

W01F & W02F MES Central Door Locking Kit Installation Instructions

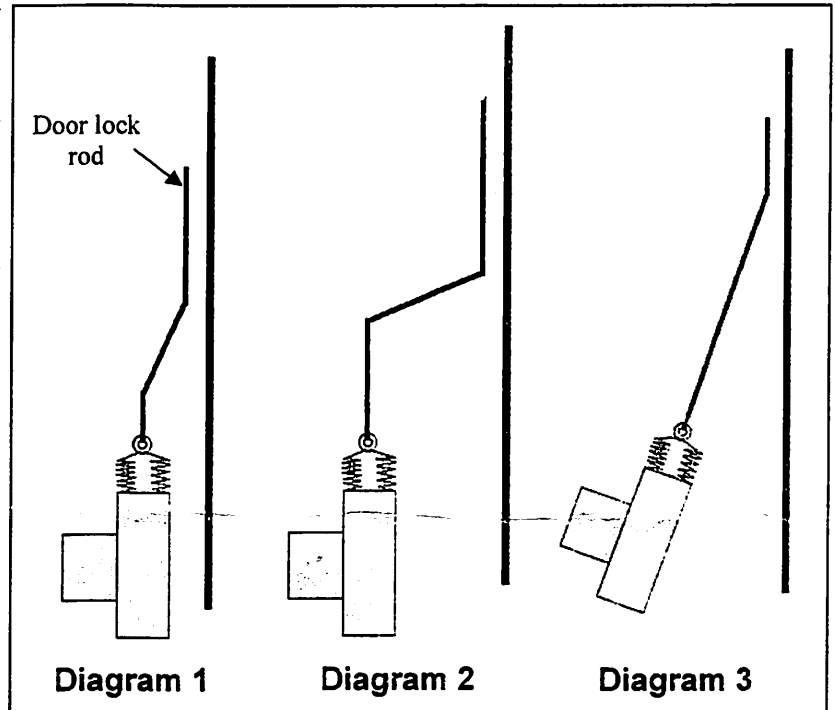
Mounting Door Lock Actuators

1. Check the operation of the door locks. The original locks will operate from a knob on the face of the door panel or a button on the top corner of the door. Verify that the locks work properly from the knobs/buttons and from the key on the outside of the door.
2. Remove the door trim and door panels from the doors. Carefully remove the plastic or paper liner and place aside. Do not discard this liner. It serves as a moisture barrier as well as helping reduce noise in the vehicle.

3. Move lock knob and follow the attached rod to the door latch. If your vehicle has a cable connecting the knob to the latch, STOP! This kit is intended to be installed in vehicles with rod type linkage. Cable linkage requires that the actuator rods be connected directly to the latch or it will require the use of an alternate kit designed for cable actuated door locks.

4. The door lock actuators must be mounted in a location where they are parallel to the lock rod in the door. The actuators must be mounted in a position where they do not interfere with any moving parts (i.e. Linkage rods, latches, window glass and gears, etc.). The actuator must also be mounted in a position where it will not interfere with the door panels.

5. Actuator should be mounted within 2 to 3 inches of the rod. Diagram 1 shows the preferred mounting. Diagram 2 is also acceptable. Door lock actuators should not be mounted as shown in Diagram 3.

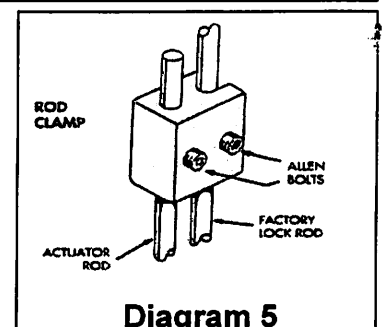
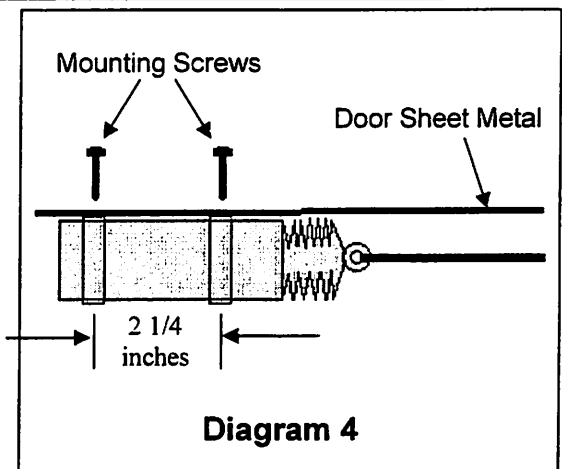


This mounting will not provide acceptable operation. The actuator rod in the kit should be bent to proper shape and cut to length.

6. Actuators should be mounted on a fairly flat surface to avoid distorting the actuator body. See Diagram 4. If the actuator must be mounted on an uneven surface it will be necessary to use shims (small washers) between the door lock actuator and sheet metal.

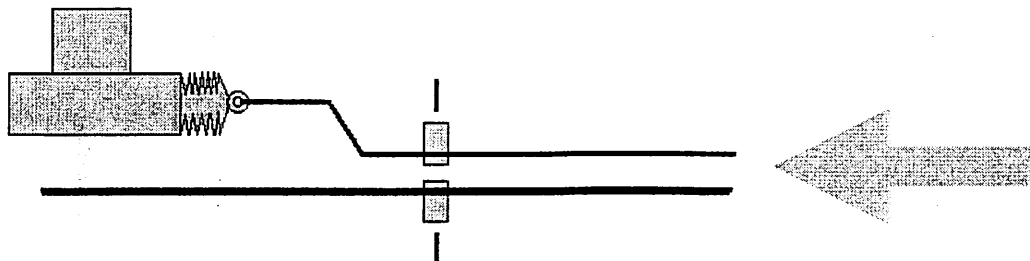
7. If necessary, use the mounting strap provided in the kit to aid in mounting actuators. Typically this strap is placed across an opening in the sheet metal and the actuator is screwed onto it. The actuator is typically held onto the back side of the sheet metal between the glass and the door. The screws should go through 3/16 inch holes in the sheet metal and thread into the actuators. If you are planning to mount the actuators to the front side of the sheet metal, you must obtain smaller diameter screws that will slide through the actuator mounting holes and screw into the sheet metal.

8. Place the rod clamp onto the actuator rod and slide the opening in the clamp over the factory door lock rod. Do not tighten clamps at this time. Follow the alignment procedure on the following page.

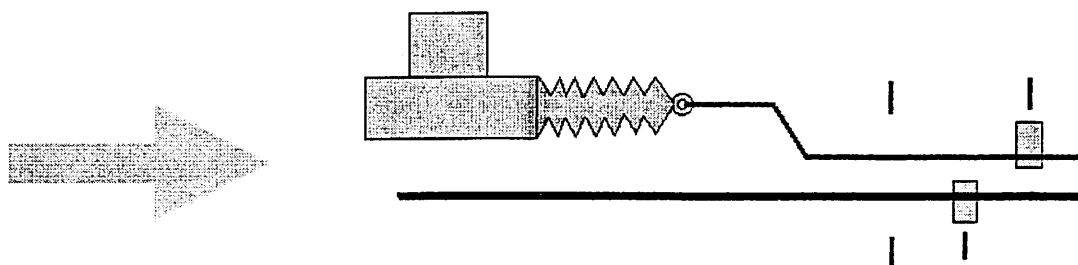


ACTUATOR ALIGNMENT

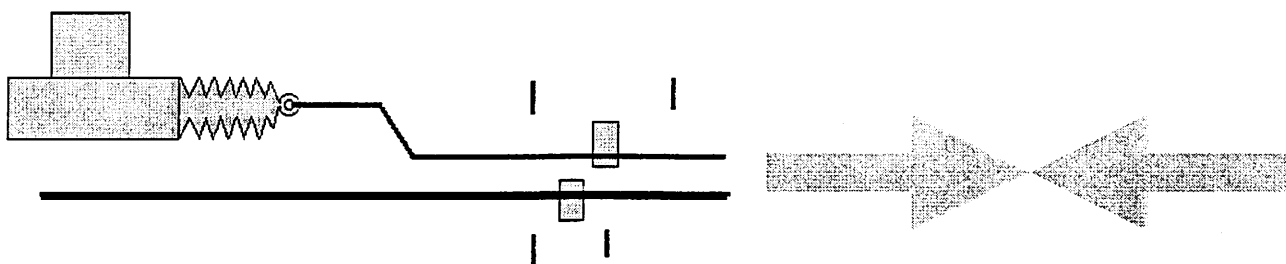
The alignment of the front door actuators (5 wire) on the MES lock kit is very important to proper operation. If the actuators are not properly aligned and centered it will cause the system to rapidly lock and unlock the doors or not allow you to lock or unlock the doors.



Move both rods all the way to the left (or down) and place a small piece of tape on both rods. Draw a line on the door next to each piece of tape. This marks start position



Next extend both rods to the right and again mark the door next to each piece of tape. This will mark the end position



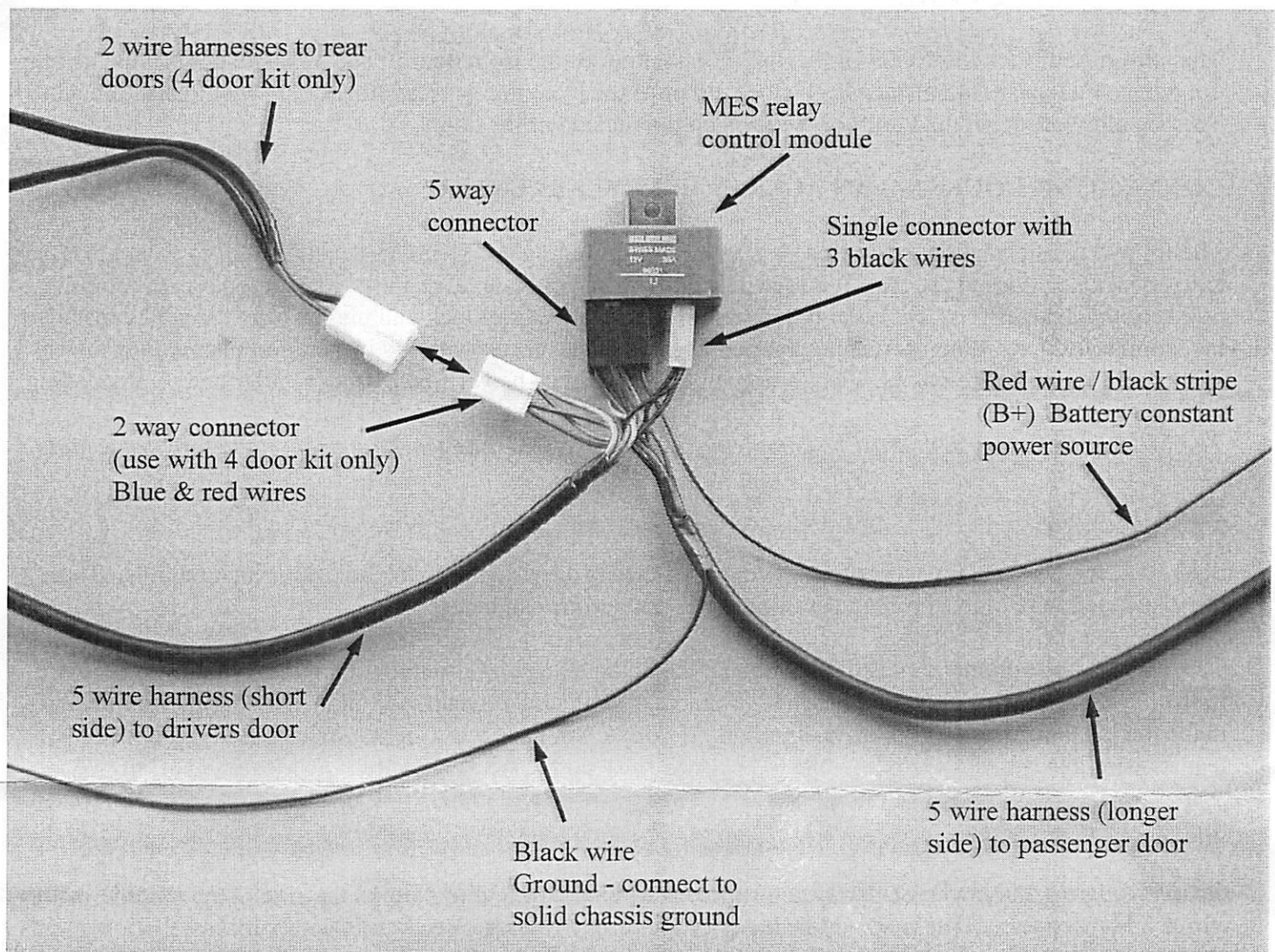
First move the rod connected to the actuator back to the left until the piece of tape is centered between the 2 lines on the door.

Next move the door lock linkage rod to the left until it is centered between the 2 lines drawn on the door. Both rods are now at the centered at the halfway point of their travel. Using the rod clamp included in the kit, clamp the rods together in this position.

Note that this alignment is only critical for the 5 wire actuators installed in the front doors.

Finish wiring as per instructions on following pages.

WIRING



1. The white 2 way connector with blue and red wires is used in 4 door applications only. In 2 door applications, this connector must not be cut off or connected to anything.
2. Mount the blue module under the left side of the dash, clear of the any moving levers, pedals etc. Run the black 5 wire harnesses across the underside of the dash and into the left and right doors. Tie up wiring so it stays clear of any moving parts. Connect all 5 wires in the harnesses, color to color to the wires on the door lock actuators using supplied connectors. On 4 door kits, run the 2 wire cables into each rear door and connect wires color to color to the actuators using the supplied connectors.
3. The power wire should be connected to a power source that has power regardless of the ignition switch position. This can be at the fusebox, battery or any other suitable location. Cut the loop on the supplied fuseholder and connect it between the red/black power wire and your located power source. Leave the fuse out until you are ready to power up the system.
4. The ground wire should be connected to a solid chassis or body ground. Do not ground the wire to the dashboard. The best place is a screw or bolt in the kick panel. A good ground is critical for proper operation! A poor ground may cause the relay to buzz when the power is applied.
5. When all actuators are mounted and aligned and all wiring is completed, plug the fuse into the fuse holder and test the lock system. *The system will not operate correctly unless both front actuators are installed and properly aligned.*

OPERATING THE DOOR LOCKS

This power door lock kit is central locking. Lock either of the front doors. The opposite door (plus the rear doors in a 4 door) should also lock. Unlock either of the front doors. The other doors should also unlock. This should work from the knobs or the keys on the outside of the doors

CONNECTING LOCKS TO AN ALARM OR KEYLESS ENTRY

The following information is to be used as an aid in combining the MES W01F and W02F to most keyless entry systems or alarm systems. We used a DEI alarm with low level negative lock outputs as the starting point for the instructions, but other brands that have negative door lock and unlock outputs will be installed in a similar fashion. When connecting to non DEI products, check with it's installation instructions to verify output type and wire colors. This is only a guide and must be verified by the installer before proceeding.

The MES door lock system must be completely installed, tested and working properly before proceeding.

Step 1

Strip back the heavy black jacket from a couple of inches of wiring near the blue door lock module. There are 2 jacketed wire looms coming out of module. Either one can be used.

Using a standard automotive test light, connect the clamp to a solid ground point and probe the brown wire in the loom. The doors should either lock or unlock. Write down results for later. The purple wire should make the locks work in the opposite direction. If you do not have a test light, you can use a grounded test lead or wire instead.

Step 2

On many alarms and keyless entry systems there is a small 2 or 3 wire plug on the side of the module with a blue and green wire. These should be the door lock trigger wires. Verify this with your installation alarm or keyless entry instruction manual. If your alarm or keyless entry has relay type outputs for the door locks, it must be configured for negative door lock and unlock output.

Connect the green wire to the wire you marked as lock in step 1. *This will be either the purple or brown wire.* Connect the blue wire to the wire you marked as unlock in step 1.

If all other wiring for your alarm or keyless entry is complete, the door locks should now operate with the remote control.

TROUBLESHOOTING

Problem: 1. Door Locks ratchet, rapidly locking and unlocking. 2. After locking doors they spring back to unlocked. 3. After unlocking doors, they spring back to locked.

Solution: The actuators are not properly aligned. Check and adjust the actuator centering adjustments.

Problem: The blue module makes a buzzing noise when I connect the power

Solution: Check your ground. The unit must be grounded to a clean unpainted body ground. The dashboard does NOT make a good ground point.

AVITAL 2101/712T Installation Instructions

Use the following connections to install and connect your 2101/712T to your MES central door locking kit.

For standard keyless entry operation the following wires must be connected.

Terminal number & wire color

H1/1 Red	Connect to Constant power source (always has 12 volts)
H1/11 Black	Ground. Connect to good ground.
H1/15 Yellow	Connect to Ignition power source (12 volts with key on)

The following door lock wires are a heavier gauge than the rest of the wires.

H1/5 Green/Black	LOCK wire. Connect to MES lock system brown or purple wire as described below.
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H1/8 Blue/Black	UNLOCK wire. Connect to MES lock system brown or purple wire as described below.
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H1/7 & H1/9 Purple & purple/black	Ground. Connect to good ground.
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Connect black and purple ground wires to a solid chassis point such as the metal behind the kick panels. Make sure paint is removed from grounding point before tightening screw/nut. The underside of the dashboard does not typically provide a good ground point. (*Note: purple and purple/black are pre-connected together through a fuse*)

On the MES Door Lock Harness: Strip back the heavy black jacket from a couple of inches of wiring near the door lock module. There are 2 jacketed wire looms coming out of module. Either one can be used.

Using a standard automotive test light, probe the brown wire in the loom. The doors should either lock or unlock. Save results. The purple wire will make the locks work in the opposite direction. If you do not have a test light, you can use a grounded test lead or wire. Connect the Green/black keyless entry wire to the door lock wire that made the system lock. Connect the Blue/black to the other wire.

NOTE: The green/black, blue/black, purple/black and purple wires are heavier gauge wires. Use caution not to confuse the green/black and blue/black wires with the lighter gauge light green/black, solid green and solid blue wires.

All other wires on the keyless entry system are unused or for options. They are not necessary for standard keyless entry operation and should be taped up to prevent short circuit if not used.

Complete instruction booklet is included with AVI-2101L keyless entry. Many of the optional features will require advanced auto electrical skills for installation.

*Note: the horn honk output on lock and unlock is no longer available.