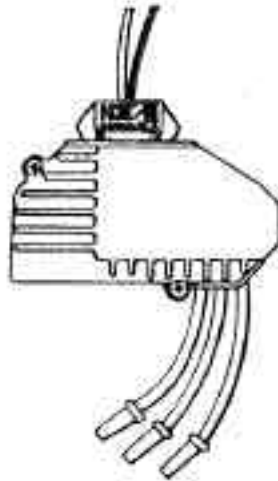


The MARTINDALE ELECTRIC Company

REMCON® AMPROBE®



587253
8/54

Installation Instructions For Connecting the Remcon R-115S Relay (Including how to replace the R-115 with the R-115S)

The R-115S is a Solid State relay that replaces the R-115 in all present applications, and in addition, offers more applications than ever before.

R-115S vs. R-115

- > R-115S is Solid State. R-115 employs electromechanical switching.
- > R-115S has a *maximum AC current rating* of 6.5 Amps. The R-115 is rated only 5 Amps maximum.
- > The *control current* for the R-115S is only 10 mA DC. The R-115 uses 750 mA of AC control current (See note below.)
- > The package for the R-115S is designed to fit within a standard **metal gem** box. Since the solid state switching element generates heat, it is important to mount the device securely to a **metal gem** box.
- > The R-115S is a U.L. listed device, as was the R-115.

CAUTIONS

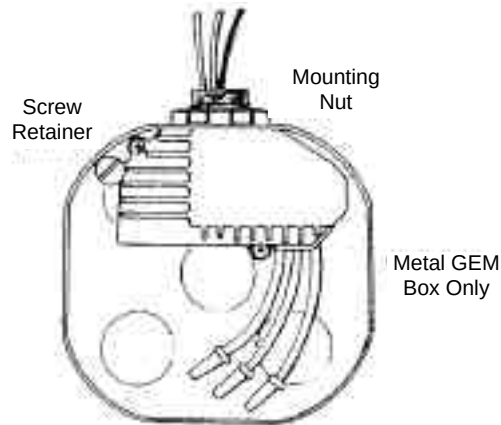
1. IMPROPER CONNECTION OF POWER LEADS WILL RESULT IN PERMANENT DAMAGE TO THE RELAY. RE-CHECK YOUR WIRING BEFORE TURNING ON AC POWER.
2. TO CONTROL RELAY, USE ONLY REMCON MOMENTARY-CONTACT SWITCH CAT. NO. RE-SW OR EQUIVALENT. IF ANY OLD REMCON CONTROL SWITCHES CONTAINING A LIGHT BULB EXIST IN THE INSTALLATION, THE LIGHT BULB MUST BE REMOVED FROM THESE SWITCHES, OR IMPROPER RELAY OPERATION WILL RESULT!

3. THE R-115S CANNOT BE USED TO REPLACE THE R-4115.
4. DO NOT EXCEED THE UNDERWRITERS LABORATORIES, INC. RATINGS OF 6.5 AMPS AC RESISTIVE, TUNGSTEN OR BALLAST LOAD, OR 1/4 HP MOTOR LOAD.
5. DO NOT INSTALL RELAY IN A LOCATION WHERE THE TEMPERATURE MAY EXCEED 40 DEGREES CELCIUS. (104° F)
6. INCORRECT HOOK-UP CAN RESULT IN AN ELECTRICAL HAZARD.

NOTE: If there is more than one relay on a circuit, the relays must be the same type (i.e. All R115 or all R115S). They cannot be intermixed because of the difference in control currents.

INSTALLING WITH MOUNTING NUT

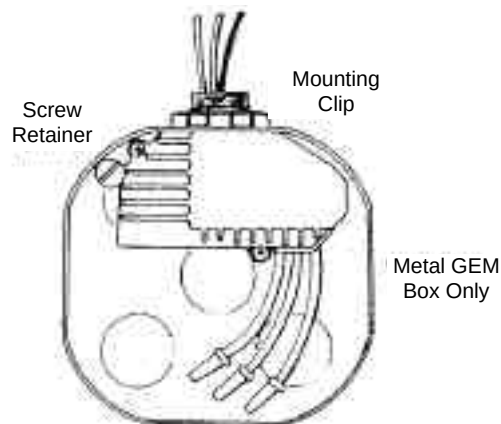
**Preferred mounting method:
Better heat dissipation.**



- > Insert REMCON through the knock-out in gem box, making sure it does not interfere with screw retainers.
- > Screw on mounting nut *before* connecting control wires.
- > Be sure to use a slip-joint pliers to securely tighten the nut.
- > Make sure a good metal-to-metal contact exists between REMCON and gem box.

INSTALLING WITH MOUNTING CLIP

**For locations where
mounting nut cannot be used.**

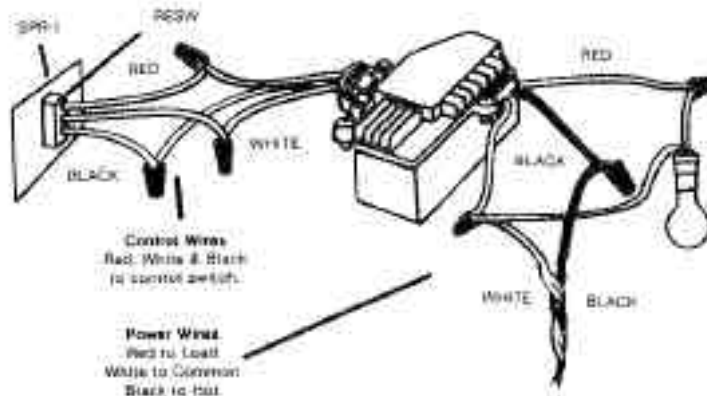


- > Insert REMCON through the knock-out hole in the gem box.
- > Make sure the REMCON is installed so that there is no interference with the gem box screw retainer
- > Make sure the REMCON contacts the metal surface of the gem box as tightly as possible.

REPLACING THE R-115 WITH THE R-115S IN EXISTING INSTALLATIONS

1. Turn off AC power to the circuit with R-115 (using fuse or circuit breaker).
2. Disconnect and remove R-115 relay.
3. Mount R-115S relay in **metal gem** box as shown above.
4. Connect control switch wiring to R-115S (light-gauge thermostat wire or similar) as shown in diagram
5. Connect AC power wiring to R-115S (Romex or BX) as shown in diagram.
6. Restore AC power to line.
7. When control switch momentarily connects white control wire to red control wire, power to load is turned ON. When control switch momentarily connects white control wire to black control wire, power to load is turned OFF. Contact state of the R-115S is maintained even if AC power to the relay is lost and then restored.
8. See note above.

R-115S HOOK-UP DIAGRAM



HOW TO CONNECT THE R-115S IN NEW INSTALLATIONS

1. Turn off AC power to circuit which you will be wiring the R-115S into (using fuse or circuit breaker).
2. Mount the R-115S relay in a **metal gem** box near the load to be switched as shown above.
3. Connect some 3-conductor light gauge wire to the remotely located control switch (Cat. No. RE-SW equivalent) according to the colors marked on the switch.
4. Run this wire over to the R-115S location and connect them to the light-gauge R-115S control wires matching up the colors.
5. Connect the heavy-gauge white power wire of the R-115S to the white (neutral) wires of the incoming AC power and the load.
6. Connect the heavy-gauge black wire of the R-115S to the black (hot) wire of the incoming AC power
7. Connect the heavy-gauge red wire of the R-115S to the black (hot) wire of the load.

NOTE: PLEASE REFER TO THE CAUTIONS ABOVE, BEFORE APPLYING AC POWER TO THE REMCON R-115S CIRCUIT!

8. Apply AC power to the R-115S controlled circuit.

9. When control switch momentarily connects white control wire to red control wire, power to load is turned ON. When control switch connects white control wire to black control wire, power to load is turned OFF. Contact state of the R-115S is maintained even if AC power to the relay is lost and is then restored.

R-115S SPECIFICATIONS

AC voltage rating:	105 to 125 VAC, 50-60 Hz.
AC current rating:	6.5 Amps Max. Resistive, Tungsten or Ballast Load, 1/4 HP Motor Load at 120 VAC.
Control switching current:	10 Milliamps Max.
Control switching voltage:	10 VDC Max. (isolated from AC line).
Control switch closure time:	5 Milliseconds Min.
Ambient operating temperature:	40°C Max. for full rated output.
Operation:	Momentary contact closure of control wires turns AC power ON or OFF.

NEW APPLICATIONS FOR THE R-115S

- > Industrial Control Applications.
- > Where isolated low voltage is needed for safety reasons.
- > Higher current applications. (Up to 6.5 Amps, 1/4 HP).
- > Long-distance remote operation.
- > Alarms.
- > Computer control applications.
- > Plant process controls.
- > Hostile or hazardous environments.
- > Reduce control wiring costs and electrical interference.
- > Economically meet building codes in new installations.
- > Applications where a U.L. Listed device is required.

MODEL

DESCRIPTION

R-115S	Relay, Low Voltage 120V, 60 Hz, 6.5 AMPS
R277S	Relay, Low Voltage 277, 60 Hz, 6.5 AMPS
RC-120S	Closet-Light Relay, Low Voltage, 120V, 60 Cycle, 6.5 AMPS, AC 1/4 HP
MB-1	Mounting Bracket For All Remcon Switches
SPR-1	Switch Plate, 1 Gang
SPR-2	Switch Plate, 2 Gang
SPR-3	Switch Plate, 3 Gang
STA-1	Solderless Connector
RE-SW	Switch, Momentary Contact, Gangable, 125-250 VAC, 6 AMPS