

INSTALLATION GUIDE

SINGLE ELECTRIC
TANK BLOCK KIT

PRODUCT CODE: BLOC 001 002



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1. INTRODUCTION

Thank you for purchasing the Heliodyne valve block assembly kit. This kit is a pre-assembled set of piping components consisting of fittings, stainless steel flex hoses and a Honeywell mixing valve. **The valve block kit has two main benefits:**

- 1) It will save you valuable time with the piping of your solar water heating system.
- 2) It ensures SRCC OG-300 compliance that is required in order to qualify the system for any rebates and incentives.

This kit is designed to fit the Bradford White series of electronic residential solar water heaters. A compatibility guide is presented in Section 2 of this document.

As with any Heliodyne product, it is highly recommended that you thoroughly read the installation guide completely before beginning any work. Video tutorials are available for Heliodyne equipment installation. Visit Heliodyne's YouTube channel (youtube.com/user/heliodynesolar) for a complete list of tutorials.

2. TANK COMPATIBILITY GUIDE

Block kit BLOC 001 002 is a mixing valve block assembly kit designed to comply with SRCC OG-300 standards for a "single tank with auxilliary heating" hot water system. It is designed for 100% compatibility with those specific Bradford White tanks listed below. This kit may or may not be compatible with other Bradford White or non Bradford White tanks. Heliodyne cannot guarantee compatability on any tanks not listed below.

| PRODUCT CODE | BLOC 001 002 |
|-----------------------------------|-----------------------------------|
| Tank configuration type | Single tank w/ electric |
| Bradford White tank compatibility | MS65R6SS MS80R6SS MS120R6SS |

3. PRE-INSTALLATION GUIDELINES

Before installing the valve block kit on your water heater, make sure the following steps are completed.

- Unplug the electric water heater power supply. Do not plug in the electric tank at any point during this installation procedure.
- Read through this installation guide and make sure the hot water storage tank is in its final location.
- Do not plug the HPAK into a power supply at any point during this valve block installation procedure.
- Ensure you have the HPAK manual with you as you may need to reference it during the installation process.

NOTE: To save time and ensure parts fit with no interference, assemble this kit in the order presented.

4. KIT COMPONENTS



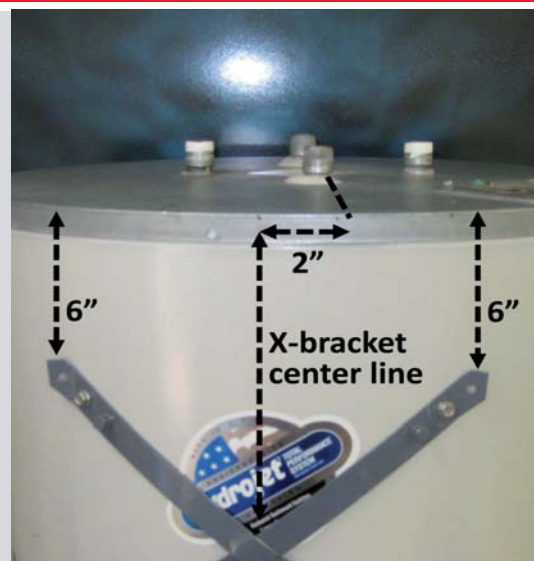
1. 3/4" potable hot water copper adapter.
2. 3/4" potable cold water copper adapter.
3. 15" stainless steel flex hoses.
4. 18" stainless steel flex hoses.
5. 24" stainless steel flex hose.
6. Honeywell mixing valve assembly.

5. INSTALLATION

5-1 Unplug the water heater and shut off the water supply before proceeding. Drain the tank. This normally takes around 15 minutes. While the tank is draining, you can install the H-Pak mounting bracket on the hot water storage tank.

Measure the top of the tank for optimal positioning of the H-Pak unit. Install the 'X' bracket so that the top of the 'X' is 6" down from the top of the tank and the middle of the 'X' is centered 2" to the left of the "Collector Return" top port as shown here.

NOTE: It is best to first mark only 1 location on the tank and attach the x-bracket with a single stainless steel self-tapping screw. Once this is done, it is easy to correctly position the other 3 mounting points based on the holes in the x-bracket.



5. INSTALLATION (CONTINUED)

5-2 Using Teflon thread tape, install the Honeywell mixing valve to the tank's top hot water outlet port located on the left side of the tank. Follow the Honeywell installation instructions included with the mixing valve assembly carefully.

Note: You should position the mixing valve so that the adjuster is facing the Helio-Pak bracket on the hot water tank



5-3 Using Teflon thread tape, install the Honeywell cold water adaptor to the tank's top cold inlet port located on the right side of the tank.

Make sure the cold water manifold is parallel to the mixing valve so that the connecting flex tube can be easily attached.



5-4 Install the supplied Honeywell 8" flextube connecting the Honeywell mixing valve to the Honeywell cold-water manifold.

NOTE: When attaching the 8" flex tube, do not use Teflon thread tape.

NOTE: Experience has shown that lubricating the inside of the flared portion of this flexible tube with a small amount of pipe dope improves the ability to achieve a leak free connection.

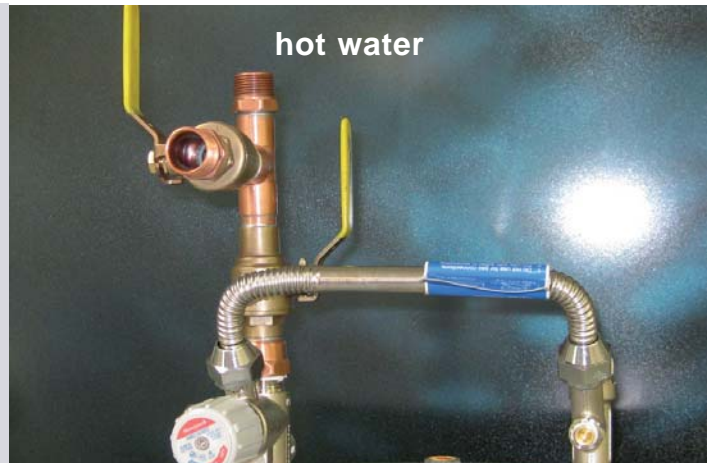


5. INSTALLATION (CONTINUED)

5-5 Using Teflon thread tape, install the hot water copper adaptor to the top of the mixing valve kit.

NOTE: The hot water adapter has 2 valves and is installed on the top of the tank on the left side.

NOTE: The combined height of the mixing valve and the bypass-isolation valve may require modification of the existing hot and cold water supply pipes. If this is the case, these modifications are more easily completed prior to positioning the new solar tank.



5-6 Using Teflon thread tape, install the cold water copper adaptors to the top of the mixing valve kit.



5-7 Install the 15" stainless steel flex tube cold-water cross-over pipe.

NOTE: Do not use Teflon thread tape and do not overtighten as this could damage the flex tube gaskets located inside the threaded connectors



5. INSTALLATION (CONTINUED)

5-8 Connect the 24" flexible stainless steel tube to the H-Pak hot outlet (right side) and the tank's collector return as indicated in the picture.

NOTE: Do not use Teflon tape and do not over tighten the connections.



5-8 Connect the 18" flexible stainless steel tube to the HPAK's cold inlet (left side) and the to tank's solar pump suction connection as indicated in the picture.

NOTE: Do not use Teflon tape and do not over tighten the connections.



6. COMPLETION

- Connect the residence cold and hot water supply to the open connections of the valve block kit.
- Connect the expansion tank to the HPAK using the 15" flextube that comes packaged with the H-Pak.
NOTE: Do not use Teflon tape or over tighten.
- Refer to the H-Pak manual for H-Pak and sensor connection information.
- Use the detailed commissioning instruction sheet for more specific glycol filling and commissioning instructions, or view the tutorial videos on YouTube.



