

C-14-08, November 25, 2014 (Revised January 5, 2015)

Sensor Harness Incorrectly Plugged into Outdoor Control on Dave Lennox Signature® Collection Outdoor Units

AFFECTED PRODUCT AND EFFECTS

XC/XP17 and XC/XP21 with Outdoor Control 103369-xx and XC/XP25 with Outdoor Control 103686-xx

TABLE 1. OUTDOOR CONTROL 103369-XX

Unit	Harness Part #	Sensor harness plugged in correctly				Sensor harness plugged in upside down				Effect of sensor harness plugged in upside down
		COIL	AMB	DIS	LIQ	COIL	AMB	DIS	LIQ	
XC17	101334-03	10K resistor	Ambient Sensor	Discharge Sensor		Discharge Sensor	Ambient Sensor	10K resistor		<p>With 10K resistor connected to discharge sensor circuit, display will read 77°F all the time.</p> <p>With discharge sensor connected to the coil sense circuit, it will generally look warmer. The coil and discharge sensors are the same thermistor curve, but the sensing circuits scale them differently to give more resolution at cold temperatures for the coil and at high temperatures for discharge. With all the resolution at higher temperatures, the discharge sensor input looks "open" below about 24°F, and is ignored below a 40°F ambient. There may be a narrow band of temperatures just above 40°F ambient where it is possible to get a 415 error code from a cold coil sensor plugged into the discharge input. (Fault codes 414 and 415 that would normally occur if discharge sensor gets too hot won't occur or shut down the system)</p>
XP17	101334-02	Coil Sensor		10K resistor		10K resistor		Coil Sensor		

Unit	Harness Part #	Sensor harness plugged in correctly				Sensor harness plugged in upside down				Effect of sensor harness plugged in upside down		
		COIL	AMB	DIS	LIQ	COIL	AMB	DIS	LIQ			
XC21	101334-03	10K resistor		Discharge Sensor						Discharge Sensor	10K resistor	<p>With 10K resistor connected to discharge sensor circuit, display will read 77°F all the time.</p> <p>With discharge sensor connected to the coil sense circuit, it will generally look warmer. The coil and discharge sensors are the same thermistor curve, but the sensing circuits scale them differently to give more resolution at cold temperatures for the coil and at high temperatures for discharge. With all the resolution at higher temperatures, the discharge sensor input looks "open" below about 24°F, and is ignored below a 40°F ambient. There may be a narrow band of temperatures just above 40°F ambient where it is possible to get a 415 error code from a cold coil sensor plugged into the discharge input. (Fault codes 414 and 415 that would normally occur if discharge sensor gets to hot won't occur or shut down the system)</p>
XP21	101334-01	Coil Sensor	Ambient Sensor	Discharge Sensor						Discharge Sensor	Coil Sensor	<p>With coil sensor connected to the discharge sense circuit, it will generally look cold. The coil and discharge sensors are the same thermistor curve, but the sensing circuits scale them differently to give more resolution at cold temperatures for the coil and at high temperatures for discharge. With all the resolution at higher temperatures, the discharge sensor input looks "open" below about 24°F, and is ignored below a 40°F ambient.</p> <p>With discharge sensor connected to the coil sense circuit, it will generally look warmer. The coil and discharge sensors are the same thermistor curve, but the sensing circuits scale them differently to give more resolution at cold temperatures for the coil and at high temperatures for discharge. With all the resolution at higher temperatures, the discharge sensor input looks "open" below about 24°F, and is ignored below a 40°F ambient. There may be a narrow band of temperatures just above 40 F ambient where it is possible to get a 415 error code from a cold coil sensor plugged into the discharge input. (Fault codes 414 and 415 that would normally occur if discharge sensor gets to hot won't occur or shut down the system)</p>

NOTE: 10K resistor will always read 77°F.

TABLE 2. OUTDOOR CONTROL 103686-XX

Unit	Harness Part #	Sensor harness plugged in correctly				Sensor harness plugged in upside down				Effect of sensor harness plugged in upside down
		COIL	AMB	DIS	LIQ	COIL	AMB	DIS	LIQ	
XC25	101334-05	10K resistor	Ambient Sensor		Liquid Sensor	Liquid Sensor	Ambient Sensor		10K resistor	With 10K resistor connected into the liquid sense circuit , display will read 77°F all the time. With liquid line sensor being the same range as the coil sensor , no codes will be displayed. The outdoor fan may not run at designed RPM speeds for certain sensed temperatures.
XP25	101334-04	Coil Sensor			Liquid Sensor	Liquid Sensor			Coil Sensor	

NOTE: 10K resistor will always read 77°F.

FIELD ACTION

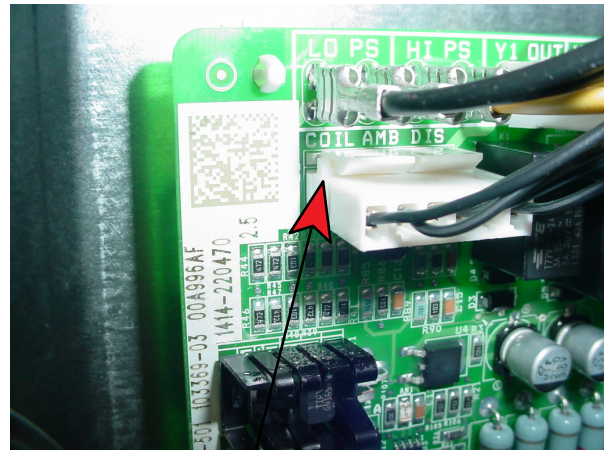
⚠ WARNING

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) or service agency.

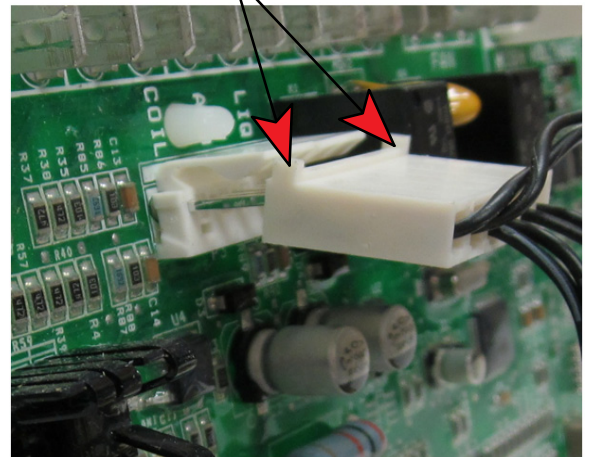
Unplug sensor harness, rotate 180 degrees and plug back in. This will locate the coil and discharge sensors to the proper pin connections on the outdoor control.

FACTORY ACTION

On April 21, 2014, a corrective action was put in place to prevent future issues.



TABS UP



Correct insertion position for tabs is in the up position as exemplified above.

