# Installer's Guide

Models:

## **Supplementary Electric Heaters**

## **BAYHTRV105E to BAYHTRV425E**

Use with: 4TCC3 / 2/4WCC3 / 4WCY4 / 4WCZ6

4TCX3 / 2/4WCX3 / 4TCY4

## **AWARNING:** HAZARDOUS VOLTAGE - DISCONNECT POWER BEFORE SERVICING

ALL phases of this installation must comply with NATIONAL, STATE AND LOCAL CODES

**IMPORTANT** — This Document is **customer property** and is to remain with this unit. Please return to service information pack upon completion of work.

UNIT MODEL	ELECTRIC HEATER MODEL	RATED VOLTAGE	PHASE	AMPS	HEATER CAPACITY		NO. OF	KW/STAGE			MAX FUSE OR	CANADA ONLY
					KW	втин	STAGES	1	2	MCA	HACR CKT BKR SIZE (4)	MAX. CKT BKR SIZE (5)
^W/TC*3018-060A1 ^W/TCY4024-060A1 ^WCZ6036-060A1	BAYHTRV105E	208/240	1	18/21	3.76/5.0	12800/17100	1	3.76/5.0		23/26	25/30	25/30
^W/TC*3018-060A1 ^W/TCY4024-060A1 ^WCZ6036-060A1	BAYHTRV108E	208/240	1	29/33	6.0/8.0	20500/27300	1	6.0/8.0		36/41	40/45	40/45
^W/TC*3024-060A1 ^W/TCY4024-060A1 ^WCZ6036-060A1	BAYHTRV110E	208/240	1	36/42	7.5/10.0	25600/34100	1	7.5/10.0		45/52	45/60	45/60
^W/TC*3030-060A1 ^W/TCY4030-060A1 ^WCZ6036-060A1	BAYHTRV115E#	208/240	1	54/63	11.27/15.0	38500/51200	2	7.5/10.0	3.76/5.0	68/78	70/80	70/80
^W/TC*3042-060A1 ^W/TCY4042-060A1 ^WCZ6048-060A1	BAYHTRV120E#	208/240	1	72/83	15.0/20.0	51200/68300	2	7.5/10.0	7.5/10.0	90/104	90/110	90/110
4WC*3042A1 ^W/TC*3060A1 ^W/TCY4042-060A1	BAYHTRV125E#	208/240	1	90/104	18.78/25.0	64100/85300	2	11.26/15.0	7.5/10.0	113/130	125/150	125/150
^WCZ6048-060A1 ^W/TC*3036-060A3 ^W/TCY4036-060A3 ^WCZ6036-060A3	BAYHTRV305E	208/240	3	10/12	3.76/5.0	12800/17100	1	3.76/5.0		13/15	15/15	15/15
^W/TC*3036-060A3 ^W/TCY4036-060A3 ^WCZ6036-060A3	BAYHTRV308E	208/240	3	17/19	6.0/8.0	20500/27300	1	6.0/8.0		21/24	25/25	25/25
^W/TC*3036-060A3 ^W/TCY4036-060A3 ^WCZ6036-060A3	BAYHTRV310E	208/240	3	21/24	7.5/10.0	25600/34100	1	7.5/10.0		26/30	30/30	30/30
^W/TC*3036-060A3 ^W/TCY4036-060A3 ^WCZ6036-060A3	BAYHTRV315E	208/240	3	31/36	11.27/15.0	38500/51200	2	7.5/10.0	3.76/5.0	39/45	40/45	40/45
^W/TC*3048-060A3 ^W/TCY4048-060A3 ^WCZ6048-060A3	BAYHTRV320E	208/240	3	42/48	15.0/20.0	51200/68300	2	7.5/10.0	7.5/10.0	52/60	60/60	60/60
^W/TC*3060A3 ^W/TCY4048-060A3 ^WCZ6048-060A3	BAYHTRV325E#	208/240	3	52/60	18.78/25.0	64100/85300	2	11.26/15.0	7.5/10.0	65/75	70/80	70/80
^W/TC*3036-060A4 ^WCZ6036-060A4	BAYHTRV405E	480	3	6	5.0	17100	1	5.0		8	15	15
^W/TC*3036-060A4 ^WCZ6036-060A4	BAYHTRV408E	480	3	10	8.0	27300	1	8.0		13	15	15
^W/TC*3036-060A4 ^WCZ6036-060A4	BAYHTRV410E	480	3	12	10.0	34100	1	10.0		15	15	15
^W/TC*3036-060A4 ^WCZ6036-060A4	BAYHTRV415E	480	3	18	15.0	51200	2	10.0	5.0	23	25	25
^W/TC*3048-060A4 ^WCZ6048-060A4	BAYHTRV420E	480	3	24	20.0	68300	2	10.0	10.0	30	30	30
^W/TC*3060A4 ^WCZ6048-060A4	BAYHTRV425E	480	3	30	25.0	85300	2	15.0	10.0	38	40	40

#### Notes:

- ① Any power supply and circuits must be wired and protected in accordance with local electrical codes.
- ② The values listed in the above table are for the electric heater only.
- 3 Field wiring must be rated at least 75 deg. C.
- 4 The HACR circuit breaker is for U.S.A. installations only.
- 5 For Canada installation reference only.

- ^ indicates a "2" or a "4".
- \* indicates an alpha character.
- # Heater uses fuses.

All values are for the electric heater only.

## Installer's Guide

Follow these instructions to install the supplementary heaters in packaged units as described in the table on page 1.

These instructions do not purport to cover all variations in system hookups nor to provide for every possible contingency to be met in connection with installation. Should further information be desired, or should particular problems arise which are not covered sufficiently for the purchaser's purposes, refer the matter to the manufacturer.

- 1. Check for any shipping damage, and if any, report it to the carrier immediately.
- 2. Check the heater nameplate and compare with the table on page 1 make certain that the available power supply complies with the table for the particular heater being used.

#### **Install Heaters**

- Remove screws that secure the heater panel (located within control box access panel).
- 2. Remove and discard the patch plate covering the opening where the heater will be inserted.
- 3. Slide the heater element section of heater assembly into the opening and, tipping the heater slightly forward against the unit barrier, slide the heater up to engage the lip on the top of the barrier opening. Push forward to engage the slot on the bottom of the heater face into the tongue on the barrier. This will hold the heater in place. Replace the four screws removed in step 1. See Figure 1.
- 4. Connect the polarized plug from the heater control box to the matching polarized plug on the bottom of the air conditioner or heat pump unit control box. See Figure 1.

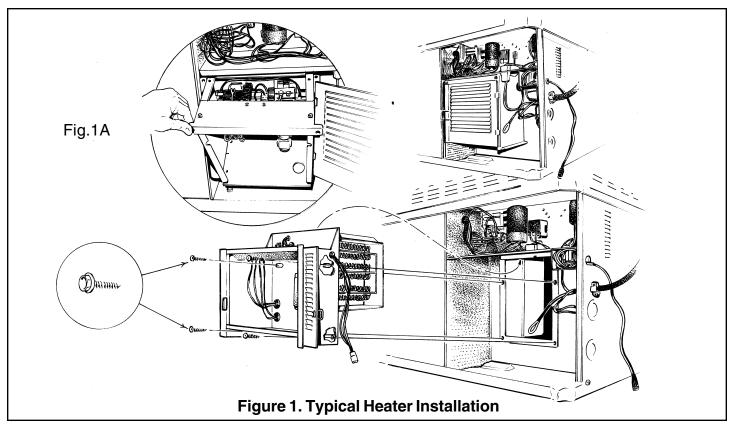
## **Low Voltage Wiring**

All low voltage connections have been made to the heater via the polarized plug. The low voltage controls can be connected to the room thermostat from the air conditioner or heat pump Low Voltage Leads. (See field wiring diagrams on pages 3 and 4.) Low voltage is 24 Volts.

### **High Voltage Wiring**

- 1. Open the heater's control box access cover.
- 2. Remove the unit's power supply knockout.
- 3. Route the field wire through the heater compartment and strain relief bushing into the bottom of the heater housing.
- 4. Connect the power supply to the heater's wire leads or fuse block depending on the particular heater being used. (See the heater wiring diagram for hookup connections.)
- Connect the power supply ground lead to the heater's ground lead or ground lug depending on the particular heater being used.
- 6. Place the included extra heater wiring diagram on the inner surface of the control/heater access panel next to the unit wiring diagram, as the diagam on the heater maybe only partially visible when installed.
- 7. Close the heater housing cover.
- 8. Reinstall the control box / heater access panel.
- 9. Restore power to unit.

The BAYHTRV115E, V120E, V125E, V315E, V320E and V325E electric heaters have an inner pivoting control box to allow easy access to fuse links mounted on the heater back plate. Remove the 2 screws from the top front of the heater control box and pull the top of the inner control box toward you. For easier replacement of contactors, after pivoting the inner control box toward you, remove the screws securing the top brace of the heater control box shown in Fig. 1A.



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#### 4TCC3, 4TCX3, 4TCY4 - FIELD WIRING DIAGRAM PACKAGED COOLING/ELECTRIC HEAT UNIT UNIT HEATER AREA UNIT CONTROL BOX 1 1 INTER-COMPONENT WIRING ---- 24V. } FACTORY POLARIZED PLUG — 24V. — LINE V.} FIELD WIRING FLECTRIC HEATER CONTROL BOX WIRE COLOR DESIGNATION ABBR COLOR ABBR COLOR BK BLACK PR PURPLE BL BLUE RD RED BR BROWN WH WHITE COMMON В GREEN YL YELLOW FAN (GR) COMPRESSOR – G ----W1 | HEAT FIRST STAGE (WH) -----W2 | HEAT SECOND STAGE (WH) 24V UNIT LOW VOLTAGE AREA R GROUND FIELD PROVIDED 1 PH 1 PH JUMPER G Y W R 1 2 POWER NOTE 6 POWE 3 PH 3 PH POWER POWER UNIT HEATER NOTE 1,8 SINGLE POWER ENTRY ACCESSORY CONNECTIONS FIG. 1 UNIT HEATER AREA UNIT CONTROL BOX FIELD PROVIDED ELECTRIC NOTES: FIELD CONNECTED HEATER FUSED DISCONNECT SIZE, POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH CODES. CONTROL BOX WIRED. TO COMPR TO COMPR. CONTACTOR 2. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT AND HEATER NAMEPLATE. 3. LOW VOLTAGE WIRING TO BE 18 AWG MINIMUM $\perp \perp \perp$ CONDUCTOR UNIT HEATER 4. SEE HEATER NAMEPLATE FOR CURRENT RATING OF HEATER USED. **FUSES FUSES** 5. SEE UNIT AND HEATER DIAGRAM FOR ELECTRICAL CONNECTION DETAILS. SPE ACCESSORY JUMPER MUST BE CONNECTED BETWEEN 1 AND 2 FOR FAN TO OPERATE IN HEATING. **UNIT LOW** VOLTAGE AREA 7. SOME THERMOSTATS PROVIDE THE 'G' SIGNAL IN THE COOLING MODE ONLY. TO PROVIDE THE GOOD THE GOOD ONLY TO PROVIDE THE GOOD ONLY TO SERVING THE GOOD ONLY THE HEATING MODE AN ACCESSORY RELAY IS REQUIRED. SEE FIG. 3 GROUND SEE SPEK INSTALLER'S GUIDE WIRE 1 PH FOR ALL OTHER EXAMPLES FOR PROPER CONNECTIONS. POWER 8. FOR COOLING ONLY OMIT THE ELECTRIC HEATER, ASSOCIATED POWER WIRES. AND THE 'W' SIGNAL THERMOSTAT WIRE. SINGLE POWER 3 PH **ENTRY** POWER 9. FIG. 4 DEMONSTRATES CONNECTION OF THE TWO STAGE ELECTRIC HEAT THERMOSTAT ACCESSORY ONLY. FOR FURTHER UNIT CONNECTION DETAILS REFER TO THE OTHER TWO STAGE ELECTRIC HEAT CONNECTIONS AUTO CHANGEOVER FIG. 3 FIG. 2 THERMOSTAT CONNECTIONS FIGURES. NOTE 7 10. THE W1 (WH) WIRE IS FIRST STAGE ELECTRIC HEAT. IF THE ELECTRIC HEATER ACCESSORY HAS TWO HEATING STAGES, THE W2 (WH) WIRE IS SECOND STAGE ELECTRIC HEAT. UNIT I OW NOTE 10 \_<del>\_\_\_</del>\_\_ (WH) W1 \_ W ---W2 (WH)W2 UNIT LOW R VOLTAGE AREA BAY24X042 4 FIFI D Y1 G Y2 W1 W2 RC RH **JUMPERS** TYPICAL THERMOSTAT FIELD INSTALLED JUMPERS G Y W RC RH TYPICAL THERMOSTAT 756977i2

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