

# 4R-MVB Supplement Instructions

The 4R-MVB is supplied with a "modified" BLACK HARD PCB style connector assembly (original equipment in the 1998+ 4R70W) and a bulkhead case connector. Remove the connector assembly from the valve body before installing. Use a screwdriver to pop the assembly off. It is installed during shipping so the user understands how the harness fits.

## 1992-1997 AODE/4R70W

During VB removal – remove the case bulkhead connector on the passenger side (92-97 WHITE) by pushing it down toward the pan, or pulling down. Replace the connector with the BLACK connector provided and kindly provide the left over harness with your core return.

## 1998+ 4R70W/4R75W

During VB removal is it not necessary to remove the BLACK case bulkhead connector on the passenger side. You reuse this component and kindly provide the left over harness with your core return.

Leave all factory equipped accumulators and springs in place, do not remove or modify them unless suggested otherwise by any other documentation in this packet. The base 4R-MVB REQUIRES THE 1-2 AND 2-3 accumulators to prevent excessive shock to the internals and driveline. We have found it does not delay shift timing by any significant amount, and provides better street manners. The 4R-MVB-TB does NOT use the accumulators, BUT THEY MUST STILL BE INTACT.

## OVERDRIVE 12v+ (RED/WHT: TERM 7)

A 12v on/off switch is required to activate OD. OD CAN ONLY BE ACTIVATED IN THE OD/3<sup>RD</sup> GEAR POSITION.

**\*\*\*NOTE\*\*\* It is highly discouraged to shift from 4-2 without turning OFF the OD switch to take 3<sup>rd</sup> first. The biggest failure of this transmission with a MVB is forgetting to switch the OD OFF – leading to an accidental 2-4 up shift (skipping 3<sup>rd</sup>) which stresses the Input shaft and OD band.**

## TRANSBRAKE 12v+ (PINK: TERM 8) – IF APPLICABLE

A 12v MOMENTARY switch is required to activate TB.

**\*\*\*NOTE\*\*\* The TB can be activated in 1<sup>st</sup> or 2<sup>nd</sup>. Practice is required to get used to the brake apply and release timing. Staging with the TB activated increases trans temperatures very quickly.**

## TORQUE CONVERTER LOCKUP 12v+ (YELLOW: TERM 3)

A 12v on/off switch is required to activate LU (Lockup). LU CAN BE ACTIVATED IN THE 2<sup>nd</sup>/3<sup>rd</sup>/4<sup>th</sup> GEAR POSITIONS.

**\*\*\*NOTE\*\*\* It is highly discouraged to engage LU in 2<sup>nd</sup> and up shift with LU engaged. Another failure of this transmission is related to input shaft and direct drum damage in high torque applications ESPECIALLY if you shift under LU condition from 2-3, or even worse 2-4 as noted above. PLEASE USE LU IN 3<sup>rd</sup> AND 4<sup>th</sup> ONLY. Special wire harnesses are available at an extra cost if you wish to disable OD and LU in lower gear as a preventative measure.**

**\*\*\*NOTE\*\*\* You can wire both OD and LU together all on one switch if you intend to not use LU in any other gear.**

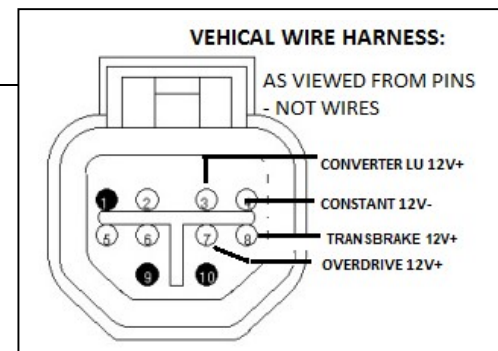
## CONSTANT 12V- GROUND (RED: TERM 4)

The RED wire in the universal external wire harness supplied needs to be grounded. You can simply use a ring a terminal and ground this to a rear tail housing bolt, or often there is a threaded hole in the mounting ear above the case connector. Grounding to the Chassis or dedicated ground in the vehicles harness is preferred.

## WIREING NOTES

The 12v+ must be fused. Running a fused circuit already in the car or by adding your own inline fuse (10A) is suggested. This source should be powered with the ignition only when the key is on. This will prevent any battery drain or solenoid failure if you forget to turn off the OD or LU switch when parked.

Shielded connectors prevent shorting against anything. If you hardwire external connection you will be forced to cut the wire when removing the trans. Use the pluggable connectors when you can.



## **ALTERNATE WIREING METHODE (REVERSE POLARITY)**

In some cases depending on where you intend to place the switches in the car or if any additional electronics are being used in conjunction with the OD and LU switch (brake switches, relays, roll control) you may desire to switch the solenoids with 12v- and not 12v+. Simply reverse the polarity of the wires indicated above. The RED wire will now need to be supplied with a constant 12v+, fused, ignition source. The switches for OD and LU will now simply need to make a circuit to a ground source – which is often easier to find (ie, chassis).

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## **REVERSE APPLY WITHOUT TRANSBRAKE APPLY**

**\*\*\*NOTE\*\*\* 12v+ TB APPLY WIRING ONLY**

Some MVB-TB applications require the application of the transbrake to engage reverse gear once you have selected the reverse range on the shifter. If you find this to be a hassle you can wire the 12V+ side of the reverse lights to the switched side (the wire running from the momentary button to the transbrake wire) and it will apply 12v+ to the TB wire when in reverse range automatically. **\*\*\*NOTE\*\*\*** The reverse lights will come on when you apply the TB if you do not wire this with a diode – you want the cathode (the striped side) toward the transbrake wire. You can pick up the 12v+ reverse light apply voltage at the neutral safety switch (Shown on the Transmisison R&R tech page)

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