

OVERVIEW: One of the beautiful aspects of this system is that it is no longer necessary for the engineer to memorize signal flow diagrams. The signal flows from top to bottom in each channel, just as diagrammed here. There are only two situations which ever break this order and they are: (1) the use of the Trade switch (Fader reverse), or (2) the use of Post switches which put the control in question electronically after the fader. The nomenclature associated with each control lights up in place, in the signal path, when the control is put into use. Nomenclature not in use remains darkened indicating a by-passed condition.

2. PREAMP ACTIVATE SWITCH

This is a three position switch. Up is ON. Center is OFF. Down is ON with phantom power.

4. PREAMP GAIN CONTROL

Sets the amount of preamp gain.

6. LINE SELECTOR SWITCH

This is a two position switch. UP selects an independent line input on the back of each channel to feed into the input selector module. (effect return, etc.). This switch overrides the input selected on the Bus Selector Switch. The illuminated rectangle and circle to the right of the switch allow the line input to be custom labeled. For example: DDL A.

7. VU METER

These 10 segment L.E.D. meters are found at three points in the channel. The ballistics are the same as those found in the meters of most recorders thus removing the need to compare the meter readings on the console with those of the tape machine. The circular pattern allows 3 meters to fit into a channel and also allows easy reading off axis.

8. TRACK ACCESS SWITCH

This is a three position switch. UP activates a feed to and back from a tape track at this point in the signal path. i.e. The signal flows out of the input selector module out to the tape recorder, through the recorder and back to the input of the signal processor module. DOWN deactivates the feed to the recorder connecting the output of the input selector module to the input of the signal processor module. Centering this switch allows master switches in the console to activate or de-activate multiple track accesses at once. The illuminated circle to the right of the word 'TRACK' is custom labeled with the number of the track connected to that channel.

9. EQ-LIMITER IN-OUT SWITCH

This is a two position switch. UP inserts the EQ-LIMITER into the signal path. DOWN by-passes the EQ-LIMITER.

12. LIMITER CEILING CONTROL

As this control is rotated counter-clockwise it reduces the level at which a 10 to 1 compression ratio acts on the signal. This limiter is very soft with no pumping. Attack and release are automatic. One will discover that it works on everything with very few exceptions. By boosting the EQ controls and then using the LIMITER CEILING CONTROL, signals can be smashed to any desired amount.

13. VU METER

This is the same as the INPUT SELECTOR meter with the exception that it reads the output of the SIGNAL PROCESSOR MODULE.

14. TRADE SWITCH (FADER REVERSE)

This is a two position switch. UP is normal fader. DOWN is fader reverse (level pot and VCA electronically trade places).

16. LEVEL CONTROL

This controls the level of the signal as it passes this point in the signal path. Normally this control is kept at unity gain but may be used to reduce the level when mixing signals onto buses. By operating the TRADE SWITCH, the VCA Fader may be used in place of the LEVEL CONTROL. The LEVEL CONTROL now controls the monitor part of the signal path where the VCA Fader was.

18. LEFT AND RIGHT BUS SELECTOR SWITCH (Outgoing signals)

These two combined switches direct signals to one of the Left buses or one of the Right buses or both. '0' is the no bus switch position. As stated before, there are 9 possible Left buses and 9 possible Right buses.



PREAMP MODULE



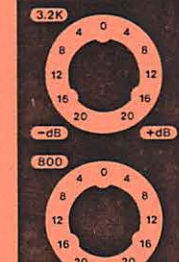
INPUT SELECTOR MODULE



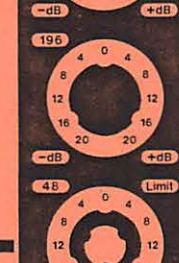
TRACK ACCESS MODULE



EQ-LIMITER IN-OUT SWITCH



EQUALIZATION CONTROLS



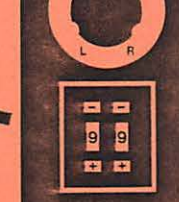
LIMITER CEILING CONTROL



TRADE SWITCH (FADER REVERSE)



BUS PAN POT



LEFT AND RIGHT BUS SELECTOR SWITCH

1. MIC-DAMPING SELECTOR SWITCH

Selects, in nine steps, the amount of peak compression at the microphone. (Simulates high quality microphone transformer sound although this is a transformerless console).

3. MIC-DAMPING ON-OFF SWITCH

This is a two position switch. Up is no damping. Down inserts the selected amount of damping.

5. BUS SELECTOR SWITCH (Incoming signals)

Odd numbered channels have a Left Bus selector switch as pictured here. Even numbered channels have a Right Bus selector switch. In the I.C.C. 3000 there are 9 Left Buses and 9 Right Buses. These 18 buses are available for summing, ping-ponging, mixing, cueing, patching, sending and receiving. This busing system replaces a multitude of special function switches and patch connections found in other consoles. When a bus selector switch is set to (0), no bus is selected. Instead, a normal signal flow is established from whichever module is above the input selector module. When the bus selector switch is set to a number, (1 to 9), that buses' signal is fed into the input selector module. Whether the normal signal input (0), or the bus input (1 to 9), or the line input (line selector switch) is selected, the selected signal is read on the VU meter and passed on to the next module. Buses are not necessary when using one microphone to feed one track. The normal signal input acts as a direct to the track. Therefore, 18 buses are more than adequate and the system can be expanded at any time to accommodate any number of tracks by adding channels. i.e. 24 channels yield a 24 IN - 24 OUT system. 48 channels yield a 48 IN - 48 OUT system. etc.

10. PHASE REVERSAL SWITCH

This is a two position switch. UP is normal phase. DOWN is phase REVERSE. Phase reverse may be used with the EQ-LIMITER in or out of the signal path.

11. EQUALIZATION CONTROLS

The equalizer in the I.C.C 3000 is difficult to describe in a short dialogue. Our equalizer operates on an entirely new principle. It would seem, to the casual observer, to be a simple graphic equalizer with knobs controlling boost and cut at five frequencies. This couldn't be further from the truth although setting the controls is as easy as on a five band graphic equalizer. The circuit is actually structured around five active bandpasses whose curves have been carefully designed with the aid of a computer to assure that the curves can combine to produce any desired frequency response with absolutely no audible phase shift. Boosting and cutting of any desired frequency as well as control of the 'Q' of the curve may be accomplished with ease. Hi and Lo cut filtering can be accomplished also. The circuit can also produce gain or attenuation without frequency response alteration by boosting or cutting all five controls by the same amount. The circuit is 'Patents Pending' and yields specifications which even surprise us.

15. PAN SWITCH

This is a two position switch. UP by-passes the pan control feeding the buses. DOWN inserts a log reverse log pan pot into the feed to the Left and Right buses.

17. BUS PAN POT

When the PAN SWITCH is activated this control is inserted before the Left and Right BUS SELECTOR SWITCH to ratio signals between the Left and Right buses.

