Read these instructions carefully before installation. Keep this manual in a handy place for future reference. This manual should be left with the equipment owner.

Lire soigneusement ces instructions avant l’installation. Conserver ce manuel à portée de main pour référence ultérieure. Ce manuel doit être donné au propriétaire de l’équipement.

Lea cuidadosamente estas instrucciones antes de instalar. Guarde este manual en un lugar a mano para leer en caso de tener alguna duda. Este manual debe permanecer con el propietario del equipo.
1. SAFETY INSTRUCTIONS

Read these "SAFETY INSTRUCTIONS for Installation" carefully before installing an air conditioner or heat pump. After completing the installation, make sure that the unit operates properly during the start-up operation. Instruct the customer on how to operate and maintain the unit. Inform customers that they should store this Installation Manual with the Operation Manual for future reference. Always use a licensed installer or contractor to install this product. Improper installation can result in water or refrigerant leakage, electrical shock, fire, or explosion.

--- DANGER ---

- Refrigerant gas is heavier than air and replaces oxygen. A massive leak can lead to oxygen depletion, especially in basements, and an asphyxiation hazard could occur leading to serious injury or death. For a refrigerant leak, contact your licensed professional contractor.
- Do not ground units to water pipes, gas pipes, telephone wires or lightning rods since incomplete grounding can cause a severe shock hazard, resulting in severe injury or death. Additionally, grounding to gas pipes could cause a gas leak resulting in a potential explosion causing severe injury or death.
- If refrigerant gas leaks during installation, ventilate the area immediately. Refrigerant gas may produce toxic gas if it comes in contact with fire. Exposure to this gas could cause severe injury or death.
- After completing the installation work, ensure the refrigerant gas does not leak anywhere in the system.
- Due to the risk of explosions that can cause serious injury or death, do not install the unit in an area where flammable materials are present.

--- WARNING ---

- Safely dispose of all packing and transportation materials in accordance with federal/state/local laws or ordinances. Plastic packing materials used for transportation may cause injuries or death by suffocation. Nails and other metal or wood parts used for packing may cause wounds or other injuries.
- All phases of the field-installation, including, but not limited to, electrical, piping, safety, etc., must be in accordance with manufacturer’s instructions and must comply with national, state, provincial and local codes.
- Only a licensed professional contractor should install this equipment and must be done in accordance with this installation manual. Improper installation could lead to leaks and electric shock or fire.
- When installing the unit in a small room, ensure the refrigerant concentration does not exceed allowable safety limits. Excessive accidental refrigerant leaks in a closed ambient space can lead to oxygen deficiency.
- Do not use any device that is not design-certified by Daikin for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.
- Install the air conditioner or heat pump on a foundation strong enough that it can withstand the weight of the unit. A foundation of insufficient strength may result in the unit falling and causing injuries.
- When installing, take into account strong winds, typhoons or earthquakes. Improper installation may result in the unit falling and injuries.
- Make sure that a separate power supply circuit is provided for this unit and that all electrical work is carried out by qualified personnel according to local, state, and national regulations. An insufficient power supply capacity or improper electrical construction may lead to electric shocks or fire.
- Make sure that all wiring is secured, that specified wires are used and that no external forces act on the terminal connections or wires. Improper connections or installation may result in fire.
- When wiring, position the wires so that the control panel and cover can be securely fastened. Improper positioning of the control panel and cover may result in electric shocks, fire or the terminals overheating.
- If the control panel cover is not installed properly, dust or water may enter the control panel causing fire or electric shock.
- Before touching electrical parts, turn off the unit.
- This equipment can be installed with a Ground-Fault Circuit Breaker (GFCI). Although this is a recognized measure for additional protection, with the grounding system in North America, a dedicated GFCI is not required.
- When installing or relocating the system, keep the refrigerant circuit free from substances (such as air) other than the specified refrigerant (R-410A). Any presence of air or other foreign substance in the refrigerant circuit can cause an abnormal pressure rise or rupture, resulting in injury.
- Do not change the setting of the protection devices. If the pressure switch, thermal switch, or other protection device is shorted and operated forcibly, or parts other than those specified by Daikin are used, fire or explosion may occur.

**CAUTION**

- Do not touch the switch with wet fingers. Touching switch with wet fingers can cause electric shock.
- To prevent injury, children should never play on or around the unit.
- Do not touch the refrigerant pipes during and immediately after operation as the refrigerant pipes may be hot or cold, depending on the condition of the refrigerant flowing through the refrigerant piping, compressor and other refrigerant cycle parts. Your hands may suffer burns or frostbite if you touch the refrigerant pipes. To avoid injury, give the pipes time to return to normal temperature or, if you must touch them, be sure to wear proper gloves.
- Install drain piping to proper drainage. Improper drain piping may result in water leakage and property damage.
- Insulate piping to prevent condensation.
- Be careful when transporting the product.
- Do not use a charging cylinder. Using a charging cylinder may cause the refrigerant to deteriorate.
- Refrigerant R-410A in the system must be kept clean, dry and tight.
  (a) Clean and Dry — Foreign materials (including mineral oils such as SUNISO oil or moisture) should be prevented from getting into the system.
  (b) Tight — R-410A does not contain any chlorine, does not destroy the ozone layer, and does not reduce the earth’s protection against harmful ultraviolet radiation. R-410A can contribute to the greenhouse effect if it is released. Therefore take proper measures to check for the tightness of the refrigerant piping installation. Read the Refrigerant Piping (section 5) and follow the procedures.
- Since R-410A is a blend, the required additional refrigerant must be charged in its liquid state. If the refrigerant is charged in a state of gas, its composition can change and the system will not work properly.
  The indoor unit is for R-410A. See the catalog for indoor models that can be connected. Normal operation is not possible when connected to other units.
- Remote controller (wireless kit) transmitting distance can be shorter than expected in rooms with electronic fluorescent lamps (inverter or rapid start types). Install the indoor unit far away from fluorescent lamps as much as possible.
- Indoor units are for indoor installation only. Outdoor units can be installed either outdoors or indoors. This unit is for indoor use.
- Do not install the air conditioner or heat pump in the following locations:
  (a) Where a mineral oil mist or oil spray or vapor is produced (for example, in a kitchen).
  Plastic parts may deteriorate and fall off or result in water leakage.
  (b) Where corrosive gas, such as sulfuric acid gas, is produced. Corroding copper pipes or soldered parts may result in refrigerant leakage.
  (c) Near machinery emitting electromagnetic waves. Electromagnetic waves may disturb the operation of the control system and cause the unit to malfunction.
  (d) Where flammable gas may leak, where there is carbon fiber or ignitable dust suspension in the air, or where volatile flammables such as thinner or gasoline are handled. Operating the unit in such conditions can cause a fire.
- Take adequate measures to prevent the outside unit from being used as a shelter by small animals. Small animals making contact with electrical parts can cause malfunctions, smoke, or fire. Instruct the customer to keep the area around the unit clean.

**NOTE**

- Install the power supply and control wires for the indoor and outdoor units at least 3.5 feet away from televisions or radios to prevent image interference or noise. Depending on the radio waves, a distance of 3.5 feet may not be sufficient to eliminate the noise.
- When dismantling the unit, treatment of the refrigerant, oil and additional parts must be done in accordance with the relevant local, state and national regulations.
- Do not use the following tools that have been previously used with conventional refrigerants: gauge manifold, charge hose, gas leak detector, reverse flow check valve, refrigerant charge base, vacuum gauge or refrigerant recovery equipment.
- If the conventional refrigerant and refrigerator oil are mixed in R-410A, the refrigerant may deteriorate.
- This air conditioner or heat pump is an appliance that should not be accessible to the general public.
- As design pressure is 450 psi, the wall thickness of field-installed pipes should be selected in accordance with the relevant local, state and national regulations.
2. BEFORE INSTALLATION

WARNING

- Installation must be performed by a licensed professional contractor. Improper installation could lead to leaks and electric shock or fire.
- Do not use any device that is not design-certified by Daikin for use with this unit. Serious property damage, personal injury, reduced unit performance and/or hazardous conditions may result from the use of such non-approved devices.
- Read and understand this manual before installing the indoor unit.
- Be sure to mount an air filter (part to be procured in the field) in the suction air passage of the connected gas furnace in order to prevent water leaking, etc.

NOTE

- Read and understand this manual before installing the indoor unit.
- Be sure to mount an air filter (part to be procured in the field) in the suction air passage of the connected gas furnace in order to prevent water leaking, etc.

The accessories needed for installation must be kept until the installation work is completed. Do not discard them.

1. Decide upon a line of transport.
2. Leave the unit inside its packaging while moving, until reaching the installation site. Where unpacking is unavoidable, use a sling of soft material or protective plates together with a rope when lifting, to avoid damage or scratches to the unit.

Be sure to verify the type of R-410A refrigerant to be used before installing the unit.
(Using an incorrect refrigerant will prevent normal operation of the unit.)

For the installation of an outdoor unit, refer to the installation manual attached to the outdoor unit.

2.2 OPTIONAL ACCESSORIES

This indoor unit requires one of the operation remote controls listed below.

<table>
<thead>
<tr>
<th>Remote Controller</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wired type</td>
<td>BRC1E73*, BRC2A71</td>
</tr>
<tr>
<td>Wireless type**</td>
<td>BRC4C82</td>
</tr>
</tbody>
</table>

* If BRC1E73 is not used a KRCS01-2UA sensor must be used.
** Wireless type controllers will only allow 2-stage airflow

FOR THE FOLLOWING ITEMS, TAKE SPECIAL CARE DURING CONSTRUCTION AND CHECK AFTER INSTALLATION IS FINISHED.

2.1 PRECAUTIONS

- Be sure to instruct customers how to properly operate the unit (operating different functions, and adjusting the temperature) by having them carry out operations themselves while looking at the operation manual.
- Do not install in locations where the air contains high levels of salt such as that near the ocean and where voltage fluctuates greatly (as in factories) or in vehicles or vessels.
ITEMS TO BE CHECKED AFTER COMPLETION OF WORK

<table>
<thead>
<tr>
<th>Items to be checked</th>
<th>If not properly done, what is likely to occur</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are the indoor and outdoor units fixed firmly?</td>
<td>Units may drop/vibrate or make noise</td>
<td></td>
</tr>
<tr>
<td>Is the refrigerant leak test finished?</td>
<td>This may result in insufficient cooling.</td>
<td></td>
</tr>
<tr>
<td>Is the unit fully insulated?</td>
<td>Condensate may drip.</td>
<td></td>
</tr>
<tr>
<td>Does the drainage flow smoothly?</td>
<td>Condensate may drip.</td>
<td></td>
</tr>
<tr>
<td>Does the power supply voltage correspond to that shown on the name plate?</td>
<td>The unit may malfunction or the components burn out.</td>
<td></td>
</tr>
<tr>
<td>Are the wiring and piping correct?</td>
<td>The unit may malfunction or the components burn out.</td>
<td></td>
</tr>
<tr>
<td>Is the unit safely grounded?</td>
<td>Incomplete grounding may result in electric shocks.</td>
<td></td>
</tr>
<tr>
<td>Is wiring size according to specifications?</td>
<td>The unit may malfunction or the components burn out.</td>
<td></td>
</tr>
<tr>
<td>Is something blocking the air outlet or inlet of either the indoor or outdoor units?</td>
<td>This may result in insufficient cooling.</td>
<td></td>
</tr>
<tr>
<td>Is the refrigerant piping length and additional refrigerant charge documented?</td>
<td>The total refrigerant charge of the system will not be available for future reference.</td>
<td></td>
</tr>
</tbody>
</table>

Also review the SAFETY CONSIDERATIONS.

ITEMS TO BE CHECKED AT TIME OF DELIVERY

<table>
<thead>
<tr>
<th>Items to be checked</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you hand the operation manual over to your customer?</td>
<td></td>
</tr>
<tr>
<td>Did you explain about operations while showing the operation manual to your customer?</td>
<td></td>
</tr>
<tr>
<td>Did you explain to your customer how to maintain and clean local procurements such as the air filter, suction grille, and air outlet grille?</td>
<td></td>
</tr>
<tr>
<td>Did you hand manuals of local procurements (in case equipped) over to your customer?</td>
<td></td>
</tr>
</tbody>
</table>

3. SELECTING INSTALLATION SITE

**CAUTION**

- In cases where the unit is installed in a space where the humidity may exceed 86°F and 80%RH, reinforce the insulation on the unit body.

  Use glass wool or polyethylene foam as insulation to ensure the thickness is more than 2” and fits inside the installation space opening.

Select an installation site where the following conditions are fulfilled and meets with your customer’s approval:

- Where optimum air distribution can be ensured.
- Where nothing blocks air passage.
- Where condensate can be properly drained.
- Where the supports are strong enough to bear the indoor unit weight.
- Where piping between indoor and outdoor units is possible within the allowable limit. (Refer to the installation manual for the outdoor unit.)
- If a return-air duct is not installed, carefully select the place and method of product installation so that air flow into the product will not be blocked.
- When installing this unit in an area that may become wet (such as crawl spaces), elevate the unit with a sturdy, non-porous material.
- Refer to section 4.1 for clearance requirements. Consult all appropriate regulatory codes when determining final clearance.

4. INSTALLATION LOCATION

**NOTE:** These cased coils are designed for indoor installation only. The CXTQ**T product line may be installed in upflow or downflow orientations as shown in Figures 2 and 3. The unit may be installed in upflow or downflow orientation as shipped (refer to specific sections for more information).

**NOTE:** Condensation may form on the product during COOL operation. It is recommended to install a secondary drain pan (field supplied).

If installed above a finished living space, a secondary drain pan should be installed under the entire unit. The drain pan’s condensate line should be routed to a location where the user will see the condensate discharge. In many regions, the installation of a secondary drain pan is required by building code. Following and adhering to these and all applicable local, state, and/or national codes is your responsibility as the installer.

In areas where the ambient operating conditions reach above 80%RH, the manufacturer recommends that additional insulation be applied to the outside of the cabinet.

4.1 CLEARANCES

Refrigerant lines must be routed depending upon the configuration of the unit, in order to maintain the required 24” minimum clearance for service.

In installations that may lead to physical damage (i.e. a garage), it is advised to install a protective barrier to prevent such damage. Always install units so that a positive slope in condensate line of 1/100 is allowed.

**NOTE:** Furnace application requires that the installer MUST review and strictly follow ALL furnace installation clearance guidelines. Failure to do so may result in property/equipment damage, personal injury or death.

**CONSULT ALL APPROPRIATE REGULATORY CODES WHEN DETERMINING FINAL CLEARANCES.**
UPFLOW
Figure 2

DOWN FLOW
Figure 3
4.2 FILLER PLATES
Filler plates are supplied on all 17.5, 21 & 24.5 inch chassis to be used for adapting the unit to a furnace one size smaller. If the plenum and furnace openings are the same size, the filler plates must be removed. See Figure 1.

4.3 UPFLOW/DOWNFLOW INSTALLATION
No field modifications are mandatory.

--- NOTE ---
- Do not use the manifold or flowrator to pull the coil assembly out. Doing so may result in braze joint damage and leaks.

4.4 INSULATION KIT
IMPORTANT NOTE: To prevent coil pan “sweating”, a coil insulation kit (DPICX) is recommended. Insulation kits are available through your local Daikin distributor. The DPICX is not supplied with the cased coil and is recommended to minimize pan sweating in applications where operating conditions exceed 80%RH.

See Table 1 for the correct DPICX and follow the instructions provided with the kit for installation.

<table>
<thead>
<tr>
<th>DPICX-B Insulation Kit</th>
<th>DPICX-C Insulation Kit</th>
<th>DPICX-D Insulation Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>CXTQ24TASBLU</td>
<td>CXTQ48TASBLU</td>
<td>CXTQ60TASBLU</td>
</tr>
<tr>
<td>CXTQ36TASBLU</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

INSULATION KIT

Table 1

4.5 SEALING ALONG THE PANEL GAP
IMPORTANT NOTE: To prevent cabinet “sweating”, apply field provided insulation tape along all joining surfaces between the coil, gas furnace, duct work, and panels. See Figure 4.
5. REFRIGERANT PIPING WORK
Observe the requirements listed below for refrigerant tubing sizes.

<table>
<thead>
<tr>
<th>Model</th>
<th>Tubing Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CXTQ24/36/48/60</td>
<td>3/8&quot; 5/8&quot;</td>
</tr>
</tbody>
</table>

Completely insulate both the liquid and gas refrigerant piping in order to prevent condensation and possible water damage. Failing to insulate the pipes may cause leaking or burns. Be sure to use the insulation which can withstand such temperatures of 250°F (120°C) or more. Reinforce the insulation on the refrigerant piping according to the installation environment. If environmental conditions may reach 86°F and 80%RH, condensate may form on the surface of the insulation. To prevent condensate leakage, reinforce the refrigerant piping insulation according to the installation environment.

⚠️ CAUTION ⚠️

Follow the points below.
- Use a tube cutter and flaring block suitable for the type or refrigerant.
- To prevent dust, moisture or other foreign matter from infiltrating the piping, either pinch the end or cover it with tape.
- Do not allow anything other than the designated refrigerant (such as air) to get mixed into the refrigerant circuit. If any refrigerant gas leaks while working on the unit, immediately ventilate the room.

5.1 Cut off the spin closure.
- This coil is shipped containing gas under 150 P.S.I.G. Release pressure from the gas piping pressure-release device before initiating piping work.

• Using a tube cutter, cut off the factory spun end of both the liquid and gas line piping.

5.2 Disconnect Internal Control Wiring
- Remove the left panel.
- Disconnect the Control Panel wiring from component wiring using the EEV and Thermistor connectors located on the outside of the control panel. See Figure 6.

⚠️ NOTE ⚠️
To prevent component wiring damage, the Control Panel should be removed from the right front panel. Removing the control panel will assist in allowing the wiring to be safely pushed through the panel wire-way. The control panel is detached from the left front panel by removing the four mounting screws located on the four corners of the control panel.
5.3 Connect Piping
• Slide right front panel along field tubing while cautiously guiding component wiring back through panel wire-way. (See Figure 7.)

⚠️ NOTE
To prevent damage caused by heat when brazing the field piping, cover the pipe insulation, the internal wiring, and the thermal sensor inside the insulation with a damp cloth. Otherwise, the sensor may be damaged by heat of brazing, which leads to a failure of normal operation.

5.4 Re-assemble the Coil and Controls
• Once heat from the brazed area has dissipated, route component wiring back through the right panel wire-way.
• Close the right and left front panels.
• Re-install the control panel to the right front panel using mounting location holes and factory supplied screws.

⚠️ CAUTION
• Do not allow component wiring to become pinched. Failure to do so may lead to unit failure.

• Reconnect Control Panel wiring to component wiring.

5.5 After the work is finished, make sure to check that there is no gas leak. Follow the VRV Air Tight test procedure in the outdoor unit installation manual.

5.6 After checking for gas leaks, be sure to insulate the piping connections as shown in Figure 8.

⚠️ CAUTION
• Be sure to insulate any field piping all the way, which is required insulation, to the piping connection inside the unit. Any exposed piping may cause condensation or burns if touched.
• When brazing the refrigerant piping, perform nitrogen replacement first or perform the brazing while feeding nitrogen into the refrigerant piping. (Refer to Figure 9.)

⚠️ CAUTION
• When brazing pipes while feeding nitrogen inside the piping, make sure to set the nitrogen pressure to 2.9 PSI or less using the pressure reducing valve.

⚠️ CAUTION
• When following the VRV Air Tight test procedure during installation (refer to the outdoor unit installation manual for details), only pressurize to 450 psig (3.01MPa).
6. DRAIN PIPING WORK

The coil drain pan has a primary and a secondary drain with 3/4" NPT female connections. The connectors required are 3/4" NPT male, either PVC or metal pipe, and should be hand tightened to a torque of no more than 37 in-lbs. to prevent damage to the drain pan connection. An insertion depth of approximately 3/8" to 1/2" (3-5 turns) should be expected at this torque.

1. Ensure drain pan hole is not obstructed.
2. To prevent potential sweating and dripping on to finished space, it may be necessary to insulate the condensate drain line located inside the building. Use Armaflex® or similar material.

A secondary condensate drain connection has been provided for areas where the building codes require it. Use a downward slope of at least 1/100 to provide free drainage, or as required by local code. Provide required support to the drain line to prevent bowing. If the secondary drain line is required, run the line separately from the primary drain and end it where condensate discharge can be easily seen.

Drain port labeled (A) in Figure 10 is the primary drain and condensate drain line must be attached to this drain port. Drain port (B) is for the secondary drain line (if used). In applications where the cased coil is installed in areas where the return air humidity levels may be above 65% relative humidity, coupled with total external static pressure levels above 0.5” e.s.p., installation of a field fabricated or field supplied secondary drain pan is recommended to be placed under the coil cabinet enclosure.

Drain port (B) is for the secondary drain line (if used). In applications where the cased coil is installed in areas where the return air humidity levels may be above 65% relative humidity, coupled with total external static pressure levels above 0.5” e.s.p., installation of a field fabricated or field supplied secondary drain pan is recommended to be placed under the coil cabinet enclosure.

Figure 10

---

**NOTE**

- Water coming from secondary line means the coil primary drain is plugged and needs immediate attention.
- Insulate drain lines located inside the building or above a finished living space to prevent sweating. Install a condensate trap to ensure proper drainage.
- Some installations may require a field fabricated or field supplied secondary drain pan under the coil cabinet enclosure. The installation must include a "P" style trap that is located as close as is practical to the evaporator coil. See Figure 11 for details of a typical condensate line "P" trap.
- Trapped lines are required by many local codes. In the absence of any prevailing local codes, please refer to the requirements listed in the uniform mechanical building code. A drain trap in a draw-through application prevents air from being drawn back through the drain line during fan operation, thus preventing condensate from draining and if connected to a sewer line, to prevent sewer gases from being drawn into the airstream during blower operation.
Observe the following guidelines when installing concentrated drain piping. Select the diameter of the concentrated drain piping to reflect the capacity of the units to which it will be connected. (Install a drain trap for each indoor unit.) See Figure 12.

![Figure 12: Concentrated drain piping](image)

At least 4 in.

**Concentrated drain piping**
(Use a downward slope of at least 1/100.)

**Figure 12**

- If a secondary drain is not installed, the secondary access must be plugged.

Condensate drain traps with an open vertical Tee between the cased coil and the condensate drain trap can improve condensate drainage in some applications, but may cause excessive air discharge out of the open Tee. Daikin does not prohibit this type of drain but we also do not recommend it due to the resulting air leakage. Regardless of the condensate drain design used, it is the installer’s responsibility to ensure the condensate drain system is of sufficient design to ensure proper condensate removal from the coil drain pan. Use of a condensate removal pump is permitted when necessary. This condensate pump should have provisions for shutting off the control voltage should a blocked drain occur. See 8.8 Auxiliary Alarm Switch section for more details. A trap must be installed between the unit and the condensate pump.

**Drain piping connection**
Do not connect drain piping directly to sewage pipes where ammonia odor may be present. Ammonia in the sewage pipes may enter the indoor unit body through the drain piping and corrode the heat exchanger.

**IMPORTANT NOTE:** The coil is fabricated with oils that may dissolve styrofoam and certain types of plastics. Therefore, a removal pump or float switch must not contain any of these materials.

7. **DUCT WORK**
This cased coil is designed for a complete supply and return ductwork system. To ensure correct system performance, the ductwork is to be sized to accommodate 350-450 CFM per ton of cooling with the static pressure not to exceed 0.9" in w.c. and the gas furnace requirement.

Refer to ACCA Manual D, Manual S and Manual RS for information on duct sizing and application. Flame retardant ductwork is to be used and sealed to the unit in a manner that will prevent leakage.

7.1 **RETURN DUCTWORK**
Do not locate the return ductwork in an area that can introduce toxic or objectionable fumes/odors into the ductwork. The return ductwork is to be connected to the gas furnace.

8. **ELECTRICAL WIRING WORK**

**IMPORTANT:** All routing of electrical wiring must be made through provided electrical bushings. When routing electrical wiring through bushings, take care not to damage the PCB. Do not cut, puncture or alter the cabinet or control panel for electrical wiring.

**WARNING**
- HIGH VOLTAGE!
  Disconnect all power before servicing or installing this unit. Multiple power sources may be present. Failure to do so may cause property damage, personal injury or death.

8.1 **GENERAL INSTRUCTIONS**
- Shut off the power before doing any work.
- All field supplied parts and materials, electric works must conform to local codes.
- Use copper wire only.
- See also the “Wiring Diagram Label” located on the underside of the control panel cover.
- For details on hooking up the remote controller, refer to the “Remote Controller Installation Manual”.
- All wiring must be performed by a licensed electrician.
- This system may consist of multiple indoor units. Mark each indoor unit as unit A, unit B . . . , and be sure the terminal board wiring to the outdoor unit is properly matched. If wiring and piping between the outdoor unit and an indoor unit are mismatched, the system may malfunction.
- Install a wiring interrupter or ground-fault circuit interrupter for the power wiring.
- To avoid short circuiting the power supply wire, be sure to use insulated terminals.
- Do not turn on the power supply (wiring interrupter or ground-fault circuit interrupter) until all other work is done.

**DANGER**
- Do not ground units to water piping, telephone wires or lightning rods because incomplete grounding could cause a severe shock hazard resulting in severe injury or death. Do not ground to gas piping. A gas leak could result causing an explosion which could lead to severe injury or death.

8.2 **WIRE SIZING**

Wire size is important to the operation of your equipment. Use Table 2 when selecting the appropriate wire size for your unit.
- Wire used must be sized to carry the Minimum Circuit Ampacity (MCA) listed on the equipment’s Rating Plate.
- Refer to the NEC (USA) or CSA (Canada) for wire sizing.
- Wire must be sized to allow no more than a 2% voltage drop from the building breaker/fuse panel to the unit.
- Wires with different insulation temperature ratings have varying ampacities - be sure to check the temperature rating used.
8.3 SAFETY DEVICE
Every installation must include an NEC (USA) or CEC (Canada) approved overcurrent protection device. Also, check with local or state codes for any special regional requirements. Protection can be in the form of fusing or HACR style circuit breakers. The Series and Rating Plate provides the maximum overcurrent device permissible. When using residual current operated circuit breakers, be sure to use a high-speed type (0.1 second or less) 30mA rated residual operating current.

NOTE: Fuses or circuit breakers are to be sized larger than the equipment MCA but not to exceed the MOP.

8.4 TRANSFORMER INSTALLATION
Measure the power supply to the gas furnace. Selection of correct supply voltage for transformer depends on measured power supply to gas furnace. The supply voltage must be measured and be in agreement with the equipment’s unit nameplate power requirements and within the range shown. 24 VAC power voltage is supplied to EEV cased coil control board from transformer supply terminals. See Figure 13. For appropriate wiring identification and installation for the CXTQ coil, refer to the provided wiring schematic located on the PCB control panel cover.

The CXTQ cased coil PCB must be supplied 24 VAC supply voltage from an appropriately powered transformer. A transformer has been included in the transformer kit with the cased coil.

**WARNING**
- This unit is designed to operate on 24 VAC from provided transformer. NEVER connect high voltage (120/208/240 VAC) to the CXTQ cased coil directly or to the CXTQ cased coil control board. Doing so would result in equipment damage and/or personal injury or death.

**WARNING**
- Use designated UL certified transformer included with coil accessory kit. Do not alter or modify the transformer. Attempting to modify or alter the transformer may result in product damage or personal injury.

Furnace application requires the use of the multi-tap (120/208/240) VAC to 24 VAC transformer. Appropriate supply voltage for multi-tap transformer is based on field wiring. Select from coil accessory kit the following components:
1. Multi-tap (120/208/240) VAC to 24 VAC transformer.
2. Appropriate PCB transformer bracket (see Table 3).
3. Supplied red/black high voltage transformer power wires.

**NOTE**
- Based on furnace selection, use Table 3 to determine appropriate PCB transformer bracket.
### Table 3

<table>
<thead>
<tr>
<th>Efficiency</th>
<th>Up Flow</th>
<th>Down/Counter Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>80%</td>
<td>96%</td>
</tr>
<tr>
<td></td>
<td>87%</td>
<td>97%</td>
</tr>
<tr>
<td>Operation</td>
<td>2 - Stage</td>
<td>Modulating</td>
</tr>
<tr>
<td>Bracket</td>
<td>Bracket - A</td>
<td>Bracket - B</td>
</tr>
<tr>
<td></td>
<td>Bracket - B</td>
<td>No Bracket</td>
</tr>
</tbody>
</table>

**NOTE:** Based on furnace model, the applicable bracket and PCB transformer are mounted inside the furnace cabinet. It is recommended to use (2) self cutting screws to secure the PCB transformer and bracket plate to the mounting position. See Figure 14, 15 and 16 to determine appropriate location.

### 8.4.1A INSTALLATION BRACKET - “A”

Furnace transformer should be removed from the PCB control deck. Align transformer bracket “A” and furnace transformer to the mounting holes of the furnace transformer on the PCB control deck. Bracket “A” should be located between the PCB control deck and furnace transformer. Secure bracket and furnace transformer to the PCB control deck. Align multi-tap EEV cased coil transformer to transformer bracket “A” secondary mounting holes and secure using (2) self cutting, field supplied screws. See Figure 14.

![Figure 14](image)

**Figure 14**

Installation of transformer bracket “A”

Installation of EEV cased coil transformer to transformer bracket “A” within furnace cabinet

### 8.4.1B INSTALLATION BRACKET - “B”

Furnace transformer should be removed from the PCB control deck. Align transformer bracket “B” and the furnace transformer to the mounting holes of the furnace transformer on the PCB control deck. Bracket “B” should be located between the PCB control deck and furnace transformer. Secure innermost bracket mounting location and innermost furnace transformer mounting hole to the PCB control deck. Align multi-tap EEV cased coil transformer to transformer bracket “B” by overlapping the base of furnace transformer and securing transformers together to bracket and securing the left side of EEV transformer, using (1) self cutting, field supplied screw. See Figure 15.

![Figure 15](image)

**Figure 15**

Installation of transformer bracket “B”

Installation of EEV cased coil transformer to transformer bracket “B” within furnace cabinet

### 8.4.1C NO BRACKET INSTALLATION

The PCB transformer can be assembled to the Furnace Heat Shield. Remove the Heat Shield from the Inner Door Assembly by removing the (2) factory installed fasteners. Once removed, fasten the PCB transformer to the heat shield using (2) field supplied self-drilling screws. Locate the transformer to the heat shield to the recommended location. See Figure 16. The transformer should be parallel to the edge of the heat shield and installed on the side opposite of the flue pipe. Self-drilling screws should not be longer than 0.75” to prevent interference with furnace flue pipe. Re-assemble heat shield to the Inner Door Assembly.

**NOTE**

- Extreme caution must be taken when reassembling the heat shield to the inner door assembly and wiring the transformers so as to not damage the furnace control board or other electrical components.
8.5 WIRING TRANSFORMER AND PCB

IMPORTANT: When wiring PCB power supply to PCB transformer, an insulated bushing (field supplied) must be installed in the furnace cabinet wall. Wiring must pass through bushing to interior of cabinet. **DO NOT ALLOW WIRING TO PASS ALONG AREAS WHERE WIRING IS EXPOSED TO ABRASIVE METAL EDGES. DO NOT ALTER BLOWER DECK.**

To power PCB transformer: Use high voltage red and black wires provided in transformer kit. Route red/black transformer power supply to PCB transformer from field wiring. **DO NOT POWER BOARD WITH FACTORY INSTALLED FURNACE R/C THERMOSTAT POWER.**

---

**NOTE**

- Create wire trap on outside of cabinet wall before passing into cabinet. The wire trap must remain below the insulated wire bushing location to prevent moisture intrusion into furnace cabinet and onto electrical components.

---

**CAUTION**

- Outside the cased coil, do not route the remote controller wiring and transmission wiring together with other electrical wiring. Keep the remote controller wiring and transmission wiring at least 2 in. (50mm) away from the power wiring and other electrical wiring. Effects of electrical interference (external noise) may result in malfunction and breakdown.

---

**WARNING**

- Use only specified wire and connect to terminals tightly. Be careful that wires do not place external stress on terminals. Keep wire in neat order; not to obstruct other equipment. Make sure that the control panel cover is closed tightly. Incomplete connections could result in overheating, and in worse cases, electric shock or fire.

---

**NOTE**

- Never connect power supply wiring to the terminal block for remote controller wiring as this could damage the entire system.

---

**WARNING**

- When doing the wiring, make sure the wiring is neat and does not cause the control panel to stick up, and then close the cover firmly. When attaching the control cover, make sure you do not pinch any wires.

---

**PRECAUTIONS**

- Refer to the “REMOTE CONTROLLER INSTALLATION MANUAL” on how to install and lay the wiring for the remote controller.
- See also the “Wiring Diagram Label” located on the underside of the control panel cover.
- Connect the remote controller and transmission wiring to their respective terminal blocks.

---

**WIRING EXAMPLE**

**NO. 1 SYSTEM:**

*When using 1 remote controller for 1 indoor unit.*

Figure 17
(4) Turn power ON, set indoor unit B with appropriate settings.
(5) Repeat Step 2 to Step 4 for the rest of the indoor units.
(6) Complete the connections after all of the indoor unit settings are finished.

When one remote controller is used with multiple indoor units which are different models from each other (for example CXTQ and FXFQ), some field setting menus may not display on remote controller. Follow steps below for such case.

(1) Set up indoor unit A with appropriate field settings.

(2) Turn power OFF.

(3) Move the remote controller from indoor unit A to indoor unit B.
8.6 CONTROL BY 2 REMOTE CONTROLLERS

Controlling 1 indoor unit by 2 remote controllers

When using 2 remote controllers, one must be set to “MAIN” and the other to “SUB”. Refer to the installation manual of the controller for setting the “MAIN” and “SUB” controller.

**PRECAUTIONS**

- Daisy chain wiring is needed when using group control and 2 remote controllers at the same time.
- Connect the indoor unit at the end of the crossover wire (P1, P2) to remote controller 2 (SUB).

![Diagram of remote controller setup](image)

**Figure 22**

8.7 REMOTE CONTROL (FORCED OFF, ON/OFF, AND SYSTEM/EQUIPMENT PROTECTION OPERATION)

- Connect input lines from the outside to the terminals T1 and T2 on the terminal block (8P) to achieve remote control or System/Equipment Protection. Use wiring specification Table 4 when making connection to T1/T2. See Figure 24.

![Diagram of remote control setup](image)

**Figure 24**

<table>
<thead>
<tr>
<th>Wire specification</th>
<th>Sheathed vinyl cord or cable (2 wires)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gauge</td>
<td>AWG18 - 16</td>
</tr>
<tr>
<td>Length</td>
<td>Max. 328 ft.</td>
</tr>
<tr>
<td>External terminal</td>
<td>Contact that can ensure the minimum applicable load of 16 VDC, 1mA.</td>
</tr>
</tbody>
</table>

**Table 4**

- In the case of Forced Off and On/Off operation
  The user can use this function for occupancy sensors, door switch interlocks etc. (i.e. in hotels so the unit won’t run when the door is open). When configured as “Forced Off” or “On/Off”, no error code will be displayed when operating T1/T2.

- In the case of System/Equipment Protection
  The user can use this function as an alarm switch. When the alarm switch is open the controller will respond by turning off the system (including the heat pump and all associated indoor units). The proper error code will then be displayed on the controller.

  * See the “9.2 REMOTE CONTROL SETTING (T1, T2)” for details on operation.

8.8 AUXILIARY ALARM SWITCH

The CXTQ control board is equipped with two Auxiliary Alarm terminals, labeled TB4 and TB5 (2VA or less) which are typically utilized in series with a condensate switch.

The auxiliary alarm switch must be normally closed. The switch should only be open when the alarm occurs. For example, a normally closed condensate switch will open when the base pan’s water level reaches a particular level. The control will respond by turning off the blower motor of the affected unit and displaying the proper fault codes.
If the switch is later detected closed for 30 seconds, normal operation resumes and the error message is removed. (The switch is closed as part of the default factory setting). The error will be maintained in the equipment’s fault history.

See Figure 25.

**Figure 25**

---

**WARNING**

- Never use auxiliary alarm function of gas furnace’s PCB. The function may not operate properly.

**8.9 CENTRALIZED CONTROL**

For centralized control, it is necessary to designate the group No. For details, refer to the manual of each optional controller for centralized control.

**9. FIELD SETTING**

Field settings may have to be performed using the remote controller, depending on the type of installation.

1. Make sure the electric component box covers are closed on the indoor and outdoor units.

2. Depending on the type of installation, make the field settings from the remote controller after the power is turned on, following the “Field Settings” manual which came with the remote controller.

   - The settings can select “Mode No.”, “FIRST CODE NO.” and “SECOND CODE NO.”.
   - Field settings are normally applied to the entire remote control group, however if individual indoor units in the remote control group require specific settings or for confirmation that settings have been established, utilize the “Mode No.” in parenthesis.
   - The “Field Settings” included with the remote controller lists the order of the settings and method of operation.
   - Make sure the customer keeps the “Field Settings” manual, along with the operating manual, in a safe place.

**9.1 SETTINGS WHEN USING THE OPTIONAL REMOTE SENSOR**

This product does not include an air inlet thermistor. It uses the remote controller thermistor to measure the room temperature. For this reason, it is necessary to install an optional remote sensor in the following cases:

- When using a remote controller without a built-in thermistor (simplified remote controller, wireless remote controller, no remote controller).

When using an optional remote sensor, change the settings as described Table 5:

<table>
<thead>
<tr>
<th>ROOM TEMPERATURE SENSOR SELECTION</th>
<th>MODE NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>To use only the remote sensor</td>
<td>10 (20)</td>
<td>2</td>
<td>02</td>
</tr>
<tr>
<td>To use only the remote controller thermistor</td>
<td>10 (20)</td>
<td>2</td>
<td>03*</td>
</tr>
</tbody>
</table>

*Factory set

Table 5

Indoor units settings must be changed to Available as per Table 6 when group remote control is used.

Indoor units not using group remote control may remain on factory settings.

**Setting Summary**

<table>
<thead>
<tr>
<th>REMOTE CONTROLLER THERMISTOR (GROUP CONTROL ONLY)</th>
<th>MODE NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Available</td>
<td>10 (20)</td>
<td>6</td>
<td>01*</td>
</tr>
<tr>
<td>Available</td>
<td>10 (20)</td>
<td>6</td>
<td>02</td>
</tr>
</tbody>
</table>

*Factory set

Table 6

**9.2 REMOTE CONTROL SETTING (T1, T2)**

Forced Off, ON/OFF operation and System/Equipment Protection can be selected by selecting the SECOND CODE NO. as shown in Table 8.

**Table 7**

<table>
<thead>
<tr>
<th>EXTERNAL ON/OFF INPUT</th>
<th>MODE NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forced Off</td>
<td>12 (22)</td>
<td>1</td>
<td>01*</td>
</tr>
<tr>
<td>ON/OFF Operation</td>
<td></td>
<td></td>
<td>02</td>
</tr>
<tr>
<td>System/Equipment Protection</td>
<td></td>
<td></td>
<td>03</td>
</tr>
</tbody>
</table>

*Factory set

Table 8

Input A of FORCED OFF, ON/OFF and SYSTEM/EQUIPMENT PROTECTION operates as shown in Table 9.
FORCED OFF ON/OFF OPERATION SYSTEM/ EQUIPMENT PROTECTION

Input A "on" to force a stop (operation from remote controller prohibited)

Unit operated by changing input A from "off" to "on"

Input A "off" to allow remote controller

Unit stopped by changing input A from "on" to "off"

Input A "off" will stop the system and display the appropriate error code.

Table 9

9.3 SETTING THE FILTER SIGN DISPLAY INTERVAL

The Return Air Filter should be cleaned regularly to prevent clogging.

Explain to the customer that the ‘Time to clean filter’ message on the controller is used as a reminder to clean/replace the filter. The default display time is set to 2500 hours (equivalent to 1 year’s use).

The filter dirt settings may be changed to accommodate the operational conditions of the unit, or to meet customer preferences. For example, if the unit is installed in a dusty place, the filter sign display should be set to a shorter time interval (1,250 hours). See Table 10 for display settings.

Table 10

<table>
<thead>
<tr>
<th>FILTER DISPLAY SETTINGS</th>
<th>MODE NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
<th>01*</th>
<th>02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter dirt</td>
<td>0</td>
<td>Low</td>
<td>High</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display timer, hours (low/high)</td>
<td>10 (20)</td>
<td>2,500 / 10,000</td>
<td>1,250 / 5,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Filter sign display</td>
<td>3</td>
<td>ON</td>
<td>OFF</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Factory set

9.4 RETURN AIR FILTER

Each installation must include a return air filter. This filtering may be performed externally such as a return air filter grille. Washable versions are available through your local Daikin distributor.

⚠️ CAUTION

- Do not operate this product without all the ductwork attached.

GAS FURNACE SETTING

When the defrost cycle is initiated, the discharge air temperature may fall for a short period of time. If at any time this becomes uncomfortable, the gas furnace operation during defrost can be disabled using field setting 11(21)-3.

9.5.1 GAS FURNACE ON/OFF TEMPERATURE SETTING

When the gas furnace is used to supplement the heat pump heating, the gas furnace ON/OFF temperatures, Ton and Toff, can be selected individually by switching the 1st code and 2nd code according to the following table. This gas furnace control will only work with restricted outdoor unit combination.

Table 11

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>MODE NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ton</td>
<td>11 (21)</td>
<td>01*</td>
<td>02</td>
</tr>
<tr>
<td>Toff</td>
<td>11 (21)</td>
<td>03*</td>
<td>04</td>
</tr>
<tr>
<td>HP</td>
<td>11 (21)</td>
<td>05*</td>
<td>06</td>
</tr>
<tr>
<td>ONLY</td>
<td>11 (21)</td>
<td>07*</td>
<td>08</td>
</tr>
</tbody>
</table>

*Factory set

Perform on-site setting using the remote controller.

Temperature difference must be 3.6°F or more between “Ton” and “Toff” to activate setting(s).

Table 12

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>MODE NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>HP</td>
<td>11 (21)</td>
<td>01*</td>
<td>02</td>
</tr>
<tr>
<td>ONLY</td>
<td>11 (21)</td>
<td>03*</td>
<td>04</td>
</tr>
<tr>
<td>HP</td>
<td>11 (21)</td>
<td>05*</td>
<td>06</td>
</tr>
<tr>
<td>ONLY</td>
<td>11 (21)</td>
<td>07*</td>
<td>08</td>
</tr>
</tbody>
</table>

*Factory set

If you don't need to operate the gas furnace by this control, change both settings 11(21) -1 and 11(21) -2 to second code no. 07.

⚠️ CAUTION

When there are two CXTQ coils connected to the same residential outdoor unit, both field settings, 11(21)-1 and 11(21)-2 , must be set to “07”. Otherwise, the system will not operate properly in heating mode.

Table 12
9.6 DRY MODE 2.0

- Choose DRY mode settings by following Table 13.
  If 01 is set, the DRY mode set point will automatically be set to the measured room temperature at the time that DRY mode operation is started.
  If 02 is set, the DRY mode set point will be the same as the cooling set temperature at the time of starting DRY mode operation.

<table>
<thead>
<tr>
<th>DRY MODE CONFIGURATION</th>
<th>NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set point = room temperature</td>
<td>14 (24)</td>
<td>5</td>
<td>01*</td>
</tr>
<tr>
<td>set point = cooling mode set point</td>
<td>02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Factory set

Table 13

9.7 AIRFLOW SETTING WHEN IN HEATING AND COOLING THERMO-OFF

- This setting is used to set airflow when the unit is in HEATING THERMO-OFF. The unit is considered to be HEATING THERMO-OFF once the heating set point has been satisfied and there is not currently a demand for heating.

<table>
<thead>
<tr>
<th>AIRFLOW WHEN HEATING THERMO-OFF</th>
<th>NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL</td>
<td>12 (22)</td>
<td>3</td>
<td>01</td>
</tr>
<tr>
<td>User set fan speed</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>03*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Factory set

Table 14

**NOTE:**

a. When fan operation is allowed during heating thermo-off, careful consideration is required before deciding the installation of duct work, registers and diffusers to avoid cold drafts.

b. This setting is also valid for the ignition process of gas furnace operation. Therefore, if the user wants to change airflow speed during that process, you will be able to use this setting.

c. During system operation at low ambient temperatures, the fan may automatically turn off during heating thermo-off regardless of the setting. During this time STANDBY will be displayed on the controller.

- This setting is used to set airflow when the unit is in COOLING THERMO-OFF. The unit is considered to be COOLING THERMO-OFF once the cooling set point has been satisfied and there is not currently a demand for cooling.

<table>
<thead>
<tr>
<th>AIRFLOW WHEN COOLING THERMO-OFF</th>
<th>NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LL</td>
<td>12 (22)</td>
<td>6</td>
<td>01</td>
</tr>
<tr>
<td>User set fan speed</td>
<td>02*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OFF</td>
<td>03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Factory set

Table 15
<table>
<thead>
<tr>
<th>Purpose</th>
<th>Function</th>
<th>Position</th>
<th>Modulating</th>
<th>2-Stage</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dip switch DS1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-15%</td>
<td>-10%</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>-12%</td>
<td>-8%</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>-9%</td>
<td>-6%</td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>-6%</td>
<td>-4%</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>-3%</td>
<td>-2%</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>0% *</td>
<td>0% *</td>
<td>ON</td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>+3%</td>
<td>+2%</td>
<td>OFF</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>+6%</td>
<td>+4%</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>+9%</td>
<td>+6%</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>+12%</td>
<td>+8%</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>+15%</td>
<td>+10%</td>
<td>OFF</td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>No use</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>No use</td>
<td></td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>Heat Airflow Trim</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>No use</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>No use</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>Dip switch DS2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5secs</td>
<td></td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>10secs</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>15secs</td>
<td></td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>20secs</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>25secs</td>
<td></td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>30secs *</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>No use</td>
<td></td>
<td>OFF</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>Heat ON Delay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No use</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>Dip switch DS3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30secs *</td>
<td></td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>60secs</td>
<td></td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>90secs</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>120secs</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>150secs</td>
<td></td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>180secs</td>
<td></td>
<td>OFF</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>No use</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>Heat OFF Delay</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No use</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td>Dip switch DS3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td></td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>B *</td>
<td></td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>C</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>D</td>
<td></td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
</tbody>
</table>

* Factory set

Table 16
9.8 GAS FURNACE SET UP

- Set up for gas furnace is possible by CXTQ’s dip switch only. Gas furnace’s dip switch is not valid. Refer to the gas furnace’s installation manual for details of each setting menu.

⚠️ NOTE ⚠️

- If the HEAT OFF delay time was changed to a longer time, warm up process time of the heat pump may increase.

9.9 CFM TABLE SETTING

- Change this setting from “STANDARD” to “LOW” when connecting CXTQ with the following rated combinations. Once “Low” is set, the indoor airflow CFM will be equivalent to one tonnage lower for only heat pump operation.

<table>
<thead>
<tr>
<th>Combination A</th>
<th>Combination B</th>
<th>Combination C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outdoor unit</td>
<td>2 ton x 1 unit</td>
<td>3 ton x 1 unit</td>
</tr>
<tr>
<td>CXTQ</td>
<td>3 ton x 1 unit</td>
<td>4 ton x 1 unit</td>
</tr>
<tr>
<td>Other indoor unit</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

9.10 OUTDOOR UNIT SETTINGS

To completely configure the gas furnace, the CXTQ coil needs to receive a signal from the outdoor unit. Some field settings or optional PCB might be needed with outdoor unit. See outdoor unit manuals.

10. ACCESSORIES

1. When installing separately sold accessories, such as a humidifier, economizer, or air purifier (UV lamp), refer to the installation manual provided with the accessory.

2. Connect the wires of the separately sold accessory by running the wiring through the control panel bushing and making the wiring connection to the appropriate terminal block. Refer to the wiring diagram inside the unit.

3. Set the appropriate field settings to adjust the gas furnace’s fan operation when the UV lamp or humidifier is operating. Refer to Table 18.

**Table 17**

<table>
<thead>
<tr>
<th>AIRFLOW CFM SETTING</th>
<th>MODE NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard</td>
<td>13 (23)</td>
<td>5</td>
<td>01*</td>
</tr>
<tr>
<td>Low</td>
<td>02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Factory set

Note: Only rated combinations are allowed to change this setting

10.1 SETTINGS FOR SEPARATELY SOLD ACCESSORIES

- See the instruction manuals included with each of the optional accessories for the necessary settings.

**When using a wireless remote controller**

- The address of the controller should be assigned during initial set-up. See the installation manual included with the wireless remote controller for details on how to set the address.

**Table 18**

<table>
<thead>
<tr>
<th>Terminal Name</th>
<th>Input/output signal</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL ON/OFF</td>
<td>Outputs: indoor unit ON (Wet contact 24V) 11.5V or less</td>
</tr>
<tr>
<td>ECONOMIZER 2</td>
<td>Output: indoor unit cooling THERMO ON (Wet contact 24V) 11.5V or less</td>
</tr>
<tr>
<td>ECONOMIZER 1</td>
<td>Receives input: Economizer operation ON (Dry contact)</td>
</tr>
<tr>
<td>HUMIDIFIER</td>
<td>Receives input: Humidifier operation ON (Dry contact)</td>
</tr>
<tr>
<td>AIR CLEANER</td>
<td>Receives input: Air purifier operation ON (Dry contact)</td>
</tr>
</tbody>
</table>

- UV lamp + humidifier fan speed
  This setting controls the blower fan speed when a field installed UV lamp or humidifier is running.

- Heat pump standby duration
  Once the economizer operation starts, the operation of the economizer will continue for at least the duration tabulated in Table 18.

**Table 18**

<table>
<thead>
<tr>
<th>OPTIONAL ACCESSORY CONFIGURATION</th>
<th>Mode NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>01</td>
<td>02 03 04 05</td>
<td></td>
</tr>
<tr>
<td>UV lamp + humidifier fan speed</td>
<td>14 (24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10 10 20 20 30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GAS FURNACE SETTING</th>
<th>Mode NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>06</td>
<td>07 08 09 10</td>
<td></td>
</tr>
<tr>
<td>UV lamp + humidifier fan speed</td>
<td>14 (24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30 40 40 50 50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GAS FURNACE SETTING</th>
<th>Mode NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>12 13 14*</td>
<td></td>
</tr>
<tr>
<td>UV lamp + humidifier fan speed</td>
<td>14 (24)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>60 60</td>
<td>Free cooling only</td>
<td>Free cooling only</td>
</tr>
</tbody>
</table>

*Factory set
11. TEST RUN
• The operation lamp on the remote controller will flash when a malfunction occurs. Check the malfunction code on the liquid crystal display to identify the point of trouble. An explanation of malfunction codes and the corresponding trouble is provided in the outdoor unit installation manual.

If the display shows any error codes listed in Table 20, take appropriate countermeasure according to the malfunction code contents.

11.1 HEAT PUMP TEST OPERATION

Perform a test run according to the outdoor unit’s installation manual.

11.2 GAS FURNACE TEST OPERATION

- CAUTION -

• Always stop the test run using the remote controller to stop operation.

The test should be performed with the following procedure.

1. Complete installation process, including heat pump system, has been done.
2. Test operation of heat pump system has been successfully completed.
3. Turn off remote controller connected to CXTQ.
4. Change the setting according to the following table. Table 19.
5. Turn on remote controller connected to CXTQ.
6. If running, the compressor will be forced to stop during this test. Shortly after the compressor stops, the gas furnace will begin test operation. The time between compressor shut-down and gas furnace startup can take up to 15 minutes depending on operational conditions of the compressor.
7. The gas furnace will operate with selected heat stage.
8. This test operation will stop automatically after 30 minutes or when the remote controller is turned off.

NOTE:

a. Heat pump operation is not allowed during this test.

b. When the heat pump is in service mode (test mode, pump down mode, refrigerant charge mode, etc.), the gas furnace test will not start.

c. This setting will be returned to factory setting automatically after finishing test operation.

### Table 19

<table>
<thead>
<tr>
<th>Remote control display</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Central Control” display</td>
<td>There is a short circuit at the FORCED OFF terminals (T1 T2). The system is under heat pump test mode.</td>
</tr>
<tr>
<td>“U3” display</td>
<td>The test-run has not been performed.</td>
</tr>
<tr>
<td>“U4” display “UH” display</td>
<td>The power on the indoor unit is off. The outdoor unit has not been wired for power supply. Wiring incorrect for the transmission wiring and/or FORCED OFF wiring. The transmission wiring is cut.</td>
</tr>
<tr>
<td>“U6” display</td>
<td>Reversed transmission wiring.</td>
</tr>
<tr>
<td>“UH-05” display</td>
<td>The power on the gas furnace is off. Wiring is incorrect for the ClimateTalk transmission wiring. Unconnectable unit is on ClimateTalk transmission wiring. (CXTQ must have only one gas furnace certified with CXTQ on the ClimateTalk circuit).</td>
</tr>
<tr>
<td>“UH-06” display</td>
<td>Unconnectable unit is on ClimateTalk transmission wiring. (CXTQ must have only one gas furnace certified with CXTQ on the ClimateTalk circuit).</td>
</tr>
<tr>
<td>“C1-08” display</td>
<td>The power on the gas furnace is off. The ClimateTalk transmission wiring has been exposed electrical noise. The ClimateTalk transmission wiring is cut.</td>
</tr>
<tr>
<td>“A0-01” display</td>
<td>24VAC power hasn’t been supplied from “R”, “C” terminal. A circuit has been opened between “TB4” and “TB5”. F1U fuse has been blown.</td>
</tr>
<tr>
<td>“AA-03” display</td>
<td>The gas furnace has had an error. Check 7 segment LED on the gas furnace PCB.</td>
</tr>
<tr>
<td>No display</td>
<td>The power on the indoor unit is off. The outdoor unit has not been wired for power supply. Wiring incorrect for the transmission wiring and/or FORCED OFF wiring. The transmission wiring is cut.</td>
</tr>
</tbody>
</table>

### Table 20

<table>
<thead>
<tr>
<th>GAS FURNACE TEST MODE</th>
<th>MODE NO.</th>
<th>FIRST CODE NO.</th>
<th>SECOND CODE NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>14 (24)</td>
<td>11</td>
<td>01*</td>
</tr>
<tr>
<td>Low heat</td>
<td></td>
<td></td>
<td>02</td>
</tr>
<tr>
<td>High heat</td>
<td></td>
<td></td>
<td>03</td>
</tr>
</tbody>
</table>

*Factory set