



# WEDDLE HV TRANS INSTALLATION NOTES

Updated 12/8/11

## HV-INST

### STARTER

The standard HV-1 transaxle comes with a VW style bell housing and takes a Type 1 starter (Weddle Industries part # 9101 or 9101-XHD).

### CLUTCH/THROWOUT BEARING CLEARANCE

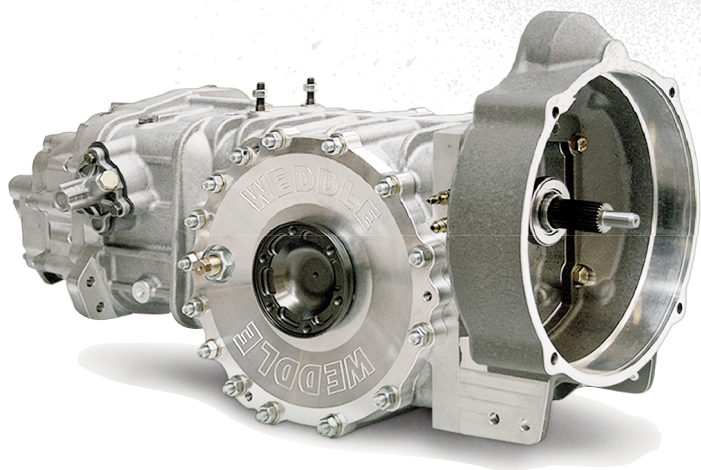
The HV-1 transaxle can be fitted with a convex or flat face throwout bearing, depending on the type of clutch that will be used. In either case, it is critical that there is proper clearance ("air gap") between the throwout bearing and the fingers of the pressure plate. **For the clutch to function properly, the air gap must be 4mm-9mm (.160"-.350").** The only way to verify that you have the proper air gap is to carefully measure the distance from the mating surface of the bell housing to the thrust face of the throwout bearing and subtract the distance from the engine block/adaptor plate to the fingers of the clutch where it contacts the throwout bearing. This measurement must be taken with the hydraulic slave cylinder fully collapsed (bleed screw open). If the air gap does not fall within the parameters listed above, we can supply you with parts and/or information on how to bring the air gap within the required specification.

### CV BOLT LENGTH

Before installing your axle assemblies for the first time, you must **measure the length of your CV bolts to make sure that they will not damage the final drive seals (located immediately behind the drive flanges).**

### CLUTCH MASTER CYLINDER

Depending on driver preference, we recommend either a 5/8" (16mm) or 3/4" (19mm) diameter clutch master cylinder piston. The smaller diameter piston will result in a longer pedal throw with less effort. The larger diameter piston will have a shorter throw with more effort.



## PEDAL STOP!!!

With a hydraulic throwout bearing, it is absolutely mandatory that you have a positive stop to limit the travel on your clutch pedal. **If you don't have a pedal stop, it is possible to over-extend the slave cylinder piston, which will allow hydraulic fluid to spew out into the bell housing. If this happens, you will have to take the engine back out of the car to repair the slave cylinder and/or clutch!**

### BLEEDING THE HYDRAULIC SLAVE CYLINDER

Before adjusting the pedal stop, the air must be bled out of the clutch hydraulic system. **IMPORTANT: Make sure to open the bleed screw before depressing the clutch pedal!** This will allow excess air to escape from the system without moving the throwout bearing. Do not fully depress the clutch pedal with the bleed screw closed or you will over-extend the piston. This can cause permanent damage to the clutch diaphragm, the slave cylinder, or both.

### ADJUSTING THE PEDAL STOP

Once you have performed the initial bleeding of the system, the pedal stop can be adjusted. With the engine turned off and the car in 4th gear, jack up one rear wheel. Slowly depress the clutch pedal until you can just turn the rear wheel by hand. Give the pedal an additional 1/2" (13mm) of travel, measured at the foot pad. Once the clutch pedal stop is adjusted correctly, you should bleed the system again to make sure that it is completely free of air. No additional adjustments should be needed, as the hydraulic system will compensate for clutch wear.

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