Bard Mfg. Co.
Bryan, Ohio

4100C117 A

WARNING
USE COPPER CONDUCTORS ONLY SUITABLE FOR AT LEAST 75° C.

DANGER
*ELECTRICAL SHOCK HAZARD
*DISCONNECT POWER BEFORE SERVICING.

	Factory	Field	Optional
High Voltage	———	- - -	— - —
Low Voltage	———	- - -	— - —

Composite Wiring Diagram QH Series 3
230/208-60-1, Represents Max. KW Electric Heat

A B C D Labeled wires connect if no options used.
E Move Red wire to 208V tap for 208V operation.
F Install jumper for hi speed blower oper. on models 36, 42, 48, and 60.
H Remove jumper when Low Amb. Bypass is installed.
J Remove jumper when CS2000A Energy Monitor is installed.

208/230-60-1
220/240-50-1
Per Nameplate

"I" Thermostat Option

24VAC, Red, Black, Analog Out, Yellow, Brown, Orange, Green, Red/White, Black/White

CO_2 Controller Part #8403-056

W1/E, D/YO, A, G, Y1, O/B, W2, R, C, L — Red/Yellow, Purple/White, Brown/White, Orange, Yellow, Blue, Brown, Red/White, Black/White

Thermostat Part #8403-060 — Plug #4

4102-066 A

Dehumidification Wiring

Plug #4: 1 Black/White, 2 Red/White, 3 Red, 4 Purple/White, 5 Brown/White, 6 Orange, 7 Yellow, 8 Blue, 9 Brown, 10 Red/White, 11 Black/White, 12

Freeze Protect Tstat Bard Part #8408-038

Purple/White

L, E1, G1, RV, W, A1, W2, G, D, B, R, C; L, E1, BK, TWV, YO, A2, RAT, Y

Red/White, Pink, Red/White, Black/White

Return Air Thermostat

Relay Logic Board

4102-067

"G" Thermostat Option

Temp. and Humidity Controller PART #8403-060 — Plug #4

W1/E Red/Yellow; D/YO Purple/White; A Brown/White; G Orange; Y1 Yellow; O/B Blue; W2 Brown; R Red/White, Red/White; C Black/White; L

O1 Y Y1 C — Black/White — C

4102-065 Term. Block #1 — J — "C" on Relay Logic Board

"E" Thermostat Option

Temp. and Humidity Controller PART #8403-060 — Plug #4

W1/E Red/Yellow; D/YO Purple/White; A Brown/White; G Orange; Y1 Yellow; O/B Blue; W2 Brown; R Red/White; C Black/White

4102-064

"X" Thermostat Option

E, G, Y, O/B, Aux, R, C, L, Rc

Factory Installed Jumper

8403-058 TH5220D1151 Thermostat

8403-060 Thermostat

H200 Humidistat — Plug #4

6 Black/White; 5 Red/White; E Red/Yellow; 4 Purple/White; O1 Brown/White; G Orange; Y Yellow; Y1; B Blue; W1; W2 Brown; R Red/White; C Black/White; L

Low Voltage Term. Block

4102-063

Heat Strip #1 — Limit Switch — Heat Strip #2 — Limit Switch

Blue, Blue, Red, Black

80, 64

Brown 84, Brown 63, Brown 83, Brown, Black

Heater Contactor #1 — Heater Contactor #2

7, 6, 3, B, 4, 9, A — Emergency Heat Relay 72

T2, T1, L2, L1, 73

65, 82, 79

208/230-60-1
220/240-50-1
Per Nameplate

55 Circuit Breaker #2 — Ckt B, Ckt A, Jumper Bar 77 — Line 2 to Power Source, Line 1 to Power Source

Circuit Breaker #1 76 — Ground Lug 52

Blue 66, Blue 66, Blk/White 69, Red, Black/White 69, Brown, Black, Red, 33, 31

70, 71, 68, 67

Red/Yellow, Orange, Orange, 24

Grn — 56: 5 4 3 2 1

Indoor Blower Motor

230/208-60-1

23: 15 14 12 10 9 6 3 2 1

24 Plug #2: Orange, Purple, Red/White, Black, Blue, Brown

25 Plug #3: Brown/White, Black/White, Red/White

Plug #1: Red, Green, Black

Yellow, Black/White

Orange, Red/Yellow, Black/White, Brown

Red, Black, Green, L1, L2, G, 29

Terminal Block #2 11: G, G2, Y, B, W2, R, C, L

Yellow, Blue, Brown, Red/White, Blk/White, Pink

43 F Pressure Lockout

61 Indicator

Compressor Contactor 59: L1, L2, T1, T2

Pink, Black, 35, 34

36, 48

LO, R, W2, L2, Y, RV, L, CC, C, SENSOR; NC, COM, 2 1

Defrost Control 51: SEN JMP, TERM TEMP 30 60 90, SPEED UP

58, 38, 41, 27, 42, 42, 45, 39, 44

Yellow, Yellow/Red, Black/White

Black/White, Red/White, Red, 26, 26, 40

R, 240, 208, E, C, COM — Transformer 60

Black 57

27, 32, 30, Red, Black

Ground, Black/White

47, 28, 46

Upper Control Panel

Low Ambient Bypass (Opt.)

Dual Can Capacitor 17: F, C, H

Terminal Block #4 9: T1, T2, 13

Red, Brown, Yellow, Black/White, Tan

Black, Black

Blue/Red, Red/Black, Blue/Black, Blue, Blue, Black/White, Tan, Purple/White

Terminal Block #5 11: LC, L1, L0, S, S, C, RV, TWV

Blk, Black

Lower Control Panel

Gnd

Terminal Block #3 10: T1, T2, Blk

Black, Black, Black, H 7

Low Ambient Control (Opt.)

Outdoor Fan Motor

Yellow, 12, 12

Compressor: R, S, C

High Press. Switch — Red, Red

Low Pressure Switch

Blue, Blue, Blue, Blue

Defrost Sensor

Black, Reversing Valve, Black

3 Way Valve

Condenser Section