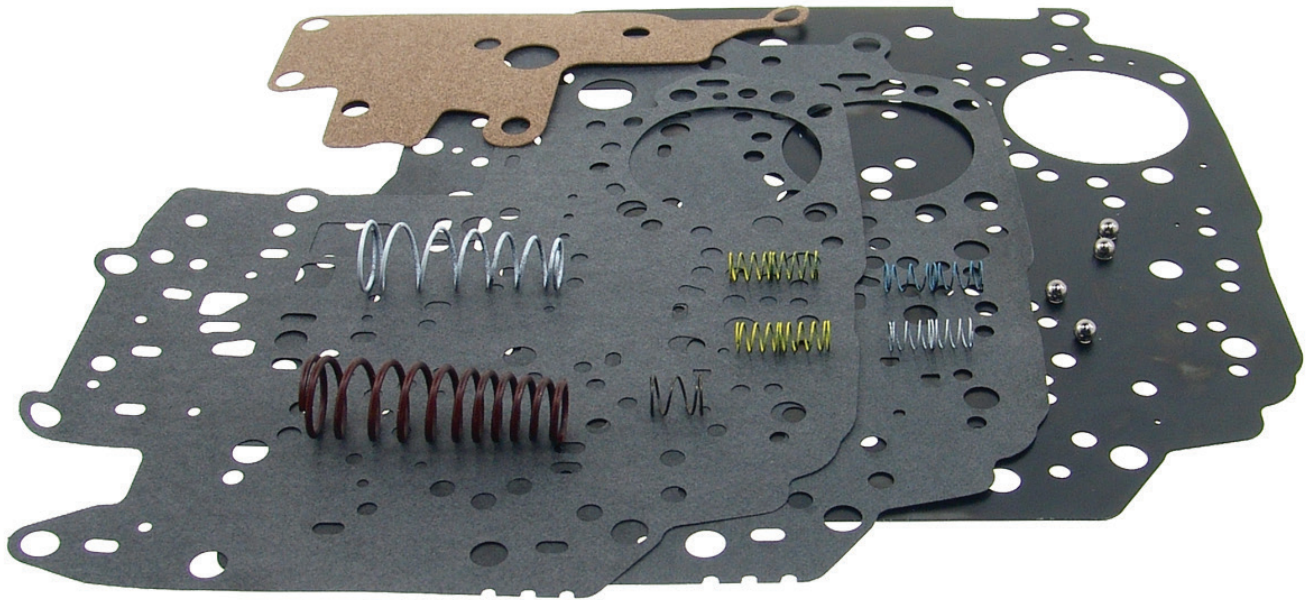


# Shift Improver Kit

555-60930

1968-1986 GM TH250 & TH350

*Fits Transmissions With or Without Lockup*



# Introduction

## **PLEASE READ FIRST**

**PLATE SUPPLIED FITS:  
TH350 NON-LOCKUP ONLY**

**GASKETS SUPPLIED FIT:  
TH350 & TH250 NON-LOCKUP ONLY**

Identify Transmission BEFORE starting installation.

A lockup transmission has an auxiliary valve body, with a solenoid, in front of main valve body.

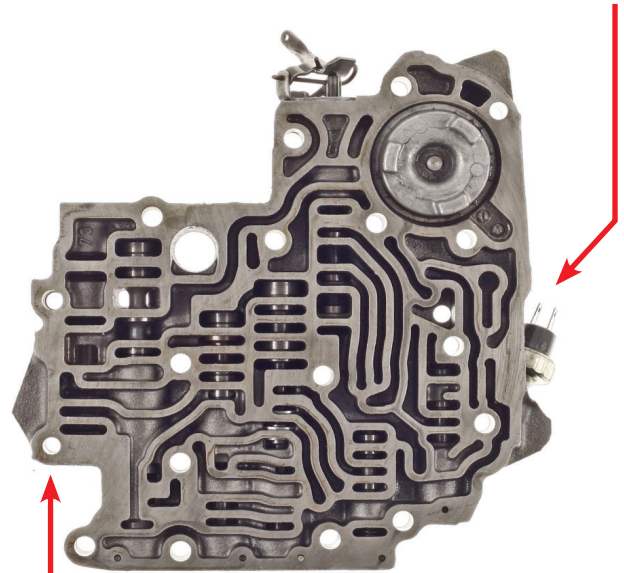
**Note:** Lockup gaskets are not provided in this kit.

A TH250 transmission has a band adjustment on the passenger side of the case toward the front and can be a lockup or a non-lockup version.

All TH250C or TH350C lockup transmissions and TH250 non-lockup units will re-use the original plate.

This is not a high performance product. It has been designed to improve the shift quality and durability of the TH350 and TH250 transmissions. It furnishes additional oil flow to areas known to warp and wear, and exhausts the cross leaks that often cause friction failure. Installing this kit on a transmission that is in good condition, or during repair, is excellent preventative maintenance.

Lockup transmissions may have a governor pressure switch here. Switches range from 38-54psi. Higher the PSI = Higher lockup speed.



All Models Install Springs as Needed

Install WHITE spring

2<sup>nd</sup> - 3<sup>rd</sup> Shift valve assembly

Install RED spring (Optional on V6 engine)

Pressure regulator assembly

V6 Options: If you want a firmer 1<sup>st</sup> - 2<sup>nd</sup> install Red

Late type "S" link



Early type "Z" link



The "Z" link will be forward to the manual valve when correctly installed

The manual valve body must be within 1/16" of flush with the back edge of the valve body in the Drive position on final assembly

# Plates

- Use petroleum jelly or approved assembly gel to "stick" the gaskets & check balls to the plate for "in-car" assembly.
- [4] extra 0.250" check balls are provided.

**DO NOT DRILL** the new shift kit plate.  
For 350 Non-Lockups Only.

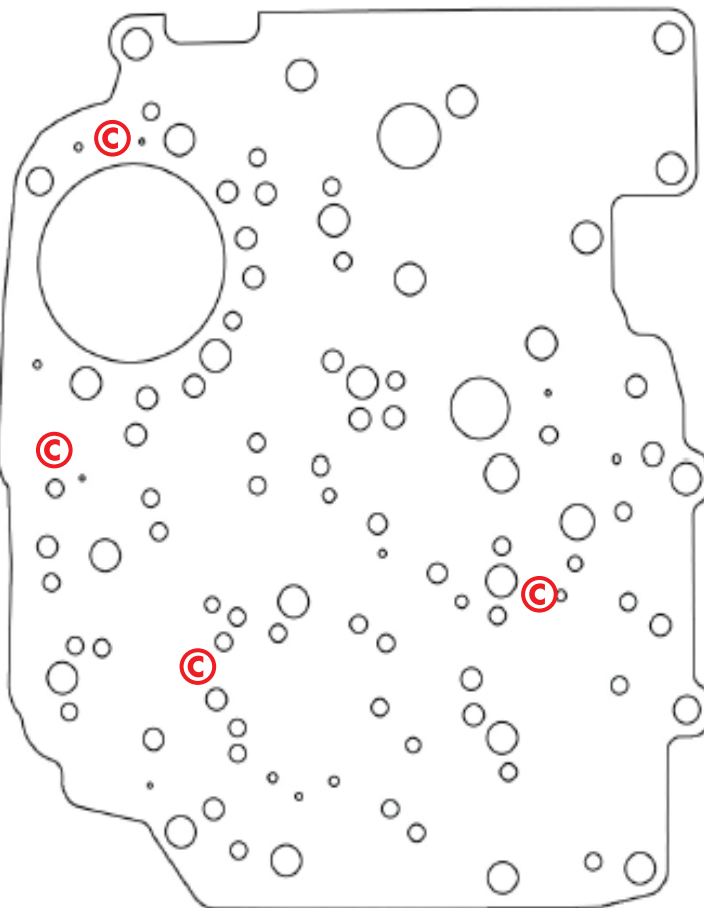
Ⓒ Check ball locations with transmission installed

Hole drilling: All TH250s- Lockup or Non-Lockup & all TH350C Lockup transmissions

**TH350C:**  
Hole 1: V6: 0.073" - 0.076"  
          V8: 0.076" - 0.086"  
Hole 2: 0.120" - 0.147"  
Hole 3: 0.110" - 0.147"

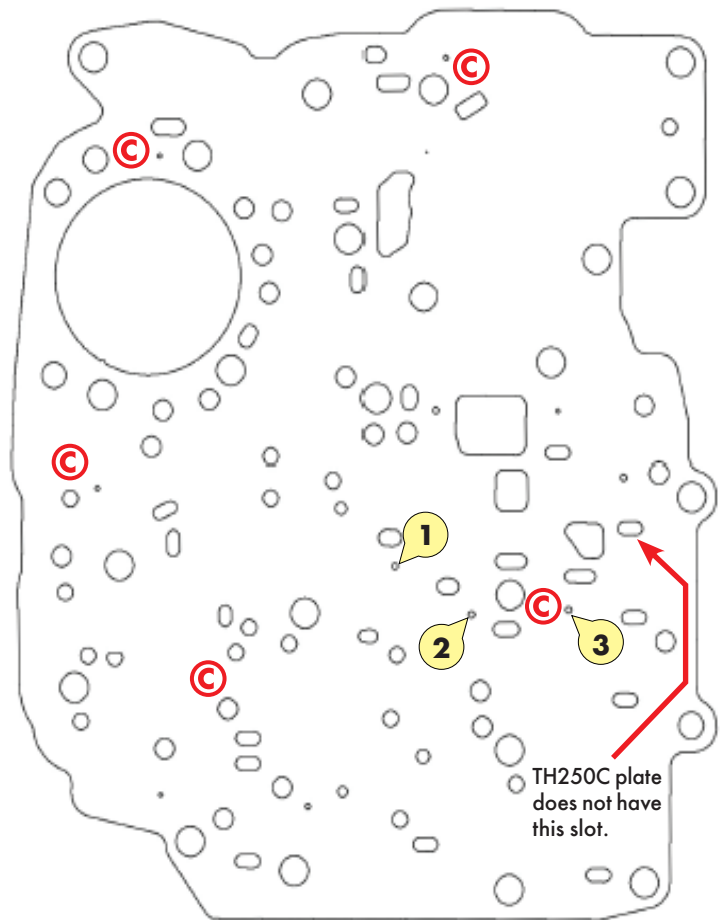
**TH250 & TH250C:**  
Hole 1: 0.156 - 0.187"  
Hole 2: 0.156" - 0.187"  
Hole 3: 0.076" - 0.086"

## Shift Improver Kit Non-Lockup Plate



Non-Lockup: Uses (4) 0.250" check balls

## Lockup Type Plate (Re-Use)



Lockup: Uses (5) 0.250" check balls



# Assembly (TH350 Non-Lockup)

(& TH250 Non-Lockup)

## Order of Assembly

1. Check balls (4) Re-use originals
2. Servo Assembly
3. Governor Filter (If equipped)
4. Pump Screen (If equipped)
5. Case Gasket (Provided)
6. New Shift Improver Kit Plate
7. New Shift Improver Kit Gasket

## 8. Reinforcing Plate & Bolts

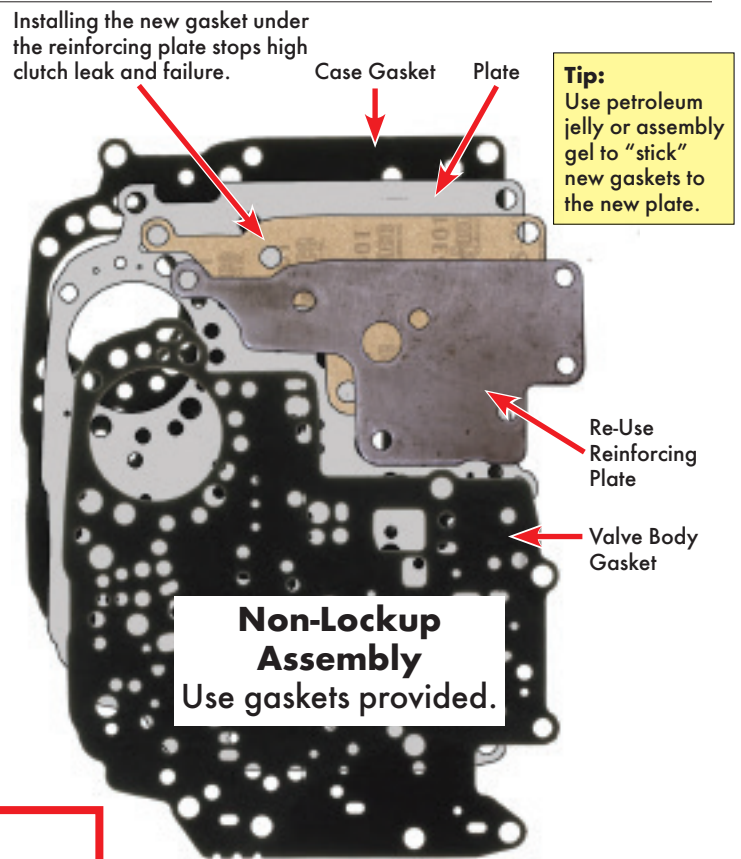
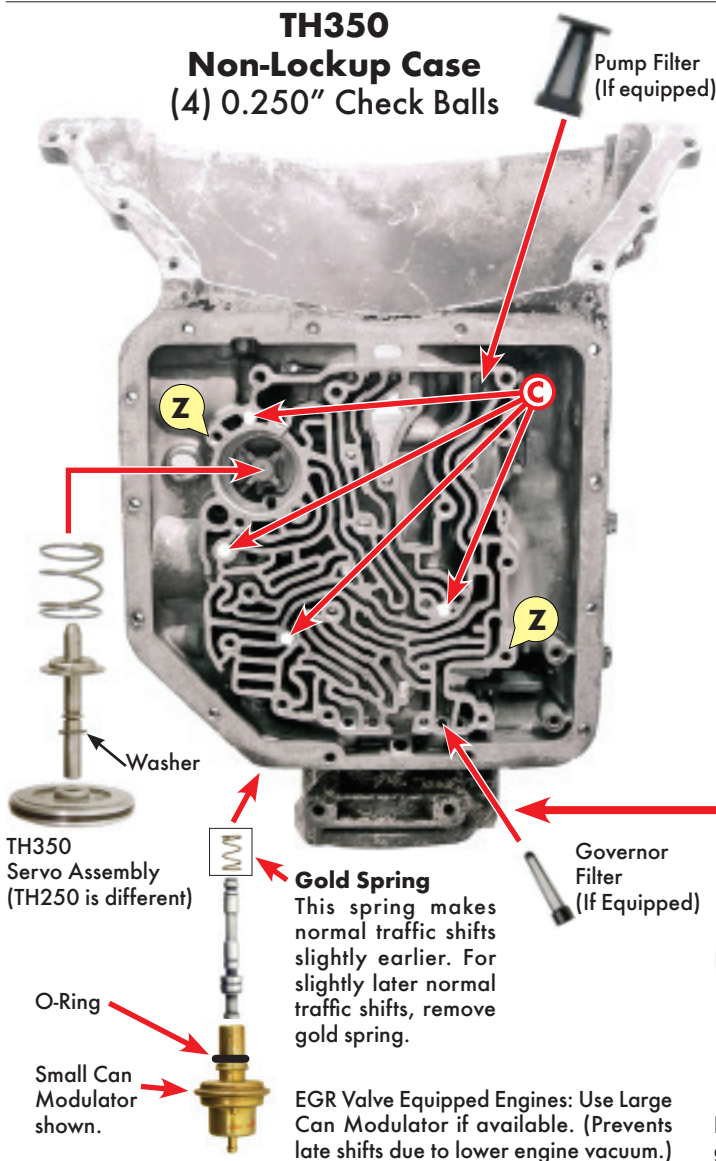
- Leave bolts loose

## 9. Valve body Gasket (Provided)

## 10. Use (2) Valve Body Bolts ("Z" Alignment")

## 11. Tighten (7) Reinforcement Plate Bolts and remove "Z" bolts

## 12. Install Valve Body and Bolts



### Governor springs furnished

- Passenger: Two Yellow
- Light trucks: Two Yellow
- 4WD: White and Yellow

### Customizing shifts after road test:

- Spring Combinations:
- Blue and Yellow → Earliest Shifts
  - Yellow and Yellow
  - White and Blue
  - White and Yellow → Latest Shifts
- ↑ ↓



Ⓢ Check ball locations with transmission on bench

📍 Alignment bolt locations for plate and gaskets

# Assembly (TH350 Lockup) (& TH250C Lockup)

## Order of Assembly

1. Check balls (5) Re-use originals
2. Servo Assembly
3. Governor Filter (If equipped)
4. Pump Screen (If equipped)
5. Case Gasket (Provided)
6. Modified ORIGINAL Plate
7. Reinforcing Plate, Lockup Body, Solenoid &

## Bolts

- Leave bolts loose
8. Valve body Gasket (Not Provided)
  9. Use (2) Valve Body Bolts ("Z" Alignment")
  10. Tighten Reinforcement Plate, Lockup Body, and Solenoid Bolts
  11. Remove "Z" bolts Install Valve Body and Bolts

### TH350 Lockup Case

(5) 0.250" Check Balls

Pump Filter (If equipped)

Washer

TH350 Lockup Servo Assembly (TH250 Lockup is different)

O-Ring

Small Can Modulator shown.

**Gold Spring**  
This spring makes normal traffic shifts slightly earlier. For slightly later normal traffic shifts, remove gold spring.

EGR Valve Equipped Engines: Use Large Can Modulator if available. (Prevents late shifts due to lower engine vacuum.)

Governor Filter (If Equipped)

Reinforcing Plate

Case Gasket

Re-Use Modified Main Plate

Lockup Body

Lockup Solenoid Mounts Here

Valve Body Gasket

**Lockup Assembly**  
Lockup gaskets are NOT provided

**Tip:**  
Use petroleum jelly or assembly gel to "stick" new gaskets to the new plate.

**Governor springs furnished**

- Passenger: Two Yellow
- Light trucks: Two Yellow
- 4WD: White and Yellow

**Customizing shifts after road test:**  
Spring Combinations:

- Blue and Yellow → Earliest Shifts
- Yellow and Yellow
- White and Blue
- White and Yellow → Latest Shifts

No need to disassemble governor to install springs

Ⓢ Check ball locations with transmission on bench

🍋 Alignment bolt locations for plate and gaskets