508156-01
7/2024
Supersedes 3/2021

C4 Control Replacement Kit

INSTALLATION INSTRUCTIONS FOR C4 CONTROL REPLACEMENT KIT (21L15) FOR USE WITH LENNOX® CORE UNIT CONTROLLER (M4)

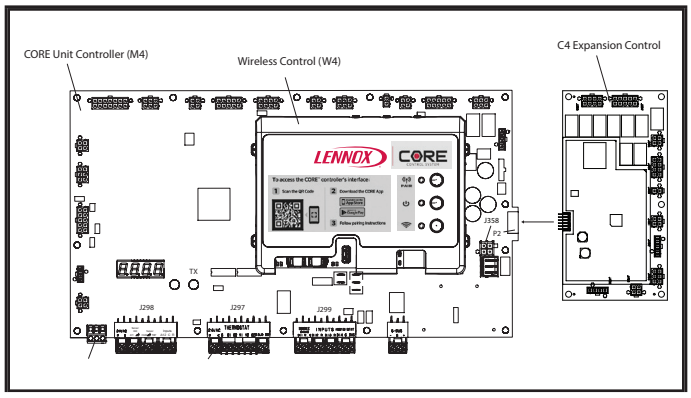

FIGURE 1

⚠CAUTION

Electrostatic discharge can affect electronic components. Take precautions during unit installation and service to protect the unit's electronic controls. Precautions will help to avoid control exposure to electrostatic discharge by putting the unit, the control and the technician at the same electrostatic potential. Neutralize electrostatic charge by touching hand and all tools on an unpainted unit surface before performing any service procedure.

⚠IMPORTANT

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional HVAC installer or equivalent, service agency, or the gas supplier.

Shipping and Packing List

Package 1 of 1 contains:

1 - C4 Control

Installation

⚠ IMPORTANT

A Phillips head screwdriver is required to remove the old C4 control from the RTU mounting panel.

The C4 control is compatible only with the CORE unit controller (M4).

1. Disconnect power to the RTU unit.
2. Unplug the wire harnesses from the C4 control being replaced.
3. Remove the five Phillips head screws securing existing C4 control from the M4 unit controller.

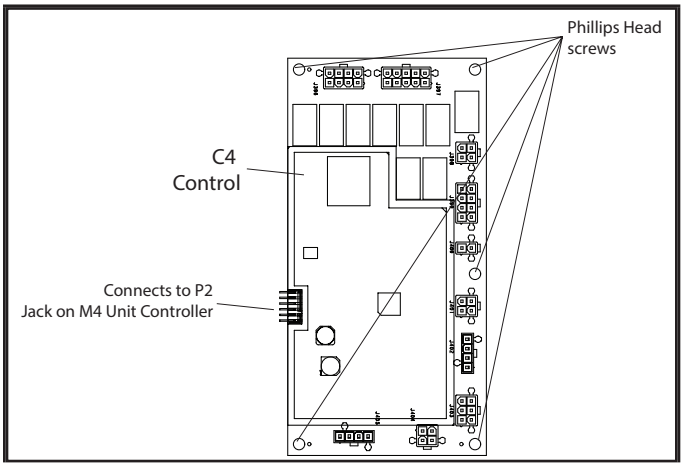

FIGURE 2

4. Remove C4 control from M4 unit controller mating connector (P2).
5. Install new C4 control at M4 unit controller mating connector (P2).
6. Secure new C4 control to M4 unit controller using screws removed in step 3.
7. Reconnect wire harnesses.
8. Restore all power to the unit.

NOTE - *The C4 sits tight against the divider panel. Rotate the C4 at the bus connection to remove and replace If rotation doesn't work in the field, the CORE can be unscrewed and slid left. See Figure 3.*

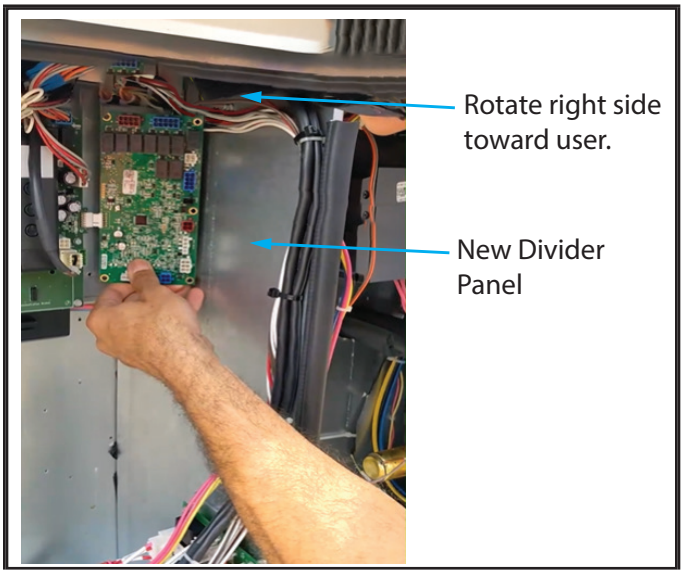

FIGURE 3

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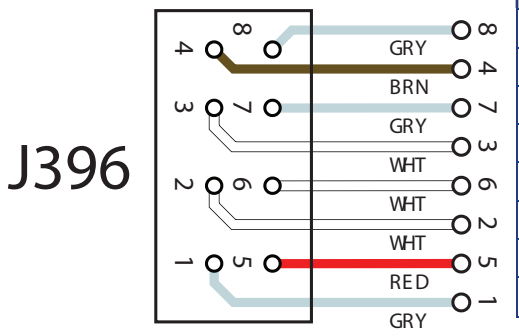
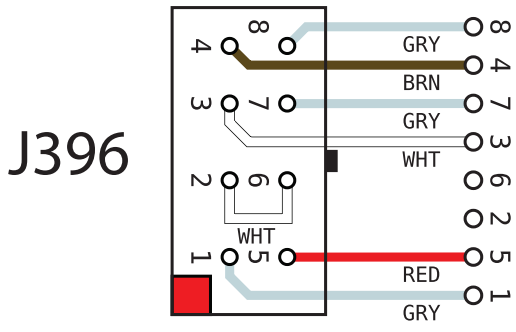
C4 Control (A178) Connections



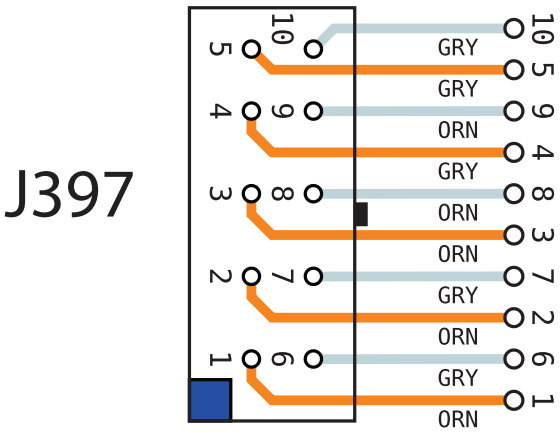
P396 CAV#	LABEL	DESCRIPTION	TYPE
8	GND	Ground, HEAT4	GND
4	HEAT4	Heat 4	24VAC OUT
7	GND	Ground, HEAT3	GND
3	HEAT3	Heat 3	24VAC OUT
6	EH_LIMIT	Elec Ht Limit Sw Rtrn	SW 24VAC
2	EH_LIMIT	Elec Ht Limit Sw	24VAC OUT
5	24VAC_EXT	24 VAC Power	24VAC OUT
1	GND	Ground, 24VAC_EXT	GND

FIGURE 4 P396 (Electric Heat)



P396 CAV#	LABEL	DESCRIPTION	TYPE
8	GND	Ground, HEAT4	GND
4	HEAT4	Heat 4	24VAC OUT
7	GND	Ground, HEAT3	GND
3	HEAT3	Heat 3	24VAC OUT
6	EH_LIMIT	Elec Ht Limit Sw Rtrn	SW 24VAC
2	EH_LIMIT	Elec Ht Limit Sw	24VAC OUT
5	24VAC_EXT	24 VAC Power	24VAC OUT
1	GND	Ground, 24VAC_EXT	GND

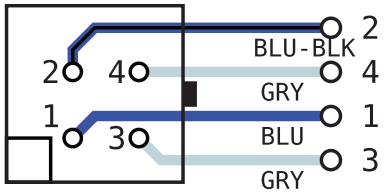
FIGURE 5 P396 (Gas Heat)



P397 CAV#	LABEL	DESCRIPTION	TYPE
10	GND	Ground, PE2	GND
5	PE2	Power Exhaust Stg 2	24VAC OUT
9	GND	Ground, ODF6	GND
4	ODF6	Outdoor Fan 6	24VAC OUT
8	GND	Ground, ODF5	GND
3	ODF5	Outdoor Fan 5	24VAC OUT
7	GND	Ground, ODF4	GND
2	ODF4	Outdoor Fan 4	24VAC OUT
6	GND	Ground, ODF3	GND
1	ODF3	Outdoor Fan 3	24VAC OUT

FIGURE 6 P397 (Compressor Fans)

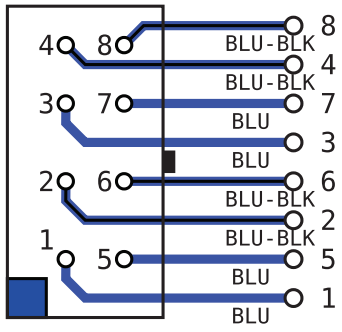
J398



P398 CAV#	LABEL	DESCRIPTION	TYPE
2	COMPR4	Compressor 4	24VAC OUT
4	GND	Ground, COMPR4	GND
1	COMPR3	Compressor 3	24VAC OUT
3	GND	Ground, COMPR3	GND

FIGURE 7 P398 (Compressors 3 and 4)

J399



P399 CAV#	LABEL	DESCRIPTION	TYPE
8	24VAC_EXT	24 VAC Power, HPSW4	24VAC OUT
4	S96-HPSW4	High Press Sw Comp 4	SW 24VAC
7	24VAC_EXT	24 VAC Power, HPSW3	24VAC OUT
3	S28-HPSW3	High Press Sw Comp 3	SW 24VAC
6	24VAC_EXT	24 VAC Power, LPSW4	24VAC OUT
2	S97-LPSW4	Low Press Sw Comp 4	SW 24VAC
5	24VAC_EXT	24 VAC Power, LPSW3	24VAC OUT
1	S98-LPSW3	Low Press Sw Comp 3	SW 24VAC

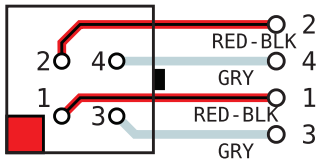
FIGURE 8 P399 (Pressure Switches 3 and 4)

J400

P400 CAV#	LABEL	DESCRIPTION	TYPE
1	24VAC_IN	External 24VAC Power	24VAC IN
2	GND	Ground, 24VAC Power Return	GND

FIGURE 9 P400 (24VAC)

J401



P401 CAV#	LABEL	DESCRIPTION	TYPE
2	RT51	Comp 4 Sat Suct Temp Sensor	THERM 3.3VDC
4	GND	Ground, RT51	GND
1	RT50	Comp 3 Sat Suct Temp Sensor	THERM 3.3VDC
3	GND	Ground, RT50	GND

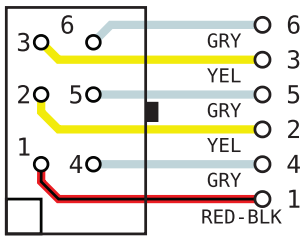
FIGURE 10 P401 (All Evaporators)

J402

P402 CAV#	LABEL	DESCRIPTION	TYPE
4	GND	Ground, RT55	GND
3	RT55	Comp 4 Suct Temp Sensor	THERM 3.3VDC
2	GND	Ground, RT54	GND
1	RT54	Comp 3 Suct Temp Sensor	THERM 3.3VDC

FIGURE 11 P402 (Ultra Evaporators)

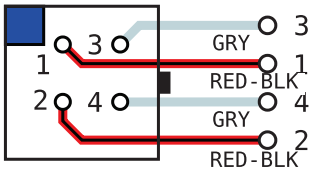
J403



P403 CAV#	LABEL	DESCRIPTION	TYPE
6	GND	Ground, ODF3	GND
3	ODF3	Outdoor Fan PWM4	PWM OUT 0-18V
5	GND	Ground, ODF4	GND
2	ODF4	Outdoor Fan PWM5	PWM OUT 0-18V
4	GND	Ground, PE_VFD	Ground, PE_VFD
1	PE_VFD	Power Exhaust VFD Control	0-10VDC OUT

FIGURE 12 P403 (Options)

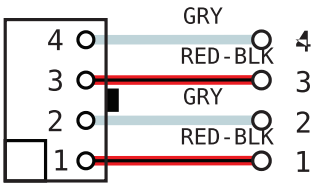
J404



P404 CAV#	LABEL	DESCRIPTION	TYPE
3	GND	Ground, RT52	GND
1	RT52	Comp 3 Sat Liq Temp Sens	THERM 3.3VDC
4	GND	Ground, RT53	GND
2	RT53	Comp 4 Sat Liq Temp Sens	THERM 3.3VDC

FIGURE 13 P404 (All Condensers)

J405



P405 CAV#	LABEL	DESCRIPTION	TYPE
1	RT56	Comp 3 Liq Temp Sens	THERM 3.3VDC
2	GND	Ground, RT56	GND
3	RT57	Comp 4 Liq Temp Sens	THERM 3.3VDC
4	GND	Ground, RT57	GND

FIGURE 14 P404 (Ultra Condensers)