

INSTRUCTIONS

speed variator



RELAY CARD

INTRODUCTION

This instruction book covers the Speed Variator Relay Card.

WARNING: HIGH VOLTAGE. ALWAYS DISCONNECT ALL POWER TO THE DRIVE BEFORE REMOVING OR INSERTING A PRINTED CIRCUIT CARD. FAILURE TO DO SO MAY CAUSE SERIOUS INJURY TO PERSONNEL AND DAMAGE TO THE DRIVE OR DRIVEN MACHINERY.

A. BEFORE REMOVING ANY CARD:

1. BE SURE ALL POWER TO THE DRIVE IS REMOVED.

2. NOTE CARD IDENTIFICATION NUMBER AND SLOT MARKING NUMBER ON THE REGULATOR RACK.

B. BEFORE INSERTING ANY CARD:

1. BE SURE ALL POWER TO THE DRIVE IS REMOVED.

2. BE SURE CARD IS INSERTED INTO THE CORRECT REGULATOR RACK SLOT. CARD IDENTIFICATION NUMBER AND SLOT MARKING NUMBER MUST BE IN AGREEMENT.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency or hazard to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

DESCRIPTION AND APPLICATION

The relay card contains circuit paths and mounting positions for four relays. The relays normally

used are the double-pole, double-throw type and perform the magnetic switching of functions associated with regulator reference and feedback circuits.

To minimize possible undesirable noise generated when the relay is energized or de-energized, each relay coil is paralleled by a snubber network.

OPERATION

The relays are operated from an external signal such as a pushbutton or relay interlock. These relays switch regulator functions, such as reference signals and preconditioning signals. Contact and coil rating is given in SPECIFICATIONS.

These relays are not to be used to switch functions external to the regulator.

INDICATING LIGHTS

Each relay coil is paralleled by an indicating light which shows that relay coil voltage is applied and the relay is energized.

SPECIFICATIONS

Relay: General-purpose double-pole, double-throw
Voltage: 115 volts a-c, $\pm 10\%$, 60 Hz ± 2 Hz or 95 volts a-c, 50 Hz

DC Coil Resistance: 3600 ohms, $\pm 10\%$ at 25 C

Operate Time: 15 milliseconds or less (including contact bounce)

Release Time: 15 milliseconds or less (including contact bounce)

Contact Resistance: At 6 volts and 0.1 amp, 0.05 ohms max (initial)

Pull-in: 70 volts a-c to 85 volts a-c (60 Hz)

Temperature Range: -45 C to +75 C

Dielectric Strength: 1230 volts RMS, 60 Hz, 1 minute

Contact Rating: 1 amp resistive at 115 volts a-c or 29 volts d-c continuous; contact to make and break 1 amp.

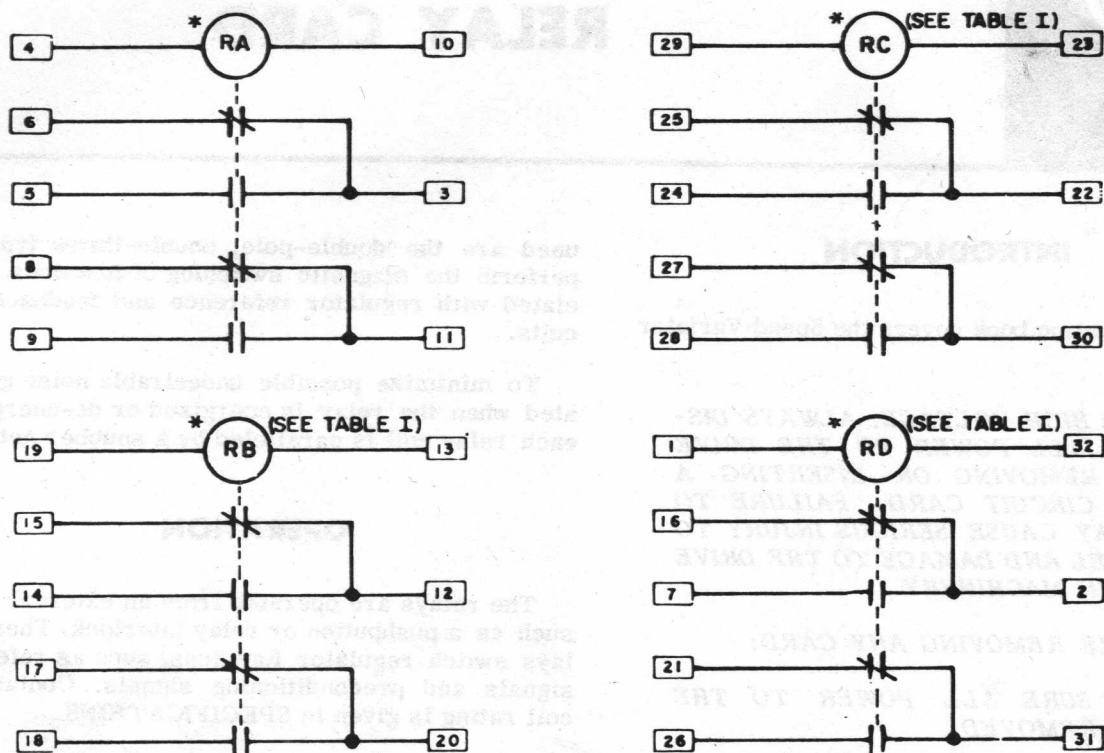


TABLE I

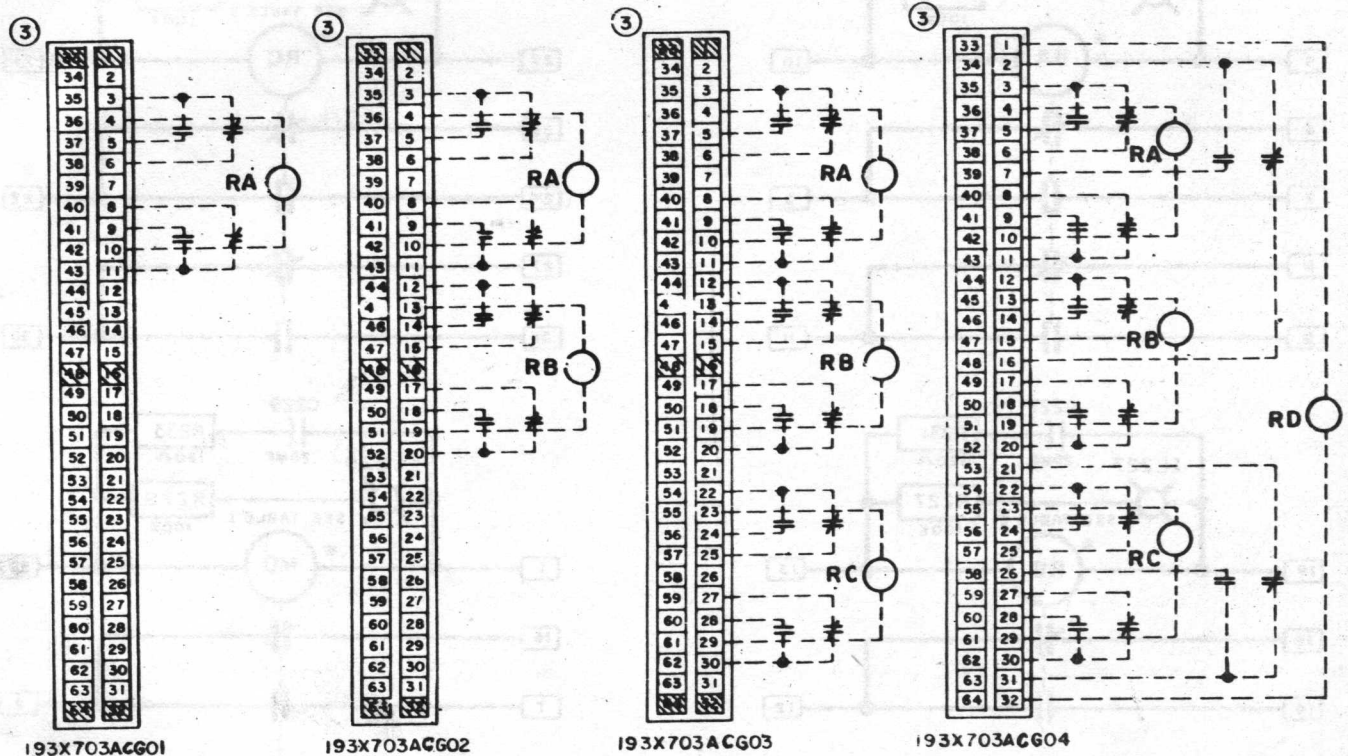
Functional No.	Card Catalog No.	Qty of Relays	Relay Nomenclature*	Tab Connection
193X755BBG01	193X703ABG01 193X703ACG01	1	RA	See Schematic Above for Tabs Associated with Relay Nomenclature
193X755BBG02	193X703ABG02 193X703ACG02	2	RA, RB	
193X755BBG03	193X703ABG03 193X703ACG03	3	RA, RB, RC	
193X755BBG04	193X703ABG04 193X703ACG04	4	RA, RB, RC, RD	

NOTES:

- Numbers inside small rectangles indicate tab numbers which correspond to matching receptacle numbers.
 - This diagram is a functional representation for versions of Relay Card 193X703ABG01 through G04 and 193X703ACG01 through G04.
- * Present relay nomenclature replaces that listed below. Refer to system diagrams for a cross reference.

Relay Nomenclature	Replaces	Relay Nomenclature	Replaces
RA	RX226	RC	RX228
RB	RX227	RD	RX229

Fig. 1. Function schematic



NOTES:

1. Indicates retaining spring
2. —The sequence wiring of receptacle may require wires for both entering and leaving a terminal. This is accomplished by making the connections to the horizontally adjacent terminals and inserting a jumper spring between the terminals. For correct insertion of jumper springs, refer to Instruction Book GEI-92001.

Fig. 2. Function connection

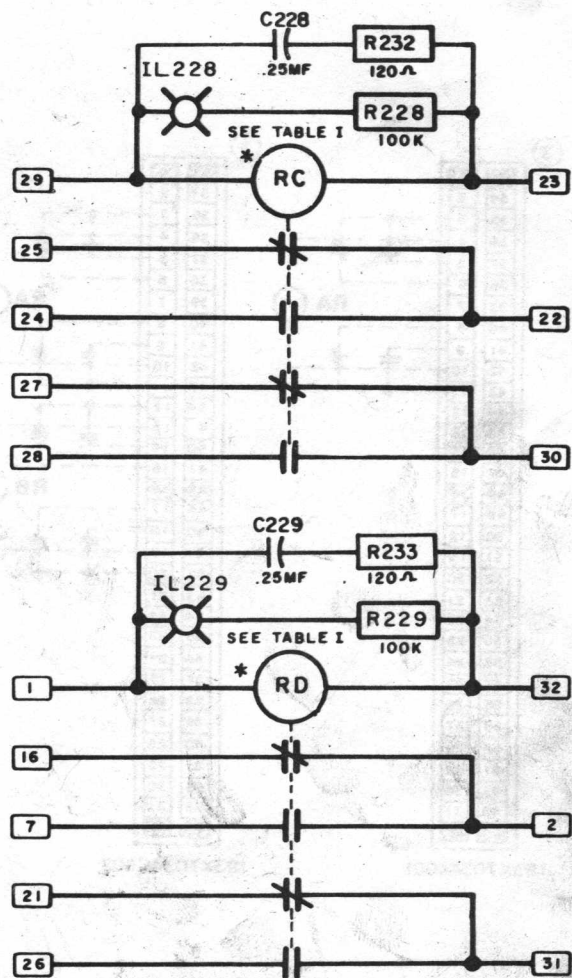
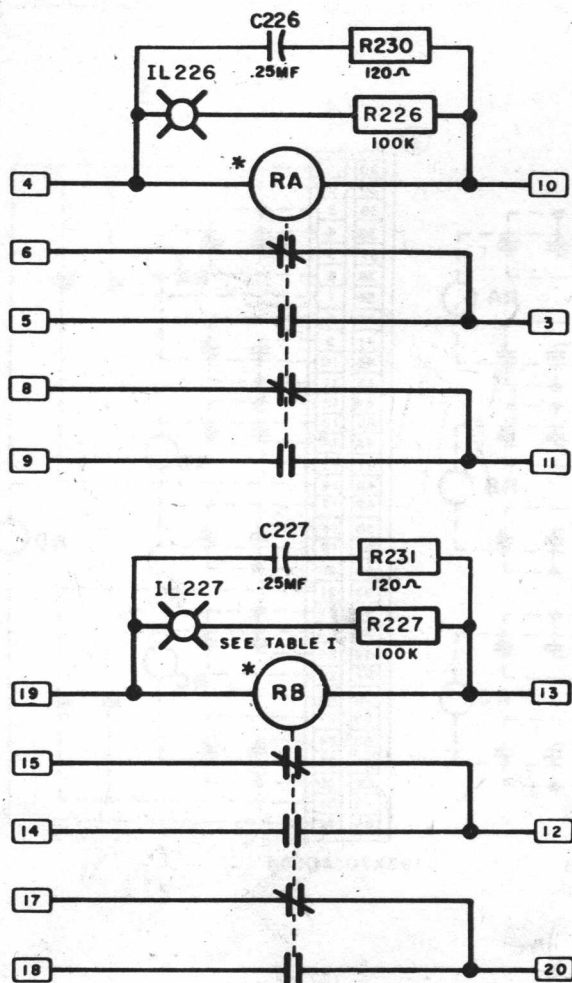


TABLE II

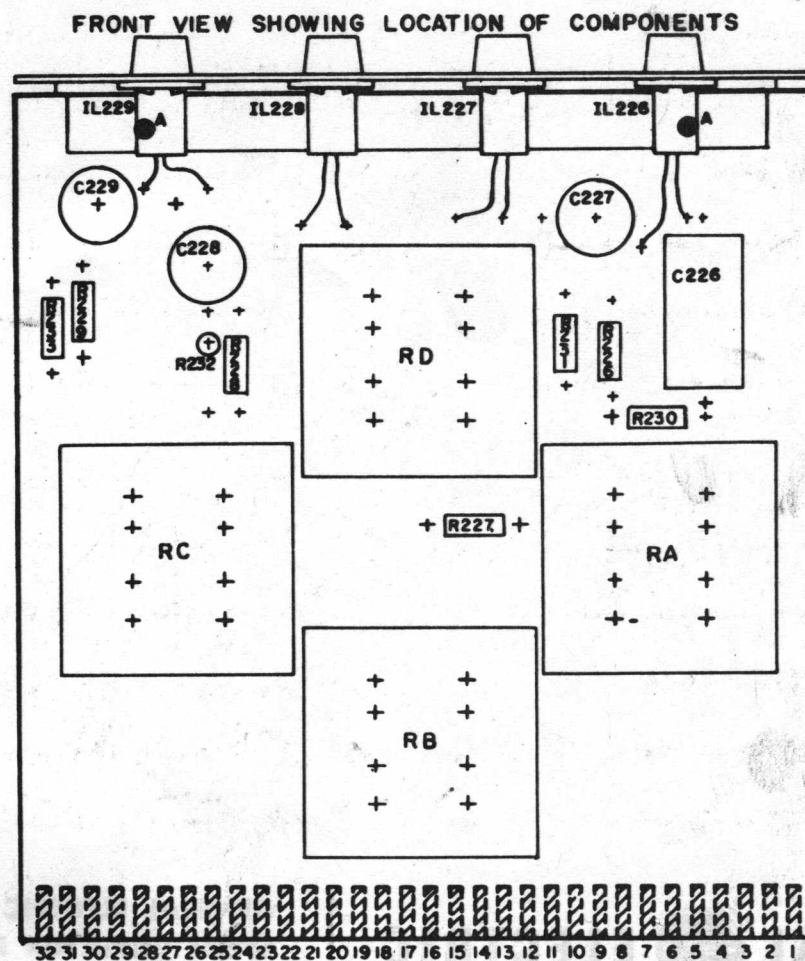
Card Catalog No.	Qty of Relays	Relay Nomenclature*	Tab Connection
193X703ACG01	1	RA	See Schematic Above
193X703ACG02	2	RA, RB	for Tabs Associated
193X703ACG03	3	RA, RB, RC	with Relay
193X703ACG04	4	RA, RB, RC, RD	Nomenclature

NOTES:

1. Numbers inside small rectangles indicate tab numbers which correspond to matching receptacle numbers.
* Present relay nomenclature replaces that listed below. Refer to system diagrams for a cross reference.

Relay Nomenclature	Replaces	Relay Nomenclature	Replaces
RA RB	RX226 RX227	RC RD	RX228 RX229

Fig. 3. Card schematic 193X703ACG04



NOTES:

1. Indicated tab numbers correspond to matching receptacle numbers.
2. Cross-hatched tabs indicate tabs used.

Fig. 4. Card layout 193X703ACG04