

INSTRUCTION SHEET

VRC-1000
ACCESSORY

COMMAND RELAY

INSTRUCTION SHEET - VRC-1000 ACCESSORY

COMMAND RELAY ASSEMBLY

The Command Relay Assembly Accessory provides relay contact closure outputs from the VRC-1000 in place of the standard open-collector outputs. This 3.5" H, standard (19") rack mounting assembly provides a relay interface for one group of 8 Command Channels. Sixteen relay outputs are provided. The output rating of these relays is 5 A, up to 240 VAC (non-inductive) or 100 VA. A four foot cable, with mating connector to the VRC-1000 is provided. Relay contact output connections are on screw barrier strips. An independent AC power supply is included in this accessory.

DESCRIPTION

The Command Relay Assembly consists of two printed circuit cards. Each printed circuit card accommodates eight relays and thus provides the output for four VRC-1000 Command channels.

The uppermost card provides the lower channels (Channels 1 to 4, or 9 to 12) and the bottom card the remaining Channels (5 to 8, or 13 to 16). The Channel assignments are determined by the interconnection to the VRC-1000. The center Command DB connector on the rear of the VRC-1000 provides Channels 1 to 8. The Command DB connector to the right side (when viewed from the rear) provides Channels 9 to 16. The DB connector on the VRC-1000 used for interconnection to the Relay Assembly thus determines the Channels.

The rear panel of the Command Relay Assembly is labelled for both possible Command channel outputs. For example, the first relay contact is labelled "1/8*"; if the Command Relay Assembly unit is connected to the "Command 1-8" connector on the VRC-1000, Command channel 1 will be output through that relay; if connected to the "Command 9-16" connector on the VRC-1000, Command channel 9 will be output through that relay.

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APPLICATION

The contacts of the Relay Assembly are rated to switch loads of up to 5 Amperes, up to 240 VAC (non-inductive) or 100 VA. In switching heavy inductive loads such as large power contactors, additional protection (or relay switching) may be required. Likewise, if relay coils are to be switched, damping diodes should be placed across the the coil of those relays.

INSTALLATION

The Relay Assembly unit should be installed close to the VRC-1000. Interconnection between the Relay Assembly unit and the VRC-1000 is made with the cable provided. The DB-25 male connector is plugged into the rear of the Relay Assembly unit at connector J1, "VRC-1000 CONTROL".

The DB-37 socket connector is plugged into one of the two "COMMAND" connectors on the rear panel of the VRC-1000. Connecting to "COMMAND 1-8" (the left side of the two "COMMAND" connectors) provides relay outputs of the first eight Command channels. Connecting to "COMMAND 9-16" provides relay outputs of the second bank of eight Command channels.

VOLTAGE SELECTION

The Command Relay Assembly unit can operate from either 120 or 240 Volts AC. The unit is delivered configured for 120 VAC.

The operating voltage selection is accomplished in exactly the same way as in the VRC-1000. To change the unit to 240 VAC operation, remove the cover and locate the Molex connector attached to the primary of the transformer. Note that a WHITE connector is plugged into it. Attached to the white connector is a similar red connector. Unplug this white connector, and replace it with the RED connector.

This procedure is illustrated in the VRC-1000 operational manual, in section 3.3.

To summarize: WHITE connector - 120 VAC
 RED connector - 240 VAC

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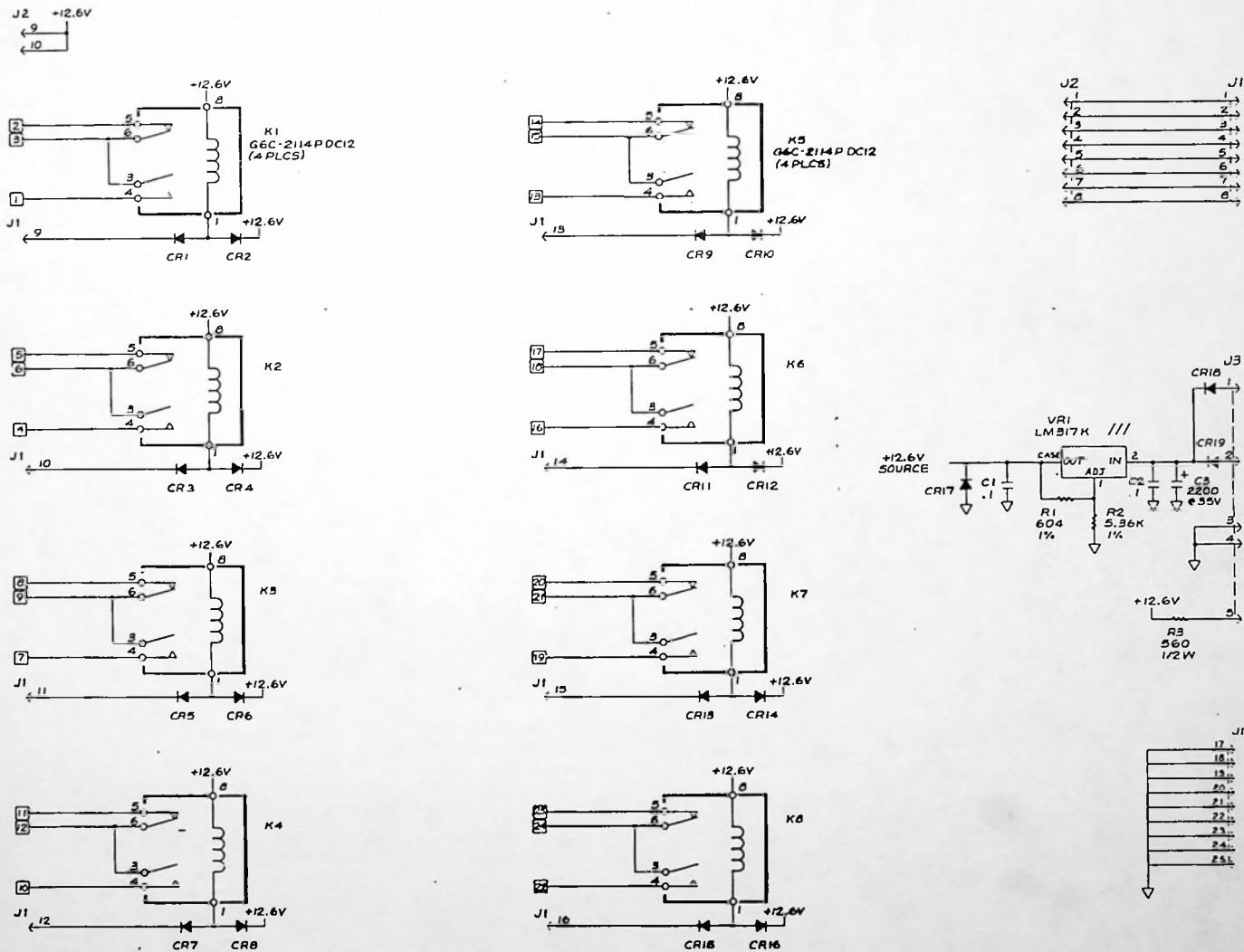
SCHEMATIC DIAGRAMS

Schematic diagrams GRL-002-101 (Fig. 1) and GRL-002-102 (Fig. 2) detail the electrical circuitry of the Command Relay Assembly. The AC power supply and interconnecting data for the two printed circuit cards appears on GRL-002-101, Electrical Schematic VRC-1000 Relay Unit (Bottom). The third schematic (Fig. 3) illustrates the interconnections between the two circuit boards and the chassis mounted parts.

Each output from the Relay Assembly is a Form C contact. This is accomplished by the paralleling of two sets of contacts on one relay assembly. Such paralleling prevents common failures affecting both contacts of a conventional Form C contact configuration. In this configuration, one side could fail without effecting the other side. All relay coils are protected with damping diodes.

The power supply is a standard design. It should be noted that the power transformer used in the Relay Assembly is the same power transformer as is used in the VRC-1000. This would permit the use of this transformer to repair major damage to the VRC-1000, should a power transformer be required.

Fig 1. Top Circuit board



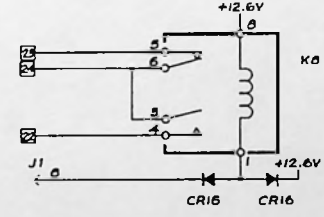
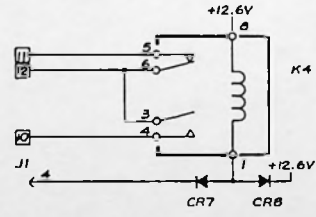
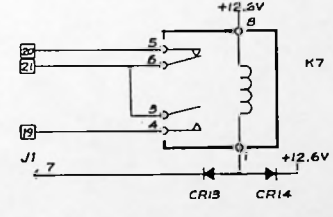
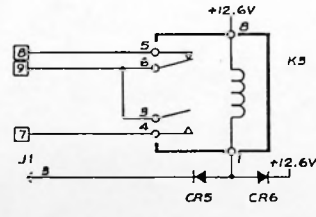
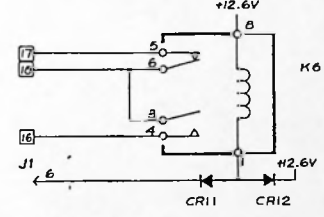
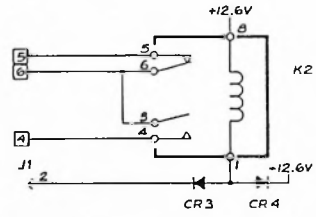
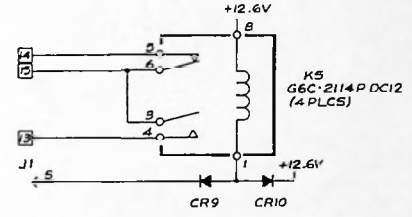
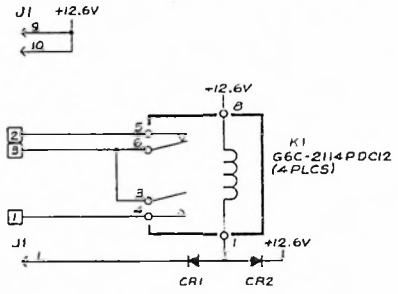
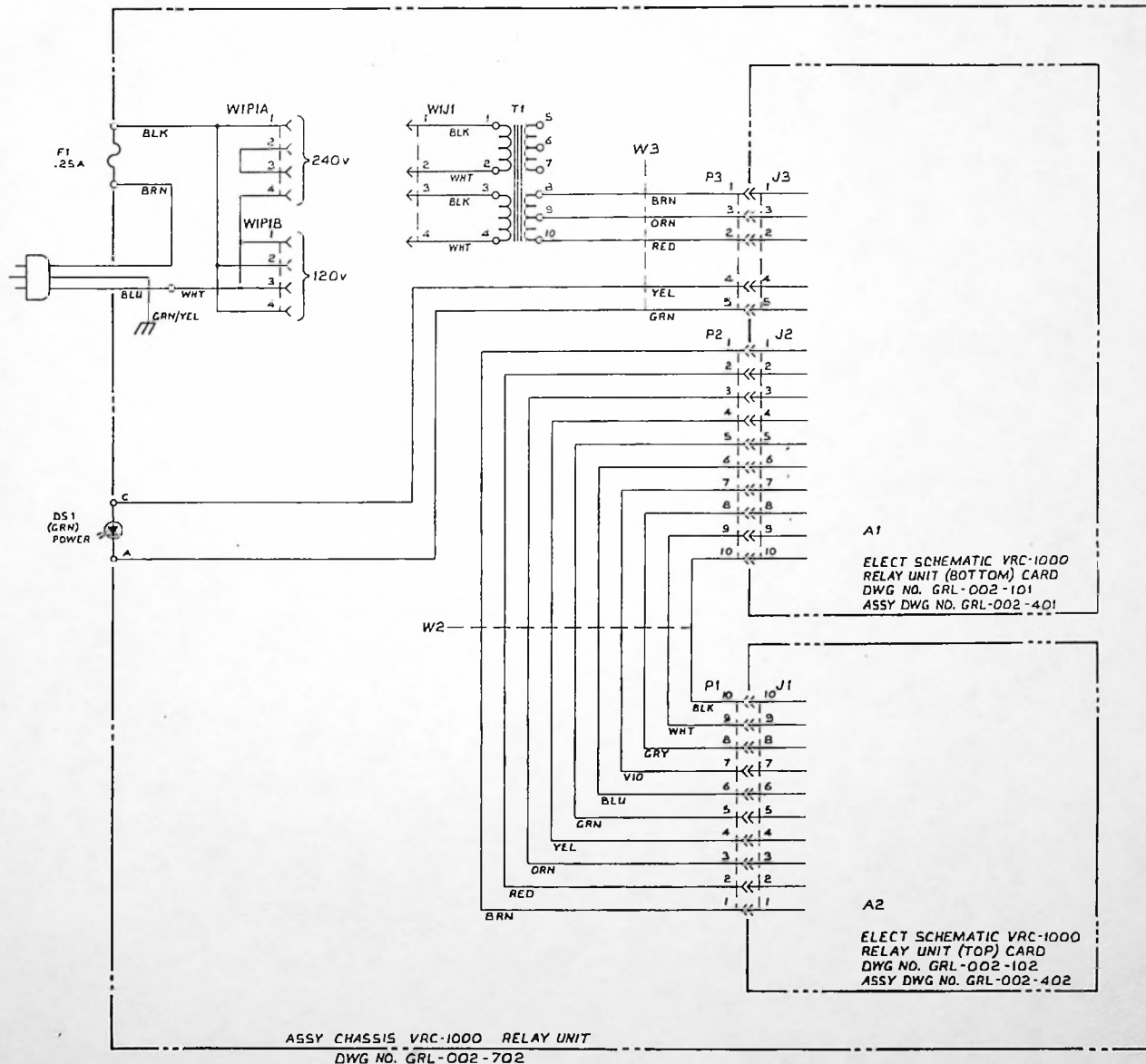


Fig. 2. Bottom Circuit Board

Fig. 3. Interconnection Diagram



WARRANTY

GENTNER RF PRODUCTS DIVISION, GENTNER ENGINEERING COMPANY, INC. (Manufacturer) warrants that this product is free of defects in both materials and workmanship. Should any part of this equipment be defective, Manufacturer agrees, at its option, to:

A. Repair or replace any defective part free of charge (except transportation charges) for a period of 12 months from the date of the original purchase, provided the owner returns the equipment to Manufacturer at the address set forth below. No charge will be paid for parts or labor during this period.

B. Replace or furnish replacement for any defective parts in the equipment for a period of one year from the date of original purchase. Replacement parts shall be furnished without charge except labor and transportation.

This Warranty excludes assembled products not manufactured by Manufacturer whether or not they are incorporated in a Manufacturer product or sold under a Manufacturer part or model number.

THIS WARRANTY IS VOID IF:

A. The equipment has been damaged by negligence, accident, act-of-God or mishandling, or has not been operated in accordance with the procedures described in the operating and technical instructions; or,

B. The equipment has been altered or repaired by other than manufacturer or provided by authorized service representative of Manufacturer; or,

C. Adaptations or accessories other than those manufactured or provided by Manufacturer have been made or attached to the equipment which, in the determination of Manufacturer, shall have affected the performance, safety, or reliability of the equipment; or,

D. The equipment's original serial number has been modified or removed.

NO OTHER WARRANTY EXPRESS OR IMPLIED, INCLUDING WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, APPLIES TO THE EQUIPMENT, nor is any person or company authorized to assume any warranty for Manufacturer or any other liability in connection with the sale of Manufacturer products.

Manufacturer does not assume any responsibility for consequential damages, expenses or loss of revenue or property, inconvenience or interruption in operation experienced by the customer due to a malfunction in the purchased equipment. No warranty service performed on any product shall extend the applicable warranty period.

In case of unsatisfactory operation, the purchaser shall promptly notify Manufacturer at the address set forth below, in writing, giving full particulars as to the defects or unsatisfactory operation. Upon receipt of such notice, Manufacturer will give instructions respecting the shipment of the equipment, or such other matters as it elects to honor this warranty as above provided. This warranty does not cover damage to the equipment during shipping and Manufacturer assumes no responsibility for such damage. All shipping costs shall be paid by customer.

This warranty extends only to the original purchaser and is not assignable or transferable.

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RF PRODUCTS DIVISION

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