INSTALLER'S GUIDE

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

See Unit Rating nameplate for max output temperature and static pressure range. Installer must check off Heater Installed nameplate on unit per instructions on nameplate

EHTR-**IN**-33C
18-HB20D1-4

Library	Service Literature
Product Section	Unitary
Product	Unitary Accessories
Model	Electric,Steam,Hot Water Coils
Literature Type	Installer's Guide
Sequence	33C
Date	April 2000
File No.	SV-UN-ACC-EHTR-IN-33C 4/00
Supersedes	EHTR-IN-33B

Models:

BAYHTRN105A-BAYHTRNW30A

Used With:

TCC / WCC - F
TCM / WCM - F
TCP / WCP - F
TCX / WCX - G
TCY / WCY - G WCZ - F

SUPPLEMENTARY ELECTRIC HEATERS

⚠WARNING: HAZARDOUS VOLTAGE - DISCONNECT POWER BEFORE SERVICING

SINGLE PACKAGE UNIT INSTRUCTION

These instructions are for the installation of supplementary heaters in single package units described in the table on page 2.

These instructions do not purport to cover all variations in system hook-ups 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, the matter should be referred 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 2 - make certain that the available power supply complies with the table for the particular heater being used.

INSTALLATION OF HEATERS

1. Remove screws that secure the air conditioner's or heat pump's heater access panel (located alongside control box access panel).
2. Remove and discard the patch plate covering the opening where the heater will be inserted, save the screws for later use.

IMPORTANT: Look through the opening. Locate a small hole or bracket, on the bulkhead *opposite* from opening that the heater element(s) will be inserted into.

There is a heater element(s) support rod extending out from heater element frame, this support rod is to be inserted in the small hole or bracket to support heater elements and prevent damage to the heater due to airflow surges.

⚠ CAUTION: Note the correct position of the heater before inserting the heater element(s). The word "BOTTOM" must be positioned as shown in Figures 1, 2, 3, and 4.

3. Slide the heater element section of heater assembly into opening. See Figures 1 and 3.

⚠ CAUTION: Do not damage the heater element by scraping on the opening edges, while inserting.

NOTE: Allow heater control box assembly to lie or stand beside the front of the unit. See Figure 1.

IMPORTANT: Be sure that the heater element support rod is securely inserted in small hole or bracket to support the heater element.

4. Secure the heater assembly to the unit with the screws saved from step 2.
5. There are three (3) short sheet metal screws inserted in the panel where the heater control box is to be mounted. Remove these three screws and discard.
6. Position the heater control box and secure with the three (3) long screws provided with the heater assembly. See Figures 2 and 4.

NOTE: Some heater accessories do not include the hinged access door on the heater control box. Those have a cover plate on the heater control box, secured with screws.

7. Connect the polarized plug from the heater control box to the polarized plug from the air conditioner or heat pump unit. See Figures 1, 2, 3, and 4.

LOW VOLTAGE WIRING

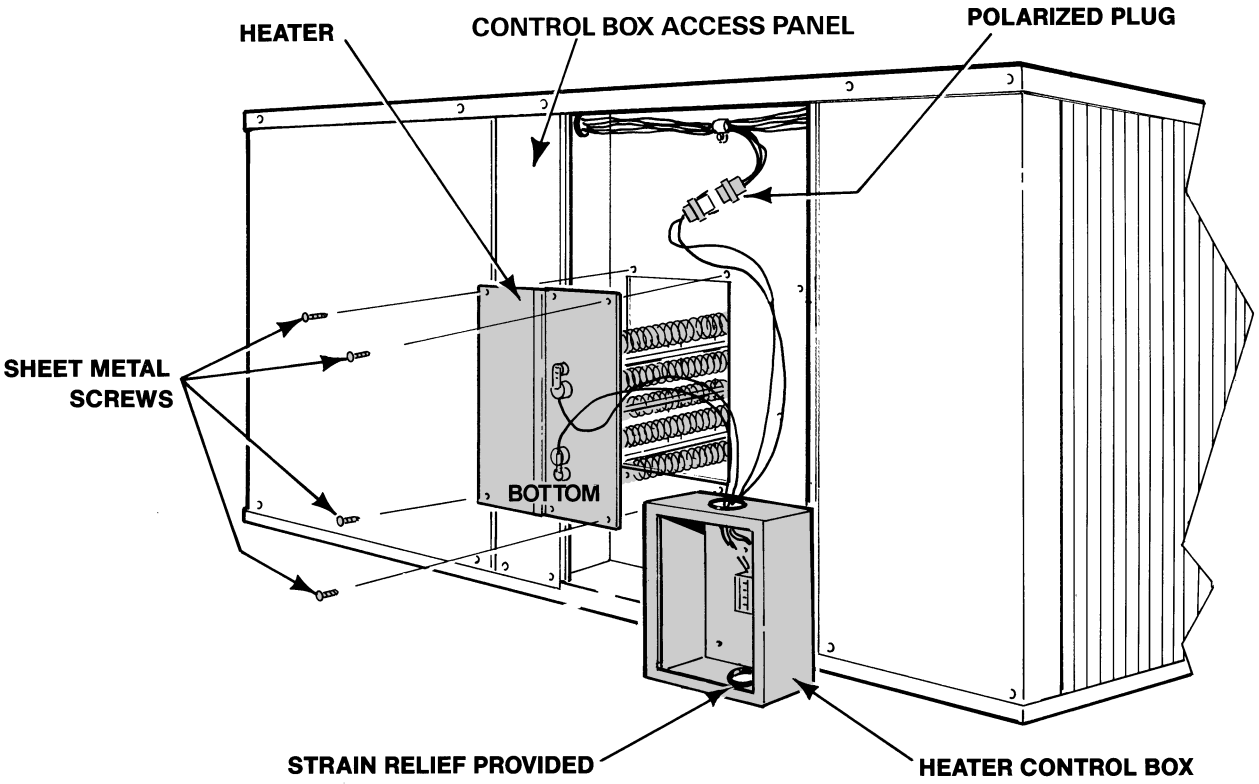
All low voltage connections have been made to the heater via the polarized plugs. The low voltage controls can be connected to the room thermostat from the air conditioner or heat pump Low Voltage Leads. (See field wiring diagrams.) Low voltage is 24 Volts.

HIGH VOLTAGE WIRING

1. Remove the unit's control box access cover.
2. Place the bushing (provided) in the hole in the control box through which the field wire is to be routed (See Figure 3).
3. Remove the unit's power supply knockout.
4. Route the field wire through the unit control box and bushing into the heater compartment.
5. 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.)
6. Connect the power supply ground lead to the heater's ground lead or ground lug depending on the particular heater being used.
7. Close the heater control box cover.
8. Reinstall the control box access panel and the heater access panel.
9. Restore power to unit.

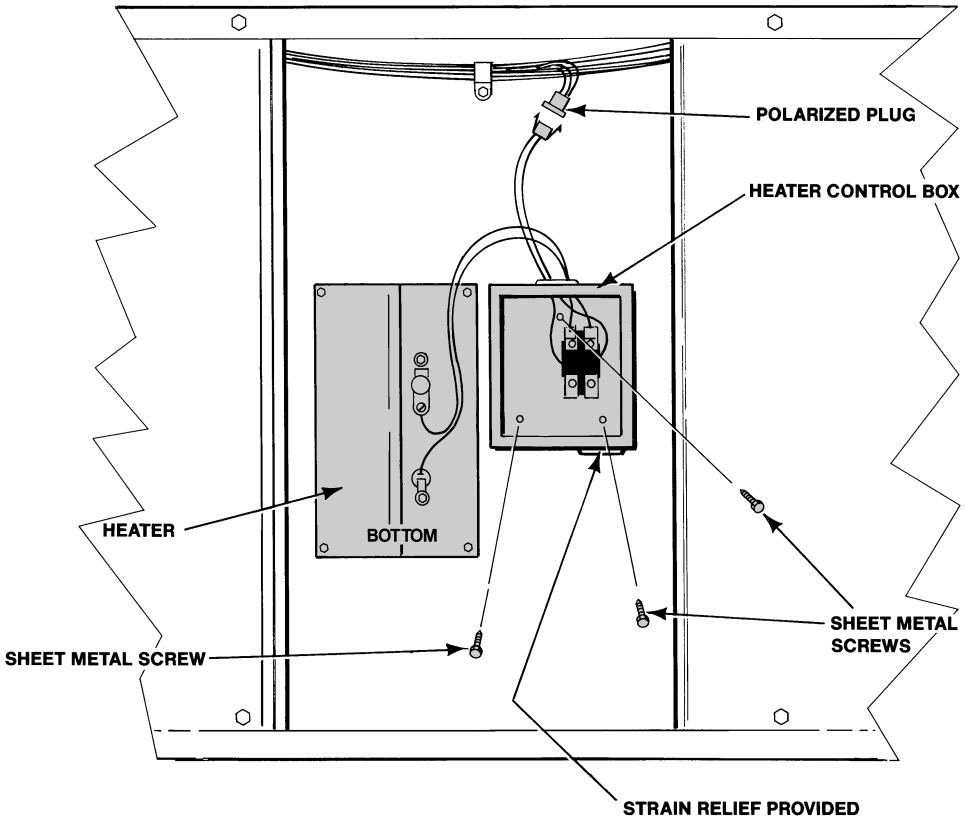
1

TYPICAL SINGLE ELEMENT HEATER



2

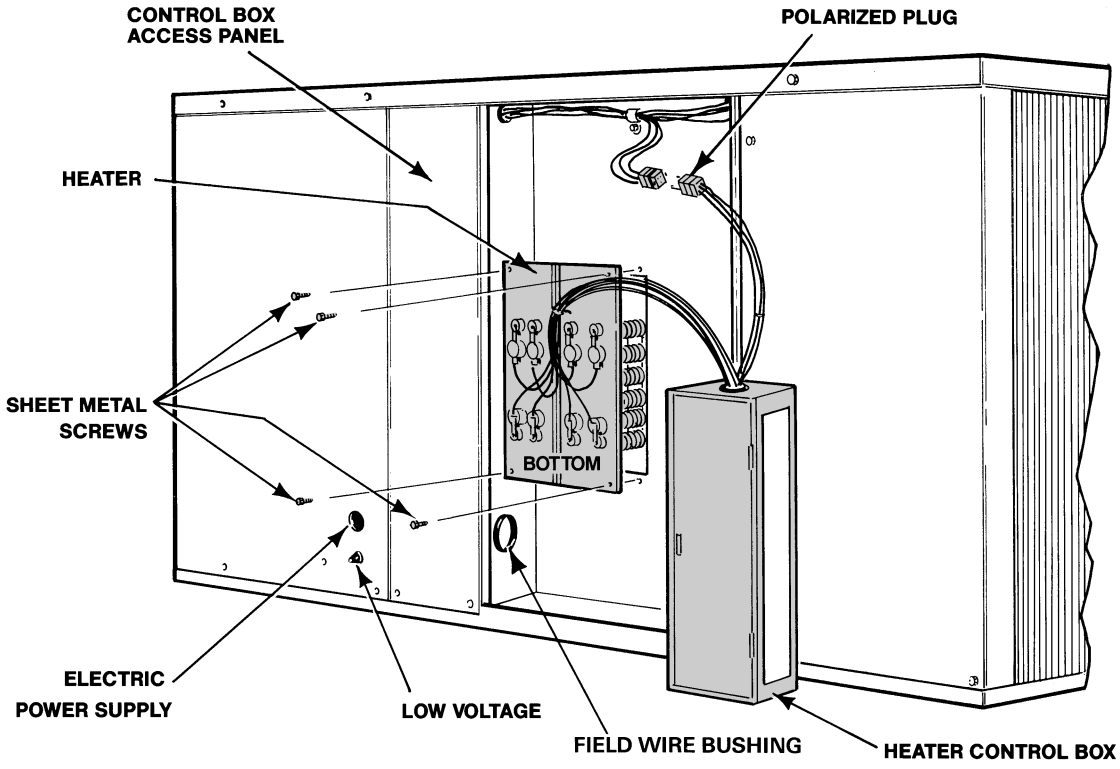
TYPICAL SINGLE ELEMENT HEATER



Pub. No. 18-HB20D1-4

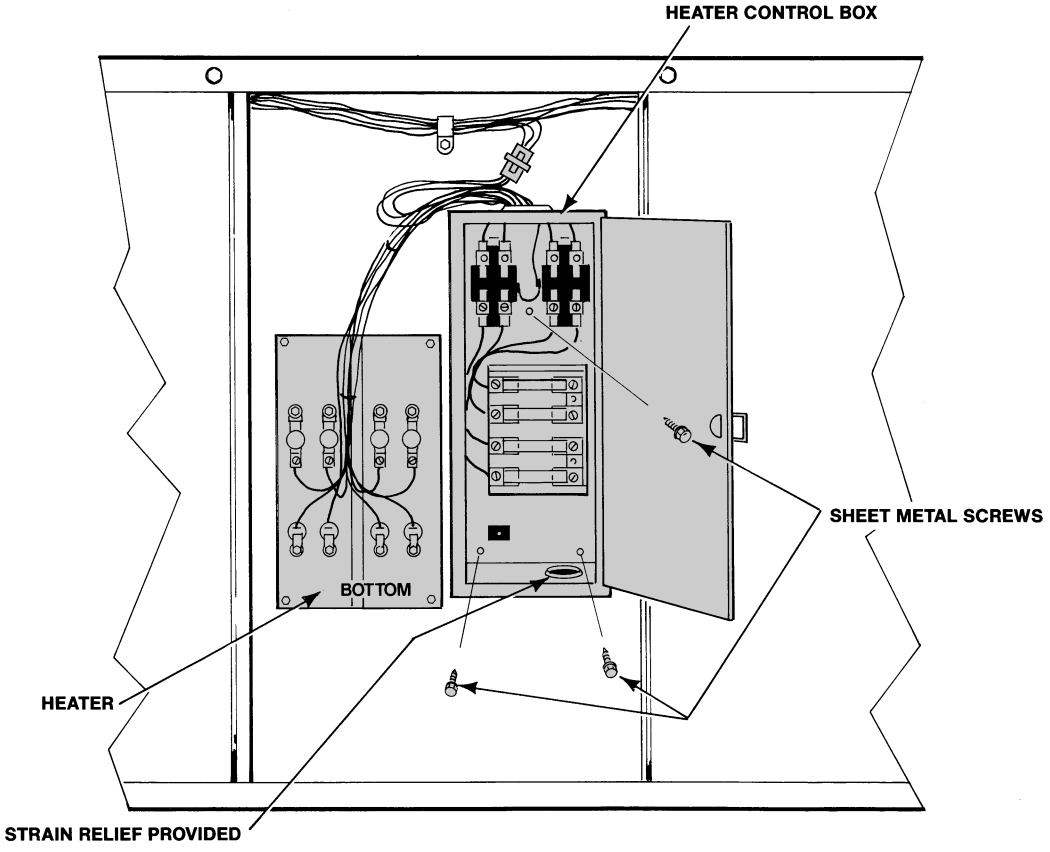
3

TYPICAL DUAL ELEMENT HEATER



4

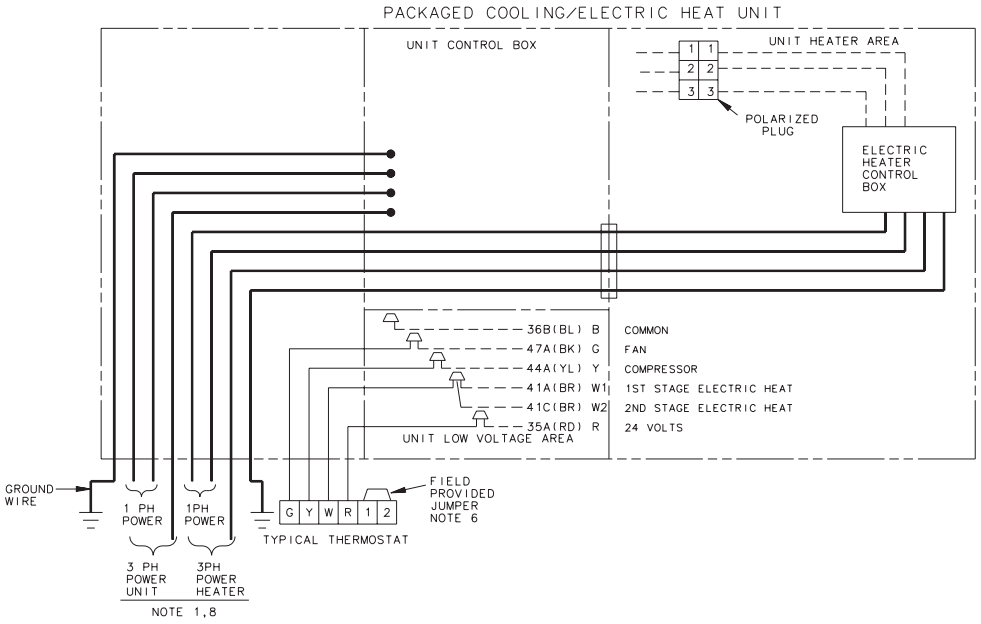
TYPICAL DUAL ELEMENT HEATER



UNIT MODEL	ELECTRIC HEATER MODEL	RATED VOLTAGE	PHASE	HEATER CAPACITY		NO. OF STAGES	KW / STAGE		MCA (2)	MAX. FUSE OR HQCR CKT BKR SIZE (4)	CANADA ONLY MAX. CKT BKR SIZE (5)
				KW	BTUH		1	2			
TCC/WCC018F1	BAYHTRN105A	208/240	1	3.74/4.98	12800/17000	1	3.74/4.98	---	22/26(3)	25/30	30/30
	BAYHTRN108A	208/240	1	5.76/7.68	19700/26200	1	5.76/7.68	---	35/40(3)	35/40	40/40
TC*/WC*024F/G1 * = C,P,X,Y	BAYHTRN105A	208/240	1	3.74/4.98	12800/17000	1	3.74/4.98	---	22/26(3)	25/30	30/30
	BAYHTRN108A	208/240	1	5.76/7.68	19700/26200	1	5.76/7.68	---	35/40(3)	35/40	40/40
	BAYHTRN110A	208/240	1	7.47/9.96	25500/34000	1	7.47/9.96	---	45/52(3)	45/60	50/60
	BAYHTRN112A	208/240	1	8.64/11.52	29500/39300	2	4.32/5.76	4.32/5.76	52/60(3)	60/60	60/60
TC*/WC*030F/G1 TC*/WC*036F/G1 TC*/WC*042F/G1 * = C,M,P,X,Y WCZ036F1	BAYHTRN105A	208/240	1	3.74/4.98	12800/17000	1	3.74/4.98	---	22/26(3)	25/30	30/30
	BAYHTRN108A	208/240	1	5.76/7.68	19700/26200	1	5.76/7.68	---	35/40(3)	35/40	40/40
	BAYHTRN110A	208/240	1	7.47/9.96	25500/34000	1	7.47/9.96	---	45/52(3)	45/60	50/60
	BAYHTRN112A	208/240	1	8.64/11.52	29500/39300	2	4.32/5.76	4.32/5.76	52/60(3)	60/60	60/60
	BAYHTRN115A	208/240	1	11.21/14.94	38300/51000	2	7.47/9.96	3.74/4.98	67/78(3)	70/80	70/100
	BAYHTRN117A	208/240	1	12.97/17.28	44200/59000	2	8.64/11 .52	4.33/5.76	78/90(3)	80/90	100/100
TCC060F1	BAYHTRN105A	208/240	1	3.74/4.98	12800/17000	1	3.74/4.98	---	22/26(3)	25/30	30/30
TC*/WC*048F/G1 TC*/WC*060F/G1 * = C,P,X,Y WCZ060F1	BAYHTRN110A	208/240	1	7.47/9.96	25500/34000	1	7.47/9-96	---	45/52(3)	45/60	50/60
	BAYHTRN112A	208/240	1	8.64/11.52	29500/39300	2	4.32/5.76	4.32/5.76	52/60(3)	60/60	60/60
	BAYHTRN115A	208/240	1	11.21/14.94	38300/51000	2	7.47/9.96	3.74/4.98	67/78(3)	70/80	70/100
	BAYHTRN117A	208/240	1	12.97/17.28	44200/59000	2	8.64/11 .52	4.33/5.76	78/90(3)	80/90	100/100
	BAYHTRN123A	208/240	1	17.28/23.04	59000/78600	2	8.64/11 .52	8.64/11 .52	104/120 (3)	125/125	125/125
TC*/WC*036F/G3 * = C,P,X WCZ036F3	BAYHTRN306A	208/240	3	4.69/6.25	16000/21000	1	4.69-6.25	---	17/19	20/20	20/20
	BAYHTRN310A	208/240	3	7.47/9.96	25500/34000	1	7.47/9-96	---	26/30	30/30	30/30
	BAYHTRN315A	208/240	3	11.18/14.90	38100/50800	1	11.18/14.90	---	39/45	40/45	40/50
	BAYHTRN310F	208/240	3	7.47/9.96	25500/34000	2	3 74/4 98	3.74/4.98	26/30	30/30	30/30
TC*/WC*042F/G3 TC*/WC*048F/G3 * = C,P,X	BAYHTRN306A	208/240	3	4.69/6.25	16000/21000	1	4.69-6.25	---	17/19	20/20	20/20
	BAYHTRN310A	208/240	3	7.47/9.96	25500/34000	1	7.47/9.96	---	26/30	30/30	30/30
	BAYHTRN315A	208/240	3	11.18/14.90	38100/50800	1	11.18/14.90	---	39/45	40/45	40/50
	BAYHTRN320A	208/240	3	14.94/19.92	51000/68000	2	7.47/9.96	7.47/9.96	53/60	60/60	60/60
	BAYHTRN310F	208/240	3	7.47/9.96	25500/34000	2	3.74/4.98	3.74/4.98	26/30	30/30	30/30
TC*/WC*060F/G3 * = C,P,X WCZ060F3	BAYHTRN306A	208/240	3	4.69/6.25	16000/21000	1	4.69-6.25	---	17/19	20/20	20/20
	BAYHTRN310A	208/240	3	7.47/9.96	25500/34000	1	7.47/9.96	---	26/30	30/30	30/30
	BAYHTRN315A	208/240	3	11.18/14.90	38100/50800	1	11.18/14.90	---	39/45	40/45	40/50
	BAYHTRN320A	208/240	3	14.94/19.92	51000/68000	2	7.47/9.96	7.47/9.96	53/60	60/60	60/60
	BAYHTRN330A	208/240	3	22.36/29.80	76300/101700	2	11.18/14.90	11.18/14.90	78/90	80/90	100/100
	BAYHTRN310F	208/240	3	7.47/9.96	25500/34000	2	3.74/4.98	3.74/4.98	26/30	30/30	30/30
TC*/WC*036F/G4 * = C,P,X	BAYHTRN406A	480	3	6.25	21000	1	6.25	---	10	10	10
	BAYHTRN410A	480	3	9.96	34000	1	9.96	---	15	15	15
	BAYHTRN415A	480	3	14.90	50800	1	14.90	---	22	25	30
	BAYHTRN410F	480	3	9.96	34000	2	4.98	4.98	15	15	15
TC*/WC*048F/G4 * = C,P,X	BAYHTRN406A	480	3	6.25	21000	1	6.25	---	10	10	10
	BAYHTRN410A	480	3	9.96	34000	1	9.96	---	15	15	15
	BAYHTRN415A	480	3	14.90	50800	1	14.90	---	22	25	30
	BAYHTRN420A	480	3	19.92	68000	2	9.96	9.96	30	30	30
	BAYHTRN410F	480	3	9.96	34000	2	4.98	4.98	15	15	15
TC*/WC*060F/G4 * = C,P,X	BAYHTRN406A	480	3	6.25	21000	1	6.25	---	10	10	10
	BAYHTRN410A	480	3	9.96	34000	1	9.96	---	15	15	15
	BAYHTRN415A	480	3	14.90	50800	1	14.90	---	22	25	30
	BAYHTRN420A	480	3	19.92	68000	2	9.96	9.96	30	30	30
	BAYHTRN430A	480	3	29.80	101700	2	14.90	14.90	45	45	50
	BAYHTRN410F	480	3	9.96	34000	2	4.98	4.98	15	15	15
TCC/WCC036FW	BAYHTRNW10A	600	3	9.96	34000	1	9.96	---	13	15	15
	BAYHTRNW15A	600	3	14.90	50800	1	14.90	---	18	20	20
TCC/WCC048FW	BAYHTRNW10A	600	3	9.96	34000	1	9.96	---	13	15	15
	BAYHTRNW15A	600	3	14.90	50800	1	14.90	---	18	20	20
	BAYHTRNW20A	600	3	19.92	68000	2	9.96	9.96	24	25	30
TCC/WCC060FW	BAYHTRNW10A	600	3	9.96	34000	1	9.96	---	13	15	15
	BAYHTRNW15A	600	3	14.90	50800	1	14.90	---	18	20	20
	BAYHTRNW20A	600	3	19.92	68000	2	9.96	9.96	24	25	30
	BAYHTRNW30A	600	3	29.80	101700	2	14.90	14.90	36	40	40
TCM048F1	BAYHTRN110A	208/240	1	7.47/9.96	25500/34000	1	7.47/9.96	---	45/52(3)	45/60	50/60
	BAYHTRN115A	208/240	1	11.21/14.94	38300/51000	2	7.47/9.96	3.74/4.98	67/78(3)	70/80	70/100

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

TCC,TCM,TCP,TCX,TCY - FIELD WIRING DIAGRAM



NOTES:

1. FUSED DISCONNECT SIZE, POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH CODES.
2. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT AND HEATER NAMEPLATE.
3. LOW VOLTAGE WIRING TO BE 18 AWG MINIMUM CONDUCTOR.
4. SEE HEATER NAMEPLATE FOR CURRENT RATING OF HEATER USED.
5. SEE UNIT AND HEATER DIAGRAM FOR ELECTRICAL CONNECTION DETAILS.
6. JUMPER MUST BE CONNECTED BETWEEN 1 AND 2 FOR FAN TO OPERATE IN HEATING.
7. SOME THERMOSTATS PROVIDE THE 'G' SIGNAL IN THE COOLING MODE ONLY. TO PROVIDE THE 'G' SIGNAL IN THE HEATING MODE AN ACCESSORY RELAY IS REQUIRED. SEE FIG. 3 FOR PROPER CONNECTIONS.
8. FOR COOLING ONLY OMIT THE ELECTRIC HEATER, ASSOCIATED POWER WIRES. AND THE 'W' SIGNAL THERMOSTAT WIRE.
9. FIG. 4 DEMONSTRATES CONNECTION OF THE TWO STAGE ELECTRIC HEAT THERMOSTAT ACCESSORY ONLY. FOR FURTHER UNIT CONNECTION DETAILS REFER TO THE OTHER FIGURES.
10. THE 41A(BR) WIRE IS FIRST STAGE ELECTRIC HEAT. IF THE ELECTRIC HEATER ACCESSORY HAS TWO HEATING STAGES THE 41C(BR) WIRE IS SECOND STAGE ELECTRIC HEAT.

FIG. 1 SINGLE POWER ENTRY ACCESSORY CONNECTIONS

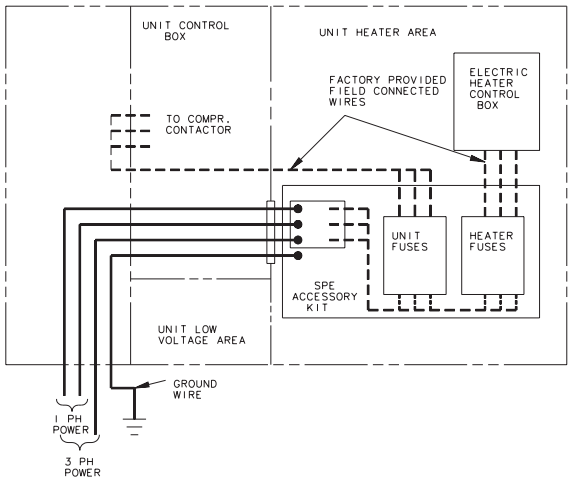


FIG.2 ECONOMIZER ACCESSORY CONNECTIONS

(NOT APPLICABLE TO THE TCM---F MODELS)

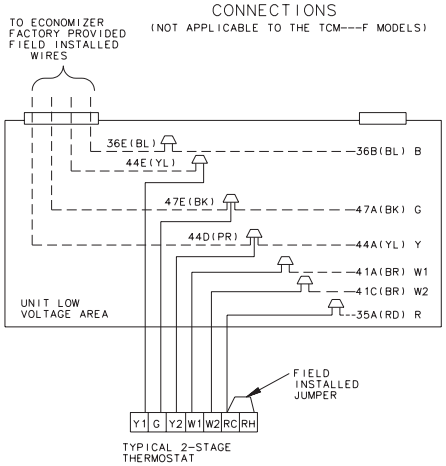


FIG.3 AUTO CHANGEOVER THERMOSTAT CONNECTIONS

NOTE 7

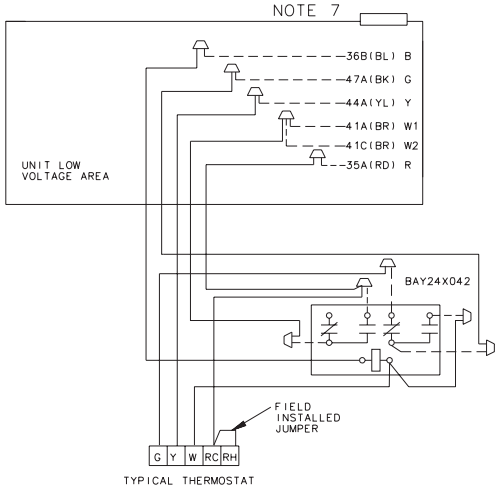
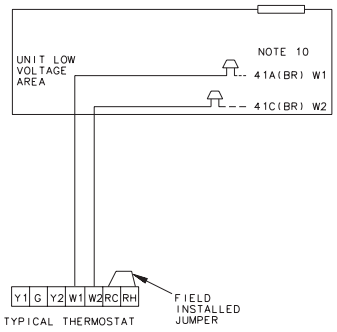


FIG. 4 TWO STAGE ELECTRIC HEAT CONNECTIONS



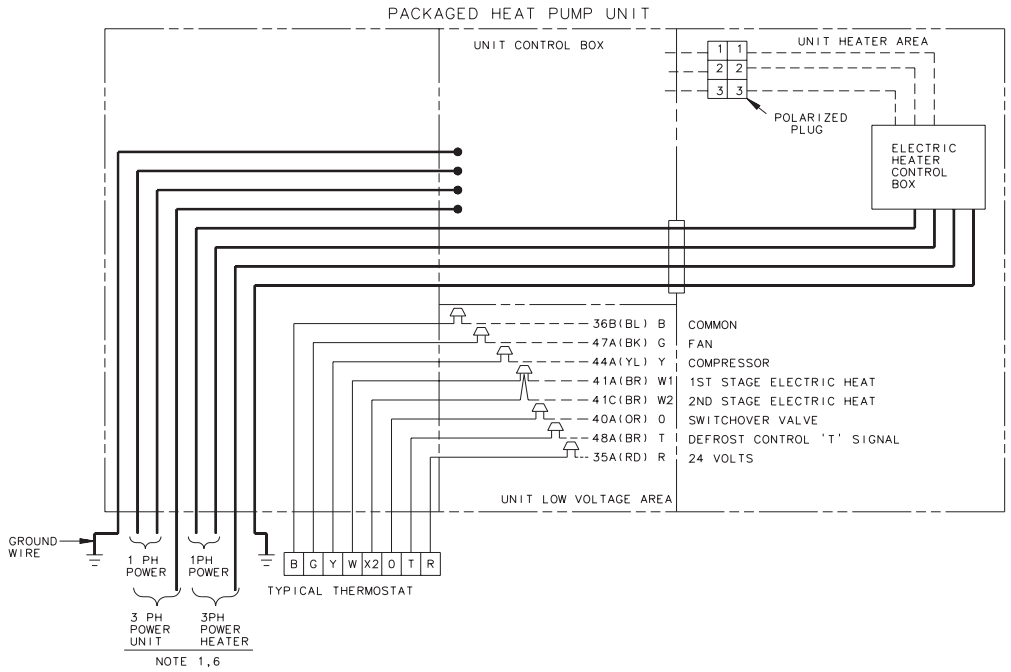
INTER-COMPONENT WIRING

- 24V. } FACTORY WIRING
- LINE V. } FACTORY WIRING
- 24V. } FIELD WIRING
- LINE V. } FIELD WIRING

WIRE COLOR DESIGNATION			
ABBR	COLOR	ABBR	COLOR
BK	BLACK	PR	PURPLE
BL	BLUE	RD	RED
BR	BROWN	WH	WHITE
GR	GREEN	YL	YELLOW
OR	ORANGE		

From Dwg. 21C757977 Rev. 2

WCC,WCM,WCP,WCX,WCY - FIELD WIRING DIAGRAM



NOTES:

1. FUSED DISCONNECT SIZE, POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH CODES.
2. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT AND HEATER NAMEPLATE.
3. LOW VOLTAGE WIRING TO BE 18 AWG MINIMUM CONDUCTOR.
4. SEE HEATER NAMEPLATE FOR CURRENT RATING OF HEATER USED.
5. SEE UNIT AND HEATER DIAGRAM FOR ELECTRICAL CONNECTION DETAILS.
6. IF ELECTRIC HEATER ACCESSORY IS NOT INSTALLED OMIT THE ELECTRIC HEATER, ASSOCIATED POWER WIRES AND THE 'W' AND 'X2' THERMOSTAT WIRES.
7. FIG. 3 DEMONSTRATES CONNECTION OF THE OUTDOOR THERMOSTAT ACCESSORY ONLY. FOR FURTHER UNIT CONNECTION DETAILS REFER TO THE OTHER FIGURES.
8. THE 41A(BR) WIRE IS FIRST STAGE ELECTRIC HEAT. IF THE ELECTRIC HEATER ACCESSORY HAS TWO HEATING STAGES THE 41C(BR) WIRE IS SECOND STAGE ELECTRIC HEAT.
9. WHEN THE BAYECON054A OR –055A ECONOMIZER IS INSTALLED THE BAYRLAY003 RELAY ACCESSORY KIT IS REQUIRED TO INTERFACE THE ECONOMIZER TO THE HEAT PUMP FOR PROPER SYSTEM OPERATION. WHEN THE BAYECON054B OR –055B OR 073A ECONOMIZER IS INSTALLED, THE BAYRLAY004A RELAY ACCESSORY KIT IS REQUIRED TO INTERFACE THE ECONOMIZER TO THE HEAT PUMP FOR PROPER SYSTEM OPERATION.
10. THE BAYSTAT033A OUTDOOR THERMOSTAT ACCESSORY KIT CONTAINS A THERMOSTAT AND A RELAY. THE RELAY IS NOT REQUIRED TO BE USED IN THIS APPLICATION.

FIG. 1 SINGLE POWER ENTRY ACCESSORY CONNECTIONS

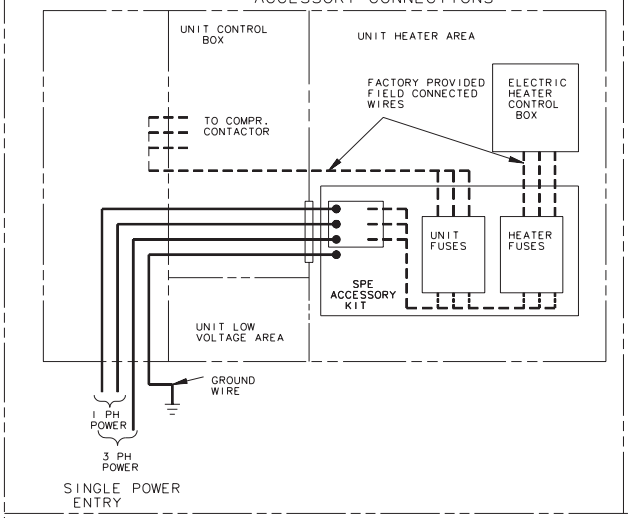


FIG. 2 ECONOMIZER ACCESSORY CONNECTIONS

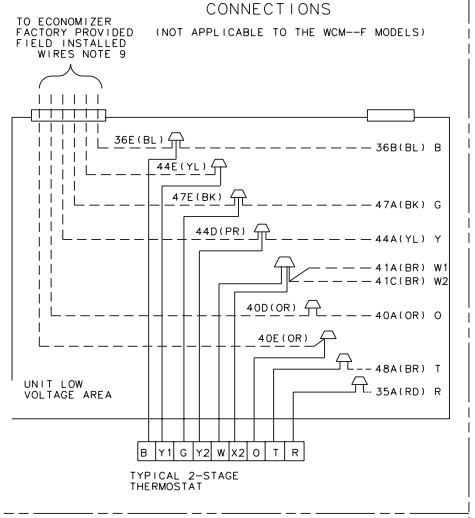
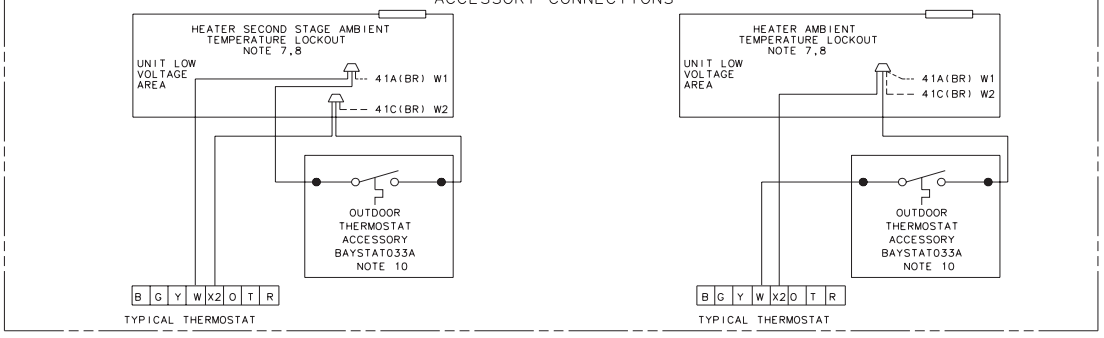


FIG. 3 OUTDOOR THERMOSTAT ACCESSORY CONNECTIONS



INTER–COMPONENT WIRING

- 24V. LINE V. } FACTORY WIRING
- 24V. LINE V. } FIELD WIRING

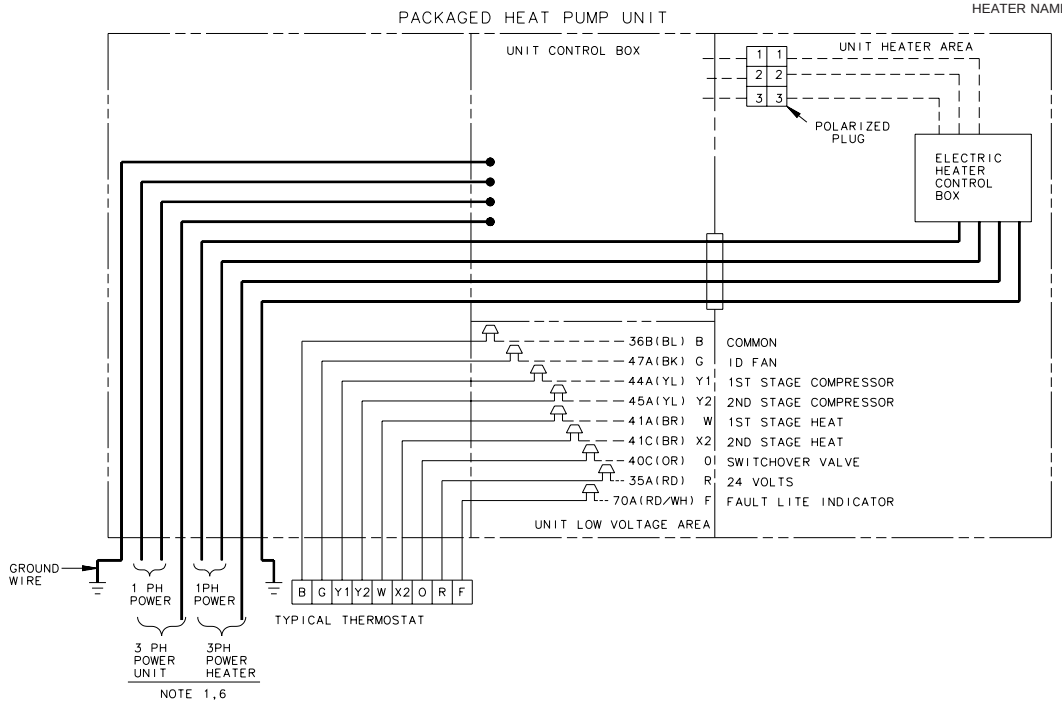
WIRE COLOR DESIGNATION			
ABBR	COLOR	ABBR	COLOR
BK	BLACK	PR	PURPLE
BL	BLUE	RD	RED
BR	BROWN	WH	WHITE
GR	GREEN	YL	YELLOW
OR	ORANGE		

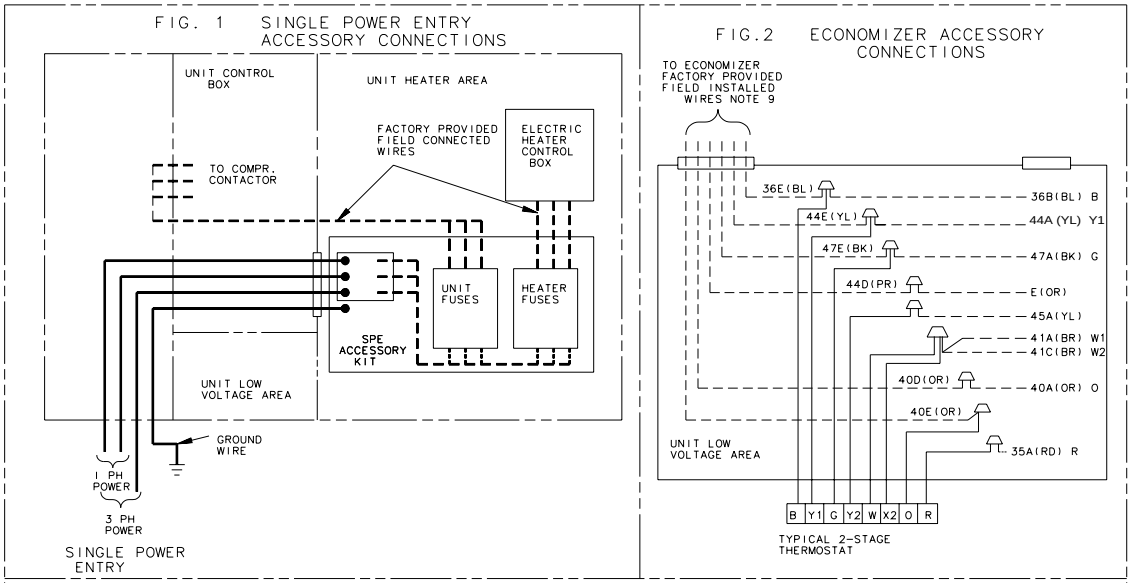
From Dwg. 756978 Rev. 1

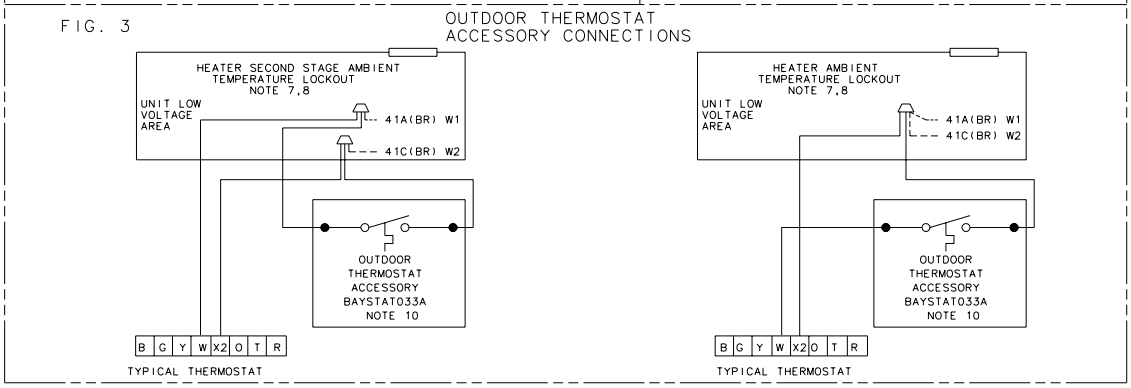
WCZ - FIELD WIRING DIAGRAM

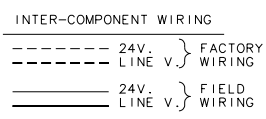
NOTES:

1. FUSED DISCONNECT SIZE, POWER WIRING AND GROUNDING OF EQUIPMENT MUST COMPLY WITH CODES.
2. BE SURE POWER SUPPLY AGREES WITH EQUIPMENT AND HEATER NAMEPLATE.
3. LOW VOLTAGE WIRING TO BE 18 AWG MINIMUM CONDUCTOR.
4. SEE HEATER NAMEPLATE FOR CURRENT RATING OF HEATER USED.
5. SEE UNIT AND HEATER DIAGRAM FOR ELECTRICAL CONNECTION DETAILS.
6. IF ELECTRIC HEATER ACCESSORY IS NOT INSTALLED OMIT THE ELECTRIC HEATER, ASSOCIATED POWER WIRES AND THE 'W' AND 'X2' THERMOSTAT WIRES.
7. FIG. 3 DEMONSTRATES CONNECTION OF THE OUTDOOR THERMOSTAT ACCESSORY ONLY. FOR FURTHER UNIT CONNECTION DETAILS REFER TO THE OTHER FIGURES.
8. THE 41A(BR) WIRE IS FIRST STAGE ELECTRIC HEAT. IF THE ELECTRIC HEATER ACCESSORY HAS TWO HEATING STAGES THE 41C(BR) WIRE IS SECOND STAGE ELECTRIC HEAT.
9. WHEN THE BAYECON054A OR –055A ECONOMIZER IS INSTALLED THE BAYRLAY003 RELAY ACCESSORY KIT IS REQUIRED TO INTERFACE THE ECONOMIZER TO THE HEAT PUMP FOR PROPER SYSTEM OPERATION. WHEN THE BAYECON054B OR –055B OR 073A ECONOMIZER IS INSTALLED, THE BAYRLAY004A RELAY ACCESSORY KIT IS REQUIRED TO INTERFACE THE ECONOMIZER TO THE HEAT PUMP FOR PROPER SYSTEM OPERATION.
10. THE BAYSTAT033A OUTDOOR THERMOSTAT ACCESSORY KIT CONTAINS A THERMOSTAT AND A RELAY. THE RELAY IS NOT REQUIRED TO BE USED IN THIS APPLICATION.









WIRE COLOR DESIGNATION			
ABBR	COLOR	ABBR	COLOR
BK	BLACK	PR	PURPLE
BL	BLUE	RD	RED
BR	BROWN	WH	WHITE
GR	GREEN	YL	YELLOW
OR	ORANGE		

From Dwg. 757229

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