



# Installation Instructions

Model **KNHX38**  
**K2NHX38**

**KNHX47**  
**K2NHX47**  
**KNHX59**  
**K2NHX59**

## I. Introduction

These instructions provide you with the general information necessary for proper installation of the heat exchangers.

### CAUTION

**BEFORE INSTALLING THE AIR CONDITIONER, IT IS IMPORTANT THAT THESE INSTRUCTIONS BE READ AND UNDERSTOOD THOROUGHLY**

## II. Incoming Inspection

Kooltronic Heat Exchangers are designed, built and packaged to withstand the shock and vibration normally associated with shipment by common carriers. Occasionally improper handling during shipping causes damage. Such handling could include unbanding of palletized shipments, failing to respect any carton handling instructions, rough handling, falling off conveyors, excessive vibration, crushing, etc. Therefore, a thorough inspection should be done upon receipt of all shipments. Any carton tears, dents, scratches or loose articles are signs of damage and should be noted on the Freight Bill. Cartons should be opened promptly and the units inspected for CONCEALED DAMAGE.

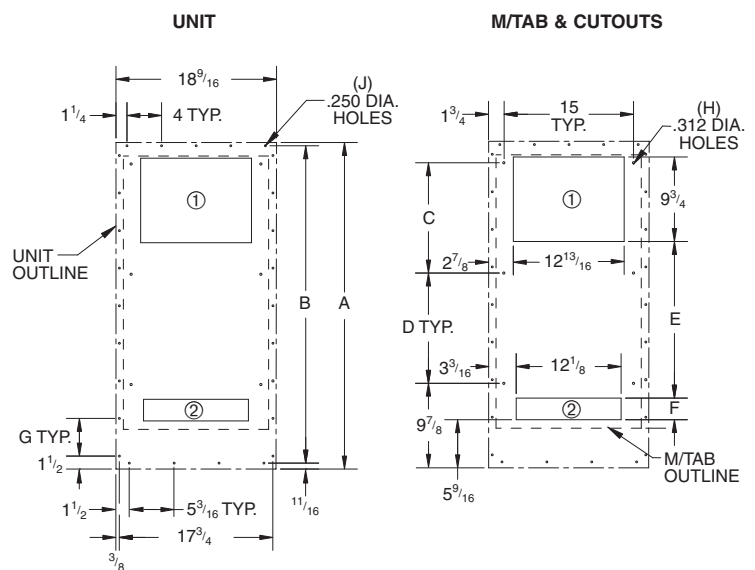
An immediate claim **MUST** be filed with the freight carrier and an inspection requested. Retain all packing materials. Kooltronic cannot assume responsibility for Consignee's failure to file a timely freight claim.

## III. Mounting

Kooltronic Special Purpose Heat Exchangers have been engineered to be installed easily. These units use fully gasketed flanges to insure a seal between the heat exchanger and the cabinet. This seal is necessary to maintain the integrity of the closed loop system as well as the NEMA 4 rating. Prior to mounting, refer to the mounting plan showing dimensions and locations of mounting holes and cutouts. Prior to cutting or drilling, make sure that cutouts and mounting holes do not interfere with components inside of the cabinet. To avoid damaging your Heat Exchanger, please read the following information before installation.

1. Remove and discard (2) nuts and washers holding the Mounting Template and Assembly Bracket (M/TAB) to the Heat Exchanger. Remove M/TAB.
2. Place the M/TAB flush against the outside of the cabinet to locate cutouts and M/TAB mounting holes. **The minimum distance between lower end of the M/TAB to the ground is 12" for all KNHX units.**
3. The cutout for warm air return does not have to match the full opening on the M/TAB. You can locate your cutout anywhere within this opening, making the return air cutout from the cabinet as large as possible. Make the cold air supply cutout the same size as on the M/TAB.
4. Mount the M/TAB to the outside of the cabinet using all the 1/4-20 x 1/2" bolts, washers and nuts supplied by Kooltronic. The weight of the KNHX38 is 115 lbs. The weight of the KNHX47 is 135 lbs. The weight of the KNHX59 is 170 lbs.
5. Route the power cord through the return air cutout of the cabinet. Mount the heat exchanger on the M/TAB by sliding the mounting studs, installed on the heat exchanger side panels, into the inclined slots of the M/TAB.
6. Carefully mark all mounting holes from the flanges of the heat exchanger to the cabinet wall. All holes in the heat exchanger flange must be used to maintain the NEMA 4 rating.
7. Remove the heat exchanger from the M/TAB and drill .218" dia. mounting holes in the cabinet. Do not attempt to drill mounting holes in the enclosure without first removing the heat exchanger. Drilling through the sealing gasket may damage it and remove the NEMA 4 rating. Repeat actions, described in item "5" above.
8. Insert the stainless steel screws with seal washers supplied through holes in the mounting flanges and the cabinet wall. Install washers and nuts on each screw from inside of the cabinet and hand tighten. Tighten all nuts to a torque of 20 in.-lbs. going in a clockwise rotation starting from the top left corner. Retighten to a final torque of 34-40 in.-lbs. in the same rotation as previously used. The torque should be rechecked after the gasket has been allowed to set for 1 hr. and again after the heat exchanger has been run for 24 hrs. Check the flange gasket compression, after tightening all nuts - the gasket should be compressed by approximately 1/2 the gasket thickness (1/8").
9. After making sure that the source voltage and frequency are the same as shown on the unit nameplate, connect the heat exchanger's power cord to the power supply

### MOUNTING PLAN



### CAUTION

Operate this unit on the proper voltages and frequencies as noted on the nameplate.

- ① WARM AIR RETURN FROM ENCLOSURE
- ② COOL AIR OUTLET TO ENCLOSURE

## DIMENSIONS (inches)

Model	A	B	C	D	E	F	G	H	J	K
Series 38	37 <sup>3/4</sup>	36 <sup>11/16</sup>	12 <sup>3/4</sup>	12 <sup>3/4</sup>	18 <sup>1/8</sup>	2 <sup>1/2</sup>	4 <sup>11/32</sup>	6	27	37
Series 47	47	45 <sup>15/16</sup>	12 <sup>1/4</sup>	11 <sup>1/4</sup>	27 <sup>3/8</sup>	2 <sup>1/2</sup>	4	8	33	46 <sup>1/4</sup>
Series 59	59	58	16 <sup>1/4</sup>	15 <sup>1/4</sup>	38 <sup>1/2</sup>	3 <sup>3/8</sup>	4	8	39	58 <sup>1/4</sup>

Dimensions, inches, are for reference only and are subject to change.



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(CDR: 20498)

**Additional Information on this air conditioner can be found by visiting [kooltronic.com](http://kooltronic.com) and searching for the model number, or use the Technical Documents QR code below.**

*Technical Documents*



#### **IV. Warranty** You can register your warranty online by going to our homepage at [kooltronic.com](http://kooltronic.com), under Support, or use the Warranty QR code below.

Kooltronic products are warranted to be free of defects in workmanship, materials and components. The following warranty periods apply from date of shipment:

- Air moving devices/components and hermetic system components: 1 year
- Spare parts, except filters: 90 days

The warranty applies when the equipment is operated under the following conditions:

- Ambient temperature not in excess of 125°F (52°C) in normal atmosphere or as stated on product nameplate
- Voltage variation no greater than  $\pm 10\%$  from nameplate rating
- Frequency variation no greater than  $\pm 3\text{Hz}$  from nameplate rating
- Maximum cooling load no higher than air conditioner nameplate rating
- Waiting five minutes before restarting air conditioner after intentional or accidental shutoff
- Compliance to all other installation, maintenance and operating instructions

The purchaser assumes the responsibility of grounding the unit and installing it in accordance with local electrical and safety codes, as well as the National Electric Code (NEC) and OSHA

KOOLTRONIC cannot assume responsibility for misapplication of its products or the erroneous selection of an inappropriate product by a non-authorized KOOLTRONIC representative. Our applications engineers will gladly assist in the selection of the proper product, provided all required details of the application are furnished.

KOOLTRONIC assumes no liability beyond the repair or replacement of its own product. This Warranty does not cover:

- Labor or reimbursement of labor for evaluation, removal, installation, repair or cost of any warranted part, unless authorized in writing by Kooltronic
- Use of equipment for other than its designed purpose or operating conditions
- Operation in harsh, oily, corrosive or other abnormal environmental conditions, without the proper filtration, sealing, protective coatings and/or weather protection
- Damage to hermetic system resulting from continuous operation with dirty or clogged air filters or improper or negligent maintenance
- Use of refrigerant other than designated
- Customer modification or abuse
- Shipping damage or other accident (Claims for shipping damage are the responsibility of the customer. Timely claims must be filed by the customer with the freight carrier)
- Cracked or broken hermetic tubing, brazed joints or other internal damage caused by shipping damage or mishandling
- Damage caused by shipping units attached to an enclosure
- Any and all conditions resulting from noncompliance with the preceding operating conditions
- Returned freight must be paid by customer
- This Standard Warranty does not apply to custom products. Consult your Kooltronic representative for limitations

THIS WARRANTY CONSTITUTES THE ENTIRE WARRANTY WITH RESPECT TO THE PRODUCT AND IS IN LIEU OF ALL OTHERS, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY AND WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND IN NO EVENT IS KOOLTRONIC RESPONSIBLE FOR ANY CONSEQUENTIAL DAMAGES OF ANY NATURE WHATSOEVER.

#### **V. Return Authorization (RA) Procedure**

All returns require a Return Authorization number whether the return reason is for warranty or non-warranty repair, rotation of stock, damage or any other type. Returns without an RA number will be refused.

Customer must call Kooltronic After Sale Kare (ASK), Pennington, New Jersey (609•466•3400) to obtain an RA number, or email [ask@kooltronic.com](mailto:ask@kooltronic.com).

The following information is required when an RA is requested:

- Original customer Purchase Order number and date
- Date product was received by customer
- Number of parts to be returned
- Product description, model and serial number
- Reason for return
- Action requested
- Contact name, telephone, FAX numbers and e-mail address

Pack unit in a suitable container for shipment, preferably the original packaging if available. All Heat Exchangers must be returned in an upright position properly secured to a pallet. Improper packaging may void warranty claim. If a Heat Exchanger is received laying down or shipped UPS or similar small parcel service the warranty will be void.

Mark carton prominently with Kooltronic's Return Authorization Number.

Enclose all pertinent documents.

Freight charges on all products returned to Kooltronic shall be paid by the customer. Unauthorized collect shipments will be refused.

If a unit is repaired under Warranty, Kooltronic will pay the freight charges both ways within the Continental USA at Kooltronic's negotiated rates. Warranty repaired units will be returned to customer at Kooltronic expense only within the Continental USA.

All authorized returns are subject to a restocking fee.

*Warranty Registration*

