

# COSPOLICH

## Shipboard Modular Thaw Cabinet

**Bulletin 01.08.16**

**With use of 404a refrigerant ONLY**

THW60-2M-S-MLR  
THW60-2M-SN-MLR  
(REV. 000a)



# Introduction

## **Thaw Cabinet Field Adjustment Advisory**

August 24, 2016

Subject: Thaw Cabinets

Model #: THW30-2M-SN, THW30-2M-SN-MLR, THW60-2M-SN, & THW60-2M-SN-MLR  
Bulletin 01.08.16

Drawing: NA

Vessel(s): Various Naval

Preface: An issue with the evaporator coil icing on some models of Cospolich Naval shipboard thawing cabinets developed. Research contributing factors it was determined adjustments are required to return the units to proper performance.

Directive: It was found that both fans were moving air in the same direction, when it is required they move air in opposing directions. It was determined an incorrect fan blade was installed. The corrective actions require a fan blade change on the air handler (unit cooler) as well as an adjustment to the refrigeration expansion valve (TXV). Along with materials by the factory, the procedures may be conducted by competent shipboard personnel.

Skill Level: Refrigeration mechanical experience junior grade.

Furnished material: A fan blade

Factory Tech Support: Cospolich technical support personnel are available to assist by phone 985/725-0222 or 800/423-7761 or email [service@cospolich.com](mailto:service@cospolich.com).

# Instructions:

**Important:** Prior to beginning turn the power switch to the unit to the “off” position.

**Comment:** *On some models the fans installed are moving in the same direction. This is incorrect. To determine air flow direction: With the fans operating place a sheet of paper in front of one and then the other. Air should be moving in different directions (one blowing and the other sucking)*

## **Fan Change-Out Instructions (if required)**

**Step 1:** Remove the interior food pans.

**Step 2:** Locate and remove the two Phillips fasteners from the fan door.

**Step 3:** Disconnect the electrical plug. *Illustration 4 on page 9*

**Step 4:** Locate the bottom fan motor and the bracket which attaches it to the fan door. Remove the fasteners from the mounting bracket.  
*Illustration 1 on page 6*

**Important:** Note the location of the fan on the motor shaft so the replacement fan blade is installed in the same position.

**Step 5:** Using the furnished Allen wrench remove the **bottom** fan. Mount the replacement fan blade on to the motor shaft.

**Step 6:** Reverse the process in retuning the fan motor to the operating position.

**Note 1:** Power the unit to make certain the fans turn without interference.

**Note 2:** Do not close the fan door as the next functions require access to the air handler.

## **Checking the controllers settings**

Note 1: The appropriate settings Chill is 39 F and Warming is 33° F.

*Illustration 2*

**Note 2:** Prior to making any control adjustments you must first establish the current set points are incorrect. *Illustration 2 on page 7*

To view and adjust Set point, follow these steps:

Step 1: Press and hold MENU (about 2 seconds) until the display flashes SP.

Step 2: Press MENU again to display the existing set point value.

Step 3: Press Up or down (arrows) to change the set point value.

Step 4: Press MENU again to save the new value. The display returns to the sensed temperature.

## **TXV Adjustment Instructions**

The purpose for checking the setting of the expansion valve (TXV) is to assure it is operating in the correct range. When the cabinet temperature achieves 39° F the pressure on the gauge should be at or above 50 PSI. This is optimum.

Preparation: Attach the “low side” of the refrigeration service gauge manifold to the condensing unit suction side port to read system pressure.

*Illustration 3 on page 8*

Starting point: Turn the thaw cabinet on. Watch the temperature drop as well as the suction pressure on the manifold gauge. Listen for the compressor to cycle off at 39°F and the suction pressure should be 50 PSI or greater.

**Comment 1:** Should the temperature/pressure not be in sync, the expansion valve will require adjusting see the procedure below.

**Comment 2:** It is necessary to monitor the sight glass during the process.

Step 1: Turn the unit off.

Step 2: Remove the fasteners from the air handler fan door.

Step 3: Disconnect the electrical plug. *Illustration 4 on page 9*

Step 4: Locate the expansion valve. Using two wrenches remove the cap.

*Illustration 6 on page 10*

Step 5: Using a marking pen place alignment marks on the stem and valve body.

39° F and a suction pressure of greater than 58 PSI  
Turn the expansion valve stem CW ¼ turn

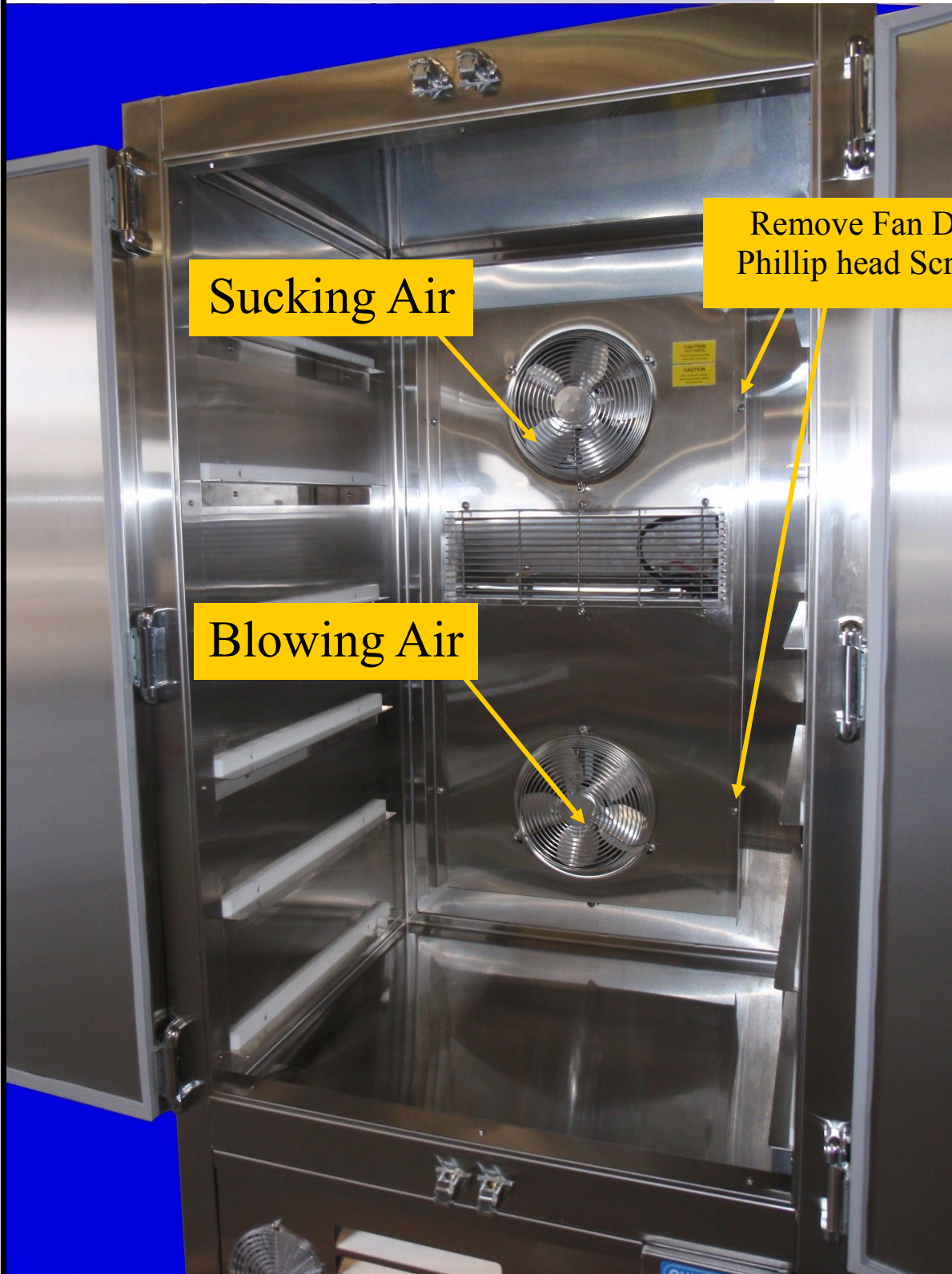
39° F and a suction pressure of less than 45 PSI  
Turn the expansion valve stem CCW ¼ turn.

***Allow the unit to cycle off then on, adjusting the TXV, until the 39° F temperature and 50 PSI pressure is achieved.***

Step 6: To return the unit to operating status, reverse the process.



## Illustration 1– Fan Motor Air Flow



## Illustration 2



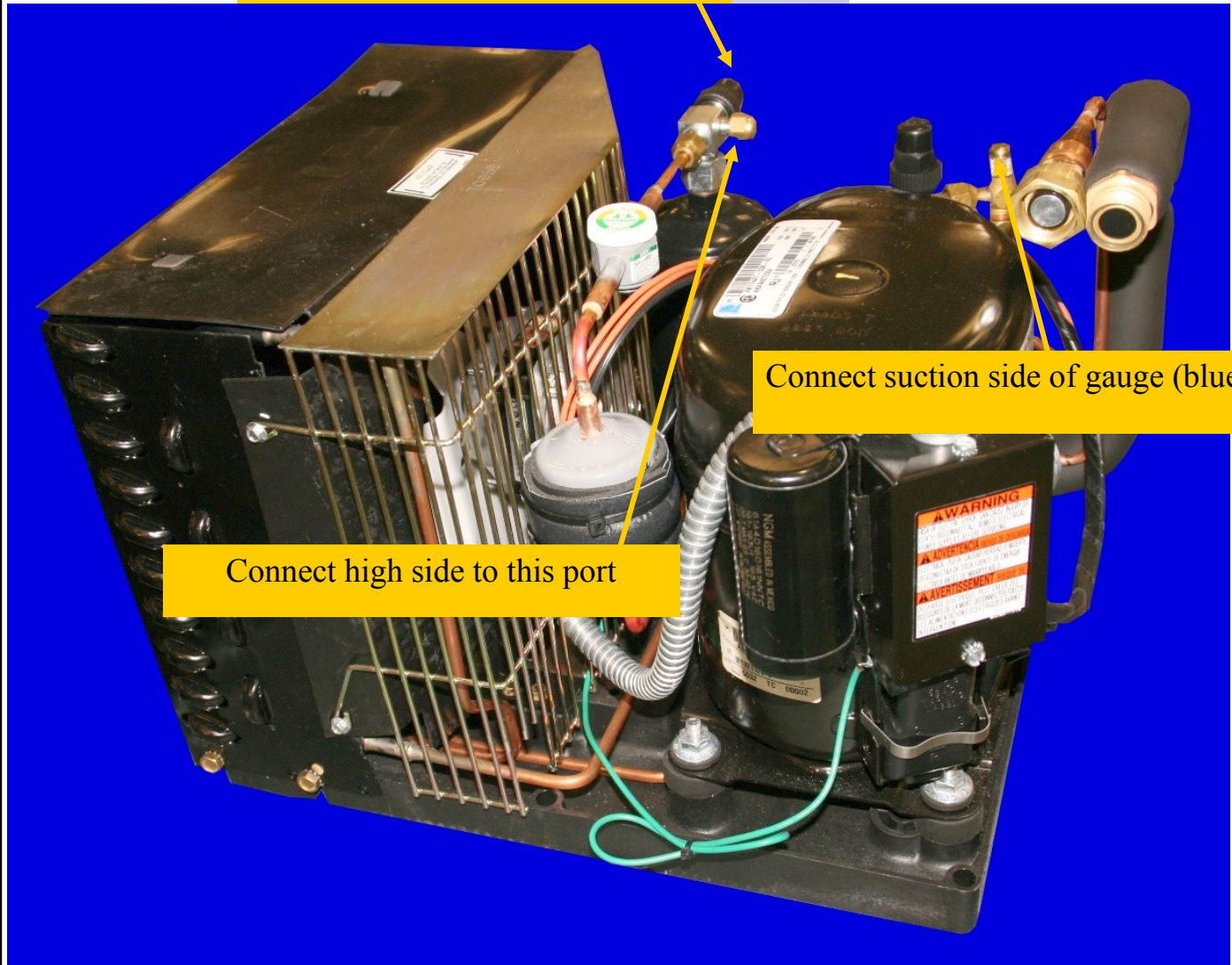
Cooling 39° F

Heating 33° F



### Illustration 3

Open service Valve 1/4 turn  
Using refrigeration service wrench



Connect suction side of gauge (blue)

Connect high side to this port



## Illustrations 4 and 5



Disconnect after fan door it opened

Illustration 4

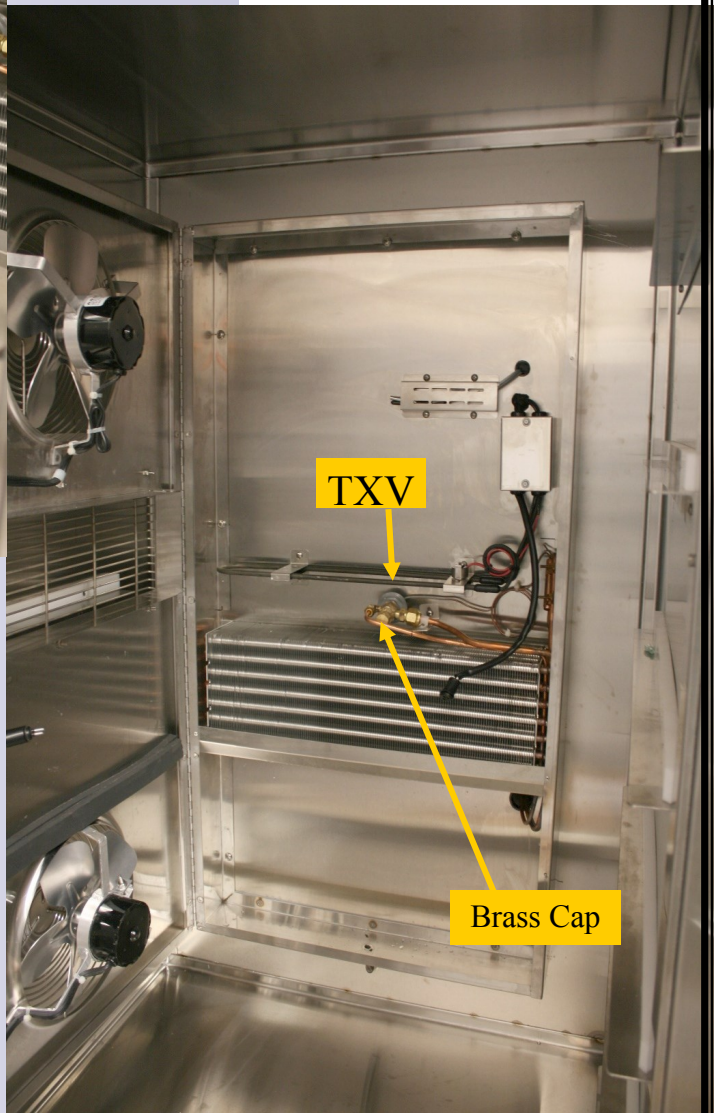


Illustration 5

TXV

Brass Cap



## Illustration 6, 7, and 8 Locating and Adjusting TXV Valve

Use 2 crescent wrenches to remove brass cap

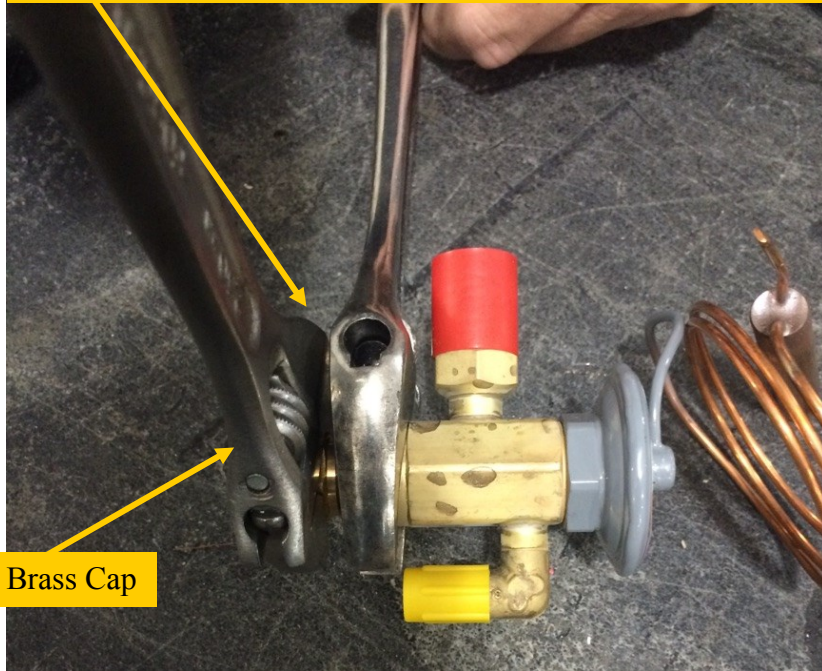


Illustration 6

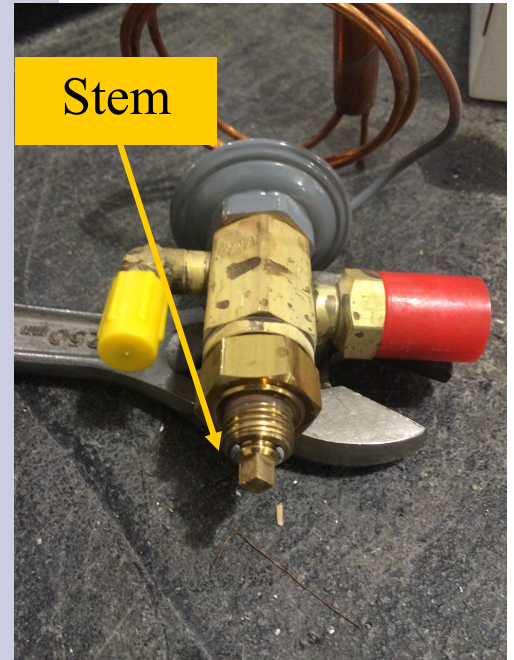


Illustration 7

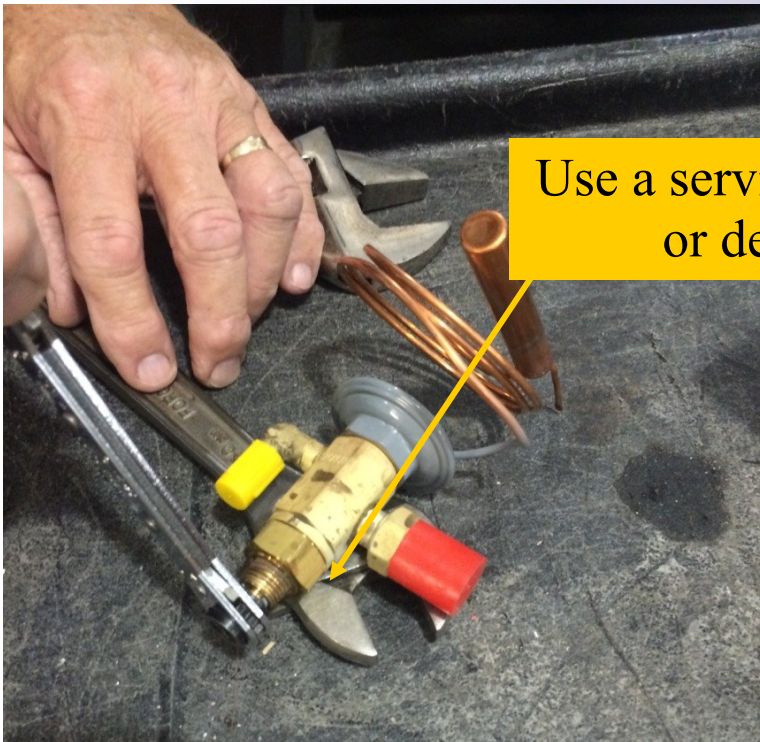


Illustration 8

## Tools Required to Make Repairs

- \* refrigeration service wrench
- \* screw driver (Philips)
- \* crescent wrench (2)
- \* refrigeration manifold gauges
- \* Allen wrench (1/8")
- \* WD 40