

# INSTALLER'S GUIDE

18-HB2D4-1

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

Models:

**BAYHTRV\*05A-  
BAYHTRV\*20A**

\* maybe 1,3,4

Used With:

4TCC3 / 2/4WCC3 - A  
4TCX3 / 2/4WCX3 - A

**SUPPLEMENTARY  
ELECTRIC HEATERS**

**⚠ WARNING: HAZARDOUS VOLTAGE - DISCONNECT POWER BEFORE SERVICING**

UNIT MODEL	ELECTRIC HEATER MODEL	RATED VOLTAGE	PHASE	AMPS	HEATER CAPACITY		NO. OF STAGES	KW / STAGE		MCA (2)	MAX. FUSE OR HOOCR CKT BKR SIZE (4)	CANADA ONLY MAX. CKT BKR SIZE (5)
					KW	BTUH		1	2			
^W/TC*3018A1	BAYHTRV105A	208/240	1	18/21	3.76/5.0	12800/17100	1	3.76/5.0		23/26	25/30	25/30
^W/TC*3024A1	BAYHTRV105A	208/240	1	18/21	3.76/5.0	12800/17100	1	3.76/5.0		23/26	25/30	25/30
	BAYHTRV110A	208/240	1	36/42	7.50/10.0	25600/34100	1	7.50/10.0		45/52	45/60	45/60
^W/TC*3030A1 ^W/TC*3036A1 ^W/TC*3042A1	BAYHTRV105A	208/240	1	18/21	3.76/5.0	12800/17100	1	3.76/5.0		23/26	25/30	25/30
	BAYHTRV110A	208/240	1	36/42	7.50/10.0	25600/34100	1	7.50/10.0		45/52	45/60	45/60
	BAYHTRV115A#	208/240	1	54/63	11.27/15.0	38500/51200	2	7.50/10.0	3.76/5.0	68/78	70/80	70/80
^W/TC*3048A1 ^W/TC*3060A1	BAYHTRV105A	208/240	1	18/21	3.76/5.0	12800/17100	1	3.76/5.0		23/26	25/30	25/30
	BAYHTRV110A	208/240	1	36/42	7.50/10.0	25600/34100	1	7.50/10.0		45/52	45/60	45/60
	BAYHTRV115A#	208/240	1	54/63	11.27/15.0	38500/51200	2	7.50/10.0	3.76/5.0	68/78	70/80	70/80
	BAYHTRV120A#	208/240	1	72/83	15.00/20.0	51200/68300	2	7.50/10.0	7.50/10.0	90/104	90/110	90/110
^W/TC*3036A3	BAYHTRV305A	208/240	3	10/12	3.76/5.0	12800/17100	1	3.76/5.0		13/15	15/15	15/15
	BAYHTRV310A	208/240	3	21/24	7.50/10.0	25600/34100	1	7.50/10.0		26/30	30/30	30/30
	BAYHTRV315A	208/240	3	31/36	11.27/15.0	38500/51200	2	7.50/10.0	3.76/5.0	39/45	40/45	40/45
^W/TC*3048A3 ^W/TC*3060A3	BAYHTRV305A	208/240	3	10/12	3.76/5.0	12800/17100	1	3.76/5.0		13/15	15/15	15/15
	BAYHTRV310A	208/240	3	21/24	7.50/10.0	25600/34100	1	7.50/10.0		26/30	30/30	30/30
	BAYHTRV315A	208/240	3	31/36	11.27/15.0	38500/51200	2	7.50/10.0	3.76/5.0	39/45	40/45	40/45
	BAYHTRV320A	208/240	3	42/48	15.00/20.0	51200/68300	2	7.50/10.0	7.50/10.0	52/60	60/60	60/60
^W/TC*3036A4	BAYHTRV405A	480	3	6	5	17100	1	5		8	15	15
	BAYHTRV410A	480	3	12	10	34100	1	10		15	15	15
	BAYHTRV415A	480	3	18	15	51200	2	10	5	23	25	25
^W/TC*3048A4 ^W/TC*3060A4	BAYHTRV405A	480	3	6	5	17100	1	5		8	15	15
	BAYHTRV410A	480	3	12	10	34100	1	10		15	15	15
	BAYHTRV415A	480	3	18	15	51200	2	10	5	23	25	25
	BAYHTRV420A	480	3	24	20	68300	2	10	10	30	30	30

Notes:

- Any power supply and circuits must be wired and protected in accordance with local electrical codes.
- The MCA values listed are for the electric heater only.
- Field wiring must be rated at least 75 deg. C.
- The HACR circuit breaker is for U.S.A. installations only.
- For Canada installation reference only.
  - ^ indicates a "2" or a "4".
  - \* indicates an alpha character.
  - # Heater uses fuses.

### SINGLE PACKAGE UNIT INSTRUCTION

These instructions are for the installation of supplementary heaters in single package units 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, the matter should be referred to the manufacturer.

- Check for any shipping damage, and if any, report it to the carrier immediately.
- 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 use

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## INSTALLATION OF HEATERS

1. Remove screws that secure the air conditioner's or heat pump's heater panel (located within control box access panel).
2. Remove and discard the patch plate covering the opening where the heater will be inserted, save the four screws for later use.
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. See Figure 1.
7. 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

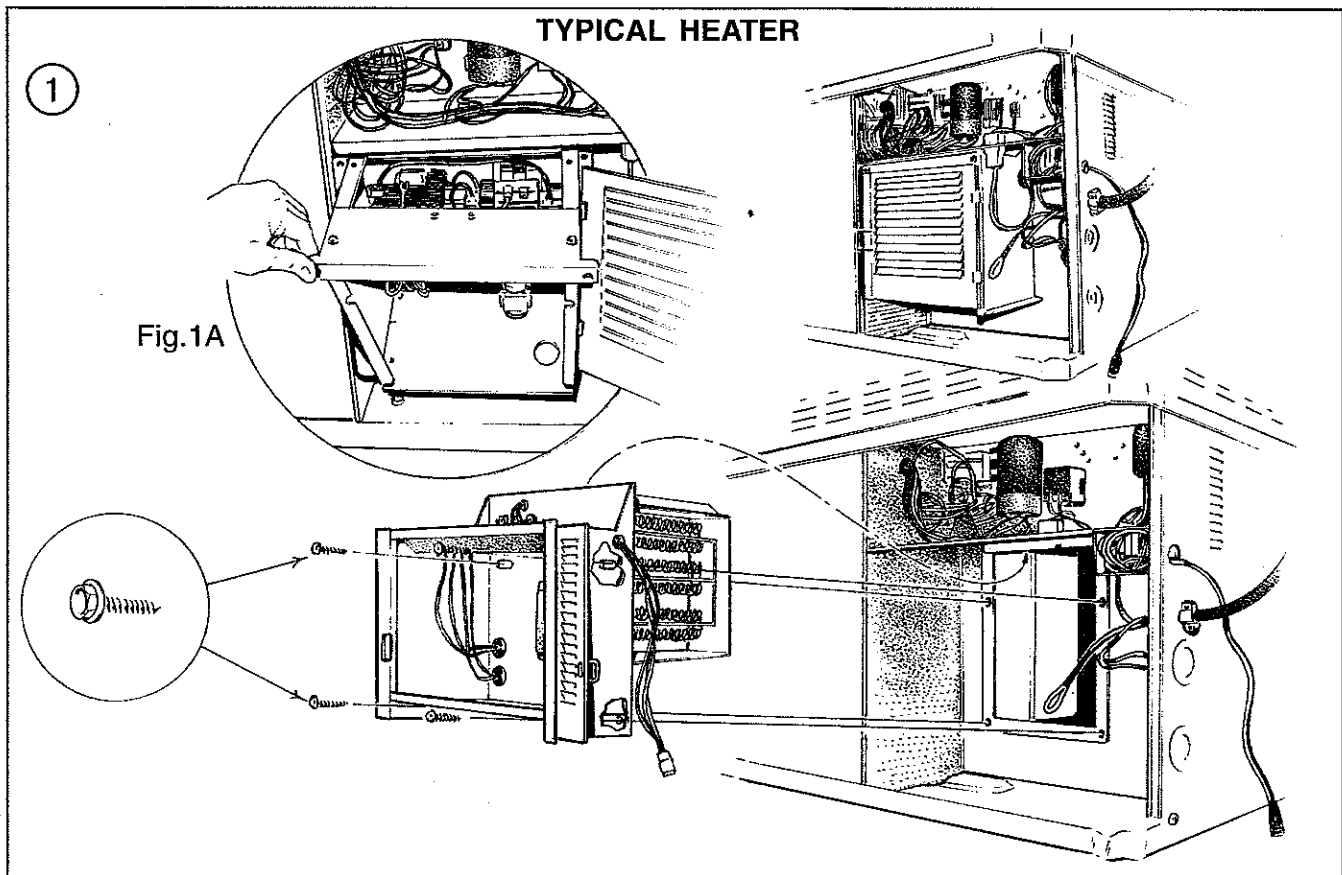
All low voltage connections have been made to the heater via the polarized plug. The low voltage controls can be connected to the room thermostat from the air conditioner or heat pump Low Voltage Leads. (See field wiring diagrams.) Low voltage is 24 Volts.

## 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.)

5. 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 diagram 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.

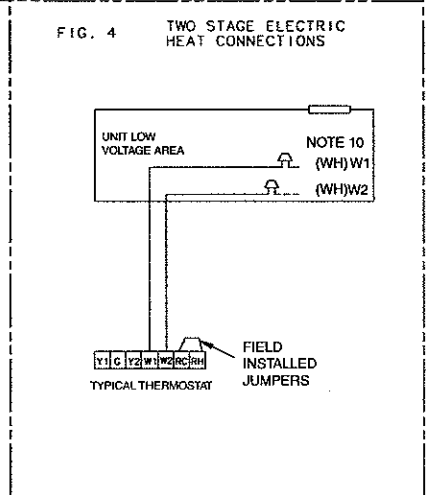
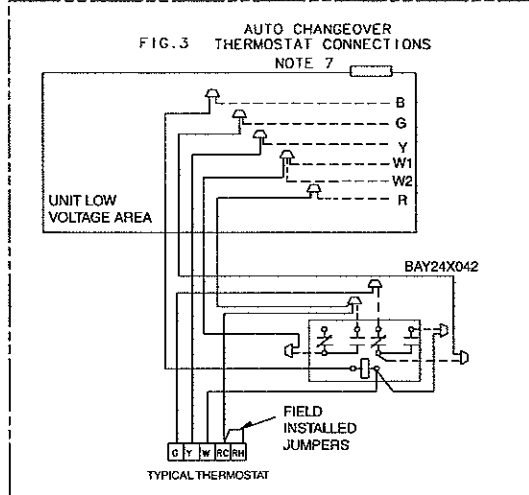
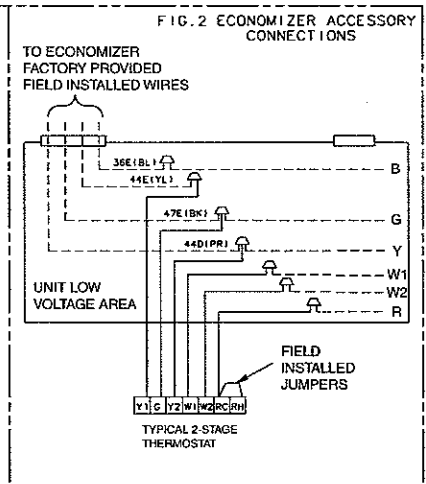
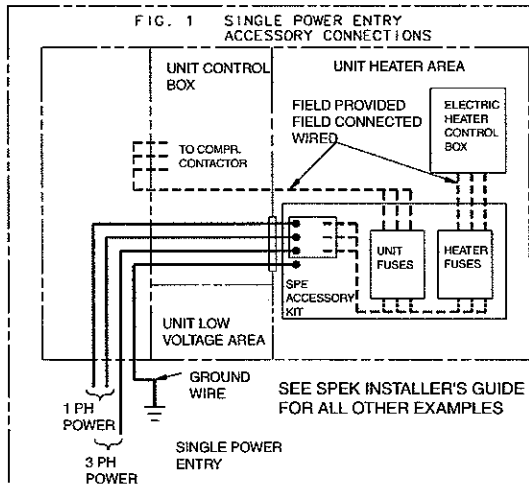
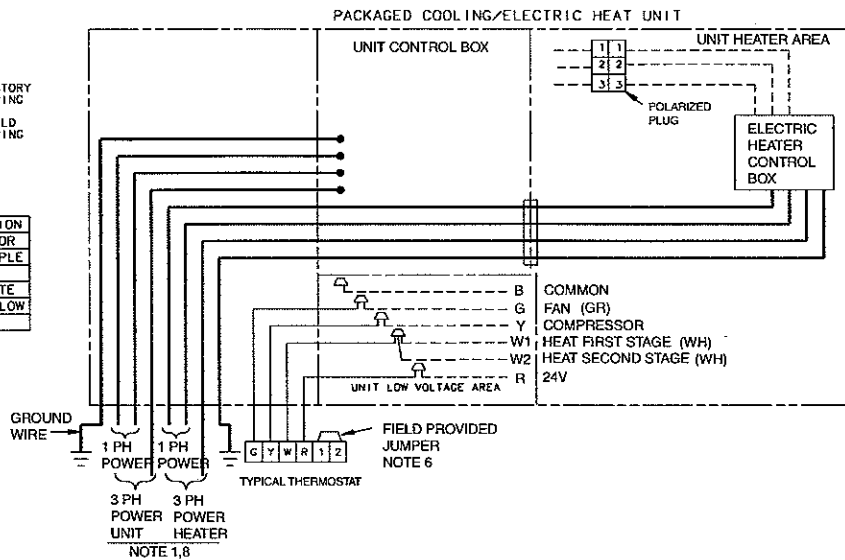
The BAYHTRV115A, V120A, V315A, and V320A electric heaters have an inner pivoting control box to allow easy access to fuse links mounted on the heater back plate. Remove the 2 screws from the top front of the heater control box and pull the top of the inner control box toward you. For easier replacement 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.



## 4TCC3, 4TCX3 - FIELD WIRING DIAGRAM

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

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



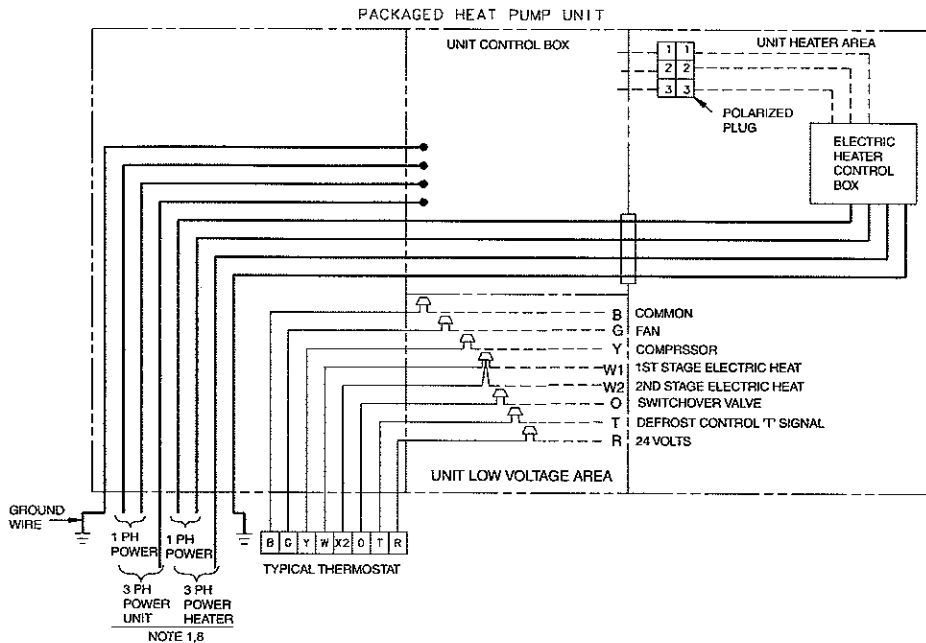
**NOTES:**

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 41(BR) WIRE IS FIRST STAGE ELECTRIC HEAT. IF THE ELECTRIC HEATER ACCESSORY HAS TWO HEATING STAGES THE 41(CBR) WIRE IS SECOND STAGE ELECTRIC HEAT.

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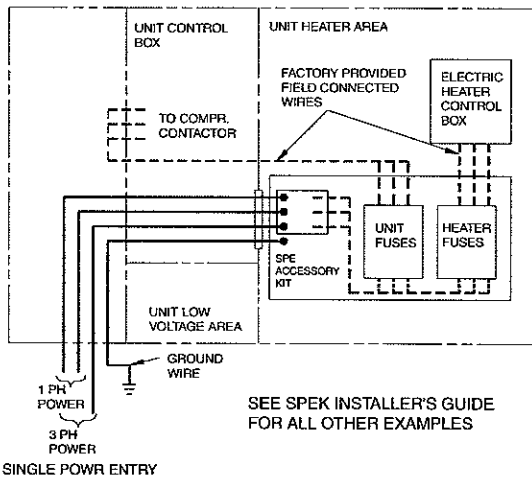
## 2/4WCC3, 2/4WCX3 - FIELD WIRING DIAGRAM



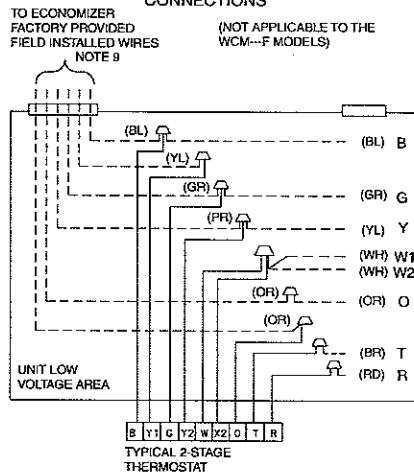
**NOTES:**

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 BAYRAY003 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 BAYRAY004A 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.

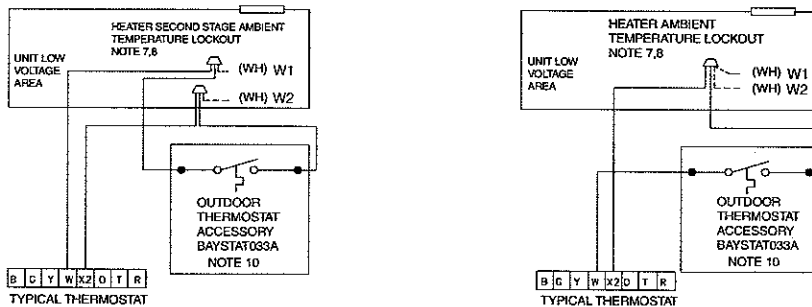
**FIG. 1 SINGLE POWER ENTRY ACCESSORY CONNECTIONS**



**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		

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