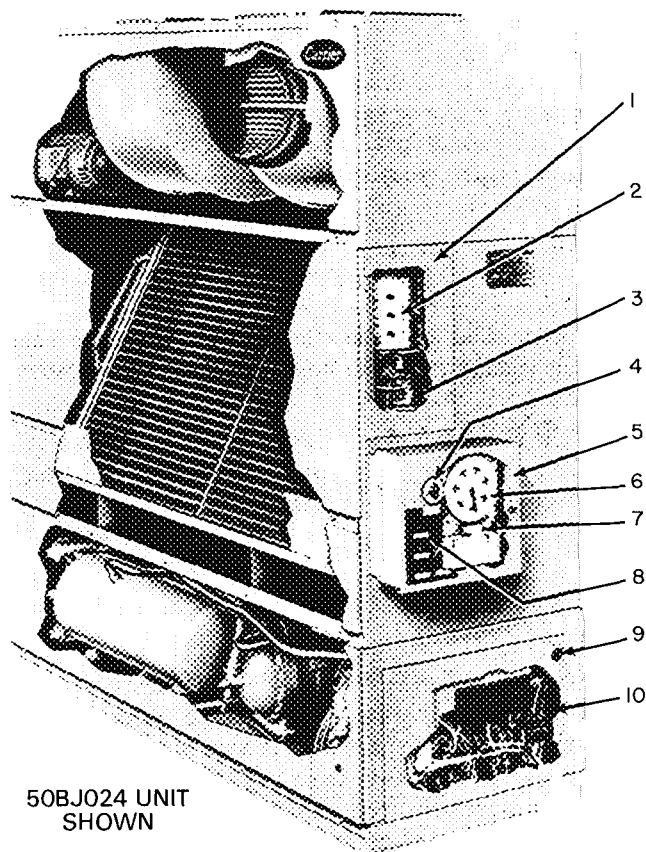


Accessory Timer Control Package (50 and 60 Hertz)



50BJ024 UNIT
SHOWN

LEGEND

- | | |
|--|-------------------------------|
| 1 — VAV Control Box | 6 — 7-Day Timer Clock |
| 2 — Microprocessor | 7 — Timer Motor ON-OFF Switch |
| 3 — Plug for Accessory Timer Receptacle Connection | 8 — Operation Lights |
| 4 — 5-Hour Bypass Timer | 9 — Unit Fuse |
| 5 — Accessory Timer Control Box | 10 — Unit Control Box |

Fig. 1 — Modu-Vac Control Components

Package Numbers

HERTZ	PART NO.
60	50BJ900021
50	50BJ900031

DESCRIPTION

The accessory timer control consists of a 7-day clock with 10-hour spring carryover, a 5-hour manual bypass timer and 3 operational lights to indicate POWER-ON, FAN and COOLING modes.

Components are enclosed in a zinc-coated steel box painted with modified alkyd enamel. Box is equipped with a screw-hinged access door.

INSTALLATION

Step 1 — Check package contents.

If any items are missing or appear damaged in shipment, notify Carrier Corporation immediately.

Package Contents

Item (Fig. 2)	Description	Qty
1	Timer Control Box	1
2	Installation Instructions	1
3	Pipe Nipple, 1/2-in. x 2 1/2-in. lg	1
4	Threaded Bushing, 1/2-in.	2
5	Locknut, 1/2-in.	1
6	Sheet Metal Screw, #10AB x 1/2-in. lg	4
7	Wired Receptacle Assembly	1
8	Insulated Butt Splice — 16 ga.	4
9	Insulated Ring Terminal — 16 ga.	8

Items 3 thru 9 are enclosed in a cloth bag for shipment.

Item numbers refer to package contents above and Fig. 2.

WARNING: Open power disconnect while working on unit.

Timer control box may be mounted directly on the 016-034 units or in a remote location. If timer control box is to be mounted directly on the unit, proceed with Steps 2 and 3. If timer control box is to be mounted in a remote location, skip Steps 2 and 3 and proceed with Steps 4 and 5. NOTE: Mounting control box in a remote location is mandatory for 044-064 units.

Remove package contents (Items 2 thru 9) from timer control box (Item 1).

Step 2 — Mount control box on unit (units 016-034).

- Remove 7/8-in. diameter knockout from rear of control box (Fig. 2).
- Thread 1/2-in. locknut (Item 5) to one end of pipe nipple (Item 3).
- Insert nipple thru knockout in box with locknut outside. Fasten threaded bushing (Item 4) to exposed threads inside control box and tighten securely.

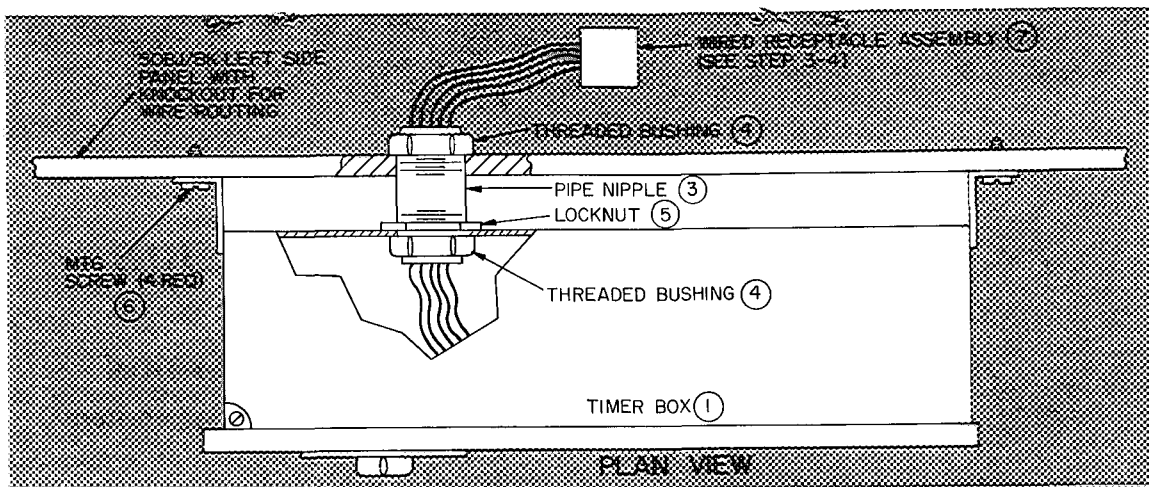
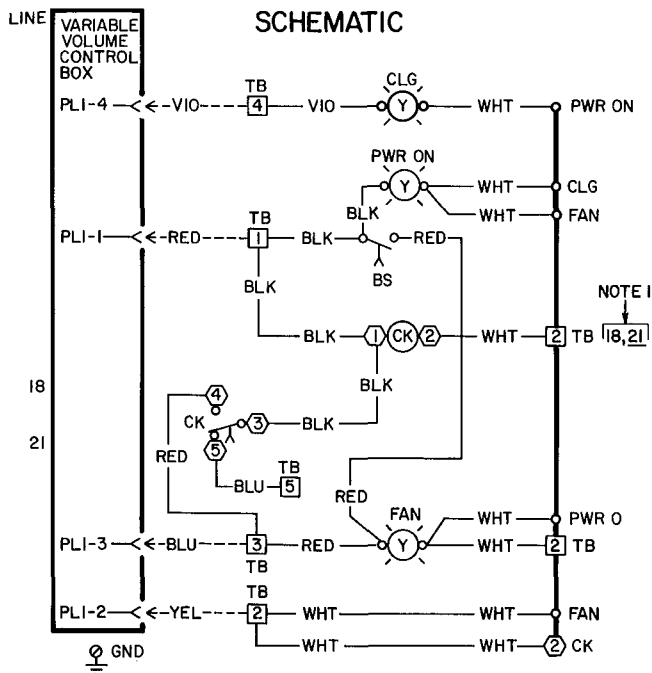
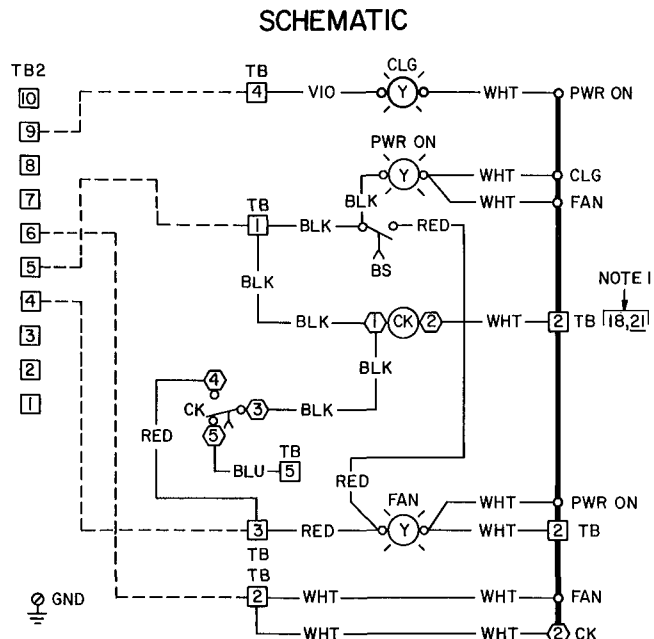


Fig. 2 — Mounting Timer Box on Unit (Units 016-034)

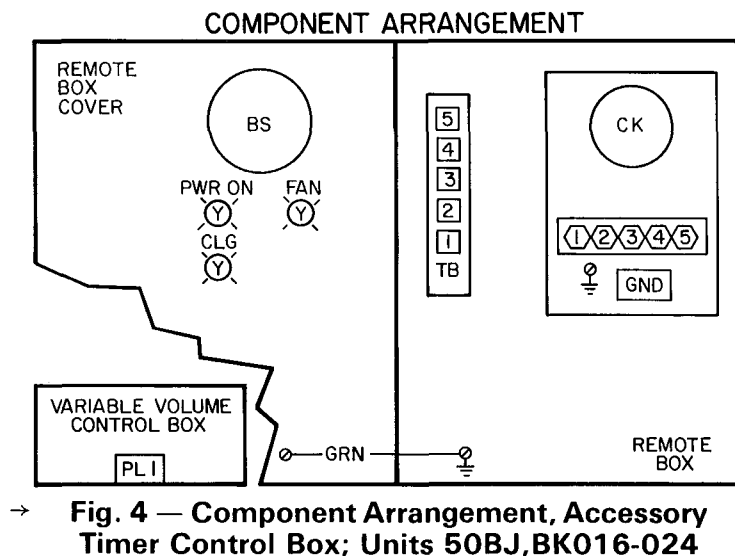
- D. Locate the 7/8-in. diameter knockout and 4 mounting screw holes on left side of 50BJ,BK unit under the VAV Control Box (Fig. 1). Remove the knockout.
 - E. Position the timer control box so that pipe nipple projects thru knockout opening in unit panel. Fasten box to panel with 4 sheet metal screws provided (Item 6).
 - F. Secure pipe nipple by threading the second bushing (Item 4) on nipple inside 50BJ,BK unit.
- **Step 3 — Make electrical connections** (units 016-034).
- A. *Be sure unit disconnect switch is open.*
 - B. From inside the unit, thread the wires on receptacle assembly (Item 7) thru the pipe nipple and into the timer box (Item 1).
 - C. Attach the ring-terminal end of each wire to the timer box terminal block as indicated in Fig. 3.
- NOTE: Black wire on receptacle wire assembly is not used. Tape loose end to avoid shorting of wire.
- D. Connect receptacle to the matching plug at bottom of VAV Control Box (Fig. 1).
- **Step 4 — Mount control box in remote location.**
- A. Remove 7/8-in. diameter knockout from timer box as required for convenient wiring.
 - B. Mount timer control box in desired location.
- C. Locate and remove the 7/8-in. diameter base unit accessory knockout. The knockout location is:
 - 50BJ,BK016-034 — Left side of base unit, under VAV control box.
 - 50BJ,BK044-064 — On top of base unit, near the power supply knockout.
- **Step 5 — Make electrical connections** (remote mounting only).
- A. *Be sure unit disconnect switch is open.*
 - B. Run electrical wire from remote timer control box to base unit. Electrical wire must be at least 16 ga. and 600-v capacity. Four wires plus ground are required. Follow latest NEC and all applicable local code requirements.
 - C. Connect electrical wire to terminal block in timer control box using Fig. 3 for 016-034 units, or Fig. 5 for units 044-064.
 - D. If timer control box is to be connected to unit 016,024,028 or 034, remove ring terminals from plug assembly and splice assembly to wires coming from timer control box. Connect receptacle to matching plug at bottom of VAV control box (Fig. 1).
- NOTE: Black wire on plug assembly is not used. Tape loose end to avoid shorting of wire.



→ Fig. 3 — Label Diagram, Accessory Timer Control Box Wiring; Units 50BJ, BK016, 024, 028, 034



→ Fig. 5 — Label Diagram, Accessory Timer Control Box Wiring; Units 50BJ, BK044, 054, 064



→ Fig. 4 — Component Arrangement, Accessory Timer Control Box; Units 50BJ, BK016-024

LEGEND

BS — Bypass Switch
 CK — Clock
 CLG — Cooling
 PL — Plug
 PWR On — System On
 TB — Terminal Block

○ Terminal (Marked)
 ○ Terminal (Unmarked)
 □ Terminal Block
 → Plug
 Y Receptacle

--- Field Power Wiring

— Factory Wiring

— To indicate common potential only; not to represent wiring

NOTES

- 1 Number(s) 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.
- 2 Compressor (units 016-064) and fan motors (units 016-034) are thermally protected.
- 3 If any of the original wire furnished must be replaced, it must be replaced with type 90C wire or its equivalent.

Step 6 — Adjust 7-day time clock.

SET ON AND OFF TIMES (Fig. 6) — Fourteen trippers (one set for each of 7 days) are provided. If more than 7 ON-OFF operations per week are required, obtain additional trippers.

- A. To set ON (occupied) time, slip an ON tripper over edge of time dial and position it at desired day and time (AM or PM).

NOTE: Dial rotates clockwise when time clock is operating.

- B. Hold ON tripper firmly against edge of dial and tighten setting screw by hand. *Do not use pliers.*

- C. To set OFF (unoccupied) time, place an OFF tripper over dial edge at time desired for unit to switch off (AM or PM) and tighten setting screw by hand.

NOTE: Minimum time from an ON operation to an OFF operation is 3-1/2 hours and for OFF operation to ON operation, the minimum time is also 3-1/2 hours.

Time clock can be set for up to 3 ON-OFF operations per day or 21 per week. To omit operation, do not place trippers on the dial for that day(s).

SET CORRECT TIME

- A. Close unit disconnect and apply power to timer motor by moving manual ON-OFF lever (Fig. 4) to ON position.
- B. Turn time dial *clockwise* until the TIMER pointer is aligned with correct day and time. *Do not turn time dial counterclockwise or move TIMER pointer.*

MANUAL OPERATION — During timer OFF (unoccupied) periods, the unit may be operated for up to 5 hours by setting the spring-driven bypass timer located on the timer control box cover (Fig. 1).

POWER INTERRUPTION — The timer clock continues to maintain correct time for up to 10 hours on any loss of electrical power to the unit. No resetting is necessary.

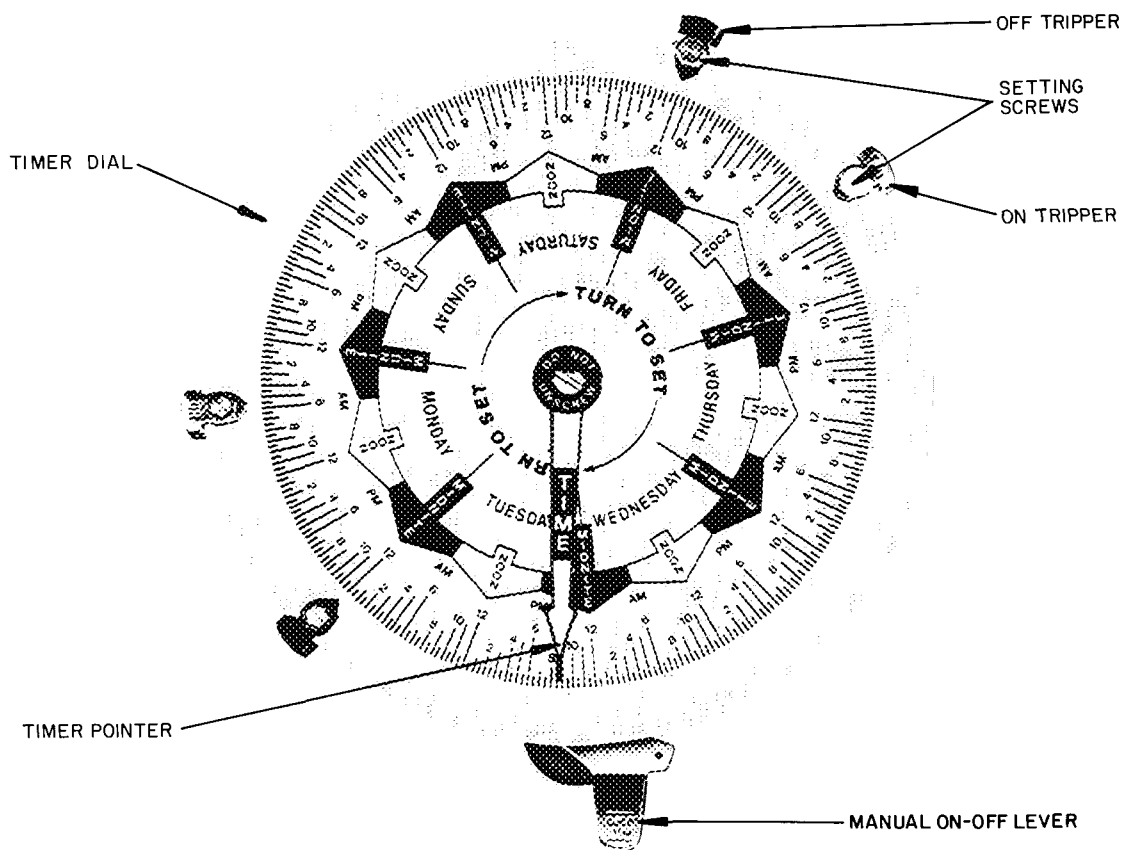


Fig. 6 — Timer Adjustment Details