



INSTRUCTION SHEET D2-3211-2 Inverter Fuse Kit (see Table 1 for Model Numbers)

For use with GP2000 1–40 HP
and VTAC V 1–50 HP V★S® Drives

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.

DESCRIPTION

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

DANGER

THE NEC REQUIRES THAT UPSTREAM BRANCH CIRCUIT PROTECTION BE PROVIDED TO PROTECT POWER WIRING. THIS PROTECTION SHOULD BE INSTALLED BY THE USER IN ADDITION TO THE FUSED PROTECTION TO THE CONTROLLER PROVIDED BY THIS KIT. USE THE RECOMMENDED VALUES FOR INPUT FUSES IN ORDER TO PROTECT THE THE CONTROLLER. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

The Inverter Fuse Kit provides protection for Internal Controller (or drive) components. There must be an Expanded Cabinet Kit for GP2000 1–20HP, or the Controller must be a VTAC V or a GP2000 25–40 HP unit for the Inverter Fuse Kit to be used. There are two types of Inverter Fuse Kits:

1. For the GP2000 (1–10 HP 230/208, 1–20 HP 460/380, 1–20 HP 575), **With Expanded Cabinet**, and VTAC V (1–10 HP 230/208, 1–20 HP 460/380, 1–20 HP 575), a fuse block is provided to mount the three (3) fuses, along with a wiring harness for wiring connections.

2. For the GP2000 and VTAC V higher horsepower Controllers (25–40 HP 460 V, 30–40 HP 575, 15–20 HP 230/208, 22 kw 380/416) GP2000 and (25–50 HP 460 V, 30–50 HP 575 V, 15–25 HP 230/208 V, 22–30 kw 380/416 V HP VTAC V), the fuse block is pre-wired into the Controller cabinet, and only the three (3) fuses are provided.

Note: This kit may have been installed into the Controller at the factory.

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.

Upon receiving, check that the fuse ratings match the model number and Controller rating according to Table 1. Check that the contents of the kit are as listed in Table 2, Complete Parts List.

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.

Table 1. Kit Model Numbers

Horsepower	Kit Model No.	Fuse Rating ⁽¹⁾
1 HP, 230V	2FU2001	7 Amp
2 HP, 230V	2FU2002	12 Amp
3 HP, 230V	2FU4007	17.5
5 HP, 230V	2FU4010	Amp
7.5 HP, 230V	2FU2007	25 Amp
10 HP, 230V	2FU2010	40 Amp
		50 Amp
1 HP, 460V	2FU4001	5 Amp
2 HP, 460V	2FU4002	6 Amp
3 HP, 460V	2FU4003	8 Amp
5 HP, 460V	2FU4005	15 Amp
7.5 HP, 460V	2FU4007	17.5
10 HP, 460V	2FU4010	Amp
15 HP, 460V	2FU4015	25 Amp
20 HP, 460V	2FU4020	35 Amp
		45 Amp
25–40 HP, 460/575 V	2FU4050	90 Amp
22–30 kw–380/415 V		
15–25 HP– 230/208 V		

⁽¹⁾ Fuses are 600 Volt, Type I Pu, Class J Rating

⁽²⁾ This model kit does not contain a fuse block or wiring harness.

Table 2. Complete Parts List.

Model No. 2FU2001

Item	Part Number	Quantity
Fuse Block:	49454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611889-12S	1
Fuse Label:	423400-16C	1
Ty-Rap:	69306-3D	6
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75X	3

Model No. 2FU2002

Item	Part Number	Quantity
Fuse Block:	49454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611889-12S	1
Fuse Label:	423400-16E	1
Ty-Rap:	69306-3D	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75AC	3

Model No. 2FU2007

Item	Part Number	Quantity
Fuse Block:	49454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611889-12S	1
Fuse Label:	423400-16K	1
Ty-Rap:	69306-3D	6
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75AM	3

Model No. 2FU2010

Item	Part Number	Quantity
Fuse Block:	49454-26C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611889-12S	1
Fuse Label:	423400-16N	1
Ty-Rap:	69306-3D	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75AP	3

Table 2. Complete Parts List. (Cont'd.)

Model No. 2FU4001

Item	Part Number	Quantity
Fuse Block:	48454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611899-12B	1
Fuse Label:	423400-16A	1
Iy-Rap:	69306-3IJ	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75I	3

Model No. 2FU4002

Item	Part Number	Quantity
Fuse Block:	48454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611899-12B	1
Fuse Label:	423400-16B	1
Iy-Rap:	69306-3IJ	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75V	3

Model No. 2FU4003

Item	Part Number	Quantity
Fuse Block:	48454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611899-12B	1
Fuse Label:	423400-16D	1
Iy-Rap:	69306-3IJ	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75Z	3

Model No. 2FU4005

Item	Part Number	Quantity
Fuse Block:	48454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611899-12B	1
Fuse Label:	423400-16F	1
Iy-Rap:	69306-3IJ	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75AD	3

Model No. 2FU4007

Item	Part Number	Quantity
Fuse Block:	48454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611899-12B	1
Fuse Label:	423400-16G	1
Iy-Rap:	69306-3IJ	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75AF	3

Model No. 2FU4010

Item	Part Number	Quantity
Fuse Block:	48454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611899-12B	1
Fuse Label:	423400-16H	1
Iy-Rap:	69306-3IJ	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75AJ	3

Model No. 2FU4015

Item	Part Number	Quantity
Fuse Block:	48454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611899-12B	1
Fuse Label:	423400-16J	1
Iy-Rap:	69306-3IJ	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75AI	3

Model No. 2FU4020

Item	Part Number	Quantity
Fuse Block:	48454-25C	1
Screw, M5x10mm:	419062-100PHG	2
Wire Harness:	611899-12B	1
Fuse Label:	423400-16M	1
Iy-Rap:	69306-3IJ	5
Ty-Rap Anchor:	69306-3X	5
Fuse:	64676-75AN	3

Model No. 2FU4050

Item	Part Number	Quantity
Fuse:	64676-75AV	3

Store the Kit until Installation

After receipt inspection, 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 -40°C to 65°C (-40°F to 149°F)
- 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.

INSTALLATION

DANGER

DO NOT INSTALL MODIFICATION KITS WITH POWER APPLIED TO THE CONTROLLER. DISCONNECT AND LOCK OUT INCOMING POWER BEFORE ATTEMPTING SUCH INSTALLATION. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

Installing the Inverter Fuse Kit in GP2000 (1–10 HP 230/208, 1–20 HP 460/575) Drives with Expanded Cabinet Kit or VTAC V.

Refer to Figure 1.

1. Disconnect all power to the controller before installing this kit.
2. Remove the controller cover and set aside for reassembly.

3. Remove the screw that mounts the Control Signal Buffer card.

Note: Carefully remove the Control Signal Buffer card connector, CN47. Do not twist or push hard on the connector mounting pins.

4. Remove the Control Signal Buffer card connector, CN47.
5. Drop the Control Signal Buffer card mounting panel, taking care not to pull the wires connected to it when doing so. It is possible to inadvertently disconnect a connector.
6. Mount the fuse block directly to the chassis behind the Control Signal Buffer card in the mounting holes and with the hardware provided.
7. Disconnect power input lines 181, 182, and 183 from terminals R, S and T. (See Figure 2).
8. Reconnect 181, 182 and 183 to the input side (or top side) of the fuse block mounted in Step 6.

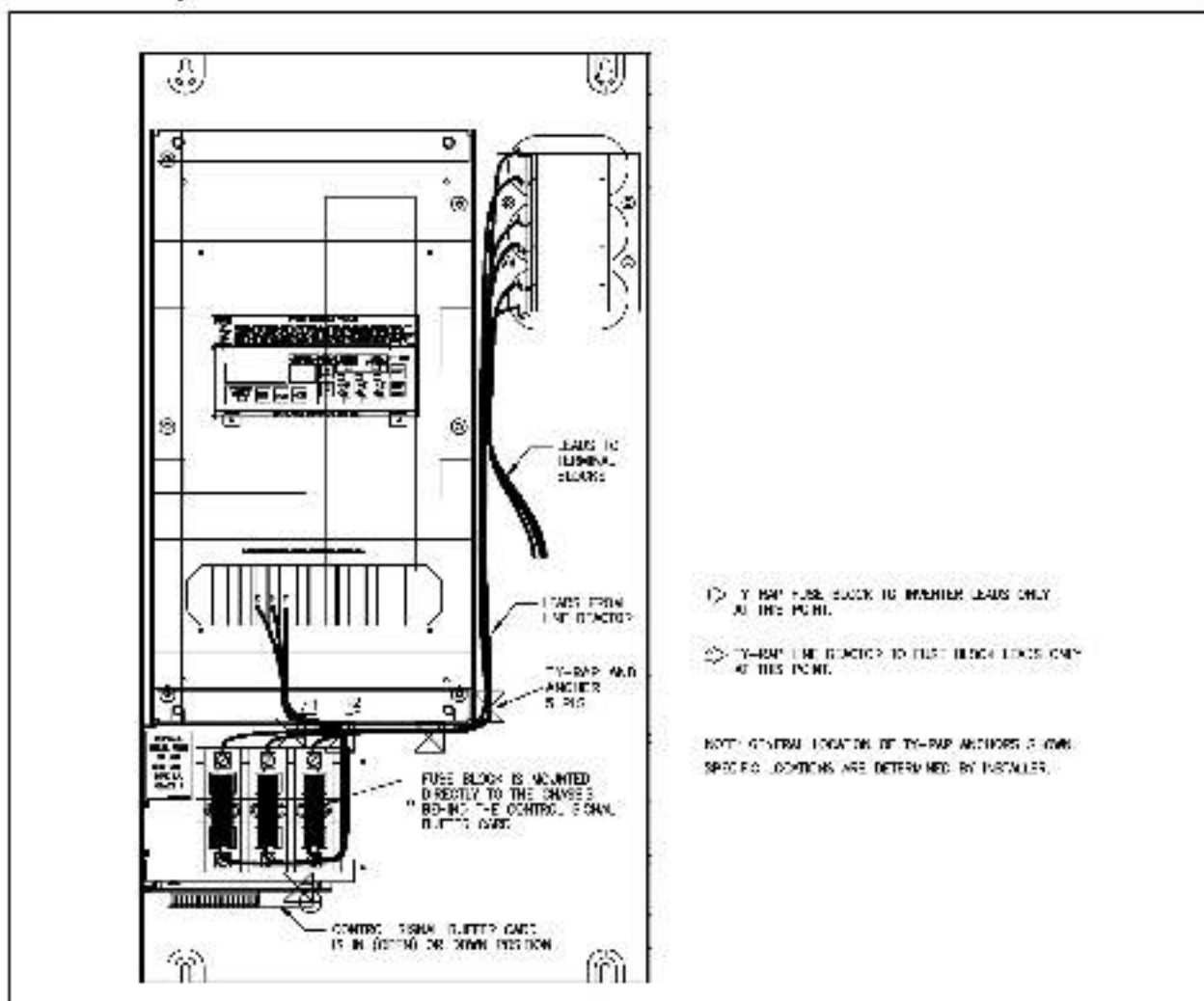


Figure 1. Mounting Location for GP2000 1–20 HP with Expanded Cabinet Kit or VTAC V.

9. Using the wiring harness provided with the kit, connect the three wires of one end of the harness to the bottom of the fuse block. Connect the other end of the harness to terminals R, S & T on the terminal board.
10. Insert the three (3) fuses into the fuseholders on the fuse block.

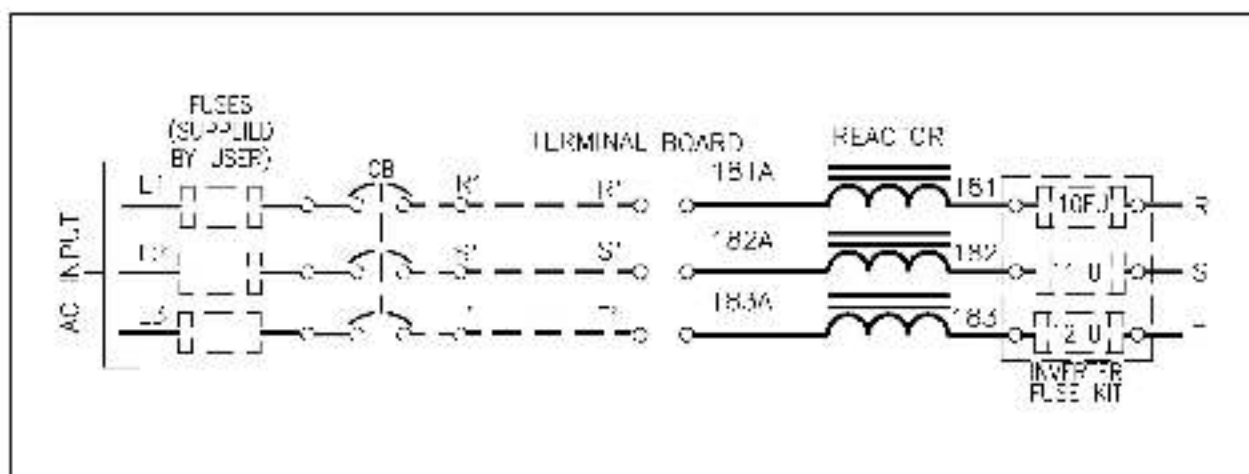


Figure 2. Inverter Fuse Kit Connection Diagram.

**Installing the Inverter Fuse Kit in
GP2000/VTAC V (25–40/50 460 V,
30–40/50 575 V, 15–20/25 230/208,
22–22/30 kw 380/416 V)**

Refer to Figure 3.

DANGER

DO NOT INSTALL MODIFICATION KITS WITH POWER APPLIED TO THE CONTROLLER. DISCONNECT AND LOCK OUT INCOMING POWER BEFORE ATTEMPTING SUCH INSTALLATION. FAILURE TO OBSERVE THIS PRECAUTION COULD RESULT IN SEVERE BODILY INJURY OR LOSS OF LIFE.

1. Disconnect all power to the controller before installing this kit.
2. Remove the controller cover and set aside for reassembly.
3. Remove the three (3) fuse block bus bars from the existing fuseblock as shown in Figure 3.
4. Insert fuses into fuseholders.

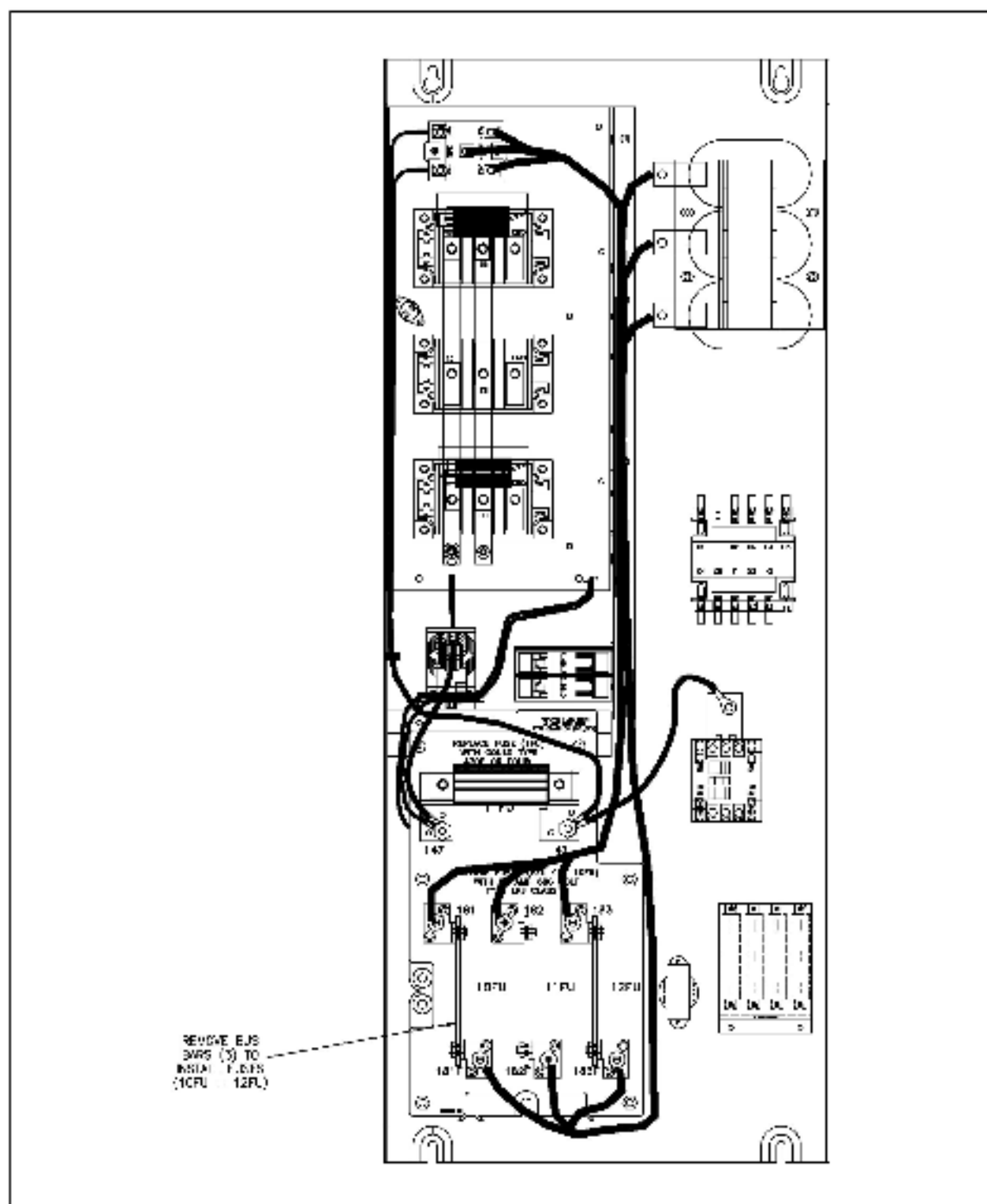


Figure 3. Fuseblock Location for GP2000/VTAC V 25-50 HP Controllers.

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