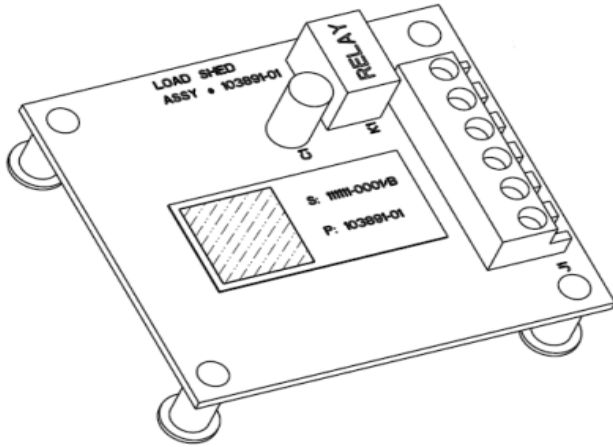


INSTALLATION INSTRUCTIONS FOR LOAD SHEDDING RELAY KIT (10M34) USED ON OUTDOOR UNITS WITH ICOMFORT® CONTROL



Application

This kit can be field applied to XC/XP17, XP17N, SL18XC, SL18XP, XC20/XP20, XC/XP21 XP21N and XC/XP25 models to interface these units with the utility load shedding box.

Installation

⚠ IMPORTANT

Before installing the load shedding control kit make sure the following equipment requirements are met. This kit is designed to only operate on:

1. Systems with an iComfort® thermostat installed.
2. XC17, XP17, XP17N, SL18XC, SL18XP, XP21, XP21N and XC21 units with outdoor control part # 103369-03 or -04.
3. XC20, XP20, XC25 and XP25 units with outdoor control part # 103686-01 through -04.

1. Disconnect all power to system.
2. Install the load shedding relay control in a convenient location in the control section of the reference units.
3. Connect field-provided wires to terminals on load shedding relay control as illustrated in figures 2 and 3.
4. Restore power to system.
5. Verify operation by removing the field wire from the **LS** terminal of load shedding relay control. This will remove 24VAC power from relay located on the load shedding relay control. Doing so will send 24VAC out on the L terminal to the L terminal on the outdoor control. After a few seconds, the outdoor control 7 segment will display an **E600** status code that indicates the outdoor unit is in **Load Shedding** mode.
6. Reinstall the **LS** wire onto the load shedding control. The **E600** status code will clear on the outdoor control.

Table 1. Control Terminal Designation and Function

Label	Function
LS	Load shed input to 24VAC relay coil.
R	24VAC power
R	24VAC power
L	Normally closed contacts are closed when relay coil is de-energized. Maximum relay contact current is 1A.
COM	24VAC common
NO	Normally open contacts are open when relay coil is de-energized. Maximum relay contact current is 1A.

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause personal injury, loss of life, or damage to property.

Installation and service must be performed by a qualified installer or service agency.

⚠ WARNING



Electric Shock Hazard. Can cause injury or death. Unit must be grounded in accordance with national and local codes.

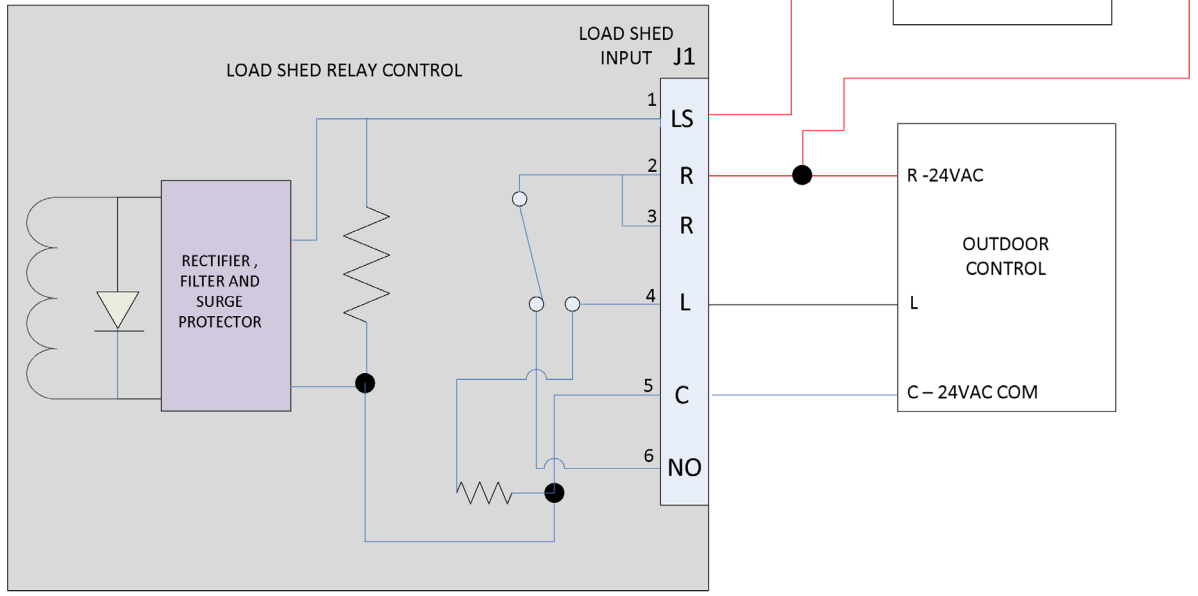
Line voltage is present at all components when unit is not in operation on units with single-pole contactors. Disconnect all remote electric power supplies before opening access panel. Unit may have multiple power supplies.

Shipping and Packing List

Package 1 of 1 contains:

- 1 - Load shedding relay control (part # 103891-01)
- 1 - Installation Instruction

LOAD SHED RELAY BOARD – INTERFACE DIAGRAM



NOTE: Relay coil energized when load shedding is deactivated.
Normally open contacts closed.

Figure 1. Load Shedding Relay Control Internal Layout Schematic

Load Shedding Relay Kit (10M34), XC17, XP17, XP17N, SL18XC, SL18XP, XC21, XP21, XP21N using iComfort® Outdoor Control Part Number Series 103369-03 and -04 Only and Connected to a iComfort® thermostat)

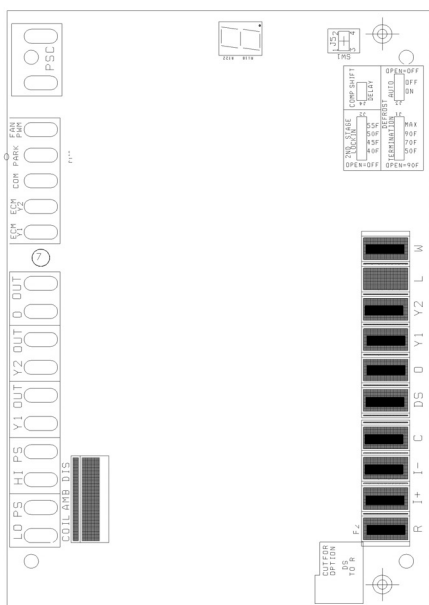
1. The load shedding relay control receives 24VAC through **R** (24VAC) and **C** (COM) terminals from the outdoor control.
2. The load shedding relay control has a relay which switches 24VAC between **L** and **NO** terminals.
 - The **L** terminal is a normally **closed** contact of the relay which is connected to **L** terminal of the outdoor control.
 - The **NO** terminal is a normally **open** contact of the relay which is left unused in this application.

NOTE: The **L** terminal on the outdoor control is the load shedding control terminal which is different from earlier versions of the outdoor control (103369-01 and -02) where this was the LSOM terminal.

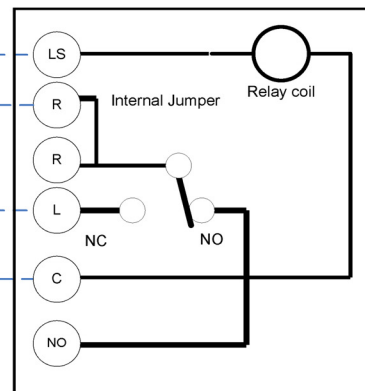
- During normal operation, the load shedding relay control receives 24VAC to the **LS** terminal through the normally **closed** contacts of the utility box relay. The occurrence of a load shedding event will result in the utility box relay **opening** its normally **closed** contact.
- The 24VAC power is removed from the **LS** terminal on the load shedding relay control when the utility box relay contacts open. This switches the load shedding relay from normally **open** contact (terminal **NO**) to normally **closed** contact (terminal **L**).
- A 24VAC signal will appear on the terminal **L** indicating to the outdoor control that a load shedding event has occurred. The outdoor control will take the appropriate actions for a load shedding event, for example turning OFF the compressors and outdoor fan and display the **E600** status code on the outdoor control and iComfort® thermostat.

IMPORTANT: This load shedding relay kit will only work with the 103369-03 and -04 outdoor control.

iComfort Outdoor Control Part Number Series
103369-01 through -04



Field-provided 103891-01 Load Shedding Relay Control



NOTE: Relay coil energized when load shedding is deactivated. Normally open contacts closed



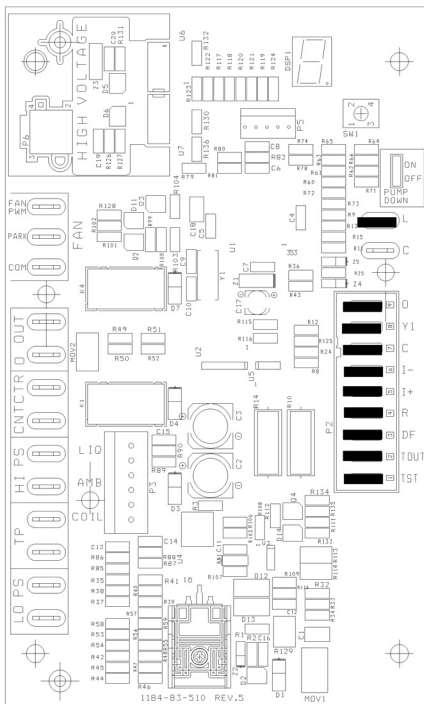
Utility Load Control Receiver
Contacts (N.C. dry contacts shown, verify contact configuration)

Figure 2. Outdoor iComfort® Control 103369-03 through -04

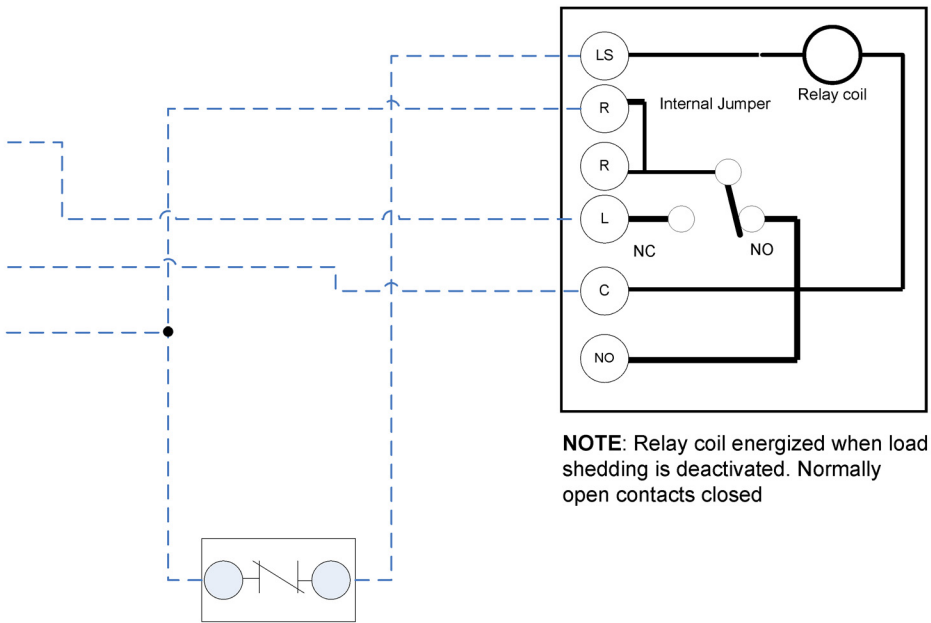
Load Shedding Relay Kit (10M34), XC20, XP20, XC25 and XP25 using iComfort® Outdoor Control Part Number Series 103686 and connected to a iComfort® thermostat)

1. The load shedding relay control receives 24VAC through **R** (24VAC) and **C** (COM) terminals from the outdoor control.
2. The load shedding relay control has a relay which switches 24VAC between **L** and **NO** terminals.
 - The **L** terminal is a normally **closed** contact of the relay which is connected to **L** terminal of the outdoor control.
 - The **NO** terminal is a normally **open** contact of the relay which is left unused in this application.
 - During normal operation, the load shedding relay control receives 24VAC to the **LS** terminal through the normally **closed** contacts of the utility box relay. The occurrence of a load shedding event will result in the utility box relay **opening** its normally **closed** contact.
 - The 24VAC power is removed from the **LS** terminal on the load shedding relay control when the utility box relay contacts open. This switches the load shedding relay from normally **open** contact (terminal **NO**) to normally **closed** contact (terminal **L**).
 - A 24VAC signal will appear on the terminal **L** indicating to the outdoor control that a load shedding event has occurred. The outdoor control will take the appropriate actions for a load shedding event, for example turning OFF the compressors and outdoor fan and display the **E600** status code on the outdoor control and iComfort® thermostat.

iComfort Outdoor Control Part Number Series
103686-01 through -04



Field-provided 103891-01 Load Shedding
Relay Control



NOTE: Relay coil energized when load shedding is deactivated. Normally open contacts closed

Utility Load Control Receiver
Contacts (N.C. dry contacts shown, verify
contact configuration)

Figure 3. Control 103686-01 through -04