

# Integrated Manifold Adapter Valve

# Installation Guide

## Application

The Integrated Manifold Adapter Valves are used with the M-8000 and M-8200 brass manifold series and M-8100 Engineered Plastic Manifold Series in hydronic radiant panel heating and cooling applications. These valves consist of the **Adapter Valve**, an **Automatic Air Vent**, **Thermometer**, **Fill/Purge Valve** and **Tail Piece Nipple**. They are sold in pairs, the red-handle valve is for the supply manifold header and the blue-handle valve is for the return manifold header (1).

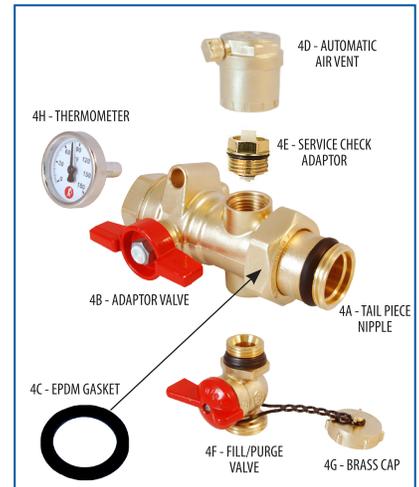


## Installation / Assembly

The Integrated Manifold Adapter Valves should always be installed upstream (in front) of the manifold headers (2). The female side of the Adapter Valves is 1" (800-857) or 1-1/4" (800-858) NPT threads for connecting to the system supply / return distribution piping to / from the mechanical room. **These valves will normally arrive pre-assembled, hand tightened only. Follow steps A & B to attach an assembled valve to a manifold header.** If required, they can be fully assembled via the following steps:



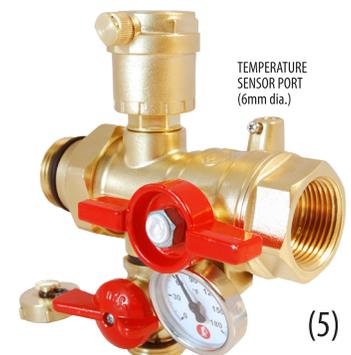
- A) Thread the male end (1" or 1-1/4" threads) of the **Tail Piece Nipple (4A)** until tight, into the end of the manifold header that is to receive the system supply / return distribution piping to / from the mechanical room. The Tail Piece Nipple can be tightened with a standard channel wrench (3A) or a spud (radiator) wrench using the spuds inside the Tail Piece Nipple (3B).
- B) With the **EPDM gasket (4C)** in place, thread the **Adapter Valve (4B)** in to the other end of the Tail Piece Nipple with the union nut, until tight. Orient the Adapter Valve body so that the Air Vent, when installed (if not already in place), will be in a vertical position upon final mounting of the manifold and during operation of the complete system. In this position the valve handle and Thermometer should be facing and easily accessible from the front.
- C) The **Automatic Air Vent (4D)** should always be installed onto the Adapter with the 1/4" x 1/2" **Service Check Adapter (4E)** (included with the Automatic Air Vent) in a vertical position. Thread the male end of the Service Check Adapter into an upper 1/2" port on the Adapter Valve until tight. Thread the 1/4" male threads of the Air Vent into the Service Check Adapter, hand tight only.
- D) Thread the male end of the **Fill/Purge Valve (4F)** into the lower 1/2" port of the Adapter Valve until tight. Orient the Fill/Purge Valve so that the handle can be operated comfortably once the manifold is mounted. The opposite end of the Fill/Purge Valve has a 3/4" male garden hose thread (GHT) port and includes a **brass cap with plastic tether (4G)**. The plastic tether should slide over the end of the GHT port end of the Fill/Purge Valve. The brass cap, with EPDM gasket included, should be threaded on to the GHT port of Fill/Purge Valve until ready to use.
- E) Install the **Thermometer (4H)** into the slot on the top side of the Adapter Valve, above the handle. The Thermometer is held in place by a friction fit connection. The Thermometer may be rotated (oriented) while in position so that the gauge face is readable.



There is a Temperature Sensor Port on the back side of the Adapter Valve body (5). As necessary, a temperature sensor connected to the system controls, may be inserted for monitoring the manifold supply and/or return fluid temperature. This port opening is 6 mm diameter.

The Integrated Manifold Adapter Valve can be installed to the left or right side of the manifold header. Installation to the right side of the header will result in the thermometer slot being located under the valve handle as shown (5).

**Note:** The Integrated Manifold Adapter Valve components seal together and to the manifold header with an EPDM gasket (o-ring). One quarter (1/4) turn beyond "hand-tight" is normally sufficient to seal properly.



Orientation for mounting to the right side of manifold header