



## INSTRUCTION SHEET D2-3214

Remote Operator Station

Model 1RS3000

For use with 230 VAC, 460 VAC AND 575 VAC  
GP-2000

General Purpose A-C V\*<sup>s</sup> Drive Controllers

### **DANGER**

**ONLY QUALIFIED ELECTRICAL PERSONNEL FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THIS EQUIPMENT AND THE HAZARDS INVOLVED SHOULD INSTALL, ADJUST, OPERATE, AND/OR SERVICE THIS EQUIPMENT. READ AND UNDERSTAND THIS MANUAL IN ITS ENTIRETY BEFORE PROCEEDING. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.**

### **Receive and Accept the Shipment**

Reliance® Electric's terms of sale, in all instances, are F.O.B. point of origin. The user is responsible for thoroughly inspecting the equipment before accepting shipment from the transportation company.

If all the items called for on the bill of lading or on the express receipt are not included or if any items are obviously damaged, do not accept the shipment until the freight or express agent makes an appropriate notation on your freight bill or express receipt. If any concealed loss or damage is discovered later, notify your freight or express agent within 15 days of receipt and request that he make an inspection of the shipment. Keep the entire shipment intact in its original shipping container.

The user is responsible for making claim against the Carrier for any shortage or damage occurring in transit. Claims for loss or damage in shipment must not be deducted from the Reliance Electric Invoice, nor should payment of the Invoice be withheld while awaiting adjustment of such claims since the Carrier guarantees safe delivery.

### **File a Return Request**

1. To return equipment, send a written request to Reliance Electric within ten days of receipt.
2. Do not return equipment without a numbered Equipment Return Authorization (ERA) from Reliance Electric.
3. Reliance Electric reserves the right to inspect the equipment on site.

### **Store the Kit until Installation**

After receipt inspections, repack the kit in its original shipping container until installation. If a period of storage is expected, store in the original shipping container with its internal packing.

To ensure satisfactory operation at startup and to maintain warranty coverage, store the equipment:

- in its original shipping container in a clean, dry, safe place
- within an ambient temperature range of -10°C to 40°C
- within a relative humidity range of 5 to 95% without condensation.
- away from a highly corrosive atmosphere. In harsh environments, cover the shipping/storage container.

## Description

### WARNING

THIS DRIVE IS INTENDED TO OPERATE AT A PREDETERMINED MINIMUM SPEED UNLESS DISCONNECTED FROM THE POWER SOURCE. IF THE APPLICATION REQUIRES ZERO SPEED OPERATION WITHOUT SUCH DISCONNECTION, THE USER IS RESPONSIBLE FOR ASSURING SAFE CONDITIONS FOR OPERATING PERSONNEL BY PROVIDING SUITABLE GUARDS, AUDIBLE OR VISUAL ALARMS, OR OTHER DEVICES. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN BODILY INJURY.

The products described in this instruction manual are manufactured by Reliance Electric Industrial Company.

The Remote Operator Station provides a remote means to operate the GP2000 ("controller"). The kit includes Start/Stop, Run/Jog, Fwd/Rev, Auto/Manual switches and a Speed pot. The maximum wire length allowable is 300 feet (100 meters). These contact signals are isolated from both the speed signal and the microcomputer circuit. The voltage of the control signal is typically between 18 volts and 24 volts D-C.

## Installation

### DANGER

EQUIPMENT IS AT LINE VOLTAGE WHEN A-C POWER IS CONNECTED TO THE CONTROLLER. ALL UNGROUNDED CONDUCTORS OF THE A-C POWER LINE MUST BE DISCONNECTED FROM THE CONTROLLER. AFTER POWER IS REMOVED, USE A VOLTMETER AT TERMINALS 147(+) AND 45 (-) TO VERIFY THAT THE D-C BUS FILTER CAPACITORS ARE DISCHARGED BEFORE TOUCHING ANY INTERNAL PARTS OF THE CONTROLLER OR INSTALLING THE KITS. FAILURE TO OBSERVE THESE PRECAUTIONS COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

### DANGER

THE USER IS RESPONSIBLE FOR CONFORMING WITH THE NATIONAL ELECTRICAL CODE AND ALL OTHER APPLICABLE LOCAL CODES. WIRING PRACTICES, GROUNDING, DISCONNECTS AND OVERCURRENT PROTECTION ARE OF PARTICULAR IMPORTANCE. FAILURE TO OBSERVE THESE PRECAUTIONS COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

1. Disconnect all power to the controller.
2. Verify with a voltmeter at terminals 147 (+) and 45 (-) that bus voltage is below 50 VDC.
3. Insert the kit case into the cutout where the Remote Operator Station is to be used.
4. Loosen the four screws at the corners of the controller enclosure, and remove the cover.
5. Attach the two screw clamps (accessory) to the top and bottom or to both sides of the kit. Fix the kit to the panel with the two screw clamps.  
Note: Follow all instructions in the main controller instruction manual in regards to proper wiring practices.
6. Wire the Remote Operator Station and the controller in accordance with Figure 2.
7. Verify the connections are correct by operating the switches or the pot on the kit without power applied.
8. Before replacing the cover on the controller enclosure, note that the top plastic plate on the cover should be removed if the ambient temperature outside the controller will be higher than 40°C. Refer to the controller instruction manual; "Convert from NEMA 1 to Chassis Controller (if required)".

## Start Up the Kit

The controller will be shipped with the initial factory settings. To use the kit, change Function 0 from the Local Control (initial factory setting) to the Remote Control (Terminal Strip). To select parameter "1" in Function 0, see the controller instruction manual; "Configuring the Controller".

Start up the controller according to the instruction manual. When the Remote Control is selected, note the following:

1. The red LED of Remote Control will be lit.
2. The following keys on the local keypad are not active:  
START  
RUN/JOG  
FWD/REV  
AUTO/MAN  
▲ and ▼ as the speed control
3. You can monitor the external speed reference input by pressing the ▲ or ▼ key on the local keypad. To monitor the controller output, press the MON key during the run mode, or press the START key on the local keypad during the stop mode.
4. The STOP/RESET key is active.

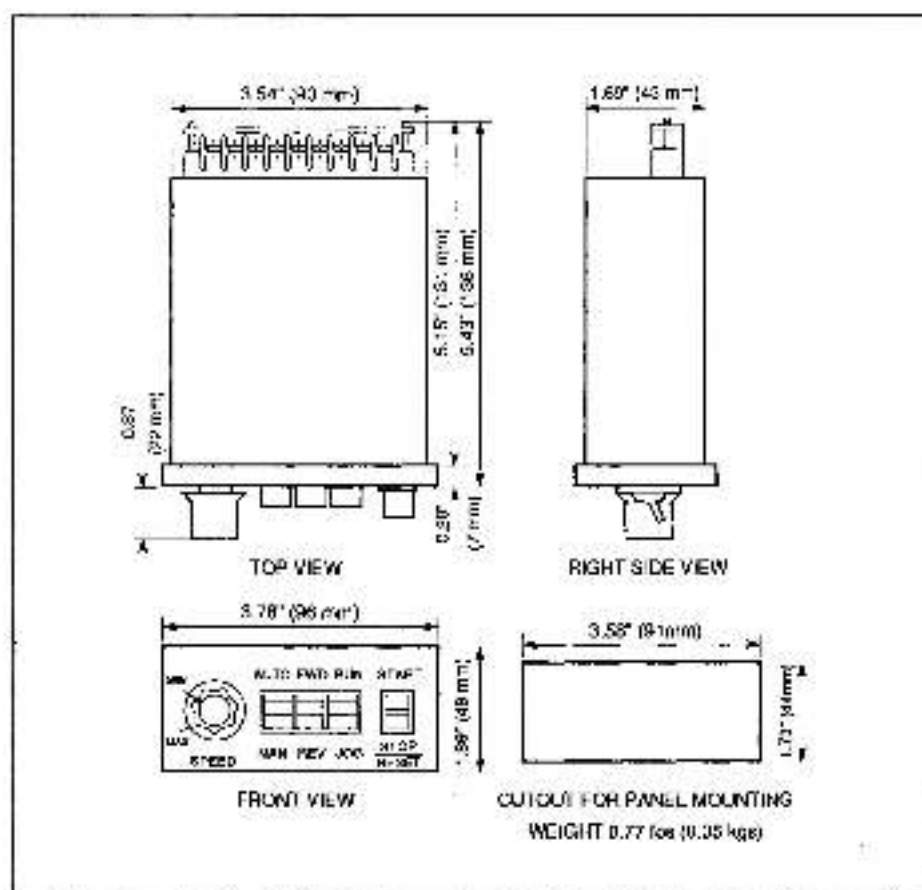
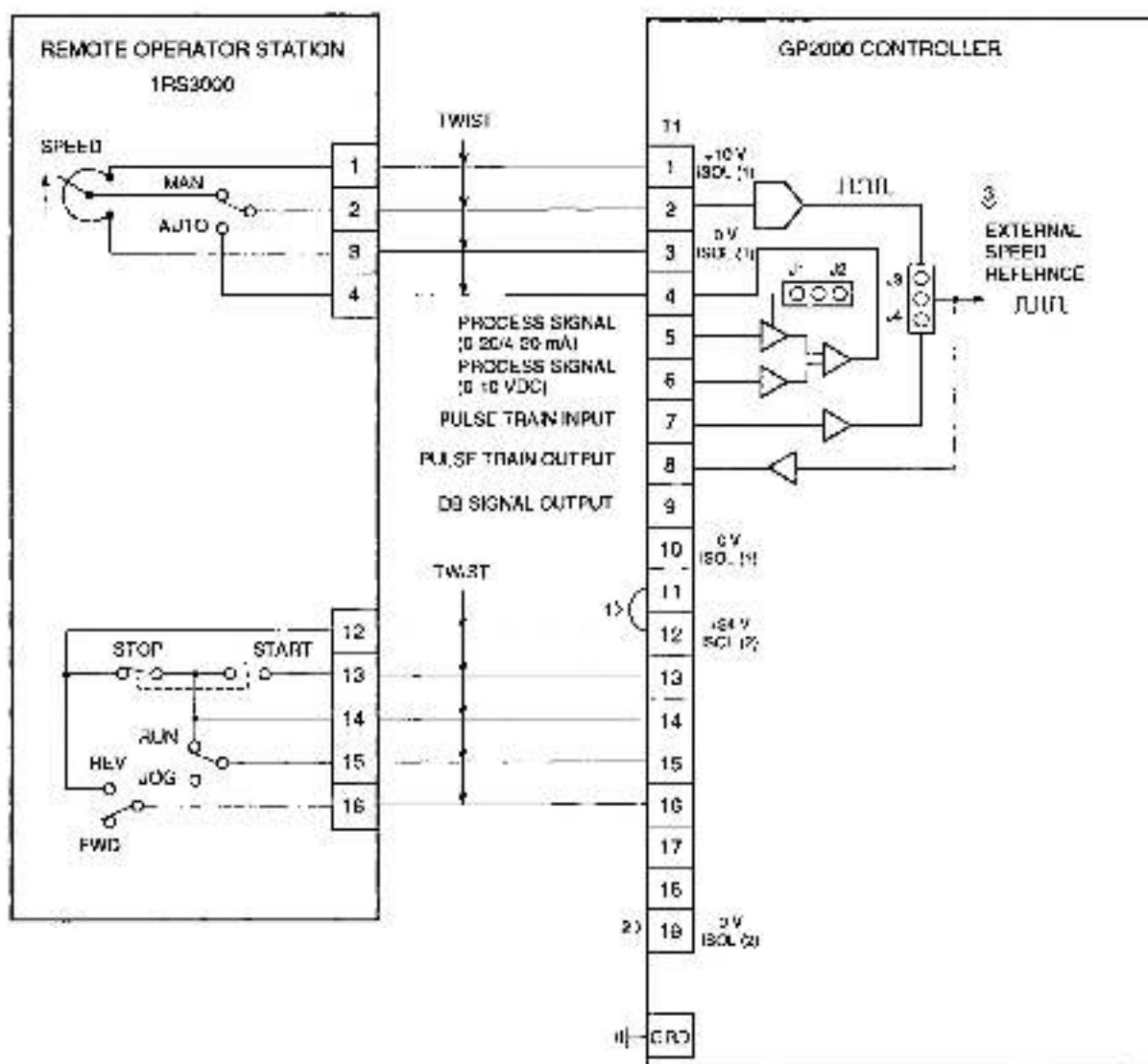


Figure 1. Mounting Data for Remote Operator Station.



**NOTE:**

- 1) When user-supplied function loss input or interlocks are connected, remove the factory-installed jumper between terminals 11 and 12 in order for these contacts to be operational. When these contacts open, the controller stops on an IET and the motor coasts to rest.
- 2) User to ground 24 VDC Start/Stop circuit if required by code.
- 3) This is the speed reference when in the:
  - A. Remote Mode (Function 0) or
  - B. Local Mode (Function 0) with the AUTO/MAN Key in the AUTO position.

**Figure 2. Typical Connection Diagram.**

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