5232Q

DUAL 32 WATTS PER CHANNEL AMPLIFIER

GENERAL

The 5232Q is a subgroup of the 5000 Series Audio Processing System. It is a dual 32 Watts per channel amplifier into an 8 Ω load, or, with an external transformer, 32 Watts per channel into a 70 volt line.

OUTPUT VCA ENABLE

DIP switch SW1, positions 1 and 2 enable/disable the output VCA. See figure 1 for DIP switch location and Table 1 for DIP switch settings.

VCA CONTROL

0 VDC = 0 dB and +5 Volts = –65 dB. See table 2 for attenuation vs. Control voltage and figure 4 for VCA wiring details.

EQ ENABLE

The 8 band EQ can be enabled or disabled using DIP switch SW1, position 3. See figure 1 for DIP Switch location and Table 1 for DIP Switch settings. Switch position 'Off' disables EQ (flat response). Switch position 'On' enables the 8 band EQ.

EQ SETUP

The output EQ consists of three 1 octave constant Q EQs centered at 250 Hz, 500 Hz, and 4 kHz, and five 1/3 octave constant Q EQs centered at 800 Hz, 1 kHz, 1.25 kHz, 1.6 kHz, and 2.0 kHz. The gains are adjustable from the front of the 5232Q card by trimpots. See figure 2 for trimpot location and EQ gain adjustment information.

LOW PASS FILTER SETTINGS

The 12.5 kHz low pass filter (3 dB down at 12.5 kHz, 12 dB/octave slope) is controlled by DIP switch SW1, positions 4 and 5. See figure 1 for DIP Switch location and table 1 for DIP Switch settings. Position 4, when 'On', enables the low pass filter. Position 5, when 'On', bypasses the low pass filter (flat response). **At least one of the two switch positions must be 'On', for audio to pass, but never should both be in the 'On' position. If both are in the 'On' position, distortion of the audio signal will occur.**

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HIGH PASS FILTER SETTINGS

The 160 Hz and 315 Hz high pass filters are controlled by DIP switch SW1 positions 6, 7, and 8. See figure 1 for DIP Switch location and table 1 for DIP Switch settings. Position 8, when 'On', enables the 315 Hz high pass filter. Position 7, when 'On', bypasses the high pass filters (flat response). Position 6, when 'On', enables the 160 Hz high pass filter. **One and only one switch must be in the 'On' position. If more than one are in the 'On' position, distortion of the audio signal will occur.**

EXTERNAL POWER

When using an external power source such as IED 400 Series power supplies, external power connections must be made to the 5032EP frame as detailed in figure 3.

INPUT/OUTPUT/VCA WIRING

Figure 4 shows the wiring details of the audio inputs, power amplifier outputs, and VCA controls of the 5232Q.

DIP Switch Position	Function	Enable	Bypass	Bypass	160 Hz Enable	315 Hz Enable
1	VCA	ON	OFF			
2		OFF	ON			
3	EQ	ON	OFF			
4	12.5 kHz LPF	OFF	ON			
5		ON	OFF			
6	High Pass Filters			OFF	ON	OFF
7				ON	OFF	OFF
8				OFF	OFF	ON

Table 1 - DIP Switch Settings

Vdc	ATTENUATION	Vdc	ATTENUATION
+0.5	–6.0 dB	3.0	–40.0 dB
1.0	–12.0 dB	3.5	–46.0 dB
1.5	–19.0 dB	4.0	–53 dB
2.0	–25 dB	4.5	–60 dB
2.5	–33 dB	5.0	–66 dB

Table 2 - 5232Q
Attenuation vs. Control Voltage

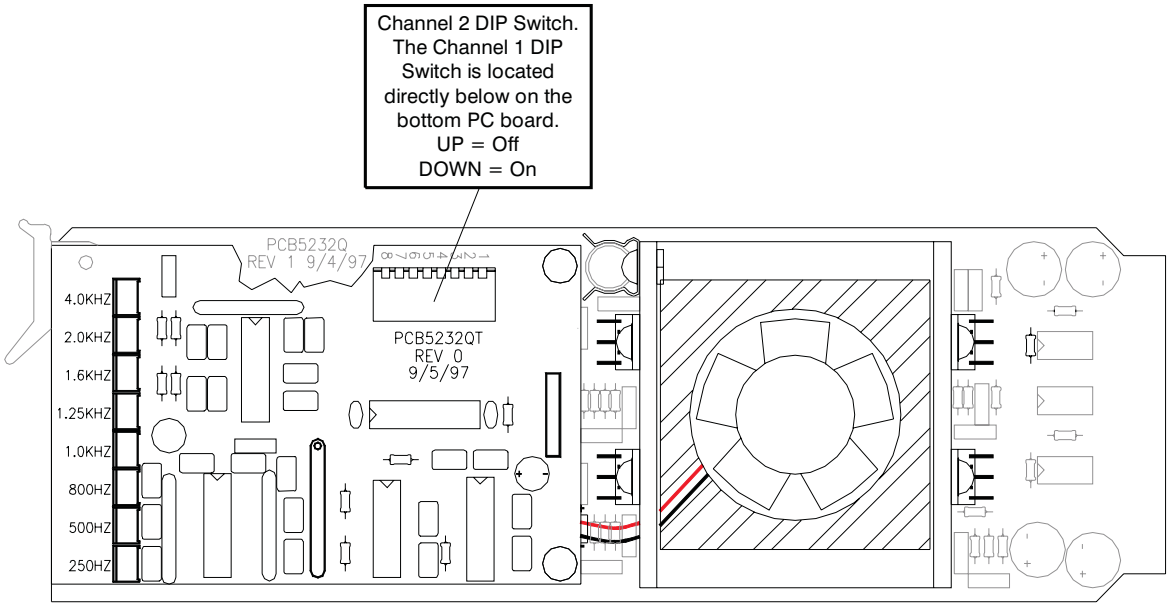
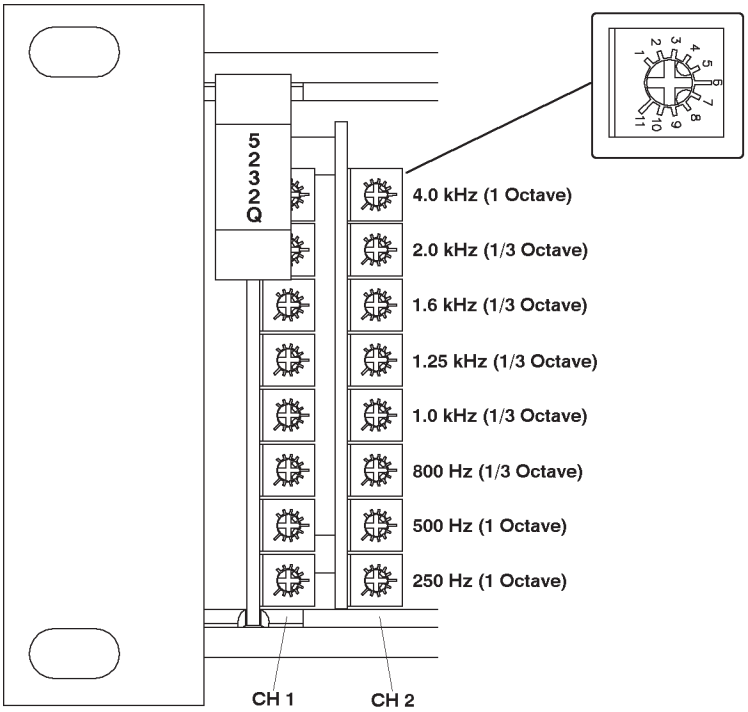
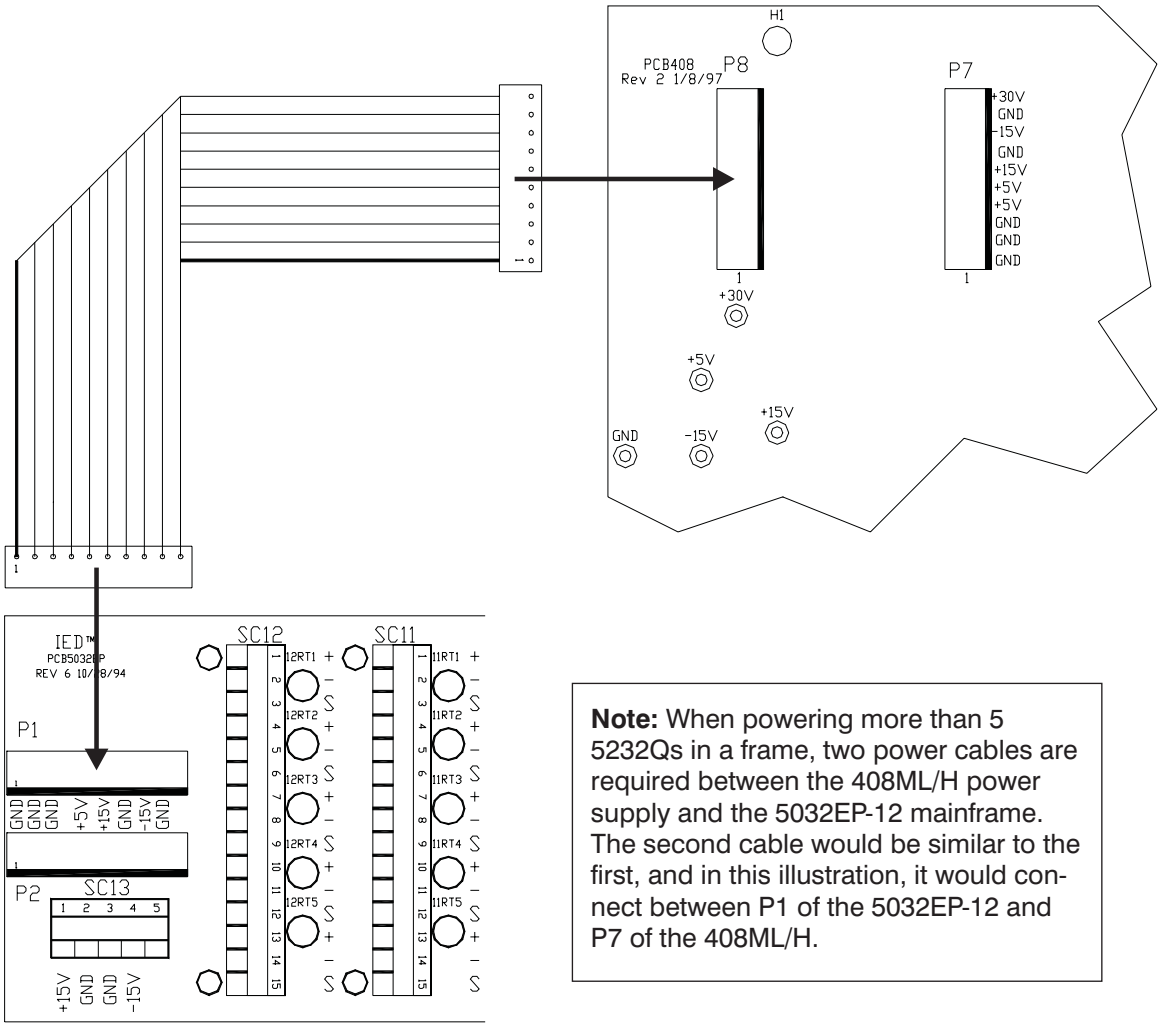


Figure 1 - 5232Q DIP Switch Locations



POT POSITION	CUT/BOOST
1	9.5 dB Cut
2	8.0 dB Cut
3	5.0 dB Cut
4	3.0 dB Cut
5	1.0 dB Cut
6	Flat
7	1.0 dB Boost
8	3.0 dB Boost
9	5.0 dB Boost
10	8.0 dB Boost
11	9.5 dB Boost

Figure 2 - 5232Q EQ Pot Locations and Settings



Note: When powering more than 5 5232Qs in a frame, two power cables are required between the 408ML/H power supply and the 5032EP-12 mainframe. The second cable would be similar to the first, and in this illustration, it would connect between P1 of the 5032EP-12 and P7 of the 408ML/H.

Figure 3 - Interconnection
408ML/H to the 5032EP-12 Mainframe

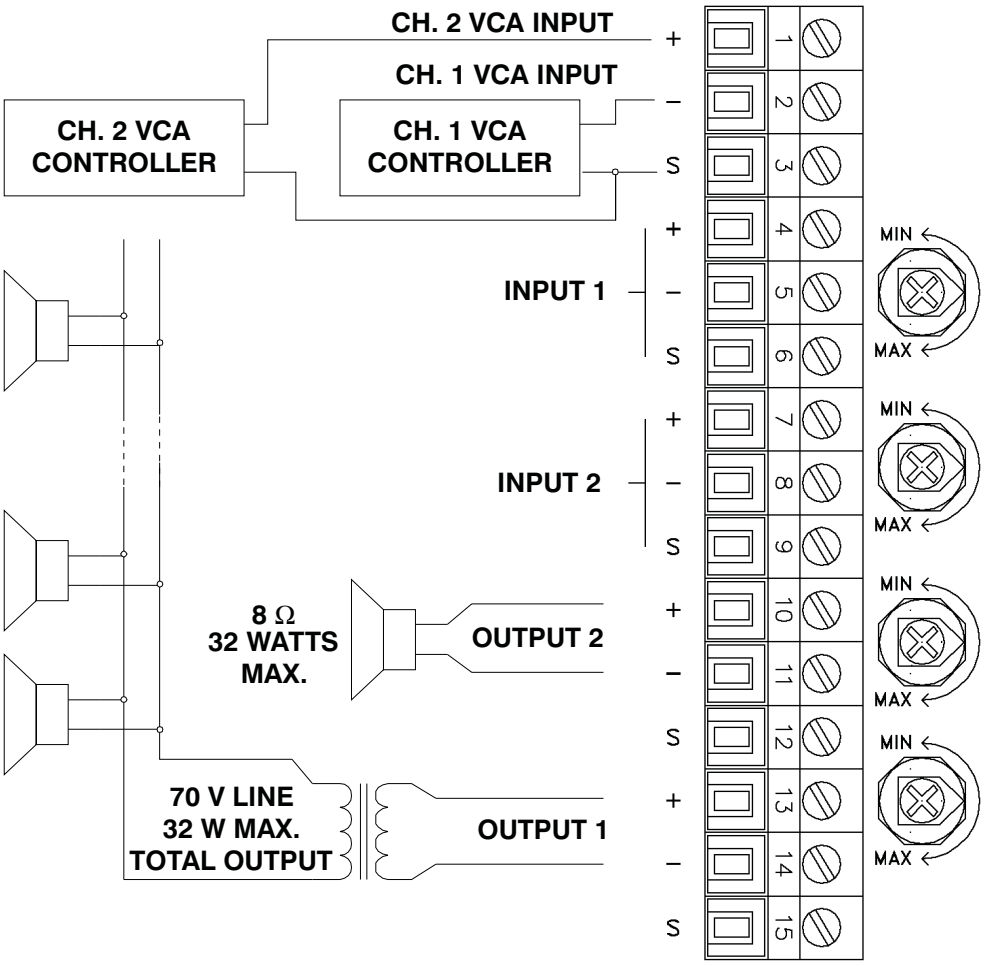


Figure 4 - 5232Q Terminal Connections
Rear of Mainframe

NOTES:

1. All trimpots are 10 kΩ.
2. Unbalanced sources should be connected with '+' side to '+' Input and '–' side to '–' Input. A jumper is required to short the '–' Input to 'S' (shield).
3. High sides of inputs or outputs are marked '+'. Low sides are marked '–'. Shield terminals are marked 'S' and are grounded on the mother board.

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