



OPERATION & INSTALLATION MANUAL

Series I Digital Electronic Remote Control Unit

Ver. 110106

Please Read this Manual Completely before beginning Installation or Operation!

For more detailed information on updates, system pictures, system installations, ERC Schematics, system parts, or other questions, go to our web site at - www.hummerproducts.com

INSTALLATION -

Refer To Figure 2 to see the schematic layout of the remote control system. Take time to find the optimum location to install each module of the remote control system. The guidelines are:

Control Panel Module: There are many possible ways to mount the control panel module. Use the eraser-side of a pencil to push the lens and rectangular case out of the mounting bezel. See Figure 3. Do Not pull on the lens because it may separate from the case. But if this happens, just re-snap the lens onto the case, making sure that the push buttons and logo are in place. You can simply cut a rectangular opening in your instrument panel and friction-fit the control panel there. The angled bezel is provided as an aid to finding a good installation location for the control panel. Double faced tape is provided on the bottom of the bezel for easy mounting. You can drill a hole in the vehicle mounting surface for the cable, or you can use a round file to carve out an opening in the side or back of the bezel. The control panel case will friction-fit into the bezel two ways, so just select the best way for viewing the display keeping the push buttons on the bottom edge of the display.

Manifold Module: The manifold module must be placed inside the passenger compartment, in a location that is central to the vehicle. Under the seats is generally a good location. Be sure the cable from the control panel will reach. Patches of Velcro are provided to hold the manifold module in place. Attach the "hook" side to the back of the manifold, and that will stick to most carpets. Attach the "loop" side to a bare surface if that is where you will be placing the manifold module. Keep in mind that the nylon tubing will exit the passenger compartment near where the manifold is placed and will run under the vehicle to shocks. In most cases, there are often plastic plugs in the vehicle floor, which are convenient for passing the tubing through, or you can drill a hole in the metal floor and use a rubber grommet that is supplied in the kit.

Compressor Module: The compressor module is wired directly to the vehicle battery and therefore it is generally most convenient to locate the compressor module near the battery. This is most often under the hood, but be sure to keep the compressor module well away from hot engine parts. You can place the compressor under the seats, but then you will likely have to splice in some 14 gauge wire to reach the battery. In any case, there must be at least 6 feet of tubing between the compressor module and the manifold module to act as a buffer for the flow of compressed air.

Igniton Wiring: The 6' long red wire with the inline fuse (1 Amp) that connects to the manifold module should be connected to a source of 12V power that is "Hot" only when the vehicle ignition is turned on. This will ensure that the compressor will never run when the vehicle is turned off.

Ground Wiring: The black wires with loop terminals at the manifold module and the compressor module must be connected to ground, and should be connected to the negative side of the vehicle battery. Many problems that occur in all kinds of electrical equipment can be traced to poor or inadequate grounding. If there is any doubt about the ability of the vehicle chassis to adequately ground the ERC Kit wires, simply run all the ERC kit ground wires directly to the negative side of the battery.

Adapter Elbows: Remove the plastic knobs that came installed on the shocks. Carefully clean the mounting surface and the bore in the basecup of each shock. Discard any gaskets or O-Rings that came with the shocks. Push on the center of the plunger that is in the bore to make sure that it moves freely in and out. It will take nearly 40 lbs. of force to push the plunger fully in to the bottom of it's stroke. Coat all bare metal surfaces with a liberal coating of light chassis grease to prevent rusting. To install the adapter elbow, first place the O-Ring supplied with the kit, onto the round boss of the elbow. Then firmly push the adapter elbow into the base cup of the shock. While continuing to hold the adapter elbow in place, install the self locking, stainless steel screws supplied. IMPORTANT, you will not get a reliable seal if you place O-Ring into the basecup bore first, rather than on the elbow, so be sure to place the O-Ring onto the boss of the adapter first.

Tubing: 60' of airbrake quality Nylon Tubing is supplied with this kit. Cuts must be clean and square, so use a sharp razor knife or exacto knife to cut the tubing before installation. IMPORTANT, dip the ends of the tubing into a light motor oil before inserting the end of the tubing into the push to connect fittings. Push firmly to make sure the tubing is full seated into the fitting. Failure to follow this procedure will probably cause the connectors to leak. To remove the tubing, depress the small collar on the fitting and pull the tubing out. Starting with the longest distance first, install the tubing from each shock to the manifold. Refer to Figure 2 to see which are the front and which are the rear ports on the manifold. Be sure to leave some slack at each end to allow for suspension movement and also so that the manifold can be serviced if necessary. Look for the shortest routes so that you will have enough tubing to complete the installation. Tip: Follow the routing of other hoses, tubes, or wires under the vehicle, and use nylon tie wraps supplied in the kit to securely hold the nylon tubing in place. Stay away from sharp edges, sharp objects, or hot engine or exhaust parts when running the tubing. After the shocks are connected, connect the compressor to the manifold. There must be at least 6' of tubing between the manifold and the compressor. There should also be at least 8' of tubing going to the rear shock. If you have any extra tubing, merely coil up any excess.

OPERATION

The complete system was pre-assembled and tested at the factory before packaging. So, when all wires and tubes have been installed, the unit can be powered up and used immediately. The system microprocessor monitors and maintains the last commanded settings. Front and rear settings can be changed independently at any time. Pairs of settings can be saved as "presets" and recalled later. The controller remembers the last commanded settings when it has been de-powered, and will return to those settings automatically upon power up. Everything is controlled by three push buttons. The status of the shock settings is shown by the LEDs on the right of the control panel, with the upper digit being the front and the lower digit being the rear. If a preset is being used, it's number is show by an LED on the lower left hand corner of the control panel. Refer to Figure 1 for a further explanation of the control panel. There are three levels of operation the need to understood.

Level 1 - Realtime Adjustment: At any time during the operation of the system, the front and rear settings can be changed “on the fly” by simply pushing the center button momentarily to highlight the setting that you want to change. Then push the left button to change the setting downward, or the right button to change the setting upward. After making changes, push the center button again momentarily to invoke the changes. If the changes are not invoked within 10 seconds, the settings will revert to the previously selected settings. Alternately, you can cancel intended changes by pressing and holding the center button for 2 seconds.

Level 2 - Invoking Stored Settings: Up to 10 pairs of settings, both front and rear, can be stored in memory, and recalled at any time. Press and hold the center button just long enough for a “P” to appear at the preset LED window. Now you can scroll through the existing presets by using the left and right buttons. When you find the setting that you want, push the center button again, to invoke that setting.

Level 3 - Creating Stored Settings: From the factory preset “0” is 0/0, preset “1” is 1/1, preset “2” is 2/2 and so on. You can change any of these presets to any combination of front and rear settings that you prefer. Preset “0” is normally left at 0/0 and is used to conveniently evacuate the tubing if a connection needs to be opened for any reason. You may want to create a written table to remind you of the intended purpose of each preset that you create. To access the level for creating presets, press and hold the center button until the “P” at the preset LED begins to flash. Now you can scroll through the presets and make changes to the settings of a particular preset, using the same procedure as described for Level 1 changes. When you press the center button again, you will store the new settings under that preset address. The controller will now go back to the last commanded settings. If you want to use the newly created preset, use the Level 2 procedure above, to invoke those settings.

Calibration: The controller has a built-in capability to re-calibrate itself if needed. To invoke a re-calibration, just press and hold the left and right buttons simultaneously when turning on the ignition and the re-calibration process will start automatically. Give the controller time to re-calibrate itself, which is usually less than one minute, before resuming using the unit.

Leakage & Errors: The controller is constantly on vigil to detect and report leakage or errors in maintaining the desired settings. There is a point of light that will appear every five seconds near where the preset LED resides, which indicates the system is functioning normally. If a leak occurs, an “L” will flash alternately with the current settings on the channel that is having the problem. If the compressor runs too long at any time, all three LEDs will display a “C” and the system will automatically shut down. Depowering the system will reset the detection algorithms. The problem which caused the error message must be fixed or the error message will simply return the next time the system is used.

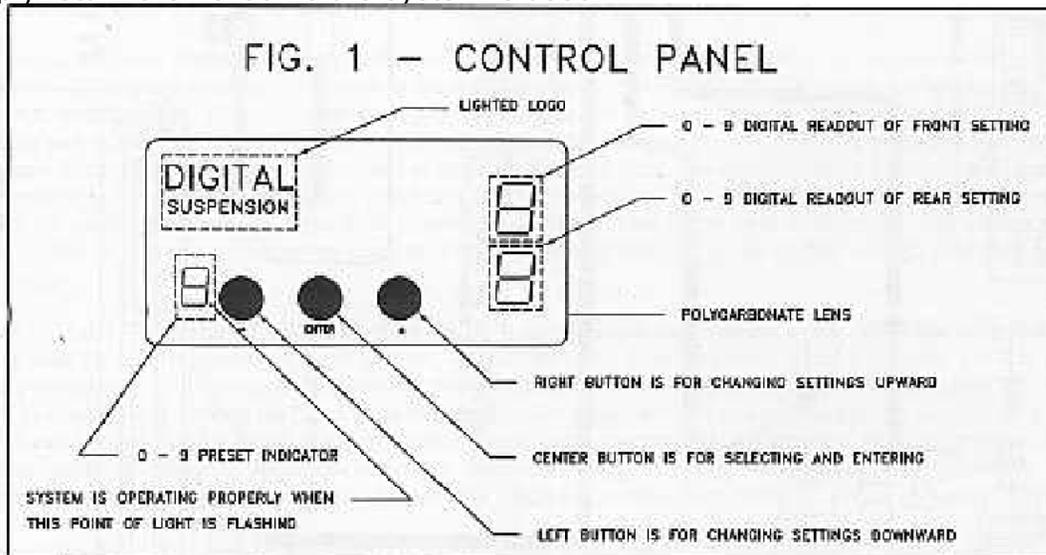


FIG. 3

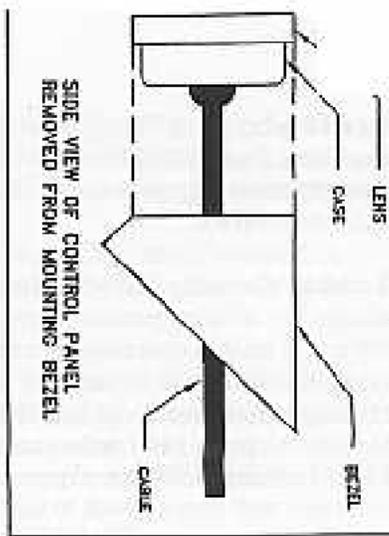


FIG. 2
SCHEMATIC DIAGRAM

