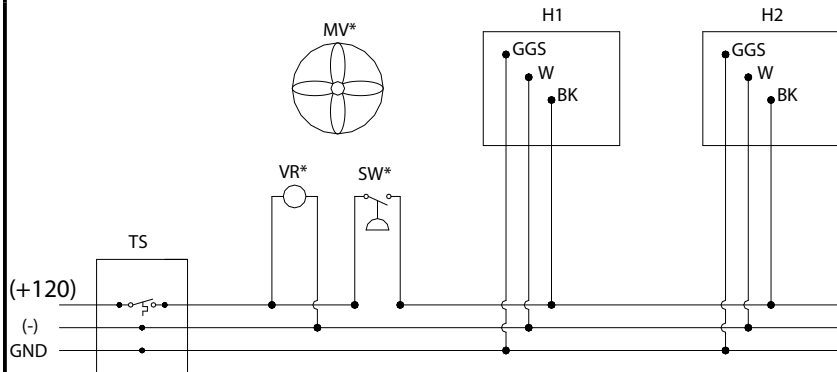


MODELS RIHL, RIHN, RIHVL, AND RIHVN

120 VAC DSI HEATER ELECTRICAL SUPPLY AND THERMOSTAT WIRING*



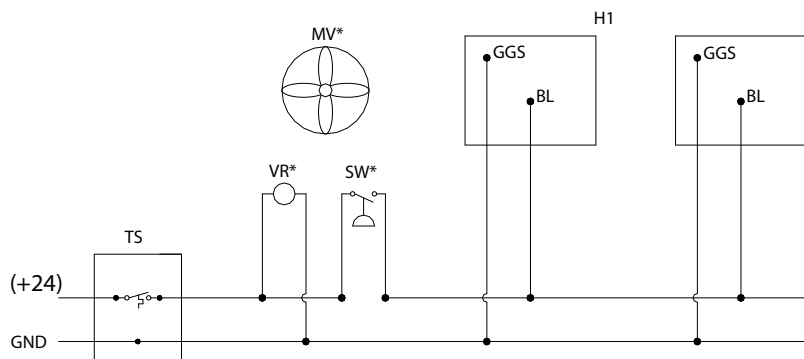
LEGEND

(+120) = 120 VAC Supply Voltage
 (-) = Supply Neutral
 GND = Earth Ground
 MV* = Mechanical Ventilation*
 VR* = Ventilation Relay*
 SW* = Ventilation Interlock Switch*
 (normally opened)
 TS = Thermostat
 H1 = Heater #1
 H2 = Heater #2
 GGS = Green Ground Screw
 (inside control box)
 W = White Wire – Neutral
 BK = Black Wire – 120 VAC call for heat

Field wiring having a minimum temperature rating of at least 302 °F (150 °C) shall be used and supply circuit wiring shall have a minimum size of 16 AWG (1.0mm²).

See common notes at the bottom of the page.

24 VAC DSI SINGLE-STAGE HEATER ELECTRICAL SUPPLY AND THERMOSTAT WIRING*



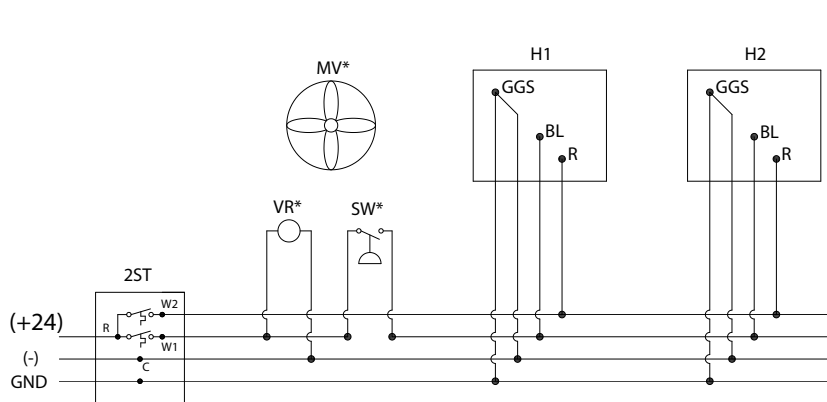
LEGEND

(+24) = 24 VAC Supply Voltage
 GND = Earth Ground
 MV* = Mechanical Ventilation*
 VR* = Ventilation Relay*
 SW* = Ventilation Interlock Switch*
 (normally opened)
 TS = Thermostat
 H1 = Heater #1
 H2 = Heater #2
 GGS = Green Ground Screw
 (inside control box)
 BL = Blue Wire – 24 VAC call for heat

Field wiring having a minimum temperature rating of at least 302 °F (150 °C) shall be used and supply circuit wiring shall have a minimum size of 16 AWG (1.0mm²).

See common notes at the bottom of the page.

24 VAC DSI 2-STAGE HEATER ELECTRICAL SUPPLY AND THERMOSTAT WIRING*



LEGEND

(+24) = 24VAC Supply Voltage
 (-) = Supply Neutral
 GND = Earth Ground
 MV* = Mechanical Ventilation*
 VR* = Ventilation Relay*
 SW* = Ventilation Interlock Switch*
 (normally opened)
 2ST = 2-Stage Thermostat
 H1 = Heater #1
 H2 = Heater #2
 GGS = Green Ground Screw
 (inside control box)
 BL = Blue Wire – 24 VAC call for
 LOW heat
 R (on heater) = Red Wire – 24 VAC call for
 HIGH heat

Field wiring having a minimum temperature rating of at least 140 °F (60 °C) shall be used and supply circuit wiring shall have a minimum size of 18 AWG (0.8mm²).

Use 18/4 solid class 2 thermostat cable between heater and thermostat with a maximum length of 125 feet (38m).

See common notes at the bottom of the page.

COMMON NOTES

* Mechanical ventilation interlock required when all combustion air is provided by a mechanical air supply system.

#10 ring terminal required for ground service conductor (by others) to attach to green ground screw on heater.

The heater control is extremely polarity sensitive and the heater will cycle on and off erratically if the electrical supply is not wired correctly. Have a qualified electrician check that the electrical supply circuit is properly grounded and that the electrical supply polarity is correct.

All components purchased separately. All wiring provided by others.

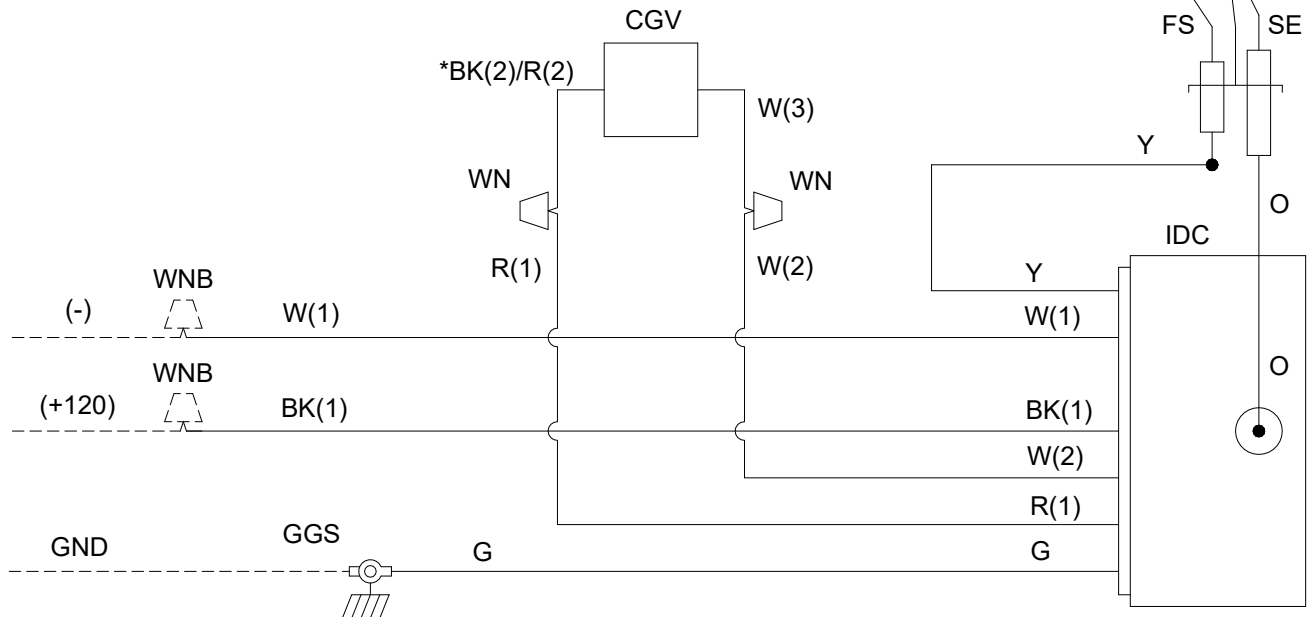
MODELS RIHL, RIHN, RIHVL, AND RIHVN

120 VAC DIRECT SPARK IGNITION ELECTRICAL CONNECTION DIAGRAM

120 VAC – 60 Hz – 1 Phase

Heater Maximum Current Draw = 0.14 Amps.

Total Heater Power Consumed = 16.8 VÅ



- Control is polarity sensitive.
- Others to provide and install #10 ring terminal required for ground service conductor to attach to green ground screw on heater.
- If any of the original wire as supplied with the appliance must be replaced, it must be replaced with wiring material having a temperature rating of at least 302°F (150°C) and a minimum size of 16 AWG (1.0mm²).
- *Si l'un des câbles d'origine fournis avec cet appareil doit être remplacé, le remplacer par un câble convenant pour une température nominale d'au moins 302°F (150°C) et une taille minimale de 16 AWG (1,0 mm²).*

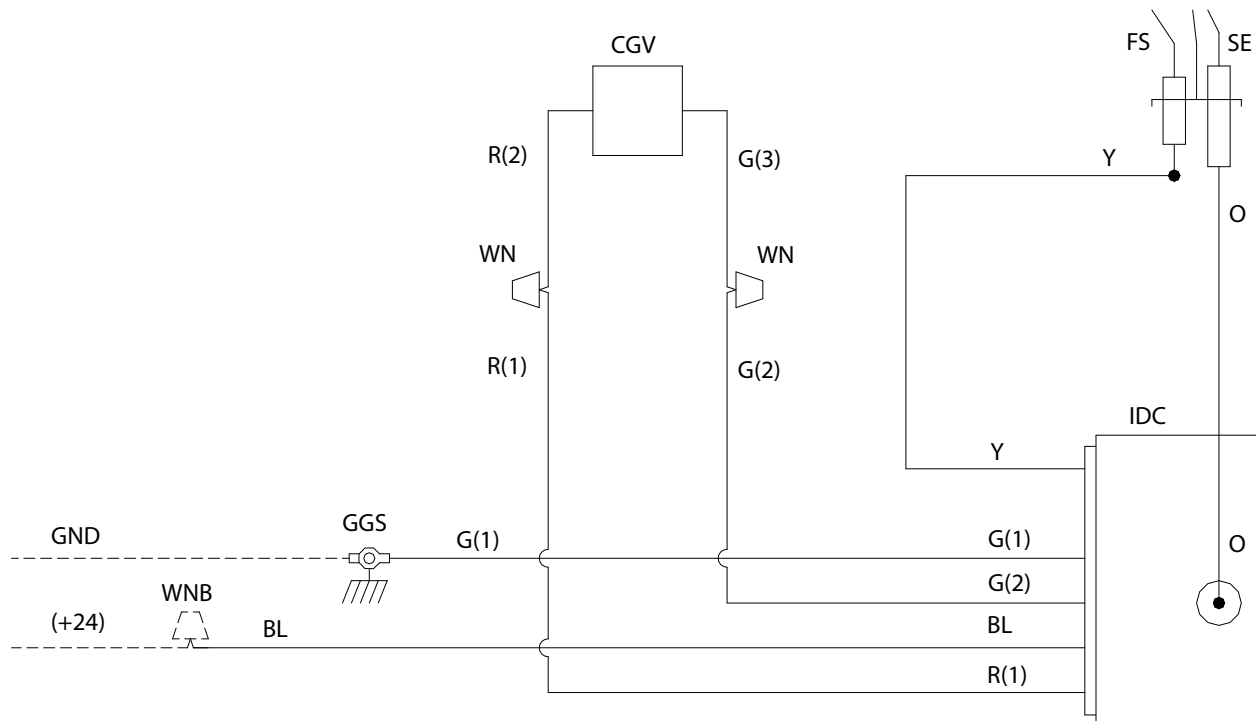
LEGEND

Function	Symbol	Item Description	Connecting Wire Color
Electrical Supply / Thermostatic Control	(+120)	120 VAC Supply (by others)	Black
	(-)	Common / Neutral (by others)	White
	GND	Ground (by others)	Green (with Ring Terminal by others)
Wiring	----	Wiring (by others)	
	WNB	Wire Nut (by others)	
	WN	Wire Nut	
Ground	GGS	Green Ground Screw Inside Control Box	Green (with Ring Terminal)
Ignition Detection Control	IDC	Ignition Detection Control	
	O	Ignition Cable to Spark Electrode	Orange
	Y	Flame Sensor Input	Yellow
	W(1)	Common / Neutral Input	White
	BK(1)	120 VAC Supply Input	Black
	W(2)	Neutral to Combination Gas Valve	White
	R(1)	120 VAC to Combination Gas Valve	Red
	G	Ground	Green (with Ring Terminal)
Spark Electrode	SE	Spark Electrode	Orange
Flame Sensor	FS	Flame Sensor	Yellow
Combination Gas Valve	CGV	Combination Gas Valve	
	*BK(2)/R(2)	120 VAC to Combination Gas Valve	Black (1 & 2-burner)/Red (3 & 4-burner)
	W(3)	Neutral to Combination Gas Valve	White

MODELS RIHL, RIHN, RIHVL, AND RIHVN

24 VAC SINGLE-STAGE DIRECT SPARK IGNITION ELECTRICAL CONNECTION DIAGRAM

24 VAC – 60 Hz – 1 Phase
 Heater Maximum Current Draw = 0.66 Amps.
 Total Heater Power Consumed = 15.9 VA
 Control is polarity sensitive.



Others to provide and install #10 ring terminal required for ground service conductor to attach to green ground screw on heater.

If any of the original wire as supplied with the appliance must be replaced, it must be replaced with wiring material having a temperature rating of at least 302°F (150°C) and a minimum size of 16 AWG (1.0mm²).

Si l'un des câbles d'origine fournis avec cet appareil doit être remplacé, le remplacer par un câble convenant pour une température nominale d'au moins 302°F (150°C) et une taille minimale de 16 AWG (1,0 mm²).

LEGEND

Function	Symbol	Item Description	Connecting Wire Color
Electrical Supply / Thermostatic Control	(+24)	24 VAC Supply (by others)	Blue
	GND	Ground (by others)	Green (with Ring Terminal by others)
Wiring	---	Wiring (by others)	
	WNB	Wire Nut (by others)	
	WN	Wire Nut	
Ground	GGS	Green Ground Screw Inside Control Box	Green (with Ring Terminal)
Ignition Detection Control	IDC	Ignition Detection Control	
	O	Ignition Cable to Spark Electrode	Orange
	Y	Flame Sensor Input	Yellow
	G(1)	Ground	Green (with Ring Terminal)
	G(2)	Ground to Combination Gas Valve	Green
	BL	24 VAC Supply Input	Blue
	R(1)	24 VAC to Combination Gas Valve	Red
Spark Electrode	SE	Spark Electrode	Orange
Flame Sensor	FS	Flame Sensor	Yellow
Combination Gas Valve	CGV	Combination Gas Valve	
	R(2)	24 VAC to Combination Gas Valve	Red
	G(3)	Ground to Combination Gas Valve	Green