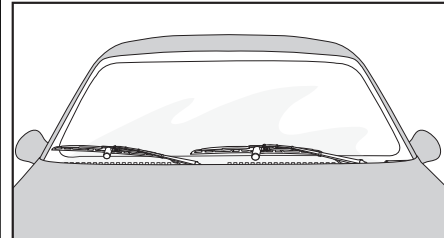


POSITIONING & ORIENTATION



**NOTE:** Prior to installation, place a protective cloth over the hood and windshield of your vehicle.

**NOTE:** The **SHAKER** can only make contact with the wiper arm and not the wiper blade!!! When installed, the under side of the **SHAKER** should not contact the windshield - if it does, you may need to install a different wiper arm and / or wiper blade (as is the case with "Pin & Side" wiper arms and some low profile blades). Also, with some "hook" wiper arm/blade configurations, the hook portion mounts flush to the top of the wiper blade. As such, you'll need a wiper blade adapter to raise the hook arm so that at least three surfaces (e.g., top, & 2 sides) are available for **SHAKER** to clamp onto (as seen in Figure 4). **Note:** Some Winter Blade adapters may partially hide the 2 sides.

**NOTE:** If required, wiper blade spoilers must be removed prior to **SHAKER** installation to allow for proper clamp positioning.

**(1) Positioning and Orientation** - the **SHAKER** must clamp onto metal only, i.e., no rubber or tape on the wiper arm. Line up the center of the **SHAKER** with the wiper blade's center. Ensure the clamp is put on a straight **FLAT** section of the wiper arm, **perpendicular** to the wiper blade & as close as possible to where the wiper blade is hooked onto the wiper arm - this section of wiper arm must be free of dirt or grease. This straight section should be a **minimum 3/8"** in length (See Fig. 1). Clearance from the vehicle hood edge to the wiper arm / blade joint is **2" minimum**, while clearance from the windshield to the top of the wiper arm is **1" approx.** (See Fig. 2). The clamp's forward edge and the adjustable wedge piece must line up with an outside edge of the wiper arm (this is where the clamp will get its grip). Proceed to **angle up** the **SHAKER** onto the wiper arm so it is **perpendicular** to wiper arm (See Fig. 3). Hold the **SHAKER** in this position while fastening as described in step 2 below.

**NOTE:** You shouldn't have to fully unscrew the wedge piece, but if you do, it **MUST** be reinstalled in correct orientation (as in, Fig. 3 or as shown in Parts Diagram Fig. 7 on Page 3).

**(2) Fastening the clamp to wiper arm.** Using your fingers, first, hand tighten the screw (clockwise) so the **SHAKER** does not move from side to side on the wiper arm. Then using the supplied Allen key, push the key down into the screw socket to prevent it from jumping out and stripping the socket during tightening (see Fig. 4). If properly hand tightened, you should only need to turn the Allen key 1/4 to 1/2 of a turn. **NOTE:** Ensure small nut (see Fig. 7, page 3) fits into its keyed position on the bottom of the wedge before tightening. **DON'T OVER TIGHTEN THIS.**

**TEST** - Grasp the main body of the **SHAKER** and gently attempt to twist it side ways on the wiper arm. It should not move relative to the wiper arm.

**NOTE:** If the **SHAKER** is loose on the wiper arm - it will not function well.

**NOTE:** "Pin & Side" and some newer "Low Profile" wiper arms are too low to the windshield to install a **SHAKER**, without making contact against the windshield while operating - Inquire to WST for possible lift adapters to raise the height of the **SHAKER** away from the windshield. This is a rare occurrence on most vehicles with hook wiper arms.

**(3) Feeding The Electrical Wire Harness** - Feed the wire ("1" in Fig. 9, page 3) **under** the wiper arm, leaving 1" of slack at the wiper arm hinge (See Fig. 5). This will still allow the wiper arm to be lifted away from the windshield should you ever need to replace a wiper blade. With the **tie wraps** **always positioned downwards** at their joint area (to avoid the tie wrap connectors from sitting up high on the wiper arm) and starting as close to where the **SHAKER** is mounted, securely attach a tie wrap around the wiper arm so that the wire harness is held tightly in place. Continue to proceed to attach the 2 remaining tie wraps (center and wiper arm hinge areas) to tightly hold the wire harness in place along the **underside** of the wiper arm (space permitting). Trim off any excess plastic tie wrap.

**NOTE:** The wire harness should only contact the wiper arm, **NOT** the wiper blade itself - if it does, **reduced vibration results!**

**REPEAT THE ABOVE STEPS TO INSTALL THE PASSENGER SIDE SHAKER.**

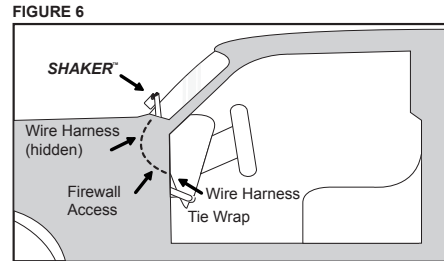
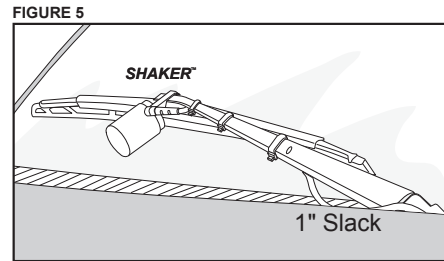
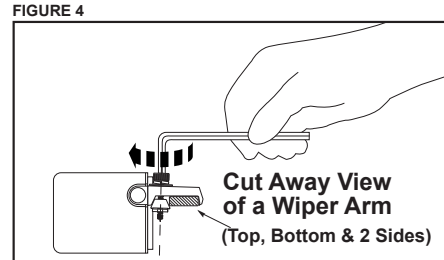
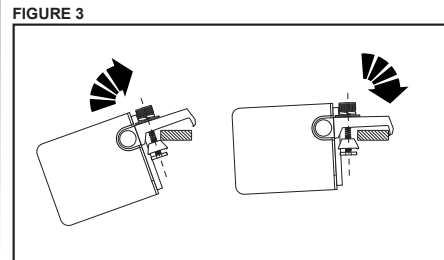
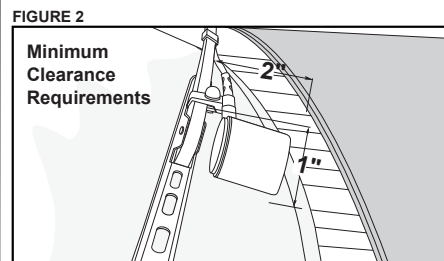
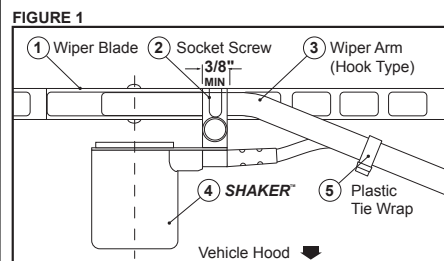
**(4) Electrical Wire Harness** - With the vehicle hood open, feed the excess wire harness of each **SHAKER**, each with their locking connector, into the open engine compartment. Now, referencing Fig. 9 on page 3, connect the ends of the **SHAKER** cables ("1" & "2") to the mating ends ("3" & "4") of the "Y" cable. Now proceed to feed the "Y" cable open conductor ends "A" for Hard Wiring through the firewall **OR** connect the "Y" cable end "A" to "B" of the Extender cable, which then the "C" end of the Extender Cable is passed through the firewall. When passing a cable through the firewall, use a location that has a rubber seal or boot, i.e., air conditioner drain tube, hood latch cable, or wire harness feed tubes if available. If you undertake making your own hole, it should be done with great care. The wire harness needs to be protected with an anti-chafe grommet. Once an access hole has been located/created, feed the wire harness through the firewall hole and into the drivers compartment (See Fig. 6 on page 2). Use appropriate sealants (e.g., silicone etc.) around the wire harness / access hole if necessary to keep moisture out.

**(5) SHAKER Power Connection - 12 Volt Adapter Version (if purchased):**

i) Route "C" end of Extender Cable to an appropriate location inside the vehicle compartment under the dash, so that it comes out close to a 12 volt accessory outlet (for cosmetic appearances, only the "C" end should be visible). Now connect the "C" end, to the Quick Connect/Disconnect "A" end of the 12 Volt Adapter (Fig. 8, page 3). Finish by using a tie wrap to mount any excess wire harness securely under the dash area, out of view. Ensure all wiring is non-obtrusive (i.e. not obstructing floor pedals, gear shifters, steering column etc.). **Insert power adapter** fully into the vehicle's 12-volt accessory socket so that it makes firm contact. If the vehicle ignition is turned on, the momentary switch in the 12-volt adapter will illuminate indicating power is available from the 12-volt socket. **Press** momentary switch to operate **SHAKERS**.

ii) **SHAKER Power Connection - Hard Wiring Version (if purchased):** Using a **proper crimping tool**, reference Fig.10 page 3 to put Female connectors on "2" BLACK (along with one end of ground wire), then on "3" RED and then Ground Lug "4" on other end of ground wire. Flush mount the momentary switch ("6") in a convenient location by drilling a 3/4" - 13/16" hole in the desired area inside the vehicle (e.g., a blank console cap). The **red fuse line "7"** of Fig. 10 **must be connected to a battery source** through the fuse adapter supplied. Power is obtained from the power distribution fuse center or directly from the battery positive lead or a terminal location. **NEVER** use Engine Control (ECM), Safety Devices (ABS/SRS etc.) or Engine Cooling Fan for power. Ground Lug "4" requires a good ground (i.e., avoid "painted" or "greasy" connections). **NOTE:** Never drill through a floor pan. Now connect female connectors "2" & "3" to switch lugs "3" & "1" respectively. Finishing by connecting female connector "5" of Fuse Line, to switch lug "2". The switch will now function as described in 5 i) above.

**NOTE:** You might find it more convenient to fold any excess wire harness into a small bundle to avoid any wire tangling and then mount it securely with a tie wrap, under the dash area.



# SHAKER WIPER DE-ICER PLUS

## SPECIFICATIONS

Size: 6.0 cm x 5.3 cm X 3.4 cm (including clamp)  
Power Requirements: ~1 amp @ 13.7V (only when activated)

**Parts List :** Each Dual **SHAKER** package includes the following:

- (2) **SHAKER** units with built-in "wedge" shaped wiper arm clamp, including 8-32 nut, 5/8" screw with lock washer and flat washer & plastic screw cap
- (1) Allen Key (**KEEP THIS IN YOUR VEHICLE**)
- (1) "Y" Cable
- (1) EITHER a Hard Wire Miscellaneous Connector Kit or a 12-volt power adapter (with built-in quick disconnect)
- (8) Plastic Tie Wrap straps (**pliers required to pull these tight & cut off any excess**)
- (1) Warranty Card (must be completed and returned to Wiper Shaker Technology Inc.)

FIGURE 7 - PARTS DIAGRAM

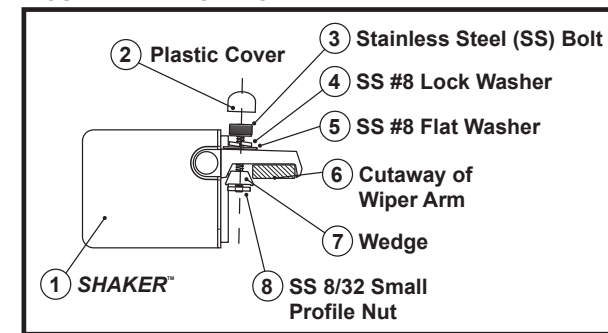


FIGURE 8 - DO IT YOURSELF INSTALLATION

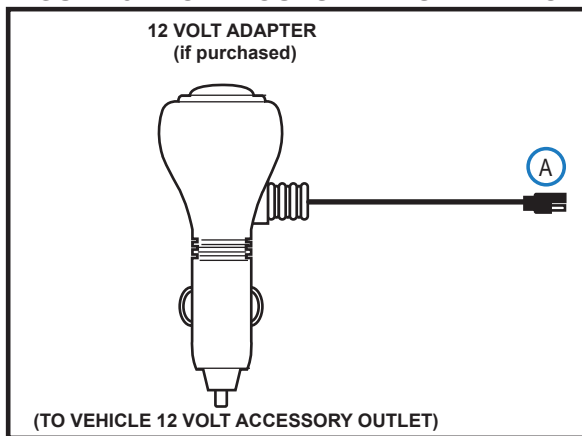


FIGURE 9 - INSTALLATION OF TWO SHAKERS™

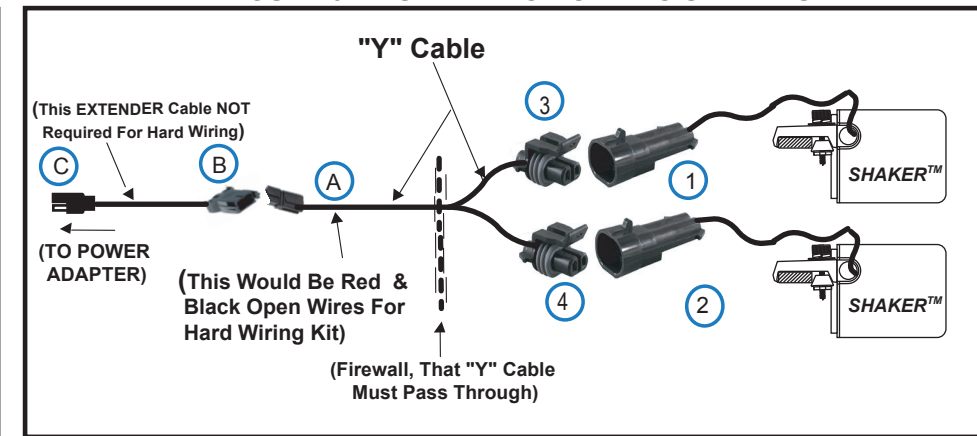
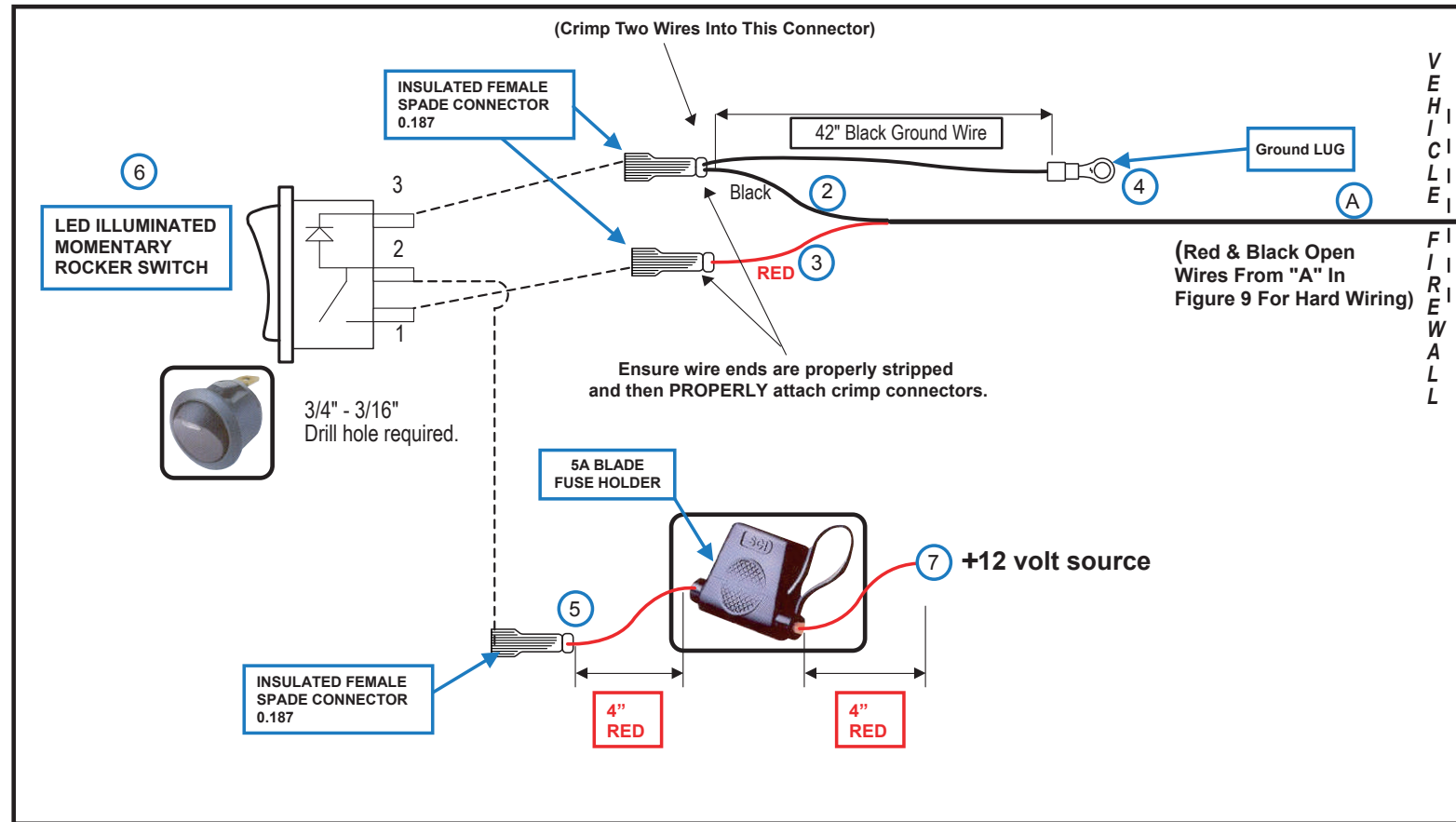


FIGURE 10 - PROFESSIONAL HARD WIRE INSTALLATION (if purchased)



# DRIVE SAFELY AND USE COMMON SENSE!