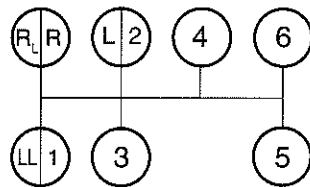


# SHIFTING THE SPICER VOCATIONAL 8-SPEED TRANSMISSION DRIVER INSTRUCTIONS

## Vocational 8-Speed Shift Instructions

The 8LL was designed to be used with Conventional/High Torque Rise engines for on/off highway and vocational applications. By shifting the range section to low range the operator has a progressive 7 or 8 speed using LoLo in first hand position for speed control and Lo in second hand position for off-highway starting. The shift to high range provides 6 speeds for normal highway operations. The air system provides the means to shift the range sections. All 8 gear ratios are obtained from a single lever with a simple shift pattern. The gear ratios and shift pattern are shown below.

### Spicer 8LL Shift Pattern



### Ratios

Rev	21.31	
	7.47	
LL	21.31	64
L	13.00	74
1	7.47	64
2	4.55	65
3	2.75	65
4	1.67	67
5	1.00	30
6	.77	

As professionals you know clash-free shifts are made when engine speed and driveline speeds are matched. We recommend double clutching when the shift lever is changed either up or down in shift sequence..

### Clutch Brake

The clutch brake used with this unit is designed for stopping gears to get into 1st and reverse. The last one inch of clutch pedal travel activates the clutch brake. On shifts other than first or reverse from a stop, only depress the clutch pedal enough to release the clutch. Depressing the pedal to the floorboard will activate the clutch brake and could cause gear hang up or hard shifting.

When starting, if you have a butt tooth condition, gradually release clutch. The drive gear can then roll over to align teeth to complete the shift.

### Upshifting

Normal shift sequence is shown on the shift pattern. When the lever is moved, use the normal double clutch technique. When the shift is desired, depress the clutch moving the lever to neutral. Engage the clutch allowing the engine to drop so engine and driveline speed are matched. Depress the clutch and move lever into gear. Engage clutch and accelerate as conditions permit.

When the shift requires both a range and lever position change (L $\rightarrow$ 1), select the high range just as the shift lever enters neutral. Complete a normal double clutch operation. The air shift will be completed automatically as the lever is moved to the first gear position.

**CAUTION:** Do not attempt a range shift while moving in reverse.

### Downshifting

When the lever movement is required, the double clutch technique is used. As the engine approaches the shift point, depress the clutch and move the lever to neutral. Engage the clutch and raise the engine until the engine RPM and driveline speed are equal, normally governed speed. Depress the clutch and move the shift lever into the next lower gear. Engage the clutch and keep on trucking!

Bring vehicle to a complete stop before downshifting to low range for "L" or "LL" gears.

### Reminders

- ✓ Double clutch when shifting.
- ✓ Use steady force on the shift lever to complete shifts. Avoid forcing the shift.
- ✓ Don't coast in neutral.
- ✓ Avoid downshifting at road speeds that are too fast.
- ✓ Never change ranges when the transmission is in reverse gear.
- ✓ Chassis and trailer brake life can be increased by downshifting through all gear speeds when you are slowing down.

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