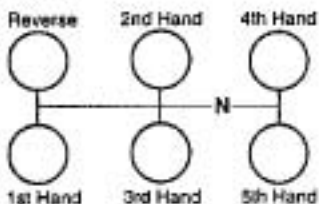
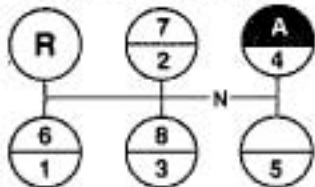


# SHIFTING THE AUTO-MATE-2™ 10 SPEED TRANSMISSION DRIVER INSTRUCTIONS

## AutoMate-2™ 10 Speed Shift Pattern

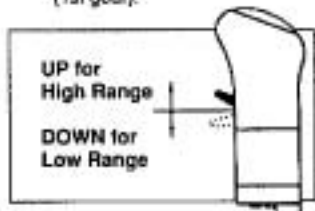


## Progressive Shift Pattern



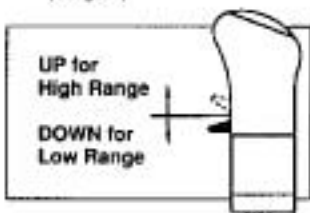
## Starting vehicle from a stop

1. a. With gear shift lever in neutral,  
b. Clutch pedal depressed,  
c. And brakes set  
d. Start engine. Allow it to build maximum air pressure.
2. a. With clutch pedal fully depressed to engage clutch brake (see "Clutch Brake").  
b. Position the range selector to low range. Move gear shift lever into 1st hand position (1st gear).



3. a. Release the tractor parking brake.  
b. Release the clutch pedal gradually to full position.  
c. Depress the throttle to start vehicle moving.
4. a. After attaining optimal speed in 1st gear,  
b. Depress the clutch pedal  
c. Move the gear shift lever to neutral (see "Double Clutching: Upshifting").  
d. Then into the 2nd hand position (2nd gear).
5. a. Continue the above procedures through 5th hand position (5th gear).
6. a. To continue upshifting (6th gear through automatic).

- b. Preselect high range on the range selector.
- c. Depress the clutch pedal.
- d. Move the gear shift lever from the 5th hand position to neutral (see "Double Clutching: Upshifting").
- e. Then into 1st hand position (5th gear).



7. a. After attaining optimal speed in 6th gear,  
b. Depress the clutch pedal.  
c. Move the gear shift lever to neutral (see "Double Clutching: Upshifting").  
d. Then into 2nd hand position (7th gear).
8. a. Continue the above procedure for 3rd hand position (8th gear).
9. a. After attaining optimal speed in 8th gear,  
b. Depress the clutch pedal.  
c. Move the gear shift lever to neutral.  
d. Release the clutch pedal and move the gear shift lever into the 4th hand position (Automatic). Not necessary to depress the clutch pedal when shifting into automatic. All up and down shifting between 9th and 10th gears will now be done automatically.

\* See reverse side for additional information.

## Trucking Tips

### Downshifting

Downshifting is actually just the reverse of upshifting (see "Double Clutching: Downshifting").

### Clutch Brake

The clutch brake used with this unit is designed for stopping gear rotation so you can shift into 1st and reverse gears. The last one inch of clutch pedal travel activates the clutch brake. So on shifts other than 1st 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 selecting a starting gear, if you have a butt tooth condition,

gradually release the clutch so the drive gear can rotate to align the gear clutching teeth to complete the shift.

## Double Clutching

**Upshifting.** The normal double clutching technique is suggested. When you want to shift, depress the clutch and move the lever to neutral. Engage the clutch and allow the engine RPM to drop so engine speed and driveline speed match. Depress the clutch and move the lever into gear. Engage the clutch and accelerate as conditions permit.

**Downshifting.** Downshifting is the reverse of upshifting. As the engine approaches the shift point (start the downshift approximately 50 to 100 RPM above the shift point), depress the clutch and move the lever to neutral. Engage the clutch and raise the engine RPM until the engine and driveline speeds are equal (normally, governed speed). Depress the clutch, then shift into the next lower gear. Engage the clutch.

**Skip Shifting.** Experienced drivers sometimes want to skip some of the ratios. This is acceptable. However, you should do this only when operating conditions allow. Your speed, the load, and the road type and condition should be considered.

## 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 the gear speeds when you are slowing down.

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# **GENERAL INFORMATION AND OPERATION INSTRUCTIONS FOR THE AutoMate-2™ TRANSMISSION**

- ✓ When the transmission is placed in the "Auto" position, all shifts between the top two gears are automatic and without use of the clutch.
- ✓ It is not necessary to depress the clutch when placing the shift lever in "Automatic".
- ✓ Throttle movement is not necessary to initiate a shift.
- ✓ Cruise control can be used when in "Automatic".
- ✓ Compression brakes can be used when in "Automatic".
- ✓ Braking can be performed during a shift.
- ✓ If braking occurs when in the top two gears, the transmission will downshift at a higher shift point to optimize engine braking. The transmission will not upshift until the throttle is depressed.
- ✓ When climbing a hill, the transmission will downshift if necessary. If the hill is beyond the capability of the top two gears, downshifting out of "Automatic" is necessary.
- ✓ If the gear selector remains in "Automatic" when the vehicle is brought to a stop, the transmission will shift to neutral to prevent the engine from stalling.
- ✓ If the gear selector is removed from "Automatic" and the vehicle is accelerating, the transmission will remain in automatic.
- ✓ If the transmission is in "Automatic", 9th gear and going down hill, the transmission will upshift only if the accelerator is depressed, or "resume" is activated on the cruise control.
- ✓ If the transmission is in neutral, and the vehicle speed exceeds what would be governed engine speed for the gear directly before "Automatic", the transmission will shift into the lowest gear in automatic.
- ✓ When the vehicle is first keyed on, the transmission warning light will illuminate, like all the other dash lights for a bulb check, then go out. This also indicates a successful self diagnostic routine. If there is a problem detected the light will begin flashing out codes.
- ✓ If the transmission warning light illuminates, a problem or error in operation has been detected. If a fault has been detected, a fault code will be stored in the transmission computer to aid the service technician. Expect degraded performance and have the transmission serviced as soon as possible.
- ✓ For additional technical service, please call the "Technical Support Line" 1-800-401-9866.