

TITLE: H/V 024-060 208-230/60/3 DXM2, ECM, MPC, COMMERCIAL

PCN 20-0055

DATE: 2/17/20

DRAWING NO. 96B0232N23

REV A

LEGEND

Factory Low voltage Wiring

Factory Line Voltage Wiring

Field Low voltage Wiring

Field Line voltage Wiring

Printed Circuit Trace

Optional Wiring

Optional Block Capacitor

Circuit Breaker

Condensate Pan

Control Board Jumper

FUSE

Ground

High Pressure Switch

LED

Low Pressure Switch

Mate-N-Lock

Multi Splice Connector

Optional

Overload

Relay contacts - N.C.

Relay contacts - N.O.

Relay / Contactor Coil

Solenoid Coil

Splice Cap

Temperature Switch

Thermistor

Wire Nut

ACO Automatic Change Over

AL Alarm Relay Contacts

ATS Air Temperature Sensor

BM Blower Motor

BMC Blower Motor Capacitor

BR Blower Relay / Blower Contactor

CAP Capacitor

CB Circuit Breaker

CC Compressor Contactor

CDT Compressor Discharge Temperature

CO Condensate Overflow Sensor

CR Compressor Relay

CRC Compressor Run Capacitor

CS Current Sensor

DHW Domestic Hot Water

DM Damper Motor

DTS Discharge Temperature Switch

EEV Electronic Expansion Valve

EHC Electronic Heat Contactor

ES End Switch

ETC Electronic Temperature Control

EWTFan Speed Relay

FSR Fan Speed Switch

FSS Fan Speed Switch

HP High Pressure Switch

HPWS High Pressure Water Switch

HR Heating Relay

JW Jumper Wire

LAT Leaving Air Temperature

LOR Lock Out Relay

LP Low Pressure Switch

LT1 Sensor, low temp protection, water coil

LT2 Sensor, low temp protection, air coil

LWT Leaving Water Temp Sensor

MCO Manual Change Over

MOD Modulating Water Valve

MS Manual Starter

MSC Multi Splice Connector

MWV Motorized Water Valve

NLL Night Low Limit Switch

PDB Power Distribution Block

POT Potentiometer

P1 Field Wiring Terminal Block

PR Pump Relay

RAS Return Air Sensor

RVS Reversing Valve Solenoid

SAC Start Assist Capacitor

SAS Supply Air Sensor

TB Terminal Block

TRANS Transformer

UMT Unit Mounted Thermostat

VFD Variable Frequency Drive

VSP Variable Speed Pump

WSTAT Water Stat

NOTES:

1. Compressor and Blower Motor thermally protected internally.

2. All wiring to the unit must comply with NEC and local codes low voltage wiring shall be Class 2 or equivalent.

3. Transformer wiring is voltage sensitive. Use layout corresponding to the unit voltage.

4. LT1 provides low temperature protection for WATER. When using ANTI-FREEZE solutions, cut JW3 jumper.

5. Typical heat pump thermostat wiring shown. Refer to thermostat IOM for wiring to the unit. T-Stat wiring must be "Class 1" and voltage rating equal to or greater than unit supply voltage.

6. 24V Alarm signal shown. For Dry Alarm contact between AL1 & AL2, cut JW1 for CXM/DXM Gen2 or JW4 DXM.

7. Transformer Secondary Ground via control board standoffs and/or Common to Control Box.

ECM1. For ECM Blower Motor air flow adjustment and diagnostic information refer to I.O.M.

MPC2. Refer to MPC Installation application, and Operation Manual For Control Wiring to the unit.

MPC3. ASW sensors are not required on Water-Water application. ASW06-ASW08 (Water-Air Only) move jumper to LSTAT, ASW09-ASW11 move jumper to Rnet.

MPC8. Factory cut JW1 jumper. Dry Contact will be available between AL1 and AL2

The diagram illustrates the electrical wiring for a ClimateMaster MPC unit connected to a DXM2 Microprocessor Control Logic board. Key components and connections include:

- ClimateMaster MPC:** Features terminals for power (NET+, NET-, GND/C, 24 VAC), communication (LSTAT, RNET), and various sensors (ASW09-ASW11, ASW06-ASW08, EHC, ES, ETC, EWT, FSR, FSS, HP, HPWS, HR, JW, LAT, LOR, LP, LT1, LT2, LWT).
- DXM2 Microprocessor Control Logic:** Includes terminals for power (P1, P2, P3, P4, P5, P6, P7, P8), communication (P9, P10, P11, P12), and various sensors (ASW09-ASW11, ASW06-ASW08, EHC, ES, ETC, EWT, FSR, FSS, HP, HPWS, HR, JW, LAT, LOR, LP, LT1, LT2, LWT).
- Transformer:** A 240V/208V transformer with a 0V secondary, connected to the unit's power supply.
- T-Stat (ATC32U01\*):** A thermostat with terminals for C, B, A, and R, connected to the unit's power supply.
- Blower Motor (BM):** A 24V motor with terminals for RED, YEL, WHT, and GRN, connected to the unit's power supply.
- Compressor:** A 24V compressor with terminals for T1, T2, and T3, connected to the unit's power supply.
- Wiring:** Various colored wires (RED, BLK, BLU, YEL, GRY, VIO, BRN, GND) connect the components to the unit's terminals.
- Notes:** Several notes provide additional information, such as "SEE NOTE 3", "SEE NOTE 4", "SEE NOTE 5", "SEE NOTE 6", "SEE NOTE 7", "SEE NOTE 8", and "SEE NOTE 9".

The Control Box Layout diagram shows the internal components of the control box, including the DXM2 Microprocessor Control Logic board, the MPC unit, and various sensors and components. The layout is organized into sections for DISCONNECT, TRANS, and GROUND, with labels for each component and its connection points.

Control Box Layout