

TASCAM
TEAC Professional Division

SERVICE MANUAL

M-200 Series

Mixing Consoles

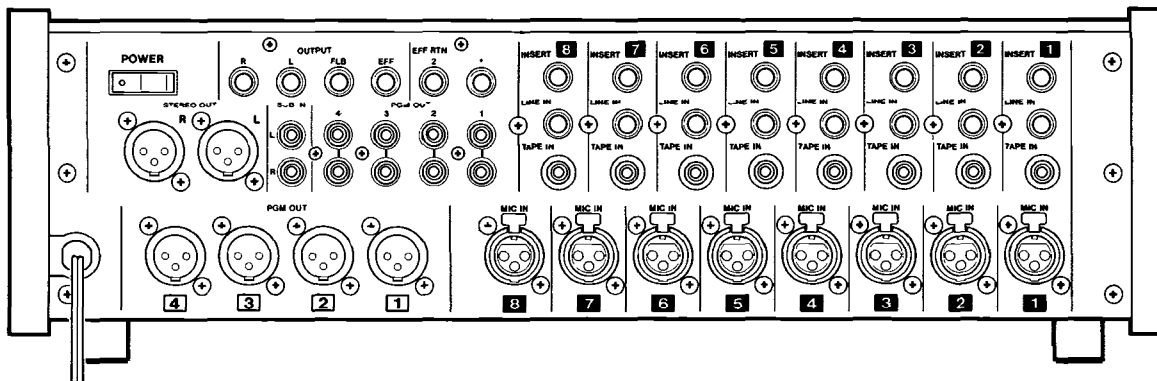
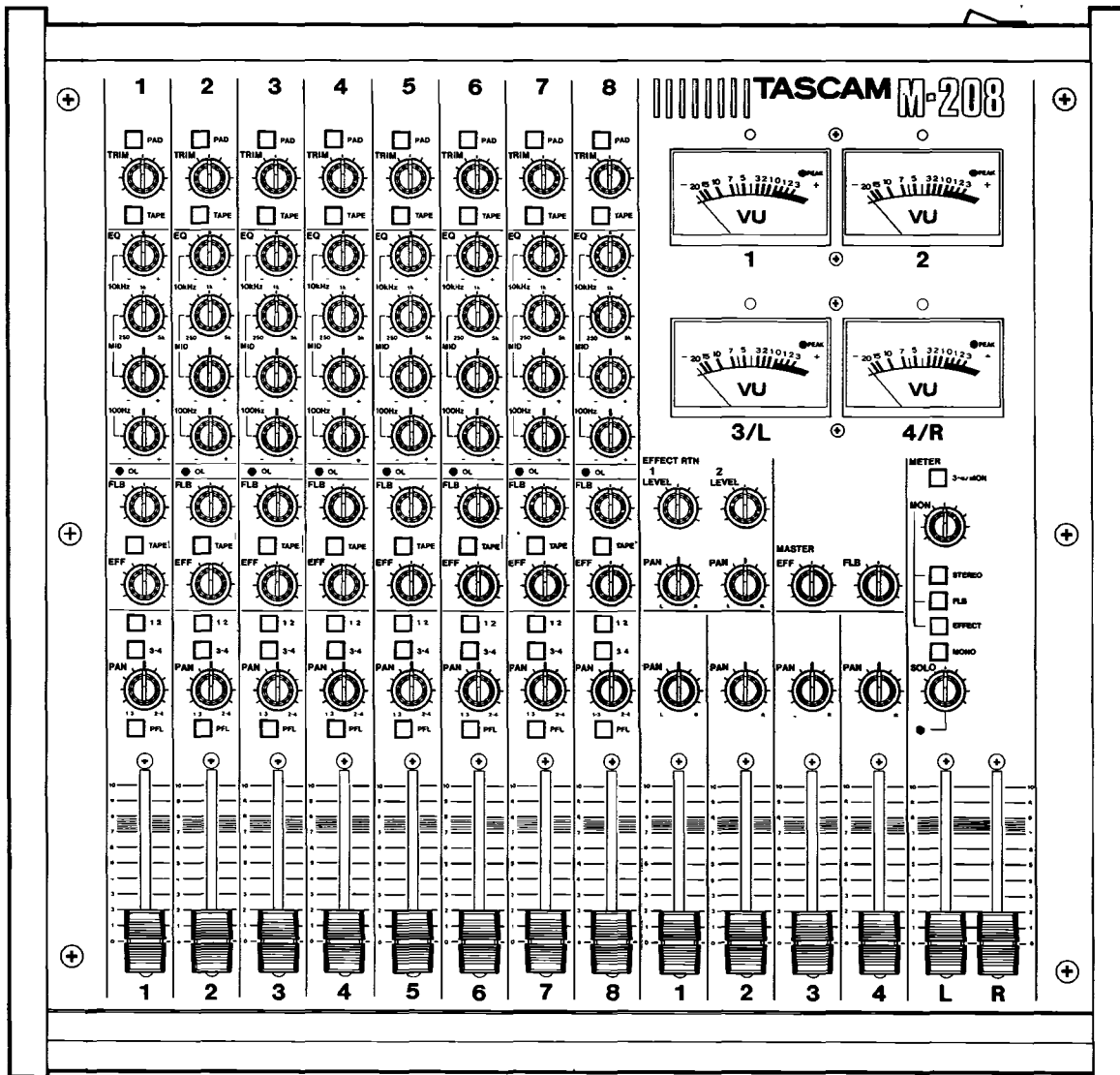
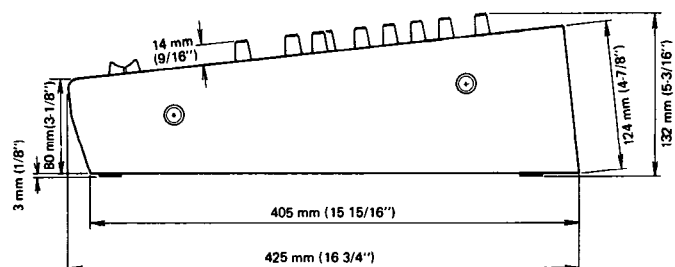
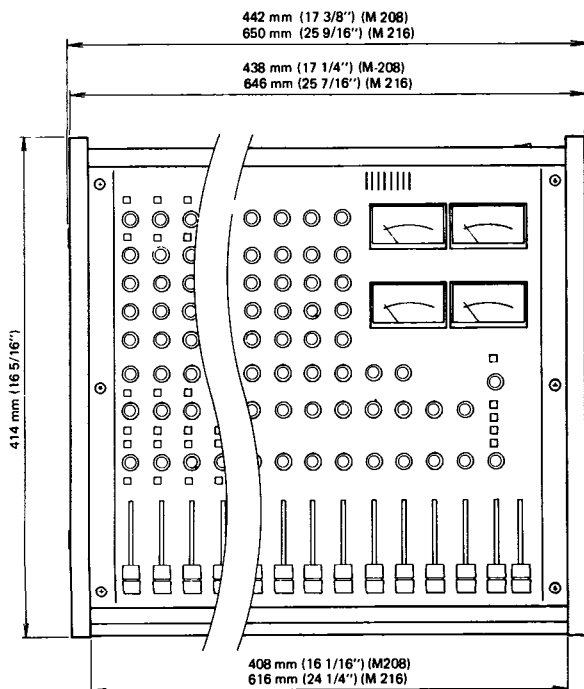


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- NOTES: 1. All resistor values are in ohms.
 2. Capacitor values are in microfarads (UF) (PF = picofarads).
 3. Parts marked with Δ are safety critical components.
 They must always be replaced with components specified by TEAC.
 4. In this manual, 0 dBV is referenced to 1.0 Volt, and 0 dBu to 0.775 Volt.
 5. PC boards shown viewed from foil side.
 6. Service data are found where they are necessary.
 Improvements may result in service data changes without notice.



1. SPECIFICATIONS

M-208

ELECTRICAL CHARACTERISTICS

Mic Input	XLR type, balanced	Nominal Output Level	0 dBu (0.8 V)
Source Impedance	200 ohms to 600 ohms nominal	Maximum Output Level	+20 dBu (8 V)
Input Impedance	2.8k ohms	1/4", unbalanced	
Nominal Input Level	-60 dBV (1 mV)	Output Impedance	100 ohms
Minimum Input Level	-70 dBV (0.3 mV)	Minimum Load Impedance	2k ohms
Maximum Input Level	+28 dBV (25 V)/TRIM to min., PAD on	Nominal Load Impedance	10k ohms
Line Input	1/4", unbalanced	Nominal Output Level	0 dBu (0.8 V)
Input Impedance	22k ohms	Maximum Output Level	+20 dBu (8 V)
Nominal Input Level	-10 dBV (0.3 V)/PAD on	Effect Output	1/4"
Minimum Input Level	-50 dBV (3 mV)/PAD off	Output Impedance	100 ohms
Maximum Input Level	+35 dBV (56 V)/TRIM to min., PAD on	Minimum Load Impedance	2k ohms
Mic/Line Pad	30 dB attenuation	Nominal Load Impedance	10k ohms
Channel Overload Indicator	Set to light at 25 dB above nominal	Nominal Output Level	0 dBu (0.8 V)
Tape Input	RCA Type	Maximum Output Level	+20 dBu (8 V)
Input Impedance	10k ohms	Foldback Output	1/4"
Nominal Input Level	-10 dBV (0.3 V)	Output Impedance	100 ohms
Maximum Input Level	+18 dBV (8 V)	Minimum Load Impedance	2k ohms
Effect Return Input	1/4"	Nominal Load Impedance	10k ohms
Input Impedance	4.3k ohms	Nominal Output Level	0 dBu (0.8 V)
Nominal Input Level	0 dBu (0.8 V)	Maximum Output Level	+20 dBu (8 V)
Minimum Input Level	-10 dBV (0.25 V)	Headphone Output	
Sub Input (STEREO)	RCA Type	Load Impedance	8 ohms, stereophones
Input Impedance	22k ohms	Maximum Output Level	1.5 W + 1.5 W
Nominal Input Level	-10 dBV (0.3 V)	Insertion	1/4"
Maximum Input Level	+18 dBV (8 V)	Output Impedance	100 ohms
PGM Output		Minimum Load Impedance	2k ohms
XLR Type, unbalanced		Nominal Load Impedance	10k ohms
Output Impedance	100 ohms	Nominal Output Level	-10 dBV (0.3 V)
Minimum Load Impedance	2k ohms	Maximum Output Level	+18 dBV (8 V)
Nominal Load Impedance	10k ohms	Input Impedance	5.2k ohms
Nominal Output Level	0 dBu (0.8 V)	Nominal Input Level	-10 dBV (0.3 V)
Maximum Output Level	+20 dBu (8 V)	Maximum Input Level	+18 dBV (8 V)
RCA, unbalanced		Equalizer	
Output Impedance	490 ohms	Type	Shelving-High, Low Sweepable-Mid
Minimum Load Impedance	2k ohms	Frequency	10 kHz (High) 250 – 5kHz (Mid) 100 Hz (Low)
Nominal Load Impedance	10k ohms	Boost/Cut	±12 dB (High, Low) ±15 dB (Mid)
Nominal Output Level	-10 dBV (0.3 V)	Peak Indicator Level	10 dB above nominal
Maximum Output Level	+10 dBV (3 V)	Power Requirements	
Stereo Output		U.S.A./CANADA	120 V AC, 60 Hz, 27 W
XLR Type, unbalanced		Europe	220 V AC, 50 Hz, 27 W
Output Impedance	100 ohms	U.K./Australia	240 V AC, 50 Hz, 27 W
Minimum Load Impedance	2k ohms	General Export	100/120/220/240 V AC, 50/60 Hz, 27 W
Nominal Load Impedance	10k ohms		

PERFORMANCE CHARACTERISTICS

Equivalent Input Noise	UNWTD (20 – 20 kHz)/ IHF A WTD
150 ohm source	-128 dB/-130 dB
Signal-to-Noise Ratio	
Input – Output	UNWTD (20 – 20 kHz)/ IHF A WTD
8 Mic – PGM	60 dB/62 dB
1 Line – PGM	81 dB/83 dB
8 Line – PGM	72 dB/74 dB
1 Line – Effect/Foldback	80 dB/82 dB
1 Line – Stereo	80 dB/81 dB
1 Tape – PGM	83 dB/84 dB
Total Harmonic Distortion (THD)	
1 Mic to 1 PGM Output ^{1, 3)}	0.03 %, 20 Hz – 20 kHz
1 Line to 1 PGM Output ^{2, 3)}	0.025 %, 20 Hz – 20 kHz
Intermodulation Distortion (IMD)	
1 Mic to 1 PGM Output ^{1, 3)}	0.06 %, SMPTE
1 Line to 1 PGM Output ^{2, 3)}	0.045 %, SMPTE
Frequency Response	
Any Input to Any Output	20 Hz – 25 kHz ^{+1 dB} / _{-2 dB} nominal level
Cross-Talk (1 kHz)	Better than 60 dB
Dimensions (W x H x D)	442 x 132 x 425 mm (17-3/8" x 5-3/16" x 16-3/4")
Weight	8.5 kg (18-12/16 lbs.) net

- 1) Level for measurement – 50 dB above nominal with Pad engaged; EQ off.
- 2) Nominal input level used for measurement; EQ off.
- 3) 30 kHz Low Pass Filter connected during test.

In these specifications: 0 dBV is referenced to 1.0 Volt; 0 dBu is referenced to 0.775 Volt. Actual voltage levels are also given in parenthesis (0.316 Volt for -10 dBV is rounded off and given as 0.3 Volt, and 0.775 Volt for 0 dBu as 0.8 Volt).

Changes in specifications and features may be made without notice or obligation.

M-216**ELECTRICAL CHARACTERISTICS**

Mic Input	XLR Type, balanced	Nominal Output Level	0 dBu (0.8 V)
Source Impedance	200 ohms to 600 ohms nominal	Maximum Output Level	+20 dBu (8 V)
Input Impedance	2.8k ohms	1/4", unbalanced	
Nominal Input Level	-60 dBV (1 mV)	Output Impedance	100 ohms
Minimum Input Level	-70 dBV (0.3 mV)	Minimum Load Impedance	2k ohms
Maximum Input Level	+28 dBV (25 V)/TRIM to min., PAD on	Nominal Load Impedance	10k ohms
	1/4", unbalanced	Nominal Output Level	0 dBu (0.8 V)
Line Input		Maximum Output Level	+20 dBu (8 V)
Input Impedance	22k ohms	Effect Output	1/4"
Nominal Input Level	-10 dBV (0.3 V)/PAD on	Output Impedance	100 ohms
Minimum Input Level	-50 dBV (3 mV)/PAD off	Minimum Load Impedance	2k ohms
Maximum Input Level	+35 dBV (56 V)/TRIM to min., PAD on	Nominal Load Impedance	10k ohms
	30 dB attenuation	Nominal Output Level	0 dBu (0.8 V)
Mic/Line Pad		Maximum Output Level	+20 dBu (8 V)
Channel Overload Indicator	Set to light at 25 dB above nominal	Foldback Output	1/4"
	RCA Type	Output Impedance	100 ohms
Tape Input		Minimum Load Impedance	2k ohms
Input Impedance	10k ohms	Nominal Load Impedance	10k ohms
Nominal Input Level	-10 dBV (0.3 V)	Nominal Output Level	0 dBu (0.8 V)
Maximum Input Level	+18 dBV (8 V)	Maximum Output Level	+20 dBu (8 V)
Effect Return Input	1/4"	Headphone Output	
Input Impedance	4.3k ohms	Load Impedance	8 ohms, stereophones
Nominal Input Level	0 dBu (0.8 V)	Maximum Output Level	1.5 W + 1.5 W
Minimum Input Level	-10 dBu (0.25 V)	Insertion	1/4"
Sub Input (STEREO)	RCA Type	Output Impedance	100 ohms
Input Impedance	22k ohms	Minimum Load Impedance	2k ohms
Nominal Input Level	-10 dBV (0.3 V)	Nominal Load Impedance	10k ohms
Maximum Input Level	+18 dBV (8 V)	Nominal Output Level	-10 dBV (0.3 V)
PGM Output		Maximum Output Level	+18 dBV (8 V)
XLR Type, unbalanced		Input Impedance	5.2k ohms
Output Impedance	100 ohms	Nominal Input Level	-10 dBV (0.3 V)
Minimum Load Impedance	2k ohms	Maximum Input Level	+18 dBV (8 V)
Nominal Load Impedance	10k ohms	Equalizer	
Nominal Output Level	0 dBu (0.8 V)	Type	Shelving-High, Low Sweepable-Mid
Maximum Output Level	+20 dBu (8 V)	Frequency	10 kHz (High) 250 — 5 kHz (Mid) 100 Hz (Low)
RCA, unbalanced		Boost/Cut	±12 dB (High, Low) ±15 dB (Mid)
Output Impedance	490 ohms	Peak Indicator Level	10 dB above nominal
Minimum Load Impedance	2k ohms	Power Requirements	
Nominal Load Impedance	10k ohms	U.S.A./CANADA	120 V AC, 60 Hz, 33 W
Nominal Output Level	-10 dBV (0.3 V)	Europe	220 V AC, 50 Hz, 33 W
Maximum Output Level	+10 dBV (3 V)	U.K./Australia	240 V AC, 50 Hz, 33 W
Stereo Output		General Export	100/120/220/240 V AC, 50/60 Hz, 33 W
XLR Type, unbalanced			
Output Impedance	100 ohms		
Minimum Load Impedance	2k ohms		
Nominal Load Impedance	10k ohms		

PERFORMANCE CHARACTERISTICS

Equivalent Input Noise	UNWTD (20 – 20 KHz)/ IHF A WTD
150 ohm source	-128 dB/-130 dB
Signal-to-Noise Ratio	
Input – Output	UNWTD (20 – 20 kHz)/ IHF A WTD
16 Mic – PGM	57 dB/58 dB
1 Line – PGM	81 dB/83 dB
16 Line – PGM	67 dB/69 dB
1 Line – Effect/Foldback	78 dB/80 dB
1 Line – Stereo	80 dB/81 dB
1 Tape – PGM	83 dB/84 dB
Total Harmonic Distortion (THD)	
1 Mic to 1 PGM Output^{1, 3)}	0.03 %, 20 Hz – 20 kHz
1 Line to 1 PGM Output^{2, 3)}	0.025 %, 20 Hz – 20 kHz
Intermodulation Distortion (IMD)	
1 Mic to 1 PGM Output^{1, 3)}	0.06 % SMPTE
1 Line to 1 PGM Output^{2, 3)}	0.045 %, SMPTE
Frequency Response	
Any Input to Any Output	20 Hz – 25 kHz ^{+1 dB} / _{-2 dB} nominal level
Cross-Talk (1 kHz)	Better than 60 dB
Dimensions (W x H x D)	650 x 132 x 425 mm (25-9/16" x 5-3/16" x 16-3/4")
Weight	12 kg (26-7/16 lbs.) net

- 1) Level for measurement – 50 dB above nominal with Pad engaged; EQ off.
- 2) Nominal input level used for measurement; EQ off.
- 3) 30 kHz Low Pass Filter connected during test.

In these specifications: 0 dBV is referenced to 1.0 Volt; 0 dBu is referenced to 0.775 Volt. Actual voltage levels are also given in parenthesis (0.316 Volt for -10 dBV is rounded off and given as 0.3 Volt, and 0.775 Volt for 0 dBu as 0.8 Volt).

Changes in specifications and features may be made without notice or obligation.

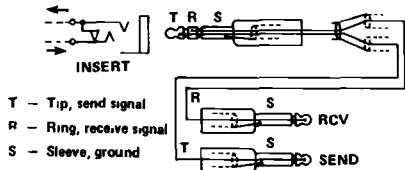
2. LEVEL SETTING AND OPERATION CHECK

The only adjustment points inside the apparatus are semi-fixed resistors R905 and R906, used for setting the meter level.

In the following descriptions, 0 dBV is referenced to 1 VRMS, and, 0 dBm/0 dBu, to 0.775 VRMS.

2-1. Input Faders, PGM Master Faders and PAN Controls (INSERT → PGM OUT)

1) Using an insertion plug shown in Fig., apply a -10 dBV (0.3 V), 1 kHz signal to the Ring and Sleeve contacts of the plug inserted into the INSERT ⑩ Jack.



2) Raise the Input Fader ⑪ in the channel to which the test signal is connected up to the uppermost, maximum position, rotate the PAN Control ⑫ in the same channel fully left (counterclockwise), and press the Buss Assignment Switches ⑬ (both "1-2" and "3-4") in the channel.

3) Fully open the PGM Master Faders ⑭ (uppermost position) and check that the PGM OUTs 1 and 3 (XLR-type connectors) ⑮ provide +20 dBu ±1 (approx. 7.8 V) and that there is then no waveform distortion registered. (With the PAN Control set to the 12 o'clock position, the PGM OUT level will drop 2.5 dB ±1.)

4) With the PAN Control set to the fully left position (i.e., +20 dBu at PGM OUT), lower the

PGM Master Faders (1 and 3) for a +10 dBu (2.54 V) reading at PGM OUT, and confirm that the PGM Master Faders are then in the shaded area between 7 and 8.

5) Repeat checks for PGM OUTs 2 and 4 (by rotating the PAN Control fully right and adjusting the corresponding PGM Master Faders).

6) Lower the Input Fader and confirm that its setting to the shaded area between 7 and 8 provides a 0 dBu (0.775 V) reading at PGM OUT.

7) Check all remaining channels in the same manner (by connecting the test signal to INSERT in the channel to be checked, and lowering, with the PGM Master Faders left as previously set, the corresponding Input Fader for a 0 dBu reading at the assigned PGM OUTs).

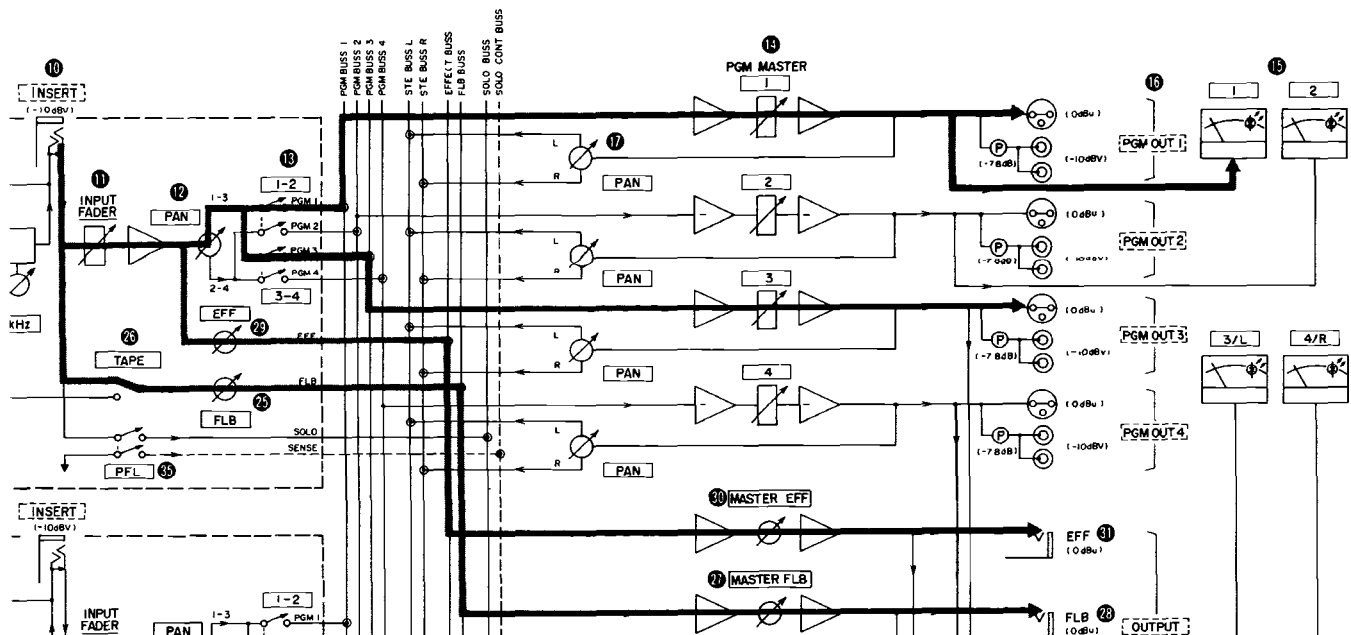
Nominal level at the RCA parallel connectors is -10 dBV (0.3 V).

2-2. EFF/MASTER EFF Pots and FLB/MASTER FLB Pots (INSERT → EFF OUTPUT/FLB OUTPUT)

1) With the Input Faders set as 2-1-6), rotate all the EFF ⑳, MASTER EFF ㉓, FLB ㉖ and MASTER FLB ㉗ Pots fully right, clockwise (maximum position) and check that EFF OUTPUT ㉑ and FLB OUTPUT ㉒ provide a +8 dBu (1.95 V) ±2 reading.

2) Adjust the EFF MASTER/FLB MASTER Pots for a 0 dBu (0.78 V) reading at the respective output jacks. The Pots should then be in the 2 to 3 o'clock position.

3) Check all remaining channels in the same manner.



2-3. Stereo Master Faders (SUB IN→STEREO OUT)

- 1) Apply a -10 dBV (0.3 V), 1 kHz signal to the SUB IN L and R Jacks 18.
- 2) Fully open the Stereo Master Faders L and R 19 (uppermost, maximum position) and check that the STEREO OUTs register a +10 dBu (2.45 V) ±1.5 level. Then, lower the Stereo Master Faders for a 0 dBu (0.78 V) reading. The Faders should then be in the shaded area between 7 and 8. (With the MONO Switch 21 depressed, the output level at STEREO OUT L and R will lower 6 dB ±0.5.)

2-4. Master PAN Controls (PGM OUT→STEREO OUT)

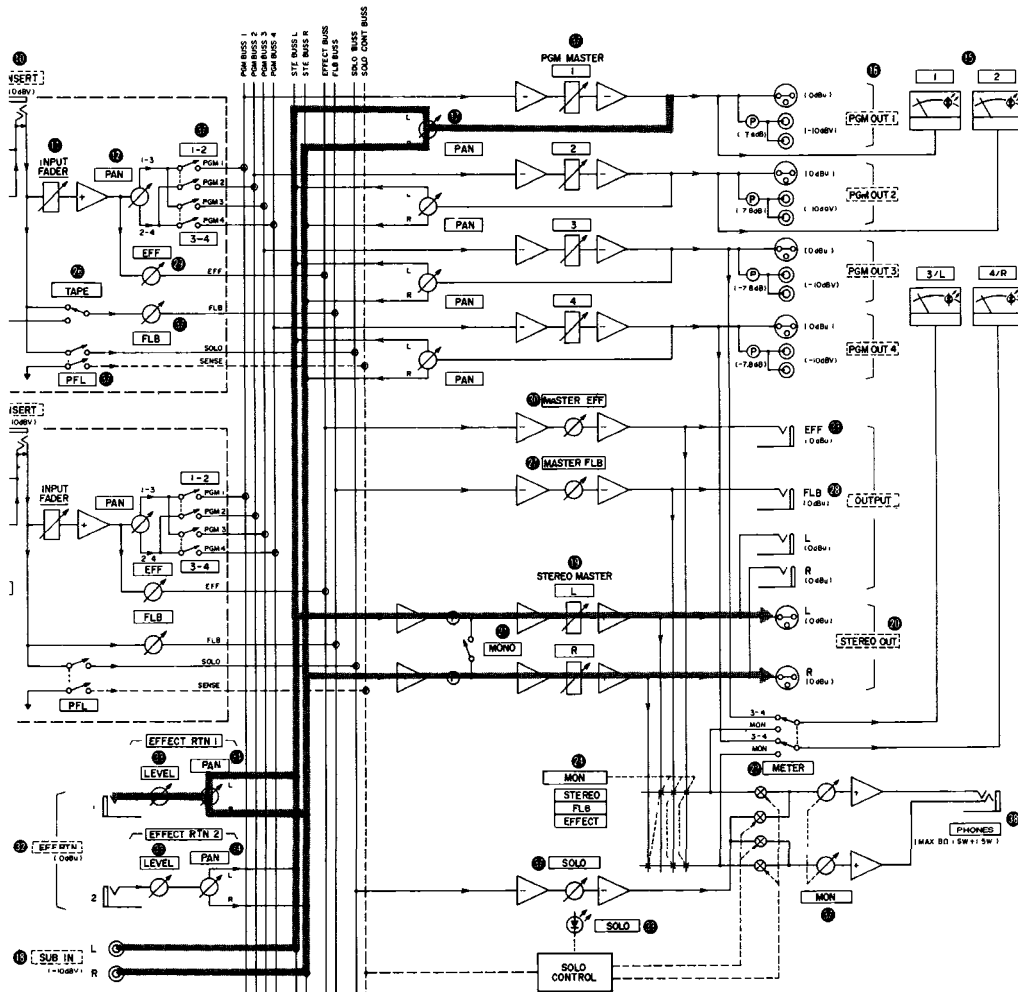
- 1) With the same conditions as in 2-1 (0 dBu at the XLR-type PGM OUT connectors) and as in 2-3 (0 dBu at STEREO OUT with the Stereo Master Faders set to 7 to 8 position), rotate the Master PAN Control 17 in the relative channel fully left and check that the STEREO OUT L Connector provides a 0 dBu reading. Then

rotate the Master PAN fully right for a 0 dBu reading at the STEREO OUT R connector.

Also note that the level reading at STEREO OUT L/R lowers 2.5 dB ±1 when the Master PAN is set to the 12 o'clock position.

2-5. EFFECT RTN LEVEL/PAN Controls (EFF RTN→STEREO OUT)

- 1) With the Stereo Master Faders set as in 2-3, apply a 0 dBu (0.775 V), 1 kHz signal to the EFF RTN Connector "1" 32.
- 2) Rotate the EFFECT RTN 1 LEVEL Control 33 fully right, clockwise (maximum position), and confirm that the output level at STEREO OUT L (and R) is +7 dBu ±2 when the PAN Control 34 is set to L (and then to R). Also, check that adjusting the LEVEL Control approximately to the 3 o'clock position provides a 0 dBu reading at STEREO OUT. (The level at STEREO OUT will drop 2.5 dB ±1 when the PAN is set to the 12 o'clock position.)
- 3) Repeat checks for the EFFECT RTN system "2."



2-6. TRIM, PAD and OL LED (MIC IN, LINE IN→INSERT)

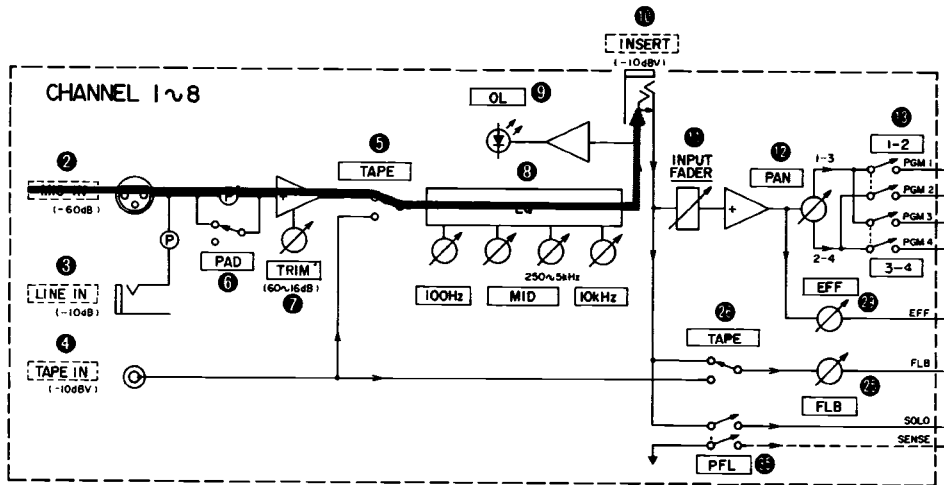
- 1) Connect a level meter to the Tip and Sleeve contacts of the insertion plug used in paragraph 2-1.
- 2) Set the EQ Controls ⑧ to the center, 12 o'clock position and apply a -60 dBV (1 mV), 1 kHz signal to the MIC IN Jack ②.
- 3) Adjust the TRIM Control ⑦ for a -10 dBV (0.3 V) output level reading at INSERT ⑩. The TRIM should then be in the 3 to 4 o'clock position.
- 4) Check for the same -10 dBV (0.3 V) level reading at INSERT by applying a -10 dBV signal to the LINE INPUT Jack (and to the TAPE IN Jack with the TAPE Select Switch pressed on). Also, confirm that the output level at INSERT (of the signal coming from the MIC IN and LINE IN Jacks) drops 30 dB ±1 when the PAD Switch ⑥ is pressed on.
- 5) With the output level at INSERT set to -10 dBV, confirm that OL LED ⑨ turns on when the input level is increased 27 dB and

turns off when the input level is decreased 4 dB (from the 27-dB-up point).

2-7. EQ Characteristics

With the output level at INSERT set to -10 dBV as in 2-6, vary the EQ settings and input frequencies and check the output level reading at INSERT varies as shown in the chart.

Input Frequencies (Hz)	EQ Knob Settings	INSERT Send Level (dB)
10 k 20 k	10 kHz	- (Min.) -13 ±1.0 -16 ±1.5
10 k 20 k		+ (Max.) +13 ±1.0 +15 ±1.5
100 20	100 Hz	- (Min.) -13 ±1.0 -15 ±1.5
100 20		+ (Max.) +13 ±1.0 +15 ±1.5
190 - 250	250 Hz (Fully L)	- (Min.) -15 ^{+2.0} _{-6.0}
		+ (Max.) +15 ^{+6.0} _{-2.0}
900 - 1,500	1 kHz (Center)	- (Min.) -15 ^{+2.0} _{-6.0}
		+ (Max.) +15 ^{+6.0} _{-2.0}
5k - 6k	5 kHz (Fully R)	- (Min.) -15 ^{+2.0} _{-6.0}
		+ (Max.) +15 ^{+6.0} _{-2.0}



2-8. VU Meters

When the XLR-type PGM OUT Connectors provide a 0 dBu (0.775 V) reading as in 2-1, check that the VU Meters ⑮ selected register 0 VU. If necessary, adjust semi-fixed resistors R905 (Ch. 1 and 2) and R906 (Ch. 3 and 4) on the Meter PCB Ass'y. (The Meter PCB Ass'y is located on the back of the VU meters and accessible by opening the rear panel of the mixer.)

2-9. Peak LEDs (in the VU Meters)

With the output level reading at PGM OUT set to 0 dBu as in 2-8, check that the Peak LED turns on when the output level is increased to +11 dBu (+11 VU on the meter) and that it turns off when the output level is decreased to +8.5 dBu (+8.5 VU on the meter).

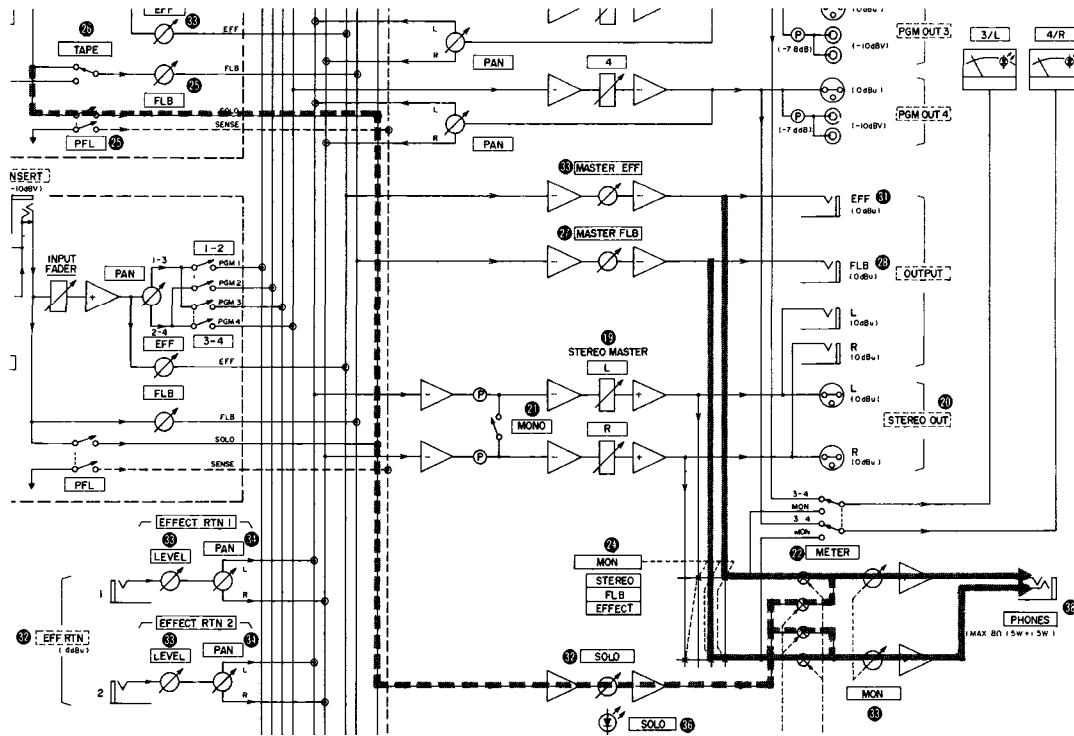
2-10. Headphone Monitor Output

With EFF OUT/FLB OUT and STEREO OUT set to nominal as in 2-2 and 2-3, select the monitor sources available at the Headphone Jack ③⑧ using the MONitor Select Switches ②④ and adjust the MONitor Level Control ②③ to confirm that the Headphone Jack (with a 8-ohm load attached) provides for each of the three monitor sources a maximum output level of 1.5 W (or more). Also, confirm that the output level is 1 VRMS when the MONitor Level Control is set approximately to the 1

to 2 o'clock position.

2-11. PFL Function

When a signal is applied to the INSERT Jack as in 2-1, press the PFL Button ③⑤ on and check that a Pre-Fader signal is available at the Headphone Jack by adjusting the SOLO ③⑦ and MON ②③ Controls (when the PFL Button is in the down, on position, signals coming from the MONitor Select Switches are disconnected from the Headphone Jack).



2-12. Frequency Response

Frequency Response is measured with the input and output levels set to nominal as in previous sections. Check that the frequency range is within the following limits:

20 Hz to 25 kHz +1.0 dB
-2.0 dB

2-13. Distortion Check

Distortion is also measured with the input and output levels set to nominal.

Connect a 1 kHz signal to the input connectors and the output connectors to a distortion meter through a 30 kHz low-pass filter. Specs are as follows:

1 MIC → PGM OUT 0.03 % or less
(30-dB PAD inserted, 30 dB above nominal input level)
1 LINE → PGM OUT 0.025 % or less

1 LINE → EFF OUT/FLB OUT 0.025 % or less
1 LINE → STEREO OUT 0.025 % or less

2-14. S/N Ratio

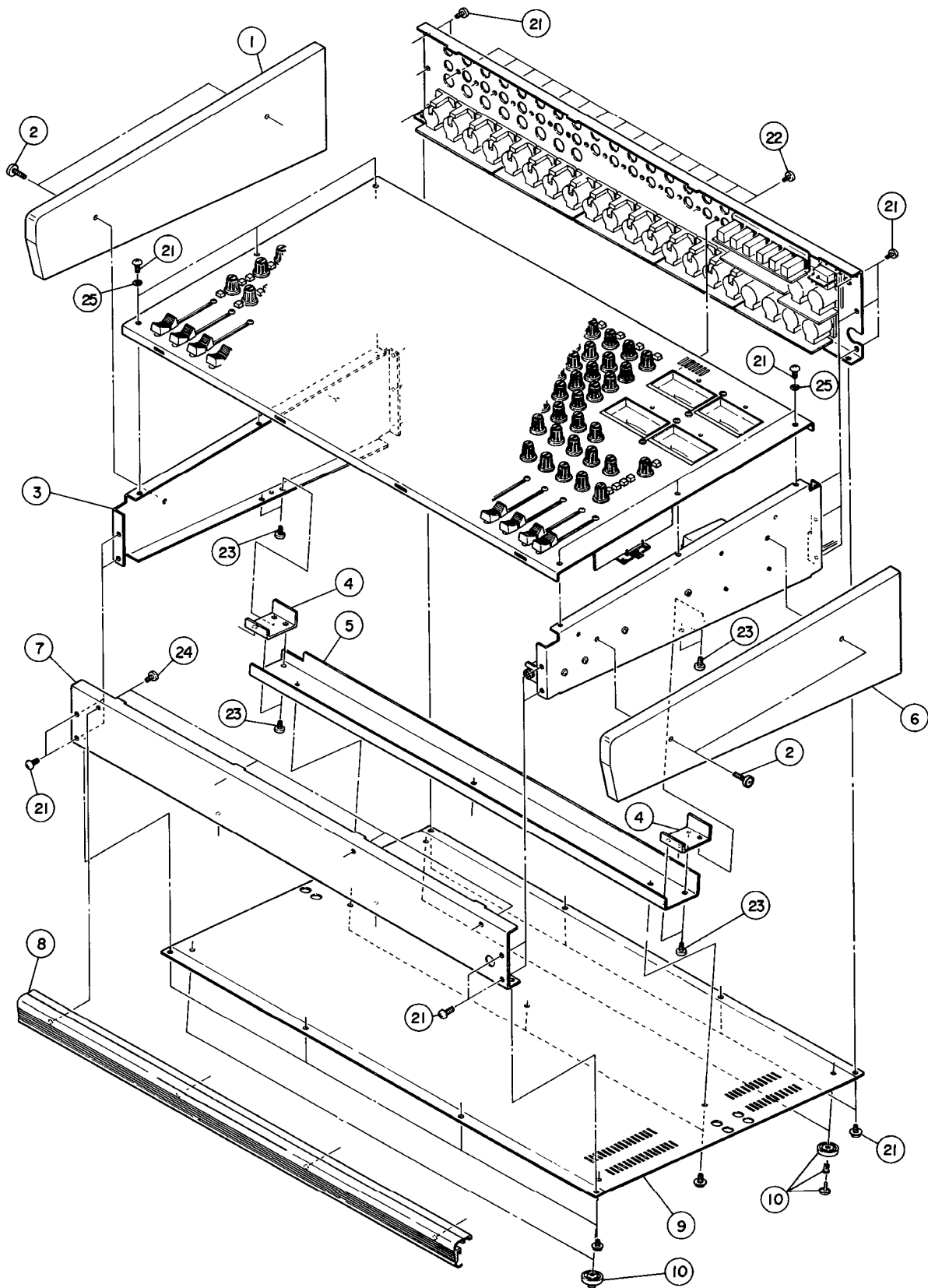
S/N ratio is also measured with the input and output levels set to nominal and a 150-ohm dummy load connected to the MIC IN connectors.

Specs are as follows:

	M-208		M 216	
	DIN(20-20 kHz)	IHF(A)	DIN(20-20kHz)	IHF(A)
1 MIC → PGM OUT (through 150-ohm Dummy)	70 dB	72 dB	70 dB	72 dB
Σ MIC → PGM OUT (through 150-ohm Dummy)	60 dB	62 dB	57 dB	58 dB
1 LINE → PGM OUT	81 dB	83 dB	81 dB	83 dB
Σ LINE → PGM OUT	72 dB	74 dB	67 dB	69 dB
1 LINE → EFF OUT	80 dB	82 dB	78 dB	80 dB
1 LINE → FLB OUT	80 dB	82 dB	78 dB	80 dB
1 LINE → STEREO OUT	80 dB	81 dB	80 dB	81 dB
1 TAPE → PGM OUT	83 dB	84 dB	83 dB	84 dB

3. EXPLODED VIEWS AND PARTS LISTS

EXPLODED VIEW-1



EXPLODED VIEW-1

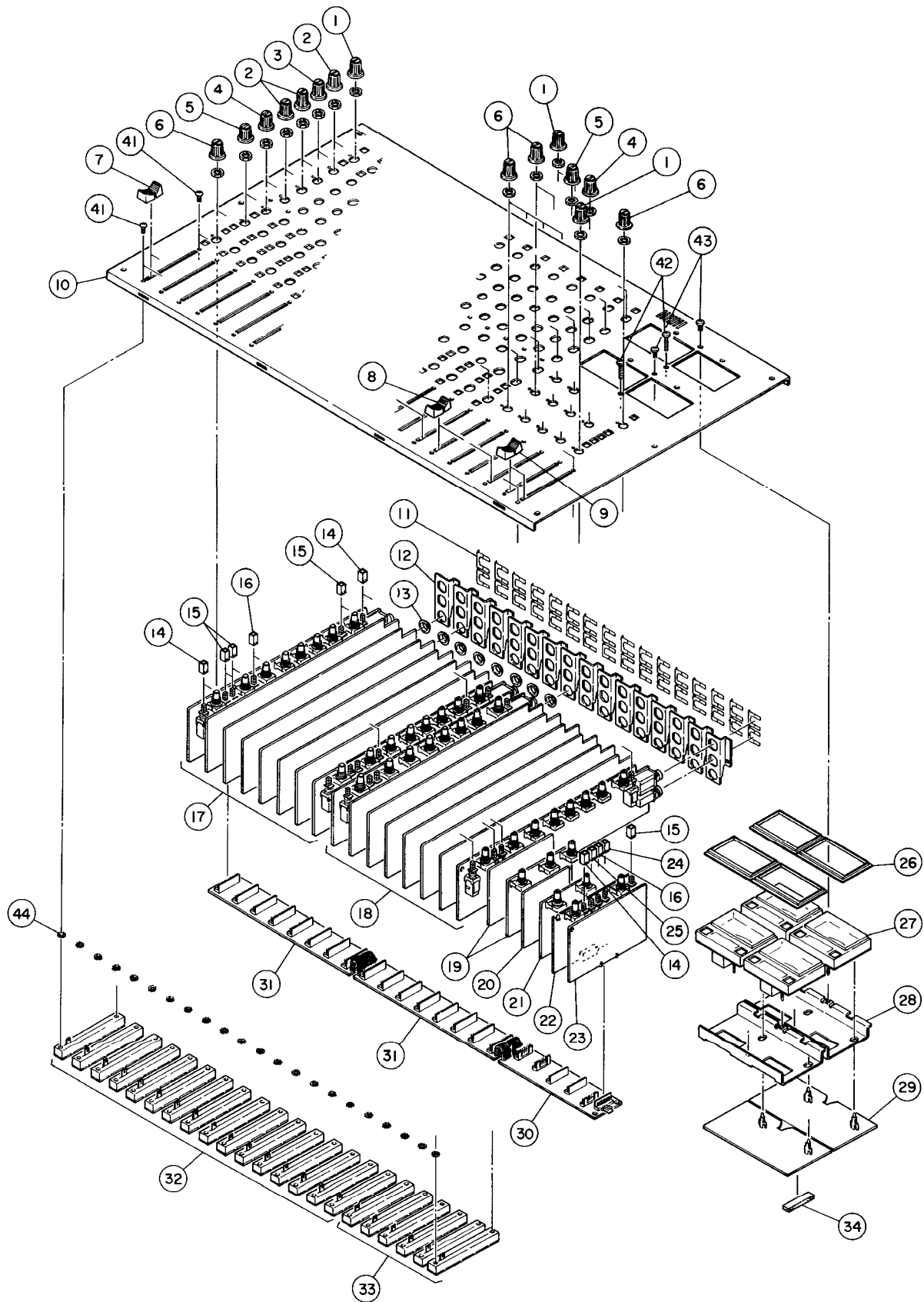
PARTS MARKED WITH * REQUIRE LONGER DELIVERY TIME.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1- 1	*5800713800	SIDE-BOARD, L	
1- 2	5504411000	SCREW, SIDE-BOARD	
1- 3	*5800713100	CHASSIS, SIDE; L	
1- 4	*5800662602	HOLDER, CHANNEL	
1- 5	*5800713700	BRACKET, BOTTOM COVER; B	[M-216]
	*5800713600	BRACKET, BOTTOM COVER; A	[M-208]
1- 6	*5800713900	SIDE-BOARD, R	
1- 7	*5800713500	PANEL, FRONT; B	[M-216]
	*5800713300	PANEL, FRONT; A	[M-208]
1- 8	*5800712400	SASH, FRONT; B	[M-216]
	*5800712300	SASH, FRONT; A	[M-208]
1- 9	*5800714400	COVER, BOTTOM; B	[M-216]
	*5800714300	COVER, BOTTOM; A	[M-208]
1-10	5730003300	FOOT, FF-008(P4X6)	
1-21	*5780964008	SCREW, TRASS TAP M4X8 (BLK)	
1-22	*5781163006	SCREW, BIND TAP M3X6 (BLK)	
1-23	*5781074008	SCREW, PAN TAP; M4X8 (BLK)	
1-24	*5781023006	SCREW, PAN TAP; M3X6	
1-25	*5785224100	WASHER, FIBER 4X10X0.5	

INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	*5700069200	OWNER'S MANUAL	[J]
	*5700069300	OWNER'S MANUAL	[ALL EXCEPT J]
		[J]: JAPAN	[US]: U.S.A. [C]: CANADA
		[GE]: GENERAL EXPORT	[E]: EUROPE
		[UK]: U.K.	[A]: AUSTRALIA

EXPLODED VIEW-2

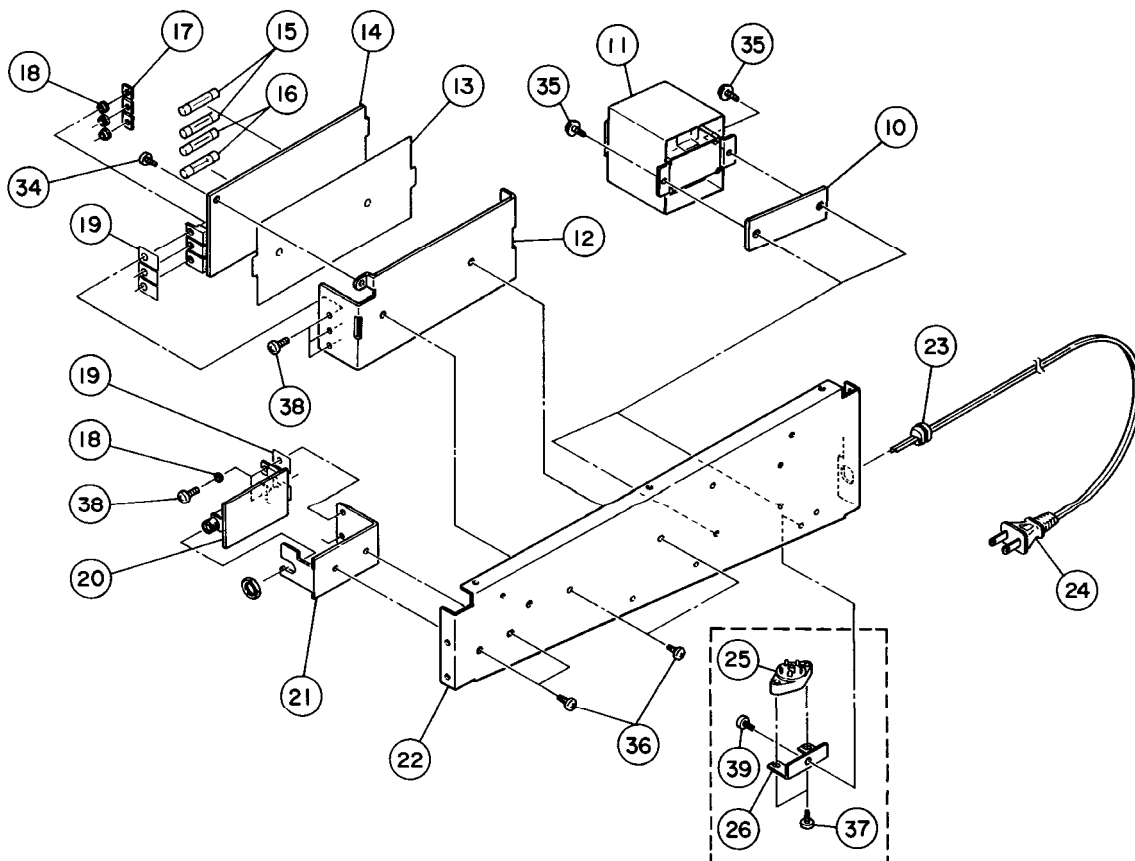
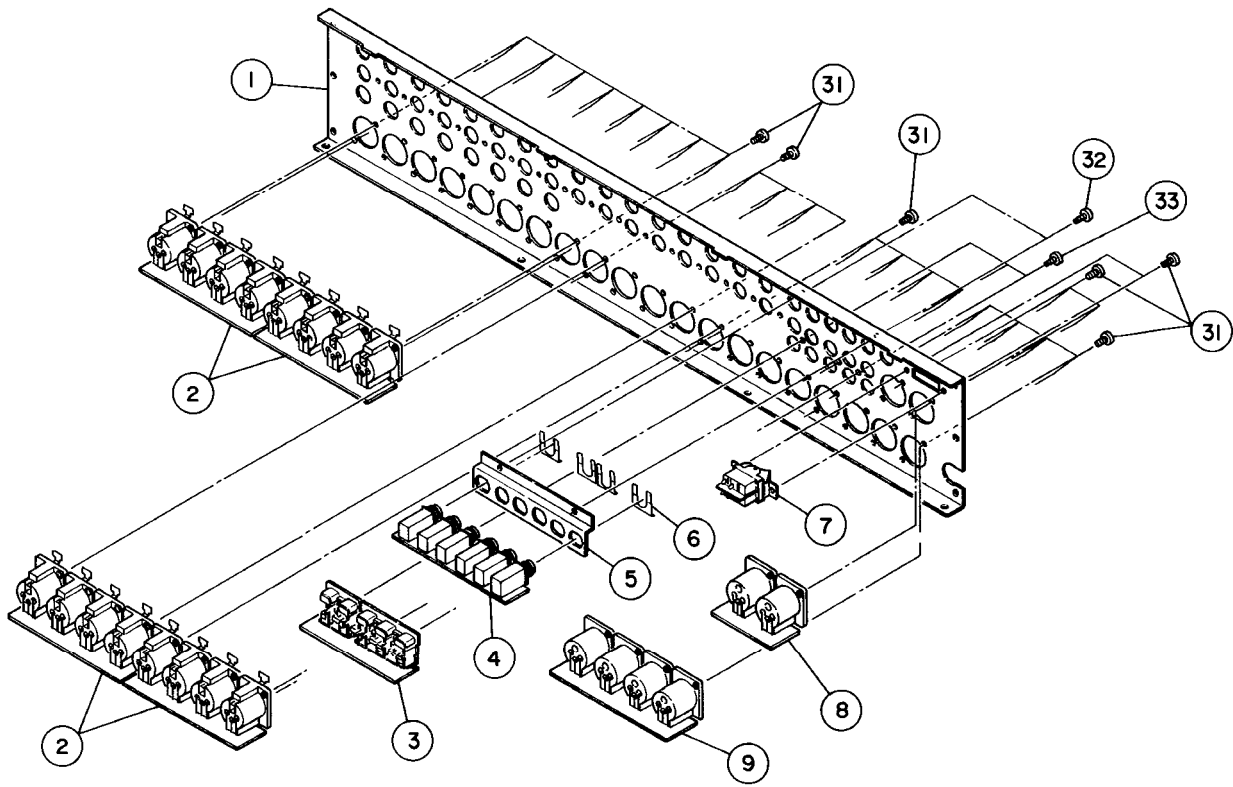


EXPLODED VIEW-2

PARTS MARKED WITH * REQUIRE LONGER DELIVERY TIME.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2- 1	5800756200	KNOB ASSY, (14);B	
2- 2	5800756300	KNOB ASSY, (14);C	
2- 3	5800756600	KNOB ASSY, (14);F	
2- 4	5800756500	KNOB ASSY, (14);E	
2- 5	5800756400	KNOB ASSY, (14);D	
2- 6	5800756100	KNOB ASSY, (14);A	
2- 7	5800729200	KNOB, FADER P	
2- 8	5800677200	KNOB, FADER H	
2- 9	5800677300	KNOB, FADER J	
2-10	*5800714100	PANEL, TOP;B [M-216]	
	*5800714000	PANEL, TOP;A [M-208]	
2-11	*5317003200	PLATE, MOUNT	
2-12	*5800712900	HOLDER, INPUT JACK	
2-13	*5800712800	SPACER, PIN JACK	
2-14	5800727700	BUTTON, PUSH;C	
2-15	5800727500	BUTTON, PUSH;A	
2-16	5800727900	BUTTON, PUSH;E	
2-17	*5200179300	INPUT PCB ASSY(A)	Ref. Page 21
2-18	*5200179310	INPUT PCB ASSY(B) [M-216]	Ref. Pages 21 & 22
2-19	*5200178601	E. RIN PCB ASSY	Ref. Page 25
2-20	*5200178801	EFF PCB ASSY	Ref. Page 27
2-21	*5200178701	FLB PCB ASSY	Ref. Page 27
2-22	*5200178901	MON PCB ASSY(A)	Ref. Page 25
2-23	*5200179001	MON PCB ASSY(B)	Ref. Page 25
2-24	5800727600	BUTTON, PUSH;B	
2-25	5800727800	BUTTON, PUSH;D	
2-26	*5800727300	ESCICHEON, METER	
2-27	5296007100	METER, VU	
2-28	*5800663400	BRACKET, METER	
2-29	*5200145801	PCB ASSY, METER	Ref. Page 30
2-30	*5200179900	MON BUSS PCB ASSY	Ref. Page 25
2-31	*5200179800	INPUT BUSS PCB ASSY	Ref. Page 22
2-32	5284010000	VR, SLIDE 10KD L=60	
2-33	5284010100	VR, SLIDE 5KD L=60	
2-34	*5555570000	CUSHION, B	
2-41	*5780423006	SCREW, TRASS M3X6 (BLK)	
2-42	*5780022618	SCREW, BIND M2.6X18(BLK)	
2-43	*5781162606	SCREW, BIND TAP M2.6X6 BLK	
2-44	*5785123000	LOCK WASHER 3F	

EXPLODED VIEW-3



REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3- 1	*5800714200	PANEL, REAR; B [M-216]	
	*5800713000	PANEL, REAR; A [M-208]	
3- 2	*5200179700	MIC JACK PCB ASSY	Ref. Page 30
3- 3	*5200179100	RCA JACK PCB ASSY	Ref. Page 30
3- 4	*5200180000	JACK PCB ASSY	Ref. Page 33
3- 5	*5800712500	HOLDER, JACK	
3- 6	*5317003200	PLATE, MOUNT	
3- 7	△ 5300024900	SW., POWER SDE3S [J]	
	△ 5300025000	SW., POWER SDE3S [US, C, GE]	
	△ 5300025100	SW., POWER SDE3S [E, UK, A]	
3- 8	*5200179600	STE JACK PCB ASSY	Ref. Page 30
3- 9	*5200179500	PGM JACK PCB ASSY	Ref. Page 30
3-10	*5800728800	SPACER, TRANSFORMER	
3-11	△ 5320036000	TRANSFORMER, POWER [J]	
	△ 5320036100	TRANSFORMER, POWER [US, C]	
	△ 5320036300	TRANSFORMER, POWER [GE]	
	△ 5320036200	TRANSFORMER, POWER [E, UK, A]	
3-12	*5800713400	HEATSINK	
3-13	*5800739000	PLATE, INSULATOR	
3-14	*5200178501	P.S PCB ASSY [J]	Ref. Page 33
	*5200178511	P.S PCB ASSY [US]	Ref. Page 33
	*5200178521	P.S PCB ASSY [C]	Ref. Page 33
	*5200178531	P.S PCB ASSY [GE]	Ref. Page 33
	*5200178541	P.S PCB ASSY [E, UK, A]	Ref. Page 33
3-15	△ 5307020400	FUSE, T1A250V [J, US, C, GE]	
	△ 5041140000	FUSE, T1A250V [E, UK, A]	
3-16	△ 5307019900	FUSE, T0.5A250V [J, US, C, GE]	
	△ 5041138000	FUSE, T0.5A250V [E, UK, A]	
3-17	5800728200	PLATE NUT	
3-18	*5033295000	TUBE, INSULATOR	
3-19	*5033291000	PLATE, INSULATOR	
3-20	*5200180301	PHONE JACK PCB ASSY	Ref. Page 33
3-21	*5800727401	BRACKET, HP. PCB	
3-22	*5800713200	CHASSIS, SIDE; R	
3-23	*5534660000	BUSHING 4N-4 [J, GE, E, A]	
	*5317001700	BUSHING 4N-5 [US, UK]	
	*5534663000	BUSHING 6W-1 [C]	
3-24	△ 5128027000	CORD, AC [J]	
	△ 5350010700	CORD, AC UL SPT-2 [US]	
	△ 5350012200	CORD, AC CSA [C]	
	△ 5350010800	CORD, AC UL SPT-1 [GE]	
	△ 5350008200	CORD, AC EUR [E]	
	△ 5128047000	CORD, AC [UK]	
	△ 5350008300	CORD, AC ASS [A]	
3-25	△ 5302101700	SW., VOLTAGE SELECT [GE]	
3-26	*5800728700	BRACKET, SELECTOR [GE]	

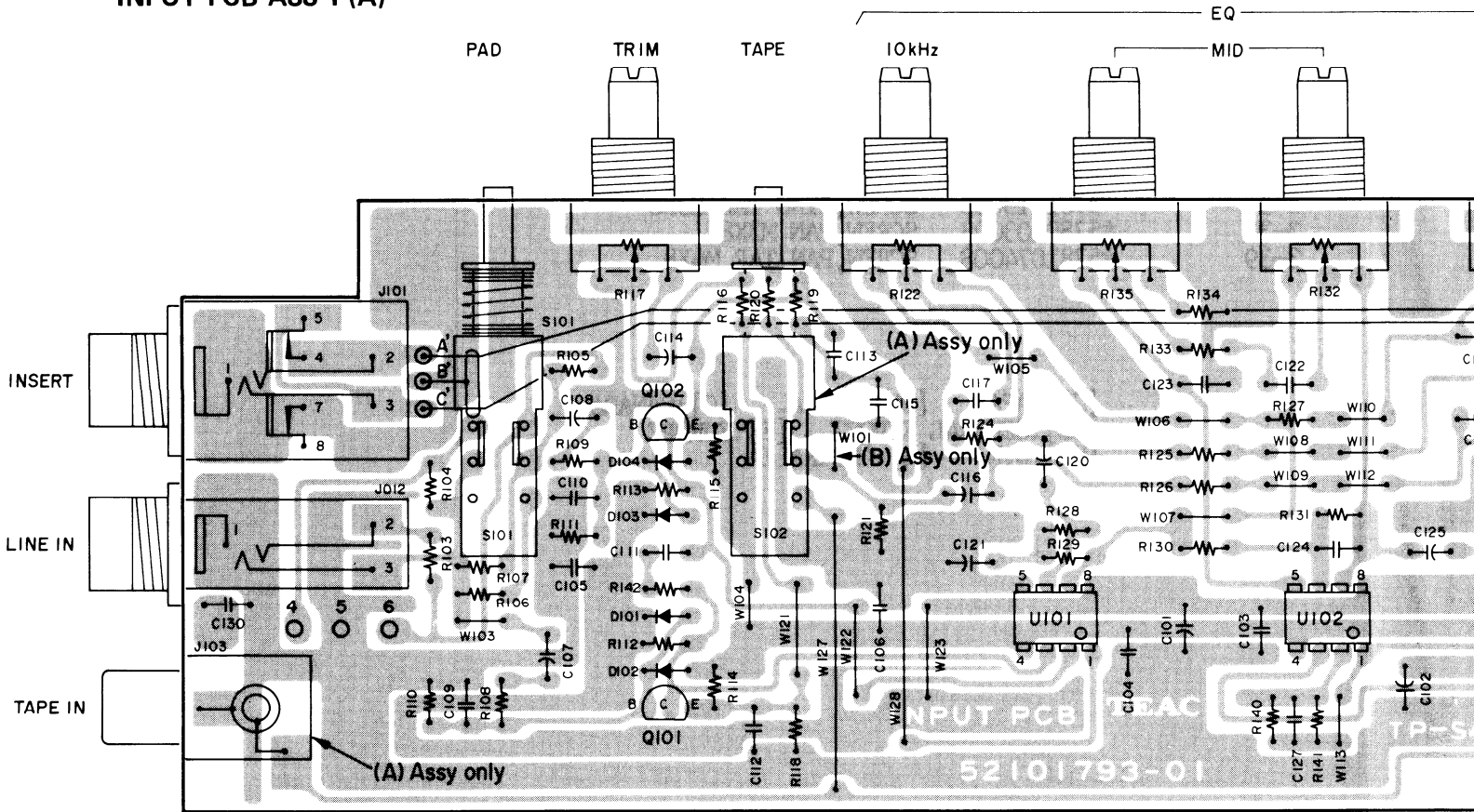
PARTS MARKED WITH * REQUIRE LONGER DELIVERY TIME.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3-31	*5780023008	SCREW,BIND M3X8 NI B	
3-32	*5781163006	SCREW,BIND TAP M3X6(BLK)	
3-33	*5781103008	SCREW,BIND TAP M3X8	
3-34	*5781023008	SCREW,PAN TAP M3X8(BLK NI)	
3-35	*5781514008	SCREW,WASER HEAD TAP M4X8	
3-36	*5781023006	SCREW,PAN TAP M3X6	
3-37	*5781113008	SCREW,BIND TAP M3X8	
3-38	*5780103008	SCREW,PAN M3X8	
3-39	*5781074008	SCREW,PAN TAP M4X8	

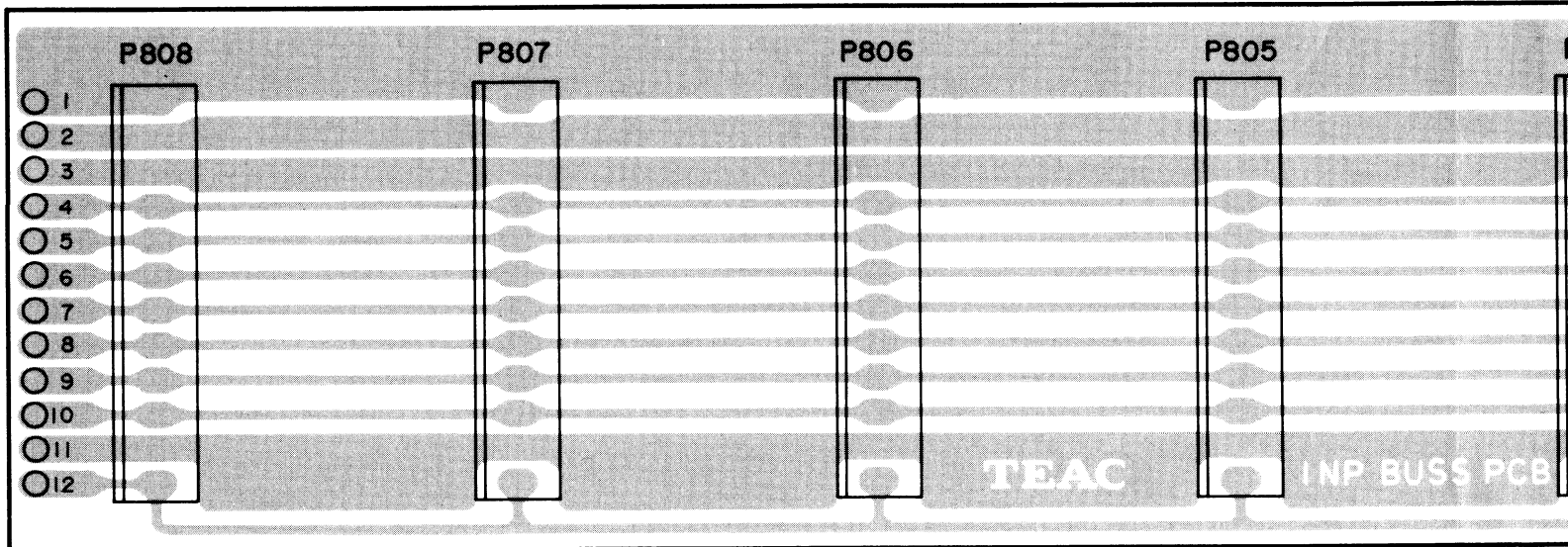
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[GE]:GENERAL EXPORT [E]:EUROPE
[UK]:U.K. [A]:AUSTRALIA

4. PC BOARDS AND PARTS LISTS

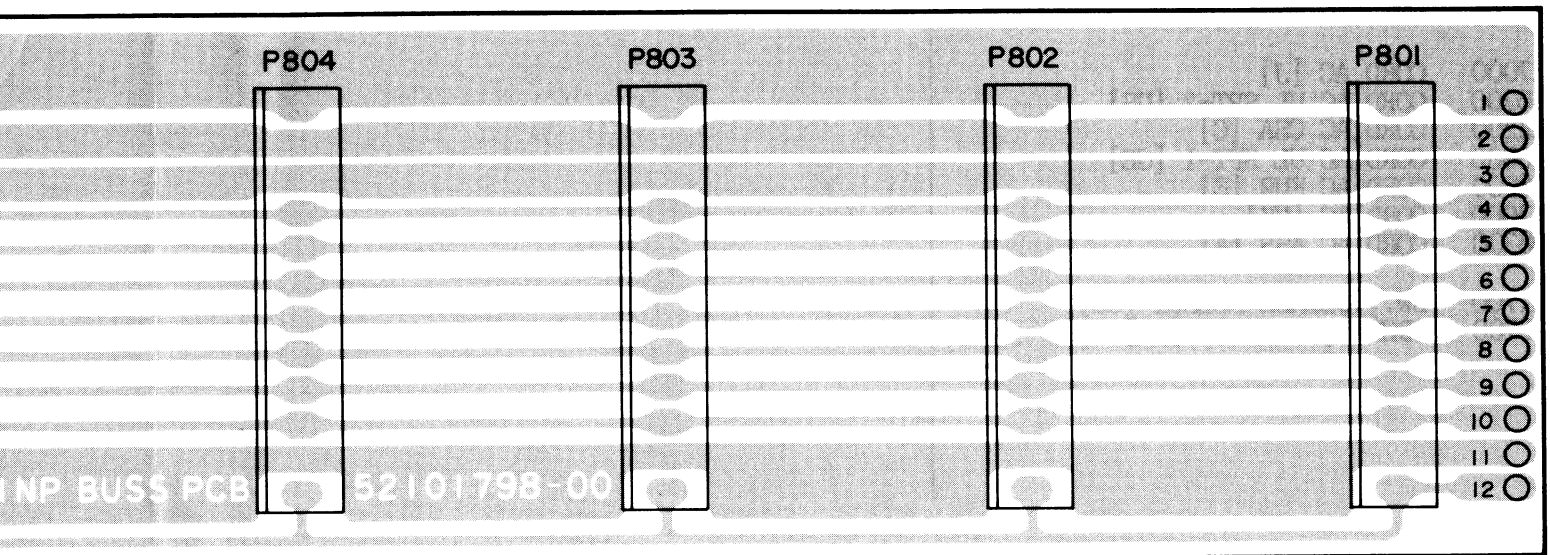
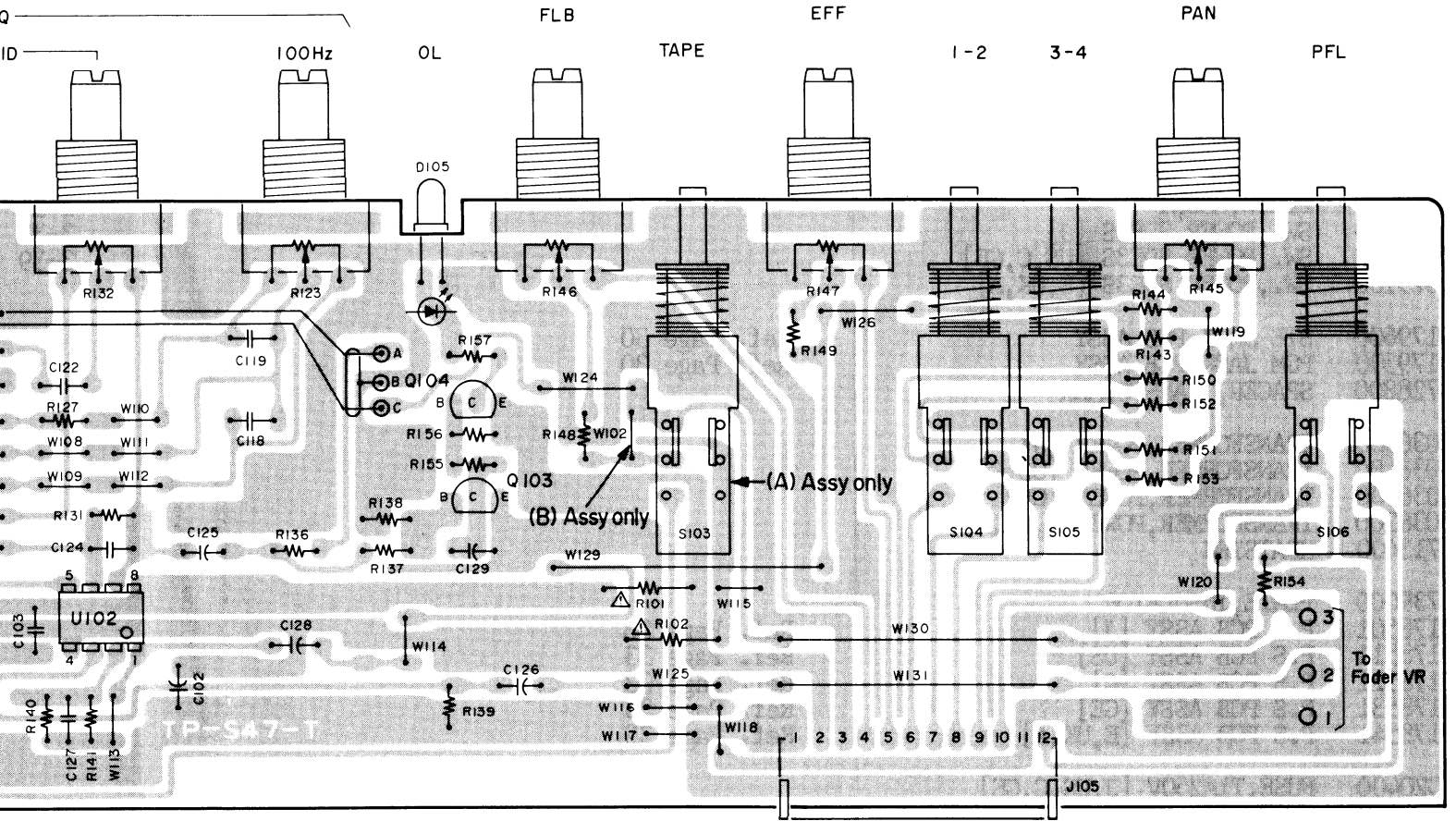
INPUT PCB ASS'Y(A)



INPUT BUSS PCB ASS'Y



INPUT PCB ASS'Y (A)



INPUT PCB ASSY(A)

REF. NO.	PARTS NO.	DESCRIPTION
	*5200179300	INPUT PCB ASSY(A)
	*5210179301	INPUT PCB
	*5800712901	HOLDER, INPUT JACK
	*5800712800	SPACER, PIN JACK
	*5317003200	PLATE, MOUNT
C101 C102	5260165252	C., ELEC. 4.7UF/25V M USM VT
C103-C106	5173433000	C., CERAMIC 0.010UF/50V
C107 C108	5260162950	C., ELEC. 10UF/63V SM T-N
C109 C110	5172216000	C., CERAMIC 220PF/50V T
C111	5170364000	C., MYLAR 0.0033UF/100V JT
C112 C113	5172217000	C., CERAMIC 270PF/50V T
C114	5173070000	C., ELEC. SM 470UF/6.3V
C115	5260067050	C., ELEC. 10UF/16V
C116	5260162550	C., ELEC. 10UF/16V
C117	5263101620	C., POLY 0.0030UF/100V J
C118 C119	5171860000	C., MYLAR 0.015UF/100V J T
C120	5260162550	C., ELEC. 10UF/16V
C121	5260161150	C., ELEC. 2.2UF/50V
C122	5170370000	C., MYLAR 0.0056UF/100V JT
C123	5170360000	C., MYLAR 0.0022UF/100V JT
C124	5172208000	C., CERAMIC 47PF/50V T
C125 C128	5260165252	C., ELEC. 4.7UF/25V M USM VT
C126	5260162550	C., ELEC. 10UF/16V
C127	5172204000	C., CERAMIC 22PF/50V T
C129	5260160550	C., ELEC. 0.47UF/50V M SM
C130	5173433000	C., CERAMIC 0.01UF/50V
D101-D104	5224015020	DIODE, 1SS133T-77
D105	5225005400	LED, SLP135B (RED)
J101	5330011400	JACK, B11-5005 3P
J102	5330009000	JACK, PIN 3P PHONE
J103	5330508900	JACK, PIN 1P BLK
J105	5122383000	CONNECTOR SOCKET 3024-12AH
Q101 Q102	5145119000	SI. TR. 2SC-1844F 0.25 100
Q103	5230779520	SI. TR. 2SC1815GR 0.4 80
Q104	5145150000	SI. TR. 2SA-1015GR 0.4 80
R101 R102	5183562000	R., INCOMBUSTIBLE 2.2 1/4W
R103	5240031420	R., CARBON R10 22K J
R104 R105	5240028220	R., CARBON R20 1.0K J
R106	5240025420	R., CARBON R20 68 J
R107	5240029420	R., CARBON R20 3.3K J
R108 R109	5240023420	R., CARBON R20 10 J
R110 R111	5240029820	R., CARBON R20 4.7K J
R112 R113	5240029020	R., CARBON R10 2.2K J
R114 R115	5240029820	R., CARBON R20 4.7K J
R116	5240023820	R., CARBON R20 15 J
R117	5282014700	1S1UVR 12, 5KRD
R118 R119	5240030620	R., CARBON R10 10K J
R120 R121	5240033020	R., CARBON R20 100K J
R122 R123	5282015100	1S1UVR 12, 10KB
R124 R125	5240030020	R., CARBON R20 5.6K J
R126 R127	5240031220	R., CARBON R20 18K J
R128 R129	5240034620	R., CARBON R20 470K J
R130 R131	5240031220	R., CARBON R20 18K J
R132 R145	5282015000	1S1UVR 12, 10KB
R133 R134	5240030420	R., CARBON R20 8.2K J
R135	5282410900	1S2UVR 12, 200KCX2
R136	5240025820	R., CARBON R20 100 J
R137	5240033020	R., CARBON R20 100K J
R138	5240030520	R., CARBON R20 9.1K J
R139	5240033020	R., CARBON R20 100K J

REF. NO.	PARTS NO.	DESCRIPTION
R140	5240029020	R., CARBON R10 2.2K J
R141	5240029820	R., CARBON R20 4.7K J
R142	5240025820	R., CARBON R20 100 J
R143 R144	5240029920	R., CARBON R20 5.1K J
R146 R147	5282014900	1S1UVR 12, 50KD
R148-R154	5240031420	R., CARBON R10 22K J
R155 R156	5240030620	R., CARBON R10 10K J
R157	5240030020	R., CARBON R20 5.6K J
S101	5300041600	PUSH SW 2-2 N SUN
S102 S103	5300041600	PUSH SW 2-2 N SUN
S104-S106	5300041600	PUSH SW 2-2 N SUN
U101 U102	5220411100	IC, NJM4560DX

INPUT PCB ASSY(B) [M-216 ONLY]

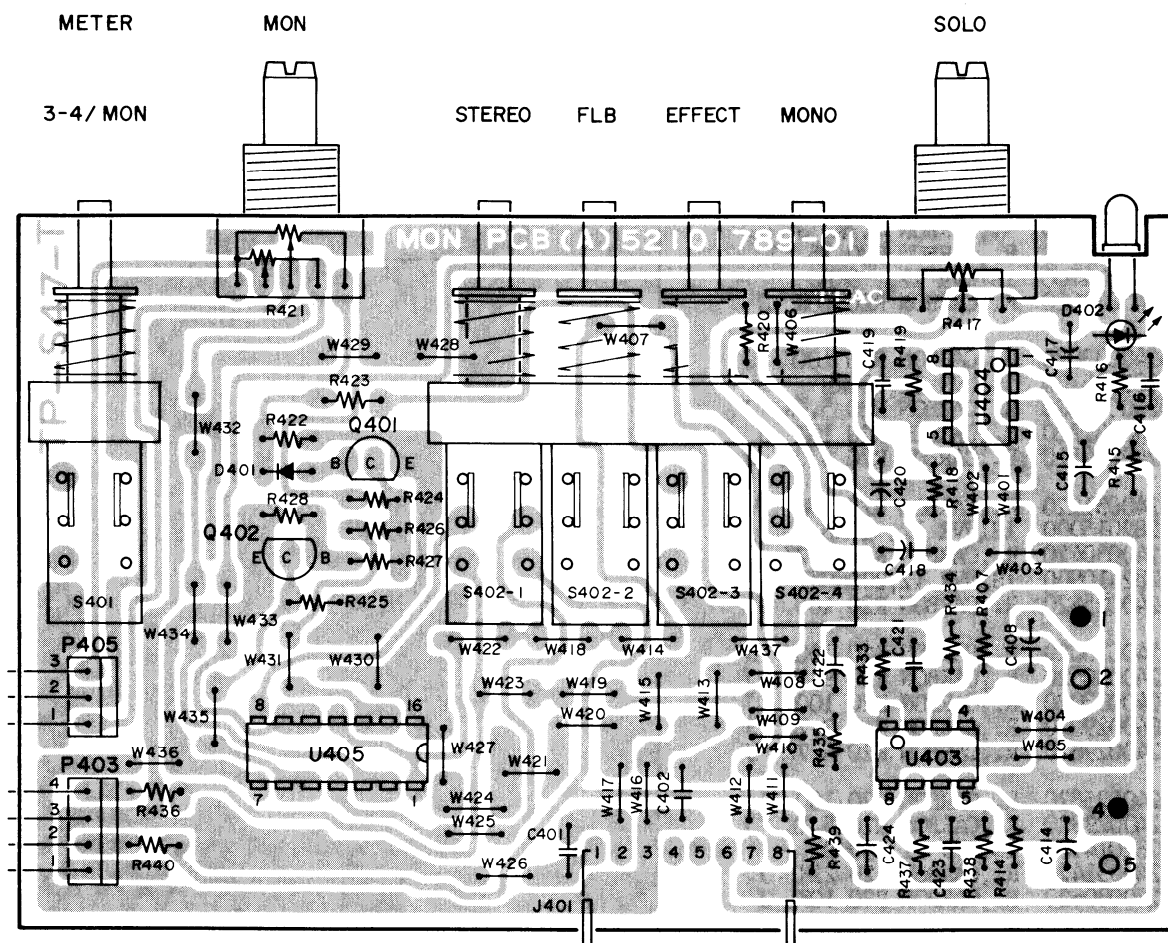
REF. NO.	PARTS NO.	DESCRIPTION
	*5200179310	INPUT PCB ASSY(B)
	*5210179301	INPUT PCB
	*5800712901	HOLDER, INPUT JACK
	*5317003200	PLATE, MOUNT
C101 C102	5260165252	C., ELEC. 4.7UF/25V M USM VT
C103-C106	5173433000	C., CERAMIC 0.010UF/50V Z
C107 C108	5260162950	C., ELEC. 10UF/63V SM T-N
C109 C110	5172216000	C., CERAMIC 220PF/50V T
C111	5170364000	C., MYLAR 0.0033UF/100V JT
C112 C113	5172217000	C., CERAMIC 270PF/50V T
C114	5173070000	C., ELEC. SM 470UF/6.3V
C115	5260067050	C., ELEC. 10UF 16V
C116	5260162550	C., ELEC. 10UF 16V
C117	5263101620	C., POLY. 0.0030UF 100V J
C118 C119	5171860000	C., MYLAR 0.015UF/100V J T
C120	5260162550	C., ELEC. 10UF 16V
C121	5260161150	C., ELEC. 2.2UF 50V
C122	5170370000	C., MYLAR 0.0056UF/100V JT
C123	5170360000	C., MYLAR 0.0022UF/100V JT
C124	5172208000	C., CERAMIC 47PF/50V T
C125 C128	5260165252	C., ELEC. 4.7UF/25V M USM VT
C126	5260162550	C., ELEC. 10UF 16V
C127	5172204000	C., CERAMIC 22PF/50V T
C129	5260160550	C., ELEC. 0.47UF 50V M SM
C130	5173433000	C., CERAMIC 0.01UF/50V
D101-D104	5224015020	DIODE, 1SS133T-77
D105	5225005400	LED, SLP135B (RED)
J101	5330011400	JACK, B11-5005 3P
J102	5330009000	JACK, PIN 3P PHONE
J105	5122383000	CON., SOCKET 3024-12AH
Q101 Q102	5145119000	SI. TR. 2SC1844F 0.25 100
Q103	5230779520	SI. TR. 2SC1815GR 0.4 80
Q104	5145150000	SI. TR. 2SA1015GR 0.4 80
R101 R102	5183562000	R., INCOMBUSTIBLE 2.2 1/4W
R103	5240031420	R., CARBON R10 22K J

INPUT BUSS PCB ASSY

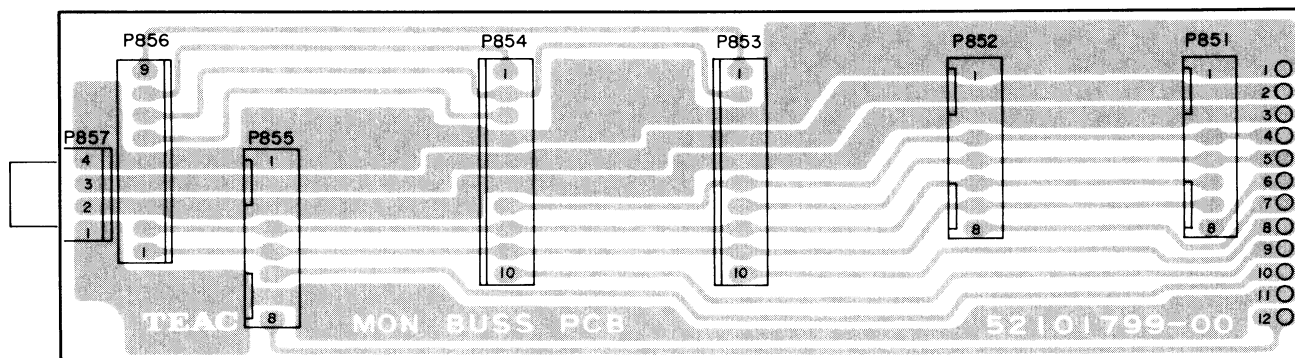
REF. NO.	PARTS NO.	DESCRIPTION
R104	R105	5240028220 R.,CARBON R20 1.0K J
R106		5240025420 R.,CARBON R20 68 J
R107		5240029420 R.,CARBON R20 3.3K J
R108	R109	5240023420 R.,CARBON R20 10 J
R110	R111	5240029820 R.,CARBON R20 4.7K J
R112	R113	5240029020 R.,CARBON R10 2.2K
R114	R115	5240029820 R.,CARBON 4.7K J
R116		5240023820 R.,CARBON R20 15 J
R117		5282014700 1S1UVR 12, 5KRD
R118	R119	5240030620 R.,CARBON R20 10K J
R120	R121	5240033020 R.,CARBON R20 100K J
R122	R123	5282015100 1S1UVR 12,100KB
R124	R125	5240030020 R.,CARBON R20 5.6K J
R126	R127	5240031220 R.,CARBON R20 18K J
R128	R129	5240034620 R.,CARBON R20 470K J
R130	R131	5240031220 R.,CARBON R20 18K J
R132	R145	5282015000 1S1UVR 12, 10KB
R133	R134	5240030420 R.,CARBON R20 8.2K J
R135		5282410900 1S2UVR 12,200KCX2
R136		5240025820 R.,CARBON R20 100 J
R137		5240033020 R.,CARBON R20 100K J
R138		5240030520 R.,CARBON R20 9.1K J
R139		5240033020 R.,CARBON R20 100K J
R140		5240029020 R.,CARBON R10 2.2K J
R141		5240029820 R.,CARBON R20 4.7K J
R142		5240025820 R.,CARBON R20 100 J
R143	R144	5240029920 R.,CARBON R20 5.1K J
R146	R147	5282014900 1S1UVR 12, 50KD
R148	R154	5240031420 R.,CARBON R20 22K J
R155	R156	5240030620 R.,CARBON R20 10K J
R157		5240030020 R.,CARBON R20 5.6K J
S101		5300041600 PUSH SW 2-2 N SUN
S104-S106		5300041600 PUSH SW 2-2 N SUN
U101	U102	5220411100 IC,NJM4560DX

REF. NO.	PARTS NO.	DESCRIPTION
	*5200179800	INPUT BUSS PCB ASSY
	*5210179800	INP BUSS PCB
P801-P808	5336167200	CON.,PLUG IL-12P

MON PCB ASS'Y (A)



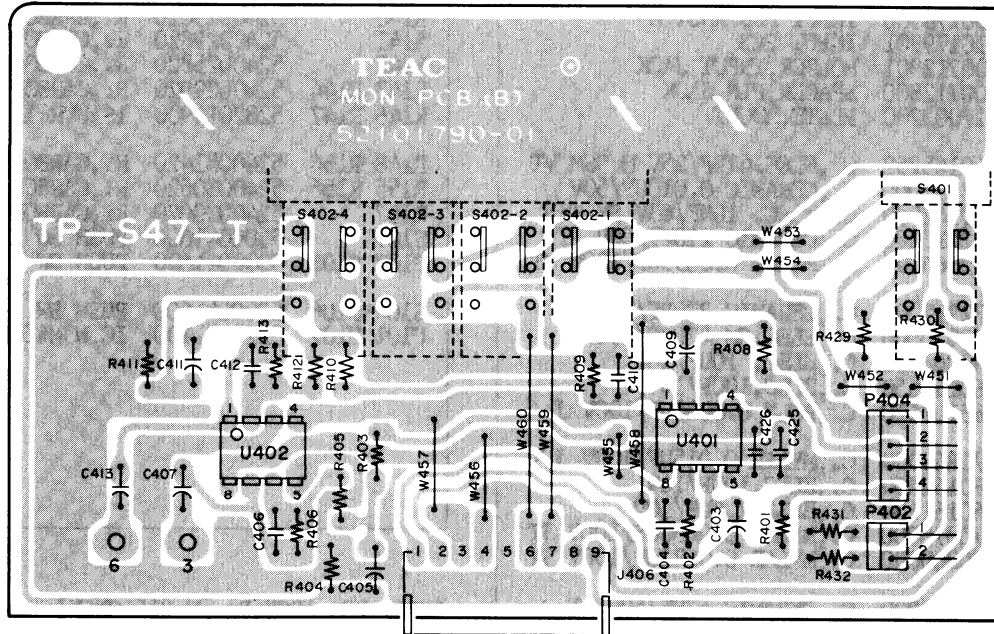
MON BUSS PCB ASS'Y



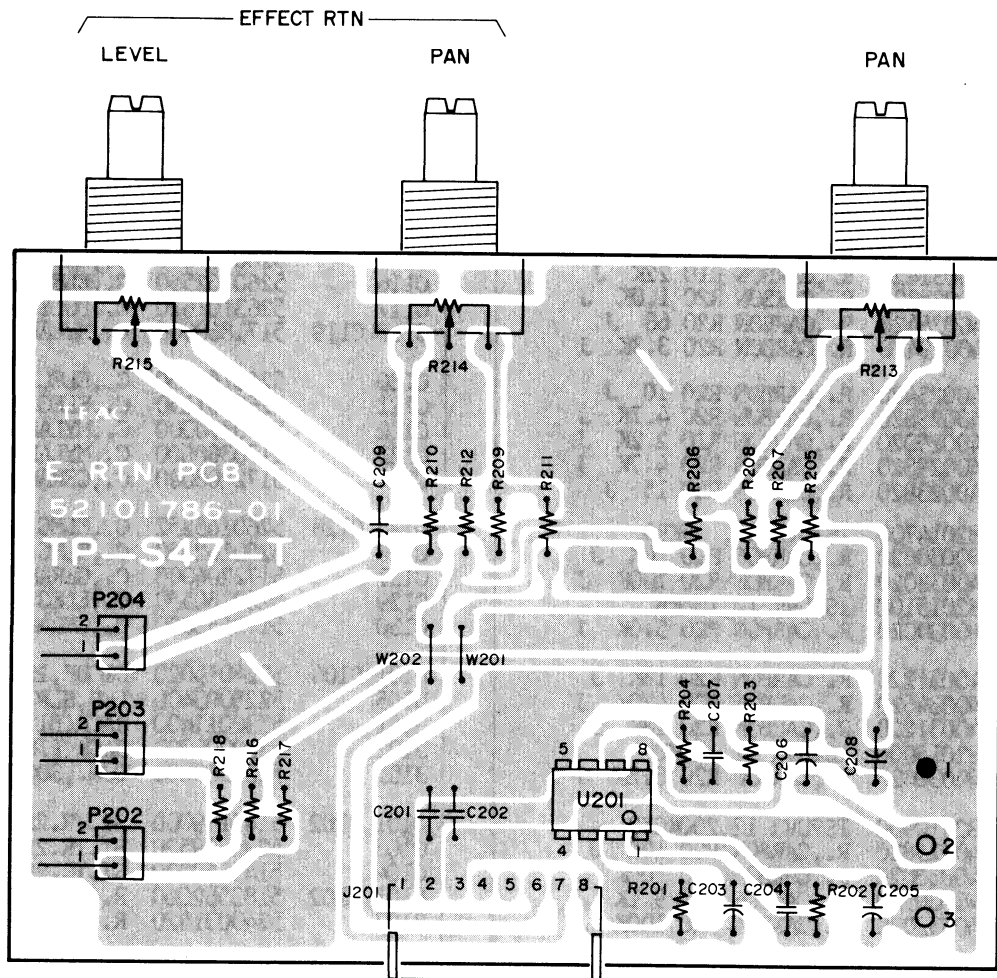
MON PCB ASS'Y (B)

MONO EFFECT FLB STEREO

3-4/MON



E. RTN PCB ASS'Y



MON PCB ASSY(A)

REF. NO.	PARTS NO.	DESCRIPTION
	*5200178901	MON PCB ASSY(A)
	*5210178901	MON PCB(A)
C401 C402	5173433000	C.,SERAMIC 0.010UF/50V Z
C408 C414	5260212350	C.,ELEC. 10UF/16V M SRA
C415	5260214750	C.,ELEC. 100UF/10V M SRA
C416	5172208000	C.,CERAMIC 47PF/50V T
C417 C420	5260214450	C.,ELEC. 47UF/25V M SRA
C418	5260213050	C.,ELEC. 22UF/16V M SRA
C419	5172204000	C.,CERAMIC 22PF/50V T
C421 C423	5172213000	C.,CERAMIC 120PF/50V T
C422 C424	5260214450	C.,ELEC. 47UF/25V M SRA
D401	5224015020	DIODE,1SS133T-77
D402	5225005400	LED,SLP135B (RED)
J401	5122379000	CONNECTOR,SOCKET 3024-08A
P403	5336128400	CON.,PLUG 8263-0411 WHT
P405	5336128300	CON.,PLUG 8263-0311 WHT
Q401	5145150000	SI.TR.2SA-1015GR 0.4 80
Q402	5230779520	SI.TR.2SC1815GR 0.4 80
R407 R414	5240033020	R.,CARBON R20 100K J
R415 R420	5240033020	R.,CARBON R20 100K J
R416	5240031420	R.,CARBON R20 22K J
R417	5282014800	1S1UVR 12, 10KA
R418	5240030620	R.,CARBON R20 10K J
R419	5240032620	R.,CARBON R20 68K J
R421	5282411000	1S2UVR 12, 20KCK2
R422 R423	5240031420	R.,CARBON R20 22K J
R424	5240030020	R.,CARBON R20 5.6K J
R425-R428	5240031420	R.,CARBON R20 22K J
R433 R437	5240030620	R.,CARBON R20 10K J
R434 R438	5240028620	R.,CARBON R20 1.5K J
R435 R439	5240033020	R.,CARBON R20 100K J
R436 R440	5240025820	R.,CARBON R20 100 J
S401	5300041800	PUSH SW 2-2 N SUF
S402	5300041700	PUSH SW 4-GANG 2-2 N SUF
U403 U404	5220411100	IC,NJM4560DX
U405	5220036200	IC,LC4966,

MON BUSS PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200179900	MON BUSS PCB ASSY
	*5210179900	MON BUSS PCB
P851 P852	5336166800	CON.,PLUG IL-08P
P853 P854	5336167000	CON.,PLUG IL-10P
P855	5336166800	CON.,PLUG IL-08P
P856	5336166900	CON.,PLUG IL-09P
P857	5336139400	CON.,PLUG 8263-0411 RED

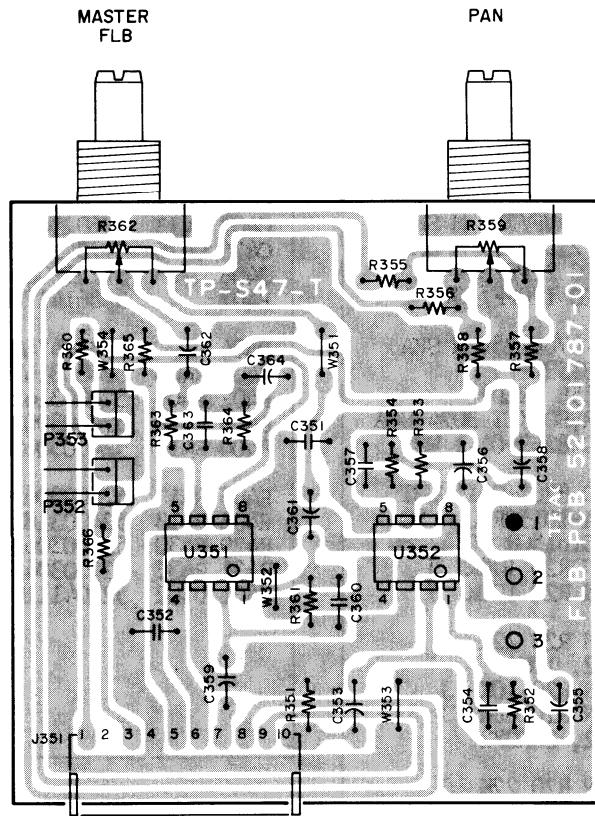
MON PCB ASSY(B)

REF. NO.	PARTS NO.	DESCRIPTION
	*5200179001	MON PCB ASSY(B)
	*5210179001	MON PCB(B)
C403 C409	5260214750	C.,ELEC. 100UF/10V M SRA
C404 C410	5172208000	C.,CERAMIC 47PF/50V T
C405 C411	5260214450	C.,ELEC. 47UF/25V M SRA
C406 C412	5172206000	C.,CERAMIC 33PF/50V K VFT
C407 C413	5260214450	C.,ELEC. 47UF/25V M SRA
C425 C426	5173433000	C.,CERAMIC 0.010UF/50V Z
J406	5122380000	CONN., SOCKET 3024-09AH
P402	5336141200	CON.,PLUG 8263-0211 BLK
P404	5336147400	CON.,PLUG 8263-0411 YEL
R401 R408	5240031420	R.,CARBON R20 22K J
R402 R409	5240031420	R.,CARBON R20 22K J
R403 R410	5240030620	R.,CARBON R20 10K J
R404 R411	5240030620	R.,CARBON R20 10K J
R405 R412	5240030620	R.,CARBON R20 10K J
R406 R413	5240031820	R.,CARBON R20 33K J
R429 R430	5240030620	R.,CARBON R20 10K J
R431 R432	5240030420	R.,CARBON R20 8.2K J
U401 U402	5220411100	IC,NJM4560DX

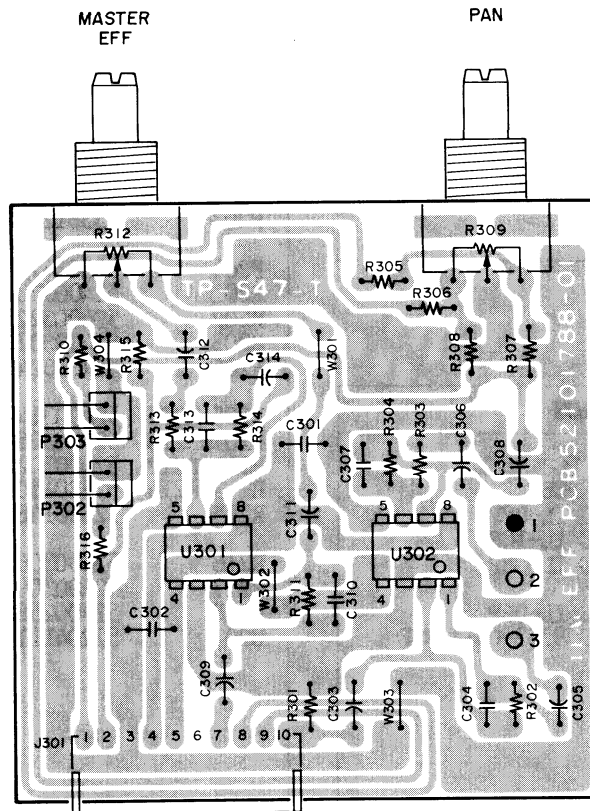
E.RIN PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200178601	E.RIN PCB ASSY
	*5210178601	E.RIN PCB
C201 C202	5173433000	C.,CERAMIC 0.010UF 50V T
C203	5260165952	C.,ELEC.100UF/10V M USM
C204 C207	5172204000	C.,CERAMIC 22PF/50V T
C205 C208	5260165252	C.,ELEC. 47UF/25V M USM
C206 C209	5260163352	C.,ELEC. 22UF/16V M USM
J201	5122379000	CONNECTOR,SOCKET 3024-08A
P202	5336141200	CON.,PLUG 8263-0211 BLK
P203	5336128200	CON.,PLUG 8263-0211 WHT
P204	5336147200	CON.,PLUG 8263-0211 YEL
R201	5240033020	R.,CARBON R20 100K J
R202	5240032220	R.,CARBON R20 47K J
R203	5240030220	R.,CARBON R20 6.8K J
R204	5240032420	R.,CARBON R20 56K J
R205 R206	5240031420	R.,CARBON R20 22K J
R207-R210	5240030620	R.,CARBON R20 10K J
R211 R212	5240030220	R.,CARBON R20 6.8K J
R213 R214	5282015000	1S1UVR 12, 10KB
R215	5282014800	1S1UVR 12, 10KA
R216	5240030620	R.,CARBON R20 10K J
R217	5240030420	R.,CARBON R20 8.2K J
R218	5240025820	R.,CARBON R20 100 J
U201	5220411100	IC,NJM4560DX

FLB PCB ASS'Y



EFF PCB ASS'Y



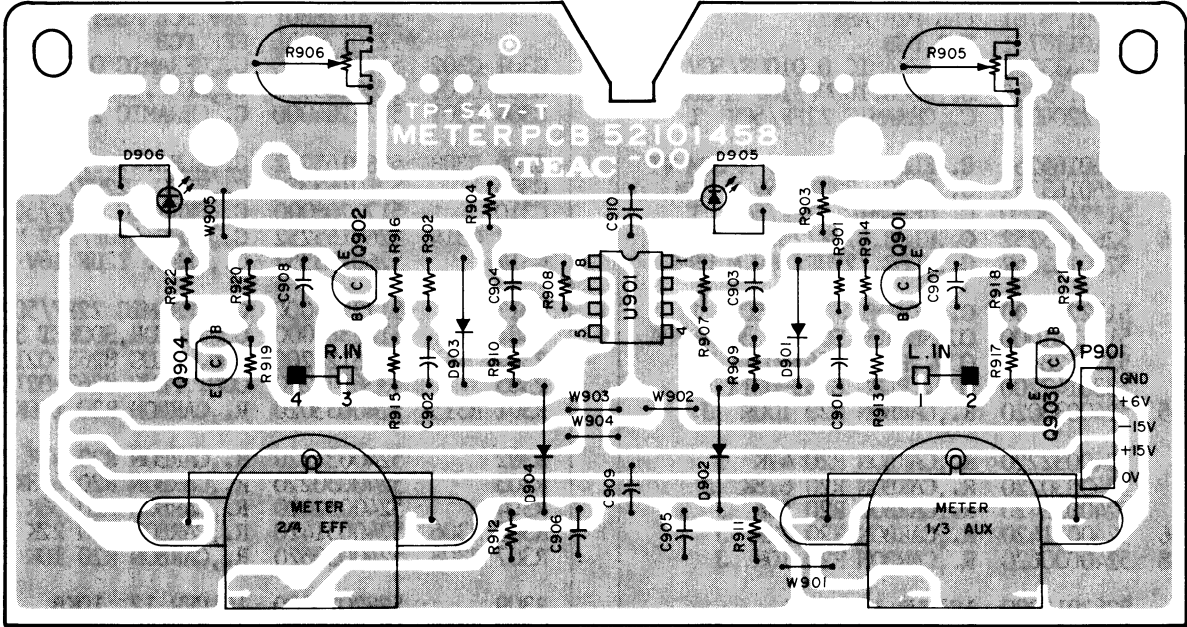
FLB PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200178701	FLB PCB ASSY
	*5210178701	FLB PCB
C351 C352	5173433000	C., CERAMIC 0.010UF/50V Z
C353 C359	5260165952	C., ELEC. 100UF/10V M USM
C354 C357	5172204000	C., CERAMIC 22PF/50V T
C355 C358	5260165252	C., ELEC. 47UF/25V M USM VT
C356	5260163352	C., ELEC. 22UF/16V M USM
C360	5172208000	C., CERAMIC 47PF/50V T
C361 C364	5260165252	C., ELEC. 47UF/25V M USM VT
C362	5260163352	C., ELEC. 22UF/16V M USM
C363	5172204000	C., CERAMIC 22PF/50V T
J351	5122381000	CONNECTOR, SOCKET 3024-10A
P352	5336128200	CON., PLUG 8263-0211 WHT
P353	5336147200	CON., PLUG 8263-0211 YEL
R351 R365	5240033020	R., CARBON R20 100K J
R352	5240032220	R., CARBON R20 47K J
R353	5240030220	R., CARBON R20 6.8K J
R354	5240032420	R., CARBON R20 56K J
R355 R356	5240031420	R., CARBON R20 22K J
R357 R358	5240030620	R., CARBON R20 10K J
R359	5282015000	1S1UVR 12, 10KB
R360 R366	5240025820	R., CARBON R20 100 J
R361	5240031420	R., CARBON R20 22K J
R362	5282014800	1S1UVR 12, 10KA
R363	5240030620	R., CARBON R20 10K J
R364	5240032620	R., CARBON R20 68K J
U351 U352	5220411100	IC, NJM4560DX

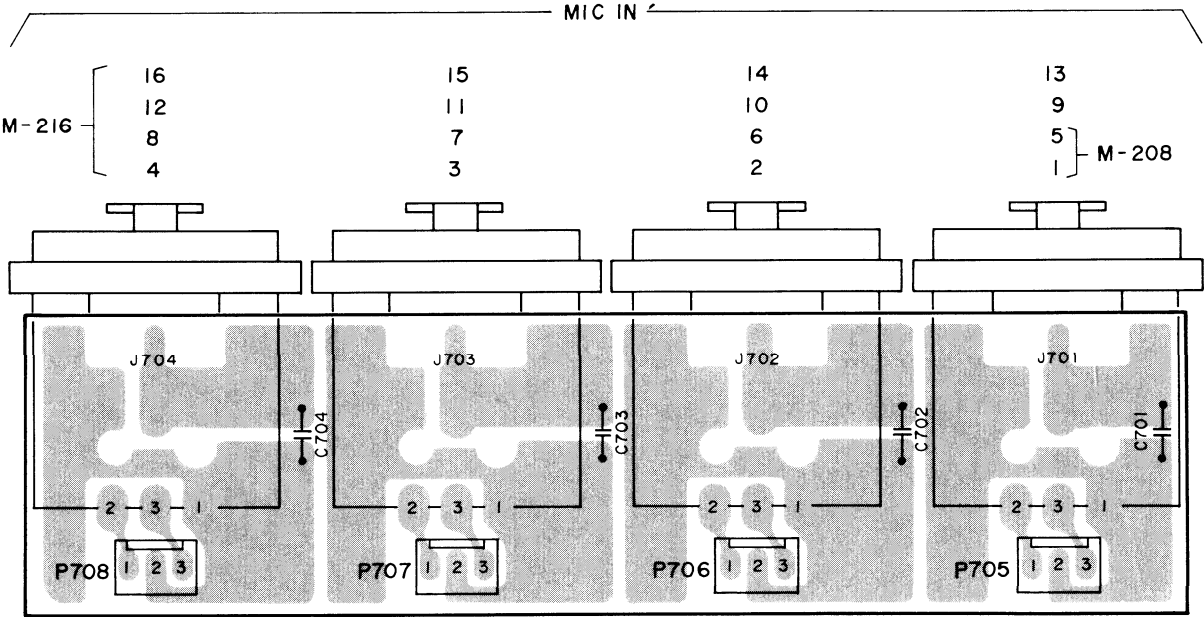
EFF PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200178801	EFF PCB ASSY
	*5210178801	EFF PCB
C301 C302	5173433000	C., CERAMIC 0.010UF 50V Z
C303 C309	5260165952	C., ELEC. 100UF/10V M USM
C304 C307	5172204000	C., CERAMIC 22PF/50V T
C305 C308	5260165252	C., ELEC. 47UF/25V M USM VT
C306	5260163352	C., ELEC. 22UF/16V M USM
C310	5172208000	C., CERAMIC 47PF/50V T
C311 C314	5260165252	C., ELEC. 47UF/25V M USM VT
C312	5260163352	C., ELEC. 22UF 16V M USM
C313	5172204000	C., CERAMIC 22PF/50V T
J301	5122381000	CONNECTOR, SOCKET 3024-10A
P302	5336128200	CON., PLUG 8263-0211 WHT
P303	5336147200	CON., PLUG 8263-0211 YEL
R301 R315	5240033020	R., CARBON R20 100K J
R302	5240032220	R., CARBON R20 47K J
R303	5240030220	R., CARBON R20 6.8K J
R304	5240032420	R., CARBON R20 56K J
R305 R306	5240031420	R., CARBON R20 22K J
R307 R308	5240030620	R., CARBON R20 10K J
R309	5282015000	1S1UVR 12, 10KB
R310 R316	5240025820	R., CARBON R20 100 J
R311	5240031420	R., CARBON R20 22K J
R312	5282014800	1S1UVR 12, 10KA
R313	5240030620	R., CARBON R20 10K J
R314	5240032620	R., CARBON R20 68K J
U301 U302	5220411100	IC, NJM4560DX

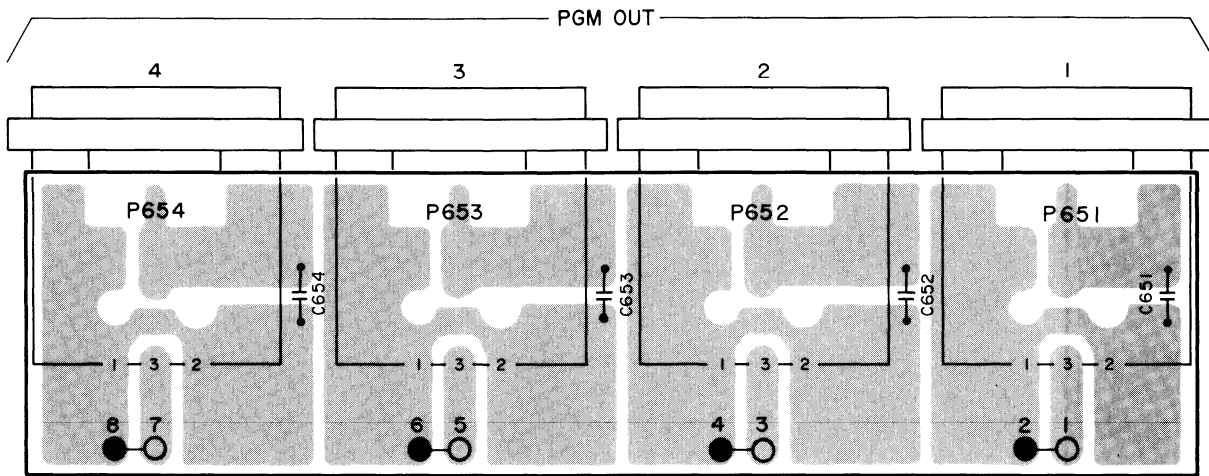
METER PCB ASS'Y



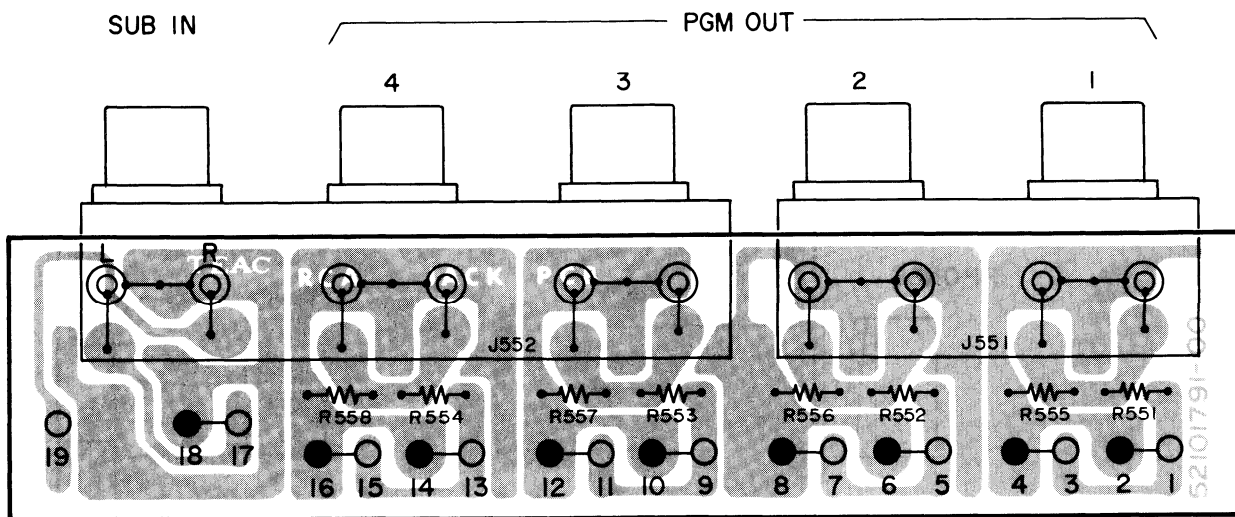
MIC JACK PCB ASS'Y



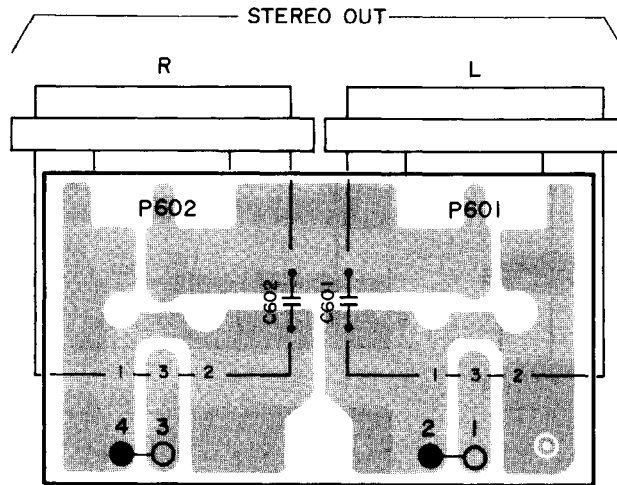
PGM JACK PCB ASS'Y



RCA JACK PCB ASS'Y



STE JACK PCB ASS'Y



METER PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200145801	METER PCB ASSY
	*5210145800	METER PCB
	5800606900	SPACER, LED
C901 R902	5260211450	C., ELEC. 2.2UF/50V M SRA
C903 R904	5260213150	C., ELEC. 22UF/25V M SRA
C905 R906	5260212950	C., ELEC. 22UF/10V M SRA
C907 R908	5260211050	C., ELEC 0.47UF/50V M SRA
C909 R910	5260212450	C., ELEC. 10UF/25V M SRA
D901-D904	5224015400	DIODE, 1K60
D905 D906	5225005400	LED, SLP135B (RED)
P901	5336139500	CON., PLUG 8263-0511 RED
Q901 Q902	5230779520	SI. TR. 2SC1815GR 0.4 80
Q903 Q904	5145150000	SI. TR. 2SA1015GR 0.4 80
R901 R902	5240033020	R., CARBON R20 100K J
R903 R904	5240028420	R., CARBON R20 1.2K J
R905 R906	5053446000	R., TRIMMER 1KB
R907 R908	5240030620	R., CARBON R20 10K J
R909 R910	5240029020	R., CARBON R20 2.2K J
R911 R912	5240028420	R., CARBON R20 1.2K J
R913 R914	5240032220	R., CARBON R20 47K J
R915 R916	5240032220	R., CARBON R20 47K J
R917 R918	5240030620	R., CARBON R20 10K J
R919 R920	5240030620	R., CARBON R20 10K J
R921 R922	5240027220	R., CARBON R20 390 J
U901	5220406700	IC, RC4558P, TI

MIC JACK PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200179700	MIC JACK PCB ASSY
	*5210179701	MIC JACK PCB
C701-C704	5173433000	C., CERAMIC 0.01UF/50V
J701-J704	5334042200	SOCKET, CANNON 3P XLB3-31
P705-P708	5336126300	CON., PLUG 8263-0312 WHI

PGM JACK PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200179500	PGM JACK PCB ASSY
	*5210179501	PGM JACK PCB
C651-C654	5173433000	C., CERAMIC 0.01UF/50V
P651-P654	5334042100	CONNECTOR, CANNON XLB3-32

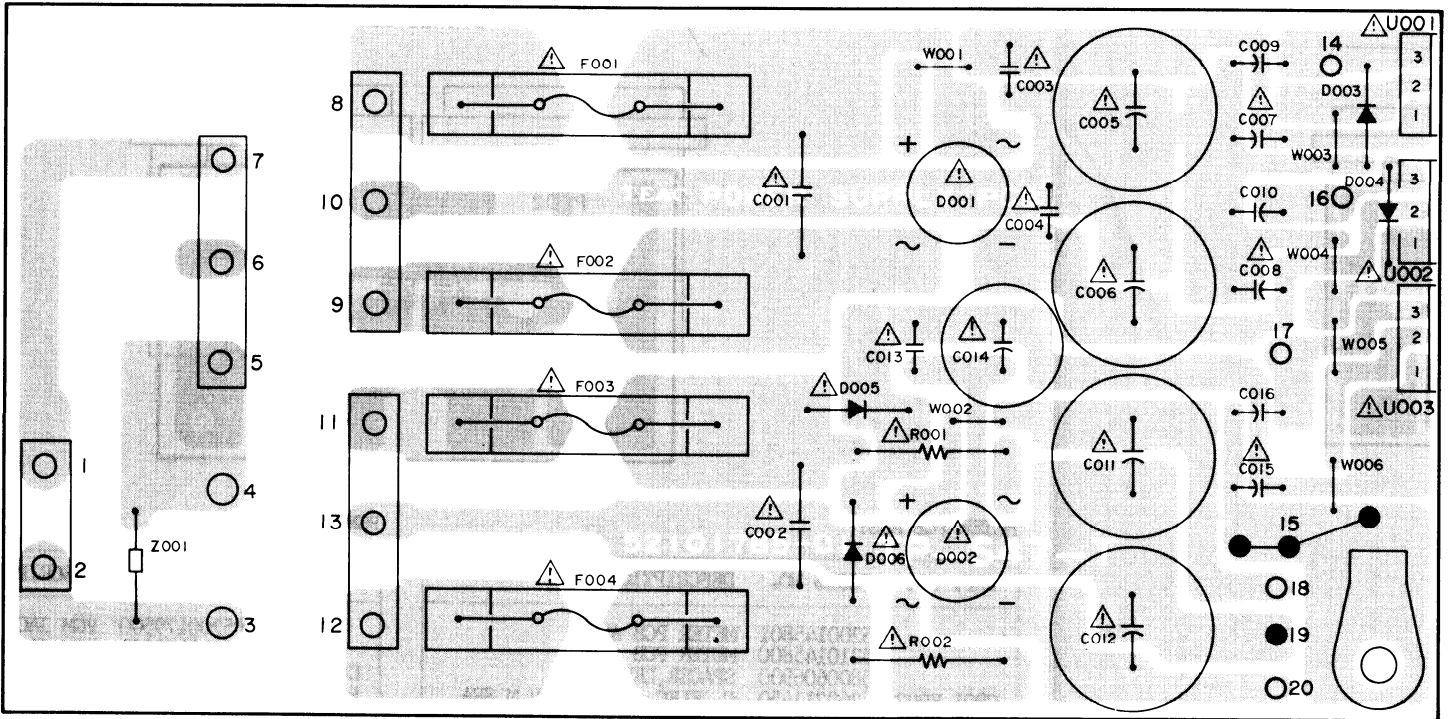
RCA JACK PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200179100	RCA JACK PCB ASSY
	*5210179100	RCA JACK PCB
J551	5330509500	JACK, 4P YKC21-0062
J552	5330510100	JACK, PIN 6P
R551-R554	5240028420	R., CARBON R20 1.2K J
R555-R558	5240028020	R., CARBON R20 820 J

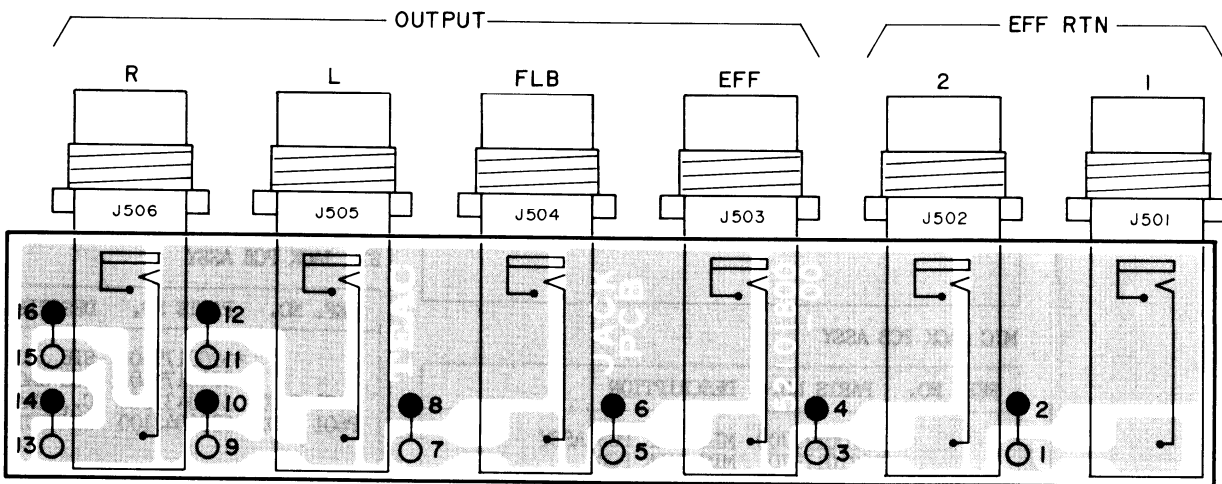
STE JACK PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200179600	STE JACK PCB ASSY
	*5210179601	STE JACK PCB
C601 C602	5173433000	C., CERAMIC 0.01UF/50V
P601 P602	5334042100	CONNECTOR, CANNON XLB3-32

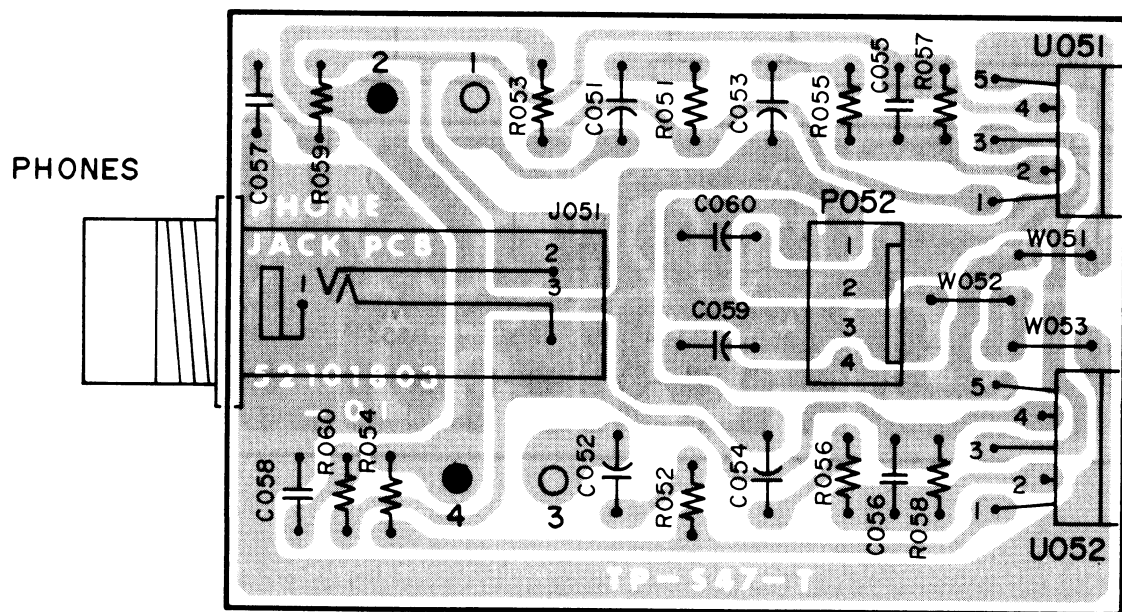
POWER SUPPLY PCB ASS'Y



JACK PCB ASS'Y



PHONE JACK PCB ASS'Y



POWER SUPPLY PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200178500	P.S PCB ASSY [J]
	*5200178510	P.S PCB ASSY [US]
	*5200178520	P.S PCB ASSY [C]
	*5200178530	P.S PCB ASSY [GE]
	*5200178540	P.S PCB ASSY [E,UK,A]
	*5210178500	POWER SUPPLY PCB
	*5327007200	TERMINAL,LAPPING;2P
	*5555590000	PLATE,PCB EARTH;A
	*5041237000	HOLDER,FUSE [J,US,C,GE]
	*5332014200	HOLDER,FUSE [E,UK,A]
	*5033291000	PLATE,INSULATOR
	*5033295000	TUBE,INSULATOR
	*5730007500	COVER,CONDENSER [E,UK,A]
C001 C002	△5263164500	C.,POLYST 0.047UF 250V
C003 C004	△5173433000	C.,CERAMIC 0.010UF 50V Z
C005 C006	△5173083000	C.,ELEC. 1000UF/35V SNAP
C007 C008	△5260161150	C.,ELEC.2.2UF 50V
C009 C010	5260165252	C.,ELEC.47UF/25V M USM VT
C011 C012	△5173088000	C.,ELEC. 2200UF 16V (SM)
C013	△5173433000	C.,CERAMIC 0.010UF 50V Z
C014	△5173081000	C.,ELEC. 1000UF/16V SNAP
C015	△5260161150	C.,ELEC.2.2UF 50V
C016	5260165052	C.,ELEC.47UF 10V M USM VT
D001 D002	△5228005000	SILICON STACK W02
D003-D006	△5143089000	DIODE,W03C
F001 F002	△5307019900	FUSE,0.5A-250V (T)UL [J,US,C,GE]
F001 F002	△5041138000	FUSE,0.5A-250V (T) [E,UK,A]
F003 F004	△5307020400	FUSE,1A-250V (T)UL [J,US,C,GE]
F003 F004	△5041140000	FUSE,1A-250V (T) [E,UK,A]
P002-P004	5327007300	TERMINAL,LAPPING;3P
R001 R002	△5185648000	R.,INCOMB.F50 2.2 OHM FF
U001	△5220413100	IC,NJM78M15A,
U002	△5220420500	IC,NJM79M15A,
U003	△5220411000	IC,NJM78M06A,
Z001	△5052907000	CR.,0.01+300 400V AC [J,GE]
Z001	△5052910000	CR.,0.033+120 125V [US]
Z001	△5267703800	SPARK KILLER,4700PF/400V [E,UK,A]
Z001	△5292002600	CR., 0.033UF+120 125V [C]

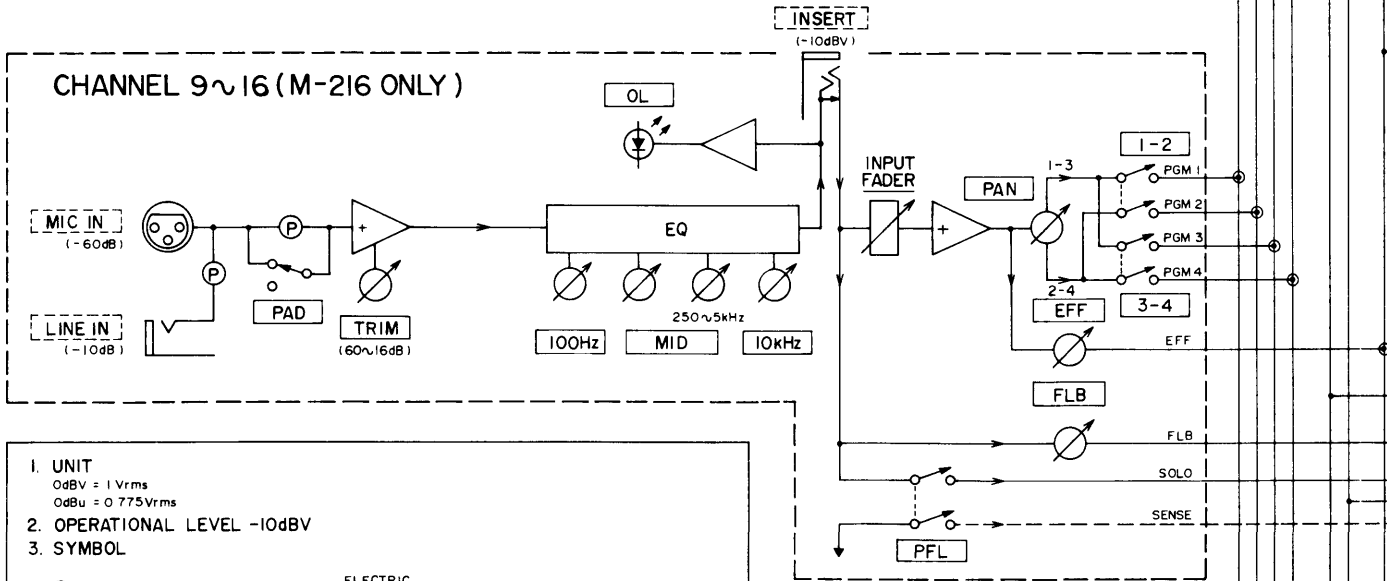
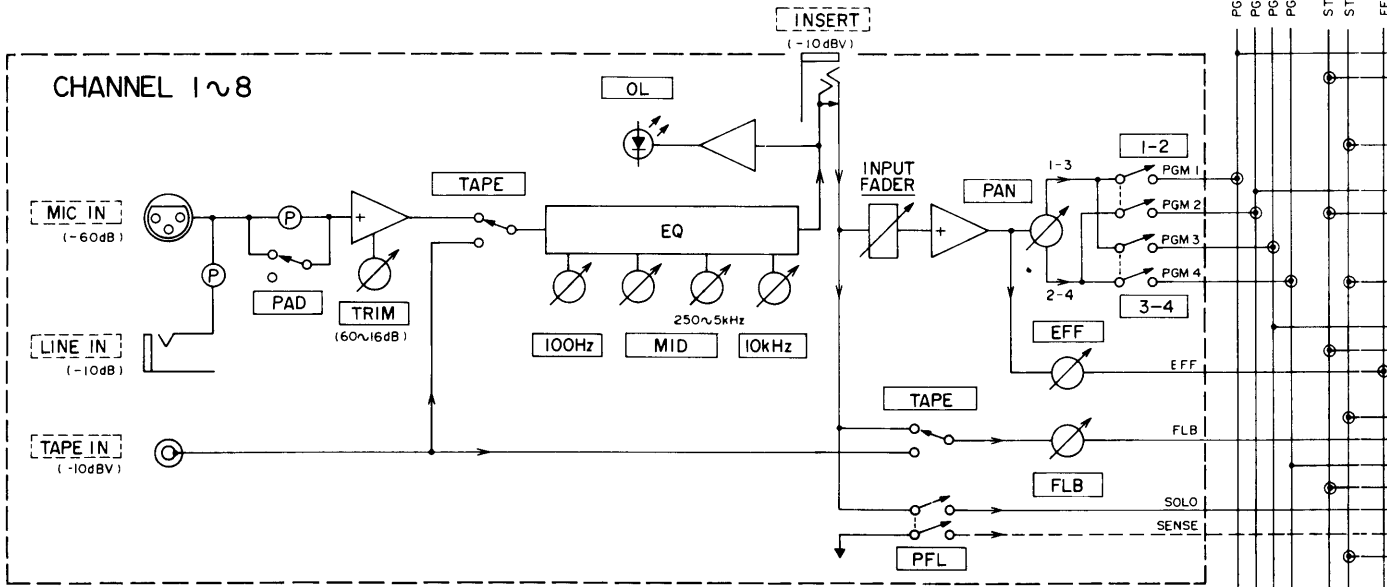
JACK PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200180000	JACK PCB ASSY
	*5210180000	JACK PCB
	5800712500	HOLDER,JACK
	5317003200	PLATE,MOUNT
J501-J506	5330011500	JACK,B11-5013 SINGLE

PHONE JACK PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	*5200180301	PHONE JACK PCB ASSY
	*5210180301	PHONE JACK PCB
	*5317003300	NUT (1/4" PHONE JACK)
C051 C052	5260162550	C.,ELEC.10UF 16V
C053 C054	5260165052	C.,ELEC.47UF 10V M USM VT
C055 C056	5172210000	C.,CERAMIC 68PF 50V K VFT
C057 C058	5263168323	C.,META. 0.22UF 50V J VT
C059 C060	5260165252	C.,ELEC.47UF/25V M USM VT
J051	5330009000	JACK,PIN 3P PHONE
P052	5336135400	CON.,PLUG 8263-0412 RED
R051-R054	5240031420	R.,CARBON R10 22K
R055 R056	5240028220	R.,CARBON R20 1.0K J FT
R057 R058	5240030620	R.,CARBON R10 10K
R059 R060	5240021020	R.,CARBON R20 1.0 J FT
U051 U052	5220426700	IC UPCL238V

[J]:JAPAN [US]:U.S.A. [C]:CANADA
 [GE]:GENERAL EXPORT [E]:EUROPE
 [UK]:U.K. [A]:AUSTRALIA

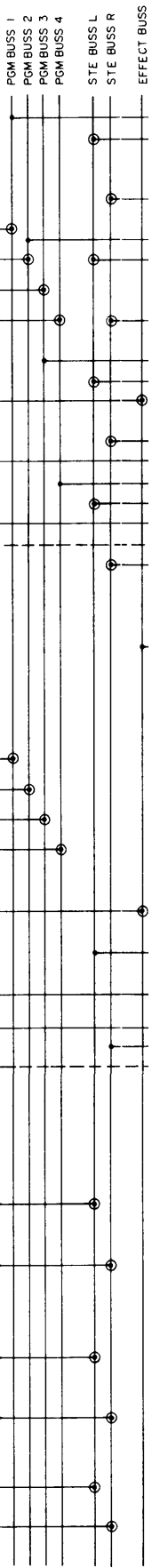
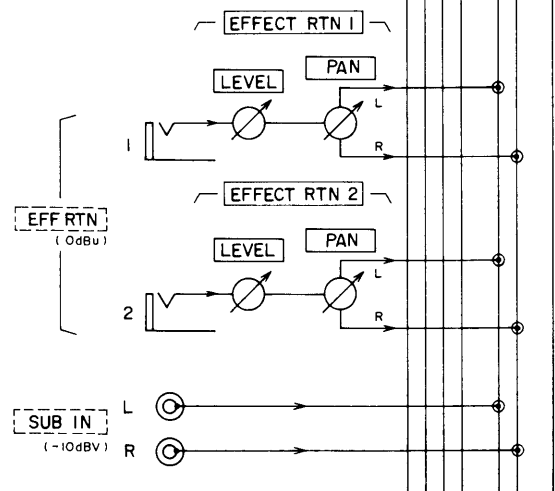


1. UNIT
0dBV = 1 Vrms
0dBu = 0.775Vrms

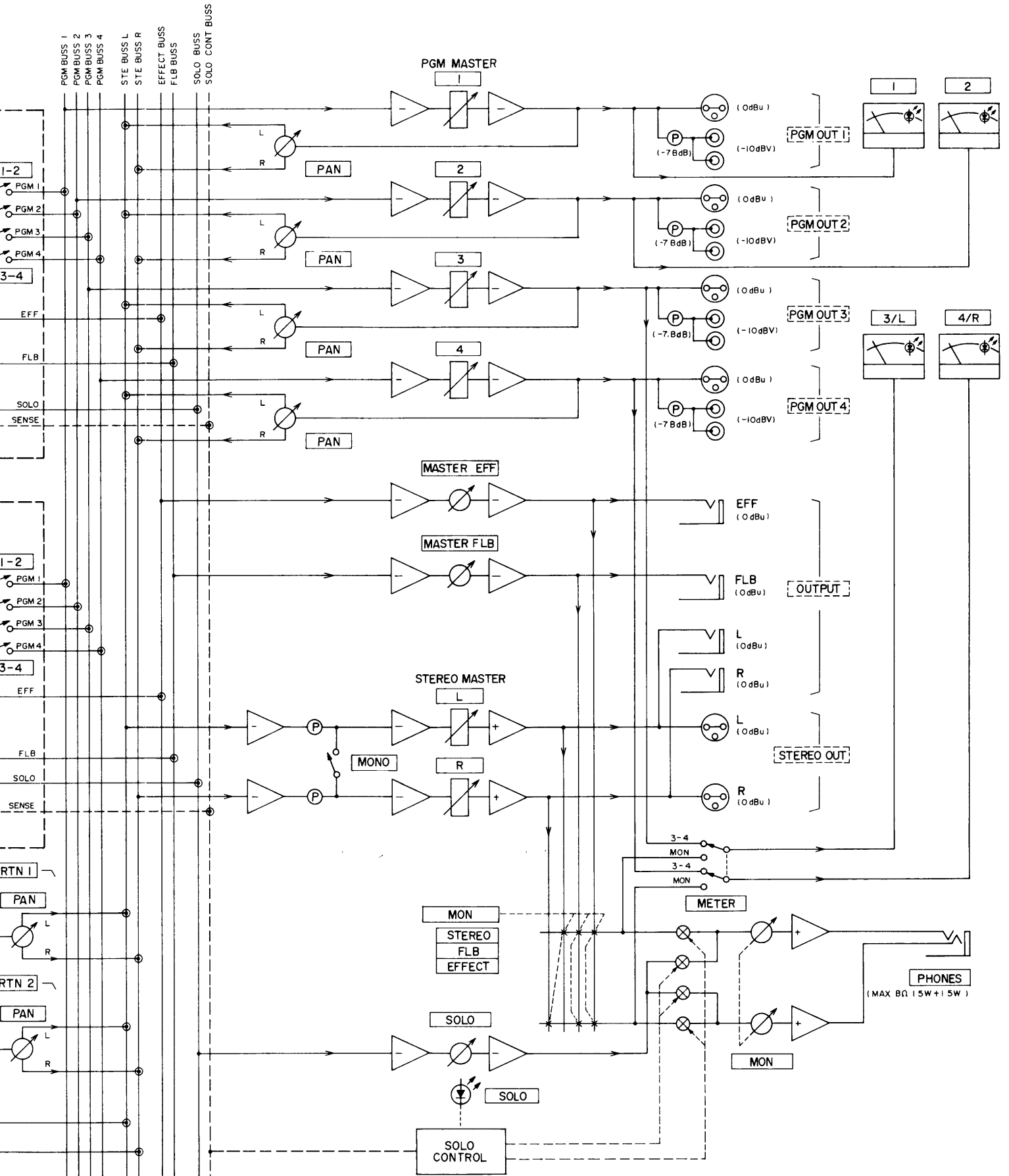
2. OPERATIONAL LEVEL -10dBV

3. SYMBOL

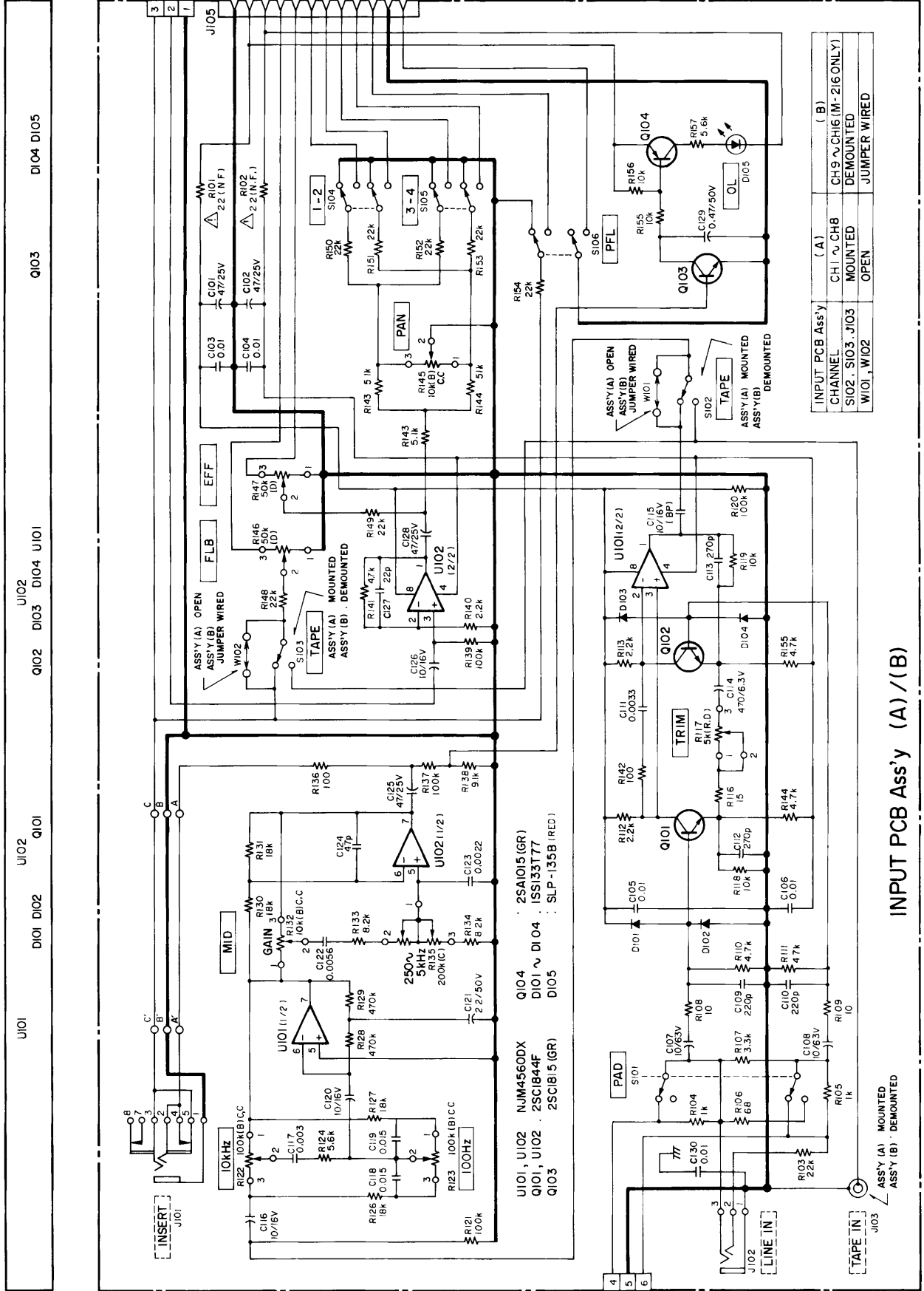
	RCA JACK		ELECTRIC SWITCH (MAKE ONLY)		VU METER (WITH PEAK LED)
	1/4" JACK		LED		CONNECTION NODE
	1/4" IN-OUT JACK (INSERT BREAK)		PUSH SWITCH (LOCKED)		SUMMING NODE
	1/4" STEREO JACK		ROTARY POT		GROUND
	XLR-3-31 EQUIVALENT		LINEAR FADER		CONTROL SIGNAL
	XLR-3-32 EQUIVALENT		PAN POT		
	INVERTING AMP		PAD		
	NON INVERTING AMP				



BLOCK DIAGRAM

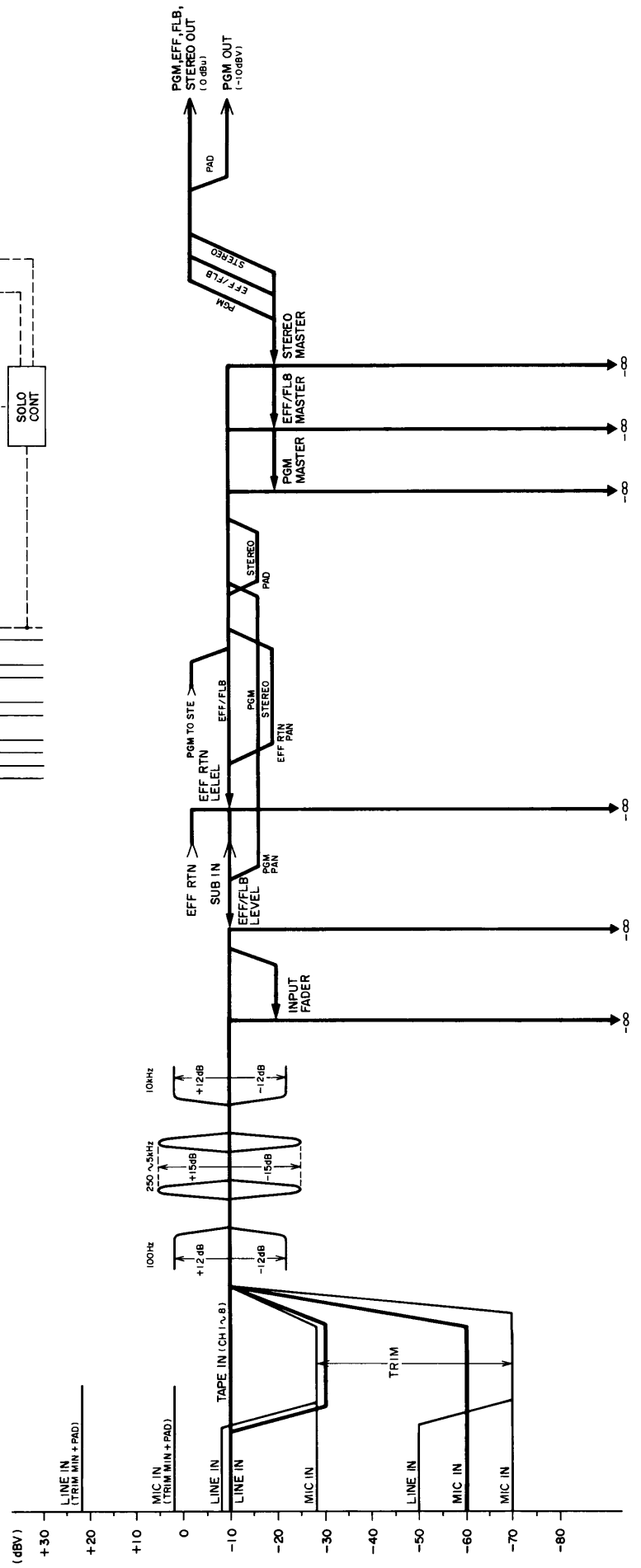
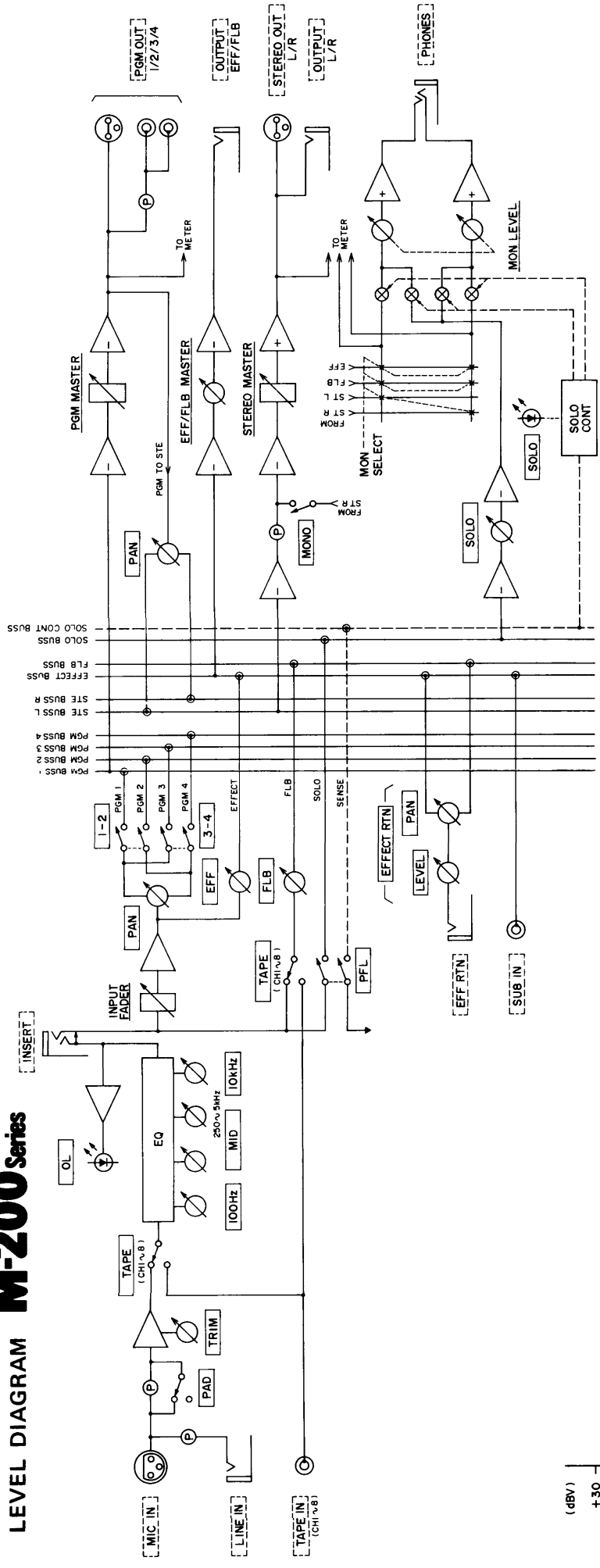


INPUT PCB ASS'Y M-200 Series



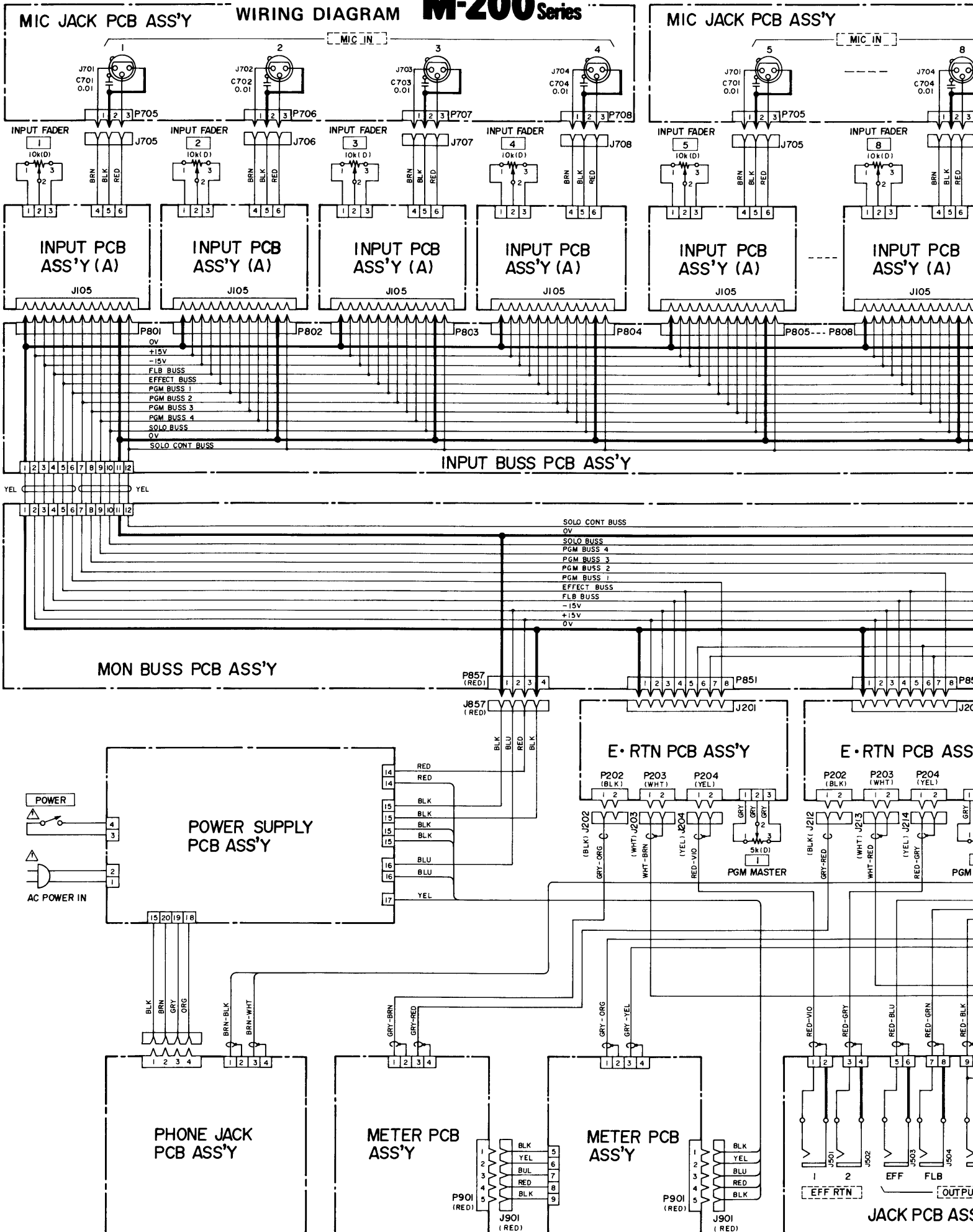
INPUT PCB Ass'y (A)/(B)

LEVEL DIAGRAM M-200 Series



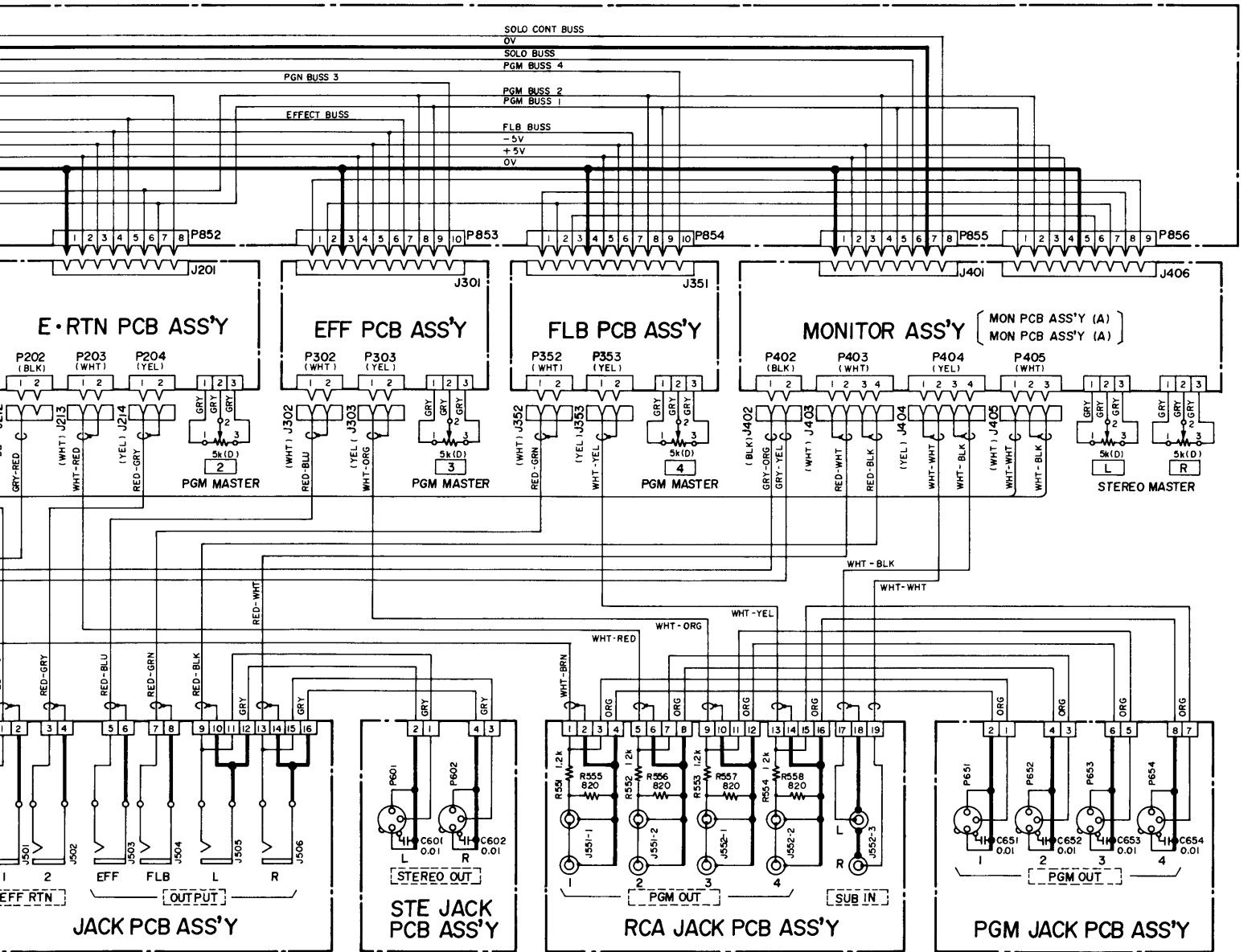
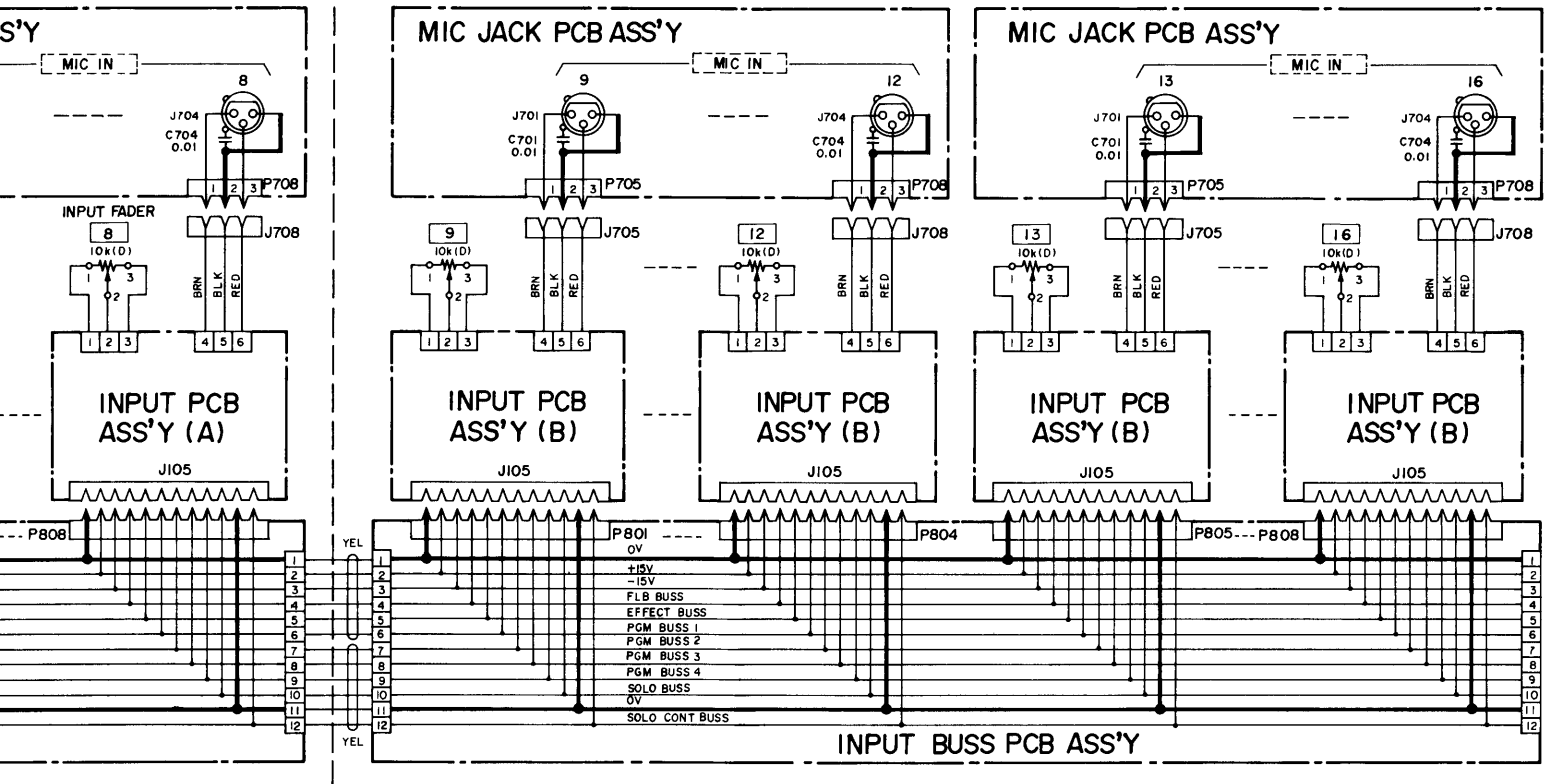
M-200 Series

WIRING DIAGRAM

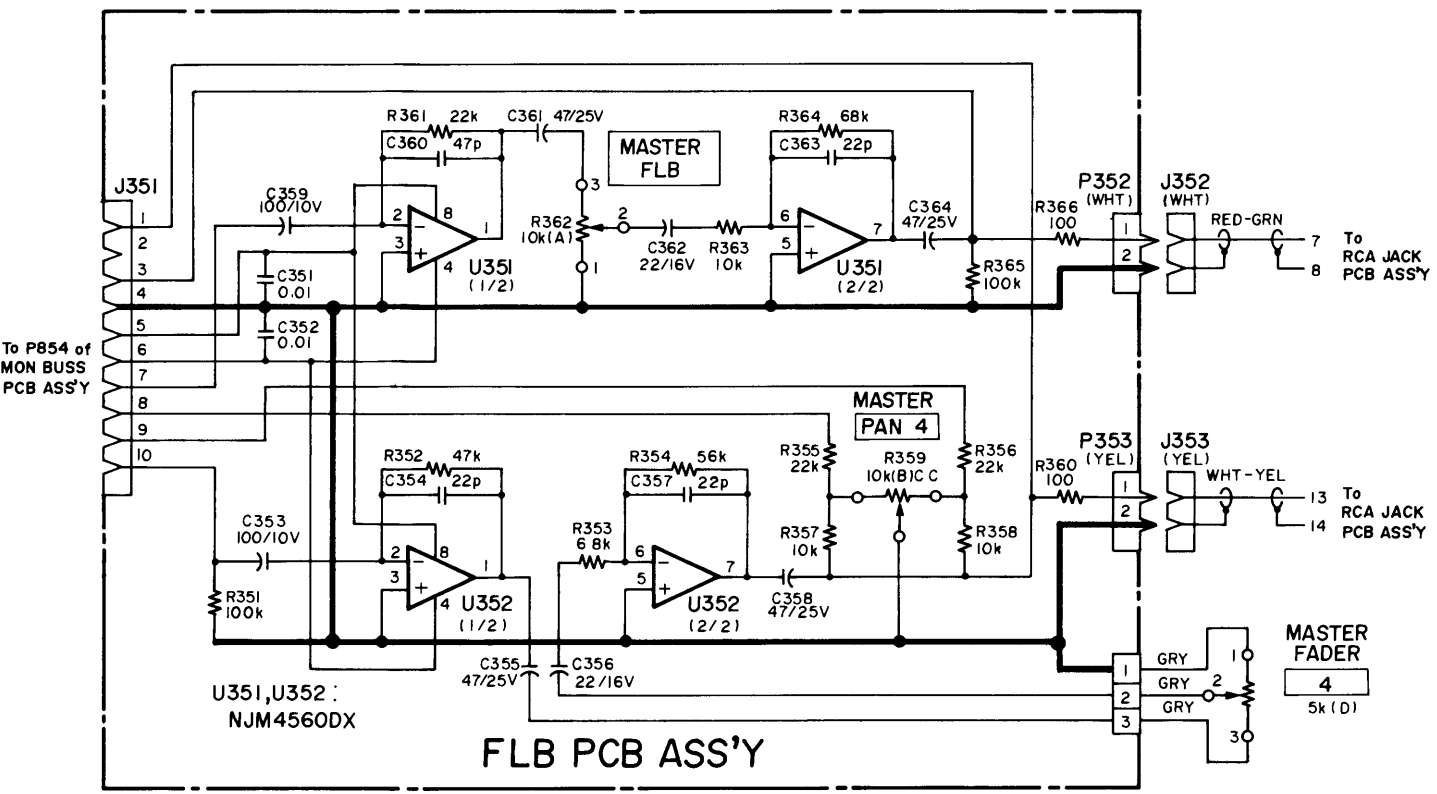
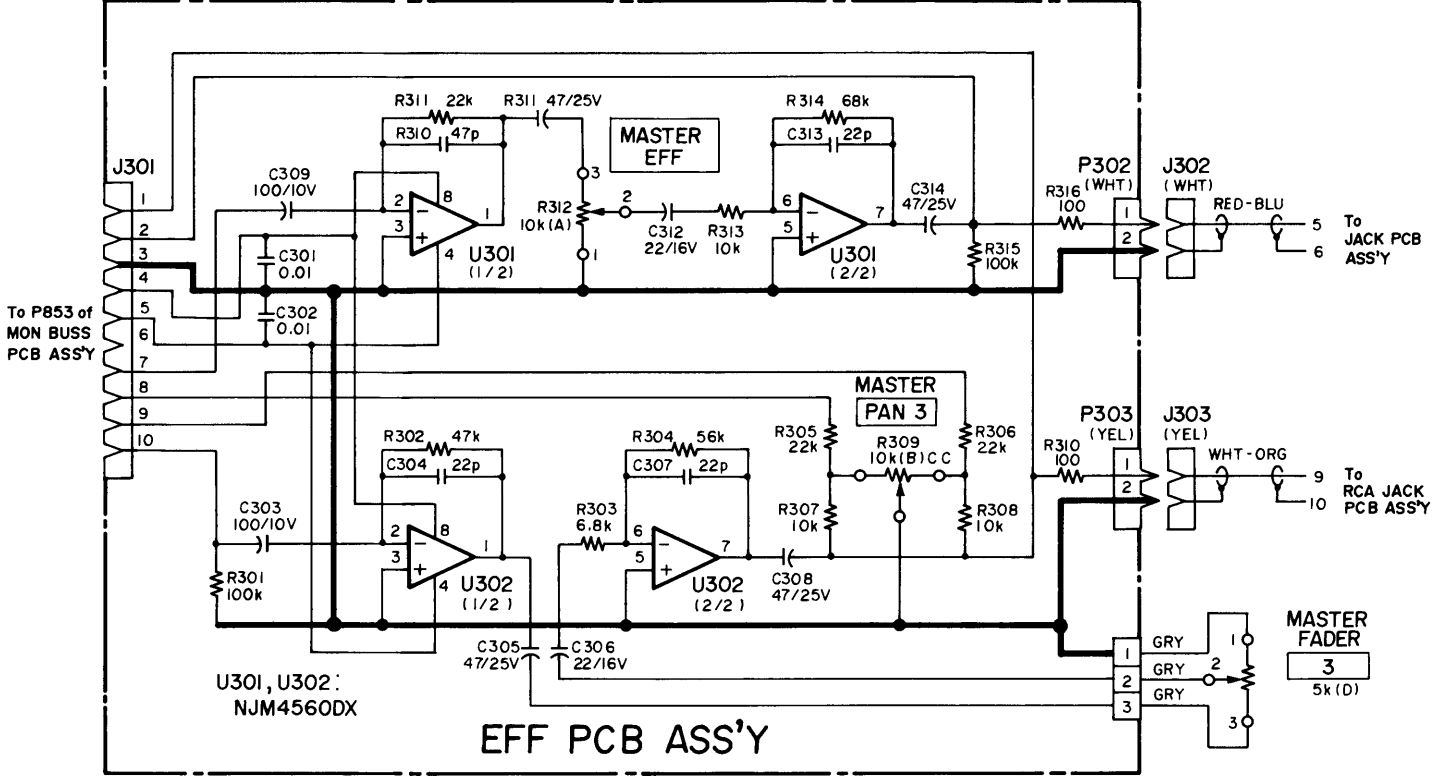


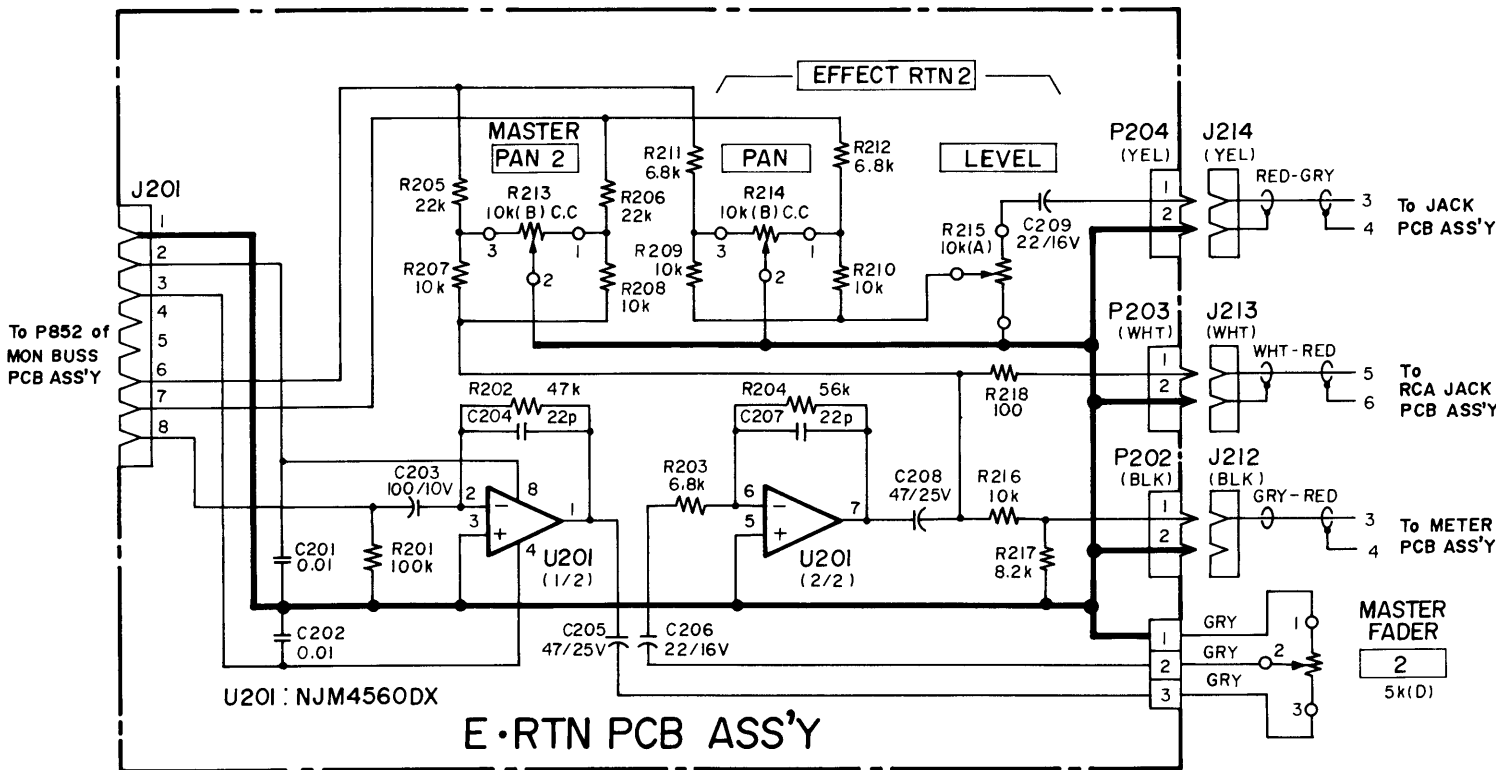
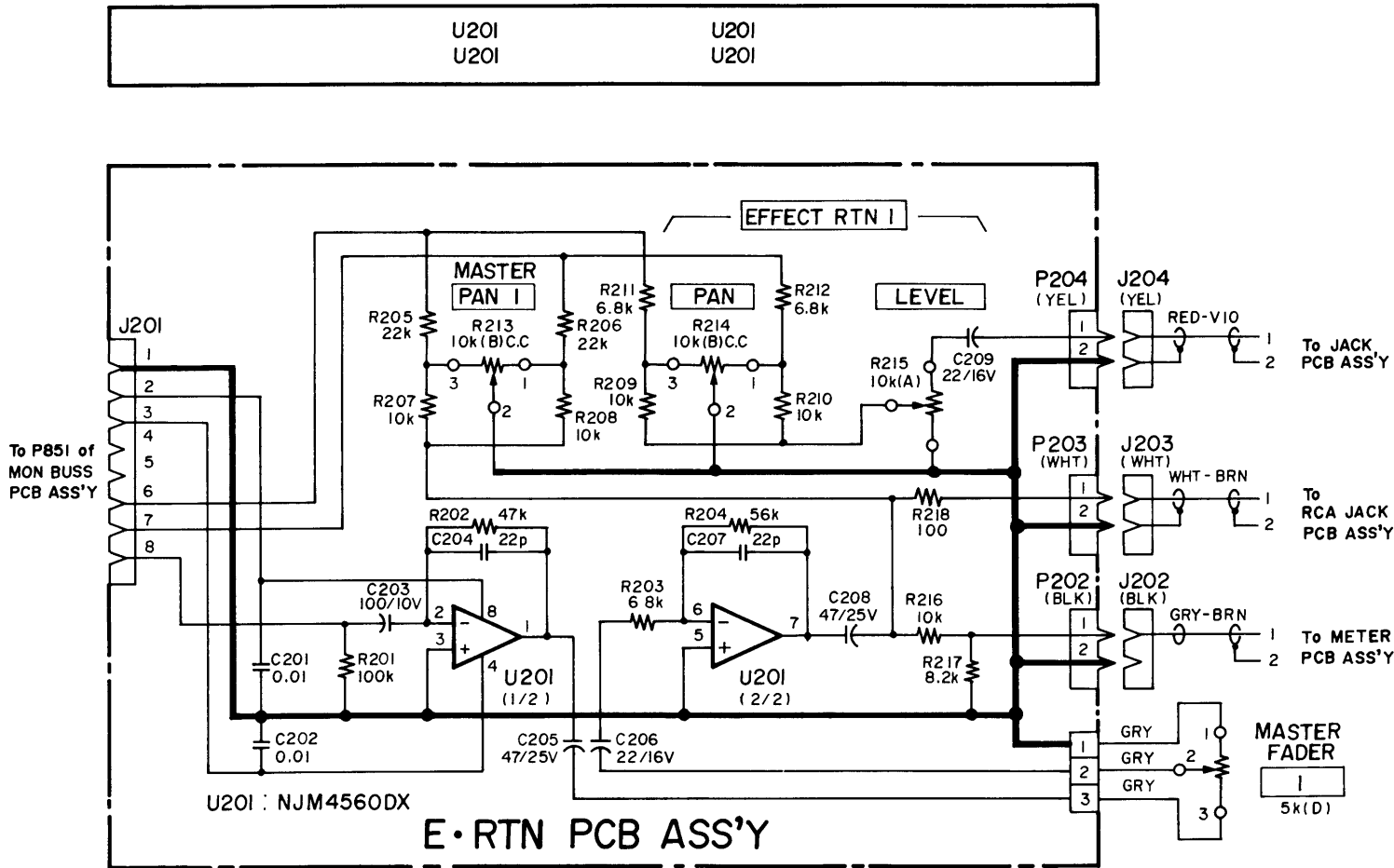
WIRING DIAGRAM

CH 9 & 16 M-216 ONLY

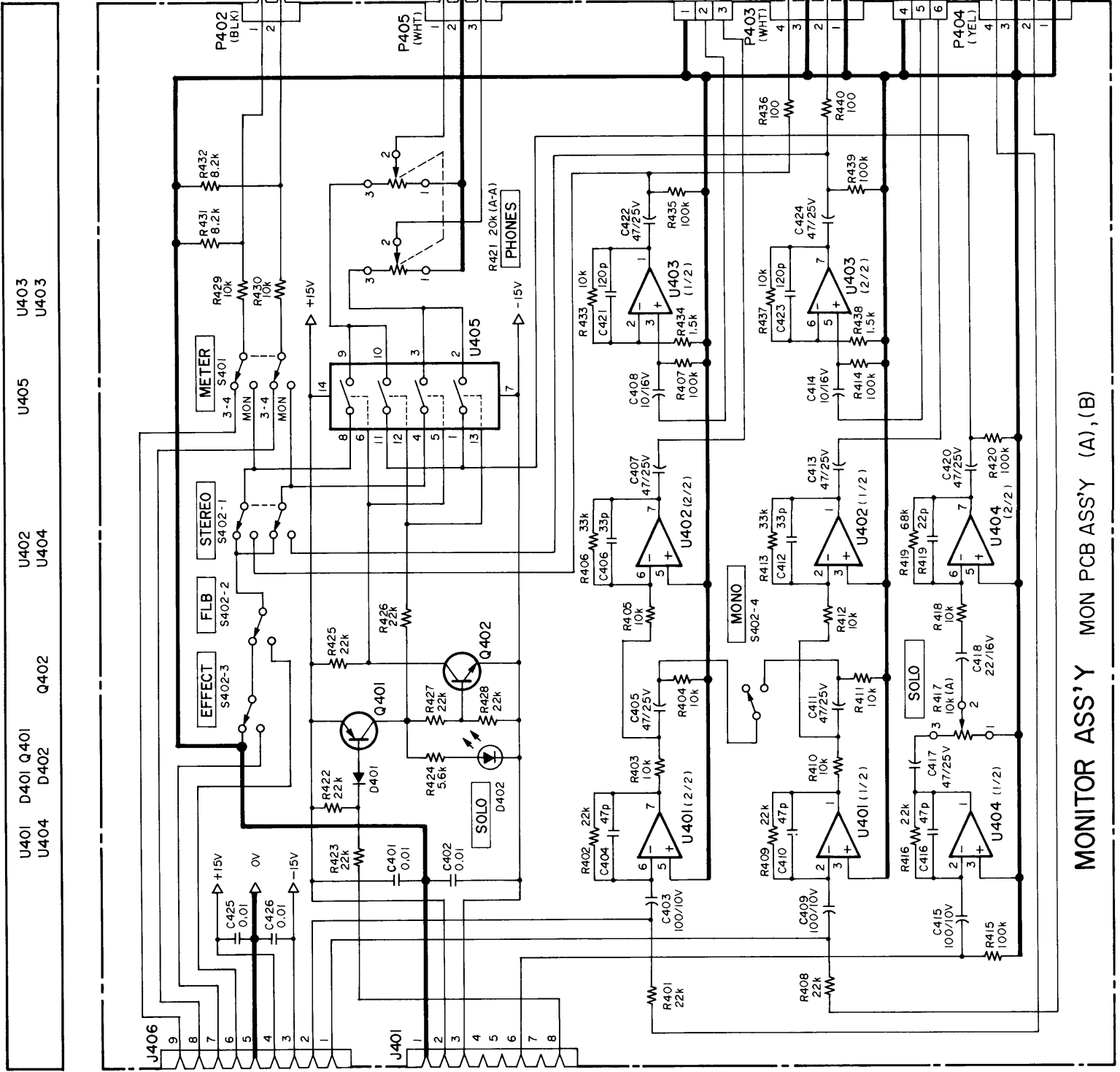


U301	U302	U302	U301
U351	U352	U352	U351





- U401 ~ U404 : NJM4560DX
- U405 : LC4966
- Q401 : 2SA1015 (GR)
- Q402 : 2SC1815 (GR)
- D401 : ISS133T77
- D402 : SLP-135B



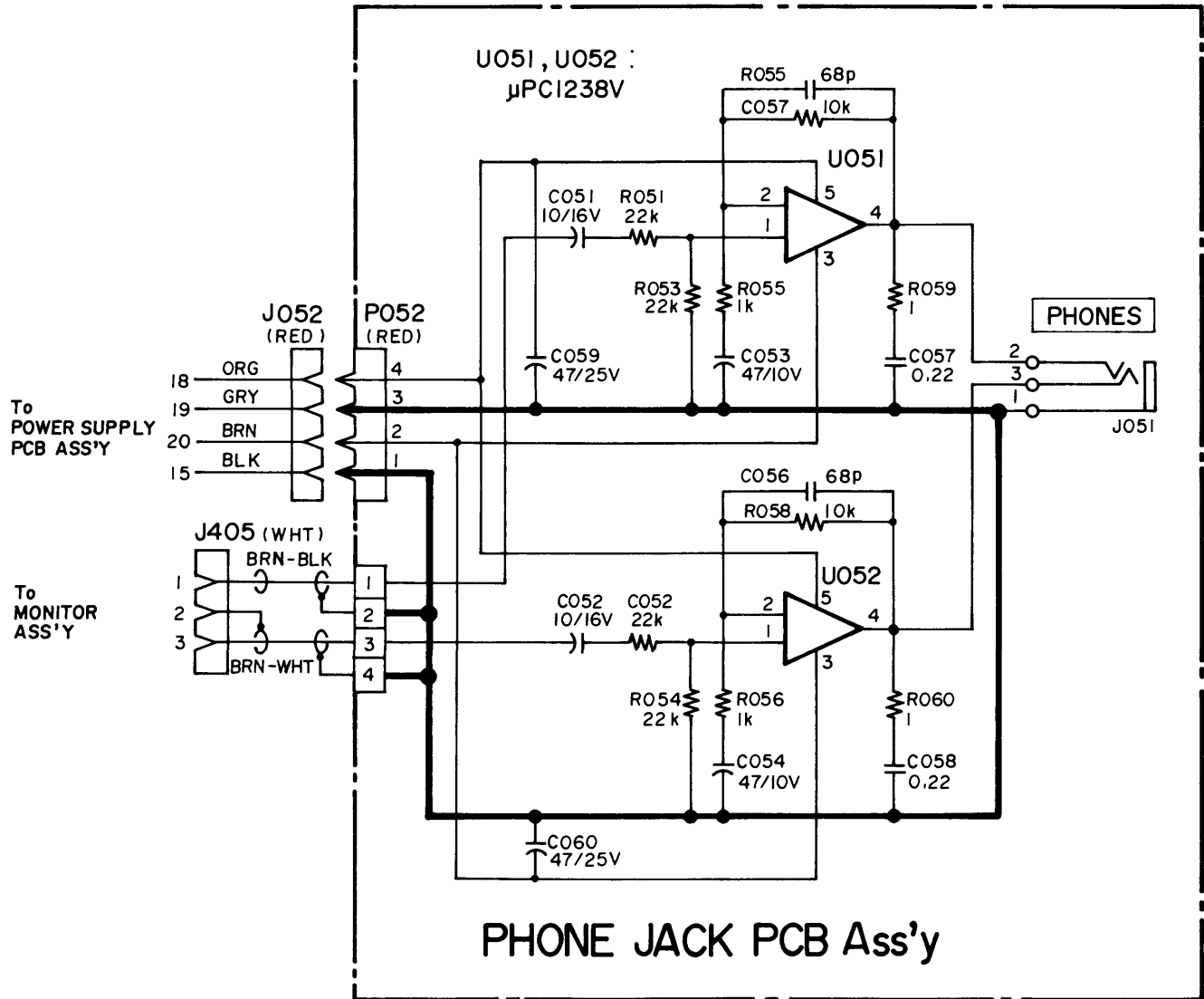
To P856 of
MON BUSS
PCB ASS'Y

To P855 of
MON BUSS
PCB ASS'Y

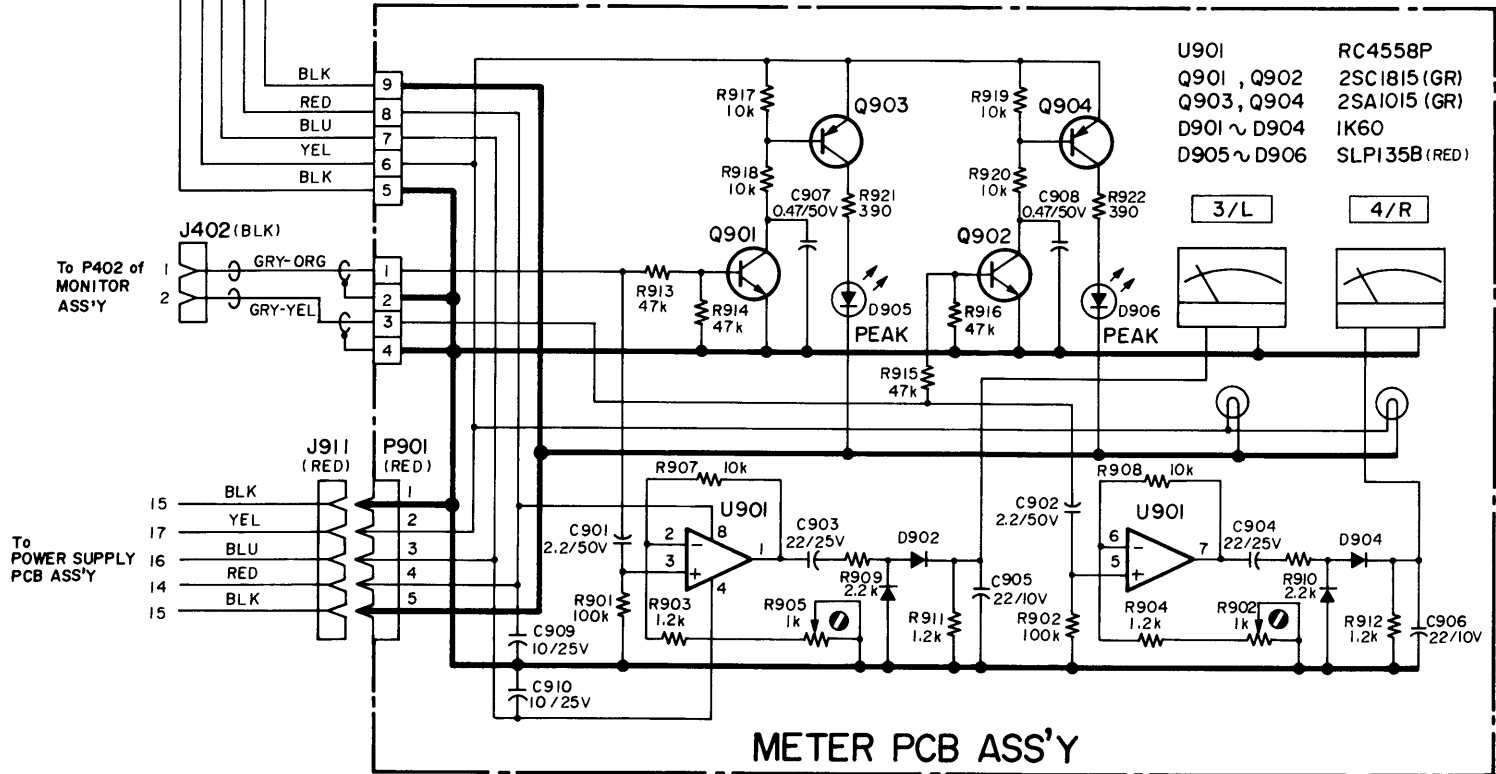
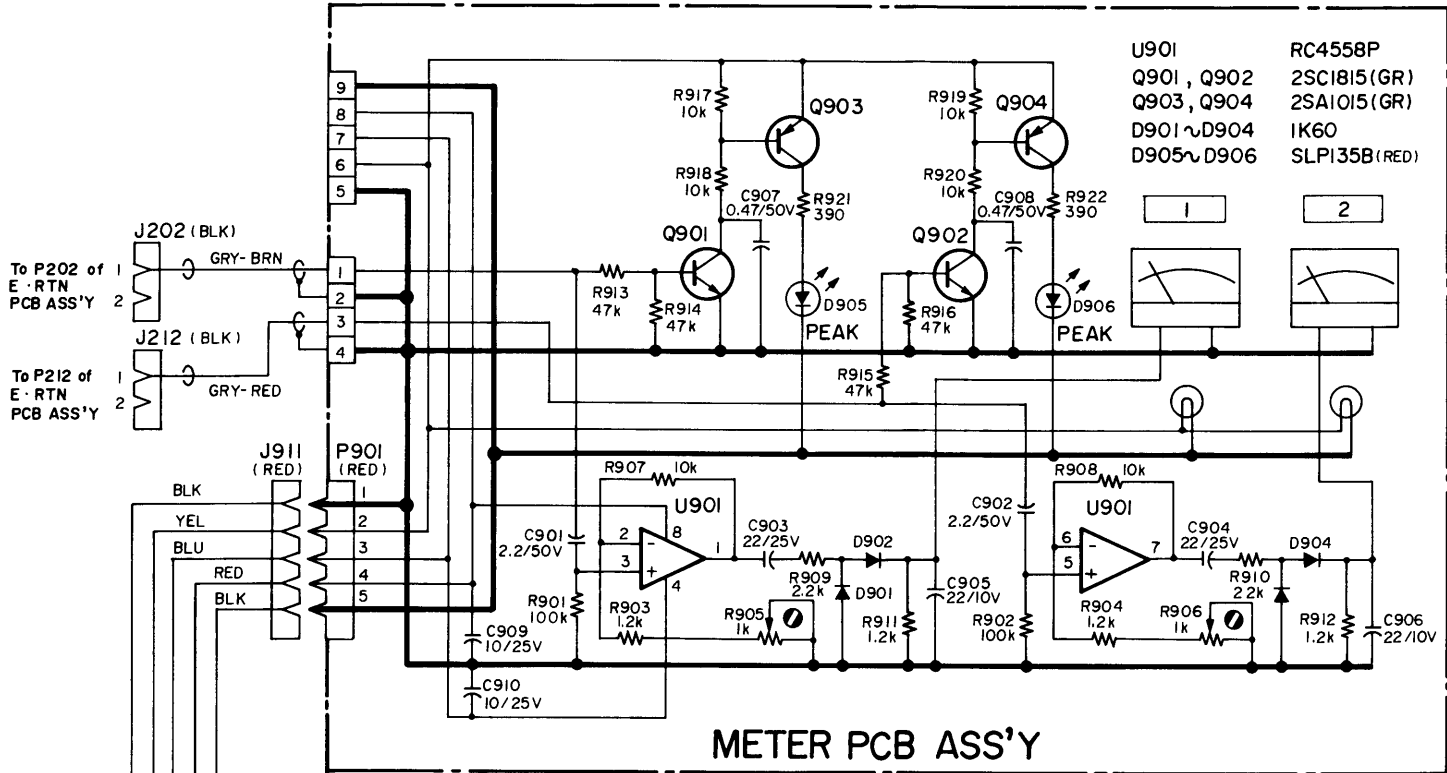
MONITOR ASS'Y MON PCB ASS'Y (A),(B)

PHONE JACK PCB ASS'Y **M-200**Series

U051
U052

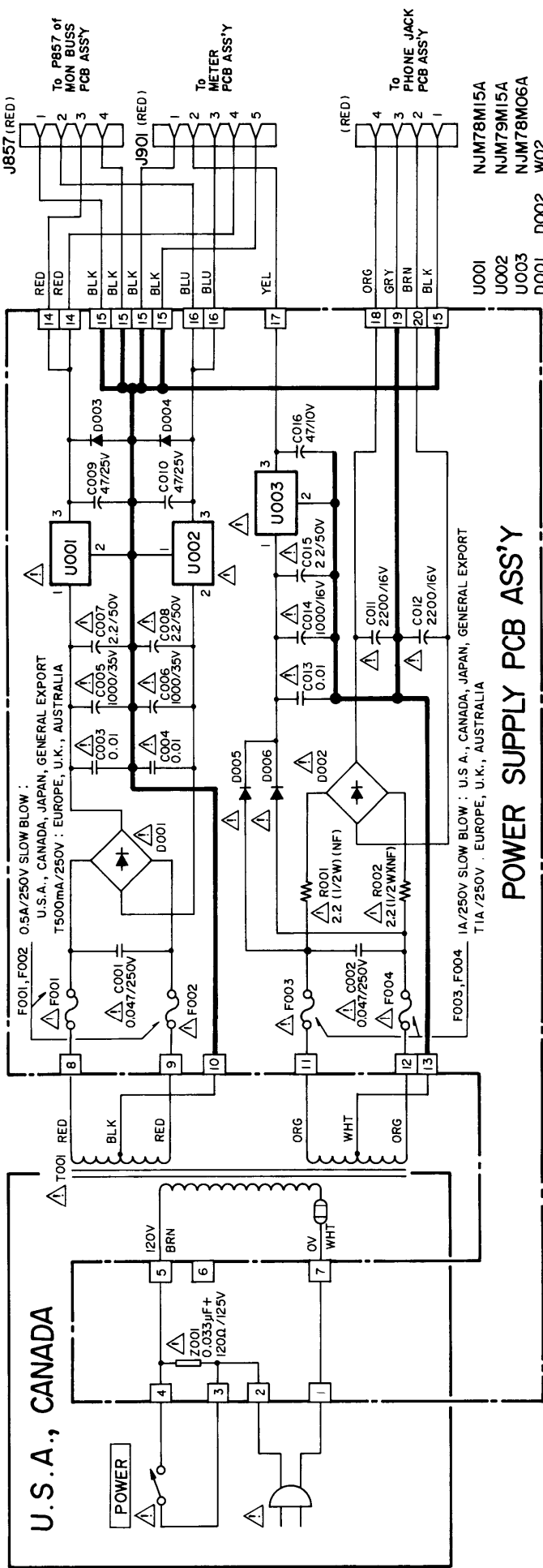


U901	Q901	Q903	D901	D902	Q902	Q904	D906	U901	D903	D904
U901	Q901	Q903	D901	D902	Q902	Q904	D906	U901	D903	D904

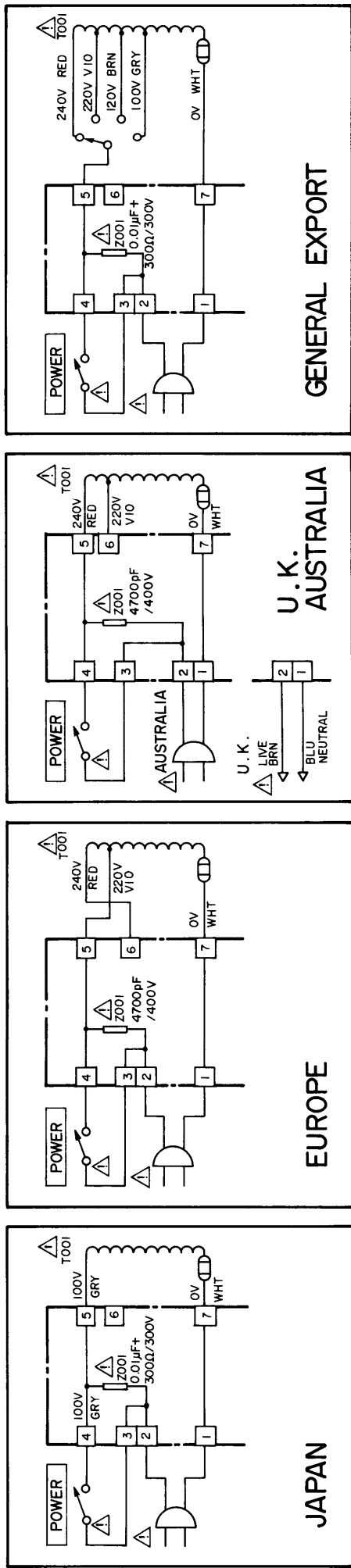


POWER SUPPLY CIRCUIT M-200 Series

U001 U002 U003 D001 D002 D003 D004 D005 D006



POWER SUPPLY PCB ASS'Y



U.S.A., CANADA

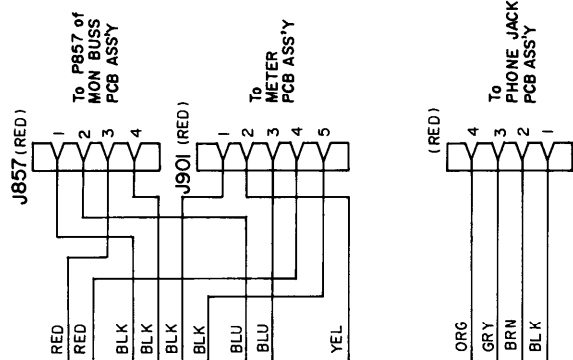
EUROPE

U.K. AUSTRALIA

GENERAL EXPORT

JAPAN

- U001 NJM78M15A
- U002 NJM79M15A
- U003 NJM78M06A
- D001 W02
- D002 W02
- D003~D006 W03C



M-200 Series Mixing Consoles

TASCAM
TEAC Professional Division
