CLIMATEMASTER®
Geothermal Heat Pump Systems

DXM2 Replacement Board Configuration Instructions

97B0500N01

Residential Packaged and Split
DIGITAL Geothermal Heat Pumps

With iGate™ and vFlow™ Technology

Created: 22 Jan., 2013B

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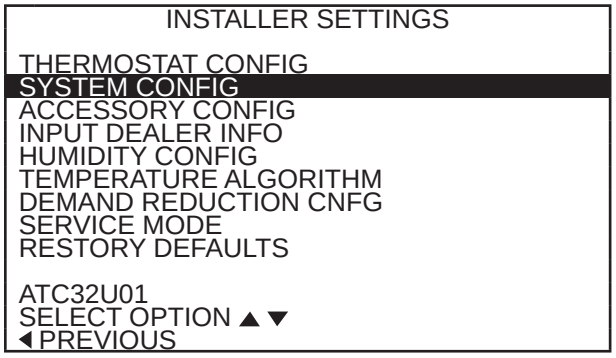
To replace a DXM2 microprocessor board disconnect all wiring connections form the DXM2. Remove the board mounting screws and remove the DXM2 board. Mount the replacement DXM2 using the same steps as the removal but in reverse order.

Once the DXM2 microprocessor board has been replaced it will need to be configured for the unit. Use the following steps to configure the DXM2.



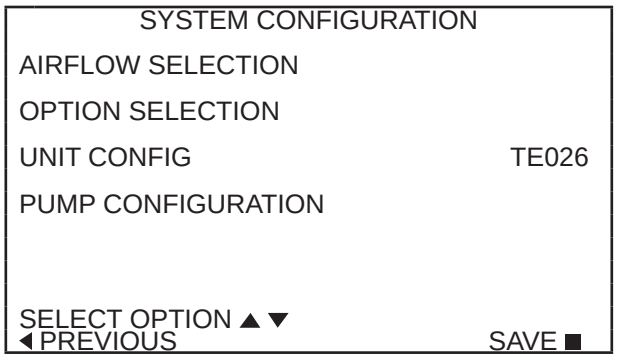
Step 1 System Configuration

First, enter the Installer Menu by holding the up and down arrow buttons on the thermostat while the system is powered but in the “Off” mode. Next, select “SYSTEM CONFIG”.

Note 1: The Air flow Selection menu will not be present if the connected communicating control is configured for No blower.

Note 2: The Pump Configuration menu will not be present if the connected communicating control is configured for OTHER.

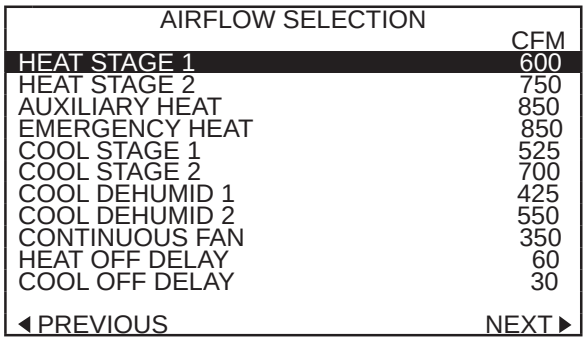
Note 3: The Valve Configuration menu will not be present if the connected communicating control is configured for OTHER.



AIRFLOW SELECTION
Adjust the airflow settings for each system operating mode using the up/down arrow buttons. Press the center button to select each item.

- **Airflow Settings (default stored in control) –** valid range: obtained from control (in 25 CFM increments)
- **Blower Off Delay (default 60 seconds)** – valid range: 0 to 255 seconds (in 5 second increments)

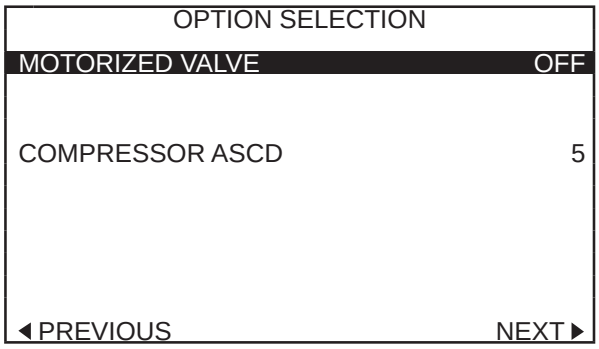
NOTE: The Airflow Settings will only be present if the connected communicating control is configured for ECM blower.



OPTION SELECTION
Adjust the Option settings using the up/down arrow buttons. Press the center button to select each item.

- **Motorized Valve (defaults stored in control) –** valid range: Off, On
- **Compressor ACSD (default stored in control) –** valid range: 5 to 8 (in 1 minute increments)

NOTE: The Compressor Anti-Short Cycle Delay setting provides equipment protection by forcing the compressor to wait a few minutes before restarting.



UNIT CONFIGURATION
The controller should be configured from the factory for its unit model. However, it is a good idea to review the configuration to ensure it is correctly configured.

⚠ NOTICE! ⚠

NOTICE: If installing MULTIPLE vFlow™ Internal VS Flow Controller units (in parallel) on one loop, ALWAYS select ‘VS PUMP PARALLEL’ under Installer Settings ➡ System Config ➡ Unit Config ➡ Loop Config. Also, follow proper pump selection procedures for parallel pumping applications.

Adjust the Unit Configuration settings including Heat Pump Family, Heat Pump Size, Blower Type, and Loop Configuration using the up/down arrow buttons. Press the center button to select each item.

- **Heat Pump Family (default stored in control)** – valid range: TE, TZ, TES, TEP, TAH
- **Heat Pump Size (default stored in control) –** valid range: depends on Heat Pump Family setting
- **Blower Type (default stored in control)** – valid range: NONE, PSC–2SPD, ECM, PSC–1SPD
- **Loop Config (default stored in control) –** valid range: Other, VS PUMP SINGLE, VS PUMP PARALLEL, MOD VALVE, MOD VALVE MIN POS

UNIT CONFIGURATION	
CURRENT CONFIG	TE026
HEAT PUMP FAMILY	TE
HEAT PUMP SIZE	026
BLOWER TYPE	ECM
LOOP CONFIG	VS PUMP PARALLEL
SELECT OPTION ▲ ▼	
◀ PREVIOUS	SAVE ■

vFlow™ PUMP CONFIGURATION

vFlow™ VS internal flow control pump can be controlled either through temperature differential (Delta T) or can be set to specific speed (fixed; % of full speed for each heat and cool stage).

Configure temperature differentials at the thermostat for vFlow™ units with an internal flow control pump.

Adjust the Pump Configuration settings using the up/down arrow buttons. Press the center button to select each item.

- **Heating Delta T (default stored in control) –** valid range: 4 to 12ºF (in 1ºF increments)
- **Cooling Delta T (default stored in control) –** valid range: 9 to 20ºF (in 1ºF increments)

Maximum Heat LWT (valid range based on specific model; refer to model IOM). Minimum Cool LWT (valid range based on specific model; refer to model IOM).

VARIABLE SPD INTERNAL PUMP CONFIGURATION	
PUMP CONTROL	DELTA T
HEATING DELTA T	7
COOLING DELTA T	10
MAXIMUM HEAT LWT	80
MINIMUM COOL LWT	40
◀ PREVIOUS	SELECT ■

To control vs pump by fixed speed, select ‘Pump Control’, press ■, use down arrow to select ‘Fixed’, and press ■ to save.

Default stored in control. Valid range: 15% - 90% (in 1% increments)

VARIABLE SPD INTERNAL PUMP CONFIGURATION	
PUMP CONTROL	FIXED
HEATING STAGE 1	60%
COOLING STAGE 2	75%
COOLING STAGE 1	50%
COOLING STAGE 2	70%
◀ PREVIOUS	SELECT ■

If Pump Configuration is set to ‘VS PUMP PARALLEL’, valid range changes to 50-90% (in 1% increments).

vFlow™ VALVE CONFIGURATION

Adjust the Valve Configuration settings using the up/down arrow buttons. Press the center button to select each item.

- **Heating Delta T (default stored in control) –** valid range: 4 to 12ºF (in 1ºF increments)
- **Cooling Delta T (default stored in control) –** valid range: 9 to 20ºF (in 1ºF increments)

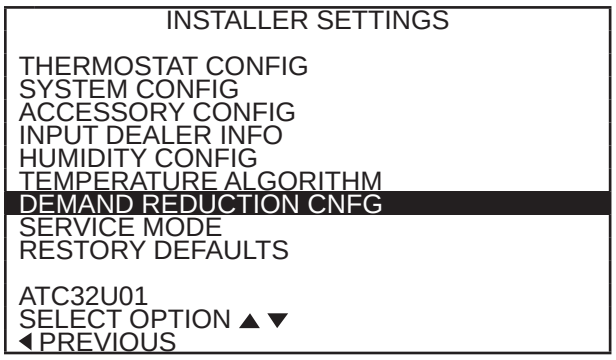
MODULATING VALVE CONFIGURATION	DEG
HEATING DELTA T	8
COOLING DELTA T	15
◀ PREVIOUS	NEXT ■

Step 2 Demand Reduction Configuration

Users may wish to take advantage of the Demand Reduction feature where utility companies offer special rates for demand reduction, or simply to save energy during certain time periods. Demand Reduction is activated by an input signal at the unit control board to reduce the electric load while peak utility rates are high. The Demand Reduction Configuration mode selects which of the available unit control inputs is to be used as the activation signal. While a physical input signal is present at the selected input, the thermostat will implement load reduction by limiting operation or capacity.

Adjust the Demand Reduction Configuration setting using the up/down arrow buttons. Press the center button to save changes.

- **No Demand Reduction (default)** – Demand Reduction operating mode will not be activated by a DXM2/CXM2 input.
- **DXM2 Inputs** – Assigns a DXM2 input to activate Demand Reduction operating mode.



Revision History

Date	Page #	Description
22 Jan., 2013	All	First Published

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Quality: First & Always

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