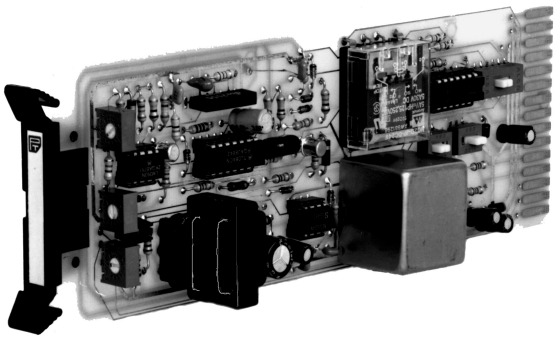
PROTECH®

1/02

AUDIO CONTROLLED SWITCH
INSTALLATION & OPERATION MANUAL

INTEGRA III SYSTEM

MODELS COVERED
589



Model 589 Shown

www.protechaudio.com

The Protech Audio Model 589 is a high quality audio controlled switch coupled with a professional quality preamplifier. The unit is designed for applications requiring switch closures to follow the presence of an audio signal.

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 unit is capable of functioning in a wide variety of installations. A typical application would be the turning on of bypass relays in paging systems during priority announcement. Multiple units may be used to design a multi-level priority system. The switch-selectable remote threshold capability allows this unit to serve well in systems requiring different threshold levels at different times of the day.

The built-in preamplifier, is switch selectable to serve as either a microphone preamplifier, or a line amlifier.

The built-in preamplifier is a very cost effective feature, eliminating the need for separate microphone or line level preamplifiers.

The Model 589 features two different types of closures, CMOS and Relay. The relay closures are configured in two Form C contact arrangements. The CMOS closures are arranged in two Form A contacts. The relay closures are capable of switching high current loads. The CMOS is recommended for lower level audio (microphone level) switching, since they introduce no switching noise. Both sets of contacts have an adjustable threshold, to determine when they activate, as well as an adjustable drop-out delay, to determine how quickly the switch opens, after the incoming audio stops.

The Model 589 is designed to mount in the Model 857B or 858B Card Frame. The unit may be mixed or matched with other INTEGRA III SYSTEM cards to create a complete audio system.

The Model 589 Audio Controlled Switch may be expected to provide years of uninterrupted, quality service. For additional information, or design assistance contact:

APPLICATIONS ASSISTANCE

Protech Audio Corporation, PO Box 597, 192 Cedar River Road, Indian Lake, New York, 12842, Voice 518-648-6410 Fax 518-648-6395

INSTALLATION

The 589 Audio Controlled 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 accomodate up to 10 audio cards, and requires an external power supply.
The Model 858B Card Frame will accomodate 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 card frame assembly to use in your project, was made prior to our factory receiving the order. The card frame assembly you have received will accommodate the group of cards you or your designer have specified.

The actual steps necessary for installation of the Model 589, 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 barrier 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 barrier 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 the positive and negative voltage LED's, on the power supply card front panel.

3- Terminate all audio input and output connections, using the card connection drawing on the facing page. Double conductor shielded cable is recommended for all audio connections. Terminate each unused input with a 1K ohm resistor.

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, 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 the remains is the alignment.

ALIGNMENT

The model 589 has been shipped from the factory with;

1-Input selector switch (S1) in the line position.
2-Gain Aligned for Unity
3-Threshold selector switch (S2) in the On-Board position.
4-Threshold adjustment set for -20dB.
5-Contact selector switch (S3) in the relay position.

If additional gain is required, the following alignment procedure is recommended;

1- Remove the card from the card frame, and realign switches to desired positions.

2- Replace card in slot.

3- Apply a signal representative of the actual signal to be used, to the input.

4- While monitoring the output, turn the gain trimpot clockwise until the desired output level is reached.

5- Adjust threshold trimpot as required. The green LED indicates the threshold/switch action.

6- Adjust dropout delay as necessary.

This completes the installation and alignment of the audio controlled switching card. The cards 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.

CONNECTOR & TRIMPOT DRAWING
MODEL 589 AUDIO CONTROLLED SWITCH CARD

MODELS 857B & 858B BACKPLANE CONNECTIONS