

## SERVICE AND APPLICATION NOTES

100007 May 22, 2020

## Alternate Quantum Aluminum Replacement Coil for Air Handlers

#### **APPLICABLE UNITS:**

CBX27UH, CBX32M, CBX32MV & CBX40UHV Elite and Dave Lennox Signature Collection Air Handlers with Copper Coils

#### **PRODUCT UPDATE:**

Lennox has updated the warranty system to allow the substitution of Quantum Aluminum Coils in place of the copper coils for applicable Elite and Dave Lennox Signature Collection (DLSC) air handlers. For a warranty replacement, the option of using a Quantum Aluminum Coil in place of the copper coil for most CBX27UH, CBX32MV and CBX40UHV air handers is now available. Tables 1 and 2 in this Service and Application Note list the Quantum Coil substitutions for copper coils used in each of these air handlers.

The Quantum aluminum replacement coil will provide a more robust option in harsh indoor environments. The Quantum Coil was added as an alternative option in the OEM repair parts section of LennoxPros (Product Zone) and the warranty system has been updated to automatically process the Quantum coil as an acceptable replacement. Not all applications can utilize a Quantum Coil replacement, see Quantum coil replacement guidelines and the replacement coil tables in this document.

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#### **Guidelines for Quantum Coil Replacement and Application Guidelines**

**Elite and DLSC Copper Coil Air Handlers matched with Air Conditioners (straight cool applications):** Any of the air handlers, with available Quantum replacement coils, that are matched with air conditioners (straight cool non-heat pump applications) can utilize the Quantum Coil as a replacement. The system will maintain performance, and the refrigerant charging instructions provided with the outdoor unit should be followed. Use Table 1 to select the appropriate replacement coil.

#### Elite and DLSC Copper Coil Air Handlers matched with Heat Pumps:

The Quantum replacement coil has reduced internal volume when compared to the existing copper coil which can create a coil volume imbalance in the system. This change in coil volume means not all heat pump applications can utilize the Quantum Coil. Heat pumps that can use the Quantum replacement coil will require using the updated refrigerant charge instructions. If the coil is replaced and the coil volume imbalance is too great or the new charge instructions are not followed, the system will not perform as expected and will likely experience high pressure switch trips in mild weather heating situations. The Quantum replacement coil is provided with updated refrigerant charge labels, coil cleaning instructions and labels to communicate that the air handler has been updated with a Quantum Coil.

Table 2 provides a list of heat pump system matches that are suitable for Quantum coil replacement. Heat pumps not listed on the heat pump matching charts are not a candidate for a Quantum aluminum coil replacement and will need to use the copper replacement coil.

#### Elite and DLSC Copper Coil Air Handlers without Quantum Coil replacement options:

CBX32M – 018/024, CBX32MV – 018/024, and CBX32MV-068 do not have a Quantum Coil replacement option available. Any coil replacements for these air handlers will have to continue to use a copper replacement coil. There are currently no plans to develop a replacement aluminum coil for these models.

#### Merit Air Handlers with Copper Coils:

Currently no options are available to replace the copper coil in Merit CBX25 or CBX26 air handlers with a Quantum aluminum coil. The Quantum coils developed for the CBA25 are of different physical sizes due to dimension changes made in the CBA25 air handlers to accommodate smaller footprints and will not fit in the CBX25 or CBX26 air handlers. Any coil replacements for these air handlers will have to continue to use a copper replacement coil.

#### LennoxPros OEM Repair Parts:

The CBX27, CBX32M, CBX32MV and CBX40UHV repair parts listing under OEM Repair Parts on LennoxPros has been updated with a new Category titled "ALTERNATE ALUMINUM COIL". The alternate Quantum Aluminum for the air handler is listed in this new category. The standard copper coil will continue to be listed in the Cooling Parts Category for systems that require a copper coil. See OEM Repair Parts Example below.

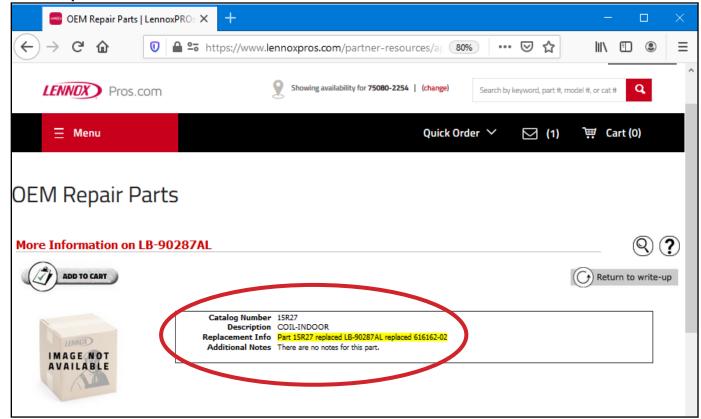
Air handlers installed with a heat pump must be a match with the Quantum replacement coil. See Table 2 for the heat pump system matches that are suitable for Quantum Coil replacement.

#### Alternate Quantum Aluminum Coil Listing for Air Handlers on OEM Parts – LennoxPros

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🔤 OEM Repair Parts   LennoxPROs 🗙	+		- 0	×
	ttps://www.lennoxpros.com/partner-reso	ources/ap 80% •••• 🛛	☆ Ⅲ\ 🗉 🍭	≡
LENNOX Pros.com	Showing availability for <b>75080-22</b>	54   (change) Search by keyword,	part #, model #, or cat #	^
∃ Menu		Quick Order 🗡 🛛 🖂	(1) 📜 Cart (0)	
OEM Repair Parts Parts View for Series CBX27UH-C	<u>30-230-6</u>		<b>Q</b> ?	
Print this write-up	Bore technical info	Go to Drawing view		
Expand All Collapse All	0	Dasi	h/Revision # with Qty	
Call_out Part Name Part Nb	Description	3		
> Category: CABINET PARTS				
Category: COOLING PARTS				
<ul> <li>Cutegory: ALTERNATE ALUMINUM COIL</li> </ul>				
See Details COIL-INDOOR LB-90287	AL ALUMINUM COIL ASSY (TECH INFO - NOTE A)			
Caves CONTROL PANEL PARTS				
<ul> <li>Category: BLOWER PARTS</li> </ul>				

#### **OEM Repair Parts in LennoxPros – New Alternate Aluminum Coil Category Example**

# OEM Repair Parts – Alternate Replacement Aluminum Coil Catalog Number & Technical Info Example



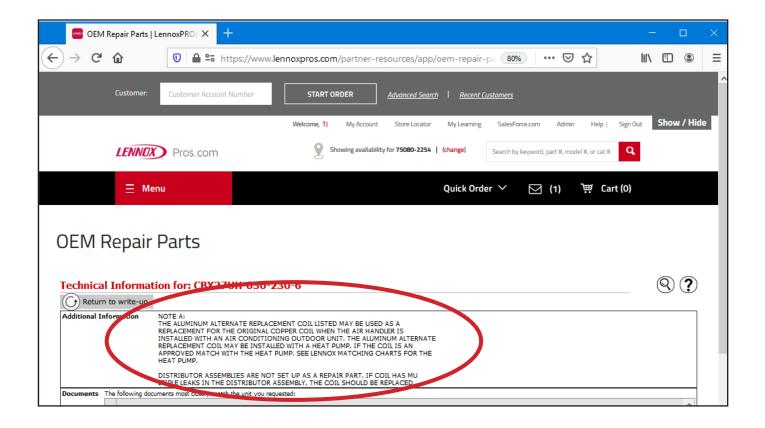


Table 1 – Air Handler Quantum Coil Replacement Table for Air Conditioning Outdoor Units
(Straight Cooling)

Existing Copper Coil Air Handler Model #	Alternate Quantum Aluminum Replacement Coil Catalog #	Description
CBX27UH-018	15R26	LB-90287AK CBA27UHE-018/024 Repair Coil
CBX27UH-024	15R26	LB-90287AK CBA27UHE-018/024 Repair Coil
CBX27UH-030	15R27	LB-90287AL CBA27UHE-030 Repair Coil
CBX27UH-036	15R30	LB-90287AM CBA27UHE-036 Repair Coil
CBX27UH-042	15R45	LB-90287AN CBA27UHE-042 Repair Coil
CBX27UH-048	15Z72	LB-90287AR CBA27UHE-048 Repair Coil
CBX27UH-060	15R46	LB-90287AP CBA27UHE-060 Repair Coil
CBX32MV-018/024	No Aluminum Coil Available	No Aluminum Coil Available
CBX32MV-024/030	15R26	LB-90287AK CBA27UHE-018/024 Repair Coil
CBX32MV-036	15R30	LB-90287AM CBA27UHE-036 Repair Coil
CBX32MV-048	15Z72	LB-90287AR CBA27UHE-048 Repair Coil
CBX32MV-060	15Z72	LB-90287AR CBA27UHE-048 Repair Coil
CBX32MV-068	No Aluminum Coil Available	No Aluminum Coil Available
CBX32M-018/024	No Aluminum Coil Available	No Aluminum Coil Available
CBX32M-030	15R26	LB-90287AK CBA27UHE-018/024 Repair Coil
CBX32M-036	15R30	LB-90287AM CBA27UHE-036 Repair Coil
CBX32M-042	15R30	LB-90287AM CBA27UHE-036 Repair Coil
CBX32M-048	15Z72	LB-90287AR CBA27UHE-048 Repair Coil
CBX32M-060	15Z72	LB-90287AR CBA27UHE-048 Repair Coil
CBX40UHV-024	15R27	LB-90287AL CBA27UHE-030 Repair Coil
CBX40UHV-030	15R27	LB-90287AL CBA27UHE-030 Repair Coil
CBX40UHV-036	15R30	LB-90287AM CBA27UHE-036 Repair Coil
CBX40UHV-042	15R45	LB-90287AN CBA27UHE-042 Repair Coil
CBX40UHV-048	15Z72	LB-90287AR CBA27UHE-048 Repair Coil
CBX40UHV-060	15Z72	LB-90287AR CBA27UHE-048 Repair Coil

**NOTE –** Table 1 lists the Quantum replacement coil for air handlers installed with an air conditioner outdoor unit (straight cooling, non-heat pump units). See Table 2 for Quantum replacement coils for air handlers used with heat pump outdoor units.

Existing	Quantum Aluminum		(For 14	-	4HPX Heat Pump roduced in 2012 &		Later])	
Copper Coil Air Handler Model #	Replacement Coil Catalog #	14HPX-018	14HPX-024	14HPX-030	14HPX-036	14HPX-042	14HPX-048	14HPX-060
CBX27UH-018	15R26	Approved Replacement						
CBX27UH-024	15R26	Approved Replacement	Approved Replacement					
CBX27UH-030	15R27		Approved Replacement	Approved Replacement				
CBX27UH-036	15R30			Approved Replacement	Approved Replacement			
CBX27UH-042	15R45				Approved Replacement	Approved Replacement		
CBX27UH-048	15Z72					Approved Replacement	Approved Replacement	
CBX27UH-060	15R46						Approved Replacement	Approved Replacement
CBX32MV-018/024	No Aluminum Coil Available	No AL Coil Available	No AL Coil Available					
CBX32MV-024/030	15R26	Approved Replacement	Approved Replacement	Not Recommended				
CBX32MV-036	15R30		Not Recommended	Approved Replacement	Approved Replacement			
CBX32MV-048	15Z72				Approved Replacement	Approved Replacement	Approved Replacement	
CBX32MV-060	15Z72						Approved Replacement	Not Recommended
CBX32MV-068	No Aluminum Coil Available						No AL Coil Available	No AL Coil Available
CBX32M-018/024	No Aluminum Coil Available	Not Recommended	Not Recommended					
CBX32M-030	15R26	Approved Replacement	Approved Replacement	Not Recommended				
CBX32M-036	15R30		Not Recommended	Approved Replacement	Approved Replacement			
CBX32M-042	15R30				Not Recommended	Not Recommended		
CBX32M-048	15272					Approved Replacement	Approved Replacement	
CBX32M-060	15Z72						Approved Replacement	Not Recommended
CBX40UHV-024	15R27		Approved Replacement					
CBX40UHV-030	15R27		Approved Replacement	Approved Replacement				
CBX40UHV-036	15R30		Approved Replacement	Approved Replacement	Approved Replacement			
CBX40UHV-042	15R45				Approved Replacement	Approved Replacement		
CBX40UHV-048	15272				Approved Replacement	Approved Replacement	Approved Replacement	
CBX40UHV-060	15272						Approved Replacement	Not Recommended

14HPX Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Notes

Approved The Alternate Aluminum Coil listed for the air handler is an approved replacement coil for use with the heat pump

 Not
 The Alternate Aluminum Coil listed for the air handler is not recommend for use with the

 Recommended
 heat pump & the copper replacement coil should be used in this application

An Aluminum replacement coil is not available for this air handler & the copper replacement coil must be used



The Alternate Aluminum Listed in the Table Applies to the Heat  $\operatorname{Pump}$  Produced After the Date Listed at the Top of Table

Existing	Quantum Aluminum		Existing XP14 Heat Pump Model # (For XP14 Heat Pumps Produced in 2012 & later [SN 5812A & Later])							
Copper Coil Air Handler Model #	Replacement Coil Catalog #	XP14-018	XP14-024	XP14-030	XP14-036	XP14-042	XP14-048	XP14-060		
CBX27UH-018	15R26	Approved Replacement								
CBX27UH-024	15R26	Approved Replacement	Approved Replacement							
CBX27UH-030	15R27		Approved Replacement	Approved Replacement						
CBX27UH-036	15R30			Approved Replacement	Approved Replacement					
CBX27UH-042	15R45				Approved Replacement	Approved Replacement				
CBX27UH-048	15Z72					Approved Replacement	Approved Replacement			
CBX27UH-060	15R46						Approved Replacement	Approved Replacement		
CBX32MV-018/024	No Aluminum Coil Available	No AL Coil Available	No AL Coil Available							
CBX32MV-024/030	15R26	Approved Replacement	Approved Replacement	Not Recommended						
CBX32MV-036	15R30		Not Recommended	Approved Replacement	Approved Replacement					
CBX32MV-048	15Z72				Approved Replacement	Approved Replacement	Approved Replacement			
CBX32MV-060	15Z72						Approved Replacement	Not Recommended		
CBX32MV-068	No Aluminum Coil Available						No AL Coil Available	No AL Coil Available		
CBX32M-018/024	No Aluminum Coil Available	Not Recommended	Not Recommended							
CBX32M-030	15R26	Approved Replacement	Approved Replacement	Not Recommended						
CBX32M-036	15R30		Not Recommended	Approved Replacement	Approved Replacement					
CBX32M-042	15R30				Not Recommended	Not Recommended				
CBX32M-048	15272					Approved Replacement	Approved Replacement			
CBX32M-060	15Z72						Approved Replacement	Not Recommended		
CBX40UHV-024	15R27		Approved Replacement							
CBX40UHV-030	15R27		Approved Replacement	Approved Replacement						
CBX40UHV-036	15R30		Approved Replacement	Approved Replacement	Approved Replacement					
CBX40UHV-042	15R45				Approved Replacement	Approved Replacement				
CBX40UHV-048	15272				Approved Replacement	Approved Replacement	Approved Replacement			
CBX40UHV-060	15Z72						Approved Replacement	Not Recommended		

XP14 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Notes

Approved The Alternate Aluminum Coil listed for the air handler is an approved replacement coil for use with the heat pump



The Alternate Aluminum Coil listed for the air handler is not recommend for use with the heat pump & the copper replacement coil should be used in this application

An Aluminum replacement coil is not available for this air handler & the copper replacement coil must be used

The Alternate Aluminum Listed in the Table Applies to the Heat  $\operatorname{Pump}$  Produced After the Date Listed at the Top of Table

4/17/2020

	Quantum		Existing XP16 Hea	at Pump Model	#
Existing Copper Coil	Quantum Aluminum	(For XP16 Heat	Pumps Produced in	n 2010 & later [SN	5810A & Later])
Air Handler Model #	Replacement Coil Catalog #	XP16-024	XP16-036 (Note 1)	XP16-048	XP16-060
CBX27UH-018	15R26				
CBX27UH-024	15R26	Approved Replacement			
CBX27UH-030	15R27	Approved Replacement			
CBX27UH-036	15R30	Approved Replacement	Not Recommended		
CBX27UH-042	15R45		Approved Replacement		
CBX27UH-048	15Z72			Approved Replacement	
CBX27UH-060	15R46			Approved Replacement	Approved Replacement
CBX32MV-018/024	No Aluminum Coil Available				
CBX32MV-024/030	15R26	Approved Replacement			
CBX32MV-036	15R30	Approved Replacement	Not Recommended		
CBX32MV-048	15Z72		Not Recommended	Approved Replacement	
CBX32MV-060	15Z72			Approved Replacement	Not Recommended
CBX32MV-068	No Aluminum Coil Available			No AL Coil Available	No AL Coil Available
CBX32M-018/024	No Aluminum Coil Available				
CBX32M-030	15R26	Approved Replacement			
CBX32M-036	15R30	Approved Replacement	、		
CBX32M-042	15R30				
CBX32M-048	15272			Approved Replacement	
CBX32M-060	15272			Approved Replacement	Not Recommended
CBX40UHV-024	15R27	Approved Replacement			
CBX40UHV-030	15R27	Approved Replacement	Not Recommended		
CBX40UHV-036	15R30	Approved Replacement	Not Recommended		
CBX40UHV-042	15R45		Approved Replacement		
CBX40UHV-048	15272			Approved Replacement	
CBX40UHV-060	15Z72			Approved Replacement	Not Recommended

XP16 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

4/17/2020

Notes		
	Approved Replacement	The Alternate Aluminum Coil listed for the air handler is an approved replacement coil for use with the heat pump
	Not Recommended	The Alternate Aluminum Coil listed for the air handler is not recommend for use with the heat pump & the copper replacement coil should be used in this application
	No AL Coil Available	An Aluminum replacement coil is not available for this air handler & the copper replacement coil must be used

The Alternate Aluminum Listed in the Table Applies to the Heat Pump Produced After the Date Listed at the Top of Table

1. On XP16-036 units, the heat pump must be produced in July 2013 or later (5813G & Later)

Existing	Quantum		Ex	isting SL18XP1 H	eat Pump Mode	l #	
Copper Coil Air Handler Model #	Aluminum Replacement Coil Catalog #	SL18XP1-024	5L18XP1-024 SL18XP1-030 SL18XP1-036 SL18XP1-042				SL18XP1-060
CBX27UH-018	15R26						
CBX27UH-024	15R26	Not Recommended					
CBX27UH-030	15R27	Approved Replacement	Approved Replacement				
CBX27UH-036	15R30		Approved Replacement	Approved Replacement			
CBX27UH-042	15R45			Approved Replacement	Approved Replacement		
CBX27UH-048	15Z72				Approved Replacement	Approved Replacement	
CBX27UH-060	15R46					Approved Replacement	Approved Replacement
CBX32MV-018/024	No Aluminum Coil Available						
CBX32MV-024/030	15R26	Not Recommended	Not Recommended				
CBX32MV-036	15R30	Not Recommended	Approved Replacement	Approved Replacement			
CBX32MV-048	15Z72			Not Recommended	Approved Replacement	Approved Replacement	
CBX32MV-060	15Z72					Approved Replacement	Not Recommended
CBX32MV-068	No Aluminum Coil Available						
CBX32M-018/024	No Aluminum Coil Available						
CBX32M-030	15R26	Not Recommended	Not Recommended				
CBX32M-036	15R30	Not Recommended	Approved Replacement	Approved Replacement			
CBX32M-042	15R30		Approved Replacement	Approved Replacement			
CBX32M-048	15Z72				Approved Replacement	Approved Replacement	
CBX32M-060	15Z72					Approved Replacement	Not Recommended
CBX40UHV-024	15R27	Approved Replacement	Not Recommended				
CBX40UHV-030	15R27	Approved Replacement	Approved Replacement				
CBX40UHV-036	15R30	Not Recommended	Approved Replacement	Approved Replacement			
CBX40UHV-042	15R45			Approved Replacement	Approved Replacement		
CBX40UHV-048	15Z72			Not Recommended	Approved Replacement	Approved Replacement	
CBX40UHV-060	15Z72					Approved Replacement	Not Recommended

SL18XP1 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Notes\_\_\_\_

The Alternate Aluminum Coil listed for the air handler is an approved replacement coil for use with the heat pump

The Alternate Aluminum Coil listed for the air handler is not recommend for use with the heat pump & the copper replacement coil should be used in this application

Recommended No AL Coil Available

Approved

Replacement

Not

An Aluminum replacement coil is not available for this air handler & the copper replacement coil must be used 4/17/2020

Existing Copper Coil	Quantum Aluminum	Existing XP20 Heat Pump Model #					
Air Handler Model #	Replacement Coil Catalog #	XP20-024	XP20-036	XP20-048	XP20-060		
CBX32MV-018/024	No Aluminum Coil Available	No AL Coil Available					
CBX32MV-024/030	15R26	Approved Replacement					
CBX32MV-036	15R30		Not Recommended				
CBX32MV-048	15Z72			Not Recommended			
CBX32MV-060	15Z72			Not Recommended	Not Recommended		
CBX32MV-068	No Aluminum Coil Available				No AL Coil Available		
CBX40UHV-024	15R27	Approved Replacement					
CBX40UHV-030	15R27	Approved Replacement					
CBX40UHV-036	15R30		Not Recommended				
CBX40UHV-042	15R45		Approved Replacement				
CBX40UHV-048	15Z72			Not Recommended			
CBX40UHV-060	15Z72			Not Recommended	Not Recommended		

XP20 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

4/17/2020

Notes		
	Approved Replacement	The Alternate Aluminum Coil listed for the air handler is an approved replacement coil for use with the heat pump
	Not Recommended	The Alternate Aluminum Coil listed for the air handler is not recommend for use with the heat pump & the copper replacement coil should be used in this application
	No AL Coil Available	An Aluminum replacement coil is not available for this air handler & the copper replacement coil must be used

Existing	Quantum Aluminum	Existing XP21 Heat Pump Model # (For XP21 Heat Pumps Produced in 2012 & later)				
Copper Coil Air Handler Model #	Replacement Coil Catalog #	XP21-024	XP21-036	XP21-048	XP21-060	
CBX27UH-018	15R26					
CBX27UH-024	15R26	Not Recommended				
CBX27UH-030	15R27	Not Recommended				
CBX27UH-036	15R30		Not Recommended			
CBX27UH-042	15R45	Approved Replacement	Approved Replacement			
CBX27UH-048	15Z72			Not Recommended		
CBX27UH-060	15R46			Approved Replacement	Approved Replacement	
CBX32MV-018/024	No Aluminum Coil Available					
CBX32MV-024/030	15R26	Not Recommended				
CBX32MV-036	15R30	Not Recommended	Not Recommended			
CBX32MV-048	15Z72		Not Recommended	Not Recommended		
CBX32MV-060	15Z72			Not Recommended	Not Recommended	
CBX32MV-068	No Aluminum Coil Available			No AL Coil Available	No AL Coil Available	
CBX32M-018/024	No Aluminum Coil Available					
CBX32M-030	15R26	Not Recommended				
CBX32M-036	15R30	Not Recommended				
CBX32M-042	15R30					
CBX32M-048	15Z72					
CBX32M-060	15Z72				Not Recommended	
CBX40UHV-024	15R27	Not Recommended				
CBX40UHV-030	15R27	Not Recommended				
CBX40UHV-036	15R30	Not Recommended	Not Recommended			
CBX40UHV-042	15R45	Approved Replacement	Approved Replacement			
CBX40UHV-048	15Z72		Not Recommended	Not Recommended		
CBX40UHV-060	15Z72			Not Recommended	Not Recommended	

XP21 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Ν	ot	e	s	

Not

Approved Replacement The Alternate Aluminum Coil listed for the air handler is an approved replacement coil for use with the heat pump

The Alternate Aluminum Coil listed for the air handler is not recommend for use with the Recommended heat pump & the copper replacement coil should be used in this application

No AL Coil An Aluminum replacement coil is not available for this air handler & the copper Available replacement coil must be used

Existing Copper Coil	Quantum Aluminum		Existing XP25 He	at Pump Model #	
Air Handler Model #	Replacement Coil Catalog #	XP25-024	XP25-036	XP25-048	XP25-060
CBX32MV-018/024	NA				
CBX32MV-024/030	15R26				
CBX32MV-036	15R30	Approved Replacement	Not Recommended		
CBX32MV-048	15Z72			Not Recommended	
CBX32MV-060	15Z72			Not Recommended	Not Recommended
CBX32MV-068	No Aluminum Coil Available				
CBX40UHV-024	15R27	Not Recommended			
CBX40UHV-030	15R27	Not Recommended			
CBX40UHV-036	15R30	Approved Replacement	Not Recommended		
CBX40UHV-042	15R45		Approved Replacement		
CBX40UHV-048	15Z72			Not Recommended	
CBX40UHV-060	15Z72			Not Recommended	Not Recommended

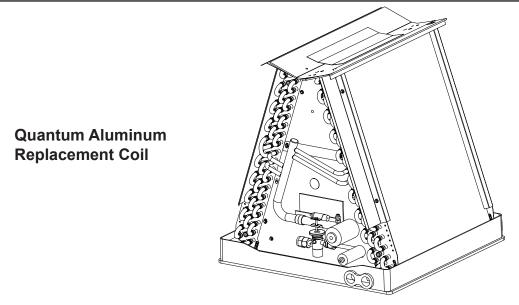
#### XP25 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

4/17/2020

Notes

Approved Replacement	The Alternate Aluminum Coil listed for the air handler is an approved replacement coil for use with the heat pump
Not Recommended	The Alternate Aluminum Coil listed for the air handler is not recommend for use with the heat pump & the copper replacement coil should be used in this application
No AL Coil Available	An Aluminum replacement coil is not available for this air handler & the copper replacement coil must be used

#### **Replacement Quantum Coil Assembly and Installation Packet**



#### The Quantum Aluminum Replacement Coil includes:

- 1 Complete Quantum Aluminum Coil Assembly with an upflow drain pan and a factory installed check / expansion valve.
- 1 Replacement Coil Installation Packet:

Replacement Quantum Aluminum Air Handler coils will be provided with an installation packet and includes the items listed below.

A - Air handler replacement coil installation instructions form # 508008-01:

- The installation instruction provides the general guidelines to follow when installing a Quantum Aluminum coil in an air handler.
- B Replacement Coil Notification Label for installation on the air handling unit cabinet:
- This label notifies technicians performing service or maintenance procedures on the system that the original coil was replaced with a Quantum Coil. (See example of the label below.)
- C -Aluminum Coil Cleaning Instruction Label for installation on the air handling unit cabinet.
- D Set of Updated Heat Pump Charging Labels:
- The charging labels include updated refrigerant charging information for the heat pump with the Quantum aluminum replacement coil. The new charging label is installed on the control box cover of the heat pump in place of the original charging label.

## A IMPORTANT

The indoor coil in this air handler has been replaced with an aluminum replacement coil. See aluminum coil identification number located on the coil when charging a heat pump system or when ordering a replacement coil.



### **Replacement Coil Notification Label**



Aluminum Coil Cleaning Instruction Label

#### Charging Systems Equipped with Replacement Quantum Aluminum Coil

# Air Conditioner (straight cooling) Refrigerant Charging Systems Equipped with a Replacement Quantum Coil

The refrigerant charge of an air conditioner (straight cooling) outdoor unit installed with a Quantum replacement coil will not change. The system should be charged following the procedure on the refrigerant charging label provided on the air conditioning outdoor unit.

#### Heat Pump Refrigerant Charging Systems Equipped with a Replacement Quantum Coil

The Quantum replacement coil internal coil volume is less than the existing copper coil which will impact the system refrigerant charge on heat pumps systems. The replacement Quantum coil is provided with a set of updated heat pump charging labels. When the Quantum replacement coil is installed on a system with a heat pump outdoor unit, the system should be charged using charging procedure provided on the updated charging label that includes the addition of the Quantum aluminum coils. The Quantum aluminum coils will be listed as CBA27UHE-xxx or CBA38MV-xx on the label. An example of the updated heat pump charging label is provided below.

#### HFC-410A CHARGING INFORMATION — FOR COMPLETE CHARGING PROCEDURES, REFER TO THE APPLICABLE INSTALLATION OR SERVICE MANUAL

Maintenance checks using the Normal Operating Pressures table

Table 1 may be used to help perform maintenance checks. This table is not a procedure for charg-ing the system and any minor variations in the pressures may be expected due to differences in installations. However, significant deviations could mean that the system is not properly charged or that a problem exists with some component in the system.

#### Charge Using the Subcooling Method

**Cooling Mode**—When the outdoor ambient temperature is 60°F (15°C) and above, use the cooling mode to adjust the charge using the subcooling method. Target subcooling values in table 1 are based on 70 to 80°F (21-27°C) indoor return air temperature.

Heating Mode—When the outdoor ambient temperature is below 60°F (15°C), use the heating mode to adjust the charge using the subcooling charge levels (table ). Target subcooling values in table 1 are based on 65-75°F (18-24°C) indoor return air temperature.

Matched System Components/Charge Levels/Line Set Lengths/Liquid Line Sizing Table 2 lists all the Lennox recommended indoor unit matches along with the charge levels for the various sizes of outdoor units. Charge levels on the unit nameplate are based on installations with 15' (4.6m) line sets; consider line set length and liquid line sizing differences when calculat-ing charge adjustments. For each additional foot of 3/8" liquid line set, add 0.6 ounces or for 1/2" liquid lines, add 1.0 ounces of additional charge.

#### Charge Using the Weigh-in Method

If the system is void of refrigerant, locate and repair any leaks and then weigh in the refrigerant charge into the unit. For charge adjustments, be sure to consider line set length differences and, referring to table 1, adjust for the matchup difference.

- Recover the refrigerant from the unit.
   Conduct leak check; evacuate as previously outlined.
   Weigh in the unit nameplate charge, adjusting for matchup and line set length differences. If weighing facilities are not available, use the Subcooling method.

#### Table 1 – Normal Operating Pressures (Liquid ±10 and Suction ±5 psig)

		ŀ	leating Mode	;		Cooling Mode											
°F (°C)*	20	30	40	50	60	65	70	75	80	85	90	95	100	105	110	115	
SIZE	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	VAP/LIQ	
-018	67/272	83/287	100/305	118/321	137/339	145/242	145/259	146/279	147/302	148/326	149/351	151/376	151/406	153/433	154/462	155/498	
-024	58/ 281	72/295	88/ 309	105/324	123/340	139/243	140/262	142/281	143/302	144/325	145/348	145/373	146/399	147/426	147/454	148/483	
-030	55/274	69/ 286	84/ 299	102/313	122/327	135/250	136/268	138/288	140/308	141/330	143/352	144/376	145/400	147/426	148/452	149/480	
-036	62/287	76/ 304	91/ 322	106/342	124/365	135/230	137/248	139/268	141/288	143/311	145/334	146/359	148/385	150/412	151/441	153/471	
-042	58/293	73/ 335	89/ 368	108/394	130/411	127/215	129/234	131/254	132/275	134/298	136/321	137/346	139/371	140/398	141/426	142/455	
-048	60/ 282	75/ 299	90/ 316	105/334	121/353	136/219	137/237	138/256	139/277	140/298	141/321	142/344	143/369	144/395	146/422	147/450	
-060	56/266	70/ 285	84/ 309	99/ 337	114/369	132/222	133/241	134/262	135/283	137/306	138/330	139/354	141/380	142/406	143/434	144/463	
*Temperature	e of the air en	tering the out	side coil.	•		•	•	•	•		•				•	•	

#### Table 2 – Indoor Unit Matches and Subcooling Charge Levels and Additional Charge

HP Indoor Coil or Air	CI		Addi Cha	tional arge	HP			cool	Add	itional arge	HP	Indoor Coil or Air	Subcool			lditional Charge	
Size	Handler	Heat ( <u>+5</u> °F)	Cool ( <u>+</u> 1°F)	lbs	oz	Size	Handler	Heat ( <u>+5</u> %F)	Cool ( <u>+</u> 1ºF)	lbs	oz	Size	Handler	Heat ( <u>+</u> 5°F)	Cool ( <u>+</u> 1°F)	lbs	0
	CBX25UH-018 CBX25UHV-018	18	5	0	0		CH33-36B	6	3	0	0		CH33-49C	16	6	1	6
	CBX27UH-018	13	14	1	9	1	CH33-36C	10	11	1	5		CH33-50, -60C	10	9	3	4
	CBX27UH-024	13	14	1	9		CH33-42B	16	18	2	6		CH33-60D	12	8	0	
	CBX32MV-018/024	12	14	0	0		CH33-43C	4	9	1	12		CH33-62D	19	7	1	
-018	CBA27UHE-018, 024 CBA38MV-018/024	12	10	1	2	-030	CR33-30, -36	22	5	1	0		CR33-50, -60	29	5	0	
	GHDD-ZDA	14	14	0	1		CX38/CX34-31	17	15	2	10	-042	CR33-60D	29	5	0	
	CH33-25B	14	13	0	5		CX38/CX34-36	25	6	0	10		CX38/CX34-49	11	6	1	
	CR33-30/36	12	5	0	7		CX38/CX34-38	10	19	2	14		CX38/CX34-50, -60	25	8	1	
	CX38/CX34-25 CX38/CX34-31	15 14	15 24	1	1		CX38/CX34-42 CX38/CX34-43	25 13	6 17	0	10 14		CX38/CX34-60 CX38/CX34-62C	8	8 11	1	
	CBX25UH-024					-										3	-
	CBX25UHV-024	6	6	0	9		CX38/CX34-44, -48	9	21	2	12		CX38/CX34-62D	11	7	1	
	CBX25UH-030 CBX25UHV-030	17	3	0	15		CBX25UH-036 CBX25UHV-036	31	3	0	4		CBX25UH-048 CBX25UHV-048	15	6	2	
	CBX26UH-024	17	3	0	15	1	CBX26UH-036	31	3	0	4		CBX26UH-048	20	10	3	1
	CBX27UH-024	12	12	1	2	1	CBX27UH-036	18	3	0	5		CBX27UH-048	16	6	0	
	CBX27UH-030	11	11	2	1	1	CBX27UH-042	11	4	0	1		CBX27UH-060	12	6	1	
	CBX32M-018, -024	14	11	0	4	1	CBX27UH-048	11	4	0	1		CBX32M-048	16	6	0	
	CBX32M-030	12	12	1	2		CBX32M-036	18	3	0	5		CBX32M-060	20	8	1	
	CBX32MV-018/024	14	11	0	4		CBX32M-042	18	3	0	5		CBX32MV-048	16	6	0	
	CBX32MV-024/030	12	12	1	2		CBX32MV-036	18	3	0	5		CBX32MV-060	20	8	1	
	CBX32MV-036	11 11	11 11	2	1		CBX32MV-048	11 11	4	0	1		CBX32MV-068	10 16	8	4	
	CBX40UHV-024	11	11	2	1	_	CBX40UHV-042 CBX40UHV-048	11	4	0	1		CBX40UHV-048	16	6	0	
	CBA27UHE-024	16	11	1	7		CBX400HV-048 CBX40UHV-036	18	4	0	5		CBA27UHE-048	16	6	1	-
024	CBA38MV-018/024 CBA27UHE-030	13	11	1	3	H [	CBA27UHE-036	20	5	0	0	-048	CBA38MV-048 CBA27UHE-060	12	7	2	T
	CBA38MV-030, 036					▋	CBA38MV-036 CBA27UHE-042						CBA38MV-060				
	CH23-41	10	3	0	0	-036	CBA38MV-042	16	6	0	11		CH23-68	24	6	2	
	CH33-25A	20	10	1	1	•		- 14	0	2	4		CH33-50, -60C	17	6	1	
	CH33-25B	19	8	1	2		CH33-43C	26	9	2	10		CH33-60D	18	6	0	
	CH33-31A	15	11	1	15		CH33-44/48B	24	8	2	3		CH33-62D	13	7	3	
	CH33-36C CH33-36A	10 20	12 10	0	0	-	CH33-48C CH33-49C	26 15	9	2	10 12		CR33-50/60 CR33-60	19 19	6	1	_
	CR33-30, -036	17	4	0	14		CH33-50/60C	15	8	2	12		CX38/CX34-49C	19	6	1	
	CX38/CX34-25	15	9	0	14		CR33-48	38	5	0	0		CX38/CX34-60	28	7	3	-
	CX38/CX34-31	15	16	0	9	-	CR33-50, -60	15	5	1	4		CX38/CX34-62C	10	6	3	-
	CX38/CX34-36	26	6	0	9		CX38/CX34-38	15	4	0	9		CX38/CX34-62D	14	7	3	
	CX38/CX34-38	10	18	1	14		CX38/CX34-43	23	8	2	8		CBX25UH-060 CBX25UHV-060	15	6	2	
	CBX25UH-030	9	3	0	8	-	CX38/CX34-44/48	40	4	0	15		CBX26UH-060	31	6	3	
	CBX25UHV-030 CBX25UH-036	19	11	1	5	-	CX38/CX34-49	11	7	3	9		CBX27UH-060	13	7	0	-
	CBX26UH-030	19	11	1	5		CX38/CX34-50/60	23	8	2	8		CBX32M-060	17	5	1	
	CBX27UH-030	10	16	1	14		CBX25UH-042 CBX25UHV-042	42	5	0	8		CBX32MV-048	20	6	0	
	CBX27UH-036	10	16	1	14	-	CBX26UH-042	42	5	0	8		CBX32MV-060	17	5	1	-
	CBX32M-030	7	10	1	3	-	CBX27UH-042, -048	13	5	2	2		CBX32MV-068	11	8	2	-
	CBX32M-036	10	16	1	14	1	CBX32M-048	13	5	2	2		CBX40UHV-048	20	6	0	
-030	CBX32MV-024/030	7	10	1	3	1	CBX32MV-048	13	5	2	2	-060	CBX40UHV-060	17	5	1	$\pm$
	CBX32MV-036	10	16	1	14		CBX40UHV-042	13	5	2	2		CBA27UHE-060 CBA38MV-060	11	6	1	
	CBX40UHV-030	10	16	1	14		CDX40UUV 049	10	5	2	2	. '	CH23-68	21	1	U	
	CBX40UHV-036	10	16	1	14	-042	CBA27UHE-042 CBA38MV-042	19	5	0	1		CH33-50, -60C	11	4	0	
	CBA27UHE-030, 036 CBA38MV-030, 036	10	11	1	8		CBA27UHE-048 CBA38MV-048	18	6	1	6		CH33-62D	19	6	2	
	CH23-41	11	4	0	8	μ [	CH22 69	20	0	1	5		CR33-50/60	19	6	2	-
	CH23-51	11	6	0	14	1 -	CH33-43B	7	9	3	2		CR33-60	23	6	1	
	CH33-31A	16	18	2	8	1	CH33-43C	22	5	1	0		CX38/CX34-62C	10	7	2	
	CH33-31B	16	18	2	6	1	CH33-44/48B	18	4	0	0		CX38/CX34-62D	19	7	3	

The values in this table are most popular match-up pressures; indoor match-up, indoor air quantity, and indoor load will cause the pressures to vary. \*Amount of charge required in addition to charge shown on unit name plate

