

**INSTALLATION INSTRUCTIONS**

**ARMSTRONG**

**Models TR25-12, TR25-14, TRH25-12 & TRH25-14 Air Conditioners**

**IMPORTANT**

**Read the instructions before starting installation**

**Check for proper operation after installation**

MODEL TR25-12, TR25-14, TRH25-12 & TRH25-14

BEFORE BEGINNING - PLAN INSTALLATION

Determine location of air conditioner keeping the following points in mind: When installing an air conditioner on a travel trailer the unit should be located so the hitch weight will not be greatly affected. If living and sleeping sections can be divided by sliding or folding doors, the unit should be located so both areas will receive conditioned air even with doors closed. Make sure selected location will not interfere with roof vents or interior lighting fixtures.

This is a self-contained air conditioner and is designed to be installed on the roof of recreational vehicles, houseboats and mobile offices, and offers a wide variety of other applications. This unit is intended for installation through a standard 14" x 14" roof vent opening with the vent and all trim removed. If the vent is not favorably located or there is no vent, a 14" x 14" opening may be cut at the desired location. Do not cut existing roof supports. Locate 14" x 14" opening between supports and frame with wood or metal of proper thickness to fill space between roof and ceiling.

Also when planning installation, check for location of drain line and field wiring by referring to Trailer Manufacturer's Manual.



- Step #1 At left side towards front of 14"x14" opening, extend field wires out 18" and drain out 7" to prevent damage when unit is set in place. Keep them 2" to 5" from corner of opening. See illustration. The field wires should be No. 12 AWG with ground wire for 115 V connection and 3 wire NEC Class 2, 24 Volt thermostat wire.
- Step #2 Set unit on roof. Unit should be left on shipping container base until ready to position on 14"x14" opening. After unit has been positioned over opening with flange on base of unit engaging opening, apply one or two strips of caulking under mounting flanges on all four sides, as shown, and secure to roof. Make sure unit is squared up and straight with trailer, then install top cover (shroud).
- Step #3 A cover plate with two holes is provided to cover opening where the field wires and drain line extend out of 14"x14" opening. Just insert them through the holes and fasten plate in place with two (2) sheet metal screws.
- Step #4 Connect 1/2" I.D. plastic drain line to drain fitting on air-conditioner. The drain fitting is furnished with a formed condensate trap, so be careful not to change the position of the drain fitting to the extent that the trap will be ineffectual.
- Step #5 Disassemble air distribution panel from ceiling plate. Reach up into unit and remove control box. Lower control box through rectangular opening in ceiling plate. At the same time insert the field wiring through opening.
- Step #6 Fasten ceiling plate to bottom of unit with four (4) sheet metal screws.
- Step #7 Insert field wiring into box through BX connector and connect with wire nuts provided - maintain black to black, white to white and green to green (ground). All wiring shall comply with the National Electric Code and local codes, if applicable. The power line shall be 115 volts, 1 phase, 60 HZ, No. 12 AWG on a separate circuit, 20 Amp. time delay fuse. Connect the low voltage thermostat wires to R W & Y at the low voltage terminal strip. For cooling only models, only the R & Y connections are made at the thermostat. Remove cover from bolt bag and secure to end of control box. Using two sheet metal screws, fasten control box to ceiling assembly. To correctly position the control box, the wiring into the box should be towards the front of the coach.

#### Thermostat Low Voltage Connections

For Cooling Only Models, only the R & Y connections are made at the thermostat sub-base (The cooling sub-base is attached to the thermostat).

For Heat-Cool Models, discard the cooling sub-base (attached to thermostat) and install the heat-cool sub-base (shipped in separate package) connect low voltage wires to R W & Y on sub-base.

- Step #8 Install air distribution panel using four screws disassembled in Step #5. Top edges of distribution panel should contact ceiling all around.
- Step #9 Check operation before unit is released to customer.

### Operation - TR25-12 & TR25-14 (Cooling Models)

1. Set Wall Thermostat below room temperature.
2. Set System Switch (located at ceiling cover of air-conditioner) to "Hi Fan", "Med Fan" and "Lo Fan" and observe for changes in fan speed and for compressor operation.

Note: The compressor will not operate until speed selection is made.

3. To operate fan only, set Wall Thermostat to highest setting and System Switch to any of the speed settings.
4. Shut unit off by turning System Switch to "off" position.

### Operation - TRH25-12 & TRH25-14 (Heat-Cool Models)

#### Cooling

1. Set Wall Thermostat to "Cool" position and thermostat indicator below room temperature.
2. Set System Switch (located at ceiling cover of air-conditioner) to "Hi Fan", "Med Fan" and "Lo Fan" and observe for changes in fan speed and for compressor operation.

Note: The compressor will not operate until speed selection is made.

#### Heating

1. Set Wall Thermostat to "Heat" position and thermostat indicator above room temperature.
2. Set System Switch to any of the three speed positions and observe for changes in fan speed and for heater operation.

Note: The heater will not operate until speed selection is made.

#### Fan Only

Set Wall Thermostat to "off" position and System Switch to any of the three speed selections.

#### To Shut Unit Off

Set System Switch to "off" position.



