de normale geprogrammeerde werkingsduur voor elke klep. Als klep 1 bijvoorbeeld ingesteld is om 10 minuten te werken en u stelt deze in op 120%, zal klep 1 gedurende 12 minuten werken.

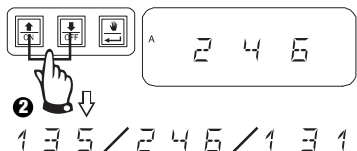
**Voorzichtig:** Als er een waarde wordt ingevoerd die hoger is dan de standaard waarde van 100%, zal het worden weergegeven in de modus AUTO om de waarden voor de werkingsduur aan te duiden.

## VIII. VASTE DAG UIT INSTELLEN

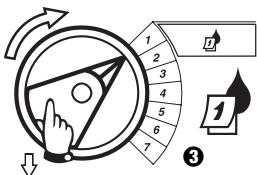
Voor 2 4 6 (even)/1 3 5 (oneven)/1 3 1 (cyclische) bewateringscycli kunt u een dag van de week instellen als een dag waarop niet bewaterd zal worden om tegemoet te komen aan beperkingen of andere eisen.



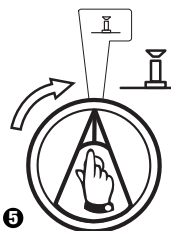
**4** Druk op OFF om deze in te stellen als een dag waarop niet bewaterd moet worden. Druk op ON om bewatering te herstellen.



Deze functie is van toepassing op 2 4 6 (even)/1 3 5 (oneven)/1 3 1 (cyclische) bewateringscycli.

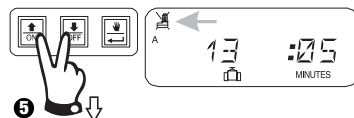
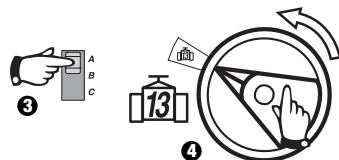
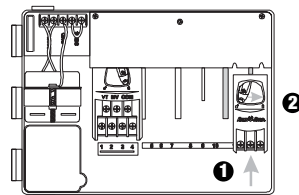


Selecteer de dag van de week.

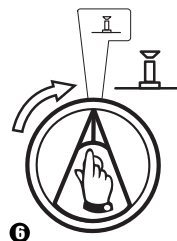


## IX. BEDIENING VAN DE HULPKLEP

De eindklep van de extra klep (klep 13) kan als een normaal station werken of kan zo geprogrammeerd worden dat deze geen invloed ondervindt van een geactiveerde sensor. Wanneer op deze manier geprogrammeerd, kan de hulpeindklep gebruikt worden om niet-irrigatie apparatuur zoals fontein en in de patio of belichting van een landschap aan te sluiten.

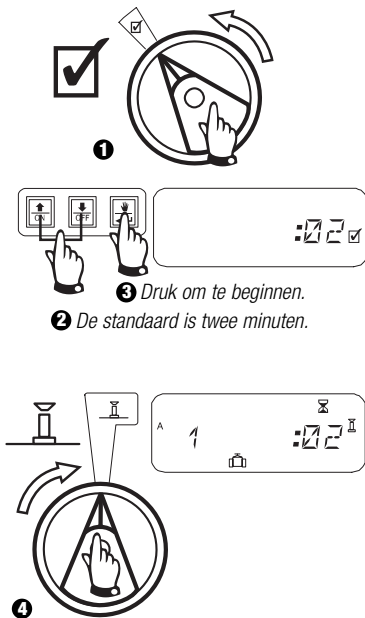


Druk  $\uparrow$  en op hetzelfde moment  $\downarrow$  totdat de  wordt weergegeven, wat erop duidt dat deze klep geen invloed van de sensor ondergaat. Om te herstellen drukt u opnieuw op beide knoppen, totdat de  verdwijnt.

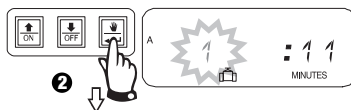
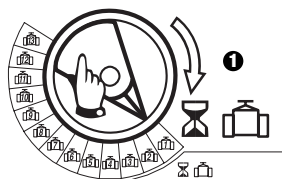


## X. ALLE KLEPPEN TESTEN

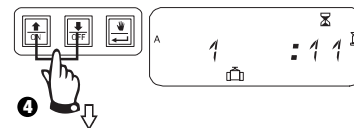
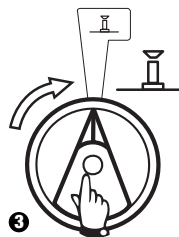
Deze functie zal alle bevestigde kleppen na elkaar laten werken gedurende de ingestelde tijdsduur. De standaard is twee minuten.



## XI. DE KLEP(PEN) HANDMATIG LATEN WERKEN



Herhaal de stappen 1 – 2 om extra kleppen handmatig te starten.



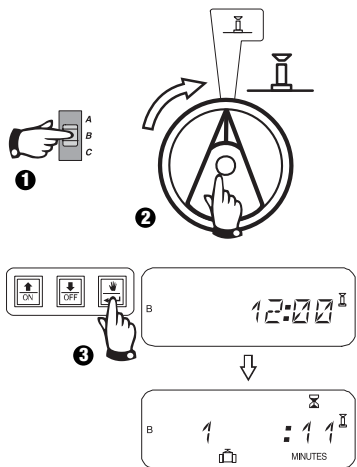
U kunt handmatig de tijdsduur waarop de klep(pen) werkt/werken naar boven of naar beneden instellen.

Om te annuleren draait u de draaischijf naar drie seconden. Breng de draaischijf terug naar.

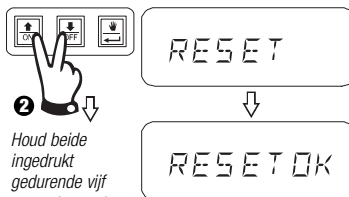


Het systeem zal de huidige tijd afbeelden nadat de handmatige bewatering voltooid is.

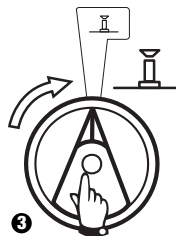
## XII. HET PROGRAMMA HANDMATIG LATEN WERKEN












## XIII. ALLE PROGRAMMA-INFORMATIE WISSEN



Houd beide ingedrukt gedurende vijf seconden totdat het bericht "RESET OK" wordt afgebeeld. Laat ze ook weer los.








## PROBLEEM OPLOSSEN



SYMPTOOM	MOGELIJKE OORZAAK	CORRECTIE
Programma gaat niet automatisch aan.	1. Draaischijf staat mogelijk in de positie  .	Zet de draaischijf op  .
	2. Starttijd is voor het programma niet ingevoerd.	Zet de draaischijf op  en controleer de starttijden ingevoerd voor het programma. Als de starttijd ontbreekt, voer hem dan in zoals beschreven op 90
	3. Mogelijk is het voor het programma vandaag geen bewateringsdag.	Selecteer het programma en draai de draaischijf naar  . Controleer de bewateringsdagen voor het programma.
	4. Functie "PermanentDay(s) Off" verhindert bewatering.	Als de functie "Permanent Day(s) Off" niet goed ingesteld is, is er geen correctie nodig. Om deze functie te wijzigen verwijzen wij u naar 92.
	5. Het percentage om voor het seizoen aan te passen is ingesteld op 0%.	Stel dit percentage in boven 0%. Zie de instructies op pagina 91.
Display toont dat er een klep werkt, maar dat er geen bewatering plaatsvindt.	6. Sensorsysteem verhindert irrigatie.	Draai de sensorschakelaar op  . Als het bewateren wordt hervat, werkt de sensor goed en is geen correctie nodig.
	7. Er is geen sensor of doorverbinding op de SENS-eindklemmen van de controller aangesloten en de sensorschakelaar is ingesteld op  .	Draai de sensorschakelaar op  . Om te voorkomen dat dit in de toekomst gebeurt, installeert u de bijgeleverde doorverbinding op de SENS-eindpunten van de controller.
Klep doet het niet	8. Er is geen werkingstijd ingesteld voor de klep.	Zet de draaischijf op het klepnummer en stel de programmaschakelaar zo in om de werkingstijd te controleren voor de klep in alle programma's.
	9. Kortsluiting in de elektromagneet of de klepbedrading heeft het station uitgeschakeld. (ALARM LED op de voorplaat is verlicht.)	Het display geeft de boodschap "# Err" weer, waarbij # het defecte klepnummer is. Bepaal en repareer de fout in het circuit. Als het bericht "MV Err" wordt weergegeven, repareert u de fout. Met de draaischijf op  drukt u op de knop  om de Alarm LED te wissen.



## PROBLEMEN OPLOSSEN

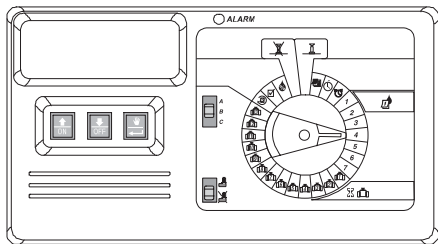
SYMPTOOM	MOGELIJKE OORZAAK	CORRECTIE
	10. Het sensorsysteem verhindert irrigatie	Zie correctie voor Oorzaak nr. 6.
	11. Starttijd is niet ingevoerd voor het programma waaraan de klep is toegewezen	Zie correctie voor Oorzaak nr.2.
	12. Seizoensaanpassing voor het programma van de klep is ingesteld op 0%.	Zie correctie voor Oorzaak nr. 5.
Display is gedeeltelijk of volledig leeg.	13. Een elektrische piek of blikseminslag heeft de elektronische circuits van de controller beschadigd.	Druk op de RESET-knop achter het voorpaneel. Als de elektrische piek geen permanente schade heeft veroorzaakt, zal de controller programmeeropdrachten accepteren en normaal functioneren.
Bewatering start wanneer dit niet het geval moest zijn.	14. Toets  is ingedrukt.	Om een programma te annuleren dat handmatig gestart is, stelt u de draaischijf gedurende drie seconden in op  . Zet de draaischijf vervolgens terug op  .
	15. Mogelijk is er een ongewenste starttijd ingevoerd.	Zet de draaischijf in op  en controleer om te zien of er mogelijk programma's een ongewenste starttijd hebben. Zie pagina 90 voor instructies over het instellen en opheffen van starttijden.
	16. Mogelijk zijn de programma's op elkaar gestapeld.	Programma's zullen achter elkaar gestapeld worden als ze volgens de planning moeten starten als er een ander programma werkt. Zorg ervoor dat de programma's A, B en C niet gepland zijn om te starten wanneer er een andere programma gepland is.
Alarm LED is aan.	17. Geen starttijd.	Alle starttijden zijn verwijderd. Voer op zijn minst één starttijd in en zet de draaischijf terug op  . De LED zal uitgaan.

## PROBLEMEN OPLOSSEN

SYMPTOOM	MOGELIJKE OORZAAK	CORRECTIE
	18. Geen werktijden	De standaard werkingsduur voor alle actieve kleppen van 10 minuten is verwijderd. Voer een werkingstijd in voor op zijn minste één actieve klep en zet de draaischijf terug op  . De LED zal uitgaan.
	19. Seizoenaanpassing is ingesteld op 0%.	Het waardepercentage van de seizoenaanpassing is op nul ingesteld. Voer een aanpassingswaarde voor het seizoen in en zet de draaischijf terug op  . De LED zal uitgeschakeld worden.
	20. Kortgesloten station	Een kortgesloten circuit in de elektromagneet of de klepbedrading heeft het station uitgeschakeld. Zie correctie voor Oorzaak nr. 9.

# INSTALAÇÃO

## I. ESCOLHER LOCALIZAÇÃO INSTALAÇÃO

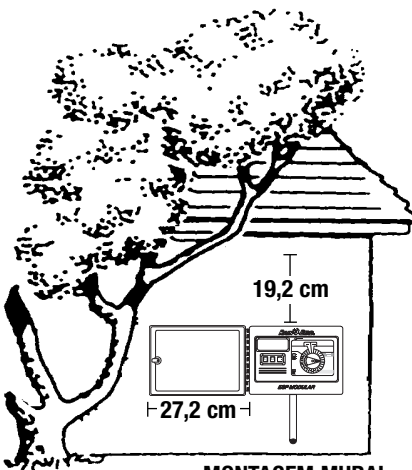


### INTRODUÇÃO

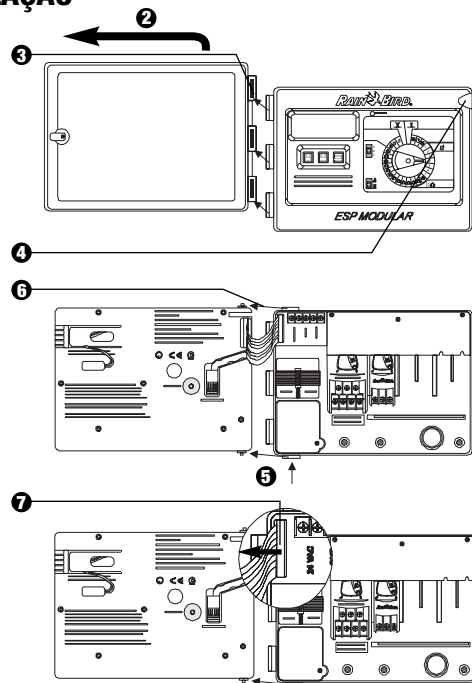
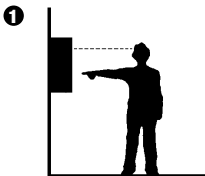
O Programador ESP Modular é um dispositivo temporizador de rega para uso residencial e comercial ligeiro.

O programador ESP Modular IESP-4M é para uso externo e interno.

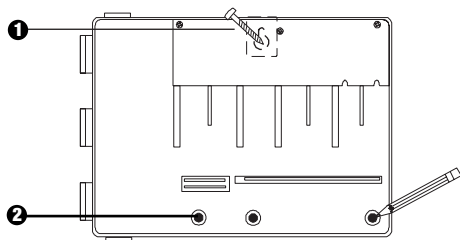
A unidade base suporta quatro válvulas e um relé de arranque de Válvula Mestre / Bomba. Com o acréscimo de módulos internos opcionais, o ESP Modular pode suportar até 12 válvulas, uma válvula auxiliar e um relé de arranque de Válvula Mestre / Bomba.



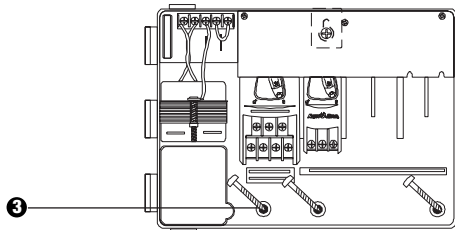
MONTAGEM MURAL EXTERIOR



## II. MONTAR O PROGRAMADOR

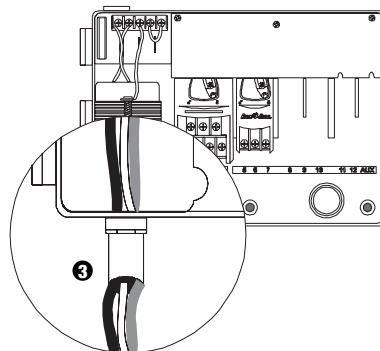
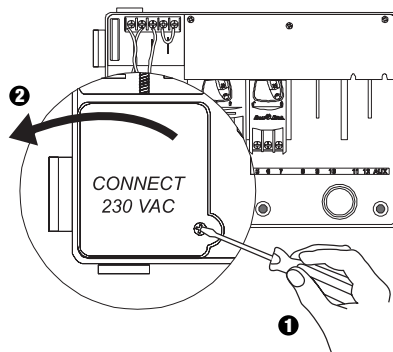


- 1 Instalar o parafuso apropriado para o tipo de parede e respectivo orifício no programador. Pendurar o programador pelo orifício.
- 2 Nivelar o programador e marcar um ou mais dos orifícios de montagem inferiores.

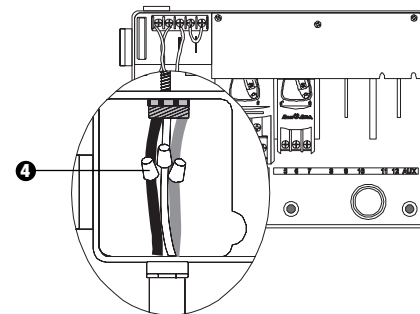


- 3 Introduzir o(s) parafuso(s) apropriado(s) no(s) orifício(s) de montagem. Verificar se o programador está seguro.

## III. CABLAGEM – CORRENTE



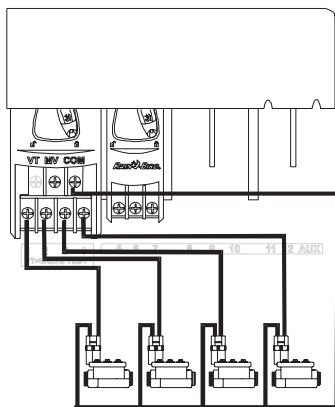
230 VAC  
Adapta-se a acessórios de 1,3 cm



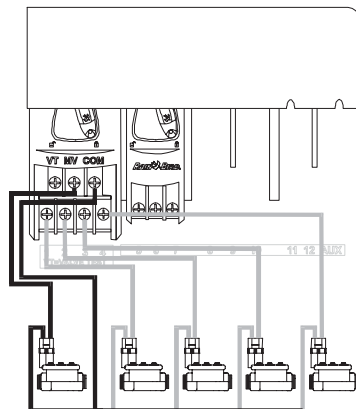
- 4 Utilizando um conector de cabo com código de aprovação, liga os cabos:
  - Castanho a castanho
  - Azul a azul
  - Verde/Amarelo a verde/amarelo

**Nota:** Os cabos de terra verde/amarelo **DEVEM** ser ligados para fornecer proteção adicional contra sobrecarga elétrica.

## IV. CABLAGEM – ELECTROVÁLVULAS



Válvulas de estação

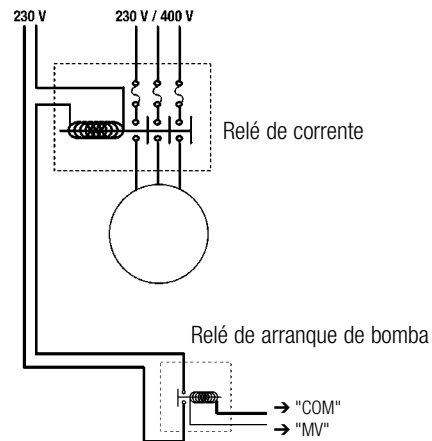


Válvula Mestra

**Nota:** Complete esta secção somente se o seu sistema exigir uma válvula mestra ou um relé de arranque de bomba. O programador não fornece a potência directamente para a bomba.

### Terminal de Teste de Válvulas

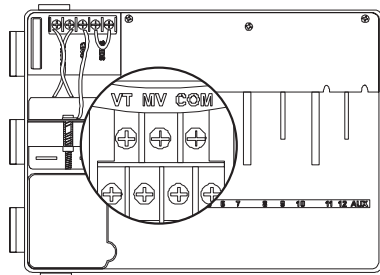
O Terminal de Teste de Válvulas (VT) fornece uma saída constante de 24 V (com potência AC aplicada) que pode ser utilizado para rapidamente verificar a ligação das válvulas



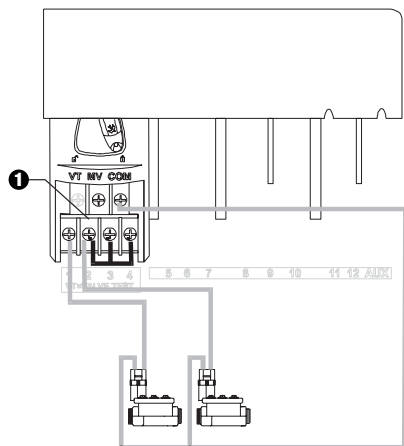
### Arranque de Bomba

O terminal sinalizado MV é utilizado para arrancar automaticamente uma bomba com um relé ou para abrir uma válvula mestra. O terminal MV fornece corrente apenas quando uma das estações está a funcionar.

Relés recomendados : FINDER 55 32 80 24, HAGER ES-224, TELEMECANIQUEGC 1610B5 ou equivalente.



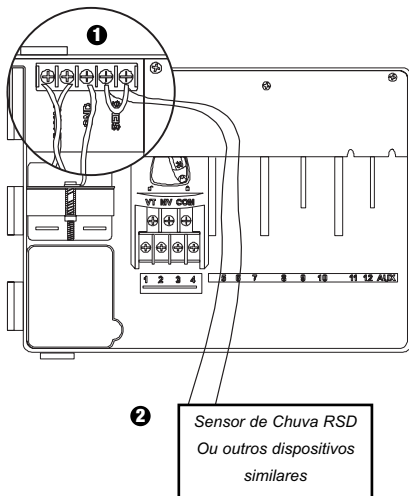
## V. LIGAÇÕES PROVISÓRIAS PARA ESTAÇÕES NÃO UTILIZADAS



**1 CUIDADO:** Para evitar danos da bomba quando estiver a utilizar um relé de arranque de bomba, faça uma ponte para ligar as estações não utilizadas a uma estação que esteja em uso.

Se as estações não utilizadas não estiverem ligadas dessa forma, e forem activadas acidentalmente, a bomba pode funcionar sem caudal. Essa situação pode causar sobreaquecimento da bomba ou mesmo que arda.

## VI. OPÇÃO DE SENSOR

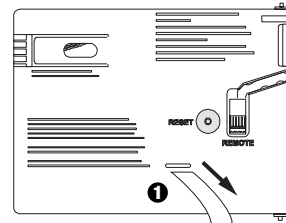


**2** Sensor de Chuva RSD  
Ou outros dispositivos  
similares

**1** Se não estiver um sensor ligado ao programador, certifique-se que o cabo de ponte fornecido está instalada nos terminais SENS.

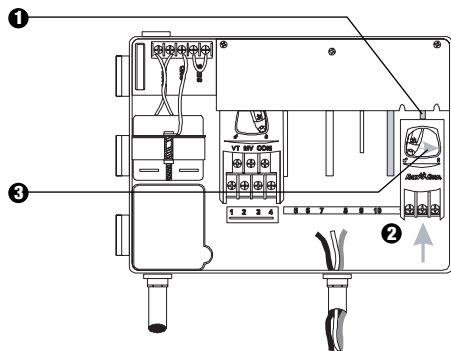
**2** Rain Check ou Sensores de Humidade NÃO devem ser ligados nestes terminais, devem ser ligados somente em série com o terminal COM.

## VII. RESERVA DE PILHA



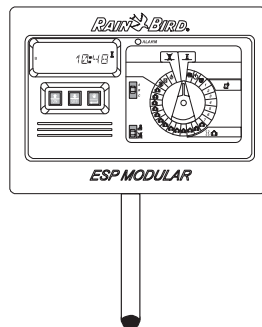
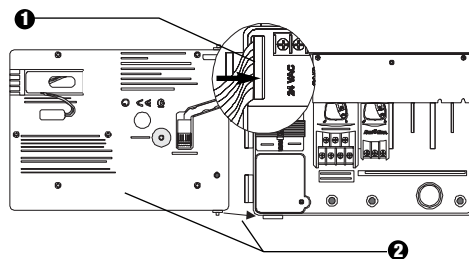
**1** Puxar para remover.

## VIII. INSTALAR MÓDULOS (para válvulas adicionais)







- 1** Pode instalar módulos opcionais em qualquer posição e mesmo enquanto o programador estiver ligado à corrente, a funcionar.
- 2** Inserir o módulo em qualquer cavidade vazia, certificando-se que o fecho está na posição desbloqueado.
- 3** Bloquear o módulo no local, deslizando o fecho para a direita.

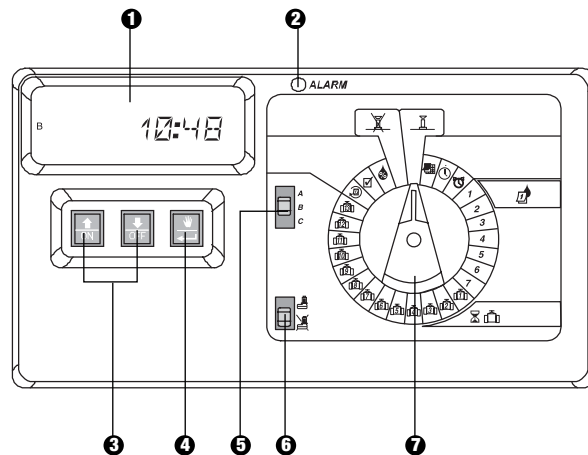
## IX. TERMINAR A INSTALAÇÃO



## CONTROLOS E INTERRUPTORES

A figura à direita apresenta os controlos, interruptores e indicadores no programador ESP Modular, incluindo:

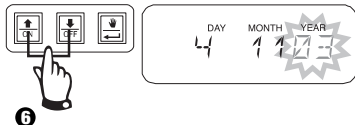
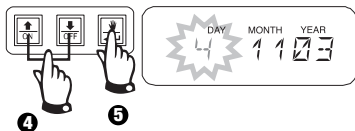
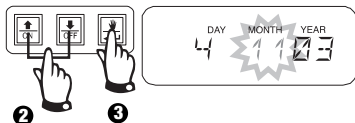
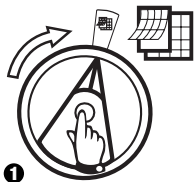
- 1 LCD** – durante o funcionamento normal, apresenta a hora; durante a programação, apresenta os resultados dos seus comandos; durante a rega, mostra a válvula que está a regar e o tempo que resta em minutos para essa válvula terminar o seu período de funcionamento.
- 2 LED de Alarme** – acende-se quando ocorre uma das seguintes situações:
  - Sensor suspendeu a rega
  - O programador detectou um curto circuito numa válvula
  - Ocorreu um erro de programação.
- 3 Botões Up-Down e ON-OFF** – utilizados para ajustar configurações dos programas para cima ou para baixo, ou LIGAR- DESLIGAR dias de rega.
- 4 Botão Arranque Manual / Avançar** –  (Arranque Manual) é utilizado para iniciar um programa de rega ou válvula(s) de estação manualmente.  (Avançar) é utilizado para passar pelos vários passos de programação ou para definir valores
- 5 Interruptor de Programa** – utilizado para seleccionar o programa de rega A, B, ou C.
- 6 Interruptor de Bypass do sensor** – utilizado para comunicar ao programador para obedecer () ou ignorar () informação de um sensor opcional.
- 7 Selector de Programação** – utilizado para ligar e desligar o programador e para programar.



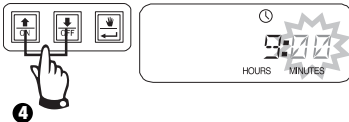
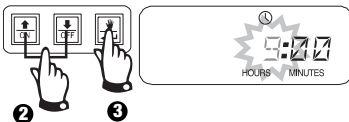
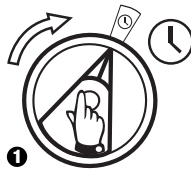


# PROGRAMAÇÃO

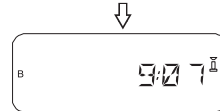
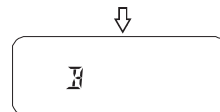
## I. DEFINIR A DATA ACTUAL



## II. DEFINIR A HORA ACTUAL



## III. SELECIONAR PROGRAMA

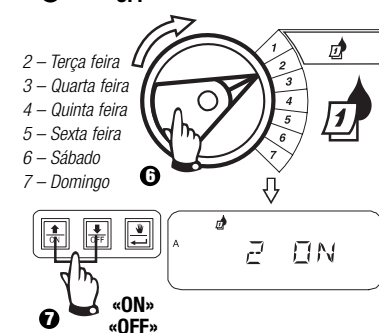
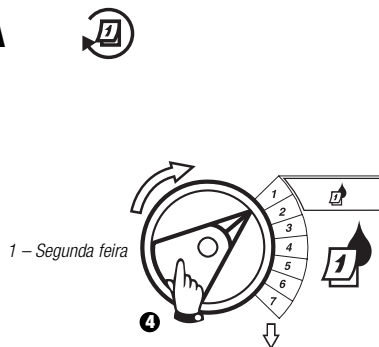
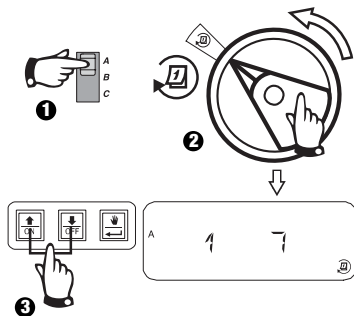


## IV. SELECCIONAR CICLO DE REGA

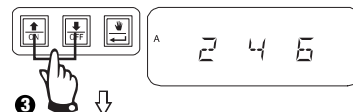
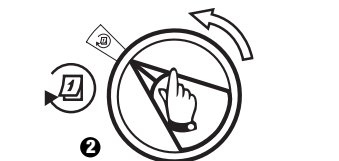
Cada programa pode funcionar num de quatro ciclos de rega. Seleccionar o ciclo que pretende e seguir as instruções correspondentes.

- 1 7:** Rega nos dias da semana que seleccionar.
- 2 4 6:** Rega nos dias pares do calendário.
- 1 3 5:** Rega nos dias ímpares do calendário.
- 1 31:** Regar em cada \_\_\_ dia (ou seja, dia sim dia não, a cada terceiro dia, etc.)

### A. 1 7 (Personalizar / Dia da Semana)

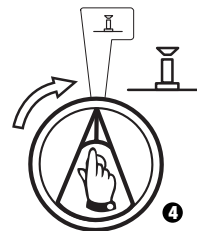


## B. 2 4 6 / 1 3 5 (Dias Pares/Ímpares do Calendário)



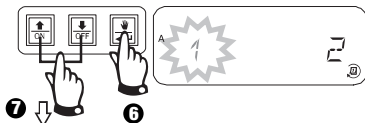
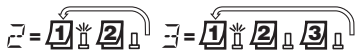
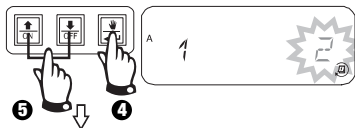
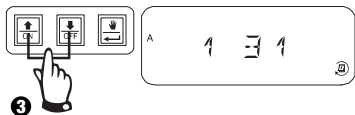
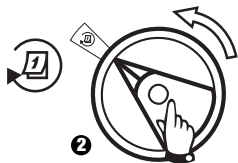
1 3 5 =  
 1 1 2 1 3 1 4 1 5 1 6 1 ...

2 4 6 =  
 1 1 2 1 3 1 4 1 5 1 6 1 ...

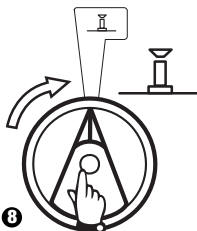


## IV. SELECIONAR CICLO DE REGA (continuação)

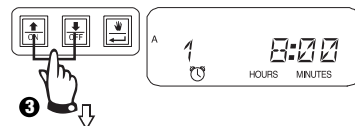
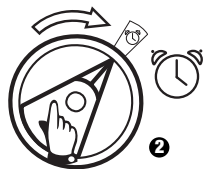
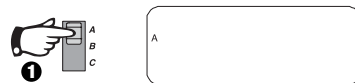
### C. 1 31 (Cíclico)



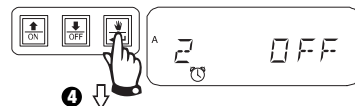
- = Ciclo de rega começa hoje
- = Ciclo de rega começa amanhã
- = Ciclo de rega começa em 2 dias a partir de hoje
- , ... = Ciclo de rega começa em \_\_ dias a partir de hoje



## V. DEFINIR HORAS DE ARRANQUE DE PROGRAMA

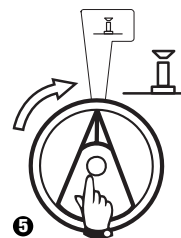


Para eliminar uma hora de início de arranque de rega, pressionar ou até que a configuração "OFF" (Desligado) entre 23:45 e 0:00H apareça.



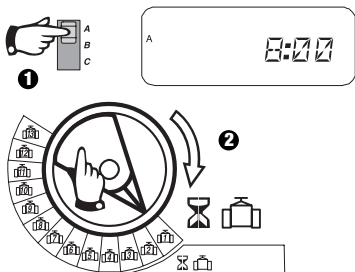
Para definir horas de arranque adicionais para este programa, pressionar para visualizar a próxima hora de arranque.

Repetir conforme necessário.

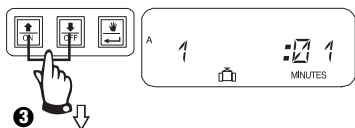


## VI. DEFINIR TEMPO DE REGA DAS VÁLVULAS

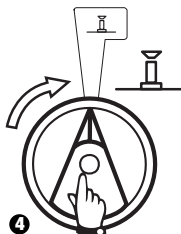
Pode ajustar qualquer válvula para funcionar de 0 a 6 horas ( incrementos de 1 minuto para a primeira hora, incrementos de 10 minutos para as demais).



**Nota:** Se ajustar o selector para o número de uma válvula sem nenhum módulo instalado, aparece no ecrã a mensagem "NO 5 - 7" (Sem 5-7), "NO 8 - 10" (Sem 8-10), "NO 11 - 13" (Sem 11-13).



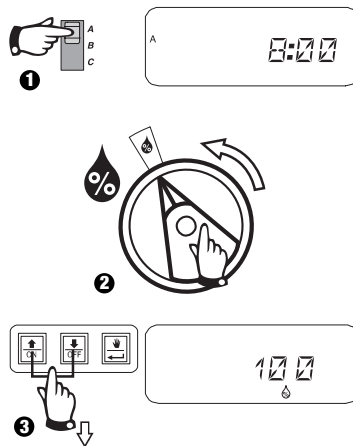
Use as setas Up ou Down (Para Cima ou Para Baixo) para ajustar o tempo de rega. Se não pretende que a válvula regue para o programa selecionado, ajuste o tempo de rega para 0. Repetir 2-3 para o programa selecionado. Repetir 1-3 caso necessário para os programas B ou C.



**Cuidado:** Se os tempos de rega de todas as válvulas estiverem ajustados para 0, o alarme LED acende-se.

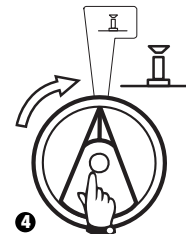
## VII. DEFINIR AJUSTE SAZONAL % (Water Budget)


Esta função permite aumentar ou diminuir os tempos de rega de todas as válvulas em simultâneo, introduzindo uma percentagem. Pode definir a % de 0 a 200%. Esta configuração irá influenciar TODOS os programas em conjunto.



Utilize as setas ↑ ou ↓ (Para Cima ou Para Baixo) para ajustar o tempo. O padrão é 100%.

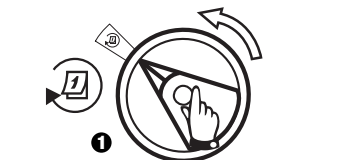
O ajuste sazonal % é calculado nos tempos de rega normais programados para cada válvula. Por exemplo, se a válvula 1 está ajustada para regar 10 minutos, e a configura para 120%, esta irá regar 12 minutos.



**Cuidado:** Se for introduzido um valor diferente do padrão de 100%, o  será visualizado em modo AUTO para indicar que os valores de tempo de rega estão ajustados %.

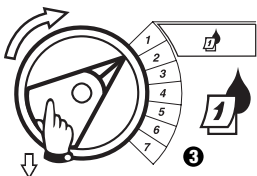
## VIII. DEFINIR DIA PERMANENTEMENTE DESLIGADO (OFF)

Para ciclos de rega 2 4 6 (Pares) / 1 3 5 (Impares) / 1 3 1 (Cíclico), pode definir qualquer dia da semana como dia de sem rega, para corresponder a restrições ou outras exigências.

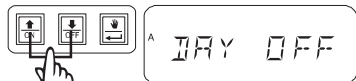


1 3 5 / 2 4 6 / 1 3 1

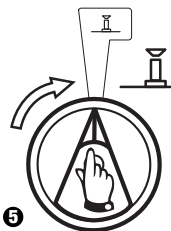
Esta característica aplica-se a ciclos de rega 2 4 6 (Pares) / 1 3 5 (Impares) / 1 3 1 (Cíclicos).



Seleccionar dia da semana

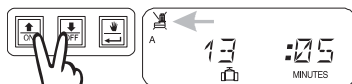
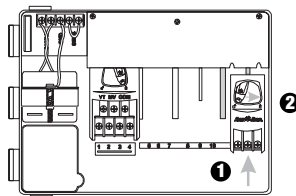




4 Pressionar OFF (Desligar) para configurar como dia sem rega. Pressionar ON (ligar) para retomar a rega.



## IX. FUNCIONAMENTO DA VÁLVULA AUXILIAR 13

O terminal de válvula Auxiliar (válvula 13) pode funcionar como uma estação normal ou pode ser programado de forma a não ser afectado por um sensor activo. Quando programado desta forma, o terminal auxiliar pode ser utilizado para ligar equipamento que não seja de rega, como fontes ou iluminação.

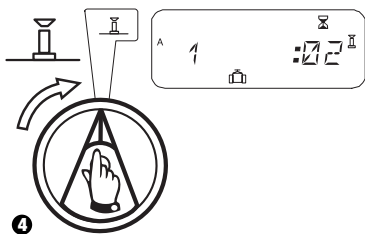


5 Pressione ↑ e ↓ ao mesmo tempo até que seja visualizado , indicando que esta válvula não é afectada pelo sensor. Para restaurar, pressione os dois botões novamente, até que o  desapareça.

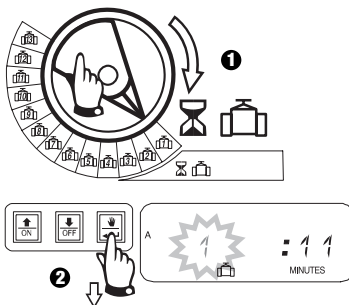


## X. TESTAR TODAS AS VÁLVULAS

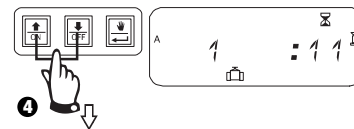
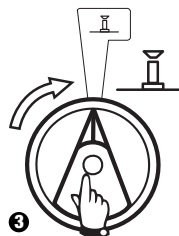
Esta função activa todas as válvulas sequencialmente durante o período de tempo definido. O padrão são 2 minutos .





## XI. ARRANCAR A(S) VÁLVULA(S) MANUALMENTE



Repetir os passos 1 - 2 para arrancar manualmente válvulas adicionais.



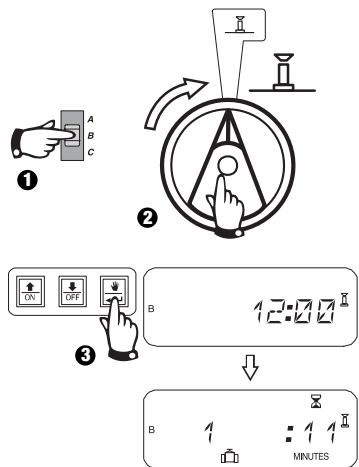
Pode ajustar o tempo de rega manual ↑ ou ↓ (para cima ou para baixo).

Para cancelar, girar o selecto para  durante 3 segundos. Voltar com o selector para .

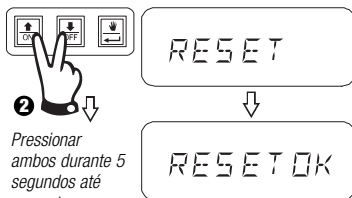


Depois da rega manual estar completa, o sistema apresenta a hora actual.

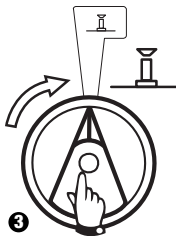
## XII. ARRANCAR PROGRAMA MANUALMENTE








## XIII. APAGAR TODA A INFORMAÇÃO DO PROGRAMA



Pressionar ambos durante 5 segundos até que seja visualizado "RESET OK".  
Soltar.





## RESOLUÇÃO DE PROBLEMAS







SINTOMA	CAUSA PROVÁVEL	CORREÇÃO
O programa não é acionado automaticamente.	1. O dial se encontra na posição OFF (DESLIGADO).	Coloque o dial na posição AUTO.
	2. Não foi definido o horário de início (Start Time) da rega para o programa.	Gire o dial para a posição  SET WATERING START TIMES (CONFIGURAR HORÁRIOS DE INÍCIO DA rega) e verifique os horários de início introduzidos para o programa. Se o horário de início (Start Time) estiver faltando, introduza o mesmo conforme descrito no página 106.
	3. Talvez hoje não seja um dia programado para a rega.	Selecione o programa e gire o dial para a posição  ADVANCED CYCLES (CICLOS AVANÇADOS). Verifique os dias de rega para o programa.
	4. O recurso de Dia(s) permanente(s) sem rega (Permanent(s)-Day-Off) está impedindo a rega.	Se este recurso foi configurado corretamente, não há necessidade de fazer correções. Para fazer alterações no recurso Dia(s) Permanente(s) (Permanent-Day(s)-Off), consulte a página 108.
	5. O percentual do ajuste sazonal (Seasonal Adjust) do programa está configurado em 0%.	Configure  o percentual de ajuste sazonal (Seasonal Adjust) acima de 0%. Consulte as instruções no página 107.
O display exibe a operação de uma válvula, mas não ocorre a rega.	6. O sistema do sensor está impedindo a rega.	Gire a chave do sensor para a posição  BYPASSED (DESVIADO). Se a rega reiniciar, o sensor está operando corretamente e nenhuma correção é necessária.
	7. Nenhum sensor ou jumper está conectado aos terminais SENS do controlador e a chave do sensor foi configurada em ACTIVE (ACTIVE).	Gire a chave do sensor para a posição  BYPASSED (DESVIADO). Para evitar ocorrências futuras, instale o jumper que veio incluído nos terminais SENS do controlador.
A válvula não é acionada.	8. Não foi configurado o tempo de rega (Run Time) para a válvula.	Gire o dial para posição do número de válvula e configure a chave de programação para verificar o tempo de rega (Run Time) da válvula em cada programa.



## RESOLUÇÃO DE PROBLEMAS

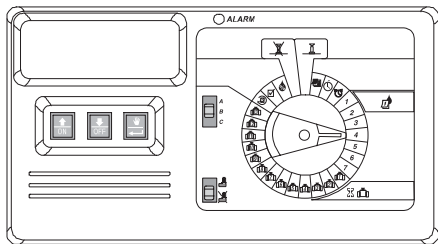
SINTOMA	CAUSA PROVÁVEL	CORREÇÃO
	9. Um curto-circuito na fiação da válvula ou solenóide desativou a estação. (O LED DE ALARME na placa frontal se encontra aceso.).	O display indicará “# Err,” onde # corresponde ao número da válvula com falha. Identifique e repare a falha no circuito. Em seguida, teste a válvula fazendo-a funcionar manualmente.
	10. O sistema do sensor está impedindo a rega.	Veja a correção para a causa No. 6.
	11. Não foi definido o horário de início (Start Time) da rega para o programa ao qual a válvula foi designada.	Veja a correção para a causa No. 2.
	12. O ajuste sazonal (Seasonal Adjust) para o programa da válvula está configurado em 0%.	Veja a correção para a causa No. 5.
O display aparece parcial ou completamente em branco.	13. Um surto elétrico ou raio danificou os componentes eletrônicos do controlador.	Pressione o RESET BUTTON (BOTÃO DE REINICIALIZAÇÃO). Se o surto elétrico não causou dano permanente, o controlador aceitará comandos de programação e funcionará normalmente. Se o controlador não operar corretamente, entre em contato com o Serviço de Assistência Técnica da Rain Bird.
A rega inicia quando não deveria.	14. A tecla  MANUAL START / ADVANCE (Partida Manual / Avançar) foi pressionada.	Para cancelar um programa inicializado manualmente, coloque o dial na posição “OFF” (Desligado) por três segundos. Em seguida, coloque o dial de volta para a posição “AUTO” (Automático).
	15. Um horário de início (Start Time) de rega indesejado pode ter sido introduzido.	Gire o dial para a posição  “SET WATERING START TIMES (Configurar horários de início da rega) e verifique se algum dos programas possui um horário de rega indesejado. Consulte o página 106 quanto às instruções para configurar e eliminar horários de rega.

## RESOLUÇÃO DE PROBLEMAS

SINTOMA	CAUSA PROVÁVEL	CORREÇÃO
	16. Os programas podem estar empilhados.	Os programas se acumulam um após o outro se houver a sobreposição do horário de rega na programação. Certifique-se de que os programas A, B e C não estejam programados para iniciar quando qualquer outro estiver programado. Consulte o Guia Básico do Modular ESP quanto às instruções para configurar os horários de início (Start Time) da rega.
O LED do alarme está aceso.	17. Não há horário para inicialização (Start Time) da rega.	Todos os horários de início (Start Time) da rega foram removidos. Introduza pelo menos um horário de início de rega e retorne o dial para a posição  AUTO. O  LED desligará.
	18. Não há horários definidos para a rega (Run Time).	O tempo de rega (Run Time) padrão de 10 minutos para todas as válvulas ativas foi removido. Introduza um horário de início de rega para pelo menos uma válvula ativa e retorne o dial para a posição  AUTO. O LED desligará.
	19. O  ajuste sazonal (Seasonal Adjust) está em 0%.	O valor da  percentagem do ajuste sazonal (Seasonal Adjust) foi configurado em zero. Introduza um valor de ajuste sazonal e retorne o dial para a posição  AUTO. O LED desligará.
	20. Estação em curto.	Um curto-circuito na fiação da válvula ou solenóide desativou a estação. Veja a correção para a causa No. 9.

# ΕΓΚΑΤΑΣΤΑΣΗ

## I. ΕΠΙΛΟΓΗ ΤΟΥ ΧΩΡΟΥ

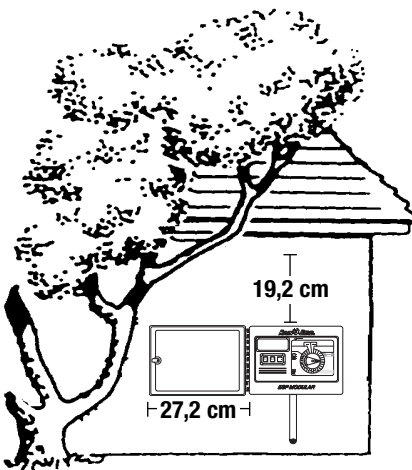


### ΕΙΣΑΓΩΓΗ

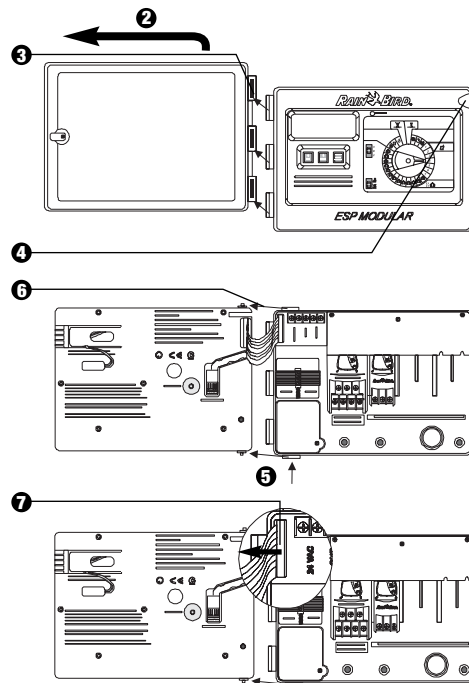
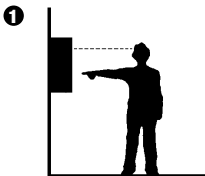
Το σύστημα ελέγχου ESP είναι ένα timer για το πότισμα, για ιδιωτική και ελαφρά επαγγελματική χρήση.

Το σύστημα ελέγχου ESP - IESP-4M είναι και για εσωτερική και για εξωτερική χρήση.

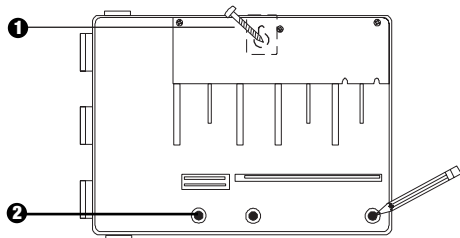
Η βασική του μονάδα στηρίζει 4 βαλβίδες και μια γενική βαλβίδα/αντλία αναμεταδότη εκκίνησης. Με την προσθήκη μιας επιπλέον εσωτερικής συσκευής, το σύστημα ESP μπορεί να υποστηρίξει 12 βαλβίδες, μια βοηθητική βαλβίδα και μια γενική βαλβίδα/αντλία αναμεταδότη.



### ΕΞΩΤΕΡΙΚΗ ΕΓΚΑΤΑΣΤΑΣΗ ΣΤΟΝ ΤΟΙΧΟ

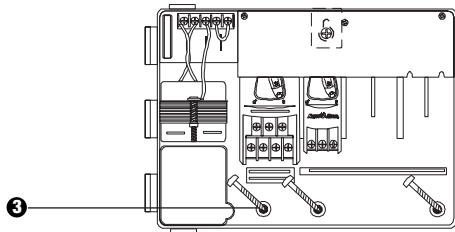


## II. ΣΥΝΑΡΜΟΛΟΓΗΣΗ ΤΗΣ ΣΥΣΚΕΥΗΣ



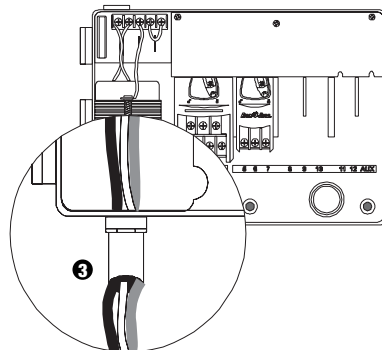
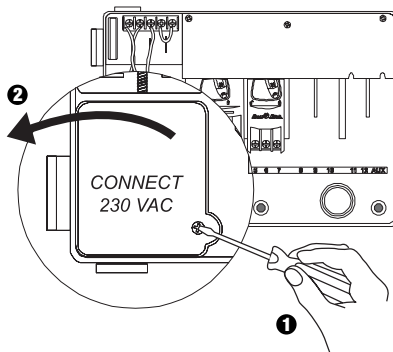
**1** Εγκαταστήστε το κατάλληλο στήριγμα με το κατάλληλο άνοιγμα για τον τύπο του τοίχου. Κρεμάστε την συσκευή από αυτό το άνοιγμα.

**2** Ισοροπήστε την συσκευή και σημειώστε τη θέση ή τις θέσεις μιας ή περισσότερων από τις τρύπες που βρίσκονται στο χαμηλότερο σημείο στήριξης.



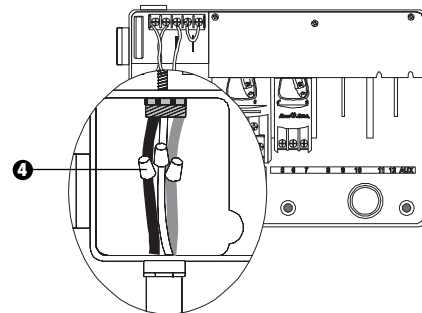
**3** Οδηγήστε το στήριγμα ή τα στηρίγματα που χρησιμοποιείτε μέσα στην τρύπα ή τις τρύπες που βρίσκονται στο χαμηλότερο σημείο στήριξης. Βεβαιωθείτε ότι ο χώρος είναι ασφαλισμένος.

## III. ΚΑΛΩΔΙΑ – ΙΣΧΥ



230 VAC

Εφαρμογή καλωδίων 1,3 εκ.

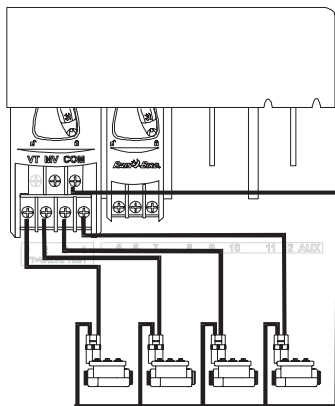


**4** Χρησιμοποιήστε ένα σύνδεσμο καλωδίων όπως προβλέπουν οι οδηγίες για να συνδέσετε τα καλώδια.

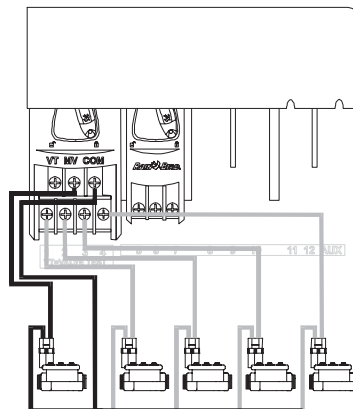
- Καφέ στο καφέ
- Μπλε στο μπλε
- Πράσινο/κίτρινο στο πράσινο/κίτρινο

**Σημείωση:** Το πράσινο/κίτρινο καλώδιο της γείωσης ΠΡΕΠΕΙ να συνδεθεί στο προβλεπόμενο προσθετικό ηλεκτρικό σύστημα προστασίας.

## IV. ΚΑΛΩΔΙΑ – ΗΛΕΚΤΡΙΚΕΣ ΒΑΛΒΙΔΕΣ



Κεντρικές Βαλβίδες

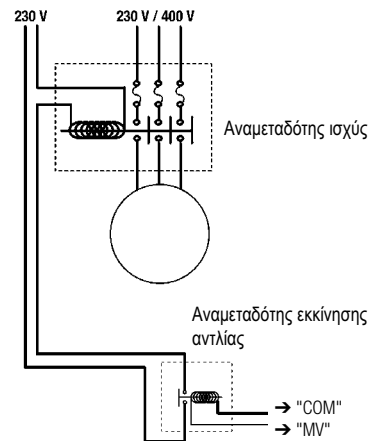


Γενικός Βαλβίδα

**Σημείωση:** Συμπληρώστε αυτόν τον τομέα μόνο εάν το σύστημά σας προβλέπει μία γενική βαλβίδα ή έναν αναμεταδότη εκκίνησης της αντλίας. Το σύστημα ελέγχου δεν παρέχει την βασική ισχύ για την αντλία.

### Βαλβίδα Οριακού Ελέγχου

Η Βαλβίδα Οριακού Ελέγχου (VT) παρέχει σταθερή παραγωγή 24 βόλτ (με τη εφαρμογή ρεύματος AC) έτσι ώστε να μπορεί να χρησιμοποιηθεί για τον γρήγορο έλεγχο των καλωδίων των βαλβίδων του κεντρικού συστήματος.

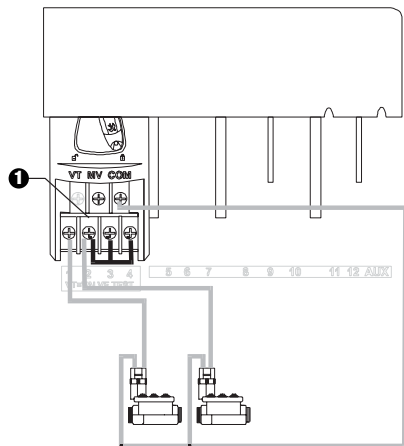


### Εκκίνηση αντλίας

Ο οριακός δείκτης MV χρησιμοποιείται για την αυτόματη εκκίνηση της αντλίας με αναμεταδότη ή για να ανοίξετε τη γενική βαλβίδα. Ο οριακός δείκτης MV παρέχει ισχύ μόνο όταν ένα από τα κέντρα είναι σε λειτουργία.

Σας υπενθυμίζετε η χρήση αναμεταδοτών :  
FINDER 55 32 80 24, HAGER ES-224,  
TELEMECANIQUEG 1610B5 ή ισοδύναμοι.

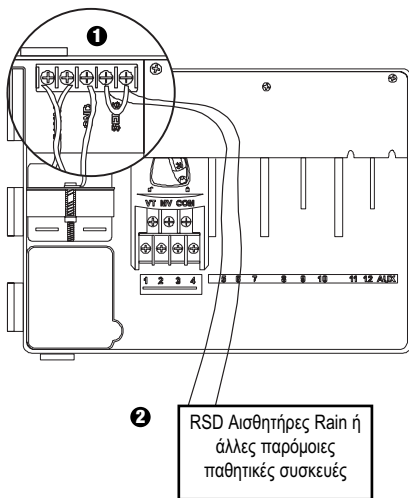
## V. ΕΠΙΛΟΓΗ ΣΥΝΔΕΣΜΟΥ ΓΙΑ ΚΕΝΤΡΙΚΑ ΣΥΣΤΗΜΑΤΑ ΕΚΤΟΣ ΛΕΙΤΟΥΡΓΙΑΣ



- 1 ΠΡΟΕΙΔΟΠΟΙΗΣΗ:** Για να αποφύγετε ζημιά στην αντλία όταν χρησιμοποιήσετε τον αναμεταδότη εκκίνησης της αντλίας, χρησιμοποιήστε έναν σύνδεσμο για να συνδέσετε ένα από τα κεντρικά συστήματα εκτός λειτουργίας με κάποιο άλλο κεντρικό σύστημα που πρόκειται να χρησιμοποιηθεί.

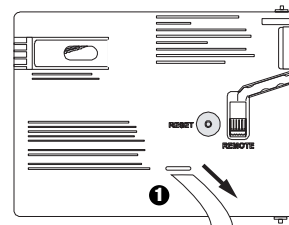
Εάν το κεντρικό σύστημα εκτός λειτουργίας δεν συνδέεται και υπάρχουν εκκινήσεις κατά λάθος, η αντλία μπορεί να χρησιμοποιηθεί χωρίς ροή (διακοπή). Η απότομη διακοπή μπορεί να προκαλέσει την υπερθέρμανση ή το κάψιμο της αντλίας.

## VI. ΕΠΙΛΟΓΗ ΤΩΝ ΑΙΣΘΗΤΗΡΩΝ



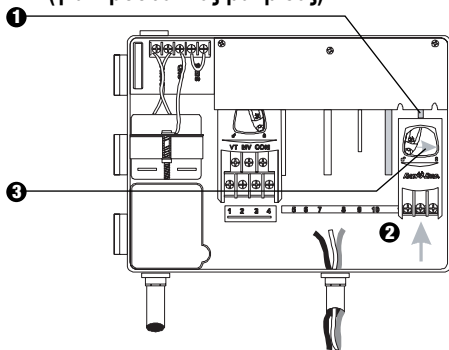
- 1** Εάν δεν συνδέσετε έναν αισθητήρα με το σύστημα ελέγχου, βεβαιωθείτε ότι ο βοηθητικός σύνδεσμος είναι εγκατεστημένος στους οριακούς αισθητήρες.
- 2** Ο έλεγχος για νερά ή οι αισθητήρες υγρασίας οι οποίοι δεν θα πρέπει να συνδεθούν με τους οριακούς αισθητήρες, αλλά θα πρέπει να συνδεθούν σε σειρά με το ακραίο COM.

## VII. ΕΠΑΝΑΦΟΡΑ ΤΗΣ ΜΠΑΤΑΡΙΑΣ



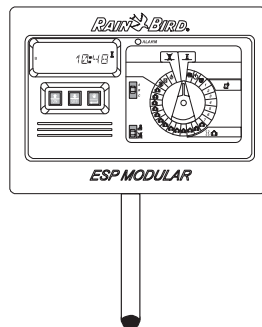
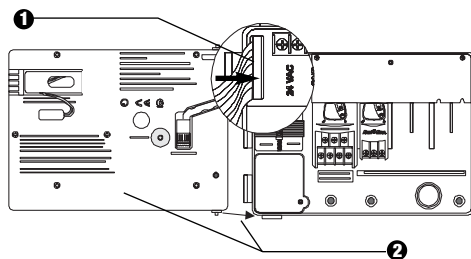
- 1** Τραβήξτε για να την βγάλετε.

## VIII. ΕΓΚΑΤΑΣΤΑΣΗ ΜΟΝΑΔΑΣ (για προσθετικές βαλβίδες)







- 1 Μπορείτε να εγκαταστήσετε επιπλέον μονάδες σε οποιαδήποτε θέση ενώ το σύστημα ελέγχου είναι σε λειτουργία.
- 2 Βάλτε την μονάδα σε οποιοδήποτε άνοιγμα, βεβαιωθείτε ότι ο διακόπτης είναι ανοιχτός.
- 3 Κλειδώστε την μονάδα γυρίζοντας τον διακόπτη προς τα δεξιά.

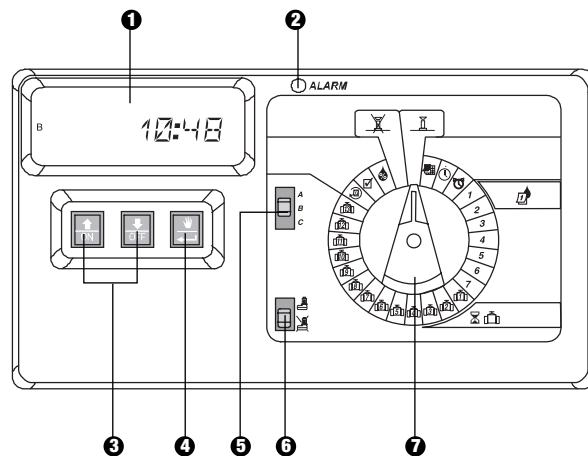
## IX. ΟΛΟΚΛΗΡΩΣΗ ΤΗΣ ΕΓΚΑΤΑΣΤΑΣΗΣ



## ΕΛΕΓΧΟΙ ΚΑΙ ΔΙΑΚΟΠΤΕΣ

Η εικόνα στα δεξιά σας δείχνει τους ελέγχους, τους διακόπτες και ενδείξεις του ESP συστήματος ελέγχου, που περιλαμβάνει:

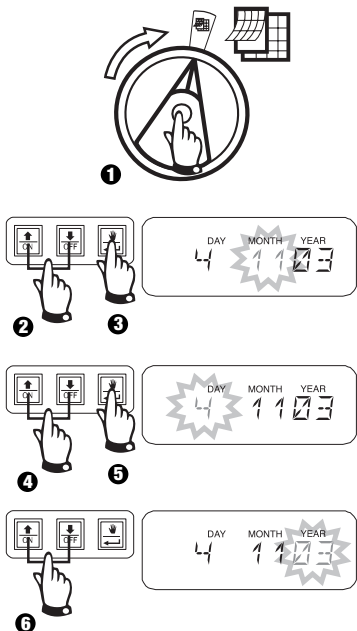
- 1 LCD** - κατά την διάρκεια της κανονικής λειτουργίας, δείχνει την ώρα της ημέρας. Κατά την διάρκεια του προγραμματισμού, δείχνει τα αποτελέσματα των εντολών που έχετε δώσει. Κατά την διάρκεια του ποτίσματος δείχνει την βαλβίδα η οποία ποτίζει και τα λεπτά που υπολοίπονται στον χρόνο.
- 2 Φωτεινή ένδειξη κινδύνου LED** – ανάβει όταν συντρέχουν μία από τις παρακάτω συνθήκες:
  - Το πότισμα διακόπτεται από κάποιο αισθητήρα
  - Το σύστημα ελέγχου βρίσκει κάποιο βραχυκύκλωμα στην βαλβίδα
  - Έχει δοθεί κάποιος λάθος προγραμματισμός
- 3 Πάνω-κάτω, ON-OFF κουμπιά** – χρησιμοποιούνται για να δοθεί ένα πρόγραμμα επιλέγοντας πάνω ή κάτω, ή γυρίζοντας το διακόπτη των ημερών ποτίσματος στο ON ή OFF.
- 4 Εκκίνηση δια χειρός / κουμπί Advance** –  (εκκίνηση δια χειρός) χρησιμοποιείται για να ξεκινήσει ένα πρόγραμμα ποτίσματος ή οι κεντρικές βαλβίδες δια χειρός.  (Advance) χρησιμοποιείται ακολουθώντας τα προγραμματισμένα βήματα ή τις τμές που έχουν επιλεγεί.
- 5 Διακόπτης Προγράμματος Ροής** – χρησιμοποιείται για να επιλεγεί το πρόγραμμα ποτίσματος A, B ή C.
- 6 Περιφερειακός Αισθητήρας** – χρησιμοποιείται για να υποδείξει στο σύστημα ελέγχου να υπακούσει () ή να αγνοήσει () εντολή από έναν επιπλέον αισθητήρα.
- 7 Διακόπτης Προγραμματισμού** – χρησιμοποιείται για να γυρίσει το σύστημα ελέγχου στο off και on και για να προγραμματίσει.



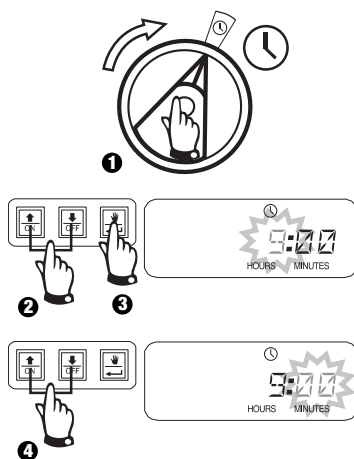


# ΠΡΟΓΡΑΜΜΑΤΙΣΜΟΣ

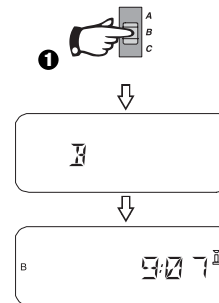
## I. ΕΠΙΛΟΓΗ ΤΗΣ ΗΜΕΡΑΣ



## II. ΕΠΙΛΟΓΗ ΤΗΣ ΩΡΑΣ



## III. ΕΠΙΛΟΓΗ ΠΡΟΓΡΑΜΜΑΤΟΣ



## IV. ΕΠΙΛΟΓΗ ΤΟΥ ΚΥΚΛΟΥ ΠΟΤΙΣΜΑΤΟΣ

Κάθε πρόγραμμα μπορεί να λειτουργήσει σε έναν από τους τέσσερις κύκλους ποτίσματος. Επιλέξτε τον κύκλο που σας χρειάζεται και ακολουθήστε τις αντίστοιχες οδηγίες.

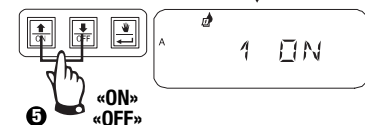
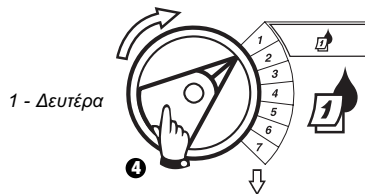
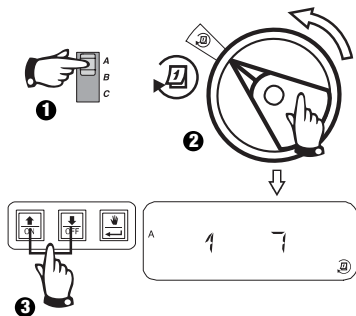
**1 7:** Πότισμα στις ημέρες της εβδομάδας που επιλέξατε.

**2 4 6:** Πότισμα στις ημέρες με ζυγό αριθμό.

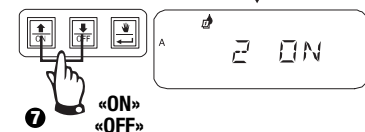
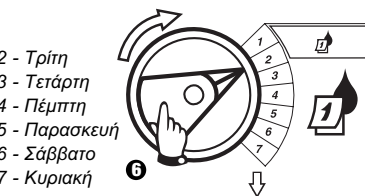
**1 3 5:** Πότισμα στις ημέρες με μονό αριθμό.

**1 31:** Πότισμα στο επιλεγόμενο διάστημα \_\_ ημερών (π.χ. κάθε δεύτερη μέρα ή κάθε τρίτη μέρα κ.τ.λ.).

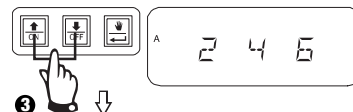
### A. 1 7 (Πότισμα στις ημέρες της εβδομάδας που επιλέξατε)



- 2 - Τρίτη
- 3 - Τετάρτη
- 4 - Πέμπτη
- 5 - Παρασκευή
- 6 - Σάββατο
- 7 - Κυριακή

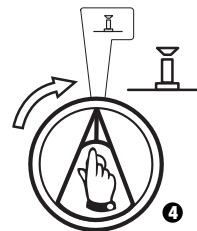


## B. 2 4 6 / 1 3 5 (Ζυγές / Μονές ημέρες)



1 3 5 =

2 4 6 =



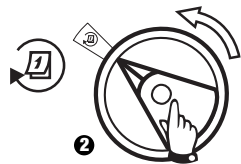
## IV. ΕΠΙΛΟΓΗ ΤΟΥ ΚΥΚΛΟΥ ΠΟΤΙΣΜΑΤΟΣ

{συνέχεια}

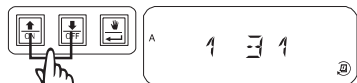
### C. 1 31 {Κυκλικά}



1



2

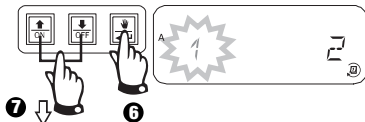
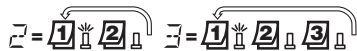


3



5

4



7

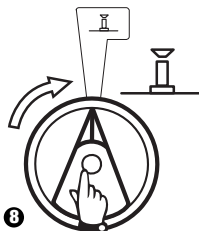
6

☑ = Ο κύκλος ποτίσματος αρχίζει σήμερα

1 = Ο κύκλος ποτίσματος αρχίζει αύριο

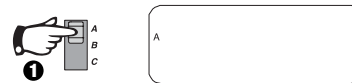
☐ = Ο κύκλος ποτίσματος αρχίζει σε 2 ημέρες από σήμερα

☐, ☐☐ ... = Ο κύκλος ποτίσματος αρχίζει σε \_\_ ημέρες από σήμερα

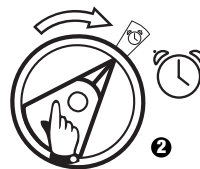


8

## V. ΕΠΙΛΟΓΗ ΤΟΥ ΧΡΟΝΟΥ ΤΟΥ ΠΡΟΓΡΑΜΜΑΤΟΣ ΠΟΤΙΣΜΑΤΟΣ



1



2



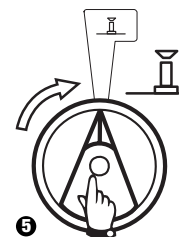
3

Για να διαγράψετε τον χρόνο εκκίνησης του ποτίσματος, πατήστε το off μέχρι η επιλογή να φανεί μεταξύ 23.45 και 0:00H.



4

Για να προσθέσετε χρόνο σε αυτό το πρόγραμμα, πατήστε στη οθόνη επιπλέον χρόνο. Επαναλάβετε όσο χρειάζεστε.

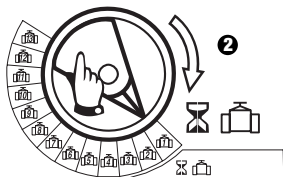


5

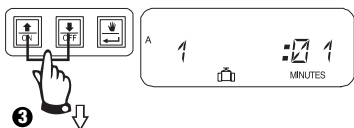
## VI. ΕΠΙΛΟΓΗ ΧΡΟΝΟΥ ΣΤΗΝ ΒΑΛΒΙΔΑ ΠΟΤΙΣΜΑΤΟΣ



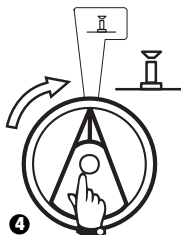
Μπορείτε να επιλέξετε η κάθε βαλβίδα να πηγαίνει από 0 μέχρι 6 ώρες (αύξηση ενός λεπτού για τις 1 πρώτες ώρες , αύξηση δέκα λεπτών για τις υπόλοιπες).



**Σημείωση:** Εάν γυρίσετε τον διακόπτη σε κάποιο νούμερο της βαλβίδας όπου δεν έχει εγκατασταθεί πρόγραμμα το μήνυμα "NO 5- 8", "NO 9 -10", "NO 11 -13" θα εμφανιστεί στη οθόνη.



Ρυθμίστε το χρόνο ποτίσματος πάνω ή κάτω. Εάν δεν θέλετε η βαλβίδα να λειτουργήσει για το επιλεγμένο πρόγραμμα ποτίσματος βάλτε τον χρόνο στο 0. Επαναλάβετε 2-3 για το επιλεγμένο πρόγραμμα. Επαναλάβετε 1-3 όπως είναι απαραίτητο για τα προγράμματα Β ή C.



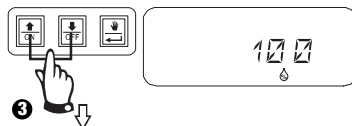
**Προειδοποίηση:** Εάν οι χρόνοι όλων των βαλβίδων είναι στο 0, η φωτεινή ένδειξη κινδύνου θα ανάψει.

## VII. ΣΥΣΤΗΜΑ ΕΠΙΛΟΓΗΣ ΤΩΝ ΕΠΟΧΩΝ 0 %



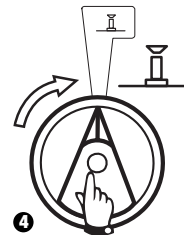
(Προληπτικό πότισμα)

Αυτή η λειτουργία σας επιτρέπει να αυξήσετε ή να μειώσετε τους χρόνους λειτουργίας όλων συνολικά των βαλβίδων επιλέγοντας ένα ποσοστό. Μπορείτε να επιλέξετε ποσοστό από 0 έως 200%. Αυτή η επιλογή θα επηρεάσει όλα συνολικά τα προγράμματα.



Ρυθμίστε τον χρόνο ποτίσματος πάνω ή κάτω. Το μειονέκτημα είναι 100%.

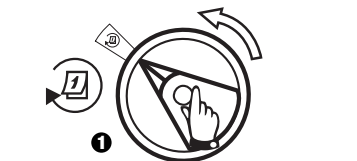
Το σύστημα επιλογής των εποχών υπολογίζεται σε έναν κανονικό χρόνο προγράμματος για κάθε βαλβίδα. Για παράδειγμα, εάν η βαλβίδα 1 είναι επιλεγμένη να λειτουργήσει για δέκα λεπτά, και εσείς επιλέξετε 120%, η βαλβίδα 1 θα λειτουργήσει για 12 λεπτά.



**Προειδοποίηση:** Εάν μια τιμή πέρα από αυτό που είναι το μειονέκτημα 100% έχει τοποθετηθεί, στην οθόνη θα φανεί η ένδειξη AUTO για να δείξει ότι ο χρόνος έχει επιλεχθεί.

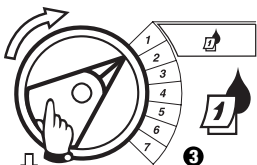
## VIII. ΕΠΙΛΟΓΗ ΤΩΝ ΜΟΝΙΜΩΝ ΗΜΕΡΩΝ ΑΝΑΠΑΥΣΗΣ

Για 2 4 6 (ζυγοί) / 1 3 5 (μονοί) / 1 3 1 (κυκλικά) τους κύκλους ποτίσματος μπορείτε να επιλέξετε κάθε μέρα της εβδομάδας ως ημέρα της εβδομάδας που δεν θα ποτίσετε προς συμμόρφωση των περιορισμών ή άλλων διατάξεων.

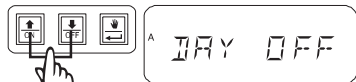


1 3 5 / 2 4 6 / 1 3 1

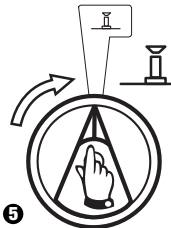
Αυτή η χαρακτηριστική εφαρμογή 2 4 6 (ζυγοί) / 1 3 5 (μονοί) / 1 3 1 (κυκλικά) στους κύκλους ποτίσματος.



Επιλέξτε μέρα της εβδομάδας.



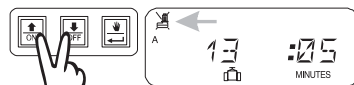
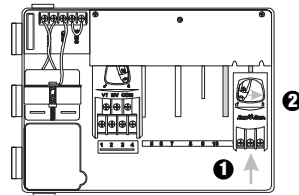
4 Πατήστε το OFF για να επιλέξετε την ημέρα ως ημέρα που δεν είναι για πότισμα. Πατήστε το ON για να επαναφέρετε τη λειτουργία του ποτίσματος.



## IX. ΛΕΙΤΟΥΡΓΙΑ ΤΗΣ ΒΟΗΘΗΤΙΚΗΣ ΒΑΛΒΙΔΑΣ

Η βοηθητική βαλβίδα (βαλβίδα 13) μπορεί να λειτουργήσει σαν ένα κανονικό κεντρικό σύστημα ή να προγραμματιστεί έτσι ώστε να μην επηρεαστεί από έναν ενεργοποιημένο αισθητήρα.

Όταν προγραμματιστεί με αυτόν τον τρόπο, η βοηθητική βαλβίδα μπορεί να χρησιμοποιηθεί για να συνδέσει τον εξοπλισμό μη άρδευσης όπως συμβαίνει με ένα συντριβάνι ή έναν εξωτερικό φωτισμό.



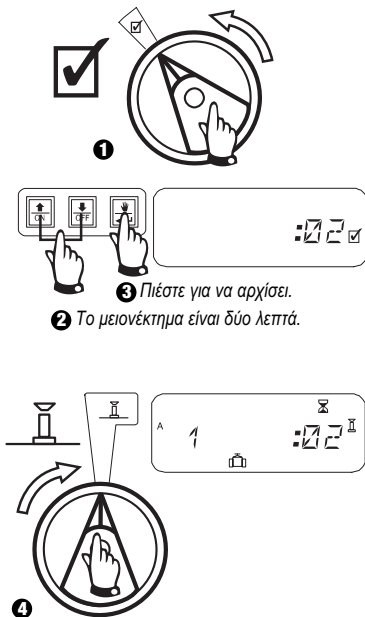
5

Πιέστε μέχρι να φανεί στην οθόνη η ένδειξη ότι η βαλβίδα αυτή δεν επηρεάζεται από έναν αισθητήρα. Για να επαναφέρετε, πατήστε πάλι και τα δύο κουμπιά μέχρι να σβήσει η ένδειξη.

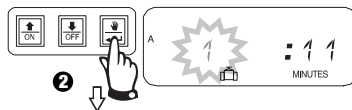
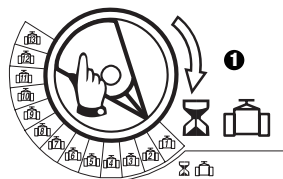


## Χ. ΕΛΕΓΧΟΣ ΟΛΩΝ ΤΩΝ ΒΑΛΒΙΔΩΝ

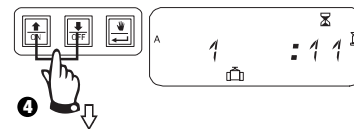
Αυτή η λειτουργία αφορά όλο τον εξοπλισμό των βαλβίδων οι οποίες θα λειτουργήσουν η μία μετά την άλλη για όλο τον χρόνο που θα έχει επιλεγθεί. Το μειονέκτημα είναι δύο λεπτά.



## ΧΙ. ΛΕΙΤΟΥΡΓΙΑ ΤΩΝ ΒΑΛΒΙΔΩΝ ΔΙΑ ΧΕΙΡΟΣ



Επαναλάβετε τα βήματα 1-2 για να εκκινήσετε δια χειρός τις προσθετικές βαλβίδες.



Μπορείτε να διορθώσετε δια χειρός τον χρόνο λειτουργίας πάνω ή κάτω.

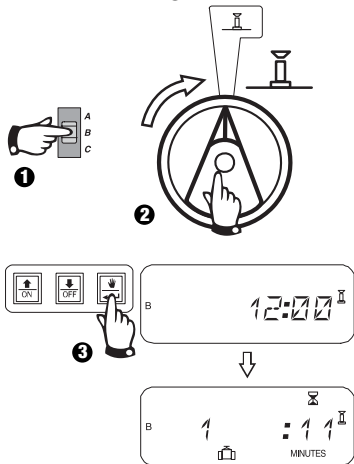
Για να σβήσετε γυρίστε τον διακόπτη για τρία δευτερόλεπτα.

Γυρίστε τον διακόπτη.

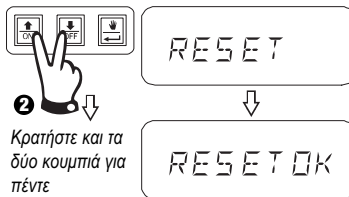


Σύστημα του οποίου ο χρόνος θα φανεί στην οθόνη έπειτα από την ολοκλήρωση του διαχειρός ποτίσματος.

## XII. ΛΕΙΤΟΥΡΓΙΑ ΠΡΟΓΡΑΜΜΑΤΟΣ ΔΙΑ ΧΕΙΡΟΣ

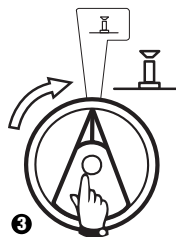


## XIII. ΚΑΘΑΡΙΣΜΟΣ ΟΛΩΝ ΤΩΝ ΠΛΗΡΟΦΟΡΙΩΝ ΤΟΥ ΠΡΟΓΡΑΜΜΑΤΟΣ












Κρατήστε και τα δύο κουμπιά για πέντε δευτερόλεπτα μέχρι να φανεί στην οθόνη το "RESET OK"

Παράδοση.








## ΛΥΣΗ ΠΡΟΒΛΗΜΑΤΩΝ

ΣΥΜΠΤΩΜΑΤΑ	ΠΙΘΑΝΗ ΑΙΤΙΑ	ΔΙΟΡΘΩΣΗ
Το πρόγραμμα δεν μπαίνει στο αυτόματο.	<p>1. Ο διακόπτης βρίσκεται στην θέση  .</p> <p>2. Δεν έχει επιλεγθεί ο χρόνος εκκίνησης για το πρόγραμμα.</p>	<p>Βάλτε τον διακόπτη στο  .</p> <p>Γυρίστε τον διακόπτη στην εντολή  ΩΡΑ ΕΚΚΙΝΗΣΗΣ ΠΟΤΙΣΜΑΤΟΣ και ελέγξτε την ώρα εκκίνησης που έχει ρυθμιστεί για το πρόγραμμα. Εάν η ώρα λείπει ρυθμίστε την όπως περιγράφεται στην σελίδα 122.</p>
	<p>3. Σήμερα μπορεί να μην είναι ημέρα ποτίσματος σύμφωνα με το πρόγραμμα.</p>	<p>Επιλέξτε το πρόγραμμα και γυρίστε τον διακόπτη στο  . Ελέγξτε τις ημέρες ποτίσματος του προγράμματος.</p>
	<p>4. Οι μέρες έχουν ήδη προγραμματιστεί για το πότισμα.</p>	<p>Εάν οι προγραμματισμένες μέρες έχουν επιλεγεί σωστά δεν χρειάζεται κάποια διόρθωση. Για να αλλάξετε τα χαρακτηριστικά του προγράμματος δείτε στην σελίδα 124.</p>
	<p>5. Τα προγράμματα προσαρμογής των εποχών δείχνουν 0%.</p>	<p>Ρυθμίστε τον προσαρμοστικό εποχών σε ένα ποσοστό πάνω από το μηδέν. Δείτε τις οδηγίες στην σελίδα 123.</p>
Η οθόνη δείχνει ότι η βαλβίδα λειτουργεί αλλά δεν ποτίζει.	<p>6. Το αισθητήριο σύστημα είναι προγραμματισμένο για πότισμα.</p> <p>7. Ούτε ο αισθητήρας ούτε ο άλτηρας είναι συνδεδεμένοι με τους ακραίους αισθητήρες ελέγχου και ο διακόπτης είναι τοποθετημένος στο .</p>	<p>Γυρίστε τον διακόπτη στο  . Εάν ξαναρχίσει το πότισμα, ο αισθητήρας λειτουργεί σωστά, και γι'αυτό λοιπόν δεν χρειάζεται κάποια διόρθωση.</p> <p>Γυρίστε τον διακόπτη στο  . Για να αποφύγετε μελλοντικά προβλήματα, τοποθετήστε τον αλτήρα τροφοδοσίας στις απολήξεις αισθητήριων ελέγχου.</p>
Η βαλβίδα δεν μπαίνει σε λειτουργία.	<p>8. Δεν έχει ρυθμιστεί ο χρόνος της βαλβίδας.</p> <p>9. Κάποιο βραχυκύκλωμα στο σωληνοειδές ή στο καλώδιο της βαλβίδας τα έχει βγάλει από την θέση τους ( η φωτεινή ένδειξη κινδύνου είναι αναμμένη).</p>	<p>Γυρίστε τον διακόπτη στο νούμερο της βαλβίδας, και επιλέξτε το πρόγραμμα έτσι ώστε να ελέγχει τον χρόνο της βαλβίδας για κάθε πρόγραμμα.</p> <p>Η οθόνη δείχνει " # Err " όπου το σύμβολο # είναι το νούμερο της βαλβίδας εκείνης που παρουσιάζει το πρόβλημα. Βρείτε και επιδιορθώστε το πρόβλημα του κυκλώματος. Αν " MV Err " παρουσιάσει στην οθόνη επιδιορθώστε το πρόβλημα. Με τον διακόπτη στο  πατήστε το κουμπί  για να σβήσει η φωτεινή ένδειξη του ALARM.</p>



## ΛΥΣΗ ΠΡΟΒΛΗΜΑΤΩΝ

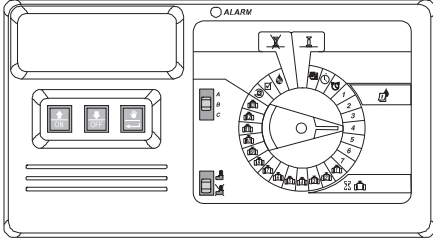
ΣΥΜΠΤΩΜΑΤΑ	ΠΙΘΑΝΗ ΑΙΤΙΑ	ΔΙΟΡΘΩΣΗ
	10. Το αισθητήριο σύστημα είναι προγραμματισμένο για πότισμα.	Δείτε διόρθωση για το πρόβλημα νούμερο 6.
	11. Στη βαλβίδα του προγράμματος δεν έχει ρυθμιστεί το πρόγραμμα εκκίνησης.	Δείτε διόρθωση για το πρόβλημα νούμερο 2.
	12. Ο προσαρμοστής για τις επαχές του προγράμματος της βαλβίδας δείχνει 0%.	Δείτε διόρθωση για το πρόβλημα νούμερο 5.
Η οθόνη είναι μερικώς ή ολοκληρωτικά κενή.	13. Μια ηλεκτρική βλάβη ή διακοπή ρεύματος έχει προκαλέσει ζημιά στα συστήματα ελέγχου των ηλεκτρονικών.	Πατήστε το κουμπί RESET το οποίο βρίσκεται πίσω από τον πίνακα. Εάν η ηλεκτρική βλάβη δεν προκάλεσε μόνιμη ζημιά, το σύστημα ελέγχου θα δεχτεί τις εντολές που προγραμματίστηκαν και θα λειτουργήσει κανονικά.
Το πότισμα αρχίζει όταν δεν πρέπει.	14. Το κουμπί  έχει πατηθεί.	Για να σβήσετε ένα πρόγραμμα το οποίο έχει επιλεγεί δια χειρός πατήστε τον διακόπτη στο  για 3 δευτερόλεπτα. Έπειτα πατήστε τον διακόπτη πάλι στο  .
	15. Έχει ρυθμιστεί μία ώρα εκκίνησης που δεν επιθυμούσατε.	Γυρίστε τον διακόπτη στην εντολή  ΩΡΑ ΕΚΚΙΝΗΣΗΣ ΠΟΤΙΣΜΑΤΟΣ και ελέγξτε εάν κάποιο από τα προγράμματα ξεκινάει χωρίς να το θέλετε. Δείτε στη σελίδα 122 για οδηγίες όσον αφορά την επιλογή και τη διαγραφή της ώρας εκκίνησης.
	16. Τα προγράμματα μπορεί να έχουν διακοπεί.	Τα προγράμματα θα διακοπούν το ένα μετά το άλλο εάν είχαν προγραμματιστεί να αρχίσουν ενώ κάποιο άλλο πρόγραμμα ήταν σε λειτουργία. Βεβαιωθείτε ότι τα προγράμματα Α, Β, και C δεν είχαν προγραμματιστεί να αρχίσουν ενώ κάποιο άλλο πρόγραμμα ήταν ήδη προγραμματισμένο.
Η φωτεινή ένδειξη κινδύνου είναι αναμμένη.	17. Δεν υπάρχει ώρα εκκίνησης.	Όλοι οι χρόνοι εκκίνησης είχαν διαγραφεί. Ρυθμίστε τουλάχιστον ένα χρόνο και βάλτε τον διακόπτη πίσω στο  . Η φωτεινή ένδειξη θα σβήσει.

## ΛΥΣΗ ΠΡΟΒΛΗΜΑΤΩΝ

ΣΥΜΠΤΩΜΑΤΑ	ΠΙΘΑΝΗ ΑΙΤΙΑ	ΔΙΟΡΘΩΣΗ
	18. Δεν έχει ρυθμιστεί η ώρα.	Οι χρόνοι έχουν διαγραφτεί για δέκα λεπτά από όλες εν ενεργεία βαλβίδες. Ρυθμίστε τον χρόνο για μία τουλάχιστον από τις βαλβίδες και βάλτε τον διακόπτη πίσω στο $\overline{\text{II}}$ . Η φωτεινή ένδειξη θα σβήσει.
	19. Ο προσαρμοστής για τις εποχές δείχνει 0%.	Ο προσαρμοστής εποχών είχε πάει στο μηδέν. Ρυθμίστε του μια καινούργια τιμή και βάλτε τον διακόπτη πίσω στο $\overline{\text{II}}$ . Η φωτεινή ένδειξη θα σβήσει.
	20. Διακοπή θέσης.	Ένα βραχυκύκλωμα στο σωληνοειδές ή στο καλώδιο της βαλβίδας δεν τους επιτρέπει να λειτουργήσουν. Δείτε για διόρθωση στο πρόβλημα νούμερο 9.

# MONTAJ

## I. UYGUN BİR YER SEÇİLMESİ

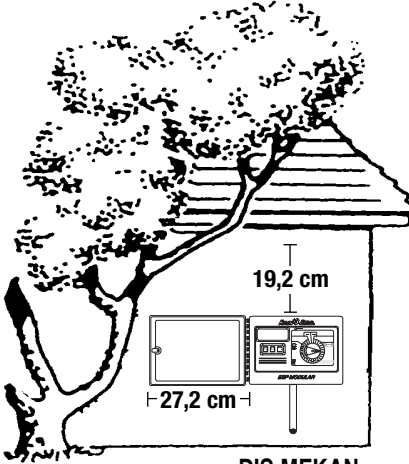


### GİRİŞ

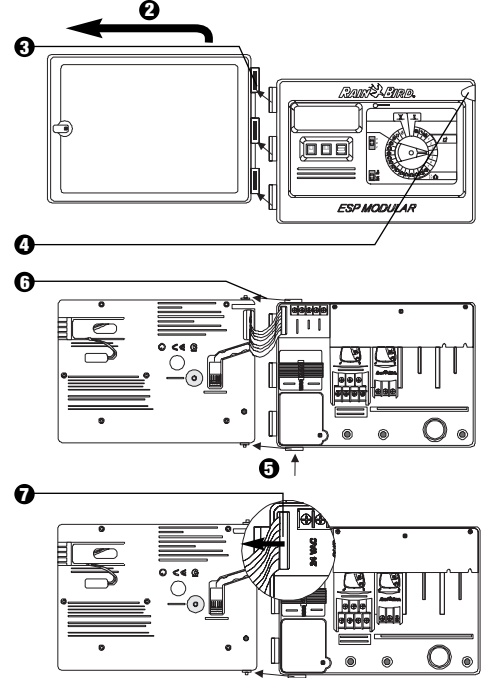
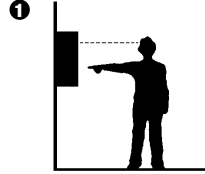
ESP Modül kumanda cihazı, evlerde ve hafif ticari uygulamalarda kullanım amaçlı bir sulama zamanlama cihazıdır.

ESP Modül kumanda cihazının IESP-4M modeli iç ve dış mekanlarda kullanılabilir.

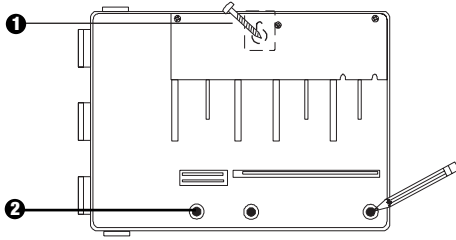
Ana birim tarafından dört adet vana ve bir adet ana vana/pompa çalıştırma rölesi desteklenir. İsteğe bağlı modüller eklenerek, ESP Modül cihazı tarafından 12 adede kadar vana, bir adet yardımcı vana ve bir adet ana vana/pompa çalıştırma rölesi desteklenebilir.



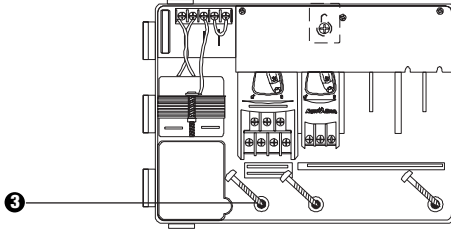
### DIŞ MEKAN DUVAR MONTAJI



## II. KUMANDA CİHAZININ MONTAJI

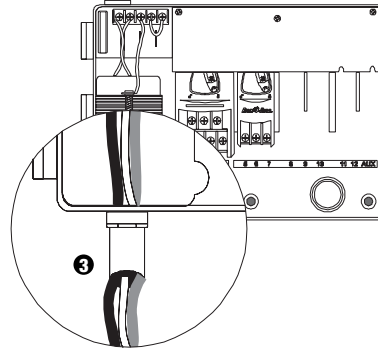
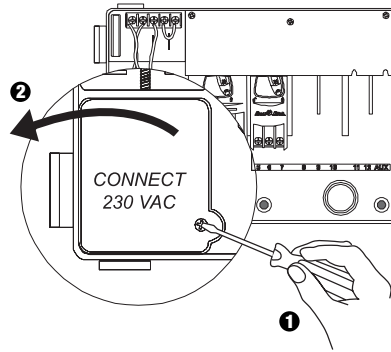


- 1 Duvar türü ve vida yuvası için uygun bir vida monte edin. Kumanda cihazını vida yuvasından asın.
- 2 Kumanda cihazını hizalayın ve aşağıdaki montaj deliklerinden biri veya daha fazlasının yerini veya yerlerini işaretleyin.

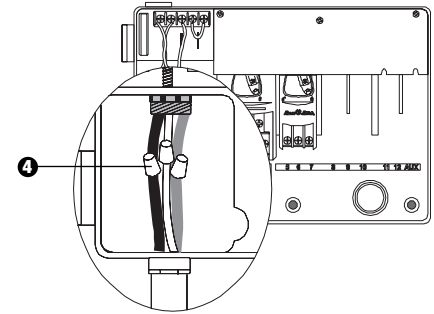


- 3 Uygun tipteki vidayı veya vidaları aşağıdaki montaj deliklerine geçirin. Kutunun sağlam olup olmadığını kontrol edin.

## III. KABLOLAMA – ELEKTRİK



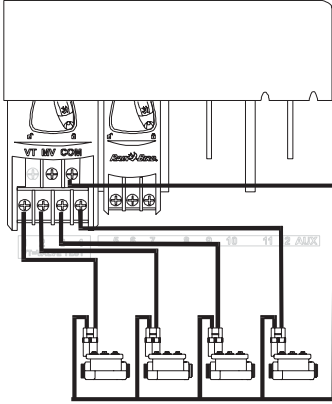
230 VAC  
1,3 cm çaplı boru tesisatı uygundur



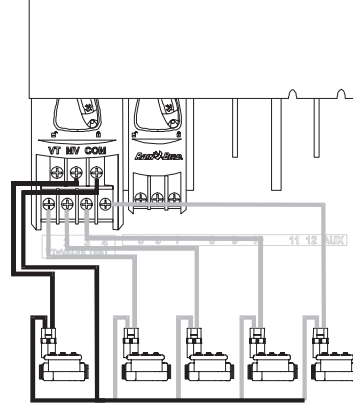
- 4 Onaylı bağlantı elemanları kullanarak kabloları şu şekilde bağlayın:
  - Kahverengi – Kahverengi
  - Mavi – Mavi
  - Yeşil/Sarı – Yeşil/Sarı

**Not:** Elektrik dalgalanmalarına karşı ek koruma sağlanması için yeşil/sarı toprak kablolarının bağlanması ZORUNLUDUR.

## IV. KABLOLAMA – ELEKTRİKLİ VANALAR

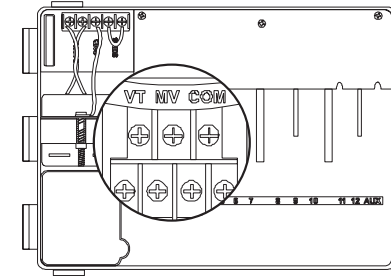


İstasyon Vanaları



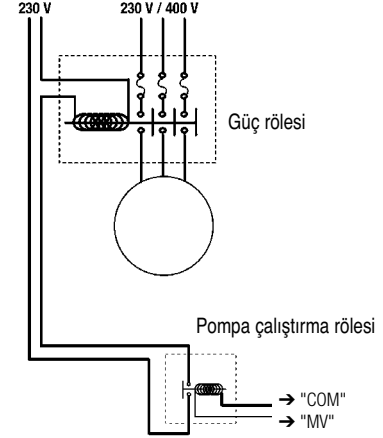
Ana Vana

**Not:** Bu bölümü yalnızca sisteminiz için ana vana ya da pompa çalıştırma rölesi gerekiyorsa doldurun. Kumanda cihazı tarafından pompa için ana güç sağlanmamaktadır.



### Vana Test Terminali

Vana Test Terminali (VT) tarafından (AC güç uygulanmış olarak) 24V sabit çıktı sağlanır ve bunun yardımıyla istasyon vanasının kabloları çabucak kontrol edilebilir.

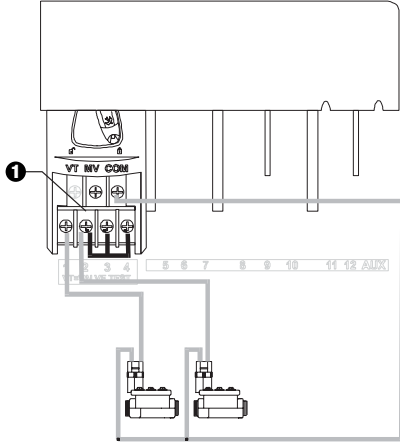


### Pompa Çalıştırma

MV işaretli terminal, otomatik olarak pompayı röle vasıtasıyla çalıştırmaya veya ana vanayı açmaya yarar. MV terminali ancak istasyonlardan biri çalışırken güç sağlar.

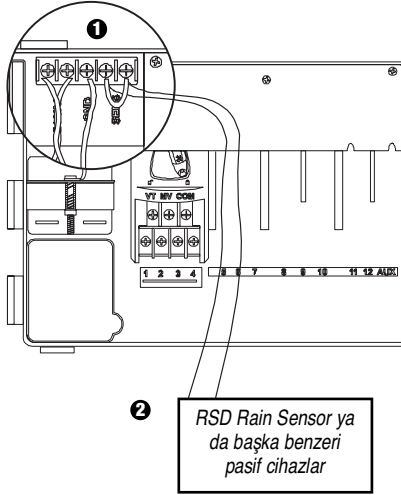
Tavsiye edilen röleler: FINDER 55 32 80 24, HAGER ES-224, TELEMECANIQUEGC 1610B5.

## V. KULLANILMAYAN İSTASYONLAR İÇİN BAĞLANTI AYARI



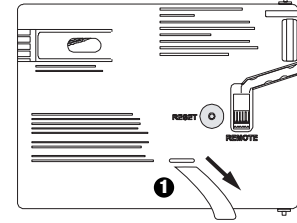
- 1 DİKKAT:** Pompa çalıştırma rölesi kullanıldığında pompanın hasar görmesini önlemek için, kullanılmayan istasyonları kullanılan bir istasyona bağlantı elemanı (jumper) yardımıyla bağlayın. Kullanılmayan istasyonlar bu şekilde bağlanmazsa ve kazayla açılırsa, pompa susuz (boşta) çalışabilir. Boşta çalıştırmak ise pompanın aşırı ısınmasına ve yanmasına neden olabilir.

## VI. SENSÖR SEÇENEĞİ



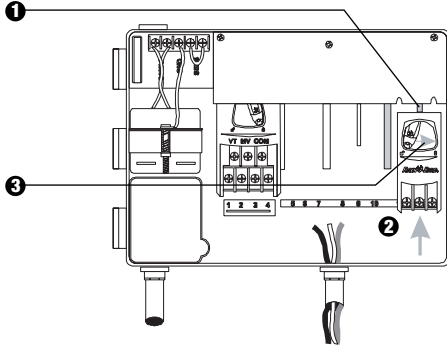
- 1** Kumanda cihazına sensör bağlamıyorsanız, SENS terminallerine cihazla birlikte gelen bağlantı elemanını (jumper) takmayı unutmayın.
- 2** Yağmur kontrol veya Nem Sensörleri bu terminallerin arasına DEĞİL, ancak COM terminaline seri olarak bağlanmalıdır.

## VII. YEDEK PİL



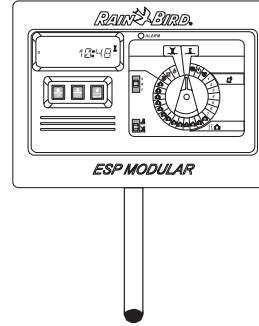
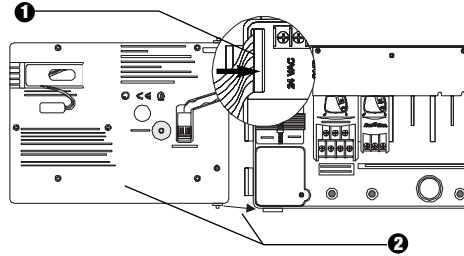
- 1** Çekerek çıkarın.

## VIII. MODÜLLERİN MONTAJI (ilave vanalar için)







- 1 İsteğe bağlı modülleri her türlü pozisyonda ve kumanda cihazı çalışır durumdayken monte edebilirsiniz.
- 2 Modülü açık yuvalardan birine kolun kilitlenmemiş konumda olmasına dikkat ederek takın.
- 3 Modülü yerine oturtup kilitlemek için kolu sağa kaydırın.

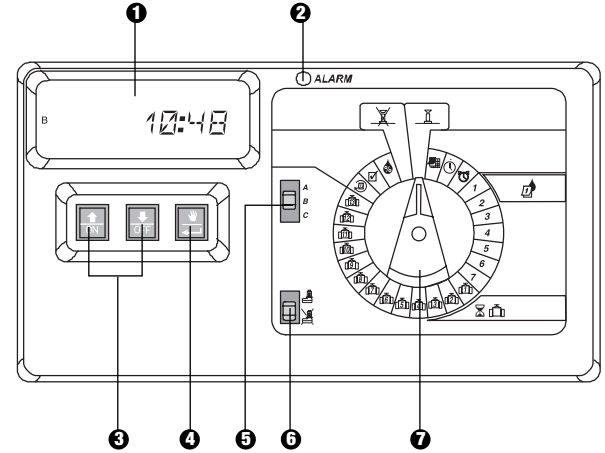
## IX. MONTAJIN BİTİRİLMESİ



## KUMANDA VE ANAHTARLAR

Sağdaki şekilde ESP Modüler kumanda cihazındaki kumandalar, anahtarlar ve göstergeler yer almaktadır:

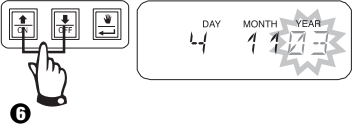
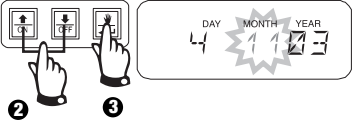
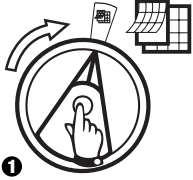
- ❶ **LCD Ekranı** – normal çalışma sırasında, saatin kaç olduğunu gösterir; programlama sırasında, komutlarınızın sonuçlarını gösterir; sulama sırasında, hangi vananın sulama yaptığını ve çalışma süresinin dolmasına kaç dakika kaldığını gösterir.
- ❷ **LED Alarm Işığı** – aşağıdaki durumlarda yanar:
  - Sulamanın bir sensör tarafından askıya alınması
  - Kumanda cihazı tarafından vana kısa devresi tespit edilmesi
  - Bir programlama hatası yapılması
- ❸ **Aşağı-Yukarı, ON-OFF Düğmeleri** – program ayarlarını aşağı veya yukarı kaydırmak, ya da sulama günlerini AÇIK (ON) ya da KAPALI (OFF) konuma getirmek için kullanılır.
- ❹ **Elle Çalıştırma / İleri Düğmesi** –  (Elle Çalıştırma) bir sulama programını ya da istasyon vanasını (veya vanalarını) elle çalıştırmak için kullanılır.  (İleri) programlama basamakları ya da ayarlanan değerleri sırayla atlamak için kullanılır.
- ❺ **Program Sürgü Anahtarı** – A, B, veya C sulama programını seçmek için kullanılır.
- ❻ **Sensör Baypas Anahtarı** – isteğe bağlı olarak takılan bir sensörden gelen komutlara kumanda cihazının uyması (  ) ya da bunları göz ardı etmesi (  ) için kullanılır.
- ❼ **Programlama Kadranı** – kumanda cihazını açıp kapatmak ve programlamak için kullanılır.



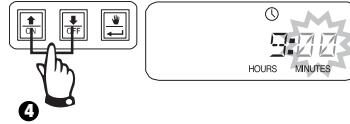


# PROGRAMLAMA

## I. TARİH AYARININ YAPILMASI Gün-Ay-Yıl



## II. SAAT AYARININ YAPILMASI Saat-Dakika



## III. PROGRAM SEÇİLMESİ

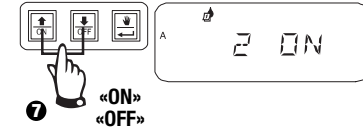
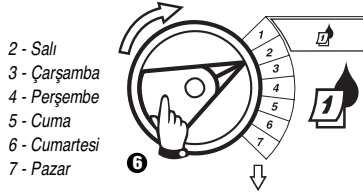
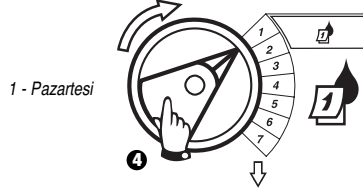
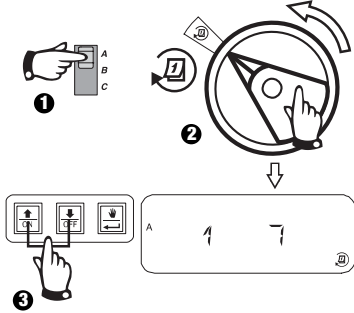


## IV. SULAMA PERİYODU SEÇİLMESİ

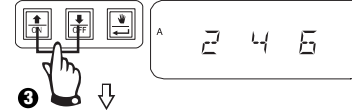
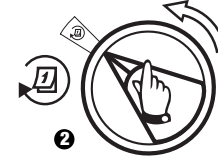
Her program dört sulama periyodundan birinde çalışabilir. Size gereken periyodu seçin ve ilgili talimatları izleyin.

- 1 7: Haftanın seçtiğiniz günlerinde sulama yapar.
- 2 4 6: Ayın çift sayılı günlerinde sulama yapar
- 1 3 5: Ayın tek sayılı günlerinde sulama yapar.
- 1 31: Seçilen sayıda \_\_\_ gün (ör. 1'er gün, 2'şer gün, vb.) arayla sulama yapar.

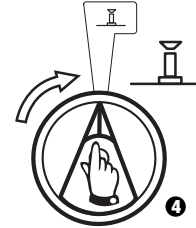
### A.1 7 (Haftanın seçtiğiniz günlerinde sulama yapar.)



## B. 2 4 6 / 1 3 5 (Çift/Tek Takvim Günleri)



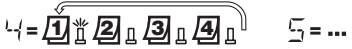
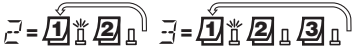
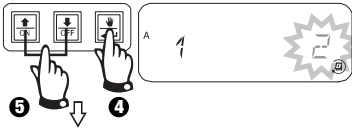
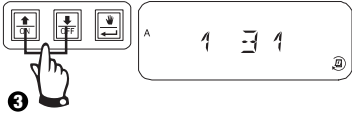
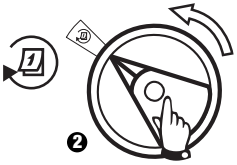
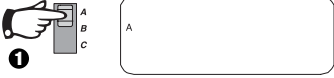
1 3 5 =  
1 1 2 1 3 1 4 1 5 1 6 1 ...  
2 4 6 =  
1 1 2 1 3 1 4 1 5 1 6 1 ...



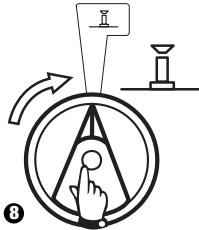
## IV. SULAMA PERİYODU SEÇİLMESİ (devam)



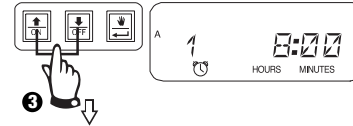
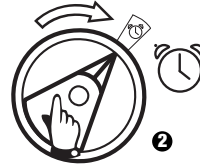
### C. 1 31 (Periyodik)



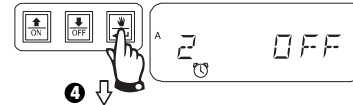
- ☑ = sulama periyodu bugün başlıyor
- ↑ = sulama periyodu yarın başlıyor
- ☒ = sulama periyodu 2 gün sonra başlıyor
- ☒, ☒, ☒, ☒ = sulama periyodu \_\_ gün sonra başlıyor



## V. SULAMA PROGRAMI BAŞLAMA SAATLERİNİN AYARLANMASI



Bir sulama saatini silmek için, yukarı ↑ ya da aşağı ↓ düğmelerini saat 23:45 ile 0:00H arasında "OFF" ayarı belirinceye dek basılı tutun.



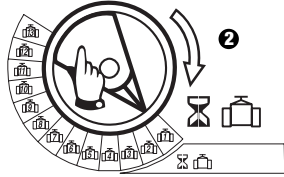
Bu programı için başka başlama saatleri kurmak için, ileri ← düğmesine basarak sonraki başlama saatini görüntüleyin. Gereken saat görününceye dek tekrarlayın.



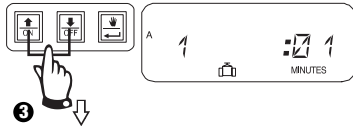
## VI. VANA SULAMA SÜRESİNİN AYARLANMASI



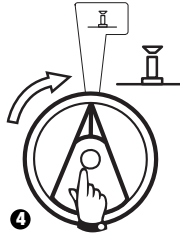
Vanaları 0 ile 6 saat arasında bir süre çalışmak üzere (ilk 1 saat için 1-dakikalık basamaklar, bundan sonra 10-dakikalık basamaklar halinde) ayarlayabilirsiniz.



**Not:** Kadranı modül takılmamış bir vana numarasına çevirirseniz, ekranda "NO 5 - 8", "NO 9 - 10", "NO 11 - 13" mesajı görünür.



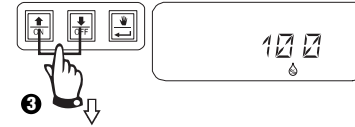
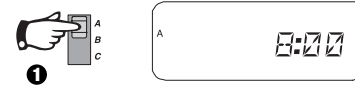
Çalışma süresini yukarı ya da aşağı çekerek ayarlamak için kullanın. Vananın seçilen programda sulama yapmasını istemiyorsanız, çalışma süresini 0 yapın. Seçilen program için 2-3 sayılı işlemleri tekrarlayın. B veya C programları için gereken şekilde 1-3 sayılı işlemleri tekrarlayın.



**Dikkat:** Bütün vanaların çalışma süreleri 0 yapılırsa, LED alarm ışığı yanar.

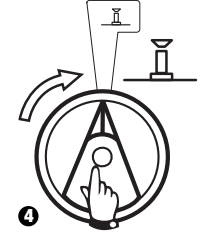
## VII. SEZON % AYARI YAPILMASI (Ekonomik Sulama) %

Bu işlev sayesinde bütün vanaların çalışma sürelerini toptan seçilen bir yüzde oranında arttırabilir ya da azaltabilirsiniz. Bu % ayarını %0-200 arasında yapabilirsiniz. Bu ayar BÜTÜN programları toptan etkiler.



Süreyi yukarı ya da aşağı çekerek ayarlamak için kullanın. Varsayılan oran %100'dür.

Sezon % ayarı, tek tek bütün vanaların programlanmış normal çalışma süreleri üzerinden hesaplanır. Örneğin, 1 numaralı vana 10 dakika çalışmak üzere ayarlanmış bulunuyorsa, ve bu ayarı %120 yaparsanız, 1 numaralı vana 12 dakika çalışır.

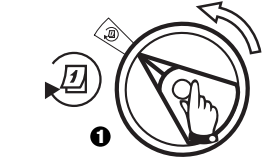


**Dikkat:** Varsayılan %100 oranında farklı bir oran girilirse, OTOMATİK (AUTO) modunda % simgesi görüntülenerek çalışma süresi değerlerinde ayarlama yapıldığı belirtilir.

## VIII. SÜREKLİ KAPALI GÜN AYARI YAPILMASI

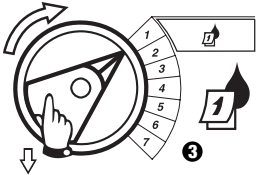


2 4 6 (Çift) / 1 3 5 (Tek) / 1 31 (Periyodik) sulama periyotları için, haftanın herhangi bir gününü kısıtlamalar ya da başka zorunluluklar nedeniyle sulama yapılmayan gün olarak belirleyebilirsiniz.

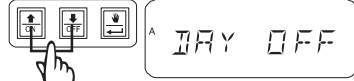


1 3 5 / 2 4 6 / 1 3 1

Bu özellikle 2 4 6 (Çift) / 1 3 5 (Tek) / 1 31 (Periyodik) sulama periyotları için geçerlidir.



Haftanın bir gününü seçin.



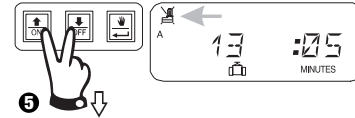
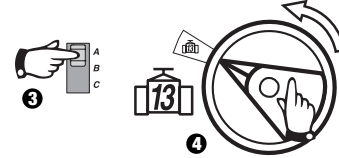
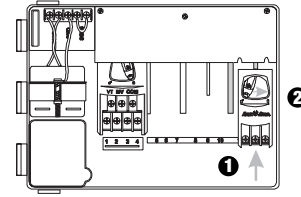
Sulama yapılmayan gün olarak ayarlamak için OFF düğmesine basın. Sulamayı yeniden açmak için ON düğmesine basın.





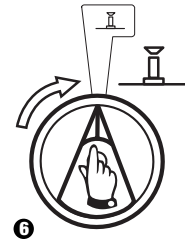
## IX. YARDIMCI VANANIN ÇALIŞTIRILMASI



Yardımcı vana terminali (13 numaralı vana) normal bir istasyon olarak çalıştırılabilir ya da aktif hale getirilmiş bir sensörden etkilenmeyecek şekilde programlanabilir. Bu şekilde programlandığında, yardımcı terminale, sulama cihazları dışındaki bahçe fışkiyesi ya da lambası gibi aletler bağlanabilir.



Aynı anda yukarı ↑ ve aşağı ↓ düğmelerine basarak bu vananın sensörden etkilenmediğini gösteren  simgesinin belirmesini bekleyin. Eski durumuna geri döndürmek için, yine her iki düğmeye birden basarak  simgesinin kaybolmasını bekleyin.



## X. BÜTÜN VANALARIN TEST EDİLMESİ

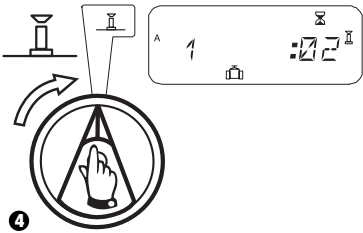


Bu işlev, bütün donanımlı vanaları sırayla belirlenen süre kadar çalıştırır. Varsayılan süre 2 dakikadır.

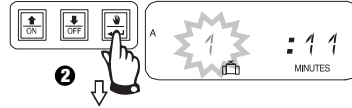


3 Başlatmak için basın.

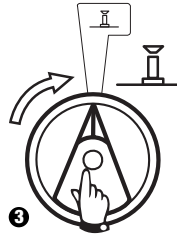
2 Varsayılan süre 2 dakikadır.





## XI. VANANIN (VEYA VANALARIN) ELLE ÇALIŞTIRILMASI



Başka vanaları elle çalıştırmak için 1 - 2 numaralı işlemleri tekrarlayın.



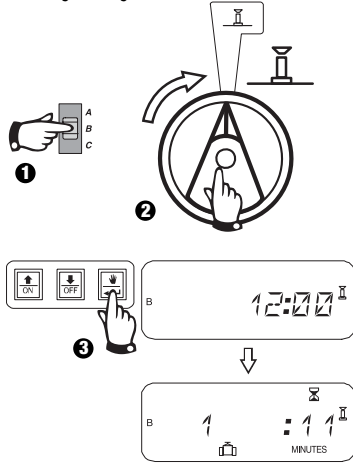
Elle çalışma süresi yukarı ya da aşağı çekerek ayarlayabilirsiniz.

İptal etmek için, kadranı  simgesine çevirin 3 saniye bekleyin. Kadranı  simgesine geri götürün.

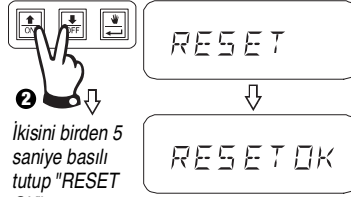


Elle sulama sona erdiğinde sistem yeniden saati gösterir.

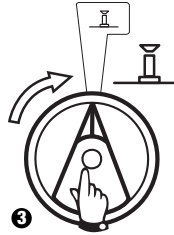
## XII. PROGRAMIN ELLE ÇALIŞTIRILMASI











## XIII. BÜTÜN PROGRAM BİLGİLERİNİN SİLİNMESİ



İkisini birden 5 saniye basılı tutup "RESET OK" (SIFIRLAMA TAMAM) mesajının görüntülenmesini bekleyin. Bırakın.








## SORUNLARIN



GİDERİLMESİ	BELİRTİOLASI	NEDENİÇÖZÜMÜ
Program otomatik olarak başlamıyor.	1. Kadran  (KAPALI) konumundadır.	Kadranı  (OTOMATİK) konumuna getirin.
	2. Programda başlama saati girilmemiştir.	Kadranı  SULAMA BAŞLAMA SAATLERİNİ AYARLAMA konumuna çevirin ve program için girilen başlama saatlerini kontrol edin. Başlama saati yoksa, 138. sayfada anlatıldığı gibi bunu girin.
	3. Programda bugün sulama günü olmayabilir.	Programı seçin, kadranı  İLERİ PERİYOTLAR konumuna getirin. Programdaki sulama günlerini kontrol edin.
	4. Sulama, Sürekli Kapalı Gün (ve Günler) özelliği tarafından engelleniyordur.	Sürekli Kapalı Gün (veya Günler) özelliği doğru olarak ayarlanmışsa, bir şey yapmaya gerek yoktur. Sürekli Kapalı Gün (veya Günler) özelliğini devreden çıkarmak için, 140. sayfaya bakın.
	5. Programdaki Sezon Ayar yüzdesi %0 yapılmıştır.	Sezon Ayar yüzdesini %0'dan büyük yapın. Bunun için 139. sayfadaki talimatlara bakın.
Ekranda bir vananın çalıştığı gösteriliyor, fakat hiç sulama gerçekleşmiyor.	6. Sulamaya sensör sistemi engel oluyordur.	Sensör anahtarını  BAYPAS konumuna getirin. Sulamaya devam ediliyorsa, sensör doğru çalışıyordu, ve bir şey yapmaya gerek yoktur.
	7. Kumanda cihazının SENS terminallerine hiçbir sensör ya da bağlantı elemanı (jumper) takılı olmayıp, sensör anahtarı  AKTIF konuma getirilmiştir.	Sensör anahtarını  BAYPAS konumuna getirin. Bunun ileride tekrarlanmaması için, cihazla beraber verilen bağlantı elemanını (jumper) kumanda cihazının SENS terminallerine takın.
Vana çalışmıyor	8. Vana için çalışma süresi ayarlanmamıştır.	Kadranı vana numarasına çevirin, ve program anahtarını ayarlayarak her bir programdaki çalışma süresini kontrol edin.
	9. Solenoit ya da vana kablolarındaki bir kısa devre nedeniyle istasyon devre dışı kalmıştır. (LED ALARM ışığı yanıyor.)	Ekranda "# Err" mesajı görülür (buradaki # arızalı vana numarasıdır). Devredeki arızayı tespit edip giderin. Eğer "MV Err" mesajı çıkarsa, arızayı giderin. Kadran  konumundayken , İLERİ düğmesini basarak LED Alarm ışığının sönmesini sağlayın.



## SORUNLARIN

GİDERİLMESİ	BELİRTİOLASI	NEDENİÇÖZÜMÜ
	10. Sulamaya sensör sistemi engel oluyordur.	6 numaralı nedenin çözümüne bakın.
	11. Vananın atandığı programda başlama saati girilmemiştir.	2 numaralı nedenin çözümüne bakın.
	12. Vananın programındaki Sezon Ayarı %0 yapılmıştır.	5 numaralı nedenin çözümüne bakın.
Ekran kısmen ya da tamamen boş.	13. Kumanda cihazının elektronik devreleri elektrik dalgalanması ya da yıldırım sonucu hasar görmüştür.	Ön panelin arkasındaki “RESET” (SIFIRLAMA) DÜĞMESİNE basın. Elektrik dalgalanması kalıcı bir hasara neden olmadıysa, kumanda cihazı, programlama komutlarını kabul eder ve normal çalışmaya başlar.
Sulama olmaması gereken zamanda başlıyor.	14.  ELLE ÇALIŞTIRMA / İLERİ düğmesine basılmıştır.	Elle başlatılan bir programı iptal etmek için, kadranı  (KAPALI) konumuna getirip üç saniye bekleyin. Ardından kadranı tekrar  (OTOMATİK) konumuna geri çevirin.
	15. İstenmeyen bir başlama saati girilmiş olabilir.	Kadranı  SULAMA BAŞLAMA SAATLERİNİ AYARLAMA konumuna çevirin ve programlarda istenmeyen bir başlama saati olup olmadığını kontrol edin. Başlama saatlerinin ayarlanması ve iptal edilmesi için 138. sayfaya bakın.
	16. Programlar karışmıştır.	Bir program çalışmaktayken başka birinin çalışmaya başlaması şeklinde ayar yapırsa programlar karışır. A, B, ve C programlarının başka bir program çalışma halindeyken başlayacak şekilde ayarlanmadıklarından emin olun.
LED Alarm ışığı yanık.	17. Başlama saati yoktur.	Bütün başlama saatleri silinmiştir. En az bir başlama saati girin ve kadranı tekrar  (OTOMATİK) konumuna geri çevirin. LED ışığı söner.

## SORUNLARIN

GİDERİLMESİ	BELİRTİOLASI	NEDENİÇÖZÜMÜ
	18. Çalışma süreleri yoktur.	Bütün aktif vanalar için varsayılan 10-dakikalık çalışma süresi silinmiştir. En az bir aktif vana için çalışma süresi girin ve kadranı tekrar  (OTOMATİK) konumuna geri çevirin. LED ışığı söner.
	19. Sezon ayarı %0 durumundadır.	Sezon ayarı % oranı sıfır yapılmıştır. Daha büyük bir sezon ayarı yapın ve kadranı tekrar  (OTOMATİK) konumuna geri çevirin. LED ışığı söner.
	20. İstasyon kısa devre yapmıştır.	Solenoit ya da vana kablolarındaki bir kısa devre nedeniyle istasyon devre dışı kalmıştır. 9 numaralı nedenin çözümüne bakın.



Controls Mfg. Division

## Declaration of Conformity

Application of Council Directives: 89/336/EEC  
73/23/EEC

Standards To Which  
Conformity Is Declared

EN55022 Class B, AS/NZ3548  
EN61000-3-2  
EN61000-3-3  
EN50082-1: 1998  
EN61000-4-2  
EN61000-4-3  
EN61000-4-3  
EN61000-4-4  
EN61000-4-5  
EN61000-4-6  
EN61000-4-8  
EN61000-4-11

EN 60335-1: 1995 Safety of household  
and similar electrical appliances

Manufacturer:

Rain Bird Corporation - Controls Mfg.  
Division - USA  
7590 Britannia Court, San Diego, CA 92154  
(619) 661-4480

Importer:

Rain Bird Europe, S.A.R.L. - France  
BP72000  
13792 Aix-en-Provence Cedex 3  
(33) 442 34 44 61

Rain Bird Australia Pty Ltd.  
ACN 004 644 446  
P.O. Box 11 Harrisville Qld. 4307

Equipment Description:

Irrigation Controller

Equipment Class:

Generic-Res, Comm, L.I.

Model Number:

ESP-4M, ESP-4MI, IESP-4M, IESP-4MI

I, the undersigned, hereby declare that the equipment specified above, conforms to the above Directive(s) and Standard(s).

Tijuana B. C., Mexico

Place

Signature

John Rafael Zwick

Full Name

General Manager

Position



***Notes / Notas***



**Rain Bird Corporation**

970 W. Sierra Madre  
Azusa, California 91702, U.S.A.  
626-963-9311

**Rain Bird International, Inc.**

145 North Grand Avenue  
Glendora, CA 91741 U.S.A.  
626-963-9311

**Rain Bird Europe**

900, rue Ampère, BP 72000  
13792 Aix en Provence Cedex 3 - France  
Phone : (33) 4 42 24 44 61  
Fax (33) 4 42 24 24 72

**Rain Bird France S.A.R.L.**

900, rue Ampère, BP 72000  
13792 Aix en Provence Cedex 3 -  
FRANCE  
Phone : (33) 4 42 24 44 61  
Fax : (33) 4 42 24 24 72

**Rain Bird Iberica S.A.**

Pol. Ind. Prado del Espino  
C/ Forjadores, Parc. 6, M18, S1  
28660 Boadilla del Monte Madrid -  
ESPAÑA  
Phone: (34) 916324810  
Fax: (34) 916324645

**Rain Bird Deutschland GmbH**

Sielderstraße 46  
71126 Gäufelden - Nebringen -  
DEUTSCHLAND  
Phone : (49) 7032-9901-0  
Fax : (49) 7032-9901-11

**Rain Bird Sverige A.B**

PL 345 (Fleninge)  
260 35 Odakra - SWEDEN  
Phone : (46) 42 20 58 50  
Fax (46) 42 20 40 65

**Rain Bird Turkey**

İstiklal Mahallesi,  
Alemdağ Caddesi, No 262  
81240 Ümraniye İstanbul - Turkey  
Phone: (90) 216 443 75 23  
Fax (90) 216 461 74 52

[www.rainbird.fr](http://www.rainbird.fr)

[www.rainbird.com](http://www.rainbird.com)

## CONFIGURATION DU MODE DE FONCTIONNEMENT DE LA POMPE/VANNE MAÎTRESSE

## CONFIGURANDO EL FUNCIONAMIENTO DE LA BOMBA Y LA VÁLVULA MAESTRA

## EINSTELLEN VON PUMPEN-/HAUPTVENTILBETRIEB

## SET MASTER VALVE/PUMP OPERATION

## IMPOSTAZIONE DEL FUNZIONAMENTO DELLA POMPA/VALVOLA PRINCIPALE

## WERKING VAN POMP/HOOFDKLEP INSTELLEN

## CONFIGURAÇÃO DO MODO DE FUNCIONAMENTO DA BOMBA / VÁLVULA MESTRA

Ρύθμιση της λειτουργίας της αντλίας/γενικής βαλβίδας

Pompanın/Master Vananın Çalışma Ayarı

*Répétez les étapes 3 et 4 pour configurer chaque station.*

*Repita los pasos 3 y 4 para todas las estaciones que desee configurar.*

*Schritt 3 und 4 für alle erforderlichen Stationen wiederholen.*

*Repeat steps 3 - 4 for additional valves.*

*Ripetere i passaggi 3 e 4 per tutte le stazioni necessarie.*

*Herhaal stap 3 en 4 voor alle benodigde stations.*

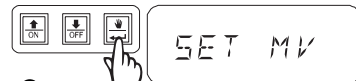
*Repita os passos 3 e 4 para todas as estações necessárias.*

*Επαναλάβετε τα βήματα 3 και 4 για όλους τους απαραίτητους σταθμούς.*

*Gerekli tüm istasyonlar için 3. ve 4. adımları tekrarlayın.*



1



2



3

3a

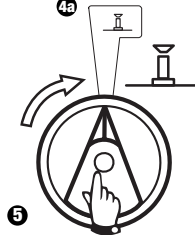
3b



4

4a

4b



5

**DÉLAI PROGRAMMABLE ENTRE LES STATIONS**

**DEMORA PROGRAMABLE ENTRE ESTACIONES**

**PROGRAMMIERBARE ZEITVERZÖGERUNG  
ZWISCHEN DEN STATIONEN**

**PROGRAM DELAY BETWEEN STATIONS**

**INTERVALLO PROGRAMMABILE TRA LE STAZIONI**

**PROGRAMMEERBAAR VERTRAGINGSINTERVAL  
TUSSEN STATIONS**

**INTERVALO PROGRAMÁVEL ENTRE ARRANQUE  
DAS ESTAÇÕES**

Καθυστέρηση με δυνατότητα προγραμματισμού  
μεταξύ σταθμών

İstasyonlar Arasında Programlanabilir Gecikme

*Appuyez sur OFF pendant 3 secondes.*

*Presione "OFF" durante 3 segundos.*

*Drücken Sie OFF für 3 Sekunden.*

*Press OFF for 3 seconds.*

*Premere OFF per 3 secondi.*

*Druk op OFF gedurende 3 seconden.*

*Pressionar OFF durante 3 segundos.*

*Πατήστε το OFF για 3 δευτερόλεπτα*

*3 saniye OFF tuşuna basınız*

