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COOLING UNITS KITS AND ACCESSORIES

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ALUMINUM AIR-HANDLER-COIL REPLACEMENT KIT

INSTALLATION INSTRUCTIONS FOR REPLACEMENT ALUMINUM INDOOR COIL – CBA27UHE, CBA38MV OR COPPER COIL AIR HANDLER UNITS

Shipping and Packing List

Package 1 of 1 contains:

- 1 – Aluminum coil assembly with upflow drain pan and factory-installed check / expansion valve
- 1 – Bag assembly
 - 1 – Installation Instruction
 - 1 – Label - 103624-01 - Aluminum Coil Cleaning Instruction
 - 1 – Label - 580983-01 - Replacement Alum Coil Notice
 - 1 – Label set - Heat Pump Charging labels for aluminum coils

Check the replacement coil for shipping damage. If you find any damage, immediately contact the last carrier.

⚠ 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, service agency, or the gas supplier.

⚠ CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

⚠ WARNING



Electric Shock Hazard! – Disconnect all power supplies before servicing.
Replace all parts and panels before operating.
Failure to do so can result in death or electrical shock.

General

The replacement aluminum indoor coil replaces coils in CBA27UHE or CBA38MV air handler units or may be used to replace an existing copper coil originally furnished in CBX27, CBX32, CBX40, CB27, CB30 or CB31 air handler units. See the Application section and table 2 in the instructions for the proper application of the coil.

Verify that the new coil has holding charge by slowly removing the plugs. The coil should have approximately 10 psi dry air holding charge. If there is no charge, repressurize the coil and check for leaks.

Verify that the replacement coil is correct per the Replacement Coil table on page 2 and that the dimensions match the current coil being replaced.

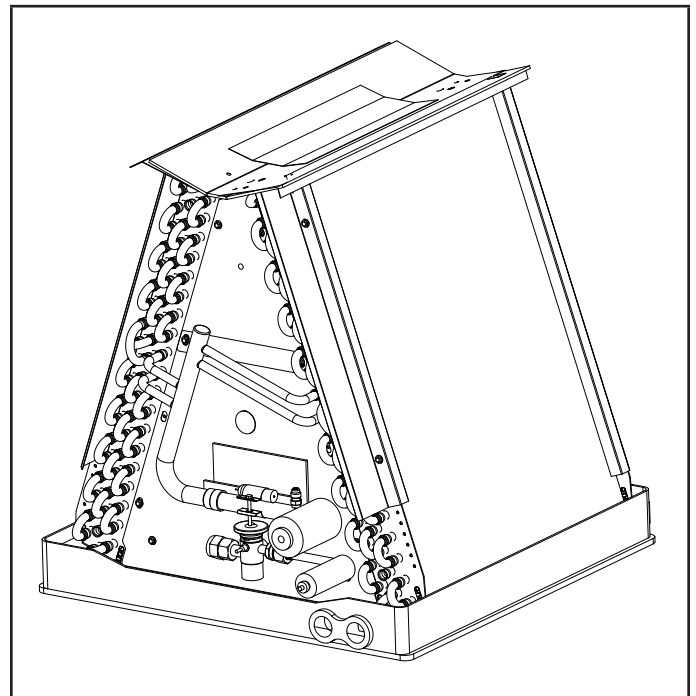


FIGURE 1. Aluminum Replacement Coil

Application

The aluminum replacement coil is used for the coil replacement applications outlined below.

Replacement Quantum Coil for CBA27UHE or CBA38MV Air Handler Units

The Quantum aluminum coil is identical to the coil originally supplied from the factory in CBA27UHE or CBA38MV air handler units. In this application, the coil is installed in the air handler the same way as the original coil. The coil is shipped ready to be installed in an **upflow** or **horizontal right-hand** application.

In a **horizontal left-hand** application the top cap must be rotated and internal condensate tray relocated to the correct position for the application as shown in the air handler installation instructions.



In a **downflow** application, the drip shields and top narrow top cap (-048 and -060 only) must be removed from the original coil and reinstalled on the replacement coil.

Replacement Quantum Aluminum Coil for Air Handler Units Originally Furnished with a Copper Coil.

The Quantum aluminum coil may be used to replace a copper coil originally provided in a CBX27UHE, CBX32M, CBX32MV, CBX40UHV, CB27, CB30 or CB31MV air handler unit. The replacement Quantum aluminum coil part number is listed in table 1 for air handler units originally furnished with a copper coil.

Non-Heat Pump Units (AC Only)

For air handler units originally installed with cooling-only air conditioning outdoor units, the correct indoor Quantum aluminum replacement coil is matched with air handler units in table 1.

IMPORTANT – For air handler units originally installed with a heat pump outdoor unit, the installer must verify the aluminum replacement coil listed for the air handler matches the heat pump to ensure proper unit operation in both cooling and heat pump modes of operation. The copper and Quantum aluminum coils are identical in physical size and configuration; however there is a minor difference in coil volume. New heat pump charging labels are provided with the replacement coil installation bag assembly.

TABLE 1. Replacement Quantum Aluminum Coil Usage List for Existing Lennox Copper Coil Air Handler Units

Air Handler Model #	Replacement Alum. Coil Part #	Description	Coil Model # Listed on Heat Pump Charging Label
CBX27UH-018	15R26	LB-90287AK CBA27UHE-018/024 Repair Coil	CBA27UHE-018, CBA38MV-018/024
CBX27UH-024	15R26	LB-90287AK CBA27UHE-018/024 Repair Coil	CBA27UHE-024, CBA38MV-018/024
CBX27UH-030	15R27	LB-90287AL CBA27UHE-030 Repair Coil	CBA27UHE-030, CBA38MV-030
CBX27UH-036	15R30	LB-90287AM CBA27UHE-036 Repair Coil	CBA27UHE-036, CBA38MV-036
CBX27UH-042	15R45	LB-90287AN CBA27UHE-042 Repair Coil	CBA27UHE-042, CBA38MV-042
CBX27UH-048	15Z72	LB-90287AR CBA27UHE-048 Repair Coil	CBA27UHE-048, CBA38MV-048
CBX27UH-060	15R46	LB-90287AP CBA27UHE-060 Repair Coil	CBA27UHE-048, CBA38MV-048
CBX32M-018/024	NA	No Aluminum Coil Available	N/A
CBX32M-030	15R26	LB-90287AK CBA27UHE-018/024 Repair Coil	CBA27UHE-024, CBA38MV-018/024
CBX32M-036	15R30	LB-90287AM CBA27UHE-036 Repair Coil	CBA27UHE-036, CBA38MV-036
CBX32M-042	15R30	LB-90287AM CBA27UHE-036 Repair Coil	CBA27UHE-036, CBA38MV-036
CBX32M-048	15Z72	LB-90287AR CBA27UHE-048 Repair Coil	CBA27UHE-048, CBA38MV-048
CBX32M-060	15Z72	LB-90287AR CBA27UHE-048 Repair Coil	CBA27UHE-048, CBA38MV-048
CBX32MV-018/024	NA	No Aluminum Coil Available	N/A
CBX32MV-024/030	15R26	LB-90287AK CBA27UHE-018/024 Repair Coil	CBA27UHE-024, CBA38MV-018/024
CBX32MV-036	15R30	LB-90287AM CBA27UHE-036 Repair Coil	CBA27UHE-036, CBA38MV-036
CBX32MV-048	15Z72	LB-90287AR CBA27UHE-048 Repair Coil	CBA27UHE-048, CBA38MV-048
CBX32MV-060	15Z72	LB-90287AR CBA27UHE-048 Repair Coil	CBA27UHE-048, CBA38MV-048
CBX32MV-068	NA	No Aluminum Coil Available	N/A
CBX40UHV-024	15R27	LB-90287AL CBA27UHE-030 Repair Coil	CBA27UHE-030, CBA38MV-030
CBX40UHV-030	15R27	LB-90287AL CBA27UHE-030 Repair Coil	CBA27UHE-030, CBA38MV-030
CBX40UHV-036	15R30	LB-90287AM CBA27UHE-036 Repair Coil	CBA27UHE-036, CBA38MV-036
CBX40UHV-042	15R45	LB-90287AN CBA27UHE-042 Repair Coil	CBA27UHE-042, CBA38MV-042
CBX40UHV-048	15Z72	LB-90287AR CBA27UHE-048 Repair Coil	CBA27UHE-048, CBA38MV-048
CBX40UHV-060	15Z72	LB-90287AR CBA27UHE-048 Repair Coil	CBA27UHE-048, CBA38MV-048

Notes:

1. The Quantum aluminum coils listed above have been approved by Lennox for replacement of the original copper coil in the existing Lennox air handlers listed above
2. On heat pump systems, the installer must verify the aluminum coil is a match to the heat pump.

TABLE 2. New Heat Pump Charging Label Usage

Heat Pump Model	New Charging Label Form No. When Matched with Aluminum Coil
14HPX/XP14	580381-01
XP16	580655-03
SL18XP1	580757-04

Heat Pump Model	New Charging Label Form No. When Matched with Aluminum Coil
XP20	580794-03
XP21	580325-02
XP25	580483-02

Notes:

1. Select the new heat pump charging label for the existing heat pump using table 2 and install the label on the inside of the heat pump control box cover. The new label includes the data for the CBA27/CBA38 aluminum coil.

Installation

⚠ IMPORTANT
The stub of the coil must be secured if any adjustments to the liquid line are needed. Do not allow it to move.

⚠ IMPORTANT
Apply a wet cloth to the factory copper joints to prevent heat damage when brazing in the field copper-to-copper joints for the replacement coil.

Installation Steps when Replacing the Coil in a CBA27UHE or CBA38MV Air Handler.

- 1 - The Quantum aluminum coil is identical to the coil originally supplied from the factory in the CBA27UHE or CBA38MV air handler.
- 2 - Pump down the system and recover the refrigerant from the system
- 3 - Disconnect power to the indoor unit
- 4 - Remove the coil access panels
- 5 - Disconnect the condensate drain lines connected to the drain pan
- 6 - Disconnect the liquid and vapor refrigerant line connections by unbrazing the connections at the swaged joints.
- 7 - Remove the existing coil from the air handler cabinet.
- 8 - Prepare the coil for installation in the air handler.
 - A - The replacement coil as shipped is ready to install in an upflow or horizontal RIGHT-HAND Application.
 - B - In horizontal LEFT-HAND applications, the top cap and internal condensate tray must be rotated. See original air handler instructions for details or use the existing coil as a guide.
 - C - In downflow applications, the downflow drip shields and narrow top cap (048 & 060 Only) must be removed from the existing coil and reinstalled on the replacement coil.
- 9 - Install the replacement Quantum Aluminum coil in the air handler.
- 10 - Allow the holding charge to escape by slowly removing the rubber plugs.

- 11 - Braze in the liquid and vapor lines to coil connections and reconnect the condensate drain lines
- 12 - Once the installation of the replacement coil is complete, confirm that all refrigerant tubing and wiring is routed away from other wiring and sharp metal edges.
- 13 - Replace the access panel and seal up all opening to prevent humid air from entering the unit.
- 14 - Restore power to the air handler unit.
- 15 - Refer to the outdoor unit installation instructions for leak testing, evacuation and start-up procedures. Charge the unit as outlined in the outdoor unit installation instructions and using the refrigerant charging label on the outdoor unit.

Installation Steps when Installing a Quantum Aluminum Replacement Coil in an Air Handler Originally Provided with a Copper Coil (CBX27, CBX32, CBX40 Air Handlers)

- 1 - Verify the you have the correct Quantum Aluminum Replacement Coil for the air handler by using the replacement coil list provided in table 1 on page 2
- 2 - On heat pump systems, verify the Quantum Aluminum coil matches the existing heat pump.
- 3 - Pump down the system and recover the refrigerant from the system
- 4 - Disconnect power to the indoor unit
- 5 - Remove the coil access panels
- 6 - Disconnect the condensate drain lines connected to the drain pan
- 7 - Disconnect the liquid and vapor refrigerant line connections by unbrazing the connections at the swaged joints.
- 8 - Remove the existing coil from the air handler cabinet.
- 9 - Prepare the coil for installation in the air handler.
 - A - The replacement coil as shipped is ready to install in an upflow or horizontal RIGHT-HAND application.
 - B - In horizontal LEFT-HAND applications, the top cap and internal condensate tray must be rotated. See original air handler instructions for details or use the existing coil as a guide.

- C - In downflow applications, the downflow drip shields and narrow top cap (048 & 060 only) must be removed from the existing coil and reinstalled on the replacement coil.
- D - The replacement coil is shipped with an R410A check / expansion valve. If the coil is installed on an R22 system, the TXV must be replaced.
- E - Note the replacement coil part number/model number located on the label located on the top of the replacement coil
- 10 - Install the replacement Quantum aluminum coil in the air handler.
- 11 - Allow the holding charge to escape by slowly removing the rubber plugs.
- 12 - Braze in the liquid and vapor lines to coil connections and reconnect the condensate drain lines
- 13 - Once the installation of the replacement coil is complete, confirm that all refrigerant tubing and wiring is routed away from other wiring and sharp metal edges.
- 14 - Replace the access panel and seal up all openings to prevent humid air from entering the unit.
- 15 - Install the "Aluminum Coil Cleaning Instruction" label #103624-01, provided in the installation bag assembly, on the coil access panel.
- 16 - Install the label 580983-01 provided in the installation bag assembly on the air handler access panel that states:
"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."
- 17 - On heat pump systems, select the new heat pump charging label that includes the charge information for the aluminum coil using the heat pump charging label table 2 on page 3 and install the new charging label inside the heat pump control box cover.
- 18 - Restore power to the air handler unit.
- 19 - Refer to the outdoor unit installation instructions for leak testing, evacuation and start-up procedures. Charge the unit as outlined in the outdoor unit installation instructions and using the refrigerant charging label on the outdoor unit.
- A - Heat pump systems should be charged using the new heat pump charging labels provided in the coil bag assembly using the "CBA27 or CBA38" coil model number listed on the replacement coil and on the charging label. Table 1 on page 2 lists the coil model number to reference on the new heat pump charging label after installing the aluminum replacement coil.