MCW55™ GPU WATER-BLOCK
Installation Guide

This product is intended for expert users only. Please consult with a qualified technician for installation. Improper installation may result in damage to your components. Swiftech assumes no liability whatsoever, expressed or implied, for the use of these products, nor their installation. The following instructions are subject to change without notice. Please visit our web site at www.swiftnets.com for updates.

Setup diagram for nVidia® GeForce 6800 and GeForce 7 series adapters

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MCW55	Waterblock	1
3	92196A106	4-40 x 1/4" S/S socket screw	2
6	1-2inch-collet	Quick-connect collet	2
7	NV70	VGA adapter	1
8	bracket-NV40	Water-block hold-down plate	1
9	MCW55-CROSS-bracket-G70	Back plate	1
11	SCREW INSULATOR10SC004025	Nylon tension limiter	4
12	70700S	spring	4
13	Stem plug	Rubber plug	1
14	M2-5x27mm	Metric screws	4

Installation sequence:

1. Temporarily fasten 2 diagonal screws **without** their springs and washers. This will conveniently align back-plate 9 with hold-down plate 8.
2. Then Install the other 2 screws with their springs and washers as shown in this schematic, and tighten them half way.
3. Remove the first two screws, and re-install them with their springs and washers and tighten half-way.
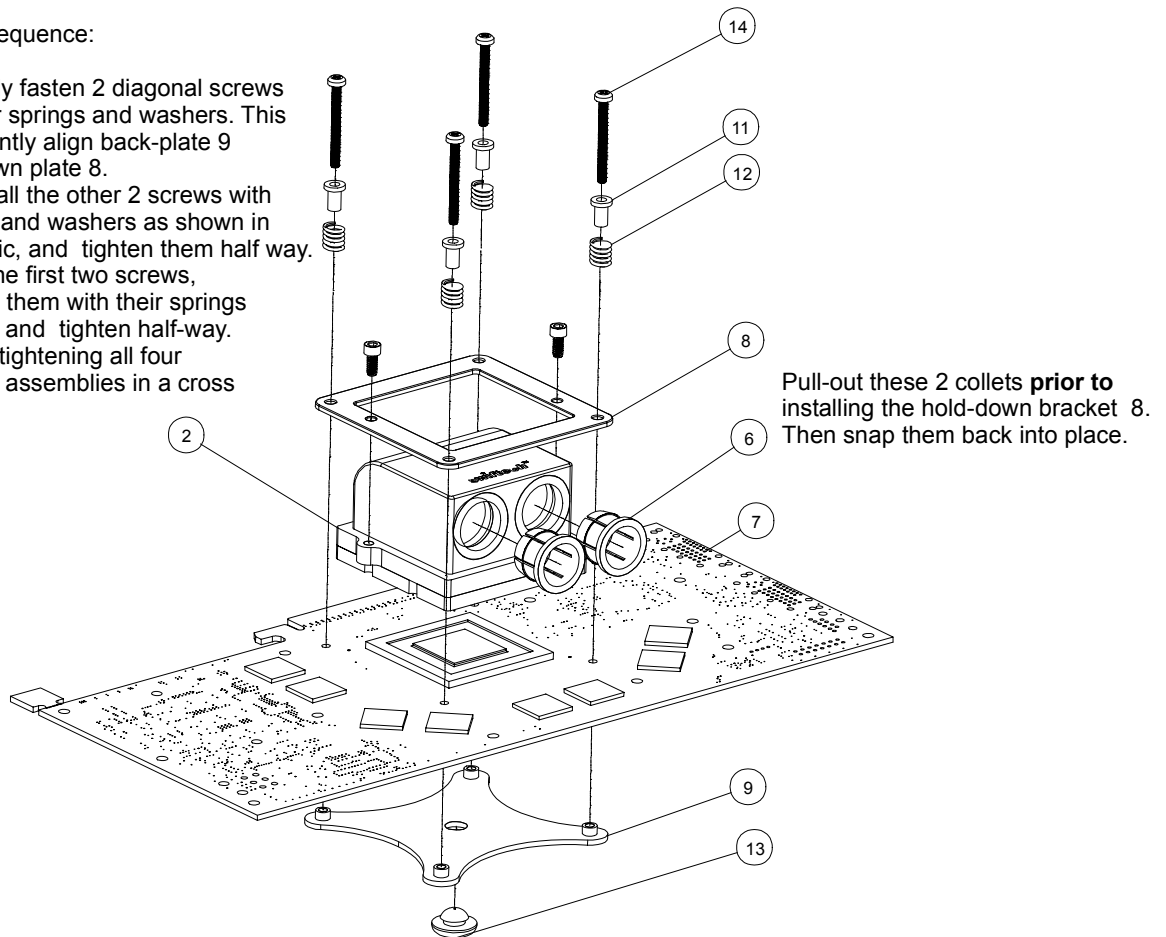4. Complete tightening all four screw-spring assemblies in a cross pattern.

Pull-out these 2 collets **prior to** installing the hold-down bracket 8. Then snap them back into place.

Figure 1

Setup diagram for ATI® Radeon series adapters

| ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	MCW55	WATERBLOCK	1
3	92196A106	4-40 x 1/4" S/S socket screw	2
7	X800-XT	ATI RADEON VGA	1
8	stiffening-bar	Stiffening bar	1
9	9309k13-stemplug	Stem plug	1
10	4-40 nylon retaining washer	4-40 nylon retaining washer	2
11	4-40x1-philips-91400A119	Philips screw	2
12	70700S	spring	2
13	13ME028	Black nylon spacer	2
18	SCREW INSULATOR10SC004025	Nylon tension limiter	2
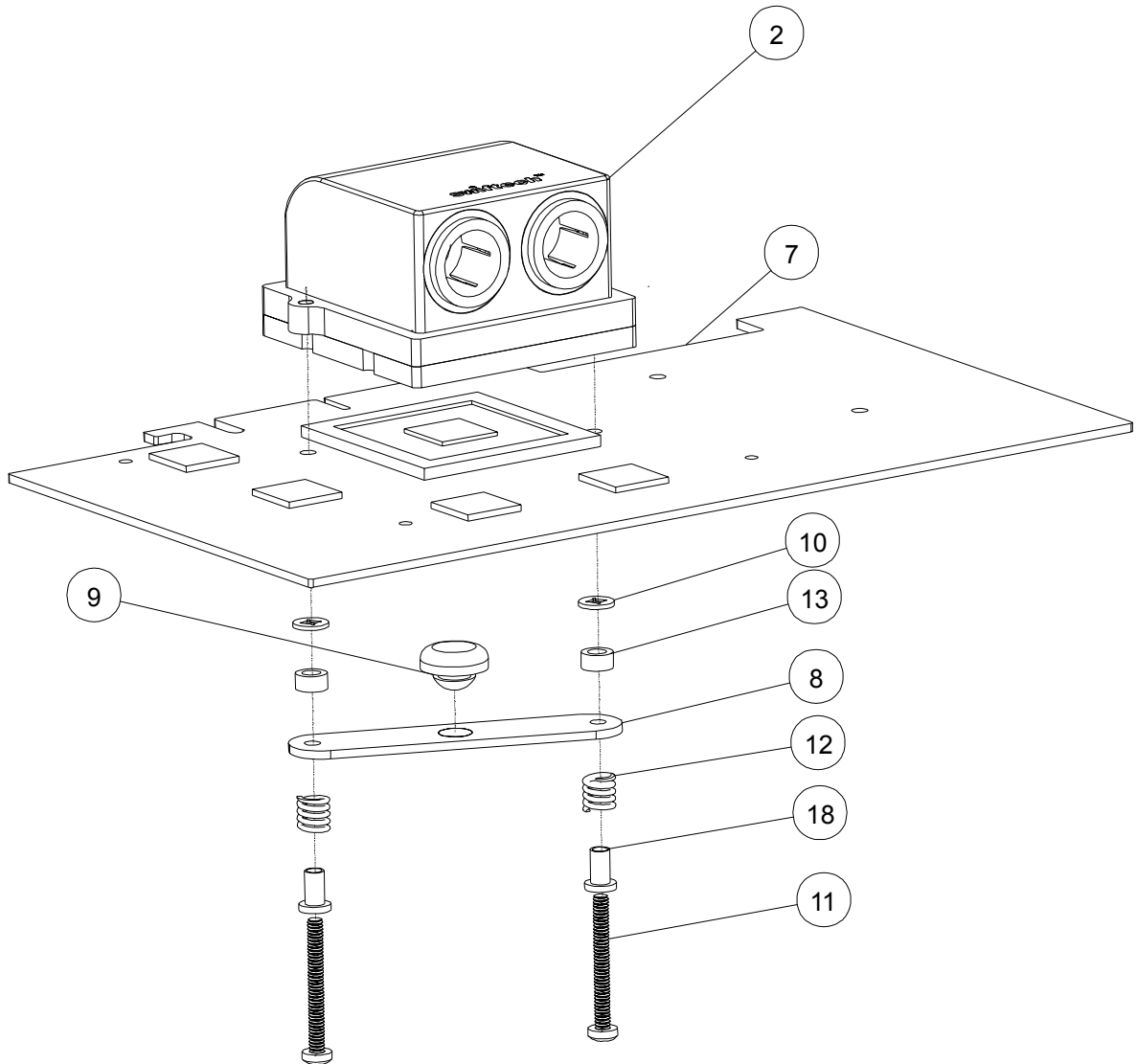
Figure 2

Common instructions to all VGA adapters

1. **Preparing your graphics card**
   a. Remove the existing heat sink
   b. Carefully clean the GPU (graphics processing unit)
   c. Lightly coat the GPU with the provided Arctic Céramique thermal compound.

2. **Before installing the block onto the graphics card** cut two pieces of tubing of sufficient length to connect to the rest of your circuit, and install them into the MCW55™ Inlet and outlet. It is **absolutely imperative** to use the provided tube inserts when using clear vinyl (soft) tubing (figure 3). Make sure that the tubes are fully inserted into the fitting. The tip of the plastic tube inserts should be flush with the inlet and outlet openings. Inserting the tubes requires a firm push, accompanied by a twisting motion. Note that a little bit of dishwashing liquid soap rubbed around the extremity of the tube greatly helps its insertion.

Figure 3

Figure 4

Once the tubes are inserted, gently pull them to separate the collets from the face of the waterblock, and insert the safety clips as shown in Figure 5

Figure 5

3. **Installing the MCW55™ GPU Cooler**

   The MCW55™ retention mechanism can either use the two diagonal holes featured in many graphics cards such as ATI® Radeon™ 9000 to 9700 families, or the four mounting holes found in NVidia® GeForce™ families of products.

Install your block onto the graphics card, as shown in Figure 1 or Figure 2 (p.1) according to your application. A "finger –tight" lock is always sufficient when tightening the spring retention assemblies. Over-tightening will squish the nylon screw spacer body, and result in uneven pressure over the GPU.

4. **Re-install the graphics card in the AGP or PCI slot**, connect the tubes to the rest of the circuit, and proceed with filling and bleeding the cooling circuit.

5. **Type of Coolant:** For best performance, use 95% distilled water, and 5% Swiftech brand "HydrX" corrosion inhibitor (available here: http://www.swiftnets.com/store/category.asp?CatID=2, under the "accessories" section).

6. **Final inspection:** Once the installation is completed, **it is always a good idea to test the circuit for leaks, prior to powering up the computer**. Troubleshooting help is available on our web site at www.swiftnets.com, or by calling customer support at 562-595-8009.

Removal of the tubing:

1. Remove the red safety clips
2. In quick-connect fittings, the collets contain a ring of shark-like teeth that prevent the tubing from coming out of the fitting. In order to release the ring of teeth and allow the tube to come out, the collet needs to be pushed squarely flat against the face of the water-block.

   To make sure that the collet remains completely flat against the face of the water-block while the tube is being pulled out, use a simple ½" flat wrench. Then holding the tube with 3 fingers as shown below, push with your thumb against the face of the wrench, this will pull the tube out of the fitting. This simple leverage effect works great, and avoids many frustrations!
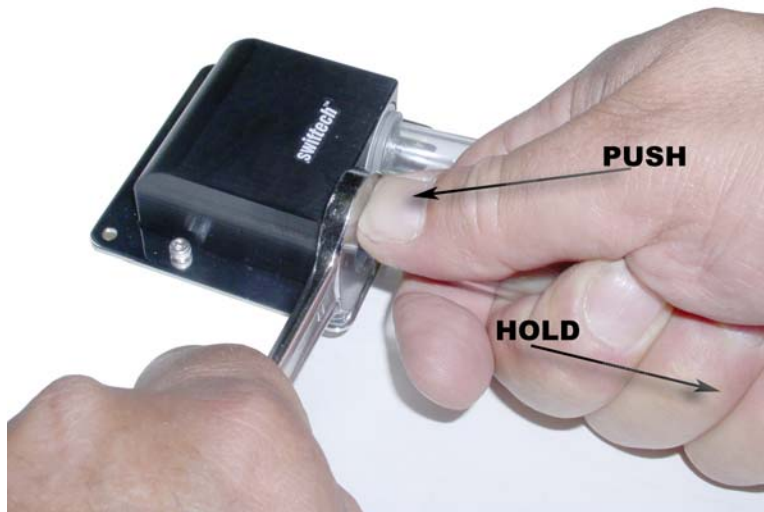
IMPORTANT MAINTENANCE PRECAUTIONS:

If you need to disassemble the waterblock for cleaning purposes, it is extremely important to exert the utmost care in re-fastening the copper base-plate to the housing. Since an o-ring assures the seal between housing and base-plate, little pressure is needed to guarantee a good seal between these two components. Fasten the four screws finger-tight only, or you take the risk of stripping the thread of the plastic housing. Note that no warranty claims will be accepted for stripped threads in the housing.