## INSTALLATION & OPERATING INSTRUCTIONS

## EXPANSION VALVE KITS TX3N2, TX3N4, TX5N2, TX5N4

#### INSPECTION

Verify that the part number is correct for the unit model.

PARTS LIST			
PARTS	TYPE	PACKING LIST G.M.C. PART NO.	QTY.
EXPANSION VALVE	TX3N2	BT1369064	1
	TX5N2	BT1369066	1
	TX3N4	BT1369068	1
	TX5N4	BT1369070	1
EQUALIZER STUB	(EVAPS. W/7/8" O.D. SUCTION)	5093702	1
	(EVAPS. W/3/4" O.D. SUCTION)	5093701	1
	(EVAPS. W/5/8" O.D. SUCTION)	5093700	1
INSTRUCTIONS	THIS SHEET	IO-630	1
BANDING STRAPS	-	INCLUDED W/TXV	1
- 1/4" NUTS	-	INCLUDED W/TXV	2
- 1/4" BOLTS	-	INCLUDED W/TXV	2
INSULATION	-	B1392625	1 FT.
WARNING LABEL	-	B14933238	1
COIL INSTRUCTIONS	-	IO-236*	1

### ATTENTION SERVICE PERSONNEL

As a professional servicer, you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with these instructions. Pay special attention to all safety warnings. Often during installation or repair, it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is your responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use. Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in these instructions should not supersede existing practices, but should be considered as supplemental information.

## RECOGNIZE THIS SYMBOL AS A SAFETY PRECAUTION

All information contained herein is subject to change without notice.

Goodman Manufacturing Company, L.P. 2550 North Loop West, Suite 400, Houston, TX 77092 <u>www.goodmanmfg.com or www.amana-hac.com</u> © 2004 Goodman Manufacturing Company, L.P.

# INSTALLATION INSTRUCTIONS FOR APPLICATIONS REQUIRING A FIELD INSTALLED ACCESS FITTING

## WARNING -

DISCONNECT ALL POWER TO THE UNIT BEFORE INSTALLING THIS KIT OR SERVICING THE UNIT. FAILURE TO FOLLOW THIS WARNING MAY RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH DUE TO ELECTRICAL SHOCK.

# Important: Piston must be removed from the Flowrator Distributor Assembly for proper Expansion Valve operation.

#### To remove piston from Flowrator Distributor Assembly:

- Loosen the 13/16 nut <u>1 TURN ONLY</u>. No pressure loss indicates possible leak.
- 2) Remove the nut and discard the black seal.
- 3) Remove the check piston and discard.
- 4) Use a tube cutter to remove the spin closure on the suction line.
- 5) Remove the tailpiece clamped to the exterior.
- 6) Braze the appropriate equalizer stub to suction line field connection on coil. Make sure to slide back grommet

and insulation before brazing. Plan fitting position for convenient connection to 1/4" flare nut on equalizer tube.

- 7) Braze suction line tubing (line set) to the stub.
- 8) Install the suction line grommet.

#### Install Expansion Valve:

9) Connect expansion valve outlet to flowrator body. Make sure Teflon seal is in place.

**NOTE DIRECTION OF FLOW (**Fluid is flowing towards the evaporator coil).

- Slide the 13/16 nut into position. Braze tailpiece to the liquid tube (line set).
- 11) **AFTER THE TAILPIECE HAS COOLED**, position the white Teflon seal and hand tighten the nut.
- 12) Torque the 13/16 nut to 10-30 ft/lb. or tighten 1/6 turn.
- 13) Connect equalizer tube with 1/4 flare nut to suction line fitting on the equalizer stub & torque to 8-10 ft/lb.
- 14) Secure expansion valve bulb to suction line with banding straps provided at the 10 o'clock or 2 o'clock position.IMPORTANT: Insulate the bulb and adjacent area.
- 15) Check for leaks.



# INSTALLATION INSTRUCTIONS FOR APPLICATIONS NOT REQUIRING A FIELD INSTALLED ACCESS FITTING

## WARNING

DISCONNECT ALL POWER TO THE UNIT BEFORE INSTALLING THIS KIT OR SERVICING THE UNIT. FAILURE TO FOLLOW THIS WARNING MAY RESULT IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH DUE TO ELECTRICAL SHOCK.

#### To remove piston from Flowrator Distributor Assembly:

- 1) Loosen the 13/16 nut <u>**1 TURN ONLY**</u>. No pressure loss indicates possible leak.
- 2) Remove the nut and discard the black seal.
- 3) Remove the check piston and discard.
- 4) Use a tube cutter to remove the spin closure on the suction line.
- 5) Remove the tailpiece clamped to the exterior.
- 6) Braze the suction line field connection on coil. Make sure to slide back grommet back before brazing and feed the valve equalizer line through the grommet.

7) Re-install the suction line grommet and feed the equalizer line through the opening.

#### Install Expansion Valve:

9) Connect expansion valve outlet to flowrator body. Make sure Teflon seal is in place.

**NOTE DIRECTION OF FLOW (**Fluid is flowing towards the evaporator coil).

- **10)** <u>Slide the 13/16 nut into position.</u> Braze tailpiece to the liquid tube (line set).
- 11) <u>AFTER THE TAILPIECE HAS COOLED</u>, position the white Teflon seal and hand tighten the nut.
- 12) Torque the 13/16 nut to 10-30 ft/lb. or tighten 1/6 turn.
- 13) Connect equalizer tube with 1/4 flare nut to suction line fitting on the coil suction manifold & torque to 8-10 ft/lb.
- 14) Secure expansion valve bulb to suction line with banding straps provided at the 10 o'clock or 2 o'clock position.IMPORTANT: Insulate the bulb and adjacent area.
- 15) Check for leaks.



#### **Quality Makes the Difference!**

"All of our systems are designed and manufactured with the same high quality standards regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run tested before it leaves the factory. That's why we know. . . There's No Better Quality."

Visit our web site at <u>www.goodmanmfg.com</u> or <u>www.amana-hac.com</u> for information on:

- Products
- Warranties
- Customer Services
- Parts
- Contractor Programs and Training
- Financing Options