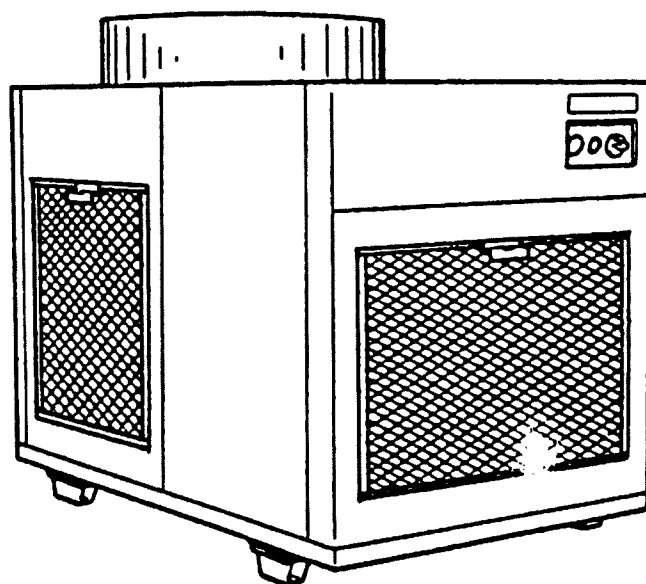


# SPOT COOL 50HU

## INSTALLATION MANUAL

MODEL : 50HU



**NIPPONDENSO CO., LTD.**

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### CAUTION

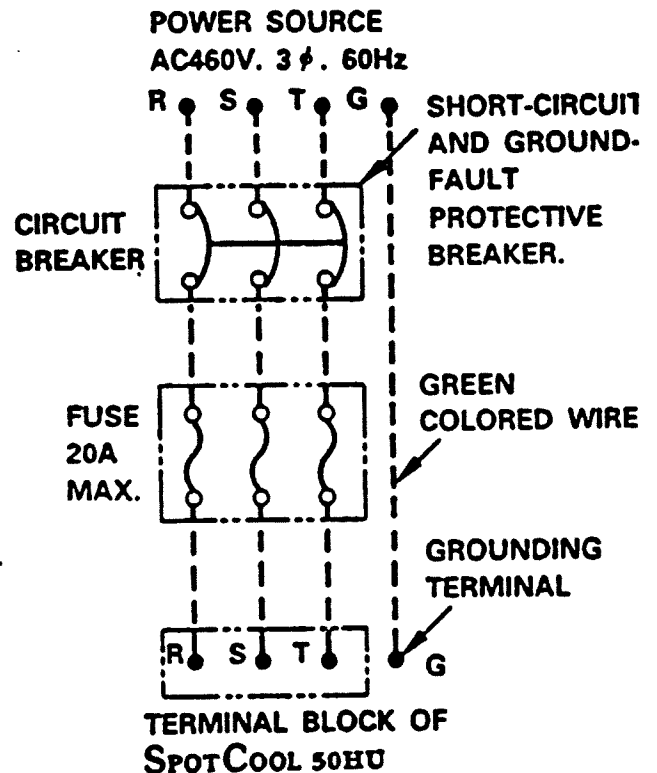
Do not install the unit in following places.

- Where the ambient temperature is always below 25°C (77°F) or above 45°C (113°F) at 50% relative humidity.
- Where exist high concentration of electric conductive airborne particle such as carbon or metals.
- Where highly corrosive gas or vapor may arise.
- Where inflammable gas or vapor may arise.
- Where electric discharges or sparks are produced such as an arc-welding.
- Hermetic small rooms.
- On the floor with three degrees or more inclination.

## CONNECTION OF POWER WIRES FOR PERMANENT WIRING

### Power Supply

- The power supply of SPOT COOL 50HU : AC 460V  $\pm$  10%, three phase and 60 Hz. Do not connect the unit to any other power supply.
- Single outlet circuit only.
- As shown at right, be sure to provide a fuse of 20A capacity max. And short circuit and ground-fault protective breaker for the power supply.
- Securely tighten each terminals.



### Power Supply Wires

- Use at least 12AWG for the power wires.
- Prepare three power wires for motive power and one wire (green) for grounding.
- Be sure to use conduit tubing when installing power wires.

### Connection to SPOT COOL 50HU

- 1) Remove the upper panel on the front side (control switch side) and open the cover of control box.

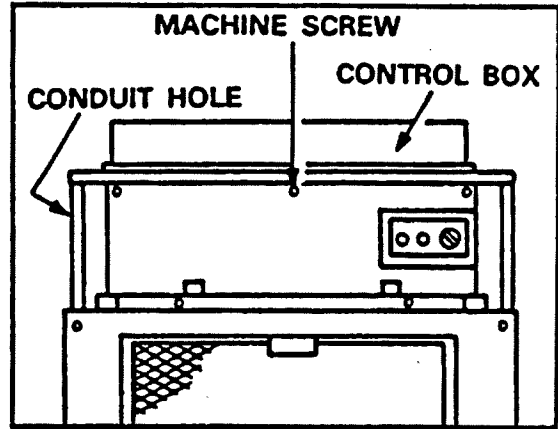
2) Pass the power wire through the conduit hole in the side panel (left-hand side toward you) and lead the ends of power wires to the inside of control box.

3) Attach the conduit tubing to the conduit hole.

Trade size of conduit is 1/2 inch.

4) Crimp the terminal eyelets, which are provided in the package, to the power wires and securely tighten them to the R, S, T and Grounding terminals of terminal block.

5) Reinstall the control box cover and front panel.



REMOVAL OF CONTROL BOX COVER

**Note 1:** The phase sequence is in order of R, S, and T. When the blower fan rotates in reverse during operation, the phase sequence is reversed. At this condition, exchange two of the power wires for R, S and T terminals.

## DUCT WORK PROCEDURE

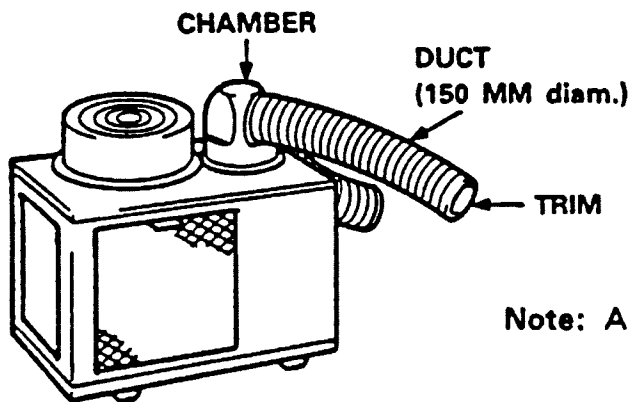
For the SPOTCOOL 50HU, it is necessary to perform duct work according to the requirement of user. The work procedure is described below.

### CAUTION

The SPOTCOOL 50HU should always be placed on the floor. It should never be hung from the ceiling.

### Unit Installed on the Floor

#### Example 1

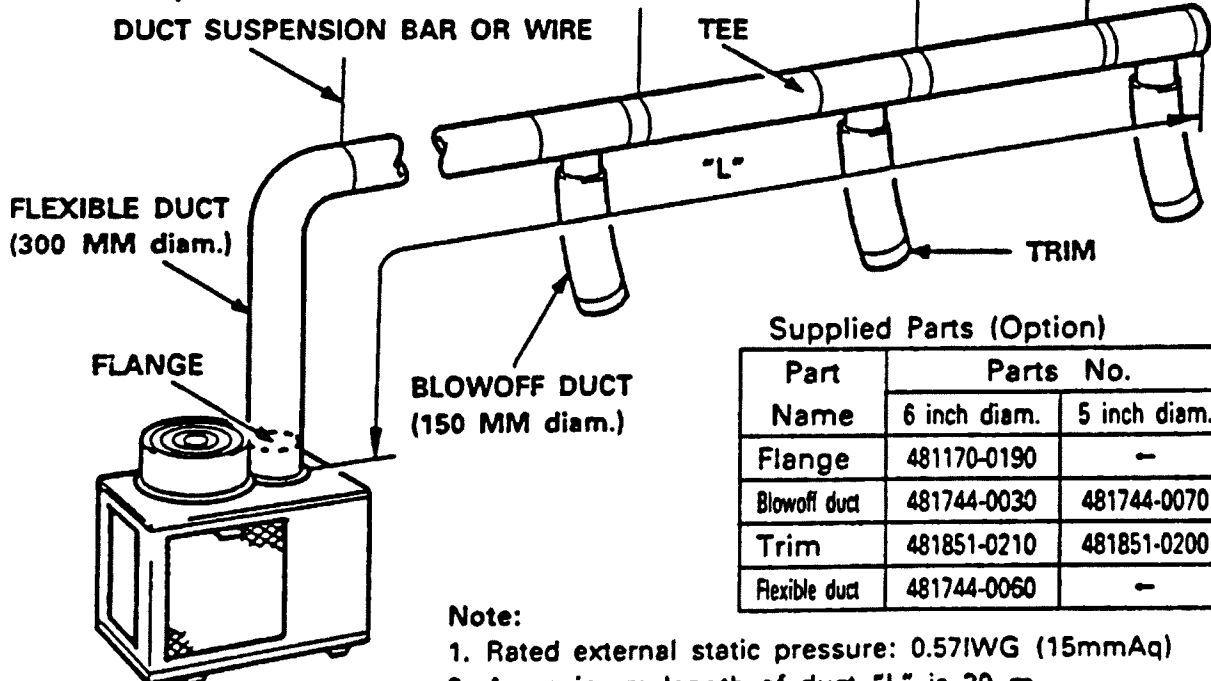


#### Supplied Parts (Option)

Part Name	Part No.
Chamber (3 ports)	481769-0051
Duct	481744-0030
Trim	481851-0210

Note: A maximum length of duct is 2 m.

#### Example 2



#### Supplied Parts (Option)

Part Name	Parts No.	
	6 inch diam.	5 inch diam.
Flange	481170-0190	—
Blowoff duct	481744-0030	481744-0070
Trim	481851-0210	481851-0200
Flexible duct	481744-0060	—

#### Note:

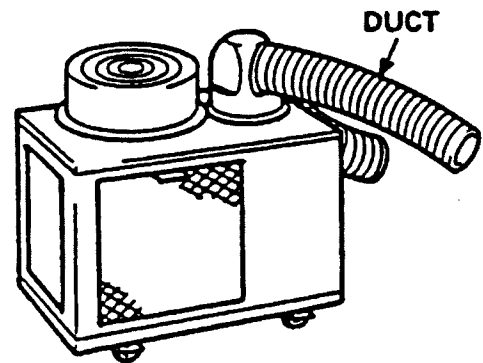
1. Rated external static pressure: 0.57IWG (15mmAq)
2. A maximum length of duct "L" is 20 m.
3. The number of blowoff ports should be four to seven.
4. Don't connect the blow off duct to hot air outlet.

### 3. USE OF UNIT AS PORTABLE TYPE

The SPOTCOOL 50HU can be used as a portable spot cooling system by attaching the casters.

**Note:** 1. Do not use the unit in portable configuration outdoors.

2. Use the duct specified in example of the duct work procedure.

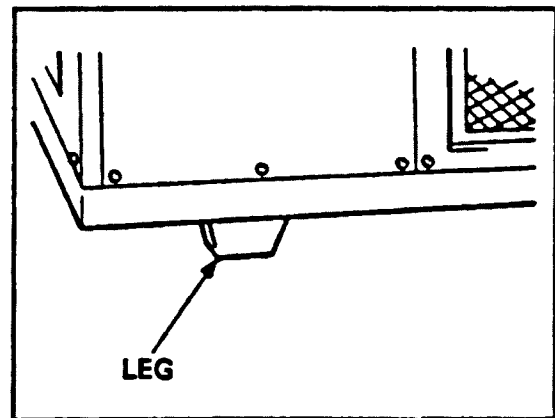


**Note:** Duct length 1 m each.

#### Installation of Casters

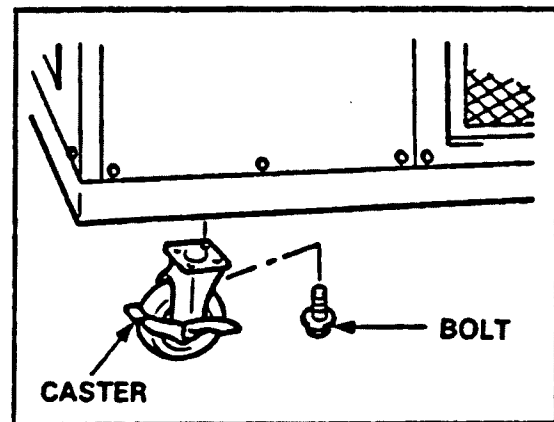
(Caster Kit Part No. 484709-0020: Option)

- 1) Suspend the unit with a hoist.
- 2) Remove 4 legs at the bottom of the unit.



REMOVING LEGS

- 3) Install 4 casters using 16 bolts that were removed.



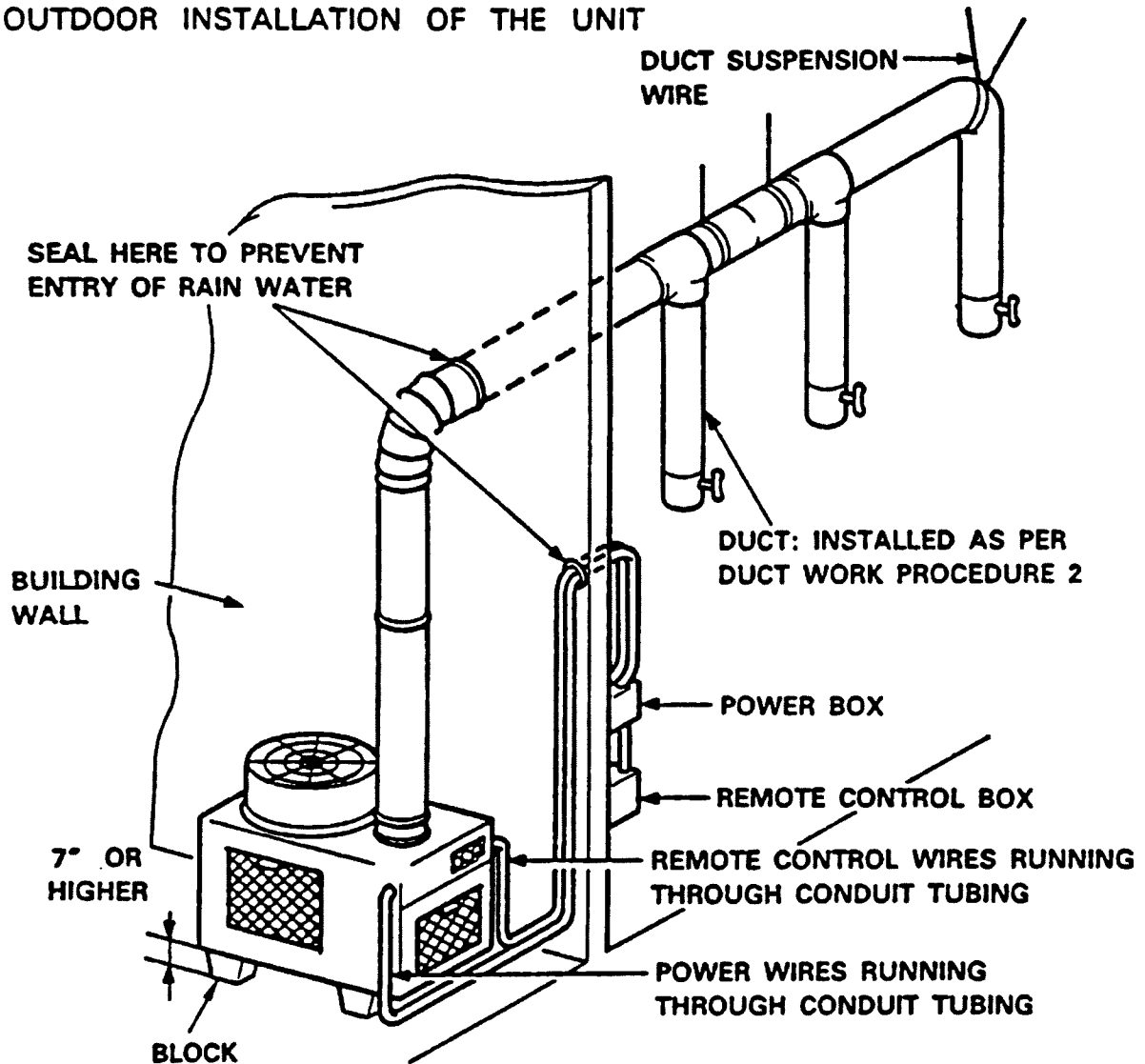
INSTALLING CASTERS

**Note:** This configuration can be used only when drain may be discharged on the floor.

## OUTDOOR INSTALLATION OF THE UNIT

The SPOTCOOL 50HU can be installed outdoors as illustrated below, and feeding the cooling air duct to indoor. Install the unit by following the procedure given below.

### OUTDOOR INSTALLATION OF THE UNIT

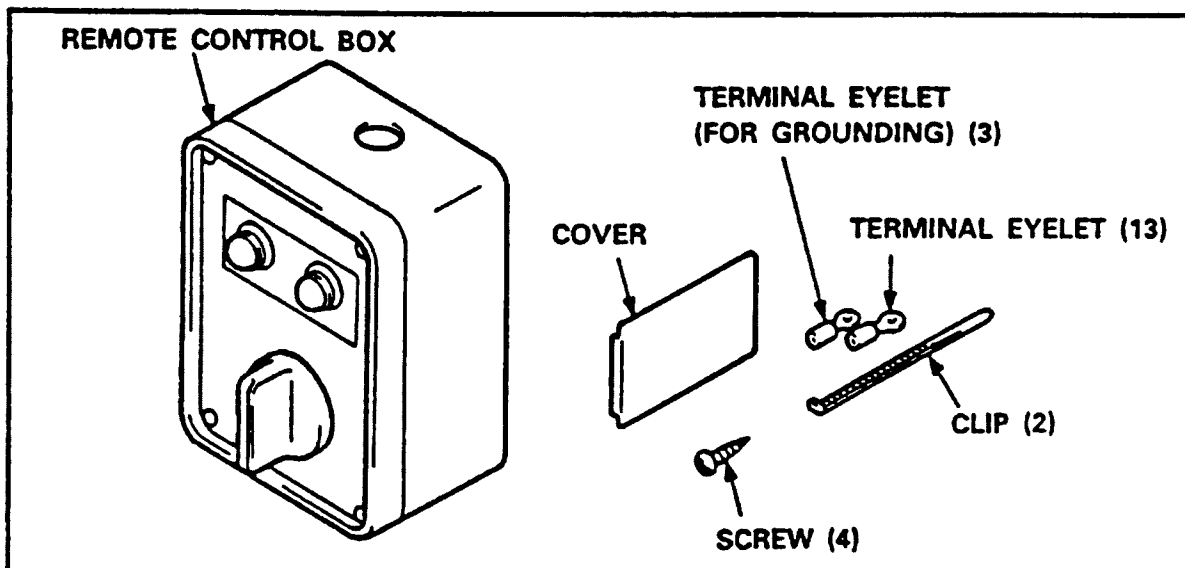


- Note:**
1. Be sure to run power and remote controller wires through conduit tubing.
  2. Be sure to install a residual current operated circuit breaker in the power supply.
  3. Completely seal the through holes in the wall for conduit and duct to prevent entry of rain water. Use raintight fittings.
  4. Do not place the unit directly on the ground: install 7" or higher blocks.

## Installation of the Remote Controller (Option)

This controller should be installed only indoor in accordance with all local codes. In the absence of local codes, install in accordance with the National Electric Code (NEC).

- 1) Remote control switch kit (Part number 484500-0430). The remote control switch kit contains the following parts.

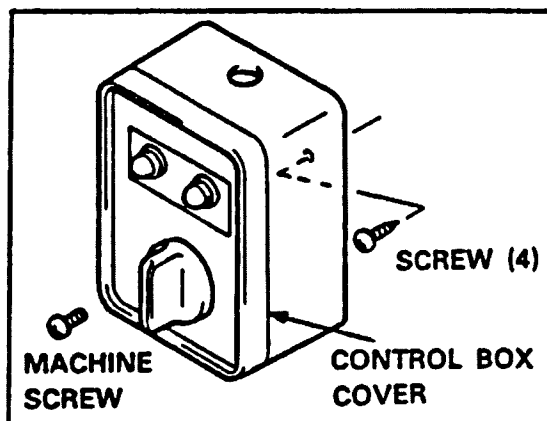


Assemble these parts to install the controller by following the procedure given below.

- 2) Installing the remote control box

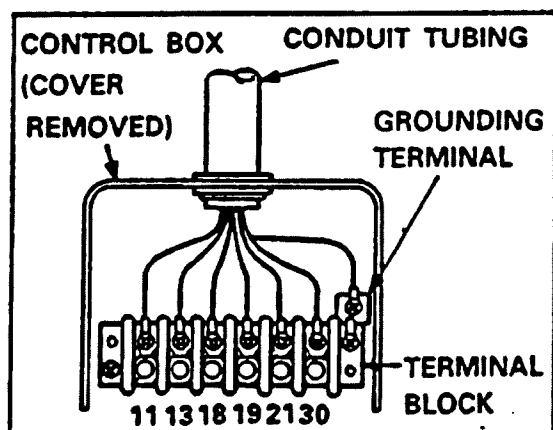
Remove four machine screws from the remote control box to open the cover.

Using four screws provided in the kit, attach the box at a desired position on post or wall.



- 3) Wiring the remote control box

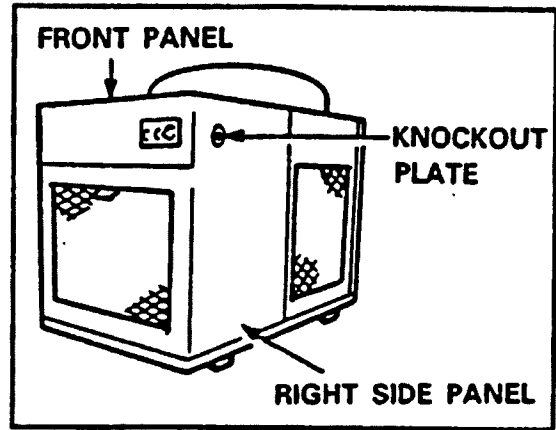
Route the wire conduit tubing to the conduit at the **SpotCool 50HU** installed outdoors.





Use a UL Listed metallic cable conductor appropriate for use and fit it into the 22.2mm hole in the remote control box.

Pass six 18AWG wires and one green insulated grounding wire through the conduit tubing and crimp the attached terminal eyelets to the ends of wires to connect them to terminals.



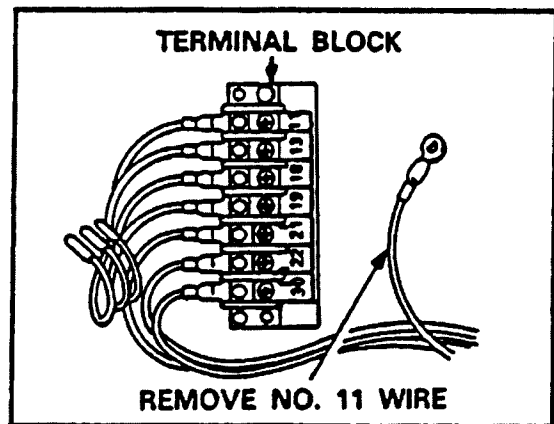
Replace the remote control box cover and secure it with four machine screws.

#### 4) Making **SPOTCOOL 50HV** ready for operation

Remove the right side panel by loosening four screws.

Lightly tap with a hammer to force out the knockout plate located at top of the right side panel.

After fitting the conduit into the knockout, reinstall the right side panel.

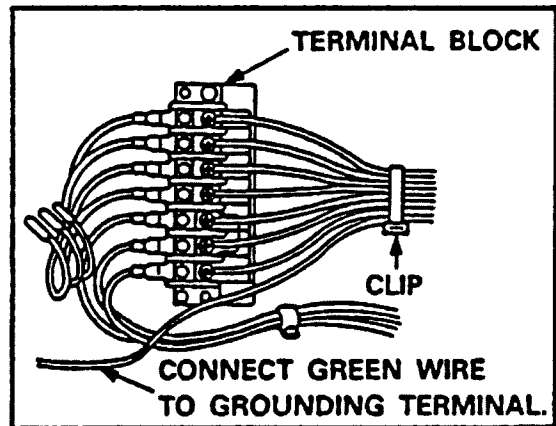


Loosen three screws to open the front panel. Then, loosen three machine screws on the control box inside, to open its cover.

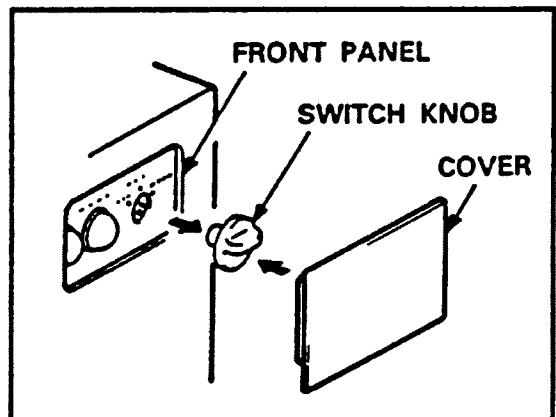
There is a terminal block at right-hand side inside the control box. Take away the wire that connects terminal No. 11 to terminal No. 5 of the control switch.

## 5) Wiring the SPOTCOOL 50HU control box

Lead in the wires running through conduit tubing from the remote control switch to the conduit into the unit's control box through the grommet located on right side panel of the box.



Using the furnished terminal eyelets, connect six wires to the correct terminals, matching terminal numbers with those of the remote control box. (Ensure the correct pair of the terminal number. Wrong wiring does not permit remote control of the unit; it can also lead to a short circuit, damaging the unit.)



Connect the green wire to the grounding terminal.

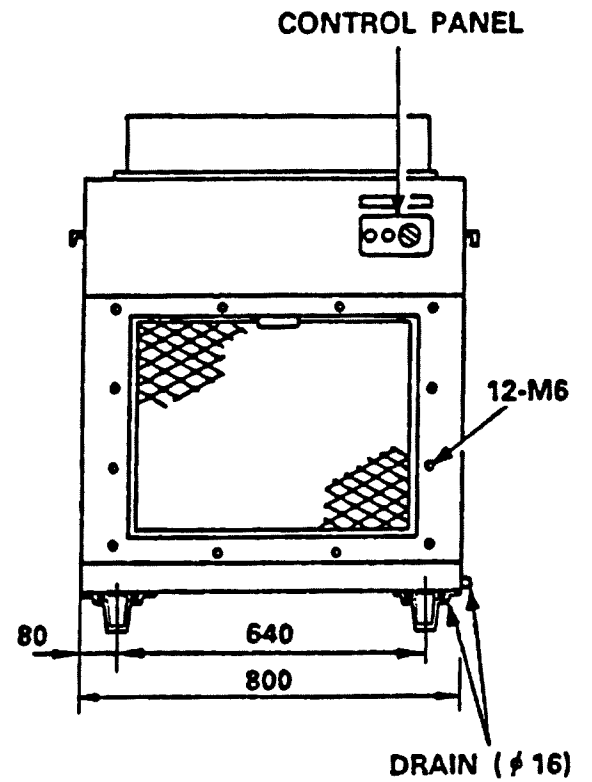
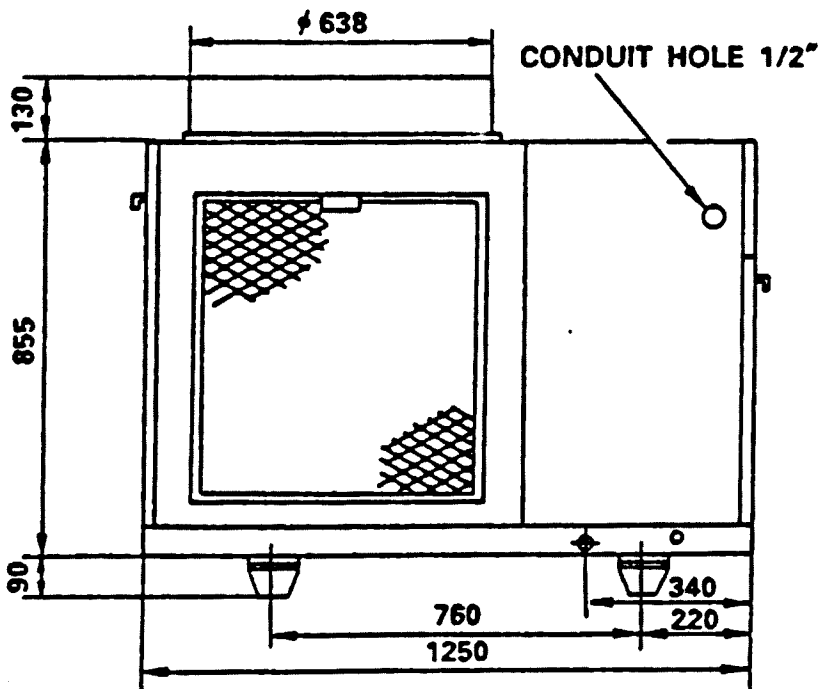
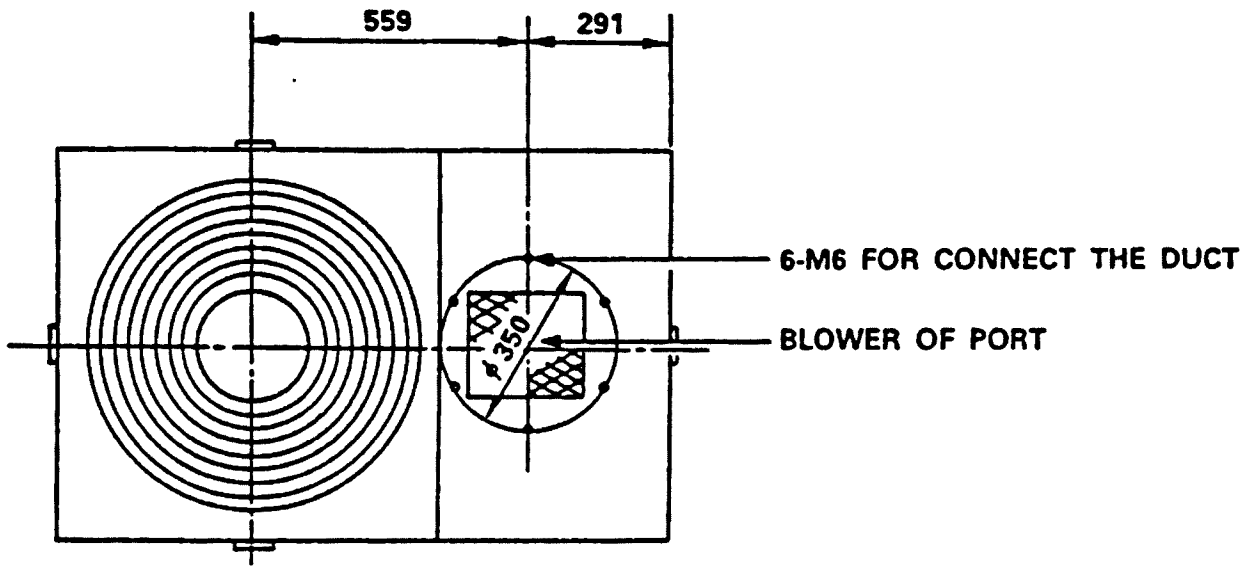
When wiring is completed, bundle up wires with the attached clip at the location indicated in illustration.

After completing these steps, reinstall the control box cover and front panel.

Then, place the SPOTCOOL 50HU switch in the OFF position, pull off the switch knob, and fit the attached cover into the window in the front panel.



# 5. OVERALL DIMENSIONS 50HU





MEMO

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