Before installing any of the enclosed components - all battery corrosion MUST be cleaned and neutralized from circuit board assembly. For detailed instructions of cleaning and restoring acid damaged boards – refer to "Repairing Bally Electronic Pinball Games From 1977 to 1985" located at: http://www.marvin3m.com/bally/index.htm.

The components included with this kit are for the typical area of battery acid damage. The corrosion area is usually in the lower middle section of the board surrounding the battery. This kit only covers this section of the board and includes the components listed below. There are many extremes to this type of damage. Sometimes not all of these components are required to perform the repairs. But occasionally, additional parts are required to perform a complete acid damage repair. Most of these additional parts are also available at reasonable prices from Great Plains Electronics.

Refer to the Bally MPU drawing for locations of these components: U8 - Static RAM, 450nS (maximum), part type 5101 (Note -- Included with BALLY35-BA1-KIT only) 1ea – 22 pin IC Socket, machine pin type (for U8) C1 – Capacitor, 820pF, Axial Ceramic – part marking = 821 C2 – Capacitor, 820pF, Axial Ceramic – part marking = 821 C3 – Capacitor, 0.01uF, Axial Ceramic – part marking = 103 C5 – Capacitor, 4.7uF, Tantalum, Dipped – part marking = 475 C13 – Capacitor, 0.01uF, Axial Ceramic – part marking = 103 C80 – Capacitor, 0.01uF, Axial Ceramic – part marking = 103 CR5 - Diode, Switching, 1N4148 CR7 - Diode, Switching, 1N4148 CR8 – Light Emitting Diode, Green CR44 - Diode, Rectifier, 1N4004 R1 - Resistor, 8.2K ohm, 1/4 Watt, 5% (Gray, Red, Red, Gold) R2 - Resistor, 120K ohm, 1/4 Watt, 5% (Brown, Red, Yellow, Gold) R3 - Resistor, 8.2K ohm, 1/4 Watt, 5% (Gray, Red, Red, Gold) R11 - Resistor, 82 ohm, 2 Watt, 5% (Gray, Red, Black, Gold - or blue with value printed on it) R12 - Resistor, 270 ohm, 1/4 Watt, 5% (Red, Purple, Brown, Gold) R16 - Resistor, 2K ohm, ¼ Watt, 5% (Red, Black, Red, Gold) - For Bally and Stern MPU-100's R16 - Resistor, 2.2K ohm, 1/4 Watt, 5% (Red, Red, Red, Gold) - For Stern MPU-200's R17 - Resistor, 150K ohm, 1/4 Watt, 5% (Brown, Green, Yellow, Gold) R24 - Resistor, 8.2K ohm, 1/4 Watt, 5% (Gray, Red, Red, Gold) R28 - Resistor, 8.2K ohm, 1/4 Watt, 5% (Gray, Red, Red, Gold) R29 - Resistor, 470 ohm, 1/2 Watt, 5% (Yellow, Purple, Brown, Gold) R107 – Resistor, 3.3K ohm, 1/4 Watt, 5% (Orange, Orange, Red, Gold) R112 - Resistor, 1K ohm, 1/4 Watt, 5% (Brown, Black, Red, Gold) R113 - Resistor, 2K ohm, 1/4 Watt, 5% (Red, Black, Red, Gold) - For Bally and Stern MPU-100's

- R113 Resistor, 2.2K ohm, 1/4 Watt, 5% (Red, Red, Red, Gold) For Stern MPU-200's
- R134 Resistor, 4.7K ohm, 1/4 Watt, 5% (Yellow, Purple, Red, Gold)
- R140 Resistor, 20K ohm, 1/4 Watt, 5% (Red, Black, Orange, Gold)
- Q1 Transistor, 2N3904 or 2N4401
- Q2 Transistor, 2N3904 or 2N4401
- Q5 Transistor, 2N4403 or 2N3906
- VR1 Diode, Zener, 8.2V, Part Type 1N4738A (Alternate for 1N9598)

Notes:

1 – The active components in this kit (Q1, Q2, Q5, and especially U8) are susceptible to Electrostatic Discharge (ESD or static electricity). These components can be damaged by less static electricity than is noticeable by human touch. User must be grounded to dissipate static electricity buildup prior to handling these components.

2 – The following components are polarized – there is only one proper orientation to install these parts. Examine the original board and assembly drawing for proper orientation. Failure to follow these instructions may result in physical damage to these or other components when powered up.

Polarized components: U8, C5, CR5, CR7, CR8, CR44, Q1, Q2, Q5, and VR1. Also, care should be taken to orient IC sockets in proper direction – the socket's pin one indicator should be oriented such that pin one of the IC socket matches that of the IC to be installed

3 – The Static RAM (5101) provided in this kit is obsolete and becoming scarce. If the existing device on the MPU is undamaged and still functional, it is recommended to retain the 5101 provided with this kit (BALLY35-BA1-KIT only) as a spare.

4 – Replace R16 and R113 with either 2K or 2.2K ohm resistor depending on current value installed. Both R16 and R113 should have same value.

Parts List Bally AS-2518-35 or Stern MPU-100				
Item	Otv	Reference Designation	Part Number	Description
3	1	R12	RCF1/4-270	Resistor, 270, 1/4W
4	1	R14	RCF1/4-10K	Resistor, 10K, 1/4W
5	1	R29	RCF1/2-470	Resistor, 470, 1/2W
6	2	R4, R10	RCF1/4-5.6K	Resistor, 5.6K, 1/4W
7	4	R101-R104	RCF1/4-330	Resistor, 330, 1/4W
8	51	R19, R47-R58, R60-R96, R133	RCF1/4-1.2K	Resistor, 1.2K, 1/4W
9	4	R1, R3, R24, R28	RCF1/4-8.2K	Resistor, 8.2K, 1/4W
10	5	R6, R7, R23, R112, R131	RCF1/4-1K	Resistor, 1K, 1/4W
11	2	R8, R9	RCF1/4-20	Resistor, 20, 1/4W
12	1	R137	RCF1/4-150	Resistor, 150, 1/4W
13	1	R5	RCF1/4-2K	Resistor, 2K, 1/4W
14	12	R13, R20, R31-R38, R107, R136	RCF1/4-3.3K	Resistor, 3.3K, 1/4W
15	2	R22, R134	RCF1/4-4.7K	Resistor, 4.7K, 1/4W
16	1	R11	RM02-82	Resistor, 82, 2W
17	1	R140	RCF1/4-20K	Resistor, 20K, 1/4W
18	2	R15, R135	RCF1/4-30K	Resistor, 30K, 1/4W
19	1	R2	RCF1/4-120K	Resistor, 120K, 1/4W
20	1	R30	RCF1/4-270K	Resistor, 270K, 1/4W
21	1	R18	RCF1/4-1.5M	Resistor, 1.5M, 1/4W
22	1	R59	RCF1/4-110	Resistor, 110, 1/4W
23	5	R97-R100, R106	RCF1/4-470	Resistor, 470, 1/4W
25	13	R39-R46, R108-R111, R132	RCF1/4-56K	Resistor, 56K, 1/4W
26	1	R21	RCF1/4-36K	Resistor, 36K, 1/4W
27	1	R17	RCF1/4-150K	Resistor, 150K, 1/4W
28	7	R5, R16, R113-R117	RCF1/4-2K	Resistor, 2K, 1/4W
29	10	R122-R130, R138	RCF1/4-47K	Resistor, 47K, 1/4W
31	4	R118-R121	RCF1/4-3.6K	Resistor, 3.6K, 1/4W
32	1	R139	RCF1/4-24K	Resistor, 24K, 1/4W
33	2	C14, C15	CCA-470pF-50V	Capacitor, Axial Ceramic, 470pF
34	1	C18	CCA-0.05uF-50V	Capacitor, Axial Ceramic, 0.05uF
35	1	C16	CP-0.1uF-50V	Capacitor, Polyester, 0.1uF
36	2	C4, C5	CTR-4.7uF-10V	Capacitor, Radial Tantalum, 4.7uF
37	11	C3, C6-13, C17, C80	CCA-0.01uF-50V	Capacitor, Axial Ceramic, 0.01uF
38	28	C41-C67, C79	CCA-470pF-50V	Capacitor, Axial Ceramic, 470pF
39	22	C19-C31, C33-C40, C78	CCA-390pF-50V	Capacitor, Axial Ceramic, 390pF
39 40	22 12	C19-C31, C33-C40, C78 C1, C2, C68-C77	CCA-390pF-50V CCA-820pF-50V	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF
39 40 41	22 12 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF
39 40 41 43	22 12 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP
39 40 41 43 44	22 12 1 1 2	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN
39 40 41 43 44 47	22 12 1 1 2 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A
39 40 41 43 44 47 48	22 12 1 1 2 1 45	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode
39 40 41 43 44 47 48 49	22 12 1 1 2 1 45 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4
39 40 41 43 44 47 48 49 50	22 12 1 1 2 1 45 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W
39 40 41 43 44 47 48 49 50 52	22 12 1 1 2 1 45 1 1 2 2	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current
39 40 41 43 44 47 48 49 50 52 52 53	22 12 1 1 2 1 45 1 1 2 1 2 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer
39 40 41 43 44 47 48 49 50 52 53 52 53 54	22 12 1 1 2 1 45 1 1 2 1 2 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate
39 40 41 43 44 47 48 49 50 52 53 52 53 54 55	22 12 1 1 2 1 45 1 1 2 1 2 1 1 2 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U9	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6001	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU)
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57	22 12 1 1 2 1 45 1 1 2 1 1 2 1 1 1 1 2 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U2	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA)
39 40 41 43 44 47 48 49 50 52 52 52 52 53 54 55 56 57 57	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8
39 40 41 43 44 47 48 49 50 52 53 52 53 52 53 54 55 56 57 59 50	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 2 1 1 2 1 1 2 1 2 1 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U10	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4040	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Hex Inverter
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61	22 12 1 1 2 1 45 1 1 1 1 1 1 1 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U10	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Hex Inverter IC, Quad 2-Input NAND Buffer
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 2440720	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Hex Inverter IC, Quad 2-Input NAND Buffer IC, Dual Monostable Multivibrator
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 62 64 62	22 12 1 1 2 1 45 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U20	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Euffer IC, Hex Inverter IC, Quad 2-Input NAND Buffer IC, Dual Monostable Multivibrator IC, Quad 2-Input NAND Gate
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65	22 12 1 1 2 1 45 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 DT1 DT2	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70	22 12 1 1 2 1 45 1 1 2 1 1 2 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 C22	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 20 2E1	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Dual Monostable Multivibrator IC, Memory, 256 x 4, Low Power Battery Drah Butter Grid
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 C1 C0, C0, C15, C17, C21, C25, C25	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 200 0	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Gate IC, Quad 2-Input NAND Gate IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power Battery Push Button Switch DED coite b 0. D
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 72	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 TC 624 MD	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Quad 2-Input NAND Gate IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Dual Monostable Multivibrator IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 VU0 VU10 VU11	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP TC 640 MP	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6"
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74	22 12 1 1 2 1 45 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 VU0	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-640-MP TC 423 MP	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6"
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74 75	22 12 1 1 2 1 45 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 XU8	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-640-MP IS-422-MP	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 8000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 22 Pin, 0.4"
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 70 71 73 74 75 77	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 XU8 T2	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-640-MP IS-422-MP 22.28.4261	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 22 Pin, 0.4" Connector, Header, 36 Pin - cut to 15 pin length
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74 75 77	22 12 1 1 1 2 1 45 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9 J2	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-624-MP IS-422-MP 22-28-4361	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Dual Monostable Multivibrator IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 22 Pin, 0.4" Connector, Header, 36 Pin - cut to 15 pin length
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74 75 77 78	22 12 1 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 XU8 J2 T1	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-624-MP IS-422-MP 22-28-4361 22 28 4261	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Dual Monostable Multivibrator IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 22 Pin, 0.4" Connector, Header, 36 Pin - cut to 15 pin length Connector, Header, 36 Pin - cut to 28 pin length
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74 75 77 78	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 XU8 J2 J1	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-624-MP IS-640-MP IS-422-MP 22-28-4361 22-28-4361	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Dual Monostable Multivibrator IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 40 Pin, 0.6" IC Socket, 22 Pin, 0.4" Connector, Header, 36 Pin - cut to 15 pin length Connector, Header, 36 Pin - cut to 28 pin length
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74 75 77 78 79	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 XU8 J2 J1 J3	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-624-MP IS-640-MP IS-422-MP 22-28-4361 22-28-4361	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Quad 2-Input NAND Gate IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Gate IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 40 Pin, 0.6" IC Socket, 22 Pin, 0.4" Connector, Header, 36 Pin - cut to 15 pin length Connector, Header, 36 Pin - cut to 28 pin length Connector, Header, 36 Pin - cut to 16 pin length
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74 75 77 78 79	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 XU8 J2 J1 J3	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-640-MP IS-640-MP IS-640-MP 22-28-4361 22-28-4361	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Gate IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 40 Pin, 0.6" IC Socket, 22 Pin, 0.4" Connector, Header, 36 Pin - cut to 15 pin length Connector, Header, 36 Pin - cut to 16 pin length Connector, Header, 36 Pin - cut to 16 pin length
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74 75 77 78 79 80	22 12 1 1 2 1 45 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 XU8 J2 J1 J3 J4	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-640-MP IS-640-MP IS-422-MP 22-28-4361 22-28-4361 22-28-4361	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Gate IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 40 Pin, 0.6" IC Socket, 22 Pin, 0.4" Connector, Header, 36 Pin - cut to 15 pin length Connector, Header, 36 Pin - cut to 16 pin length Connector, Header, 36 Pin - cut to 19 pin length
39 40 41 43 44 47 48 49 50 52 53 54 55 56 57 59 60 61 62 64 65 68 70 71 73 74 75 77 78 79 80	22 12 1 1 2 1 45 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	C19-C31, C33-C40, C78 C1, C2, C68-C77 C32 Q5 Q1, Q2 CR44 CR1-CR7, CR11-CR43, CR45-CR49 CR8 VR1 L1, L2 U12 U19 U9 U10, U11 U7 U20 U14, U18 U15 U16 U17 U8 BT1 - BT3 S33 S1-S8, S9-S16, S17-S24, S25-S32 XU1 thru XU7 XU9, XU10, XU11 XU8 J2 J1 J3 J4	CCA-390pF-50V CCA-820pF-50V CCA-3000pF-50V 2N4403 or 2N3906 2N4401 or 2N3904 1N4004 1N4148 LED-GRN 1N4738A 15M220M or LM2-R22K 555 4011 6800 6821 6810 4502 4049 MC3459 or 7437 9602 74HCT00 5101 39-251 206-8 IS-624-MP IS-640-MP IS-640-MP IS-422-MP 22-28-4361 22-28-4361 22-28-4361	Capacitor, Axial Ceramic, 390pF Capacitor, Axial Ceramic, 820pF Capacitor, Axial Ceramic, 3000pF Transistor, PNP Transistor, NPN Diode, Rectifier, 400V, 1A Switching Diode LED, Green, Size T1-3/4 Diode, Zener, 8.2V, 1W Inductor, 0.22uH, High Current IC, Timer IC, Quad 2-Input NAND Gate IC, Central Processing Unit (CPU) IC, Peripheral Interface Adapter (PIA) IC, Memory, 128 x 8 IC, Hex Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Quad 2-Input NAND Buffer IC, Memory, 256 x 4, Low Power Battery Push Button Switch DIP Switch, 8 Position IC Socket, 24 Pin, 0.6" IC Socket, 22 Pin, 0.4" Connector, Header, 36 Pin - cut to 15 pin length Connector, Header, 36 Pin - cut to 19 pin length

