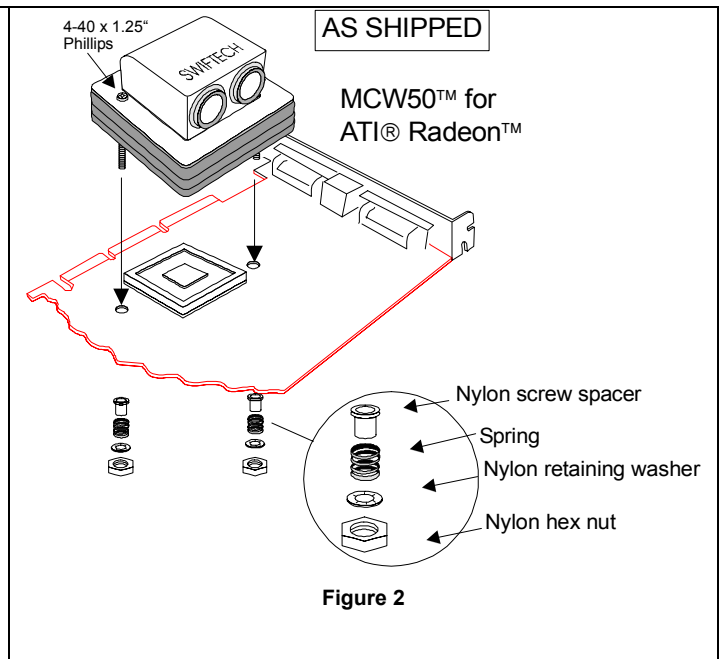
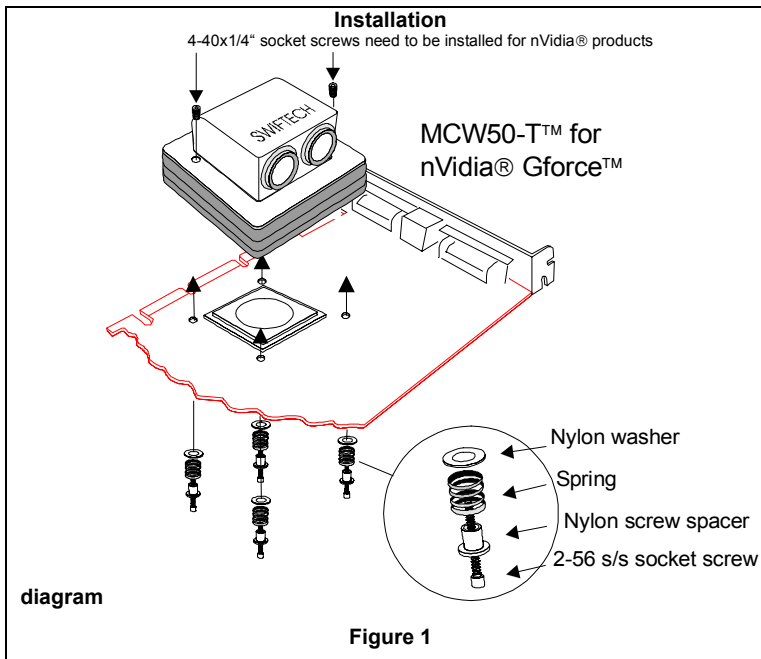


MCW50-T™ & TFX™

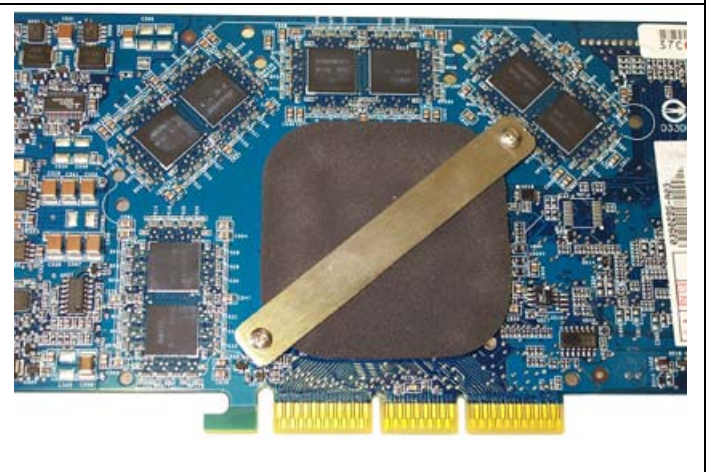
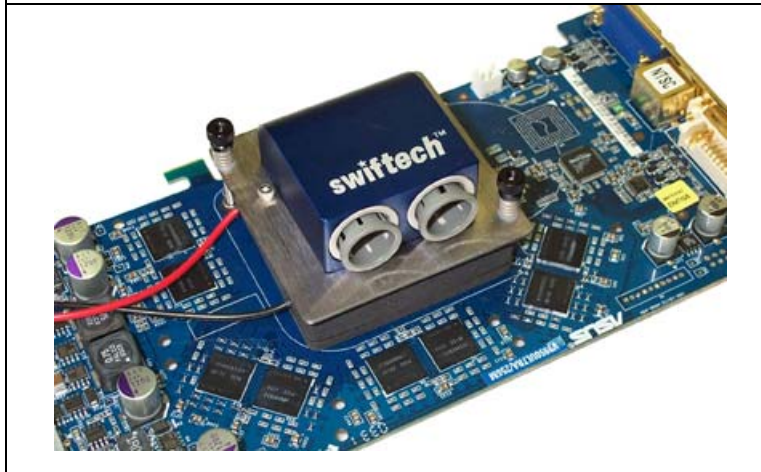
Installation guide

Parts	QTY	PARTS	QTY
MCW50-T™ thermoelectric assembly	1	4-40 x 1 /14 Philips (pre-installed)	2
Nvidia® hardware		Spring	2
2-56 S/S socket screw	4	Nylon screw spacer	2
Nylon screw spacer	4	Nylon retaining washer	2
Spring	4	Nylon nut	2
Nylon washer	4	Miscellaneous	
Hex L-key 5/64"	1	Tube insert	4
Hex L-key 3/32"	1	Back-of-board gasket	1
ATI® Hardware		Thermal compound	1

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.



MCW50-TFX



The new MCW50-TFX installs pretty like the Radeon version, except that the mounting posts are reversed, and springs are bolted from the top of the card, instead of from the backside of the card. See separate installation schematic for details, page 4.

IMPORTANT PRE-INSTALLATION NOTE:

The MCW50-T™ ships pre-assembled for installation through the two diagonal holes located on either sides of the graphics processor as shown in figure 2. This provides compatibility with all ATI® Radeon™ 9000 to 9700 families of products, and some nvidia® products.

For use with nVidia® products please read the following:

- ❑ If the spacing between the two diagonal mounting holes featured on your graphics card match the spacing between the two mounting screws of the MCW50-T™, there is nothing to do. Simply follow ATI® installation.
- ❑ If the spacing is different, then you must use the 4 retaining spring assemblies as shown in figure 1. **You will need first to remove the two 4-40 x 1 ¼" Phillips screws holding the stainless steel frame to the MCW50-T™ body, and replace them with the two 4-40 x ¼" socket screws provided with your nVidia® hardware kit.**

5. Preparing your graphics card

- ❑ Remove the existing heat sink
- ❑ **Carefully clean the GPU** (graphics processing unit) with alcohol, or preferably xylene.
- ❑ **Lightly coat the GPU with the provided thermal compound.** Only a paper-thin coat is necessary. It should be applied using preferably a razor blade, or a credit card, held between thumb and index at a 45-degree angle.
- ❑ **Lightly coat the components surrounding the core with dielectric grease** as shown in either figure 3 or 4 depending on your application. Be careful not to spill or spread dielectric grease over the thermal compound.
- ❑ You can also use **silicone conformal coating** instead of dielectric grease. The product comes in convenient sprays, and cures in less than an hour. Before you apply the spray, make absolutely sure that you protect the GPU core, and the gold AGP contacts, using masking tape. Then, simply spray around the area surrounding the GPU, and repeat the operation on the backside of the card, in the area immediately behind the GPU. Most types of masking tape are permeable; therefore, it is a good idea to remove the masking tape immediately after you applied the conformal coating, and wipe off the AGP gold contacts and the GPU with Xylene. Where to buy conformal coating? Google search keyword: conformal coating. In house, we use the product made by M.G. chemicals.

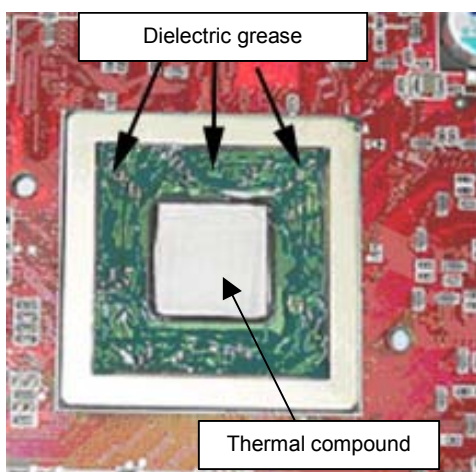


Figure 3 ATI® Radeon™

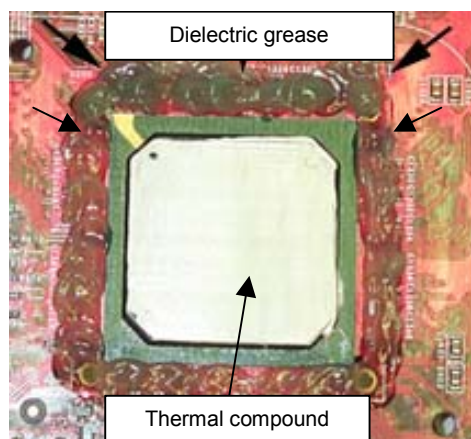


Figure 4 nVidia® GeForce™

6. Installing the MCW50-T™

- ❑ **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 MCW50-T™ Inlet and outlet. It is **absolutely imperative** to use the provided tube inserts with clear vinyl (soft) tubing, as shown below:



Figure 5



Figure 6

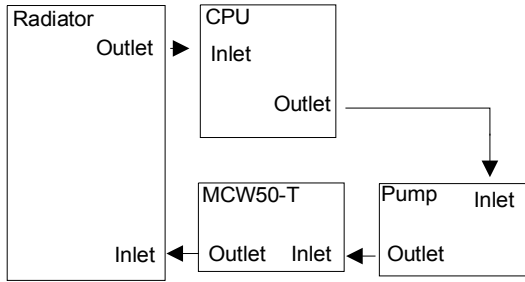
Make sure that the tubes are fully inserted into the fitting. The tip of the plastic tube inserts should be flush with the inlet and outlet openings, as shown in figure 6 above. Inserting the tubes requires a firm push, accompanied by a twisting motion, and a little bit of grease around the tubing really helps ☺

- ❑ **Install your block onto the graphics card**, as shown in Figure 1 or Figure 2 (p.1) according to on your application. A "finger-tight" lock is sufficient when tightening the spring retention assemblies. Over-tightening will squish the nylon screw spacer body, and result in uneven pressure over the GPU.
- ❑ **Stick the provided back-of-board gasket** directly behind the graphics processor. It is necessary to slightly trim the corners of the gasket when using nVidia® 4-spring retention assembly.

- ❑ **Connect the thermo-electric element to your power supply.** The module pulls approximately 7.5A at 12 volts. Ideally, your power supply should be rated at 20A on the +12volts line. This provides ample margin to connect all the devices used in most standard configurations such as: single CPU, CDRrom (1 or 2), Floppy, hard drive (1 or 2) and PCI devices.

3. Connecting the MCW50-T™ to the rest of the cooling circuit

- ❑ Recommended integration in the liquid cooling circuit:



- ❑ **Re-install the graphics card in the AGP slot,** and proceed with filling and bleeding the cooling circuit with your usual coolant.
- ❑ **Final note concerning removal of the tubing:** Push in collet squarely against face of fitting. With the collet held in this position, the tube can be safely pulled out. Do not attempt to pull the tube out without pushing squarely against the collet. This may result in damaging the fitting. Further details for using quick-connect fittings are also available here: http://www.johnquest.com/install_6.shtm#disconnect

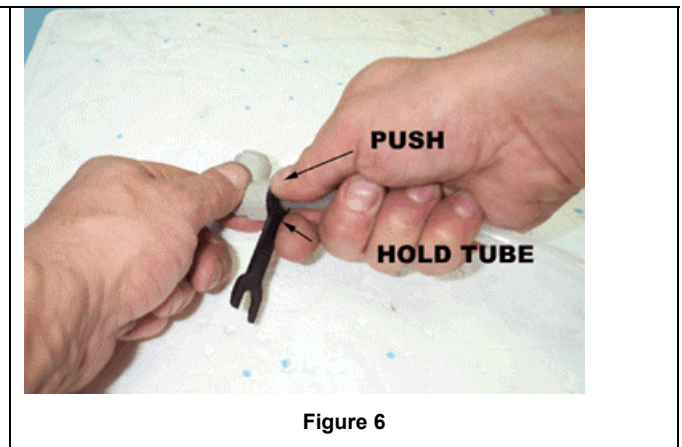
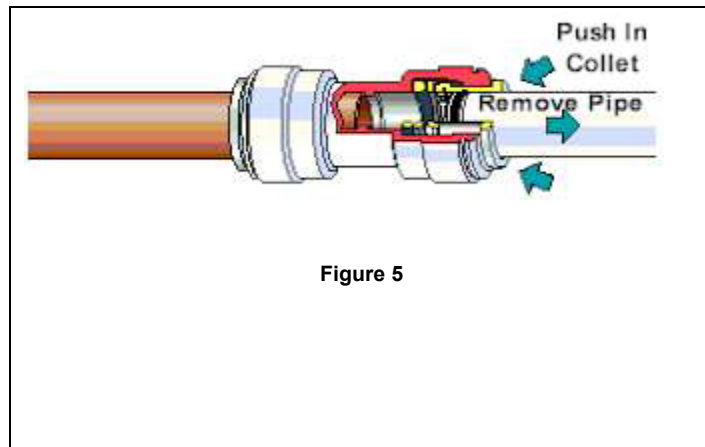
4. Type of Coolant:

- 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).
- In ALL cases, you MUST use Distilled water AND a corrosion inhibitor with the MCW5002 water-block. Regular automotive anti-freeze is acceptable. Automotive manufacturers recommend that not less than 25% is used.
- NEVER use tap water, even for a short-term test.
- Not following paragraphs b and c above constitutes misuse (*) of the product, and will void your warranty.

5. 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.

Note concerning removal of the tubing in quick-connect fittings: Push in the collet squarely against the face of the fitting using swiftech's tube removal tool, or a wrench of approximately the same opening diameter as the tube (1/2" +). The collet is the inner plastic ring protruding from the face of fitting. It fits loosely into the fitting, and can be moved up and down by approximately 1/8". With the collet firmly held against the face of the fitting, the tube can be safely pulled out. Do not attempt to pull the tube out without pushing squarely against the collet. This may result in damaging the fitting.



IMPORTANT DISCLOSURES

While all efforts have been made to provide the most comprehensive tutorial possible, Swiftech assumes no liability expressed or implied for any damage(s) occurring to your components as a result of using Swiftech cooling products, either due to mistake or omission on our part in the above instructions, or due to failure or defect in the Swiftech cooling products.

WARRANTY

Our products are guaranteed for 12 months from the date of delivery to the final user against defects in materials or workmanship. During this period, they will be repaired or have parts replaced provided that: (I) the product is returned to the agent from which it was purchased; (II) the product has been purchased by the end user and not used for hire purposes; (III) the product has not been **misused** (*), handled carelessly, or other than in accordance with any instructions provided with respect to its use. This guarantee does not confer rights other than those expressly set out above and does not cover any claims for consequential loss or damage. This guarantee is offered as an extra benefit and does not affect your statutory rights as a consumer.

MCW50-TFX installation schematic

