PROTECH ®

1/06

REED RELAY SWITCHER CARD

INSTALLATION & OPERATION MANUAL

MODELS COVERED
655B

INTEGRA III SYSTEM

Model 655B Shown

The Model 655B Reed Relay Switcher Card is designed to operate as a remote switching control in professional audio systems.

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 Model 655B incorporates 8 individual reed relays. The relays are mounted on a single, plug-in printed circuit board. Each relay has a Form A normally open (SPST) contact arrangement. The relays are activated by grounding the control pin. Relay control pins may be ganged together to operate more than one relay from a single switch closure. Different combinations of relays may be created by isolating the remote switch closures through diodes.

Reed relays are much faster operating than standard electro-mechanical relays. The average switching time for the reed relay is 1 millisecond. This fast operating time makes them ideal devices for line level audio applications. The relay cards are designed to operate alone or in conjunction with other switching cards in the INTEGRA III SYSTEM.

The Model 655B is designed to mount in the Model s 857B or 858B Card Frames. The unit may be mixed or matched with other INTEGRA III SYSTEM cards to create a complete audio system.

The card frames will allow mounting of either 9 audio cards and plug-in power supply card (Model 858B), or 10 audio or switching cards when used with an external power supply (Model 857B). If additional information is needed, contact Applications Assistance by calling 631-584-5855.

The reed relay cards may be expected to provide years of uninterrupted, quality service.

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INSTALLATION

The 655B Reed Relay Switching Card is designed to be mounted in the Model 857B, or 858B Card Frame Assembly.
The Model 857B Card Frame will accomodate up to 10 audio cards, and requires an external power supply (Model 66708).
The Model 858B Card Frame will accomodate up to 9 audio cards, and has a built-in power supply card (Models 2000-PS-A).

Both card frames 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 accomodate the group of cards you or your designer have speciifed.

The actual steps necessary for installation of the 655B Reed Relay 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 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 input, output, and switch connections, using the card connection drawing on the facing page. Shielded cable is recommended for all audio connections.

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 655B does not require alignment.
Operation of the card may be checked in the following manner:

1- Apply a signal representative of the actual signal level to be used, to contact K1, In (Pin #19).

2- While monitoring the output at pin K1 Out (Pin #11), ground switch #1 (Pin #2). Check for proper signal level at the output pin.

3- Repeat steps 1 & 2 for each switch channel on the Model 655B.

This completes the installation and alignment of your Model 655B Reed Relay 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.

PROTECH AUDIO®

INTEGRA III SYSTEM

CONNECTOR & PROGRAM DRAWING
MODEL 655B

857B & 858B BACKPLANE CONNECTIONS

GROUND RELAY SWITCH PINS TO ACTIVATE RELAYS

	16	⊘	⊘	1	K2 SWITCH
	17	⊘	⊘	2	K1 SWITCH
	18	⊘	⊘	3	GROUND
K1 IN	19	⊘	⊘	4	K3 SWITCH
K2 IN	20	○	○	5	K4 SWITCH
K3 IN	21	○	○	6	K5 SWITCH
K4 IN	22	○	○	7	K6 SWITCH
K5 IN	23	○	○	8	GROUND
K6 IN	24	○	○	9	K7 SWITCH
K7 IN	25	○	○	10	K8 SWITCH
K8 IN	26	○	○	11	K1 OUT
K5 OUT	27	○	○	12	K2 OUT
K6 OUT	28	○	○	13	GROUND
K7 OUT	29	○	○	14	K4 OUT
K8 OUT	30	○	○	15	K3 OUT

SPECIFICATIONS

RELAY TYPE.....	Reed
CONTACT FORM.....	1A
CONTACT RATING (SWITCHING).....	0.75 Amps DC
CONTACT CARRY CURRENT.....	1.5 Amps
POWER REQUIREMENTS.....	±18-24VDC At 48ma per card
RELAY ENABLE.....	External Switch to Ground
SIZE.....	2.5"H x 8.0"D x 1.1"W
TEMPERATURE.....	0-70 Degrees C