



# T-BO-IB-1XXX/2XXX

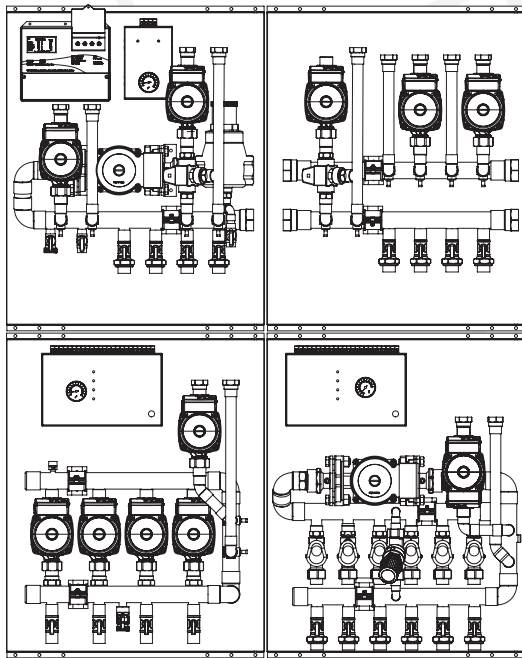
Tamas IBC Boiler Panel

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**\* Note:**

The following parts lists and application drawings are general samplings. Each panel configuration dictates the required components, including pump type. See the Technical Data section of the manual for specific information on each part in your particular variation of the Tamas Viessmann Boiler Board.

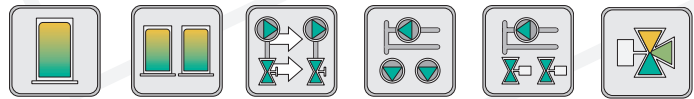


### Tamas Hydronics Modular Panels

The Tamas Modular Panel line contains a series of expandable hydronic panels suited for a variety of applications and building sizes.

The comprehensive system provides a versatile method of distributing heat to a multitude of applications. Indoor/outdoor reset controls are utilized to improve system efficiency and management. Specific panels allow for system expansion, multiple boiler management, injection mixing and domestic hot water.

Available panels: Boiler, Staging, Expansion, Low Temperature Injection (Pump, Valve, TMV)



### Safety Precautions

During installation and operation, please avoid injury from touching the hot surface of the pipe. The installation and service should be done by qualified personnel. Please follow all warning signs on the panel for your own safety while dealing with installation and service.

Overview

Optional secondary injection mixing components, as well as low and high temperature zones can be added to the system. This enables the panel to accommodate DHW priority or fancoil applications.

The board can accommodate up to four zones plus the boiler pump. Boiler pump comes in various sizes depending on boiler size.

Operation

When a T-BO-ID/IB 1XXX/2XXX is connected to a IBC Boiler system, the panel regulates the water distribution quantity to accommodate demand.

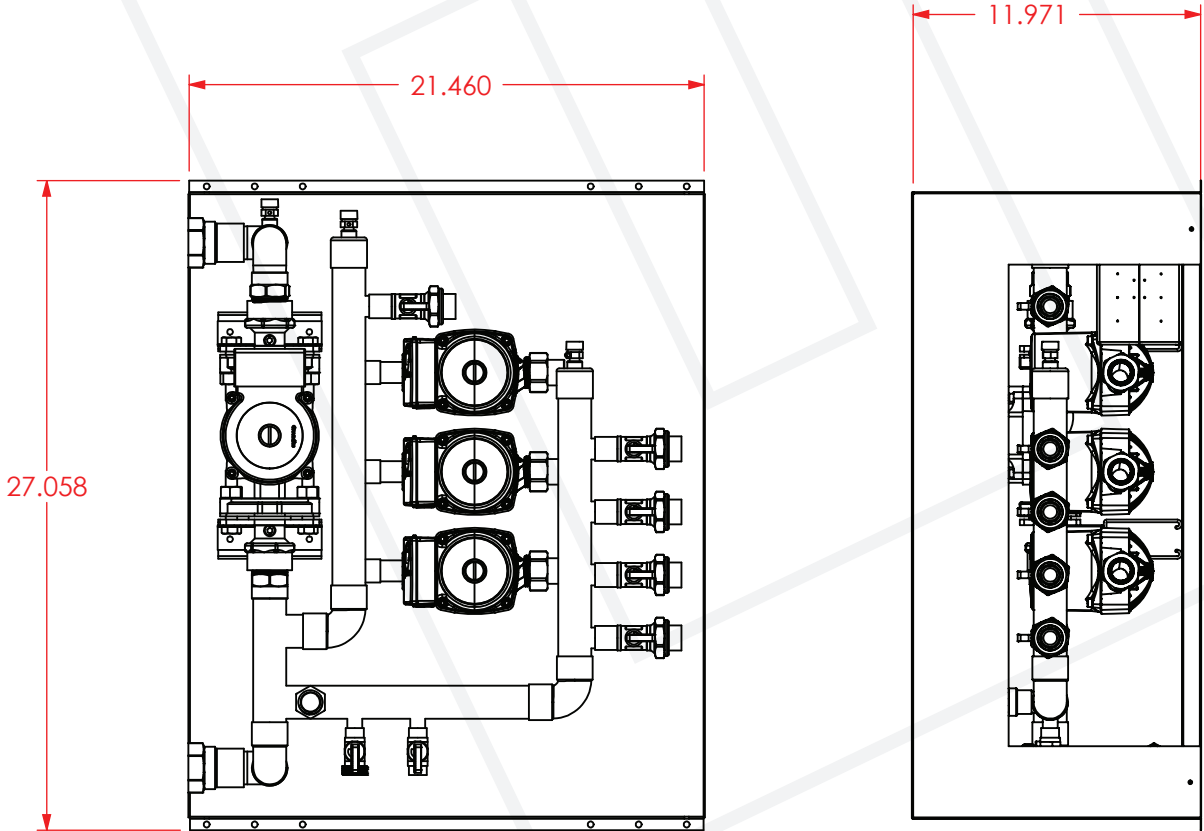
If the room or floor temperature falls below the user's designated setting on a thermostat, for example (sold separately), the panel

initiates a signal back to the boiler and turns on the boiler pump and zone pumps.

When the room temperature is satisfied, the thermostat or aquastat disconnects the heat source and pump.

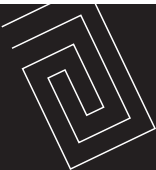
When a domestic hot water demand to the boiler is signaled, the panel disconnects the active zone pumps and sends a message to the boiler to raise the internal boiler water temperature. This water is heated and distributed as domestic hot water, when the domestic hot water demand is satisfied; the boiler disconnects the high temperature output and reverts to the preset zone temperatures that were previously active. This method of providing precedence to the domestic hot water requirements before the space heating load of a building is known as domestic hot water priority.

(\*Note: DHW priority set on boiler)

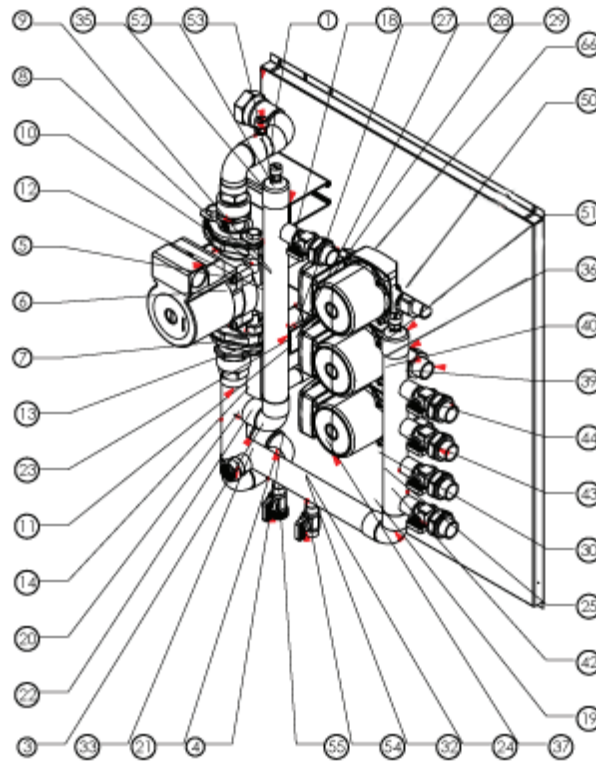


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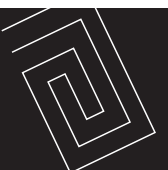


## Components



Item #	Part Number	Description	QTY.
1	22X26 metal board		1
2	22X26 cover		1
3	1.25 FIP		2
4	Elbow 90 1.25 Inch Close Ruff		3
5	26-64 bottom		1
6	26-64 Top		2
7	B18.3.1M - 5 x 0.8 x 20 Hex SHCS – 20NHX		4
8	Isoflange seal		2
9	Isoflange		2
10	1 14 iso flange 1		2
11	Pump Braket		2
12	B18.2.3.2M - Formed hex screw, M12 x 1.75 x 60 –60WN		4
13	B18.2.4.6M - Heavy hex nut, M12 x 1.75 –W-N		4
14	MIP		4
15	1 14 1 12 Adapter		2
16	1 iso flange 1		2
17	MIP		2
18	P5000x4.3		2
19	Elbow 90 1.25 Inch Close Ruff	Elbow 90 1.25 Inch Close Ruff	3
20	1.25 in, Cu Type L, 2	Pipe 1.25 in, Cu Type L	1
21	1.25 in, Cu Type L, 3	Pipe 1.25 in, Cu Type L	1
22	1.25 in, Cu Type L, 6	Pipe 1.25 in, Cu Type L	1
23	1.25 in, Cu Type L, 4	Pipe 1.25 in, Cu Type L	1

24	1.25 in, Cu Type L, 8	Pipe 1.25 in, Cu Type L	1
25	1.25 in, Cu Type L, 1	Pipe 1.25 in, Cu Type L	1
26	MIP		8
27	Elbow 90 0.75 Inch Close Ruff	Elbow 90 0.75 Inch Close Ruff	3
28	0.75 in, Cu Type L	Pipe 0.75 in, Cu Type L	3
29	0.75 in, Cu Type L, 1	Pipe 0.75 in, Cu Type L	3
30	0.75 in, Cu Type L, 2	Pipe 0.75 in, Cu Type L	5
31	MIP		2
32	0.5 in, Cu Type L	Pipe 0.5 in, Cu Type L	2
33	0.75 FIP		1
34	0.75 in, Cu Type L, 4	Pipe 0.75 in, Cu Type L	1
35	1.25 in, Cu Type L	Pipe 1.25 in, Cu Type L	1
36	591295		3
37	PA NONE6		3
38	Composite Pump Seal/ or equivalent		6
39	Composite Pump cp adapter/ or equivalent		3
40	Composite Pump Nut/ or equivalent		6
41	Composite Pump cp adapter/ or equivalent		6
42	34ccdhal union		5
43	dhalvalve 22mm nut union		5
44	34ccdhal union sswet insert		5
51	pressure cap		2
52	1 2 1 8 bushing		3
53	Watts air vent		3
54	1 2 c-c ball valve Dhal		1
55	16 mm hosebib		1
57	Tamas Circuit board		2
58	Transformer		2
59	Cap-2		2
60	dip switch 3 pole		2
62	Control Chip		2
64	press in insert		2
65	Mirrorpress in insert1		1
66	B18.6.7M - M3 x 0.5 x 6 Type I Cross Recessed FHMS -6N		4



**1) Hydronic Panel**

Max Operating Temperature: 90°C/194°F  
 Max Ambient Temperature: 50°C/122°F  
 Panel Enclosure: Powder coated steel

Max Operating Pressure: 10 Bar/145 PSI  
 Power Supply: 120V 15A

# T-BO-00-2112

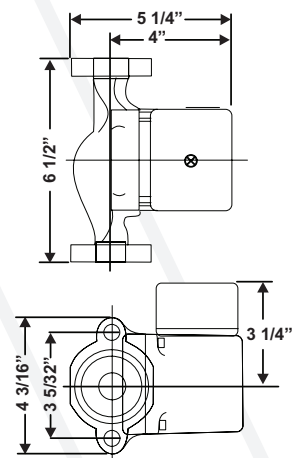
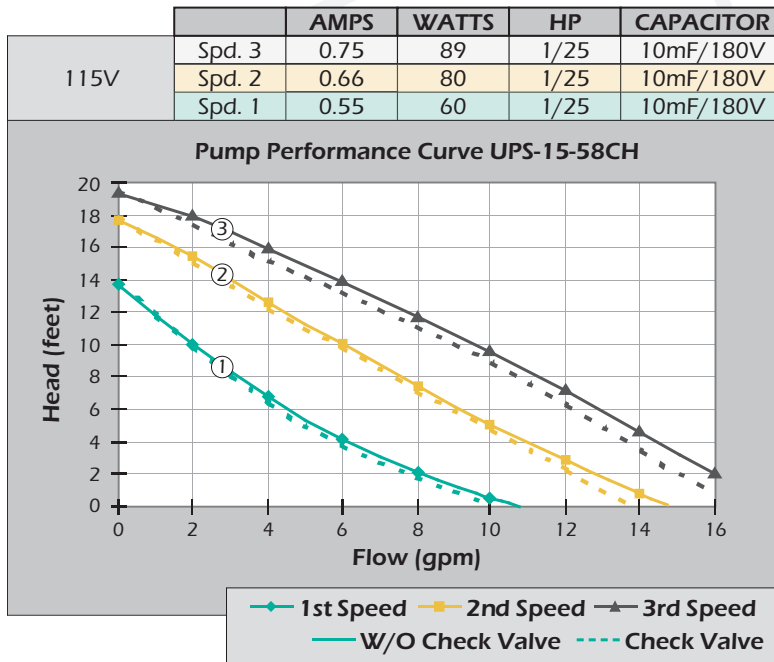
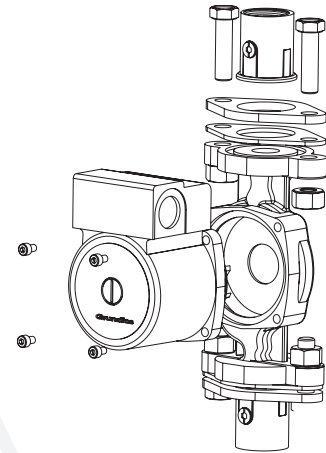


#	Board Segment	Available Options
1	Tamas Hydronic Board	-
2	Board Type	<ul style="list-style-type: none"> <li>• BO - Boiler Board</li> <li>• BS - Boiler Board (Staging)</li> <li>• BD - Boiler Board (Dual Mixing)</li> <li>• HI - High Temperature Board</li> <li>• LO - Low Temperature Board</li> <li>• SM - Snowmelt Board</li> <li>• SL - Solar Board</li> <li>• EX - Expansion Board</li> </ul>
3	Mixing Method/Peripherals	<ul style="list-style-type: none"> <li>• T - Thermostatic Mixing Valve</li> <li>• I - Injection Mixing</li> <li>• D - Domestic Hot Water</li> </ul>
4	Dispersion Method	<ul style="list-style-type: none"> <li>• P - Pump</li> <li>• V - Valve</li> </ul>
5	BTU Output	<ul style="list-style-type: none"> <li>• 100,000 BTU - 300,000 BTU</li> </ul>
6	Number of High Temp Zones	<ul style="list-style-type: none"> <li>• Maximum 2 Zones</li> </ul>
7	Number of Low Temp Zones	<ul style="list-style-type: none"> <li>• Maximum 2 Zones</li> </ul>
8	Number of Injection Zones	<ul style="list-style-type: none"> <li>• Maximum 2 Zones</li> </ul>

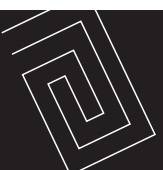
#### 4) UP-15-58-CH (3 Speed Pump)

- Flow range: 0 - 17 U.S. GPM
- Head range: 0 - 19 Feet
- Motors: 2 Pole, Single Phase
- Maximum fluid temperature: 230°F(110°C)
- Minimum fluid temperature: 36°F(2°C)

\* Maximum fluid temperature with Check Valve present: 200°F

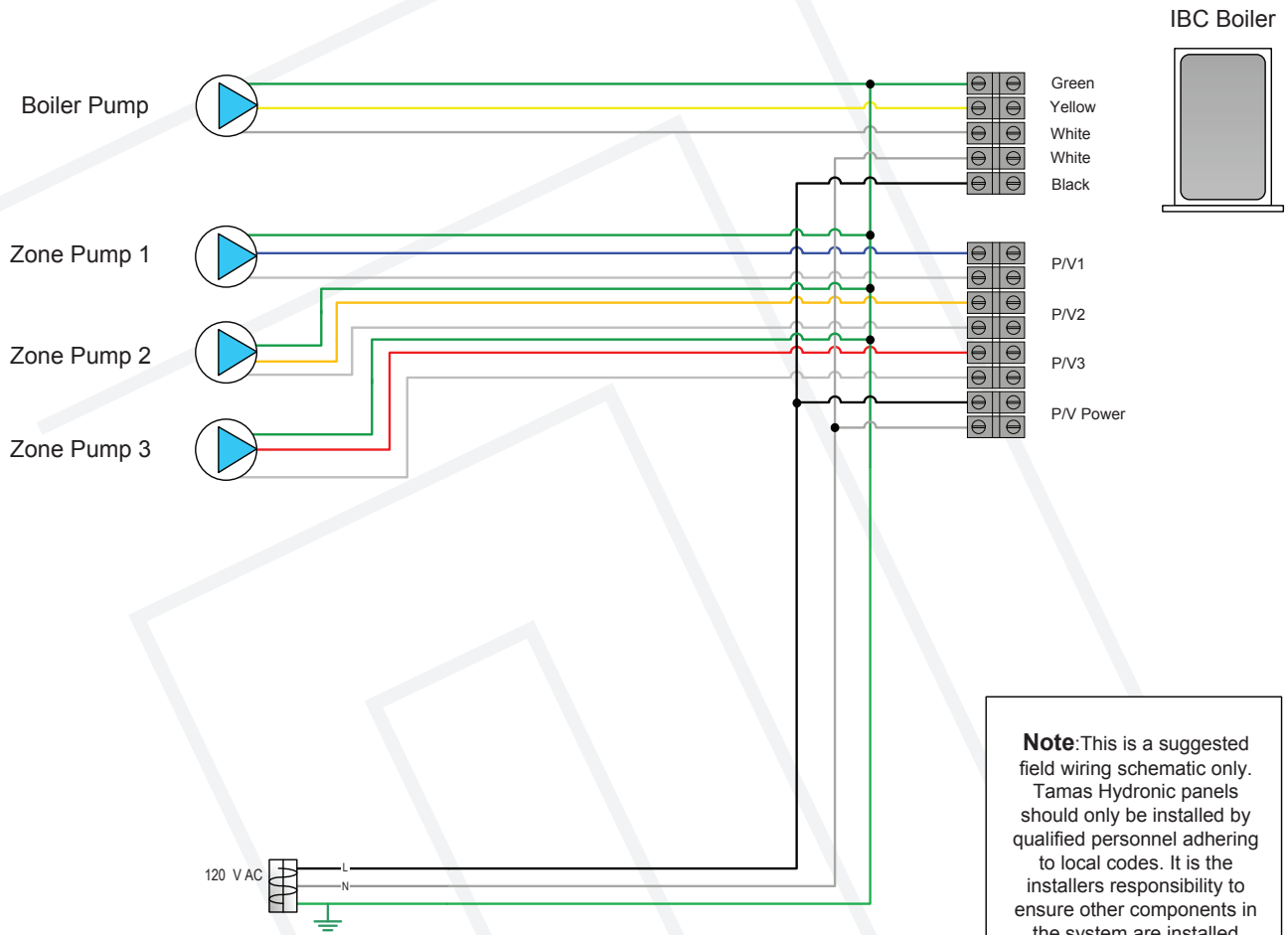


Component	Information
Inlet cone, bearing retainers, rotor can, rotor cladding, shaft retainer	304 Stainless Steel
Stator housing	Aluminum
Shaft, upper and lower radial bearings	Aluminum Oxide Ceramic
Thrust bearing	Metal Impregnated Carbon
Check Valve	ACETAL with 302 Stainless Steel Spring & Nitrile Rubber Seals
Pump housing (Volute)	Cast Iron
O'Ring and gaskets	EP (Ethylene Propylene Rubber)
Impeller	PES Composite (30% Glass Filled)
Terminal box	Noryl®



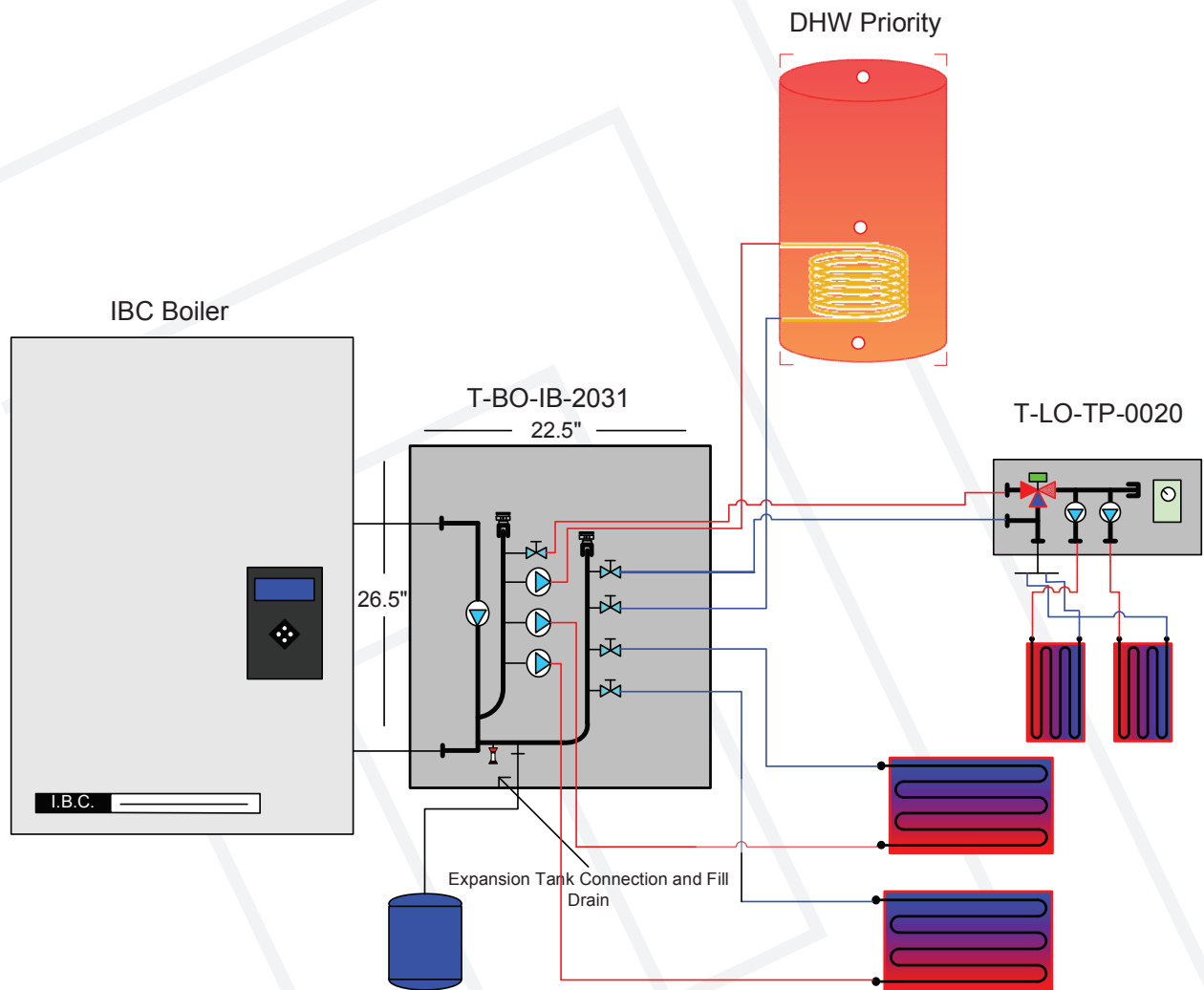
# Wiring Guide

## T-BO-ID-2210 Wiring

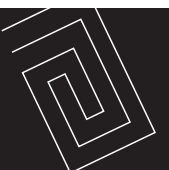


**\* Note:**

Please note that actual schematics may vary depending on application. Actual schematic comes with the IBC Panel.

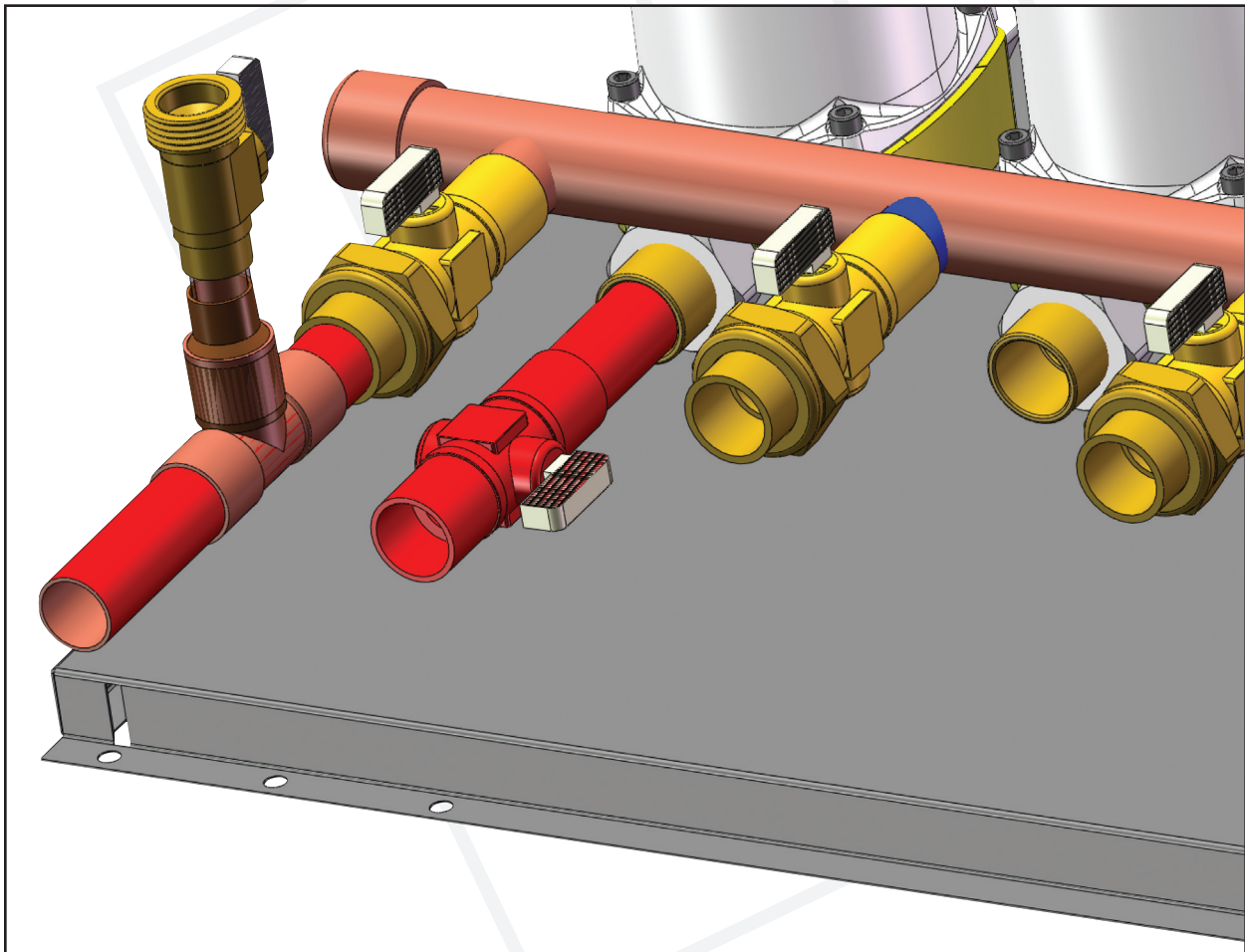


**\* Note:**  
The above drawings are samples only. System piping will depend on panel configuration.



## Commissioning

1. **\*IMPORTANT\*** The below procedure is applies to filling the system one zone at a time.
2. Disconnect power from the Tamas Hydronic panel
3. Install recommended purging valve on return zone line.(field supplied see below drawing)
4. Close all isolation valves to the zones
5. Begin filling the panel through the provided hose bib connection on the panel
6. Open the return isolation valve on the panel
7. Begin filling the system
8. Slowly open the purging valve on the return side of the zone line to let the air out of the system
9. After the above procedure is done, close the air purging valve
10. Finally close all the valves to isolate the zone from the panel before moving on to the next zone.
11. Repeat this procedure based on the amount of zones on the board
12. Once all the zones have been purged, you can open all the isolation valves



### Limited Warranty

Tamas Hydronic Systems Inc. warrants each of its products to be free from defects in workmanship and materials under normal use and service for a period of 36 months from date of manufacture or 24 months from date of purchase from a Tamas Hydronic Systems inc. authorized Dealer, if within the above documented period after date of manufacture.

If the product proves to be defective within the applicable warranty period, Tamas Hydronic Systems inc. on its sole discretion will repair or replace said product. Replacement product may be new or refurbished of equivalent or better specifications, relative to the defective product. Replacement product need not be of identical design or model. Any repair or replacement product pursuant to this warranty shall be warranted for not less than 90 days from date of such repair, irrespective of any earlier expiration of original warranty period. When Tamas Hydronic Systems Inc. Provides replacement, the defective product becomes the property of Tamas Hydronic Systems Inc.

Warranty Service, within the applicable warranty period, may be obtained by contacting your nearest Tamas Hydronics Systems inc. office via the original Authorized Agent and requesting a Return Material Authorization Number (RMA #). Proof of purchase in the form a dated invoice/receipt must be provided to expedite the issuance of a Factory RMA.

After an RMA number has been issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit. The RMA number must be visible on the outside of the package and a copy included inside the package. The package must be mailed or otherwise shipped back to Tamas Hydronic Systems Inc. with all costs of mailing/shipping/insurance prepaid by the warranty claimant.

Any package/s returned to Tamas Hydronic Systems Inc. without an approved and visible RMA number will be rejected and shipped back to purchaser at purchaser's expense. Tamas Hydronic Systems Inc. Reserves the right, if deemed necessary, to charge a reasonable levy for costs incurred, additional to mailing or shipping costs.

### Limitation of Warranties.

If the Tamas Hydronic Systems Inc. product does not operate as warranted above the purchasers sole remedy shall be, at Tamas Hydronic Systems Inc.' s option, repair or replacement. The foregoing warranties and remedies are exclusive and in lieu of all other warranties, expressed or implied, either in fact or by operation of law, statutory or otherwise, including warranties of merchantability and fitness for a particular purpose/application. Tamas Hydronic Systems Inc. neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale, installation maintenance or use of Tamas Hydronic Systems Inc. products.

Tamas Hydronic Systems Inc. shall not be liable under this warranty; if its testing and examination discloses that the alleged defect in the product does not exist or was caused by the purchasers or third persons misuse, neglect, improper installation or testing, unauthorized attempts to repair or any other cause beyond the range of intended use, or by accident, fire, lightning or other hazard.

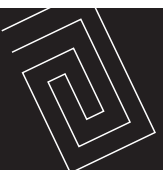
### Limitation of Liability.

In no event will Tamas Hydronic Systems Inc. be liable for any damages, including loss of data, loss of profits, costs of cover or other incidental, consequential or indirect damages arising out of the installation, maintenance, commissioning, performance, failure or interruption of a Tamas Hydronic Systems Inc. product, however caused and on any theory of liability. This limitation will apply even if Tamas Hydronic Systems Inc. has been advised of the possibility of such damage.

### Local Law.

This limited warranty statement gives the purchaser specific legal rights. The purchaser may also have other rights which vary from state to state in the United States, from Province to Province in Canada and from Country to Country elsewhere in the world.

To the extent this Limited Warranty Statement is inconsistent with local law, this statement shall be deemed modified to be consistent with such local law. Under such local law, certain disclaimers and limitations of this statement may not apply to the purchaser. For example, some states in the United States, as well as some governments outside the United States (including Canadian Provinces), may: Preclude the disclaimers and limitations in this statement from limiting the statutory rights of a consumer (e.g. United Kingdom); Otherwise restrict the ability of a manufacturer to enforce such disclaimers or limitations; or Grant the purchaser additional warranty rights which the manufacturer cannot disclaim, or not allow limitations on the duration of implied warranties.





**Service Information:**

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