CRTIMEGD001A00

SMALL ROOFTOP UNITS
CONDENSING UNITS
SMALL PACKAGED PRODUCTS
ACCESSORY SOLID–STATE
TIME GUARD II DEVICE
1–1/2 to 12–1/2 TONS

Installation Instructions

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IMPORTANT: Read these instructions completely before attempting to install the accessory device.

PACKAGE CONTENTS

QTY	CONTENTS
1	Time Guard II Device
4	No. 8 x $^3/_4$ in. Screws
1	No. 8 x 1 in. Screw
2	No. 10 x $^1/_2$ in. Screws
1	Mounting Bracket
1	Brown Wire [24 in. (610mm)]
1	Brown Wire [15 in. (381mm)]
1	Brown Wire [12 in. (305mm)]
1	Violet Wire [24 in. (610mm)]
1	Blue Wire [9 in. (229mm)]
1	Yellow Wire [21 in. (533mm)]
1	Black Wire [21 in. (533mm)]

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform the basic maintenance functions. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all safety codes. Wear safety glasses and work gloves.

Recognize safety information. This is the safety-alert symbol ⚠. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies a hazard which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **may** result in minor personal injury or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

⚠ WARNING

ELECTRICAL SHOCK HAZARD

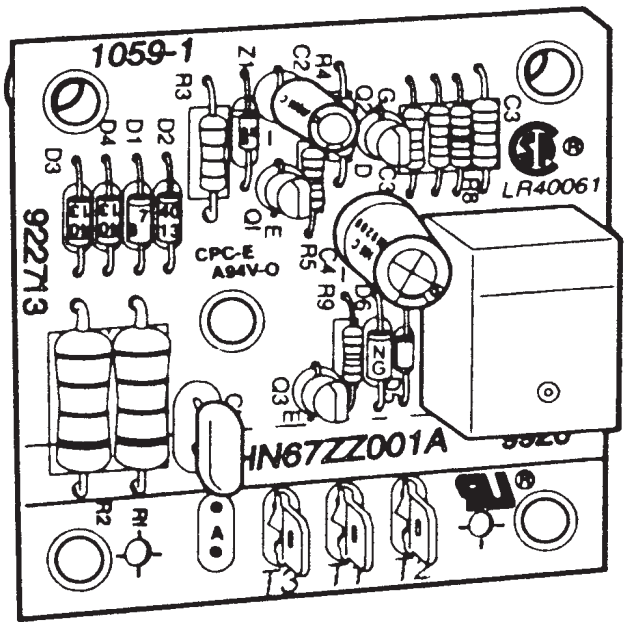
Failure to follow this warning could result in personal injury and/or death.

Before performing service or maintenance operations on unit, turn off main power switch to unit. If gas unit, shut off gas supply before shutting off main power. TAG DISCONNECT SWITCH WITH A SUITABLE WARNING LABEL.

GENERAL

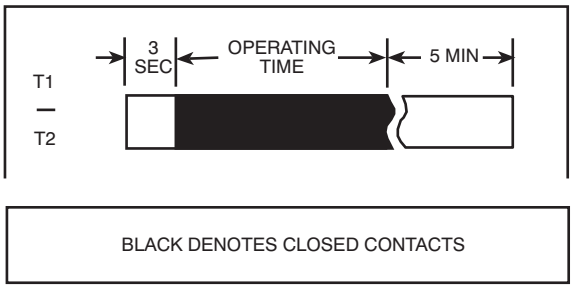
The accessory Time Guard II device (Fig. 1) is used on constant volume units to prevent compressor from short cycling by providing a 5-minute delay (±2 minutes) before restarting a compressor after shutdown for any reason. One Time Guard II device is required per compressor. On normal start-up, the 5-minute delay occurs before the thermostat closes. After the thermostat closes, the Time Guard II device then has a 3-second delay prior to contactor closure. (See Fig. 2.)

The Time Guard II device is shipped in single-pack units. Refer to Package Contents table for accessory solid-state Time Guard II device package contents.



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Fig. 1 - Solid-State Time Guard II Device



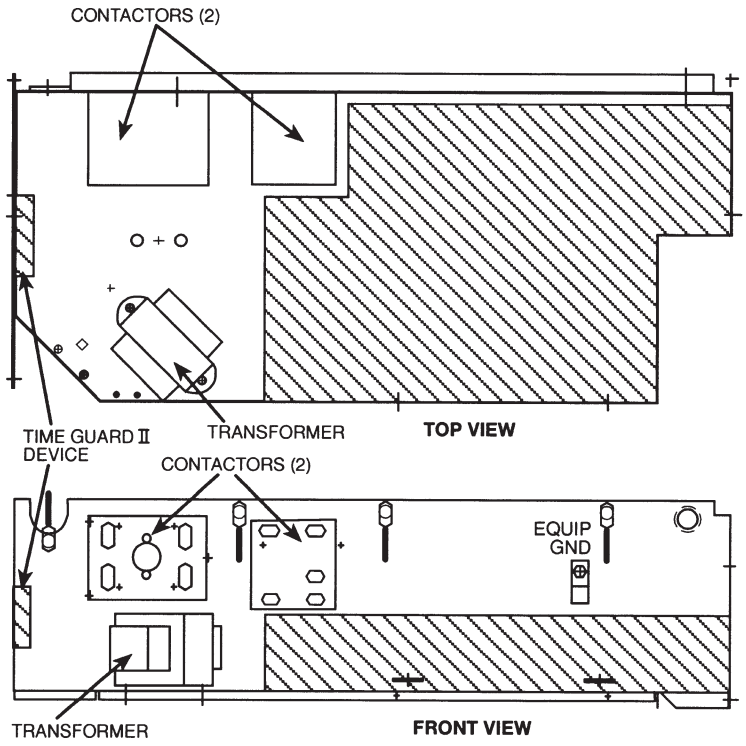
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Fig. 2 - Time Guard II Device Sequence Chart

INSTALLATION

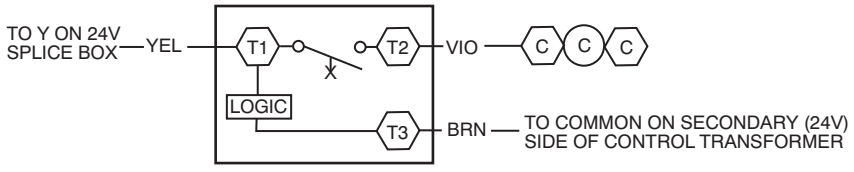
1-1/2 to 5 Ton Small Packaged Products

Mount the Time Guard II control onto the mounting bracket with the no. 8 screws provided. (See Fig. 3.) Mount the control and mounting bracket into the control box using the no. 10 screws provided. See Fig. 4 for wiring units without safety device. See Fig. 5 for wiring units with safety device. Refer to specific unit wiring diagram for details.



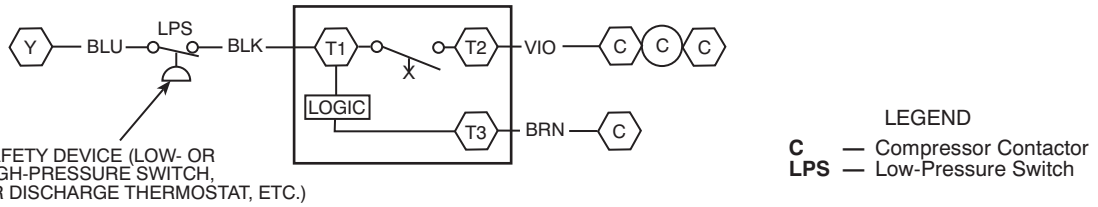
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Fig. 3 - Time Guard II Device Mounted on 1-1/2 to 5 Ton Small Packaged Gas Heat/ Electric Cooling, Electric Heat/Electric Cooling Units



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Fig. 4 - Time Guard II Device Wiring Diagram - 1-1/2 to 5 Ton Gas Heat/Electric Cooling, Electric Heat/Electric Cooling Units Without Safety Device

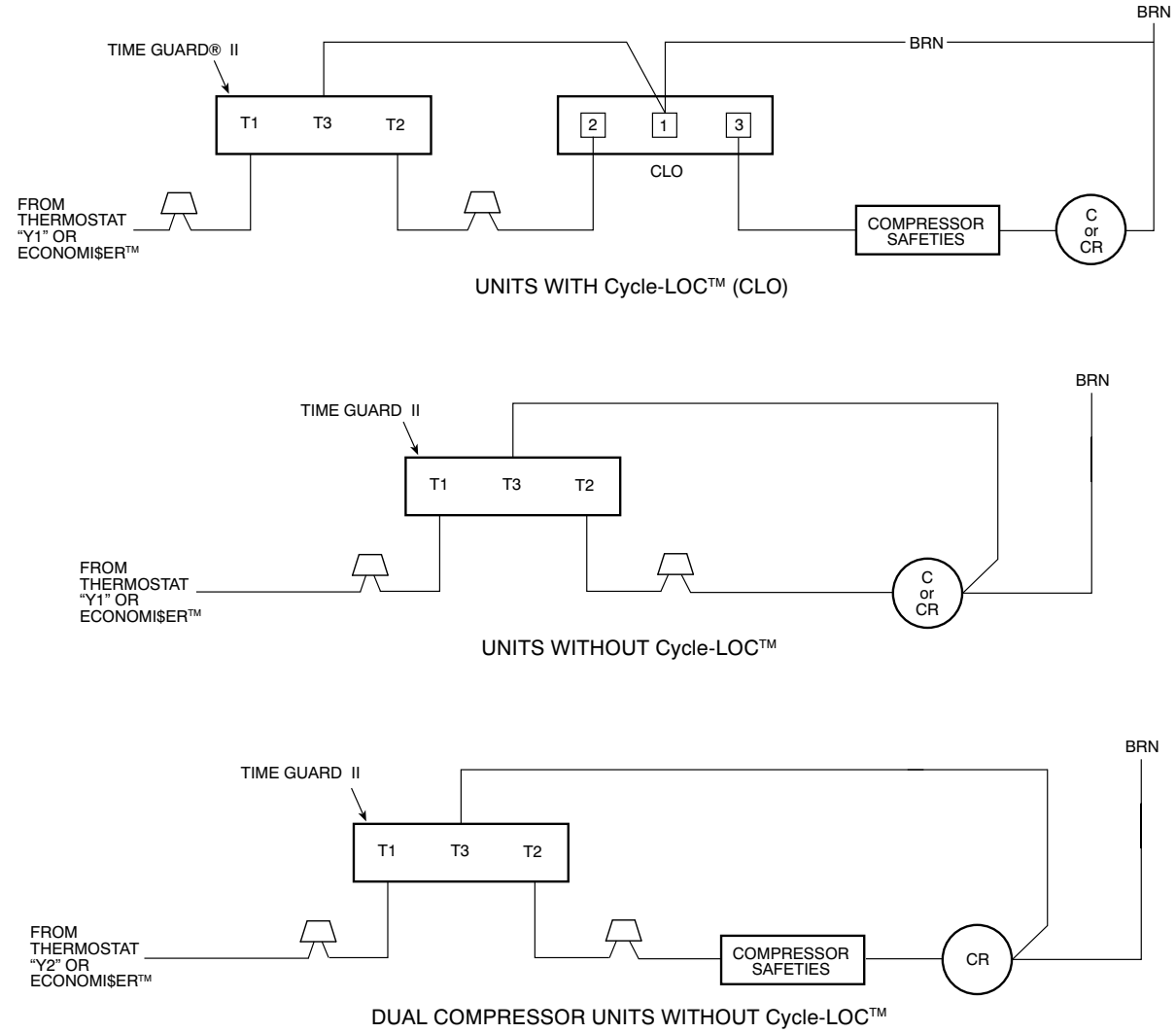


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Fig. 5 - Time Guard II Device Wiring Diagram - 1-1/2 to 5 Ton Gas Heat/Electric Cooling, Electric Heat/Electric Cooling Units With Safety Device(s)

3 to 12-1/2 Ton Small Rooftop Units

Mount the Time Guard II control in the 24-v control circuit. Choose any convenient location within the unit control box and use screws provided. See Fig. 6 for wiring. Refer to specific unit wiring diagram for details.

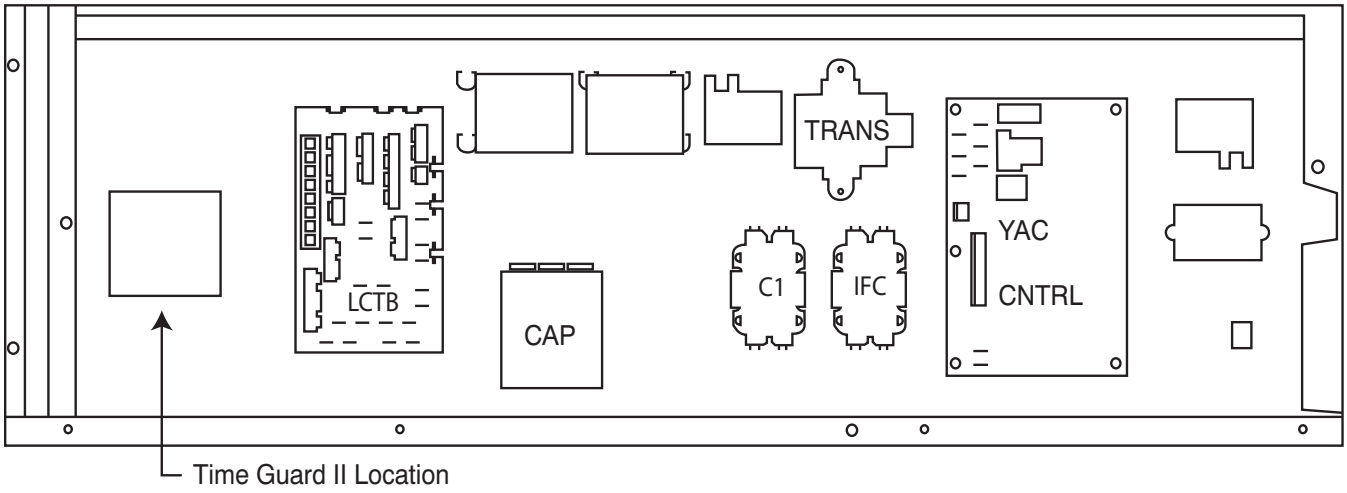


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Fig. 6 - Wiring Connections, 3 to 12-1/2 Ton Small Rooftop Units with R-22 Refrigerant

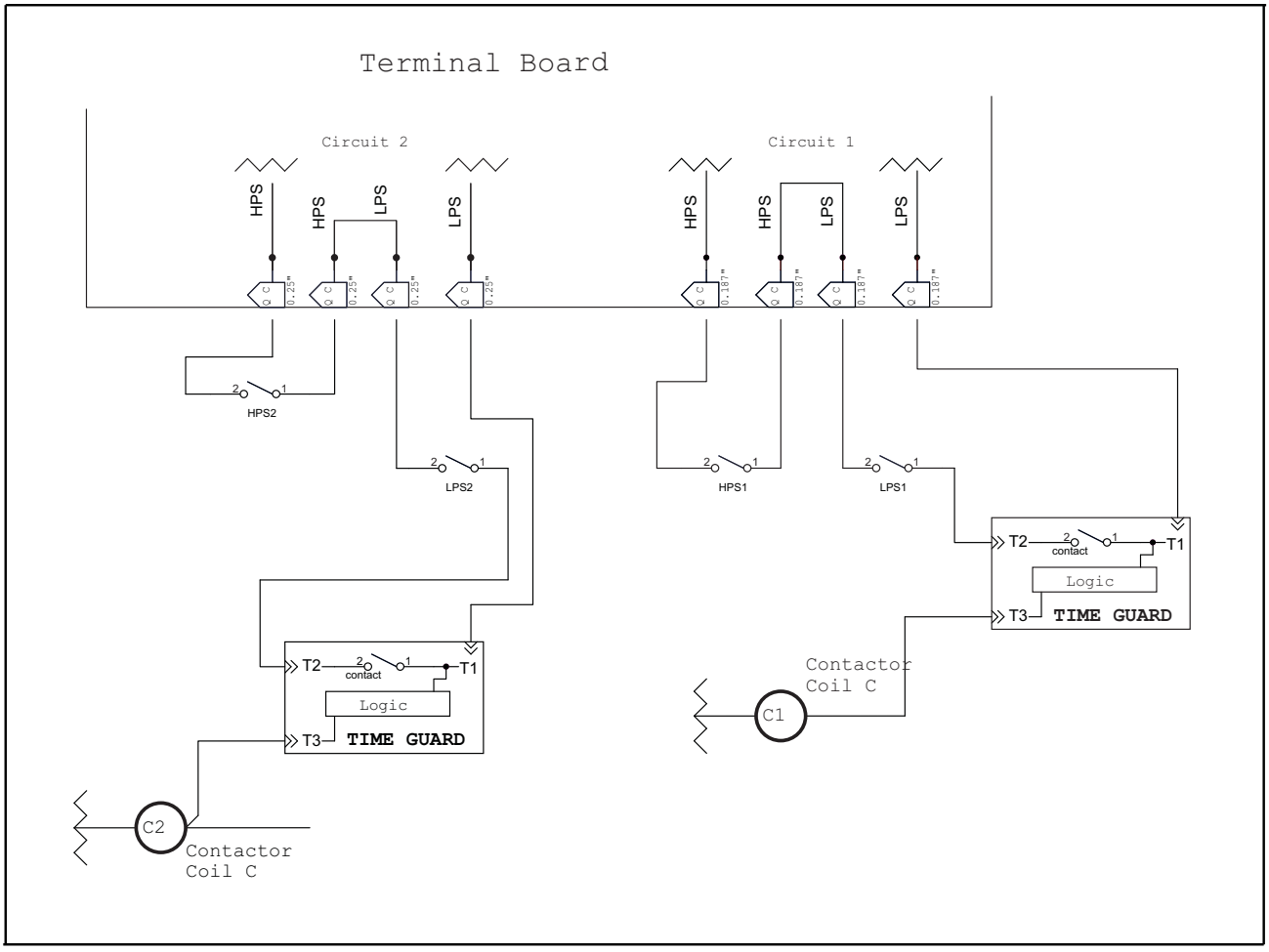
3 to 12-1/2 Ton Small Rooftop Units-Single Compressor with R-410A Refrigerant

Mount the Time Guard II control in the 24-v control box as shown in Fig. 7. Refer to specific unit diagram for details. (See Fig. 8 or 9.)



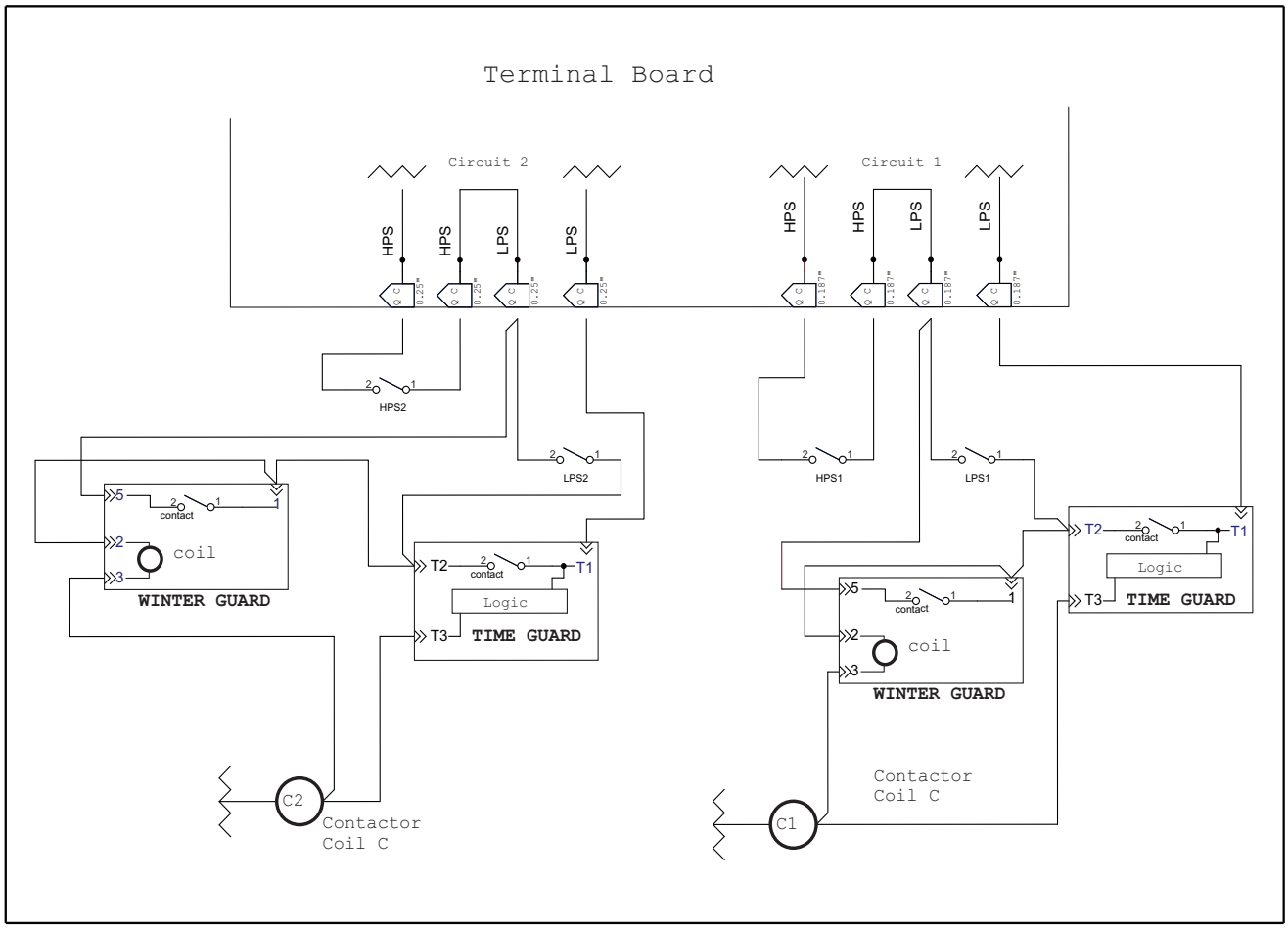
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Fig. 7 - Time Guard II Device Mounting on 3 to 12-1/2 Ton Gas Heat/Electric Cooling, Electric Heat/Electric Cooling Units with R-410A Refrigerant



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Fig. 8 - Wiring Diagram, Time Guard II Device for 3 to 12-1/2 Ton Units (1 and 2 Compressor Systems) with R-410A Refrigerant

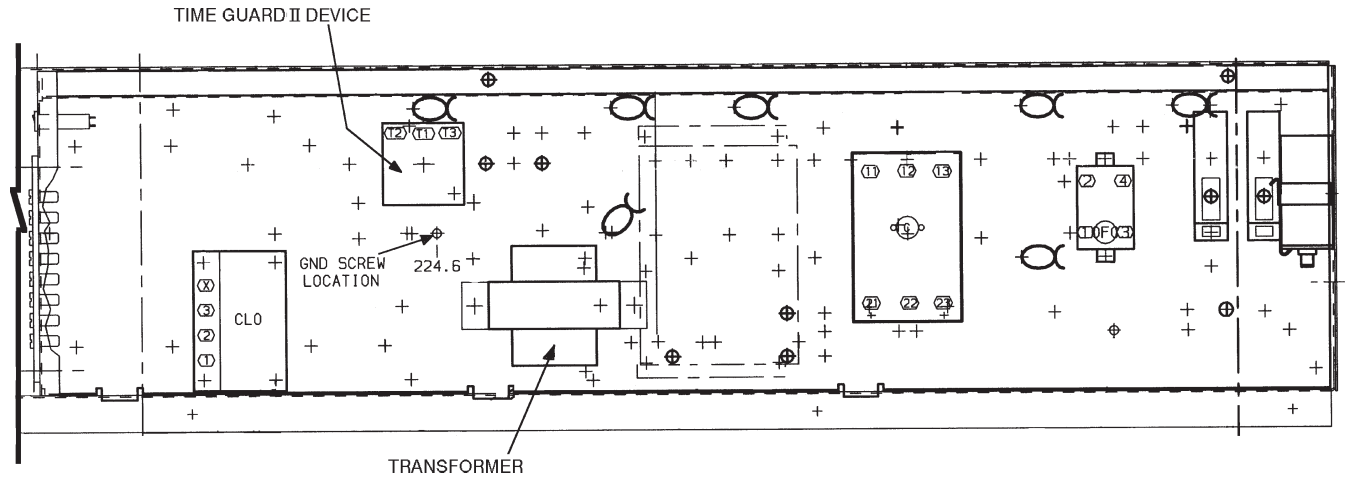


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Fig. 9 - Wiring Diagram, Time Guard II Device with Winterguard for 3 to 12-1/2 Ton Units (1 and 2 Compressor Systems) with R-410A Refrigerant

6 to 10 Ton Condensing Units

Mount the Time Guard II control in the 24-v control box. (See Fig. 10.) Choose any convenient location within the unit control box and use screws provided. See Fig. 11 for wiring. Refer to specific unit wiring diagram for details.

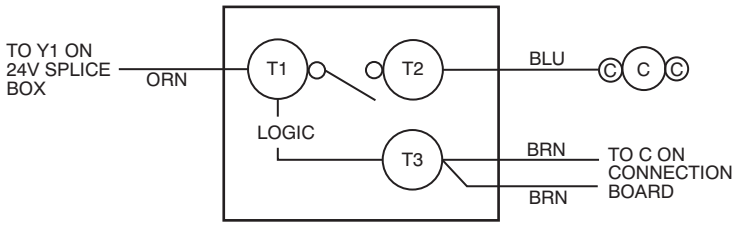


LEGEND

CLO — Compressor Lockout
GND — Ground

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Fig. 10 - Time Guard II Device Mounted on 6 to 10 Ton Condensing Units



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Fig. 11 - Wire Connections, 6 to 10 Ton Condensing Units

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