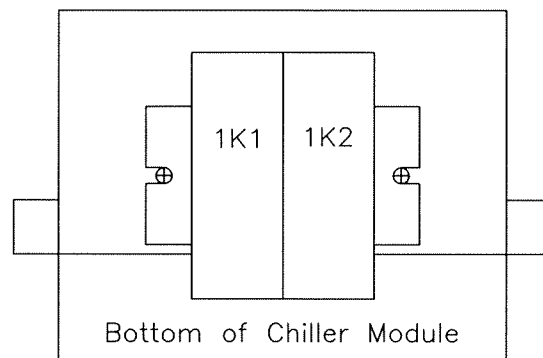


Electrical Instructions for Retrofit Kit

1-15.277

GPM Flow Sensing
Electrical Instructions for Retrofit Kit

1. Connect 4 transducers to mechanical set ups, used to detect water flow, which are on the entering and leaving evaporator and entering and leaving condenser water boxes.
2. Install Chiller Module.
NOTE: If the Chiller Module is being installed, before removal record the 5 coefficient below, located in the Service Settings menu, and re-enter after retrofit is complete.
Evaporator Flow Coefficient, Evaporator Flow Equation Exponent, Evaporator Fluid Coefficients, Condenser Flow Coefficient and Condenser Flow Equation Exponent.
3. Mount 3.5 inch din rail on the bottom of the Chiller Module using the screw already on the module enclosure. Mount sockets on din rail, plug relays into sockets and attach relay clips to sockets. As shown in the picture below the coil will be at the bottom of the module.



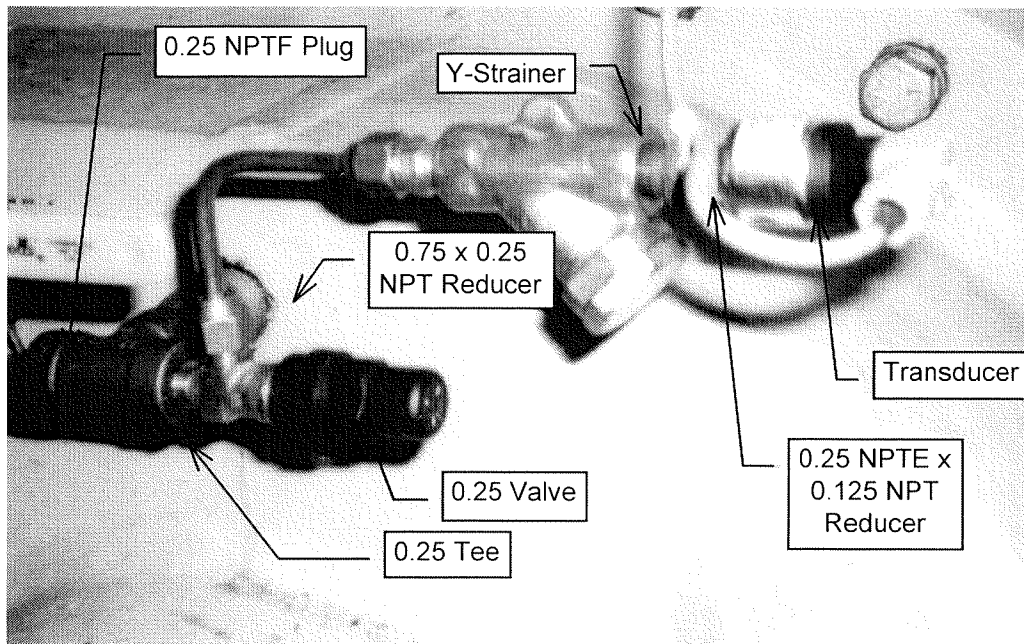
4. Wire the four transducers, using the transducer cables, to the UCP2 Chiller Module.
5. a. After retrofit is complete, before the chiller has started ensure there is no water flow on condensor and evaporator. Then wait five minutes to allow software to calibrate pressure sensor.
NOTE: Unit must be in local stop to perform calibration
- b. For units requiring manual calibration, the Clear Language Display module is needed. Manual calibration can be performed by refering to the Service Bulletin.

GPM Flow Sensing
Electrical Parts List
1-15.278

2764-0016-04-00

PARTS	QUANTITY	DESCRIPTION
Relay	2	Control Relay 4PDT
Socket	2	Relay Socket 3 Amp
Relay Clips	2	Relay Clips for Sockets
3.5 inch Din Rail	1	Terminal Block Din Rail
Chiller Module	1	UCP2 Chiller Module
Transducer	4	Pressure Transducer
Cable Assembly	4	Transducer Cable Assy

Example of Configuration #1



The above drawing shows how the retrofit should look after completion on an evaporator or condenser non-marine waterbox (Configuration #1). The following are basic field retrofit instructions:

1. Shut off water valves located on the waterboxes.
2. Do NOT remove the Y-strainer from the valve if you have the following:
 - a. Y-strainer is attached to the valve with copper tubing like above, (GO TO STEP 5).
 - b. Y-strainer is attached directly to the valve as on a marine waterbox, (GO TO STEP 5).
3. Otherwise, remove all piping and/or components from the waterbox valve to the transducer location.
4. Attach Y-strainer to valve assembly, making sure the flow is in the correct direction and up right.
 - a. As above (Config #1) using flare fittings and 0.25 copper tubing OR
 - b. Directly to the valve (Config #2) using a flare union and 0.25 NPT adapter.
5. Attach 0.25 NPTE x 0.125 NPT adapter to the Y-strainer.
6. Attach the transducer to the reducer.
7. Attach transducer connector and cable.
8. Run the transducer cable back to the UCP2 by following the temperature probe cable.
9. After installation is complete, turn valve on and check for leaks.

NOTE: Use the proper thread sealer on all joints, such as Loctite.

Water Pressure Differential
Option Assy, Mechanical Parts List
1-15.280

2764-0016-06-00

ITEM #	PARTS	QUANTITY	DESCRIPTION
1	NPTE Adapter	4	0.25MFL X 0.25 NPTE Adapter
2	NPT Adapter	4	0.25 NPTE x 0.125 NPT Adapter
3	Flare Union	4	0.25 Flare Union
4	Tubbing	As Needed	0.25 Copper tubing

THERE ARE THE FOLLOWING 2 CONFIGURATIONS:

1. CONFIGURATION #1—Consists of Evaporator and Condenser Non—Marine Waterboxes.

For this configuration:

- a. Use item numbers 1, 2 and 4
- b. Already attached to the waterboxes:
 1. 0.75 X 0.25 NPS Bushing
 2. 0.25 NPS Nipple
 3. 0.25 NPS Tee
 4. 0.25 NPTF Plug
 5. 0.25 MFL x 0.25 NPTE Valve

2. CONFIGURATION #2—Consists of Evaporator and Condenser Marine Waterboxes and 032 and 050 Condenser Non—Marine Cast Waterboxes.

For this configuration:

- a. Use item numbers 1, 2 and 3.
- b. Already attached to the waterboxes:
 1. 0.25 MFL x 0.25 NPTE Valve

NOTE: Configuration #1 or #2 may require a Y—strainer depending on the date of the WFCL option. Order a quantity of four 0.25 NPT Y—Strainers with part number SRA00199.