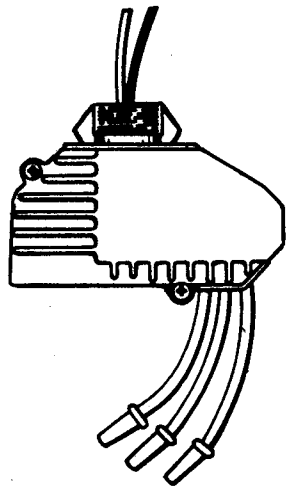
Part No.
957754
6/94



INSTALLATION INSTRUCTIONS FOR CONNECTING THE REMCOM R-277S RELAY (INCLUDING HOW TO REPLACE THE R-277 WITH THE R-277S)

REMCON®
AMPROBE®

DIVISION OF CORE INDUSTRIES INC, LYNBROOK, NEW YORK 11563

The R-277S is a Solid State relay that replaces the R-277 in all present applications, and in addition, offers more applications than ever before.

R-277S vs. R-277

- R-277S is solid-state. R-277 employs electromechanical switching.
- R-277S has a *maximum AC current rating* of 6.5 Amps. The R-277 is rated only 5 Amps maximum.
- The *control current* for the R-277S is only 10 mA DC. The R-277 uses 750 mA of AC control current.
- The package for the R-277S 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-277S is a U.L. listed device, as was the R-277.

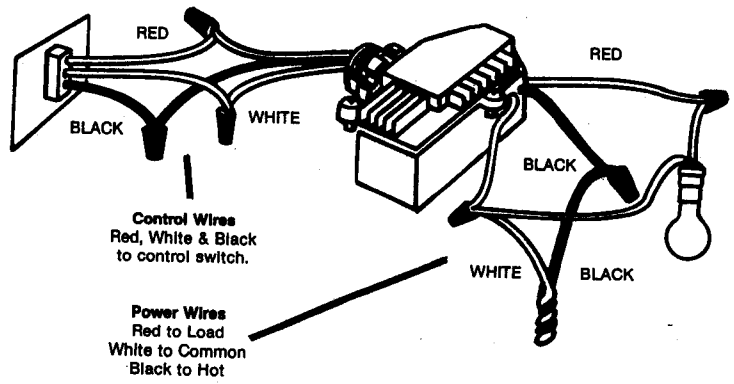
CAUTIONS

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-277S CANNOT BE USED TO REPLACE THE R-4277.
4. DO NOT EXCEED THE UNDERWRITERS LABORATORIES, INC. RATINGS OF 6.5 AMPS AC RESISTIVE, TUNGSTEN OR BALLAST LOAD, OR 1/2 HP MOTOR LOAD.
5. DO NOT INSTALL RELAY IN A LOCATION WHERE THE TEMPERATURE MAY EXCEED 40 DEGREES CELSIUS.
6. INCORRECT HOOK-UP CAN RESULT IN AN ELECTRICAL HAZARD.

REPLACING THE R-277 WITH THE R-277S IN EXISTING INSTALLATIONS

1. Turn off AC power to the circuit with the R-277 (using fuse or circuit breaker).
2. Disconnect and remove R-277 relay.
3. Mount R-277S relay in **metal gem** box as shown on pages 5 and 6.
4. Connect control switch wiring to R-277S (light-gauge thermostat wire or similar) as shown in diagram.
5. Connect AC power wiring to R-277S (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-277S is maintained even if AC power to the delay is lost and then restored.

R-115S HOOK-UP DIAGRAM



HOW TO CONNECT THE R-277S IN NEW INSTALLATIONS

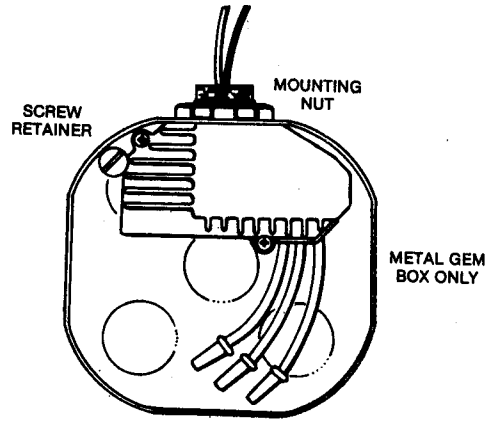
1. Turn off AC power to circuit which you will be wiring the R-277S into (using fuse or circuit breaker).
2. Mount the R-277S relay in a **metal gem** box near the load to be switched as shown on pages 5 and 6.
3. Connect some 3-conductor light-gauge wire to the remotely located control switch (Cat. No. RE-SW or equivalent) according to the colors marked on the switch.
4. Run this wire over to the R-277S location and connect them to the light-gauge R-277S control wires matching up the colors.
5. Connect the heavy-gauge white power wire of the R-277S to the white (neutral) wires of the incoming AC power and the load.
6. Connect the heavy-gauge black wire of the R-277S to the black (hot) wire of the incoming AC power.
7. Connect the heavy-gauge red wire of the R-277S to the black (hot) wire of the load.

NOTE: PLEASE REFER TO THE CAUTIONS ON THE PREVIOUS PAGE BEFORE APPLYING AC POWER TO THE REMCON R-277S CIRCUIT!

8. Apply AC power to the R-277S 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-277S is maintained even if AC power to the relay is lost and is then restored.

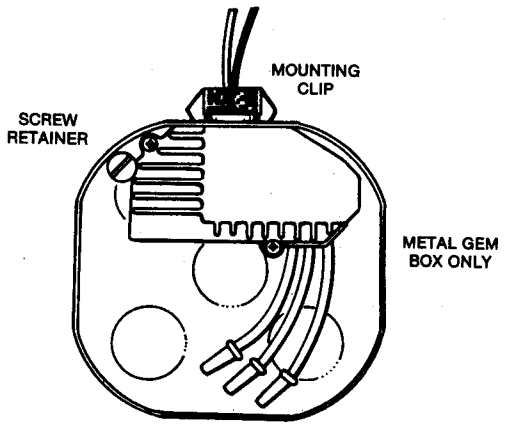
INSTALLING WITH MOUNTING NUT

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 retainers.
- Make sure the REMCON contacts the metal surface of the gem box as tightly as possible.

R-277S SPECIFICATIONS

• AC voltage rating:	240 to 300 VAC, 50-60 Hz.
AC current rating:	6.5 Amps Max. Resistive, Tungsten, or Ballast Load, 1/2 HP Max. Motor Load at 277 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-277S

- Industrial Control Applications.
- Where isolated low voltage is needed for safety reasons.
- Higher current applications. (Up to 6.5 Amps, 1/2 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

For more information on operation and installation of the REMCON, request Cat. No. RD-67 or call Amprobe Instrument.

Technical Assistance 1-800-477-VOLT

AMPROBE INSTRUMENT®
DIVISION OF CORE INDUSTRIES INC
630 Merrick Road • P.O. Box 329
Lynbrook, New York 11563
Phone (516) 593-5600 • Fax (516) 593-5682