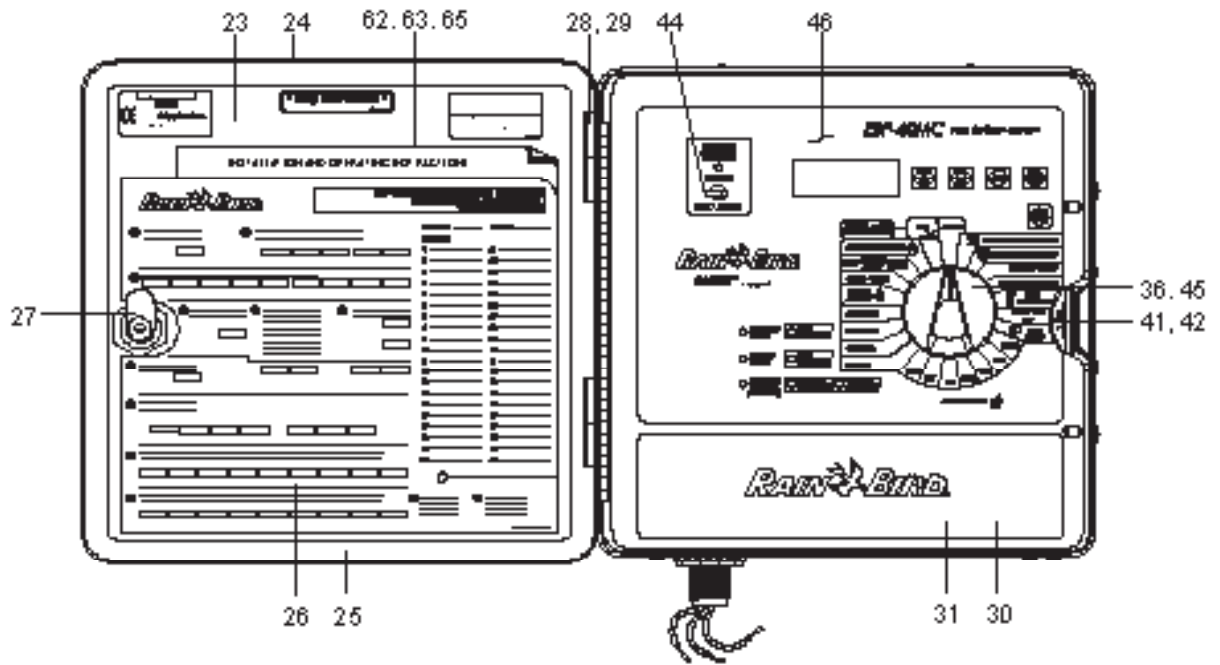
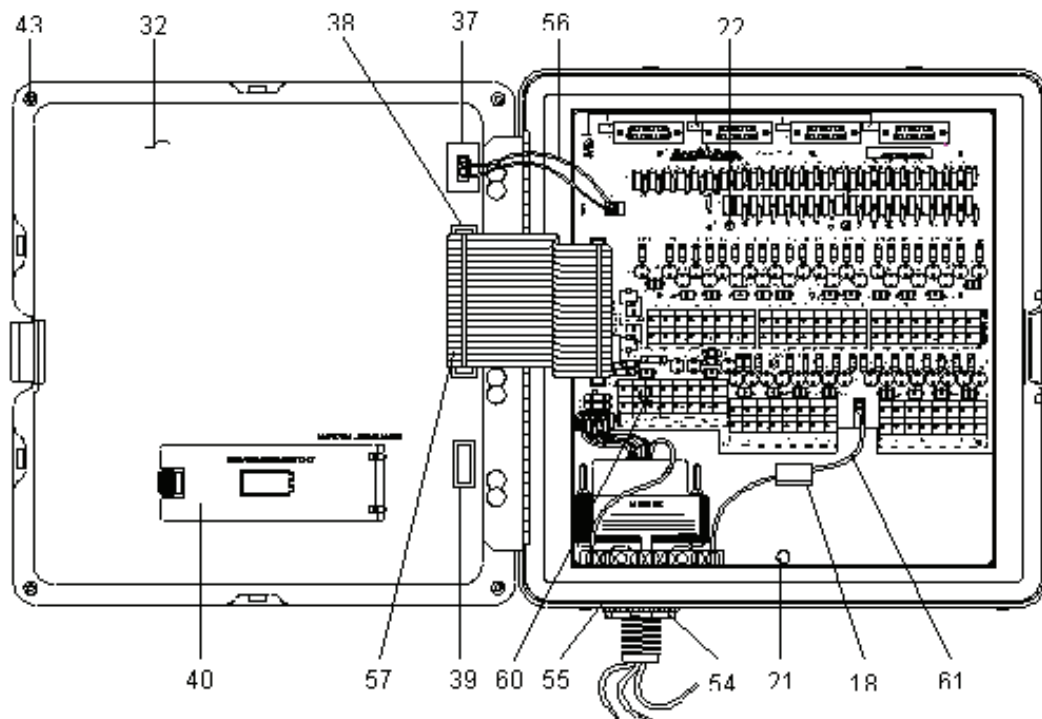


ESP-MC Front Panel in Closed Position

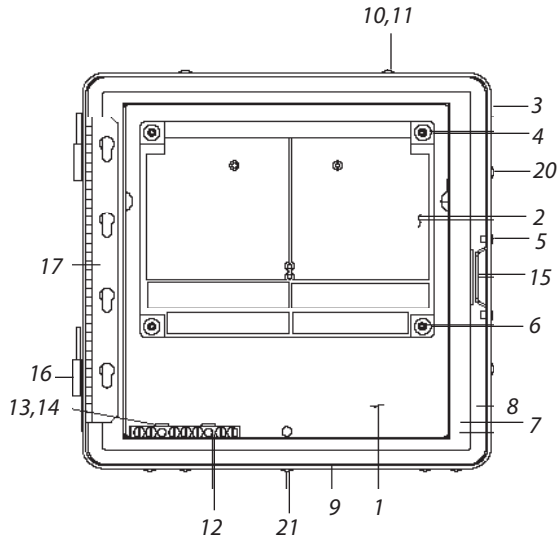


ESP-MC Front Panel in Open Position

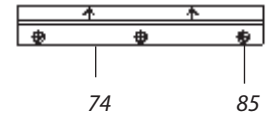


Note: Part numbers enclosed in brackets ( ) are not available individually, but may be sold in assemblies or kits.

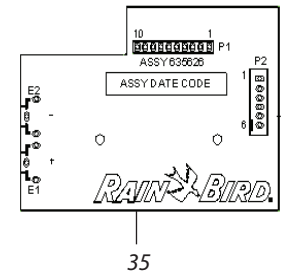
ESP-MC Cabinet Assembly



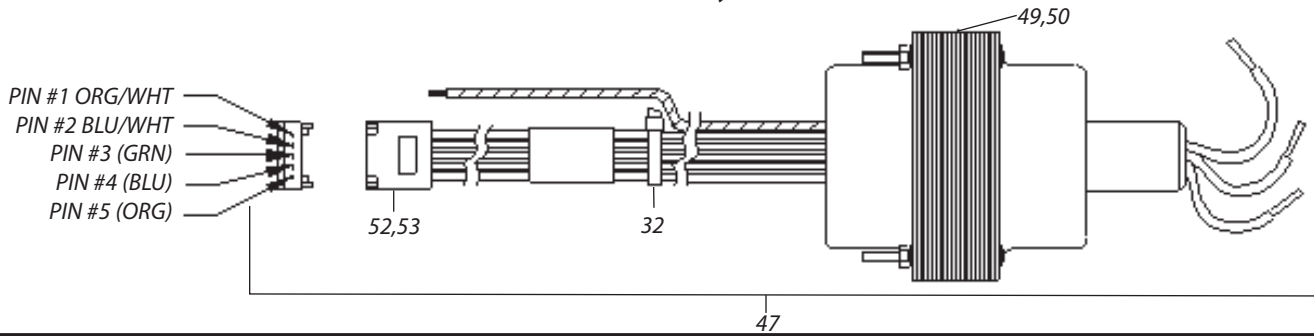
Bracket Wall-Mount Assembly



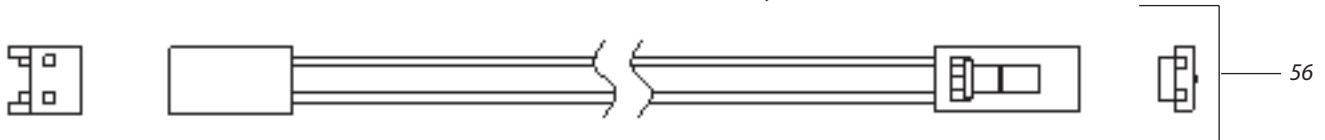
ESP-MC Battery Board Assembly



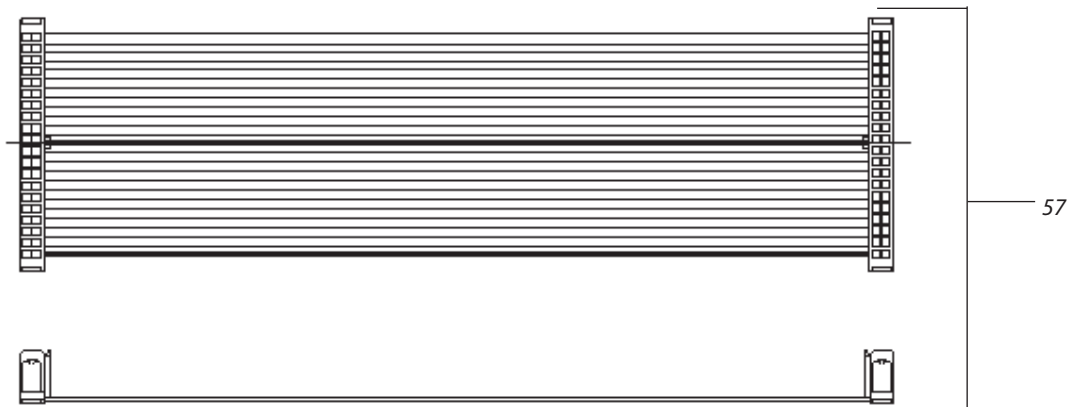
Transformer Assembly - ESP-MC



ESP-MC Sensor Cable Assembly

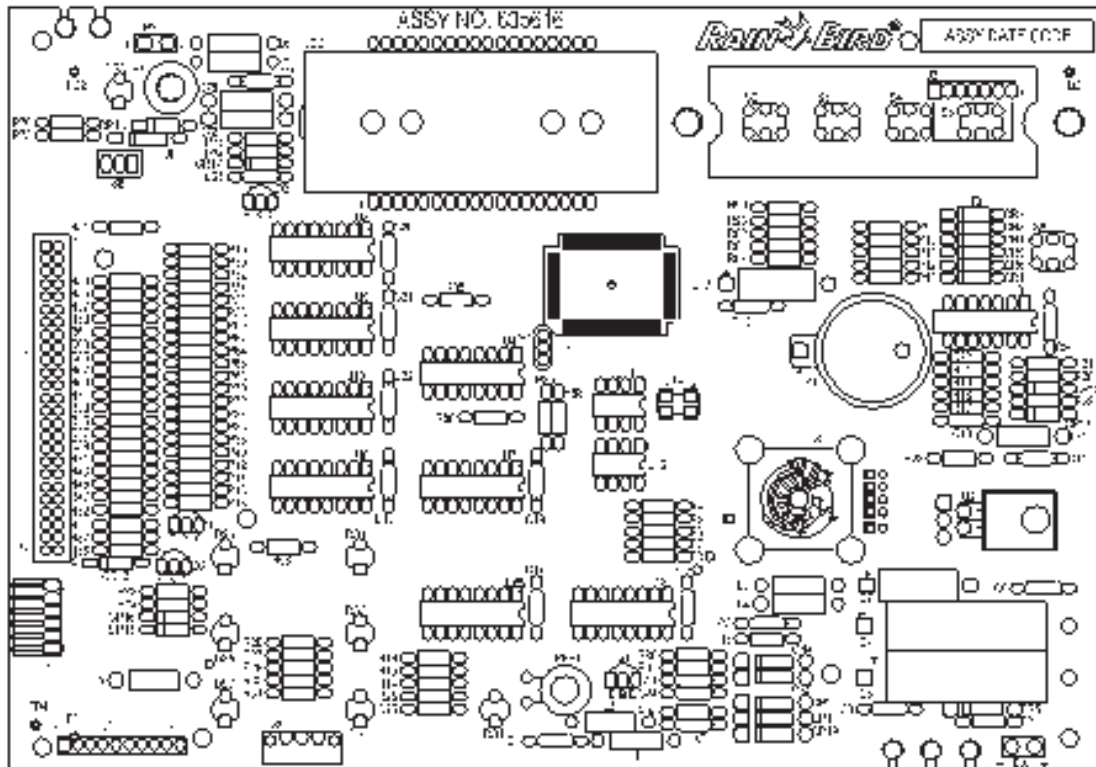


ESP-MC Cable Harness Assembly

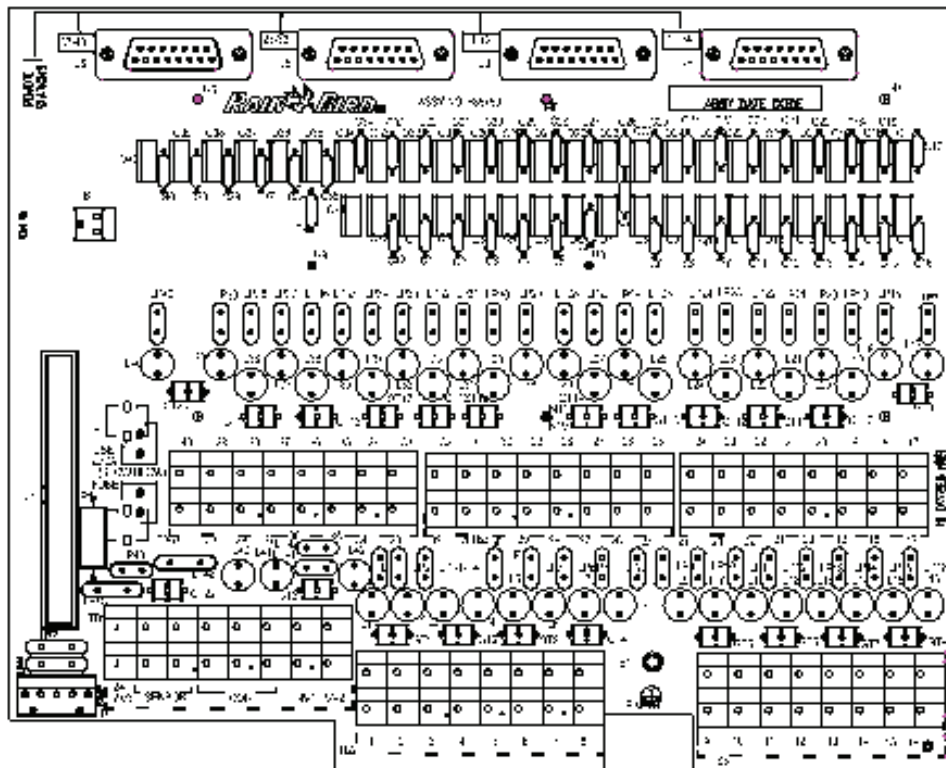


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Control PWB Assembly



Terminal PWB Assembly



Note: Part numbers enclosed in brackets ( ) are not available individually, but may be sold in assemblies or kits.

Ref	Description	Qty	ESP-12MC	ESP-24MC	ESP-40MC
1	ESP-MC CABINET ASSEMBLY	1	(633583)	(633583)	(633583)
2	Spacer, Terminal Board	1	(631919)	(631919)	(631919)
3	Cabinet, Draw Formed	1	(634126-03)	(634126-03)	(634126-03)
4	Washer, Flat #10	4	(650023-13)	(650023-13)	(650023-13)
5	Rivet Semitubular Oval Head	6	(650401)	(650401)	(650401)
6	Rivet Blind	4	(650434-13)	(650434-13)	(650434-13)
7	Seal, Panel-Frame	1	(635590)	(635590)	(635590)
8	Frame	1	(635591)	(635591)	(635591)
9	Seal, Frame-Cabinet	1	(635592)	(635592)	(635592)
10	Fastener, Push-in	8	(651594)	(651594)	(651594)
11	Washer, Fastener Seal Push-in	8	(635634)	(635634)	(635634)
12	Grounding Bar	1	(651440)	(651440)	(651440)
13	Washer, #8 Lock External Tooth	2	(650163-03)	(650163-03)	(650163-03)
14	Screw, #8-32x.625 Pan Head	2	(650106-46)	(650106-46)	(650106-46)
15	Strike, Lock	1	(635744)	(635744)	(635744)
16	Hinge, Male	2	(629227-01)	(629227-01)	(629227-01)
17	Hinge, Panel	1	(635593)	(635593)	(635593)
18	Wire Clip	1	(651446-02)	(651446-02)	(651446-02)
19	Corrosion Inhibitor Foam	1	(651331)	(651331)	(651331)
20	Plug Hole, .187 Nylon White	2	(650485-02)	(650485-02)	(650485-02)
21	Plug Hole, .250 Nylon White	4	(650485-04)	(650485-04)	(650485-04)
22	Screw, Hi-Lo #7-19x1/2 Pan Head	3	(650183-63)	(650183-63)	(650183-63)
23	ESP-MC DOOR ASSEMBLY	1	(635740-09)	(635740-09)	(635740-09)
24	Door Painted Gray	1	(629113-03)	(629113-03)	(629113-03)
25	Gasket "D" Shape	1	(651573)	(651573)	(651573)
26	Pocket, Door	1	(633174)	(633174)	(633174)
27	Lock, Cam	1	650755	650755	650755
28	Hinge, Female	2	(635745)	(635745)	(635745)
29	Rivet, Semitubular Oval Head	4	(650401)	(650401)	(650401)
30	ESP-MC FRONT PANEL ASSY	1	K01718	K01918	K02218
31	Front Panel	1	(635584)	(635584)	(635584)
32	Back Cover	1	(635588)	(635588)	(635588)
33	Seal Panel	1	(635587)	(635587)	(635587)
34	Control Board Assembly	1	(635616-02)	(635616-04)	(635616-06)
35	Battery Board Assembly	1	(635626-01)	(635626-01)	(635626-01)
36	Knob, Function Selector	1	(630946)	(630946)	(630946)
37	Gasket, Sensor Connector	1	(635733)	(635733)	(635733)
38	Gasket, Flat Cable Connector	1	(635734)	(635734)	(635734)
39	Gasket, Maxicom Connector	1	(635735)	(635735)	(635735)
40	Door, Battery	1	(635589)	(635589)	(635589)
41	Latch	1	(635620)	(635620)	(635620)
42	Spring Latch	1	(651609)	(651609)	(651609)
43	Screw, #4-24x5/16 Washer Head	4	(650563-23)	(650563-23)	(650563-23)
44	Boot, Sensor Switch	1	(635632)	(635632)	(635632)
45	Boot, Rotary Switch	1	(635633)	(635633)	(635633)
46	Overlay, Membrane Switch	1	(635594-02)	(635594-04)	(635594-06)

Note: Part numbers enclosed in brackets ( ) are not available individually, but may be sold in assemblies or kits.

Ref	Description	Qty	ESP-12MC	ESP-24MC	ESP-40MC
47	Transformer Assembly 60 Hz	1	633148-01	633148-01	633148-01
48	Transformer Assembly 50 Hz	1	633148-02	633148-02	633148-02
49	Transformer 120 Volts	1	(633146)	(633146)	(633146)
50	Transformer 230 Volts	1	(633147)	(633147)	(633147)
51	Cable Tie, Nylon 7/8 Bundle	1	(650131)	(650131)	(650131)
52	Housing Crimp Terminal 5 Circ.	1	(650873-02)	(650873-02)	(650873-02)
53	Terminal Crimp Molex	5	(650323)	(650323)	(650323)
54	Locknut Conduit	1	(628013)	(628013)	(628013)
55	Washer Lock External Tooth	1	(651389)	(651389)	(651389)
CABLE ASSEMBLIES ESP-MC					
56	Cable Sensor Assembly	1	(635624-01)	(635624-01)	(635624-01)
57	Cable Assembly Ribbon	1	(635622)	(635622)	(635622)
58	Control PWB Assy ESP-MC	1	(635616-02)	(635616-04)	(635616-06)
C3,8,9,10,14					
16,17,20,24	Capacitor, .1uF, 50V	9	(650085-55)	(650085-55)	(650085-55)
C21	Capacitor, 1uF, 50V	1	(650085-55)	(650085-55)	(650085-55)
C22	Capacitor, 1uF, 50V	1	—	(650085-55)	(650085-55)
C18	Capacitor, 1uF, 50V	1	—	—	(650085-55)
C19	Capacitor, 1uF, 50V	1	—	—	(650085-55)
C1,2,11,23,25	Capacitor, .01uF, 100V	5	(650882-01)	(650882-01)	(650882-01)
C4	Capacitor Elect. 1000uF, 25V	1	(651054-12)	(651054-12)	(651054-12)
C5	Capacitor Elect. 330uF, 25V	1	(650624)	(650624)	(650624)
C6	Capacitor NPO	1	(650833-13)	(650833-13)	(650833-13)
C7,15	Capacitor Elect. 47uF, 10V	2	(650044-03)	(650044-03)	(650044-03)
CR1,5,19	Diode, 1N4002	6	(650077-02)	(650077-02)	(650077-02)
VR1	Diode Zener, 1N5232B	1	(650038-71)	(650038-71)	(650038-71)
CR6	Diode Switch, 1N4148	1	(650037-01)	(650037-01)	(650037-01)
CR7	Diode Switch, 1N4148	1	(650037-01)	(650037-01)	(650037-01)
CR8	Diode Switch, 1N4148	1	—	(650037-01)	—
CR9	Diode Switch, 1N4148	1	—	—	(650037-01)
CR11,18	Diode Switch, 1N4148	8	(650037-01)	(650037-01)	(650037-01)
DS1-DS8	Led, Red .200 Centers	8	(650910)	(650910)	(650910)
L1-L7	Inductor Ferrite	7	(650300-05)	(650300-05)	(650300-05)
P2	Sensor Cable	1	(635623-01)	(635623-01)	(635623-01)
Q1,Q2	Transistor PNP	2	(650369)	(650369)	(650369)
Q3,Q4	Transistor PNP 625 mW	2	(650367)	(650367)	(650367)
R2	Resistor 1/4 W, 3.3k Ohms	1	(650079-85)	(650079-85)	(650079-85)
R19,91	Resistor 1/4 W, 10k Ohms	2	(650079-97)	(650079-97)	(650079-97)
R3,74,					
75,96,97	Resistor 1/4 W, 220k Ohms	5	(650080-30)	(650080-30)	(650080-30)
R20,21,22,84,					
87,88,89,90	Resistor 1/4 W, 4.7k Ohms	8	(650079-89)	(650079-89)	(650079-89)
R4-16,73,					
81,82,93,94	Resistor 1/4 W, 100k Ohms	18	(650080-22)	(650080-22)	(650080-22)
R18,80,83,86	Resistor 1/4 W, 47k Ohms	4	(650080-14)	(650080-14)	(650080-14)
R95,R17	Resistor 1/4 W, 1k Ohms	2	(650079-73)	(650079-73)	(650079-73)
R23,R85	Resistor 1/4 W, 10 Ohms	2	(650079-25)	(650079-25)	(650079-25)
R25-R31	Resistor 1/4 W, 470 Ohms	7	(650079-65)	(650079-65)	(650079-65)
R24,32,					
98,49,56	Resistor 1/4 W, 150 Ohms	11	(650079-53)	(650079-53)	(650079-53)
R57-60	Resistor 1/4 W, 150 Ohms	4	(650079-53)	(650079-53)	(650079-53)
R61-64	Resistor 1/4 W, 150 Ohms	4	—	(650079-53)	(650079-53)
R65-72	Resistor 1/4 W, 150 Ohms	8	—	(650079-53)	(650079-53)
R33-36	Resistor 1/4 W, 150 Ohms	4	—	—	(650079-53)
R37-40	Resistor 1/4 W, 150 Ohms	4	—	—	(650079-53)
R41-44	Resistor 1/4 W, 150 Ohms	4	—	—	(650079-53)

Note: Part numbers enclosed in brackets ( ) are not available individually, but may be sold in assemblies or kits.

Ref	Description	Qty	ESP-12MC	ESP-24MC	ESP-40MC
R45-48	Resistor 1/4 W, 150 Ohms	4	—	—	(650079-53)
R78,79	Resistor 1/4 W, 150 Ohms	2	(650202-73)	(650202-73)	(650202-73)
S7	Switch, Rotary	1	(630609)	(630609)	(630609)
TS1	Trransorb Bi-Directional P6KE6.8	1	(650595-01)	(650595-01)	(650595-01)
U1	Microcomp, Toshiba, OTP	1	(633088)	(633088)	(633088)
U2	Regulator, Low Dropout, L4947H	1	(650962)	(650962)	(650962)
(U2)	Rivet, Blind Dome .125 Dia.	1	(650139-05)	(650139-05)	(650139-05)
(U2)	Washer, flat #5	1	(650023-03)	(650023-03)	(650023-03)
U3	I.C. Quad OP AMP, LM324	1	(650358)	(650358)	(650358)
U4	3-8 Line Decoder, 74HC259	1	(650699)	(650699)	(650699)
U5,U8	8 Bit Addressable Latch, 74HC259	2	(650889)	(650889)	(650889)
U9	8 Bit Addressable Latch, 74HC259	1	(650889)	(650889)	(650889)
U10	8 Bit Addressable Latch, 74HC259	1	—	(650889)	(650889)
U6	8 Bit Addressable Latch, 74HC259	1	—	—	(650889)
U7	8 Bit Addressable Latch, 74HC259	1	—	—	(650889)
U11	I.C. Real Time Clock, DS1302	1	(651011)	(651011)	(651011)
U12	I.C. EEPROM-4K Byte Serial	1	(651012)	(651012)	(651012)
U13	I.C. 8 Bit Input Mux	1	(651014)	(651014)	(651014)
B1	Battery, Lithium, 3V	1	(651009)	(651009)	(651009)
(B1)	Holder, Battery	1	(651010)	(651010)	(651010)
Y1	Resonator, Ceramic, 8 Mhz	1	(651013)	(651013)	(651013)
RPF1	Polyswitch, RXE, 60V, .65A	1	(651055-08)	(651055-08)	(651055-08)
R92	Resistor 1/4W, 8.2k Ohms	1	(650079-95)	(650079-95)	(650079-95)
S9	Switch, Slide	1	(651292)	(651292)	(651292)
C26	Capacitor, NPO 220pF, 100V	1	(650883-17)	(650883-17)	(650883-17)
R76	Resistor 1/4W, 2k Ohms	1	(650079-80)	(650079-80)	(650079-80)
LCD1	Liquid Crystal Display	1	(635361)	(635361)	(635361)
(LCD1)	Spacer, LCD	1	(635339)	(635339)	(635339)
J3	Header, Right Angle .100 Centers	1	(650530-07)	(650530-07)	(650530-07)
J1	Transition Socket, 10 Pins	1	(651607)	(651607)	(651607)
S8	Toggle Switch	1	(651606)	(651606)	(651606)
P1	Ribbon Cable Assembly	1	(635621)	(635621)	(635621)
U14	Crystal Osc. SMT Quartz, 32.768Khz1	(651665)	(651665)	(651665)	(651665)
S9	Terminal PWB Assy ESP-MC		(636015-02)	(636015-04)	(636015-06)
LP43	MOV 50V, 2500A	1	(651272)	(651272)	(651272)
C1-8,41,42	Capacitor .01uF, 100V	10	(650882-01)	(650882-01)	(650882-01)
C9-C12	Capacitor .01uF, 100V	4	(650882-01)	(650882-01)	(650882-01)
C13-16	Capacitor .01uF, 100V	4	—	(650882-01)	(650882-01)
C17-24	Capacitor .01uF, 100V	8	—	(650882-01)	(650882-01)
C25-28	Capacitor .01uF, 100V	4	—	—	(650882-01)
C29-32	Capacitor .01uF, 100V	4	—	—	(650882-01)
C33-36	Capacitor .01uF, 100V	4	—	—	(650882-01)
C37-40	Capacitor .01uF, 100V	4	—	—	(650882-01)
L1-8,41,42,43	Inductor, 22uH, 1.28A	11	(635771-10)	(635771-10)	(635771-10)
L9-12	Inductor, 22uH, 1.28A	4	(635771-10)	(635771-10)	(635771-10)
L13-16	Inductor, 22uH, 1.28A	4	—	(635771-10)	(635771-10)
L17-24	Inductor, 22uH, 1.28A	8	—	(635771-10)	(635771-10)
L25-28	Inductor, 22uH, 1.28A	4	—	—	(635771-10)
L29-32	Inductor, 22uH, 1.28A	4	—	—	(635771-10)
L33-36	Inductor, 22uH, 1.28A	4	—	—	(635771-10)
L37-40	Inductor, 22uH, 1.28A	4	—	—	(635771-10)

Note: Part numbers enclosed in brackets ( ) are not available individually, but may be sold in assemblies or kits.



Ref	Description	Qty	ESP-12MC	ESP-24MC	ESP-40MC
LP1,8,41,42	Mov, 50V, 2500A	10	(651272)	(651272)	(651272)
LP9-12	Mov, 50V, 2500A	4	(651272)	(651272)	(651272)
LP13-16	Mov, 50V, 2500A	4	—	(651272)	(651272)
LP17-24	Mov, 50V, 2500A	8	—	(651272)	(651272)
LP25-28	Mov, 50V, 2500A	4	—	—	(651272)
LP29-32	Mov, 50V, 2500A	4	—	—	(651272)
LP33-36	Mov, 50V, 2500A	4	—	—	(651272)
LP37-40	Mov, 50V, 2500A	4	—	—	(651272)
LP44	Mov, 47V, 1000A	1	(650875)	(650875)	(650875)
LP45-47	Mov, 56V, 1000A	2	(624624)	(624624)	(624624)
Q1-8,41,42	Triac, 6A	10	(651138)	(651138)	(651138)
Q9-12	Triac, 6A	4	(651138)	(651138)	(651138)
Q13-16	Triac, 6A	4	—	(651138)	(651138)
Q17-24	Triac, 6A	8	—	(651138)	(651138)
Q25-28	Triac, 6A	4	—	—	(651138)
Q29-32	Triac, 6A	4	—	—	(651138)
Q33-36	Triac, 6A	4	—	—	(651138)
Q37-40	Triac, 6A	4	—	—	(651138)
R1	Resistor, 2W, .1 Ohms	1	(650766-01)	(650766-01)	(650766-01)
J1	Header, Polzd. .100 Centers	1	(650872-50)	(650872-50)	(650872-50)
TB1-TB2	Terminal Block, .300 SPC, 1 POS	16	(651000-01)	(651000-01)	(651000-01)
TB3	Terminal Block, .300 SPC, 1 POS	8	(651000-01)	(651000-01)	(651000-01)
TB4	Terminal Block, .300 SPC, 1 POS	8	—	(651000-01)	(651000-01)
TB5	Terminal Block, .300 SPC, 1 POS	8	—	—	(651000-01)
TB6	Terminal Block, .300 SPC, 1 POS	8	—	—	(651000-01)
(F1)	Fuse Clip (120 V)	2	(650098)	(650098)	(650098)
F1	Fuse, Slow Blow, 120 V, 2.5 Amp	1	(650431-28)	(650431-28)	(650431-28)
(F1)	Fuse Clip (220 V)	2	(651515)	(651515)	(651515)
F1	Fuse, Slow Blow, 220 V, 2.5 Amp	1	(650966-14)	(650966-14)	(650966-14)
GT1-4,21,22	Gas Tube, 300V, 20kA	6	(651427)	(651427)	(651427)
GT5-6	Gas Tube, 300V, 20kA	2	(651427)	(651427)	(651427)
GT7-8	Gas Tube, 300V, 20kA	2	—	(651427)	(651427)
GT9-12	Gas Tube, 300V, 20kA	4	—	(651427)	(651427)
GT13-14	Gas Tube, 300V, 20kA	2	—	—	(651427)
GT15-16	Gas Tube, 300V, 20kA	2	—	—	(651427)
GT17-18	Gas Tube, 300V, 20kA	2	—	—	(651427)
GT19-20	Gas Tube, 300V, 20kA	2	—	—	(651427)
LP46	Mov, 35V, 1000A	2	(624624)	(624624)	(624624)
J2	Header, Snap-in Pegs, 2 Pin	1	(651491-02)	(651491-02)	(651491-02)
J7	Header, Snap-in Pegs, 5 Pins	1	(651491-05)	(651491-05)	(651491-05)
J3	Connector, DB-15, Straight	1	(651659)	(651659)	(651659)
J4	Connector, DB-15, Straight	1	—	(651659)	(651659)
J5	Connector, DB-15, Straight	1	—	—	(651659)
J6	Connector, DB-15, Straight	1	—	—	(651659)
60	Sensor Jumper Wire	1	(633442)	(633442)	(633442)
61	Grounding Wire, 12 AWG	1	(634943-11)	(634943-11)	(634943-11)
Accessories ESP-MC					
62	Operation Manual	1	634593	634593	634593
63	Poster Installation Instruc. ESP-MC	1	634529	634529	634529
65	Card, Customer Registration	1	632354	632354	632354
66	Battery Nicad	1	650929	650929	650929
67	Wire Nuts Kit	1	(634613)	(634613)	(634613)
68	Mounting Screw Kit	1	(633182)	(633182)	(633182)
69	Mounting Plate Assy.	1	(635005-02)	(635005-02)	(635005-02)

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