gemini®

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EX-26

SERVICE MANUAL

INTRODUCTION

Congratulations on purchasing the Gemini EX-26 mixer! This state of the art mixer is backed by a three-year warranty, excluding crossfader and channel slides. We know you're anxious to hook everything up and start mixing beats and cranking up the volume on those hot dance tracks, but we suggest reading this instruction manual first as there are really cool features on this mixer that we wouldn't want you to miss!

The EX-26 Mixer features a crossfader which controls a super-quiet photo coupler to give you smooth operation and the cleanest possible sound, along with a "hamster" switch that is easily accessible on the front of the mixer. This "hamster" switch reverses the direction of the main crossfader. This mixer also features individual "hamster" switches for the separate channel input faders as well. For additional information, refer to the diagrams on pages 1 & 2 for crossfader adjustment and channel slide curve.

FEATURES

- 2 Stereo Channels
- State of the Art Cue Section
- 2 Phono & 2 Line Inputs
- Channel Slide Curve Control
- Crossfader with Curve Control
- Adjustable Input Assign Switches
- Crossfader Reverse (Hamster) Button
- Individual Channel Fader Reverse (Hamster) Buttons
- LED Display
- Gain, High, Mid and Low tone controls for each channel
- Balanced and Unbalanced Master Outputs
- Record outputs

CAUTIONS

1. All operating instructions should be read before using this equipment.

2. Treat this unit as you would any other piece of electrical equipment and use good common sense!

3. To reduce the risk of electrical shock, do not open the unit. There are NO USER REPLACEABLE PARTS INSIDE. Please refer servicing to a qualified service technician.

In the U.S.A., if you have any problems with this unit, call 1-732-738-9003 for customer service. Do not return equipment to your dealer.

4. Do not expose this unit to direct sunlight or to a heat source such as a radiator or stove.

5. This unit should be cleaned only with a damp cloth. Avoid solvents or other cleaning detergents.

6. When moving this equipment, it should be placed in its original carton and packaging. This will reduce the risk of damage during transit.

7. Do not expose this unit to rain or moisture.

8. Do not use any spray cleaner or lubricant on any controls or switches.

CONNECTIONS

Okay, let's hook everything up!

1. Make sure that the **POWER** ***(1)*** switch is in the "OFF" position. This unit comes supplied with a 15 volt AC adaptor. Plug the adaptor into the rear panel power jack. Then plug the adaptor into your power strip or outlet.

2. The EX-26 mixer is supplied with 3 sets of output jacks.

The **BALANCED MASTER OUTPUT** ***(2)*** jacks are used to connect to your main amplifier using standard cables with 1/4" connectors. We recommend using the balanced amp outputs if the cables to your amp are 25 feet or more.

BALANCED MASTER OUTPUTS have three separate conductors, two of which are signal (positive and negative) and one shield (ground). The balanced line uses a tip-ring-sleeve connection. Tip = hot or positive (+), ring = cold or negative (-), and sleeve = shield/ground.

The **MASTER OUTPUT** ***(3)*** jacks are unbalanced and are also used to connect to your main amplifier. The **REC OUTPUT** ***(4)*** jacks can be used to connect the mixer to the record input of your recorder enabling you to record your mix.

3. On the rear panel are 2 stereo **LINE *(5,6)*** inputs and 2 stereo **PHONO *(7,8)*** inputs. The phono inputs will accept only turntables with a magnetic cartridge. **GROUND SCREWS (9)** for you to ground your turntables are located on the rear panel. The stereo line inputs will accept any line level input such as a CD player, cassette player, etc.

4. Headphones can be plugged into the front panel mounted **PHONES (10)** jack.

OPERATION

1. POWER ON: Once you have made all the equipment connections to your mixer, press the **POWER (1)** switch.

2. CHANNEL 1: The **GAIN *(11),* HIGH *(12),* MID *(13),*** and **LOW *(14)*** controls allow you to fully adjust the volume and EQ of the sound source. The Channel 1 **REVERSE SWITCH *(15)*** allows you to reverse the direction of the Channel 1 slide fader. ***(17)*** The Channel 1 **SLIDE FADER *(17)*** controls the input level of this channel.

3. CHANNEL 2: The **GAIN *(11),* HIGH *(12),* MID *(13),*** and **LOW *(14)*** controls allow you to fully adjust the volume and EQ of the sound source. The Channel 2 **REVERSE SWITCH *(16)*** allows you to reverse the direction of the Channel 2 slide fader. ***(18)*** The Channel 2 **SLIDE FADER *(18)*** controls the input level of this channel.

4. EQ CONTROLS: There is Low, Mid and High equalization for each channel with an extremely wide range of adjustment.

5. INPUT ASSIGN SWITCHES: You can adjust the position of the **INPUT ASSIGN SWITCHES *(21, 22)*** to move left to right, up and down, or at a 45 degree angle.
Make these adjustments with the power **OFF**.
1) Remove the channel slide knobs, crossfader knobs and the 4 screws from the sides of the lower faceplate. Then remove the lower faceplate.
2) Remove the 2 screws in the corners of the assign switch plate. Rotate the switch plate to the desired position, and replace the screws and tighten down.
3) To position the switch at a 45-degree angle, you need to reposition the switch on the assign switch plate. First, remove the 2 screws in the corners of the assign switch plate. Then, lift the switch plate up and remove the 2 smaller screws next to the switch. Rotate the switch plate to the right until the 45-degree holes align with the switch holes, replace the screws and tighten down. Replace the switch plate and tighten down.

NOTE: Keep track of where you position the input assign switches.

6. CHANNEL SLIDE CURVE SWITCHES: Use the 3 position **CHANNEL SLIDE CURVE SWITCHES (23,24)** to adjust the kind of curve the channel slides have. Move the selected channel slide curve switch to the 6 (top) position to make the increase in level gradual and even. Move the channel slide curve switch to the 20 (center) position to make the increase in level less gradual as you move channel slide up. Move the channel slide curve switch to the 30 (bottom) position to make the increase in level even less gradual, especially at the top of the slide.

7. CROSSFADER SECTION: The **CROSSFADER (25)** allows the mixing of one source into another. The left side of the **CROSSFADER (25)** is CHANNEL 1 and the right side is CHANNEL 2. The **CROSSFADER CURVE CONTROL (26)** allows you to adjust the kind of curve the crossfader has. Move the **CROSSFADER CURVE CONTROL (26)** to the right to make the curve steep and cutting (perfect for scratching). Move the **CROSSFADER CURVE CONTROL(26)** to the left to make the curve gradual and gentle. The **CROSSFADER REVERSE BUTTON (27)** allows you to reverse the crossfader so that CHANNEL 2 is controlled by the left side of the crossfader and CHANNEL 1 is controlled by the right side of the crossfader. When REVERSE is activated the **REVERSE LED (28)** will light.

***NOTE: When the CROSSFADER REVERSE BUTTON is activated (depressed), only the crossfader reverses. The Channel Slides, Gain,* and EQ controls do not reverse.**

8. OUTPUT CONTROL SECTION: The level of the **MASTER OUTPUT (2, 3)** is controlled by the **MASTER CONTROL (20).** The **BALANCE CONTROL KNOB (19)** controls the balance between the output of the left and right channels.

NOTE: The RECORD OUT (4) has no level control. The level is set by the channel slides and the gain controls of the selected channel. The EQ of the channels is set by the low, mid and high controls of that same channel.

9. CUE SECTION: By connecting a set of headphones to the **PHONES JACK *(10)***, you can monitor the music coming out of each channel separately or both channels together. Move the **CUE FADER (29)** to the left to hear CHANNEL 1 and to the right to hear CHANNEL 2. Move the **CUE FADER (29)** to the center to listen to both channels together. The **PHONES MUTE BUTTON *(30)*** will instantly mute your cue mix.

10. DISPLAY: The red LED in the center of the display tells you that the power in your EX-26 Mixer is on.
The multi-colored **LED DISPLAY *(31)*** on either side of the center tells you the output level of your 2 channels.

Okay, that's it! NOW you're ready to grab a couple of great CD's or records, crank it up and get the party started!

SPECIFICATIONS

INPUTS:

Phono.....@ 1mHz.....2mV 47kΩ

Line.....100mV 20kΩ

OUTPUTS:

Master (balanced.....0 dB 2 V 800 Ω

Max.....40 V Peak to Peak

Master (unbalanced).....0 dB 1V 400Ω

Max.....20V Peak to Peak

Rec.....150mV 5kΩ

GENERAL:

Low.....+ 12dB/- 32 dB

Mid.....+ 12dB/- 32 dB

High.....+ 12dB/- 32 dB

Gain..... .....0 to -20dB

Frequency Response.....20Hz – 20kHz +/- 2dB

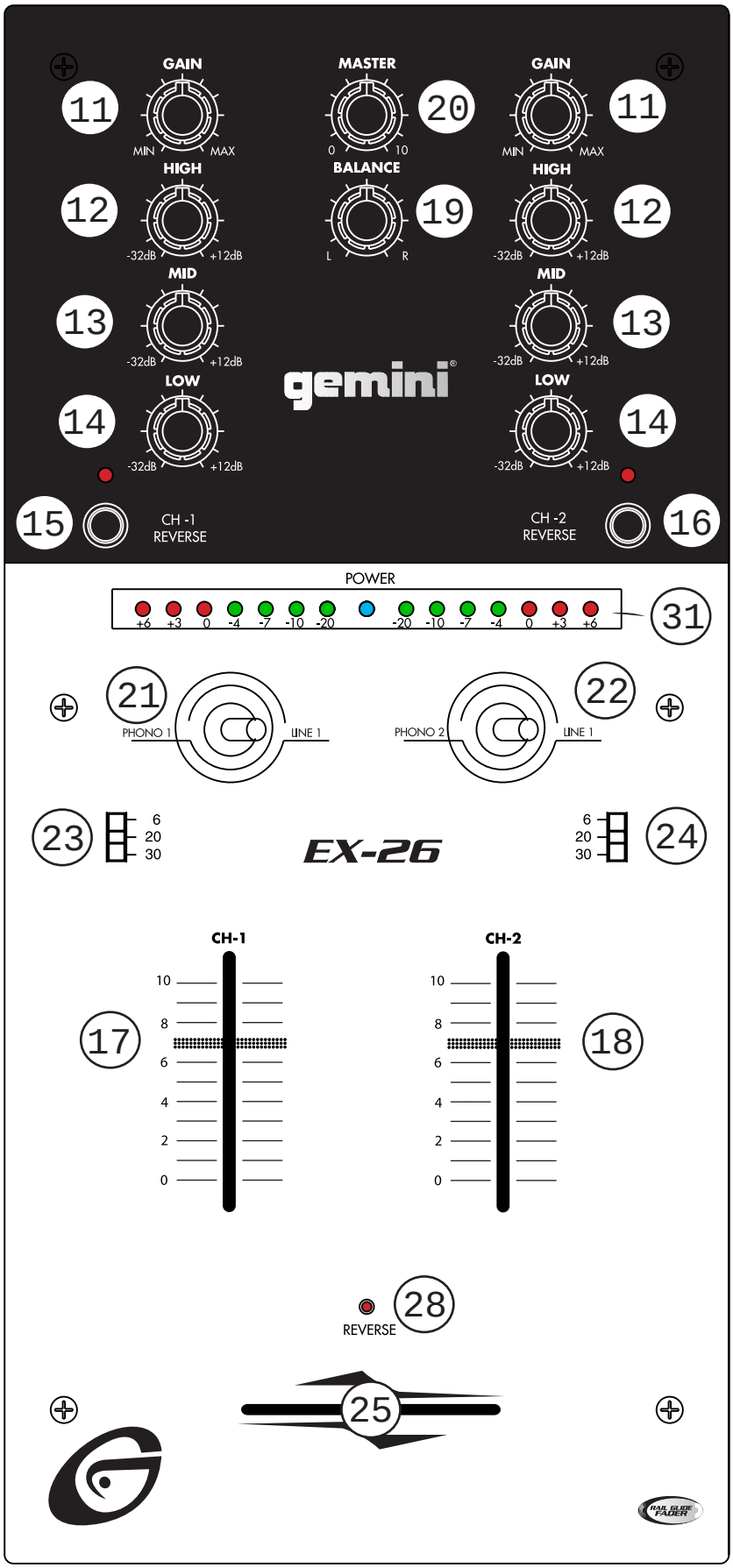
Distortion.....less than 0.08%

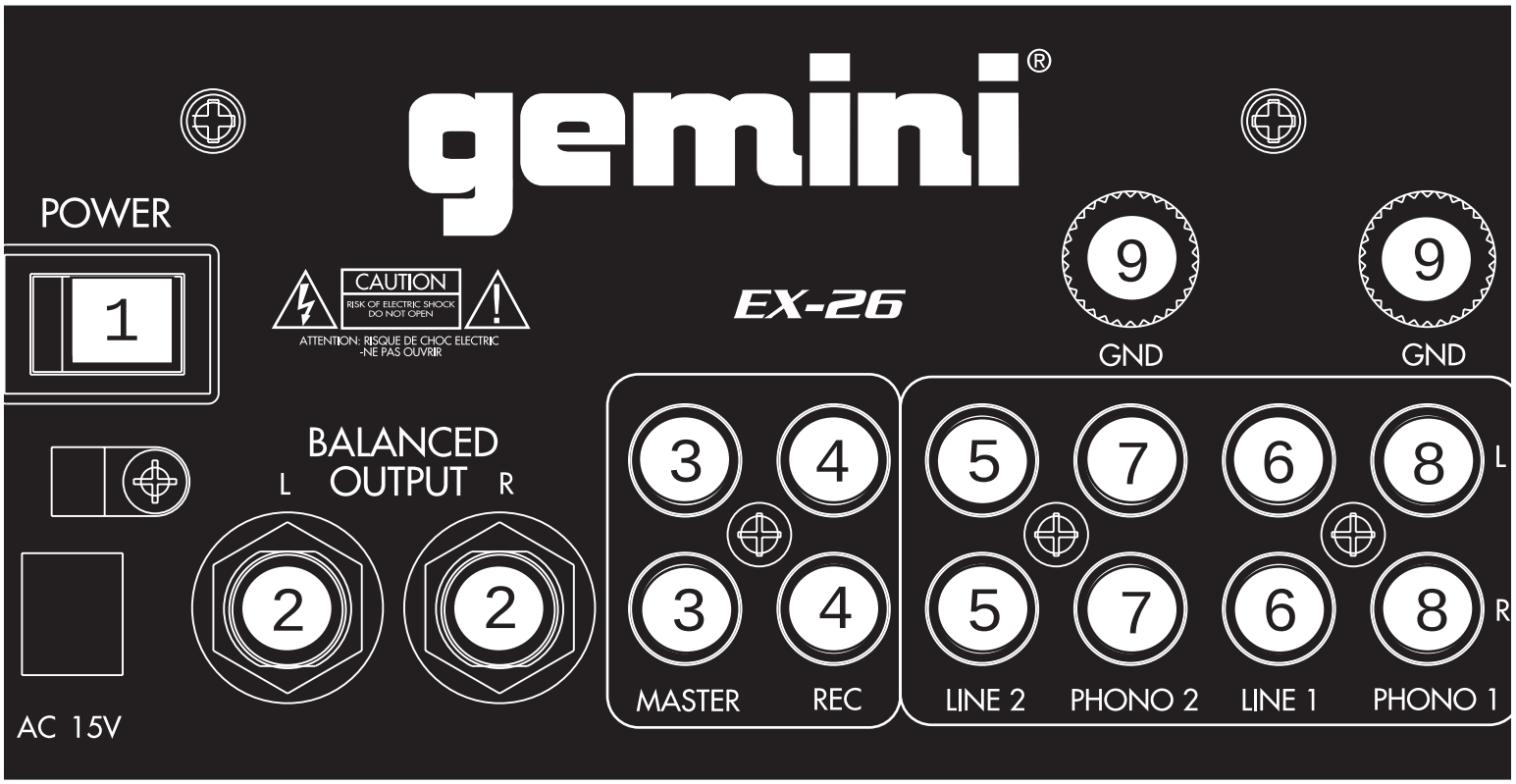
S/N Ratio.....better than 80dB

Power Adapter.....115V/15V AC 0.5A

230V/15V AC 0.5A

Dimensions.....6.5”W x 14.25”H x 3.00”D


GAIN
MASTER
GAIN
11
20
11
MIN
MAX
0
10
MIN
MAX
HIGH
BALANCE
HIGH
12
19
12
-32dB
+12dB
L
R
-32dB
+12dB
MID
MID
13
13
-32dB
+12dB
-32dB
+12dB
gemini
LOW
LOW
14
14
-32dB
+12dB
-32dB
+12dB
15
CH -1
REVERSE
CH -2
REVERSE
16
POWER
+6 +3 0 -4 -7 -10 -20 -20 -10 -7 -4 0 +3 +6
31
21
22
PHONO 1
LINE 1
PHONO 2
LINE 1
23
6
20
30
EX-26
6
20
30
24
CH-1
CH-2
17
10
8
6
4
2
0
10
8
6
4
2
0
18
28
REVERSE
25


gemini®
POWER
1
CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
ATTENTION: RISQUE DE CHOC ELECTRIC
-NE PAS OUVRIR
EX-26
9
GND
9
GND
BALANCED
L OUTPUT R
2
2
AC 15V
3
4
3
4
MASTER
REC
5
7
6
8
L
5
7
6
8
R
LINE 2
PHONO 2
LINE 1
PHONO 1


PHONES MUTE
30
CROSS FADER
CURVE
GRADUAL
26
SHARP
29
CUE 1
CUE 2
CUE LEVEL
HEAD PHONES
10
27
X-FADER
CONTROL
NORMAL
CH 1 ↔ CH 2
REVERSED
CH 2 ↔ CH 1

PARTS LIST

	PART#	QUANTITY	NAME
1	012-026	1	PANEL CONTROL
2	012-027	1	PANEL CONTROL
3	024-165	1	PANEL FRONT
4	034-118	1	PANEL REAR
5	021-601	1	BRACKET VR
6	032-104	1	COVER BOTTOM
7	022-374	3	HOLDER FADER
8	022-376	2	HOLDER SWING
9	041-451	1	HEAT SINK
10			
11	023-674	2	KNOB SWING
12	002-531	1	KNOB PUSH (SMALL)
13	002-532	1	BUSHING FOR KNOB (SMALL)
14	002-580	3	KNOB PUSH
15	002-581	3	BUSHING FOR KNOB
16	002-728	3	KNOB SLIDE (BIG)
17	002-727	1	KNOB SLIDE (SMALL)
18			
19	003-149	12	KNOB ROTARY (A)
20	148-313	12	KNOB INLAY (COP PER)
21			
22	003-745	1	BRIGHTENED ACRYLIC
23	003-436	1	LIGHT PLATE ACRYLIC
24	003-746	15	HOLDER LED
25	003-982	2	HOLDER LED 5ϕ
26	003-747	1	HOLDER LED
27	049-190	1	CLIP WIRE
28	049-206	4	PAD FOOT
29	146-716	2	GND SCREW (BIG)
30			
31	159-216	2	SWING DUST PROOF CLOTH
32	159-171	3	VR DUST PROOF CLOTH
33	159-167	1	VR DUST PROOF CLOTH (SMALL)
34			
35	196-125	3	SERIAL NO:LABEL
36	255-198	1	GIFT BOX
37	157-994	1	OWNER'S MANUAL
38	156-089	1	WARRANTY CARD
39	153-216	1	POLYFORM
40	153-226	1	POLYFOAM CUBE
41			
42	095-057	3	VDE LABEL
43	099-167	1	A LABEL
44	099-169	1	V LABEL
45	099-168	1	J LABEL
46	099-232	2	LABEL-GREEN
47	099-233	2	LABEL-RED
48	099-234	2	LABEL-YELLOW
49	099-266	1	CAUTION LABEL
50			
51	099-014	1	LABEL - MADE IN TAIWAN
52	099-214	1	LABEL-MADE IN CHINA
53			
54	190-062	1	SILICON GEL

65			
66	170-350	1	MASTER CARTON
67			
68	099-230	2	100V LABEL
74			
75			
1	262-323	1	PRINTED CIRCUIT BOARD EX-26-1
2	262-324	1	PRINTED CIRCUIT BOARD EX-26-2
3	262-325	1	PRINTED CIRCUIT BOARD EX-26-3
4	262-319	2	PRINTED CIRCUIT BOARD EX-18-4
5	262-320	1	PRINTED CIRCUIT BOARD EX-18-5
6	262-326	1	PRINTED CIRCUIT BOARD EX-26-6
7	262-327	1	PRINTED CIRCUIT BOARD EX-26-7
8	262-322	2	PRINTED CIRCUIT BOARD EX-18-7 (PC8)
9			
10	074-109	5	INTEGRATED CIR-CUIT NJM2068D (C4570C)
11	074-163	7	INTEGRATED CIR-CUIT NJM4558DD (M5218A, BA15218)
12	074-113	1	INTEGRATED CIR-CUIT NJM4556L
13	074-022	4	INTEGRATED CIR-CUIT LB1403N (BA6124)
14			
15	074-107	1	INTEGRATED CIR-CUIT NJM7812FA
16	074-114	1	INTEGRATED CIR-CUIT NJM7912FA
17			
18	076-002	2	SILICON TRANSIS-TORS 2SC945
19	076-003		SILICON TRANSIS-TORS OR 2SC1815
20	076-096	4	POWER MOSFETS 2SK363
21			
22	079-501	2	PHOTO COUPLER P873-13
23	079-003	10	SILICON DIODE 1N4148
24	079-027	2	RECTIFIER DIODE 1N4002
25			
26	079-012	2	ZENER DIODE RD12EB2 (MTZ12B)
27	079-011	1	ZENER DIODE RD9.1EB2 (MTZ9.1B)
28			
29	059-139	1	AC ADAPTER AC120V 60Hz/AC15V 500mA
30	059-140	1	AC ADAPTER AC230V 50Hz/AC15V 500mA
31	059-149	1	AC ADAPTER AC240V 50Hz/AC15V 500mA
32	059-151	1	AC ADAPTER AC100V 60Hz/AC15V 500mA
33			
34	083-069	1	PUSH SWITCH PHONO-ON, OFF
35	083-097	1	PUSH SWITCH
36	083-119	2	PUSH SWITCH
37	083-120	1	POWER SWITCH UL
38			
39	081-049	2	SLIDE SWITCH 4P3C CH1,CH2
40	082-019	2	LEVER SW 4P2C P=18 PH/LN SW
41	072-113	3	SLIDE VR CH1,CH2, FADER
42	072-092	1	SLIDE VR 30mm L=15 20KB×2
43	073-031	4	SEMI-FIXED VR B10KΩ 67-5-5
44			
45	071-166 I	4	ROTARY VR 14ϕ(F) L=22.5 50KA×2 GAIN, MASTER
46	071-167 I	6	ROTARY VR L=22.5 50KE×2C.C
47	071-206 I	1	ROTARY VR L=22.5 20KMN×2C.C BAL-ANCE
48	071-224	1	ROTARY VR L=22.5 250KC×2

49			
50			
51	080-106	5	LED (RED) 3.15ϕ
52	080-103	2	LED (YELLOW) 3.15ϕ
53	080-107	8	LED (GREEN) 3.15ϕ
54	080-111	3	LED (GREEN/RED) 3ϕ
55			
56	092-141G	2	PHONE JACK 6.3ϕ
57	092-141	1	PHONE JACK 6.3ϕ
58	092-135	1	DC JACK 2.5ϕ
59	161-165	3	4P RCA JACK
60			
61	066-518	18	1/8 W CARBON FILM RESISTOR S 10Ω
62	066-525	2	1/8 W CARBON FILM RESISTOR S 20Ω
63	066-536	2	1/8 W CARBON FILM RESISTOR S 56Ω
64			
65	066-548	4	1/8 W CARBON FILM RESISTOR S 180Ω
66	066-557	6	1/8 W CARBON FILM RESISTOR S 430Ω
67	066-559	2	1/8 W CARBON FILM RESISTOR S 510Ω
68	066-560	2	1/8 W CARBON FILM RESISTOR S 560Ω
69	066-563	2	1/8 W CARBON FILM RESISTOR S 750Ω
70			
71	066-571	10	1/8 W CARBON FILM RESISTOR S 1KΩ
72	066-575	8	1/8 W CARBON FILM RESISTOR S 1.5KΩ
73	066-577	8	1/8 W CARBON FILM RESISTOR S 1.8KΩ
74	066-580	4	1/8 W CARBON FILM RESISTOR S 2.4KΩ
75	066-581	4	1/8 W CARBON FILM RESISTOR S 2.7KΩ
76	066-584	18	1/8 W CARBON FILM RESISTOR S 3.6KΩ
77	066-587	4	1/8 W CARBON FILM RESISTOR S 4.7KΩ
78	066-588	4	1/8 W CARBON FILM RESISTOR S 5.1KΩ
79			
80	066-589	6	1/8 W CARBON FILM RESISTOR S 5.6KΩ
81	066-591	4	1/8 W CARBON FILM RESISTOR S 6.8KΩ
82	066-593	12	1/8 W CARBON FILM RESISTOR S 8.2KΩ
83	066-594	2	1/8 W CARBON FILM RESISTOR S 9.1KΩ
84			
85	066-595	20	1/8 W CARBON FILM RESISTOR S 10KΩ
86	066-601	2	1/8 W CARBON FILM RESISTOR S 18KΩ
87	066-604	12	1/8 W CARBON FILM RESISTOR S 24KΩ
88	066-607	16	1/8 W CARBON FILM RESISTOR S 33KΩ
89			
90	066-611	4	1/8 W CARBON FILM RESISTOR S 47KΩ
91	066-612	4	1/8 W CARBON FILM RESISTOR S 51KΩ
92	066-614	2	1/8 W CARBON FILM RESISTOR S 62KΩ
93	066-617	2	1/8 W CARBON FILM RESISTOR S 82KΩ
94			
95	066-619	10	1/8 W CARBON FILM RESISTOR S 100KΩ
96	066-621	6	1/8 W CARBON FILM RESISTOR S 120KΩ
97	066-622	2	1/8 W CARBON FILM RESISTOR S 130KΩ
98	066-636	2	1/8 W CARBON FILM RESISTOR S 510KΩ
99	066-651	2	1/8 W CARBON FILM RESISTOR S 1MΩ
100			
101	051-010	2	CERAMIC CAPACITOR 10P/50V
102	051-026	4	CERAMIC CAPACITOR 47P/50V
103	051-028	4	CERAMIC CAPACITOR 56P/50V
104	051-034	14	CERAMIC CAPACITOR 100P/50V
105			

106	054-006	2	POLYESTER CAPACITOR 0.0027μ/50V
107	054-010	4	POLYESTER CAPACITOR 0.0056μ/50V
108	054-011	4	POLYESTER CAPACITOR 0.0068μ/50V
109	054-012	4	POLYESTER CAPACITOR 0.0082μ/50V
110	054-013	8	POLYESTER CAPACITOR 0.01μ/50V
111	054-018	4	POLYESTER CAPACITOR 0.027μ/50V
112	054-028	8	POLYESTER CAPACITOR 0.15μ/50V
113			
114	050-125	2	ELECTROLYTIC CAPACITOR 1μ/50V
115	050-029	10	ELECTROLYTIC CAPACITOR 10μ/16V
116	050-036	10	ELECTROLYTIC CAPACITOR 22μ/25V
117	050-038	1	ELECTROLYTIC CAPACITOR 33μ/16V
118	050-043	4	ELECTROLYTIC CAPACITOR 47μ/16V
119	050-049	1	ELECTROLYTIC CAPACITOR 100μ/16V
120	050-088	2	ELECTROLYTIC CAPACITOR 2200μ/25V
121			
122	050-196	2	ELECTROLYTIC CAPACITOR MINI 4ϕ×8 0.1μ/50V
123	050-130	4	ELECTROLYTIC CAPACITOR MINI 4ϕ×8 4.7μ/50V
124	050-133	10	ELECTROLYTIC CAPACITOR MINI 4ϕ×8 10μ/25V
125	050-111	18	ELECTROLYTIC CAPACITOR MINI 4ϕ×8 22μ/16V
126	050-148	1	ELECTROLYTIC CAPACITOR MINI 5ϕ×7 33μ/16V
127	050-134	2	ELECTROLYTIC CAPACITOR MINI 6ϕ×8 47μ/25V
128	050-185	2	ELECTROLYTIC CAPACITOR MINI 8ϕ×9 220μ/25V
129			
130	060-702	5	JUMP WIRE “∩” TYPE 0.5ϕ P=5mm T/52
131	060-702	11	JUMP WIRE “∩” TYPE 0.5ϕ P=6mm T/52
132	060-702	16	JUMP WIRE “∩” TYPE 0.5ϕ P=7.5mm T/52
133	060-702	5	JUMP WIRE “∩” TYPE 0.5ϕ P=10mm T/52
134	060-702	8	JUMP WIRE “∩” TYPE 0.5ϕ P=12.5mm T/52
135			
136	092-026	2	3P CONNECTOR BASE B3B-XH-A 180°
137	092-031	2	4P CONNECTOR BASE B4B-XH-A 180°
138	092-039	2	5P CONNECTOR BASE B5B-XH-A 180°
139	092-029	1	7P CONNECTOR BASE B7B-XH-A 180°
140			
141	092-044	2	2P CONNECTOR BASE B2B-XH-A 90°
142	092-045	1	3P CONNECTOR BASE B3B-XH-A 90°
143	092-051	3	4P CONNECTOR BASE B4B-XH-A 90°
144	092-072	2	6P CONNECTOR BASE MOLEX 2600 90°
145	092-107	2	7P(P=2mm) CONNECTOR BASE A2001-7P 90°
146			
147	091-267	1	3P CONNECTOR WITH WIRE XHP-03 STRIP×6 150mm
148	091-480	1	3P CONNECTOR WITH WIRE XHP-03 STRIP×6 120mm

146			
147	091-267	1	3P CONNECTOR WITH WIRE XHP-03 STRIP×6 150mm
148	091-480	1	3P CONNECTOR WITH WIRE XHP-03 STRIP×6 120mm
149	091-478	1	3P CONNECTOR WITH WIRE XHP-03 SCN-03 130mm
150	091-481	1	4P CONNECTOR WITH WIRE XHP-04 STRIP×6 150mm
151	091-609	1	4P CONNECTOR WITH WIRE XHP-04 STRIP×6 110mm
152	091-265	1	4P CONNECTOR WITH WIRE XHP-04 STRIP×6 150mm
153			
154	091-415	2	4P CONNECTOR WITH WIRE XHP-04 STRIP×6 330mm
155	091-479	2	6P CONNECTOR WITH WIRE 2510-6P STRIP×6 210mm7P
156	091-428	2	7P CONNECTOR WITH WIRE 160mm A2001-7P, XH-5P XH-2P
157	091-271	1	7P CONNECTOR WITH WIRE XHP-07 STRIP×6 110mm
158			
159	093-417	1	GROUND WIRE WITH RING TONGUE (BLACK) 170mm
157	091-271	1	7P CONNECTOR WITH WIRE XHP-07 STRIP×6 110mm
158			
159	093-417	1	GROUND WIRE WITH RING TONGUE (BLACK) 170mm