

Installation Instructions

Part No. KK02HA108 (230-1-60)

SAFETY CONSIDERATIONS

Installing and servicing air conditioning equipment can be hazardous due to system pressure and electrical components. Untrained personnel can perform basic maintenance functions such as cleaning.

All other operations should be performed by trained service personnel. When working on air conditioning equipment, observe precautions in the literature, and on tags and labels attached to unit. Follow all safety codes. Wear safety glasses and work gloves.

⚠ WARNING

Before performing installation, service, or maintenance operations on unit, turn off main power switch to pump and install lock out tag. Electrical shock could cause personal injury.

GENERAL

The Accessory Condensate Pump is designed to be used in conjunction with a Horizontal Indoor Single-Package cooling unit. After installation, pump operation is fully automatic.

INSTALLATION

Step 1 — Unpack Unit — Remove the shipping screw from the side of the switch cover and discard the screw. This releases the float-switch mechanism for automatic operation.

Step 2 — Locate Unit — The pump should be installed adjacent to the condensate pan of the unit. The pump can be mounted on a wall, the unit casing, or set on the floor.

IMPORTANT: The pump must be mounted *below* the unit condensate drain.

Step 3 — Make Piping Connections

- Insert the drain tube from the unit condensate pan into the 1 $\frac{3}{8}$ -in. pump inlet hole. This tube should not be so long as to interfere with the switch-float mechanism.
- Connect 3/8-in. ID vinyl tubing to the fluted discharge fitting and raise it to the highest possible point above the pump (up to 20 in.). See Fig. 1.
- Form an inverted U-trap (see Fig. 1), and slope tubing downward toward drain. This inverted U-trap helps prevent backward siphoning which causes the pump to cycle excessively. If flowback is a problem, the installation of a field-supplied check valve is recommended.

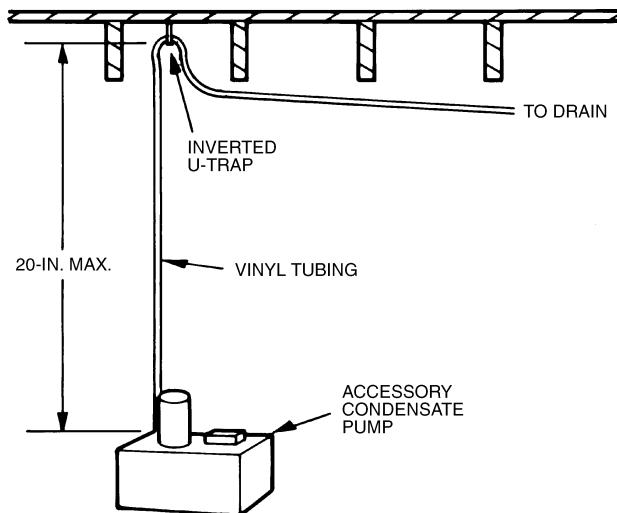


Fig. 1 — Piping Connections

Step 4 — Make Electrical Connections

⚠ WARNING

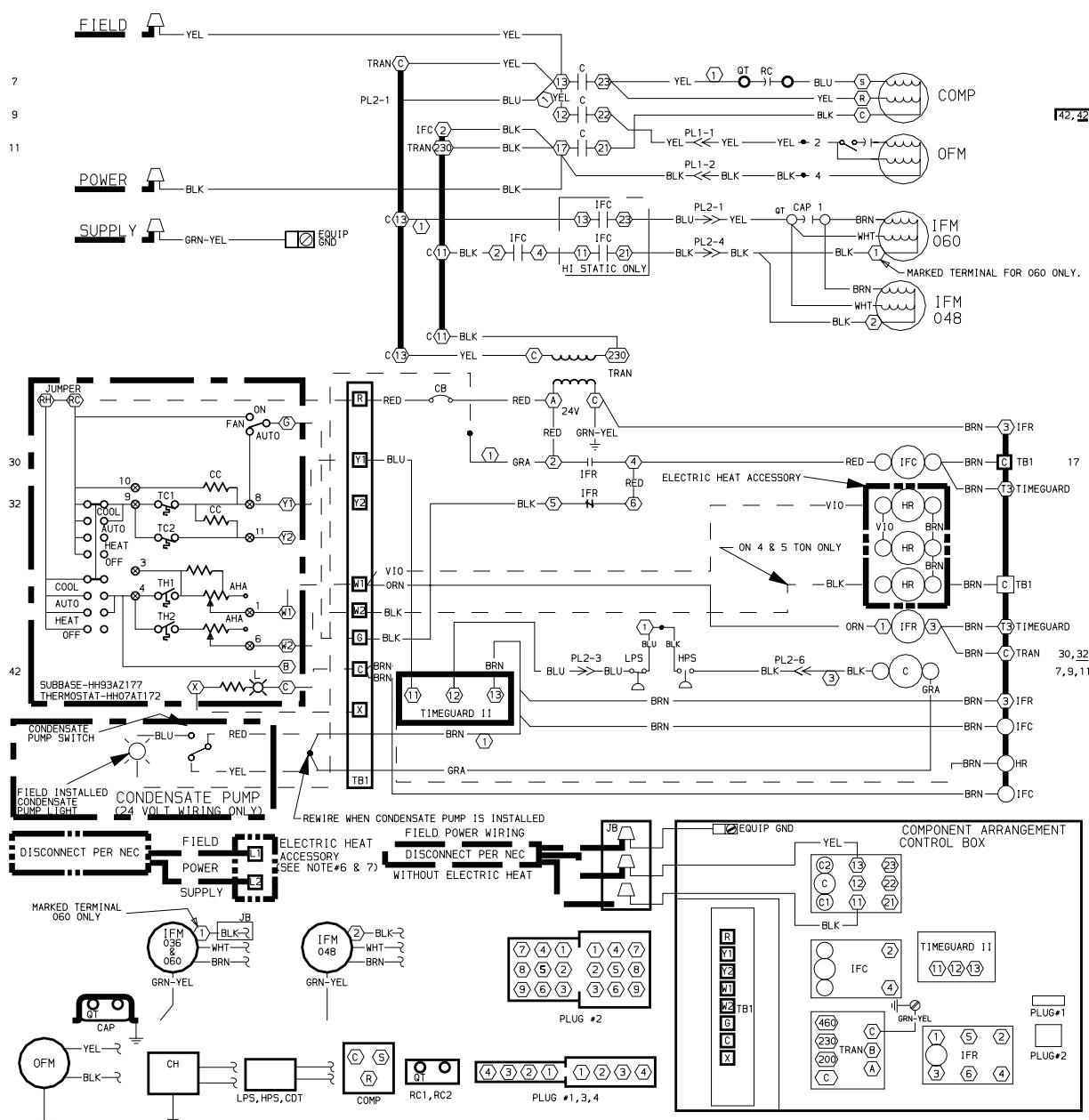
To avoid the risk of electrical shock, ensure wiring is properly grounded. See Fig. 2 wiring schematic for proper wiring of Accessory Condensate Pump into Horizontal Indoor cooling unit system.

230-V POWER WIRING

BLACK — Connect to T-11 compressor contactor
WHITE — Connect to T-13 compressor contactor

SAFETY/WARNING SWITCH CONNECTION

RED	— Connect to brown on TB1 from T3 on Time Guard® II device
YELLOW	— Connect to gray on TB1 from compressor contactor (24 v common)
BLUE	— Connect to gray wire from T2 on IFR



LEGEND

AHA	—	Adjustable Heat Anticipator
C	—	Contactor Compressor
CAP	—	Capacitor
CC	—	Cooling Compensator
CDT	—	Compressor Discharge
CB	—	Thermostat
CH	—	Circuit Breaker
COMP	—	Crankcase Heater
EQUIP	—	Compressor Motor
GND	—	Equipment
HPS	—	Ground
HR	—	High-Pressure Switch
IFC	—	Heater Relay
IFM	—	Indoor-Fan Contactor
IFR	—	Indoor-Fan Motor
JB	—	Indoor-Fan Relay
JB	—	Junction Box
L	—	Light
LPS	—	Low-Pressure Switch
NEC	—	National Electrical Code
OFM	—	Outdoor-Fan Motor
PL	—	Plug Assembly
QT	—	Quadruple Terminal
RC	—	Run Capacitor
TB	—	Terminal Block
TC	—	Thermostat-Cooling
TH	—	Thermostat-Heating
TRAN	—	Transformer

	Marked Wire
	Denotes Connection Point Between Subbase and Thermostat
	Terminal (Marked)
	Terminal (Unmarked)
	Terminal Block
	Field Splice
	Splice (Marked)
	Factory Splice
	Factory Wiring
	Accessory or Optional Wiring
	Field Control Wiring
	Field Power Wiring
	To indicate common potential only; not to represent wiring.

NOTES:

3. If any original wires furnished must be replaced, it should be replaced with 90 C or its equivalent.

3. Numbers indicate the line location of used contacts. A bracket over (2) numbers signifies a single pole double throw contact. An underlined number signifies a normally closed contact. Plain (no line) number signifies a normally open contact.

4. Must use thermostat HH07AT170, 172 or 174.
With subbase HH93AZ176, 177, or 179.

5. Neutral for 240/416 v supply (Canada only).

6. Separate field power supply required for electric heater accessory.

7. The 10 kW, 15 kW and 20 kW heater assemblies for sizes 048 & 060 are wired for 3 phase. See heater label diagram for 1 phase rewiring procedure.

Fig. 2 — Typical Wiring Schematic for Accessory Condensate Pump

MAINTENANCE

The Accessory Condensate Pump requires no maintenance for efficient operation in normal applications. If it is necessary to clean the impeller chamber, the following procedure should be used.

1. Turn off unit power supply at fuse box and install lockout tag.
2. Remove pump from wall mount (if necessary) and drain water from pump reservoir.
3. Place pump on table with baseplate tab protruding approximately one inch. See Fig. 3. Strike the tab with a hammer to unsnap the tab. Remove the O-ring seal and keep it clean for replacement.
4. Clean all debris from the impeller chamber and spin the impeller manually to ensure free movement.

Reassemble Pump Parts

1. Clean O-ring and lubricate. Stretch O-ring onto baseplate.
2. Place the tab of the baseplate into the slot on the reservoir. Place a thumb near the tab and snap the baseplate in with the heel of your other hand. Be sure baseplate is flush with the bottom of the reservoir. See Fig. 4.
3. Should the pump ever develop a leak in this area, remove the reinstall the baseplate and O-ring as outlined above.
4. Restore power to unit.

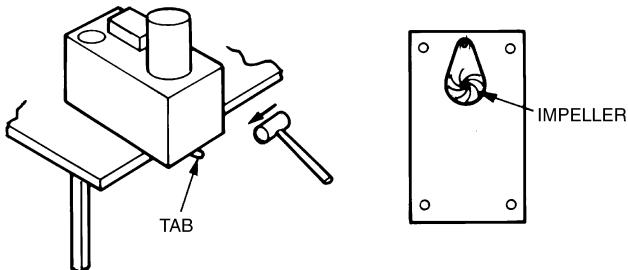


Fig. 3 — Cleaning Impeller Chamber

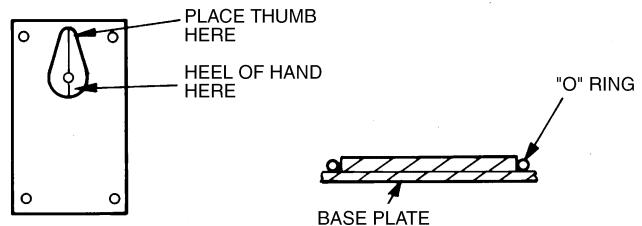


Fig. 4 — Reinstalling Baseplate

SPECIFICATIONS

See Fig. 5 and Table 1 for Accessory Condensate Pump dimensions and specifications.

Table 1 — Accessory Condensate Pump Specifications

Inlet Connection	1 3/8 in.
Discharge Connection	3/8-in. NPT with male adaptor.
Reservoir	1 gallon, high impact ABS plastic.
Capacity	2.25 gpm at 2-ft head pressure to .33 gpm at 20-ft head pressure. Pump shuts off at 22-ft head pressure.
Switch Types	Two snap action: SW1 — SPDT, 24-v for light. SW2 — SPST, 230-v for motor.
Operating Temperature	40 to 100 F.
Operating Fluids	Pump suitable for operation with fluid temperature between 35 and 80 F, and having a pH range from 5.8 to 8.5.
Leads	10 in. stripped, no. 16 AWG.
Tubing	20 in. vinyl discharge tube, 7/16-in. OD x .050 wall (approx.).
Motor	230-1-60 voltage 3000 rpm .80 FLA Leads (see above)

LEGEND

AWG — American Wire Gage
FLA — Full Load Amps

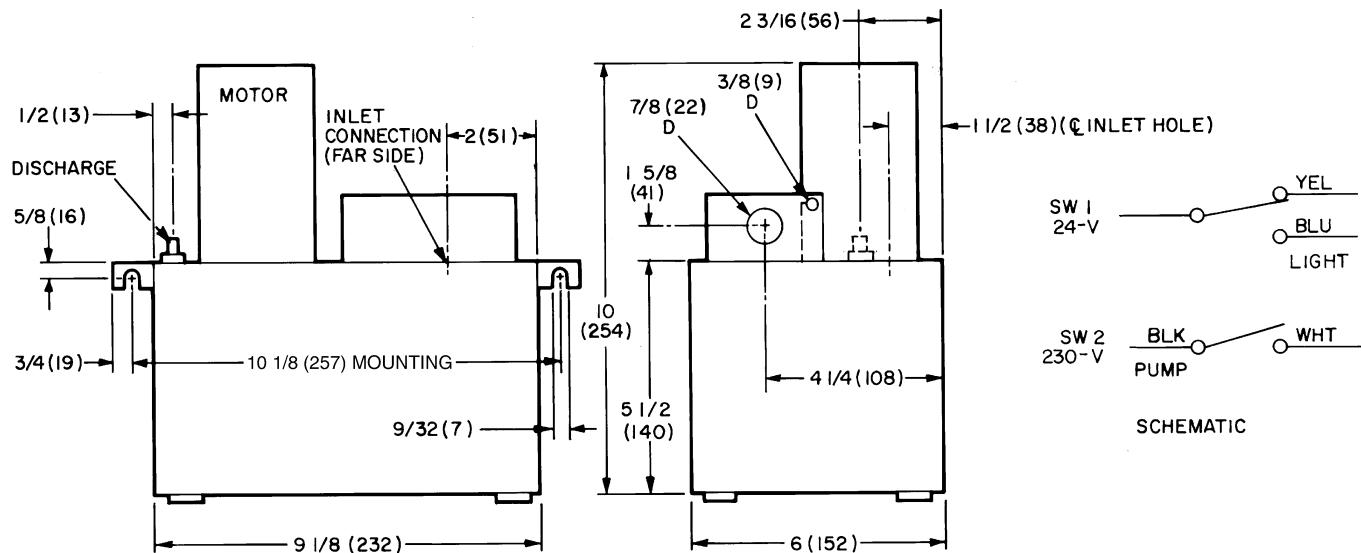


Fig. 5 — Accessory Condensate Pump Dimensions, in. (mm)