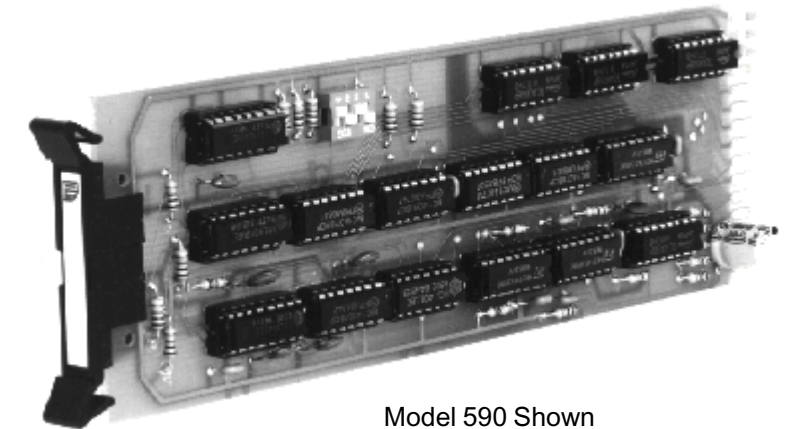


MODELS COVERED**590B**

INTEGRA III SYSTEM



Model 590 Shown

www.protechaudio.com

The 590B Programmable solid-state switching card is designed for use in professional audio applications. The card is constructed to function as a solid-state switch. There are five pairs of Form A contacts on each switch card. The switch contacts are activated by a remote closure to ground.

Typical applications are public address systems, broadcast studios, sales presentation rooms, headphone listening systems, multi-room audio systems, and recording systems. The actual application of the amplifiers is found in buildings such as airports, factories, courthouses, casinos, convention centers, libraries, hotels, racetracks, training systems, corporate boardrooms, etc.,.

The 590B has four logic programs built-in to each card. The programs are selectable via an on-board dip switch. The first program is designated "Independent". This program allows each set of contacts to operate independently of each other.

The second program is designated "Lockout". This program operates on the first-come, first-served principle, with all other closures locked out until the active channel is released. This program is very useful in paging applications.

The third program is designated "Last-On". This program allows the active channel to be turned off whenever a new channel closure is selected. This program is extremely useful in legislative venues, where the chairman wishes to assign access to the public address system.

The fourth program is designated "All-On". When the card is set for this program any ground closure will activate all five sets of closures. This program is useful in controlling multiple outputs from devices such as audio distribution amplifiers.

The Model 590B card is linkable. Multiple cards may be linked together to create 10, 15, 20, etc. channel electronic switches. Four cards linked together, with switches set for the "Lockout" program, create a 20 station electronic switch with first-come, first-served capability.

Multiple cards, set to different programs may be used together to accommodate various systems requirements. Other INTEGRA III SYSTEM switching cards may be used in conjunction with the Model 590B to provide additional switching functions.

Each of these products is designed to provide the user with high quality audio, for years of uninterrupted service.

INSTALLATION

The 590B Programmable Switching Card is designed to be mounted in the Model 857B Card Frame or the Model 858B Card Frame.

The Model 857B Card Frame will accommodate up to 10 audio cards, and requires an external power supply (Model 66708). The Model 858B Card Frame will accommodate up to 9 audio cards, and has a built-in unpluggable power supply card.

Both card frame assemblies bus the DC power to the individual card slots, and provide screw-type barrier termination points for audio and DC connections.

The determination as to which backplane assembly to use in your project, was made prior to our factory receiving the order. The backplane assembly you have received will accommodate the group of cards you or your designer have specified.

4- Unpack each individual card, inspect for shipping damage, and assuming none is found, slide the card half-way into the appropriate slot. After all cards have been installed half-way into the card frame, plug in one card at a time and turn on the power supply. Make sure no unusual loading is noticed at the power supply. If loading is noticed, turn off the power supply, unplug the card and recheck terminations. If no loading is noticed, continue inserting each card in the card frame, checking power supply loading as each card is plugged in. When all the cards have been plugged in, the installation is complete, and all that remains is the alignment.

ALIGNMENT

The Model 590B does not require alignment. The only adjustments to the card are the switch settings which determine the logic program to be used (See facing page). Operation of the unit may be checked in the following manner.

- 1- Apply power to Model 590B.
- 2- Apply a signal representative of the actual signal level to be used, to contacts 1A & 1B inputs.
- 3- While monitoring contacts 1A & 1B outputs, ground switch #1 (Pin 10). Check for proper signal level at the output pins.
- 4- Repeat steps 3 & 4 for each switch channel on the Model 590B. If the card is to be used in any program other than independent, make switch ground closures in sequence to check that the logic program is operating as desired. If it is not, recheck program switch settings.

This completes the installation and alignment of your Model 590 Programmable Switching Card. The card(s) may be expected to deliver years of uninterrupted service.

Note 1- The alignment procedures for INTEGRA III SYSTEM cards, differ from card type to card type. Therefore it is necessary to consult the alignment procedure for each type of card being installed, to properly align a card frame using different card types.

The actual steps necessary for installation of the 590B Programmable switching card, are comparable to those necessary for any of the INTEGRA III SYSTEM cards. They are as follows:

1- Mount the card frame in an appropriate EIA 19" width rack, using 4 screws of sufficient tensile strength to provide secure mounting.

2- A determination has been made as to which type of power supply will be used on your system. Follow the instructions for the type of power supply you will be installing.

EXTERNAL POWER SUPPLY. If an external power supply is to be used, terminate the proper supply connections to pins 1, 2, & 3 of the DC connector, as shown in the card frame layout drawing. Turn on the power supply, and using a DC voltmeter, check for correct voltage and polarity at pins 1, 2, & 3 of the DC connector.

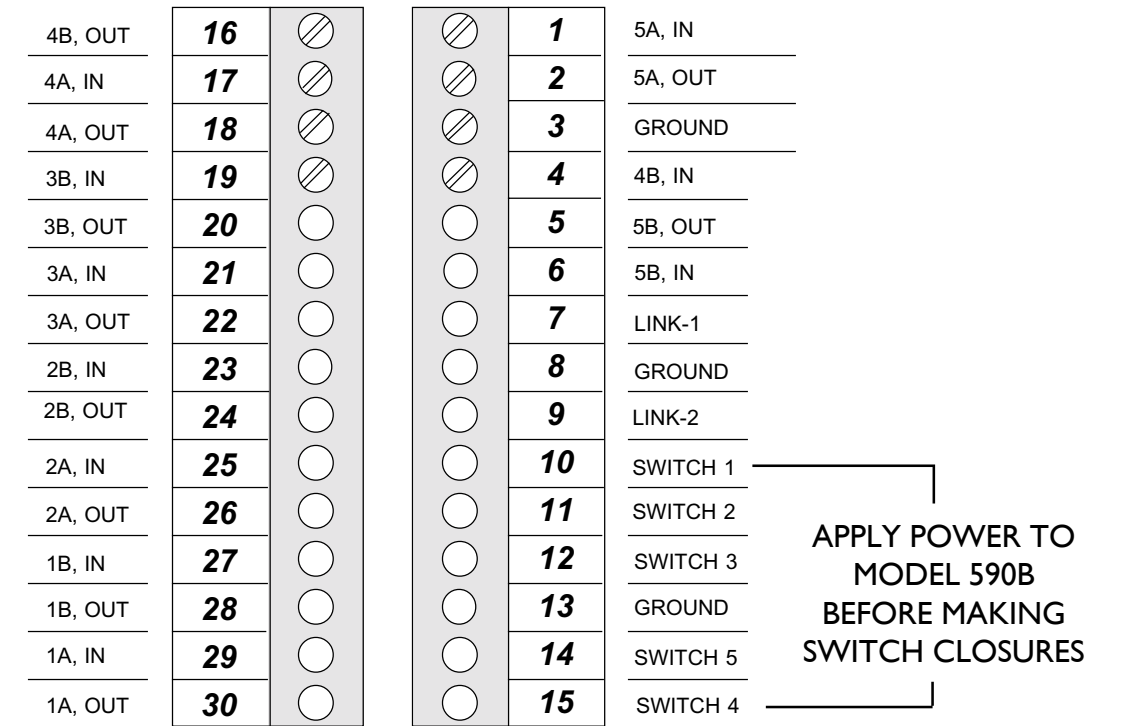
INTERNAL POWER SUPPLY. If a plug-in power supply card is to be used, plug in the supply card, and check for proper illumination of both plus and minus DC green LED's.

3- Terminate all audio input and output connections, using the card connection drawing on the facing page. Shielded cable is recommended for all audio connections.

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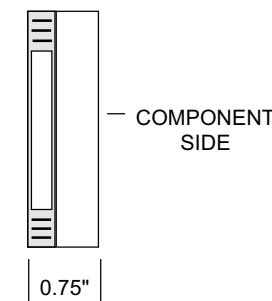
INTEGRA III SYSTEM
CONNECTOR & PROGRAM DRAWING
MODEL 590B

857B & 858B Backplane Connections.



PROGRAM SWITCH DRAWING, MODEL 590B

FRONT VIEW



SIDE VIEW

