ProVent

INSTALLATION INSTRUCTIONS
OAMANLX100 0-100% Manual Outside Air Package
OA2POLX100BL 0-100% Selectable 2 Position Outside Air Package
OA2POLX100VC02 0-100% Selectable 2 Position CO2 Capable Outside Air Package
for LX Series Units

PLEASE NOTE: If the unit is 208/230V, single phase, power supply, the installed 40VA transformer may need to be replaced with a 75VA transformer and circuit breaker. All other factory units have the 75VA transformer installed standard.

PARTS INCLUDED	QTY.
#10 x 1/2 Sheet Metal Screw	15
Wire Clamp	3

ILL. 1

ELECTRICAL COMPARTMENT

SUPPLY OPENING

RTU FILTER ACCESS

MOUNTED OVER RETURN OPENING

INSTALL WITH (14) #10 SCREWS PROVIDED.

Before Starting Installation

Warning
Shut power to unit prior to any work being done. Personal injury or death could result.

Only qualified HVAC service personnel should install, troubleshoot, repair or service HVAC and related HVAC equipment.

Installation of Cooling Only & Heat Pumps

1. Remove filter access panel. (ILL. 1)

   Please note: If a filter rack is to be installed, do it at this time.

   If York unit is a large size, please remove the adaptor panel by removing the four screws (ILL. 2). After the adaptor panel is removed, the screws need to be re-installed (ILL. 2).

2. Open the electrical access panel. (ILL. 1)

3. Set outside air package in place aligning with the horizontal opening. Secure in place. Install with (14) #10 screws provided. (ILL. 1)

4. For OAMANLX100 manual outside air package, set damper to desired open area and tighten locking quadrant located on the left side when facing the opening.

ILL. 2

17 7/8"

21 3/8"

(4) Screws (To be removed and Re-installed)

16 3/16"

Adaptor Panel for LXS only
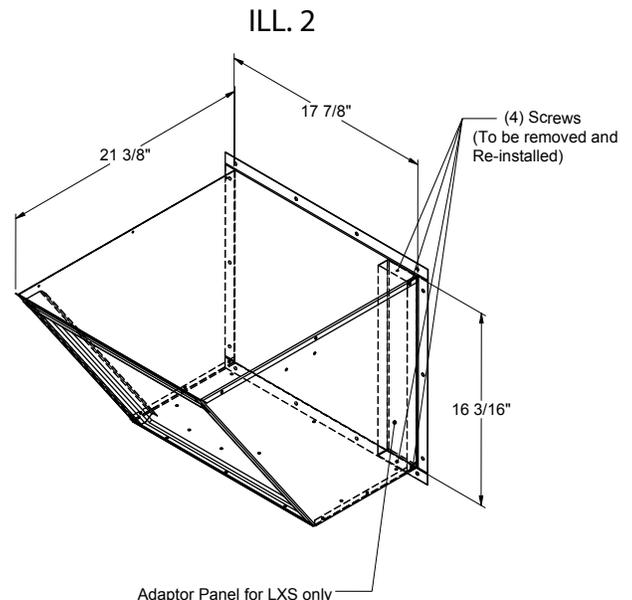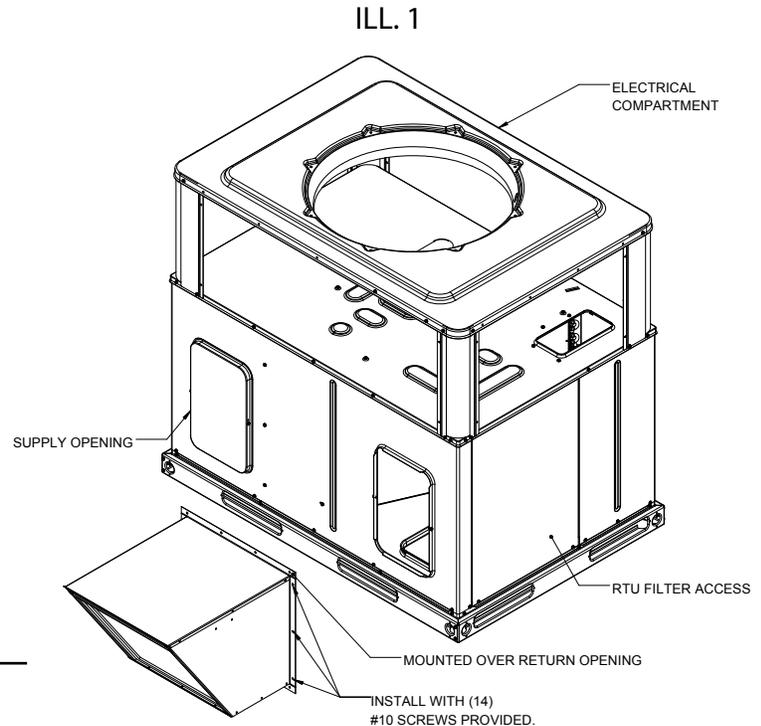
5. For OA2POLX100BL 2-position outside air package, route actuator wiring through the two ties found under the control box. (ILL. 2) Additional wire clamps are provided for securing wire after completion, if needed

6. Mark hole locations on the RTU. Drill 1/8" holes at locations marked on the RTU depending on the economizer being mounted.

7. Align the economizer to holes drilled in the RTU in Step 3.

8. Using (12) screws to secure the economizer to the RTU at hole locations shown in ILL.2 depending on the economizer being mounted.

9. Drill 1/2" hole in compressor barrier as needed to route wiring to main control board and sensors. Tightly seal openings around the wires. (ILL. 3 & ILL. 4)

10. Route wire through the existing openings to the control panel. Wire according to wiring diagram. (ILL.5 & ILL. 6)

11. Route wiring through existing openings to panel.

ILL. 3

ILL. 4

ILL. 5

ILL. 6

12. Place the adhesive backed wiring diagram on the low voltage compartment access panel by the unit diagram. Reinstall low voltage compartment access panel.

13. Turn power on to RTU.

Connect actuator wiring to terminal block in control box. (ILL. 7)

The actuator is factory set to minimum open position. To increase open position, loosen set screw on limitor of actuator (Be careful not to remove screw completely. Just loosen.). Move limitor to desired open position and secure set screw. (ILL. 8)

ILL. 7
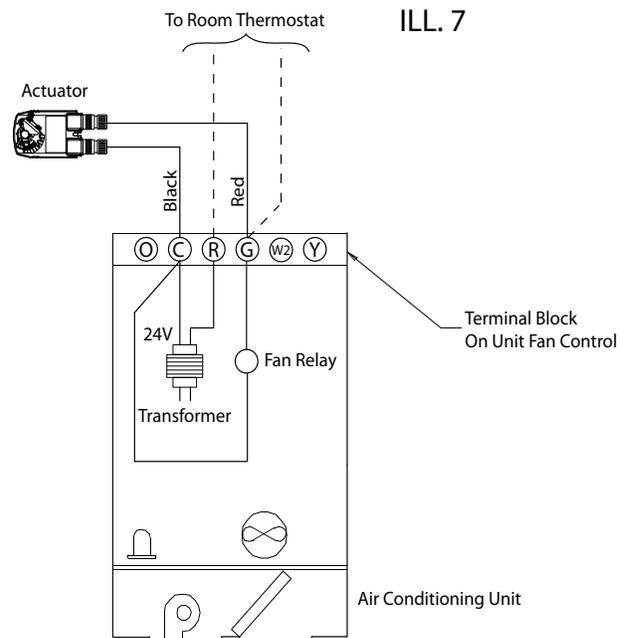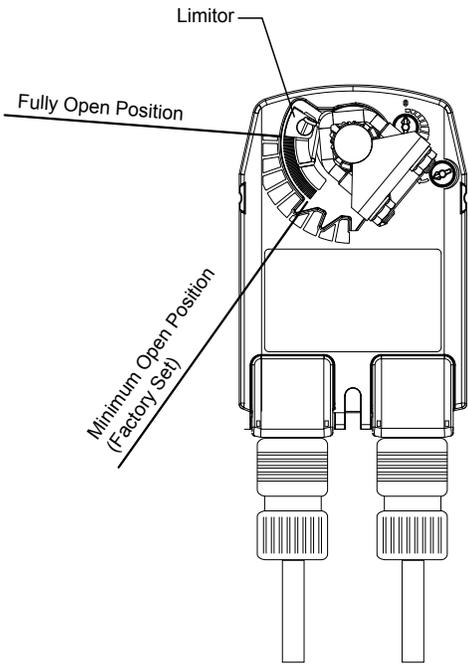
To Room Thermostat

Actuator

Black Red

O C R G W2 Y

Terminal Block On Unit Fan Control

24V

Fan Relay

Transformer

Air Conditioning Unit

ILL. 8

Limitor

Fully Open Position

Minimum Open Position
(Factory Set)

PLEASE NOTE:
If the unit is 208/230V, single phase, power supply, the installed 40VA transformer may need to be replaced with a 75VA transformer and circuit breaker. All other factory units have the 75VA transformer installed standard.

14. For two position CO2 capable Model OA2POLX100VCO2, connect the low voltage wires to the terminal block as show. (ILL. 9)

The outside air package is designed for demand control ventilation through control signal by field provided CO2 sensor. Refer to Pages 4 thru 5 for settings and adjustments.

ILL. 9

YORK LX ECONOMIZER
CONTROL WIRING DIAGRAM
GAS ELECTRIC

Mixed Air Sensor
C7250A1001

2 POS Connector
Honeywell (Typ. 3)

Brown — MAT
Brown — MAT
OAT
OAT
S-BUS
S-BUS

Outside Air Sensor
C7250A1001

OCC
E- GND
EXH1
AUX

Black
White

3 POS Connector
Honeywell

4 POS Connector
Honeywell

Honeywell
MS3103J1030/B
Proportional Actuator

+ Hot ① Red — Red
Common ② Black — Black
S-Bus ③ Brown — Brown
S-Bus ④ Brown — Brown

ACT COM
ACT 24V+

C
R

THERMOSTAT

C R G W Y1 Y2

Split Pin Terminal (Female) (Typ. 7)

Orange — O/B

Molex 9 Connector Plug Housing

Gray

Brown

C R G W Y

Unit Board

Blue 23   Red 22   Green 19   White 20   Yellow 21

C   R   G   W   Y

YORK UNIT

INTERFACE OVERVIEW

This section describes how to use the Economizer's user interface for:

- Keypad and menu navigation
- Settings and parameter changes
- Menu structure and selection

User Interface

The user interface consists of an LCD display and a 4-button keypad on the front of the Economizer module. The LCD is a 16 character by 2 line dot matrix display.

2 LINE
LCD

SELECT (ENTER)
BUTTON

MENU UP
(EXIT)
BUTTON

SCROLL
(UP/ DOWN)
BUTTONS
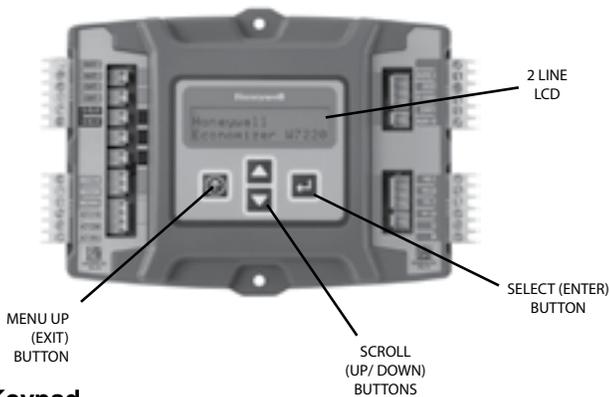
Keypad

The four navigation buttons illustrated above are used to scroll through the menus and menu items, select menu items, and to change parameter and configuration settings.

Using the Keypad with Menus

To use the keypad when working with menus:

- Press the ▲ button to move to the previous menu.
- Press the ▼ button to move to the next menu.
- Press the ↵ button (Enter) to display the first item in the currently displayed menu.
- Press the ⏻ button (Menu Up) to exit a menu's item and return to the list of menus.

Using the Keypad with Settings and Parameters

To use the keypad when working with Setpoints, System and Advanced Settings, Checkout test, and Alarms:
- Navigate to the desired menu.
- Press the ↵ button (Enter) to display the first item in the currently displayed menu.
- Use the ▲ and ▼ buttons to scroll to the desired parameter.
- Press the ↵ button (Enter) to display the value of the currently displayed item.
- Press the ▲ button to increase (change) the displayed parameter value.[a]
- Press the ▼ button to decrease (change) the displayed parameter value.[a]

- Press the ↵ button to accept the displayed value and store it in non- volatile RAM.
- CHANGE STORED displayed.
- Press the ⏻ button (MenuUp/Exit) to return to the previous menu.

[a] When values are displayed, pressing and holding the ▲ or ▼ button causes the display to automatically increment.

Menu Structure

Table 5 on the next page illustrates the complete hierarchy menus and parameters for the JADE™ Economizer system.

The Menus in display order are:
- STATUS
- SETPOINTS
- SYSTEM SETUP
- ADVANCED SETUP
- CHECKOUT
- ALARMS

IMPORTANT

> Table 5 on the next page illustrates the complete hierarchy. Your menu parameters will be different depending on your configuration.
>
> For example if you do not have a DVC (CO2) sensor, then none of the DCV parameters appear and only MIN POS will display. If you have a CO2 sensor, the DCV MIN and DCV MAX will appear AND if you have 2 speed fan DCV MIN (high and low speed) and DCV MAX (high and low speed will appear).

SETUP AND CONFIGURATION

Before being placed into service, the JADE™ Economizer module must be setup and configured for the installed system.

IMPORTANT

> During setup, the Economizer module is live at all times.

The setup process uses a hierarchical menu structure that is easy to use. You press the ▲ and ▼ arrow buttons to move forward and backward through the menus and press the ⏻ button to select and confirm setup item changes.

Time-out and Screensaver

When no buttons have been pressed for 10 minutes, the LCD displays a screen saver, which cycles through the Status items. Each status items displays in turn and cycles to the next item after 5 seconds.

CHECKOUT

Inspect all wiring connections at the Economizer module's terminals, and verify compliance with the installation wiring diagrams.

For checkout, review the Status of each configured parameter and perform the Checkout test.

Note: See "Interface Overview" on the previous page for information about menu navigation and use of the keypad.

⚠ WARNING

Electrical Shock Hazard.

Can cause severe injury, death or property damage.
Disconnect power supply before beginning wiring or making wiring connections, to prevent electrical shock or equipment damage.
If any wiring changes are required, first be sure to remove power from the Economizer module before starting work. Pay particular attention to verifying the power connection (24 Vac).

Power Up
After the module is mounted and wired, apply power.

Initial Menu Display
On initial startup, **Honeywell** displays on the first line and **Economizer W7220** on the second line. After a brief pause, the revision of the software appears on the first line and the second line will be blank.

Power Loss (Outage or Blowout)
All setpoints and advanced settings are restored[a] after any power loss or interruption.

TROUBLESHOOTING

Alarms
The Economizer module provides alarm messages that display on the 2-line LCD.

NOTE: Upon power up, the module waits 60 minutes before checking for alarms. This allows time for all the configured devices (e.g. sensors, actuator) to become operational. The exception is the MA sensor which will alarm immediately.

If one or more alarms are present and there has been no keypad activity for at least 5 minutes, the Alarms menu displays and cycles through the active alarms.

You can also navigate to the Alarms menu at any time.

[a] All settings are stored in non-volatile flash memory.

Status

Use the status menu (see table 2) to check the parameter values for the various devices and sensors configured.

Note: See "Interface Overview" on the previous page for Information about menu navigation and use of the keypad.

Checkout Test

Use the Checkout menu (Table 2) to test the damper operation and any configured outputs. Only items that are configured are shown in the Checkout menu.

Note: See "Interface Overview" on the previous page for Information about menu navigation and use of the keypad.

To perform a Checkout test:

1. Scroll to the desired test in the Checkout menu using the ▲ and ▼ buttons.
2. Press the ↵ button to select the item.
3. RUN? Appears on the display.
4. Press the ↵ button to start the test.
5. The unit pauses and then displays IN PROGRESS.
6. When all parameters have been tested, press the ① button (Menu up) to end the test (e.g. turn off the relay).

The Checkout test can all be performed at the time of installation or any time during the operation of the system as a test that the system is operable.

⚠ CAUTION
Equipment damage may result.
Be sure to allow enough time for compressor start up and shutdown between checkout tests so that you do not short- cycle the compressors.

Clearing Alarms
Once the alarm has been identified and the cause has been removed (e.g. replaced faulty sensor), the alarm can be cleared from the display.

To clear an alarm, perform the following:
1. Navigate to the desired alarm.
2. Press the ↵ button.
3. ERASE? displays.
4. Press the ↵ button.
5. ALARM ERASED displays.
6. Press the ① button (MenuUp/ Exit) to complete action and return to the previous menu.

NOTE: If an alarm still exists after you clear it, it re-displays within 5 seconds.