

MODEL A-60 BRAKE LOCKOUT CAP

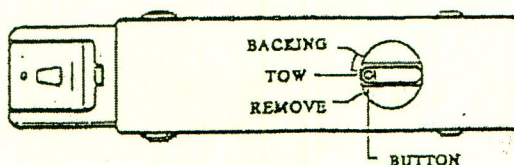
Theory of Operation

This mechanical control is an option on the Model A-60 actuator. It allows trailers equipped with drum or disc brakes to be backed up over soft ground or up inclines without fully engaging the brakes. The control mechanism is designed to disengage when the trailer is pulled forward after backing up. Therefore it must be manually reset prior to each time the user backs up.

Most hydraulic trailer drum brakes are of the uni-servo design which are only about 20% effective when moving in the reverse direction. Because of this feature, trailers with drum brakes can be backed up on level ground and up slight inclines without having to engage the lockout cap. However, when a trailer is backed up over soft ground or up steep inclines, the actuator is compressed and pressurized brake fluid is sent to the trailer brakes energizing them and preventing the wheels from rotating. To avoid this situation, manual engagement of the lockout cap will mechanically block the normal action of the actuator, preventing it from supplying high hydraulic pressure to the trailer brakes. When the trailer is pulled forward, the mechanism should disengage, allowing normal trailer braking to occur.

Unlike drum brakes, disc brakes will operate effectively in both directions. All backing operations will require the lockout cap to be engaged before each backing maneuver.

An alternative to using a mechanical lockout is to install an electrical solenoid valve which is energized from the backup lights of the tow vehicle. This valve, when energized, allows fluid in the brake system to be returned to the master cylinder reservoir in the actuator thus relieving brake pressure. The electrical solenoid valve and components can be purchased as an option.



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Operating Brake Lockout Cap

1. To operate lockout cap, the actuator must be fully extended. This can be done by pulling the trailer forward slowly.
2. With the lockout cap in the TOW (forward) position, depress the button in the front of the cap and rotate the cap clockwise toward the backing position until it stops. The button should remain down.
3. Back the trailer.
4. If the trailer cannot be maneuvered to the final position and needs to be pulled forward, there are two options:
 - a) Pull the trailer forward and allow the actuator to extend. The control cap will rotate (reset) and you will have to turn it back to the BACKING position in order to back up.
 - b) If you have backed up an incline, allow the tow vehicle to move forward slowly so the actuator remains compressed. This keeps the control in the engaged (BACKING) position so you can back up again.

CAUTION: If the actuator is uncoupled from the tow vehicle after backing up, manually extend the actuator to disengage the lockout and return the control cap back to the tow position.

Removing Brake Lockout Cap

1. Make sure the actuator is fully extended.
2. With the cap in the TOW position, depress the button and rotate the cap counterclockwise toward the REMOVE position until it stops.
3. Lift the cap up to remove it and gain access to the master cylinder reservoir.

WARNING: BEFORE TOWING TRAILER, CHECK THAT THE LOCKOUT CAP IS IN PROPER OPERATING CONDITION, THE CAP BUTTON IS UP AND CAP IS IN THE NORMAL TOW POSITION. IF FOR ANY REASON CAP DOES NOT RESET OR FUNCTION PROPERLY, REMOVE CAP FROM TRAILER. FAILURE TO DO SO MAY INHIBIT NORMAL TRAILER BRAKING PERFORMANCE.