

UltraPower/Allison 1000 Grade Brake Upgrade

- Locate TCM mounted on top of radiator, ECM is on the bottom and TCM is on top.
- Unplug the 2 connectors, then using a 10mm socket, remove the 3 bolts securing it and remove the TCM.
- Locate the TCM plug with the clear plastic cover, pinch the retainers on the side and slide it off. Release the 'clam-shell' retainers in the back of the plug and open it up.
- Remove wire socket from #7 cavity by gently lifting the white retainer clip while pulling back on the wire, slide that wire into #8 cavity.
- Run the blue wire from the Grade Brake switch to cavity #7.
- Caution: **Do Not** turn on the ignition until the entire kit is installed, it may damage the TCM.
- For 2001-2003 Only: Locate the red TCM plug. Remove the red plastic cover by pinching the retainers on the side and slide it off. Release the 'clam-shell' retainers in the back of the plug and open it up. Remove the green wire from cavity #30 by gently lifting the white retainer while pulling back on the wire, fold it back and tape (it will not be used). Install the relay between terminals #30 and #32, it doesn't matter which direction you plug it in.
- Re-install TCM.
- Run the pink wire from Grade Brake switch to the under dash Inst/Ign fuse #4 cold side. (pull the fuse and use a test-light to verify which is the cold side when ignition is on).
- Locate the back of the O/D switch and follow the wires down to a 4-wire connector, unplug it and insert the grade brake matching connectors between them.
- T-tap the blue wire with spade from relay #2 to the switched (cold) side of the brake switch.(use a test-light to verify which wire goes off and on when you depress and release the brake pedal).
- Locate an area close to the O/D switch and cut out a hole to mount the Grade Brake Switch.(It doesn't absolutely have to be next to the O/D switch, but we recommend it for ease of installation and use.
- We test all TCM's before we ship to make sure they are operating properly. The TCM's are reset to factory specs and do require a "relearn" period of approximately 500 miles, so it is not unusual to experience extra firm shifting at first. If you are having a problem with transmission operation or a "Check Transmission" light, double check your TCM connections, (sometimes the pin sockets will back out if the clips aren't secure) make sure the fuse taps haven't caused the fuse contacts to spread causing a bad connection.

Sales and Support:

www.brazelsrv.com

1-877-786-1576