



SERVICE AND APPLICATION NOTES

100007
June 23, 2021

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, CBX32M, CBX32MV and CBX40UHV air handlers 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 Repair Part Finder section of LennoxPros 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 Repair Part Finder:

The CBX27, CBX32M, CBX32MV and CBX40UHV repair parts listing under Repair Part Finder 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 Repair Part Finder 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 Alum. Coil Listing for Air Handlers on Repair Part Finder – LennoxPros

Repair Part Finder in LennoxPros – New Alternate Aluminum Coil Category Example

Repair Parts Page | LennoxPROs

https://www.lennoxpros.com/hvac-repair-part-finder

LENNOX Pros.com

Deliver to: 75080-2254
Store Pickup: Select a Store

Search

Store Locator | Salesforce.com | Help | Welcome, TJ

Residential | Commercial | Parts And Supplies | My Learning | AHRI Matchup | Repair Part Finder

Quick Order | (1) | (0)

Repair Part Finder

Quantum Coil Replacements
DLSC & Elite copper air handlers now have a Quantum Coil replacement option. View Service & Application notes.

OEM Repair Parts is going away. You can continue to access it here.

Find parts by Model, Part, Catalog, or Serial Number

CBX27UH-030-230-6

Find Parts

Help

Model CBX27UH-030-230-6

Revision Number * 03

Parts List | Document Library

Email | Print

ALTERNATE ALUMINUM COIL

[COIL-INDOOR](#)
Cat #: 15R27 Model/Part #: LB-90287AL
ALUMINUM COIL ASSY (TECH INFO - NOTE A)

BLOWER PARTS

[GROMMET](#)
Cat #: 43H81 Model/Part #: 43H8101
GROMMET

[X-13 MODULE \(PROGRAMMED\)](#)

CBX27UH / CBX27UH

COILS/BLOWER COILS
DECEMBER, 2006

Feedback

Repair Part Finder – Alternate Replacement Aluminum Coil Catalog Number & Technical Info Example

Repair Parts Page | LennoxPRO: X

https://www.lennoxpros.com/hvac-repair-part-finder

90%

Email | Print

Parts List

Document Library

— ALTERNATE ALUMINUM COIL

[COIL-INDOOR](#)
Cat #: 15R27 Model/Part #: LB-90287AL
ALUMINUM COIL ASSY (TECH INFO - NOTE A)

— BLOWER PARTS

[GROMMET](#)
Cat #: 43H81 Model/Part #: 43H8101
GROMMET

[X-13 MODULE \(PROGRAMMED\)](#)
Cat #: 10B33 Model/Part #: 604253-13
USE MOTOR-MODULE KIT AS A REPLACEMENT

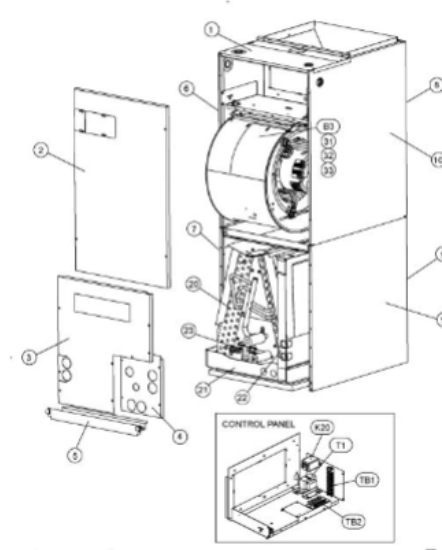
[BAND-MOTOR](#)
Cat #: 62A57 Model/Part #: 62A5701
MOTOR MTG

[MOUNT-MOTOR](#)
Cat #: 98G23 Model/Part #: 98G2301
ARM, MOTOR MOUNTING

[HOUSING-BLOWER](#)

COLS/BLOWER COILS
DECEMBER, 2006

CB27UH / CBX27UH



All Parts With Revisions

Technical Notes

NOTE A:

THE ALUMINUM ALTERNATE REPLACEMENT COIL LISTED MAY BE USED AS A REPLACEMENT FOR THE ORIGINAL COPPER COIL WHEN THE AIR HANDLER IS INSTALLED WITH AN AIR CONDITIONING OUTDOOR UNIT. THE ALUMINUM ALTERNATE REPLACEMENT COIL MAY BE INSTALLED WITH A HEAT PUMP, IF THE COIL IS AN APPROVED MATCH WITH THE HEAT PUMP. SEE LENNOX MATCHING CHARTS FOR THE HEAT PUMP.

DISTRIBUTOR ASSEMBLIES ARE NOT SET UP AS A REPAIR PART. IF COIL HAS MULTIPLE LEAKS IN THE DISTRIBUTOR ASSEMBLY, THE COIL SHOULD BE REPLACED.

Feedback

Alternate Quantum Aluminum Coil Table 1 for Air Conditioning Outdoor Units

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.

Alternate Quantum Aluminum Coil Table 2 for Heat Pump Outdoor Units

Table 2 – Air Handler Quantum Coil Replacement Table for Heat Pump Outdoor Units

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

Existing Copper Coil Air Handler Model #	Quantum Aluminum Replacement Coil Catalog #	Existing 14HPX Heat Pump Model # (For 14HPX Heat Pumps Produced in 2012 & later [SN 1912A & Later])						
		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	15Z72					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	15Z72				Approved Replacement	Approved Replacement	Approved Replacement	
CBX40UHV-060	15Z72						Approved Replacement	Not Recommended

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

Table 2 cont'd – Air Handler Quantum Coil Replacement Table for Heat Pump Outdoor Units

XP14 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Existing Copper Coil Air Handler Model #	Quantum Aluminum Replacement Coil Catalog #	Existing XP14 Heat Pump Model # (For XP14 Heat Pumps Produced in 2012 & later [SN 5812A & Later])						
		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	15Z72					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	15Z72				Approved Replacement	Approved Replacement	Approved Replacement	
CBX40UHV-060	15Z72						Approved Replacement	Not Recommended

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

Table 2 cont'd – Air Handler Quantum Coil Replacement Table for Heat Pump Outdoor Units

XP16 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Existing Copper Coil Air Handler Model #	Quantum Aluminum Replacement Coil Catalog #	Existing XP16 Heat Pump Model # (For XP16 Heat Pumps Produced in 2010 & later [SN 5810A & Later])			
		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	15Z72			Approved Replacement	
CBX32M-060	15Z72			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	15Z72			Approved Replacement	
CBX40UHV-060	15Z72			Approved Replacement	Not Recommended

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)

Table 2 cont'd – Air Handler Quantum Coil Replacement Table for Heat Pump Outdoor Units

SL18XP1 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Existing Copper Coil Air Handler Model #	Quantum Aluminum Replacement Coil Catalog #	Existing SL18XP1 Heat Pump Model #					
		SL18XP1-024	SL18XP1-030	SL18XP1-036	SL18XP1-042	SL18XP1-048	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

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

Table 2 cont'd – Air Handler Quantum Coil Replacement Table for Heat Pump Outdoor Units

XP20 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Existing Copper Coil Air Handler Model #	Quantum Aluminum Replacement Coil Catalog #	Existing XP20 Heat Pump Model #			
		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

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

Table 2 cont'd – Air Handler Quantum Coil Replacement Table for Heat Pump Outdoor Units

XP21 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Existing Copper Coil Air Handler Model #	Quantum Aluminum Replacement Coil Catalog #	Existing XP21 Heat Pump Model # (For XP21 Heat Pumps Produced in 2012 & later)			
		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

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

Table 2 cont'd – Air Handler Quantum Coil Replacement Table for Heat Pump Outdoor Units

XP25 Heat Pump - Alternate Aluminum Replacement Coil for Air Handlers

Existing Copper Coil Air Handler Model #	Quantum Aluminum Replacement Coil Catalog #	Existing XP25 Heat Pump Model #			
		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			Approved Replacement	
CBX32MV-060	15Z72			Approved Replacement	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			Approved Replacement	
CBX40UHV-060	15Z72			Approved Replacement	Not Recommended

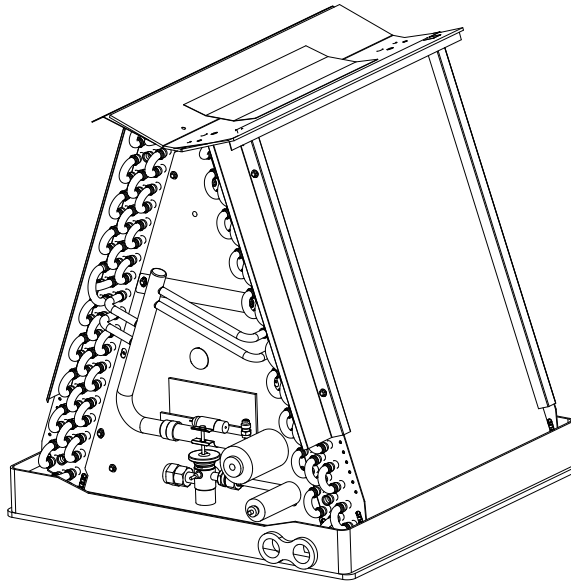
6/21/2021

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

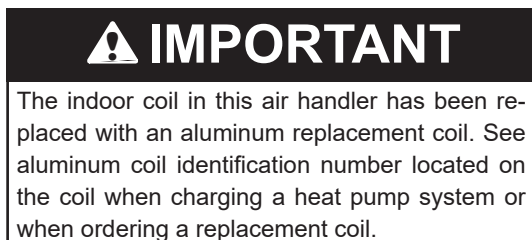
Replacement Quantum Coil Assembly and Installation Packet

Quantum Aluminum Replacement Coil



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.



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.

Updated Heat Pump Charging Label Example – 14HPX

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 charging 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 calculating 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 match-up difference.

- 1 - Recover the refrigerant from the unit.
- 2 - Conduct leak check; evacuate as previously outlined.
- 3 - Weigh in the unit nameplate charge, adjusting for match-up 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)

%F (°C)*	Heating Mode						Cooling Mode									
	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 of the air entering the outside coil.

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

HP Size	Indoor Coil or Air Handler	Subcool		Additional Charge		HP Size	Indoor Coil or Air Handler	Subcool		Additional Charge		HP Size	Indoor Coil or Air Handler	Subcool		Additional Charge	
		Heat (±5°F)	Cool (±1°F)	lbs	oz			Heat (±5°F)	Cool (±1°F)	lbs	oz			Heat (±5°F)	Cool (±1°F)	lbs	oz
-018	CBX25UH-018	18	5	0	0	-030	CH33-36B	6	3	0	0	-042	CH33-49C	16	6	1	6
	CBX25UHV-018						CH33-36C	10	11	1	5		CH33-50, -60C	10	9	3	4
	CBX27UH-018	13	14	1	9		CH33-42B	16	18	2	6		CH33-60D	12	8	0	9
	CBX27UH-024	13	14	1	9		CH33-43C	4	9	1	12		CH33-62D	19	7	1	7
	CBX32MV-018/024	12	14	0	0		CR33-30, -36	22	5	1	0		CR33-50, -60	29	5	0	4
	CBA27UHE-018, 024	12	10	1	2		CX38/CX34-31	17	15	2	10		CR33-60D	29	5	0	4
	CBA38MV-018/024	14	14	0	7		CX38/CX34-36	25	6	0	10		CX38/CX34-49	11	6	1	4
	CH33-25A	14	13	0	5		CX38/CX34-38	10	19	2	14		CX38/CX34-50, -60	25	8	1	15
	CR33-30/36	12	5	0	7		CX38/CX34-42	25	6	0	10		CX38/CX34-60	8	8	1	4
	CX38/CX34-25	15	15	1	1		CX38/CX34-43	13	17	2	14		CX38/CX34-62C	8	11	3	10
-024	CBX25UH-024	6	6	0	9	-036	CX38/CX34-44, -48	9	21	2	12	-048	CX38/CX34-62D	11	7	1	15
	CBX25UHV-024						CBX25UH-036	31	3	0	4		CBX25UH-048	15	6	2	5
	CBX25UH-030	17	3	0	15		CBX25UHV-036	31	3	0	4		CBX26UH-048	20	10	3	11
	CBX26UH-024	17	3	0	15		CBX26UH-036	18	3	0	5		CBX27UH-048	16	6	0	0
	CBX27UH-024	12	12	1	2		CBX27UH-042	11	4	0	1		CBX27UH-060	12	6	1	4
	CBX27UH-030	11	11	2	1		CBX27UH-048	11	4	0	1		CBX32M-048	16	6	0	0
	CBX32M-018, -024	14	11	0	4		CBX32M-036	18	3	0	5		CBX32M-060	20	8	1	0
	CBX32M-030	12	12	1	2		CBX32M-042	18	3	0	5		CBX32MV-048	16	6	0	0
	CBX32MV-018/024	14	11	0	4		CBX32MV-036	18	3	0	5		CBX32MV-060	20	8	1	0
	CBX32MV-024/030	12	12	1	2		CBX32MV-048	11	4	0	1		CBX32MV-068	10	8	4	5
-030	CBX32MV-036	11	11	2	1	-042	CBX40UHV-042	11	4	0	1	-060	CBX40UHV-048	16	6	0	0
	CBX40UHV-024	11	11	2	1		CBX40UHV-048	11	4	0	1		CBX40UHV-060	20	8	1	0
	CBX40UHV-030	14	14	0	4		CBX40UHV-036	18	3	0	5		CBA27UHE-048	16	6	1	6
	CBA27UHE-024	16	11	1	7		CBA27UHE-036	20	5	0	0		CBA27UHE-060	12	7	2	3
	CBA38MV-018/024	13	11	1	3		CBA27UHE-042	16	6	0	11		CBA38MV-048	24	6	2	8
	CBA27UHE-030, 036	10	3	0	0		CH33-42B	14	9	2	4		CH33-50, -60C	17	6	1	5
	CH23-41	10	3	0	0		CH33-43C	26	9	2	10		CH33-60D	18	6	0	13
	CH33-25A	20	10	1	1		CH33-44/48B	24	8	2	3		CH33-62D	13	7	3	6
	CH33-25B	19	8	1	2		CH33-48C	26	9	2	10		CR33-50/60	19	6	1	1
	CH33-31A	15	11	1	15		CH33-49C	15	8	2	12		CR33-60	19	6	1	1
-036	CH33-36C	10	12	0	0	-048	CH33-50/60C	15	8	2	12	-060	CX38/CX34-49C	10	6	1	9
	CH33-36A	20	10	1	1		CR33-48	38	5	0	0		CX38/CX34-60	28	7	3	14
	CR33-30, -036	17	4	0	14		CR33-50, -60	15	5	1	4		CX38/CX34-62C	10	6	3	12
	CX38/CX34-25	15	9	0	15		CX38/CX34-38	15	4	0	9		CX38/CX34-62D	14	7	3	12
	CX38/CX34-31	15	16	0	9		CX38/CX34-43	23	8	2	8		CBX25UH-060	15	6	2	0
	CX38/CX34-36	26	6	0	9		CX38/CX34-44/48	40	4	0	15		CBX25UHV-060	31	6	3	0
	CX38/CX34-38	10	18	1	14		CX38/CX34-49	11	7	3	9		CBX27UH-060	13	7	0	8
	CBX25UH-030	9	3	0	8		CX38/CX34-50/60	23	8	2	8		CBX32M-060	17	5	1	4
	CBX25UHV-030	19	11	1	5		CBX25UH-042	42	5	0	8		CBX32MV-048	20	6	0	0
	CBX26UH-030	19	11	1	5		CBX25UHV-042	42	5	0	8		CBX32MV-060	17	5	1	4
-042	CBX27UH-030	10	16	1	14	-048	CBX27UH-042	13	5	2	2	-060	CBX32MV-068	11	8	2	12
	CBX27UH-036	10	16	1	14		CBX27UH-042, -048	13	5	2	2		CBX40UHV-048	20	6	0	0
	CBX32M-030	7	10	1	3		CBX32M-048	13	5	2	2		CBX40UHV-060	17	5	1	4
	CBX32M-036	10	16	1	14		CBX32MV-048	13	5	2	2		CBA27UHE-060	11	6	1	1
	CBX32MV-024/030	7	10	1	3		CBX40UHV-042	13	5	2	2		CBA38MV-060	11	6	1	1
	CBX32MV-036	10	16	1	14		CBX40UHV-048	19	5	0	1		CH23-68	27	7	0	13
	CBX40UHV-030	10	16	1	14		CBA27UHE-042	19	5	0	1		CH33-50, -60C	11	4	0	0
	CBX40UHV-036	10	16	1	14		CBA38MV-042	18	6	1	6		CH33-62D	19	6	2	4
	CBA27UHE-030, 036	10	11	1	8		CH33-50	20	9	1	6		CR33-50/60	19	6	2	4
	CH23-41	11	4	0	8		CH33-43B	7	9	3	2		CR33-60	23	6	1	3
-048	CH23-51	11	6	0	14	-060	CH33-43C	22	5	1	0	-060	CX38/CX34-62C	10	7	2	14
	CH33-31A	16	18	2	8		CH33-44/48B	18	4	0	0		CX38/CX34-62D	19	7	3	2
	CH33-31B	16	18	2	6		CH33-48C	22	5	1	0						
	CH33-36A	10	6	0	6												

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 nameplate.