

## REPROGRAMM **AUTOMATIC**

## 1973-77 Cast Iron Case Cruise-O-Matic

TOOLS RECOMMENDED FOR EASIEST, QUICKEST INSTALLATION

SPEED HANDLE OR RATCHET

76" SOCKET

₩" SOCKET

%6" SOCKET

Your transmission will love you for it.

SCREW DRIVER



%6"WRENCH



CRESCENT WRENCH



VACUUM MODULATOR WRENCH OR WATER PUMP PLIERS



Trans-GO brings automatic transmission performance out of the dark ages into the space age, in one giant step. Installed in your transmission, a Trans-GO Kit

mission into a rugged, responsive, hi-performance recalibrates it to hi-performance specifications. controls shift timing and "shift feel" for instant response and racing performance.

Cleanliness is important. An ideal place for valve body work is a clean table or work bench free of any other parts or springs. A piece of cardboard makes an excellent working surface once the valve body has been drained of transmission fluid.

A Trans-GO Kit will more than double the life of your transmission under high load conditions. There's no reason to lose precious efficiency with soft shifts that generate heat and consume horsepower.

This Trans-GO Kit was a very intelligent decision.

transforms a good working "stock" automatic trans-

Now you are ready to throw a shift that will make the 4 Speeders Jealous!

TRANS-GO 2621 MERCED AVENUE EL MONTE, CALIFORNIA 91733

©TransGo July 1976

unit.

This Kit fits '73 = '75 passenger cars with dual diaphragm modulator. It also fits '73 & '74 F-350-600 trucks with single diaphragm modulator.

## STEP 1

Loosen oil pan and drain oil. If filler tube screws into pan, remove it. It fluid is to be reused it should be drained into a clean container.

## STEP 2

Disconnect vacuum hoses from the vacuum modulator located on left rear corner of transmission case. Unscrew vacuum modulator and remove it and push rod. (See Photo No. 2A) Use thin 3/4" wrench, water pump pliers or pipe wrench.

## STEP 3

PHOTO NO. 2A

The transmission oil screen is held in place with a metal clip, notice how it is installed. Remove clip and oil screen.

## distort tubes. (See Photo No. 2A)

STEP4

STEP 5

If you are installing a 33-1 Kit, go directly to Step 8. If you are installing a 33-2 Kit, continue as follows:

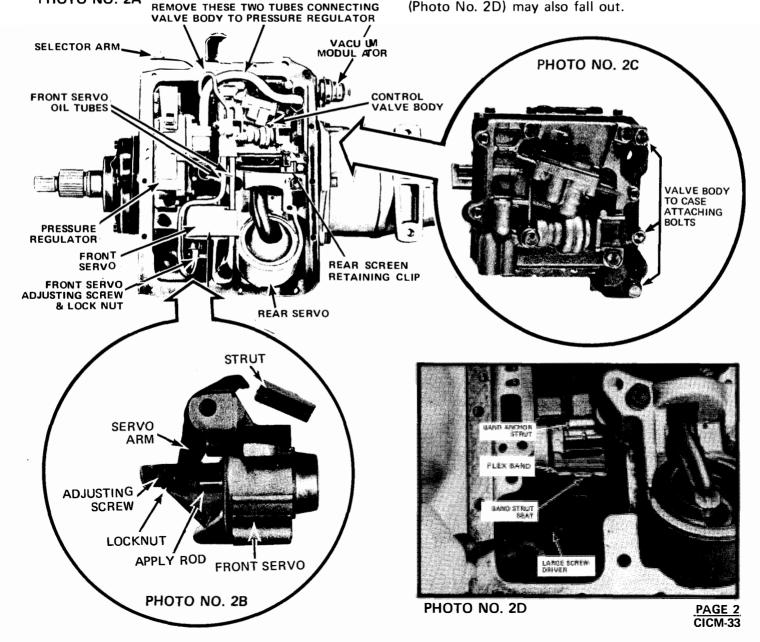
Remove the two tubes connecting valve body to pressure regulator. To remove big tube, unplug

at valve body first. Be very careful, do not bend or

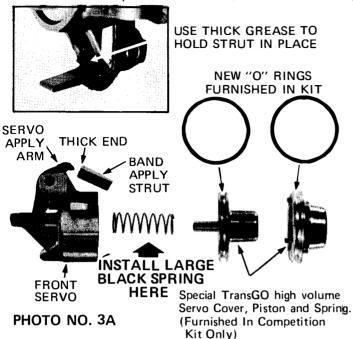
Loosen locknut on front servo adjusting screw and back screw out until the servo arm touches the apply rod. (See Photo No. 2B)

## STEP 6

Remove both front servo attaching bolts (use 9/16 socket) (some servos have only one bolt) and the three bolts attaching valve body to case (use 7/16 socket). Remove valve body and front servo together. Watch for band apply strut, it connects servo arm to the front band and will probably fall out when servo is removed. Band anchor strut (Photo No. 2D) may also fall out.



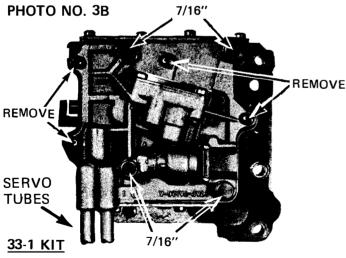
Remove two tubes between servo and valve body. Install new servo parts as shown. (See Photo No. 3A)



Install thick end of strut into band apply arm (Photo No. 3A). Use thick grease to hold it in position. While installing servo onto case, slide thin end of strut into strut seat on band.

If you have flex band as shown in Photo No. 2D, see that anchor strut is in position and hold band with screwdriver as servo is installed.

## STEP 8 VALVE BODY



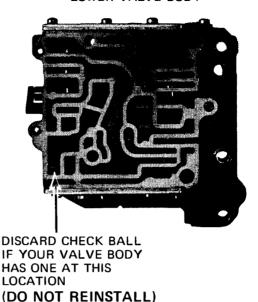
Remove four bolts (use 7/16" socket) and four screws that attach valve body cover. (See Photo No. 3B) Slide valve body cover off servo tubes. Remove small separator plate with cover. Remove three bolts attaching valve body to case (use 7/16" socket and remove valve body. (See Photo No. 2C)

## 33-2 KIT

Remove four bolts (use 7/16'' socket) and four screws that attach valve body cover. (See Photo No. 3B)

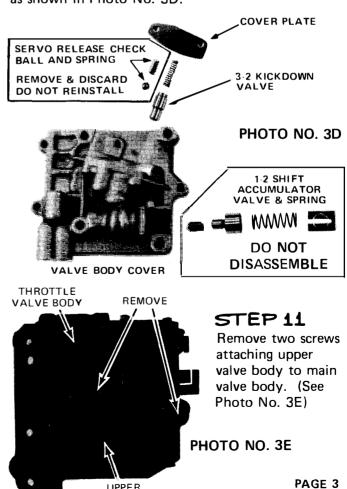
## STEP 9

### LOWER VALVE BODY



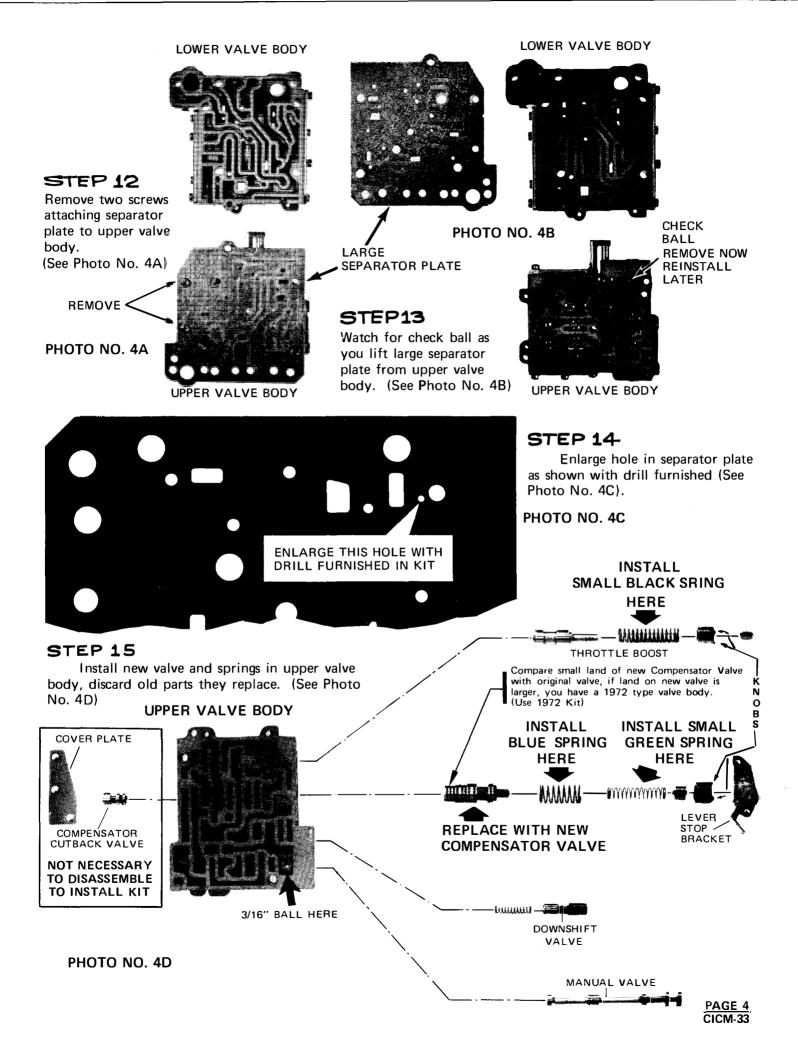
## STEP 10

Remove and discard spring and ball from cover as shown in Photo No. 3D.

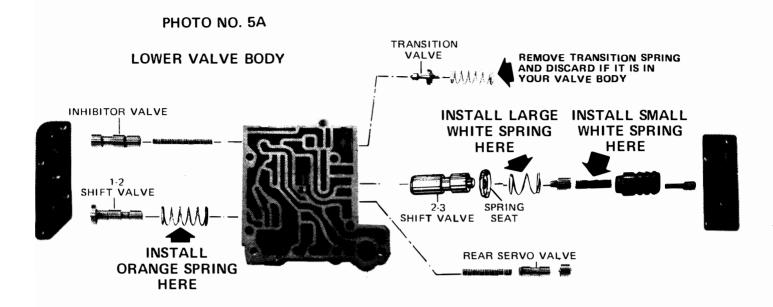


VALVE BODY

CICM-33



Install new springs in lower valve body and discard old springs. Remove transition spring as shown in Photo No. 5A.



## STEP 17 VALVE BODY REASSEMBLY

Install check ball in upper valve body as shown in Photo No. 4B. Install large separator plate onto upper valve body as shown in Photo No. 4A.

Install upper valve body onto lower valve body. DO NOT INSTALL THE REMAINING SMALL SEPARATOR PLATE AND VALVE BODY COVER AT THIS TIME.

## STEP 18

Place valve body onto transmission case and start the three attaching bolts shown in Photo No. 2A. *Do not tighten them now.* 

Make sure pin in selector arm is between the two spools on end of manual valve. The kickdown lever beside it must be between downshift valve and lever stop bracket. When arm on outside of case is moved by hand the lever must push against downshift valve.

## STEP 19

Place small separator plate on cover, slip cover onto servo tubes and install the 4 screws and 4 1/4" bolts and tighten them.

DO NOT OVERTIGHTEN BOLTS OR SCREWS.

## STEP 20

Install the two tubes between valve body and pressure regulator. Insert the big tube first into pressure regulator then push it into valve body, wiggle valve body to make installation easier. To install small tube it may be necessary to tap lightly with small hammer or screwdriver handle.

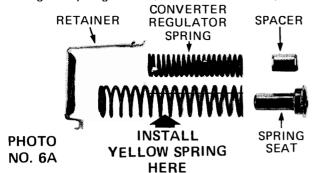
## STEP 21

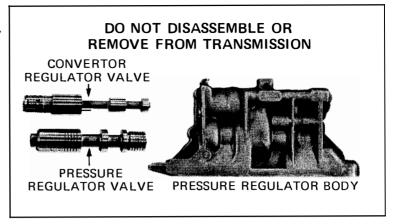
Tighten the three valve body attaching bolts and the front servo bolts.

VALVE BODY BOLTS -80 inch pounds (Firm one hand pressure with speed wrench.)

SERVO BOLTS -25 foot pounds (Firm with ratchet wrench.)

Install new YELLOW pressure regulator spring, use original spring seat. (See Photo No. 6A)





## ATTENTION:

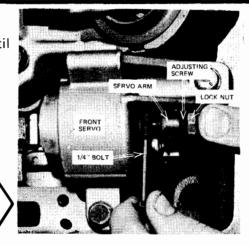
LATE 74's HAVE A SINGLE SPRING TYPE REGULATOR ASSEMBLY. DO NOT INSTALL YELLOW SPRING. RE-USE ORIGINAL SPRING.

## STEP 23

With Lock Nut loose, turn Adjusting Screw until 1/4" bolt will just pass between Servo Apply Rod and the end of Adjusting Screw with slight drag. (See figure No. 6B) Then turn Adjusting Screw "IN" (Clockwise) one (1) Turn and tighten Lock

(Use 1/4" bolt from valve body or any bolt that a 7/16" wrench will fit.)

> 1/4" bolt being inserted between Servo Rod and Band Adjusting Screw.



pumps and thrust washers.

**STEP 28** ROAD TESTING

PHOTO NO. 6B

Pull back on Servo Apply Lever until all slack is removed from Band Apply Linkage

## STEP 24

Wash oil pickup screen and install using metal retainer.

## STEP 25

Install new thin gasket onto vacuum modulator. Place your original push rod into modulator and install onto transmission. If you have installed Holley carb or if your exhaust gas recirculator has been disconnected, do not install hose to front tube on modulator.

## STEP 26

Clean transmission oil pan, remove old gasket, install pan using new gasket, connect filler tube.

## STEP 27

Pour three (3) guarts of fluid into transmission. Start engine with selector in "P" (PARK) and add fluid until level is at full mark on dipstick.

## **PERFORMANCE**

**SAFETY:** 

We recommend using Ford "F" fluid in this transmission. It works just fine.

If shifts are late or too firm, remove modulator and install thick gasket furnished along with standard

shifts are O.K., E.G.R. must be repaired or bolt must

be left in line and front tube on modulator left open.

We do not recommend any special fluid. Most

Drive approximately two miles easy before at-

tempting high throttle up-shifts. During this two

dozen or more times. Check oil level and add oil if

If shifts are too early, E.G.R. System may be

plugged, disconnected or malfunctioning (dual Diaphragm models). Disconnect front hose at modula-

tor, plug hose with a 1/4" bolt and road test. If

miles move shift lever to all forward positions a

necessary. Do not run above full mark.

**STEP 29** PERFORMANCE TUNING

of these "special" fluids lack some lubricating qualities, and can shorten the life of bushings, bearings,

If later or firmer shifts are desired, install push rod furnished with thin gasket.

Only RANGO exclusive reprogramming gives you everything.

PERFORMANCE: Positive upshifts and downshifts at your finger tips for maximum performance.

Manual downshifts to 2nd at any speed and to 1st at 40.50 mph. depending CICM-33

on carburetor, etc.

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CONVENIENCE: Automatic shifts in "D" position.



## Stick Shift KIT NO. 33-3

## 1973-77 Cast Iron Case Cruise-O-Matic

## READ THIS BEFORE STARTING INSTALLATION

Installing this kit <u>COMPLETELY ELIMINATES</u>. automatic shifting. "D" position is High Gear, "2" position is Second Gear, "1" position is Low Gear.

Proceed with 33-2 Reprogramming Kit\* installation until you complete Step 10., then follow this instruction sheet to install Stick Shift parts.

## (IN ADDITION TO STEP 11) See Figure 1A.

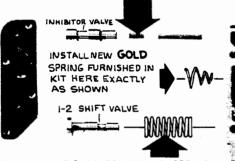
- A. Remove Throttle Valve Body and Throttle Valve Body Separator plate under it.
  - B. Remove and SAVE Check Ball.
- C. Reinstall Throttle Valve Body and its Separator Plate. Start screws but do not tighten. Push Throttle Valve in firmly and hold while tightening screws.

THROTTLE VALVE
BODY SEPARATOR
PLATE

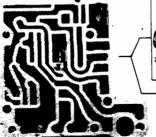
THROTTLE VALVE BODY,
REMOVE AND SAVE
THIS CHECK BALL
PUSH THROTTLE VALVE

INSTALL SMALL BLUE INHIBITOR SHIM FURNISHED IN KIT HERE.

FIGURE 1B



REMOVE AND DISCARD ORIGINAL SPRING.
INSTALL NEW SILVER SPRING FURNISHED
IN KIT. (SAVE NEW ORANGE SPRING)



## DISASSEMBLY

IN FIRMLY AND HOLD WHILE TIGHTENING SCRE'

REMOVE AND DISCARD ORIGINAL SPRINGS. SAVE NEW SMALL & LARGE WHITE SPRINGS FURNISHED IN KIT.

DO NOT IN STALL ANY SPRINGS HERE!

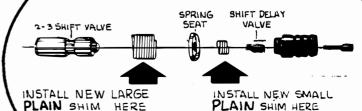


## STICK SHIFT REASSEMBLY

(REASSEMBLE EXACTLY IN THE ORDER SHOWN)

## 2. (IN ADDITION TO STEP 16) See Figure 1B.

- A. Remove 2-3 Shift Spring and Throttle Reducing Spring.
- B. Install **SMALL PLAIN** and **LARGE PLAIN** Shift Delay Valve Shims.
- C. Install Small <u>BLUE</u> Inhibitor Shim, <u>GGLD</u> 2-3 Shift Spring and <u>SILVER</u> 1-2 Shift Spring.



(INSTALL LARGE SHIM ONTO SPRING SEAT BY ROTATING SHIM, THEN INSTALL SHIM & SEAT INTO VALVE BODY)

## 3. (IN ADDITION TO STEP 17) See Figure 2A

Be sure to reinstall original 3/16" Check Ball in Upper Valve Body as shown. Now install the new 3/16" Check Ball and PINK Spring in location indicated in Figure 2A.

- **4** Continue to install Reprogramming Kit<sup>T.M.</sup> as shown in Step 8 of Reprogramming instructions.
- **5.** Disconnect downshift cable or rod at the transmission. It is best to have manifold vacuum connected to the modulator. If vacuum is not possible leave tube on modulator "open." Do not use "trick" plugs to eliminate modulator. MODULATOR MUST BE USED even if vacuum is not connected.
- If you have a bind-up on the 1-2 shift, back off rear band adjustment one additional turn.

## UPPER VALVE BODY FIGURE 2A REINSTALL ORIGINAL 3/6" CHECK BALL HERE INSTALL 3/6" CHECK BALL & PINK SPRING (FURNISHED IN KIT ) AS SHOWN HERE

## TO CONVERT BACK TO AUTOMATIC SHIFTS:

- A. Remove 3/16" Check Ball and PINK Spring from Throttle Valve Body. Reinstall original 3/16" Check Ball in Throttle Valve Body. (See Figure 1A)
- B. Remove Small BLUE Inhibitor Shim, GOLD 2-3 Shift Spring, SILVER 1-2 Shift Spring, SMALL PLAIN and LARGE PLAIN Shift Delay Valve Shims. Install ORANGE 1-2 Shift Spring, SMALL WHITE and LARGE WHITE 2-3 Shift Springs. (See Figure 1B)
- C. Reconnect and adjust Downshift Rod or Cable.

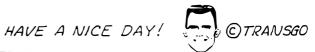
### IMPORTANT OPERATING INSTRUCTIONS

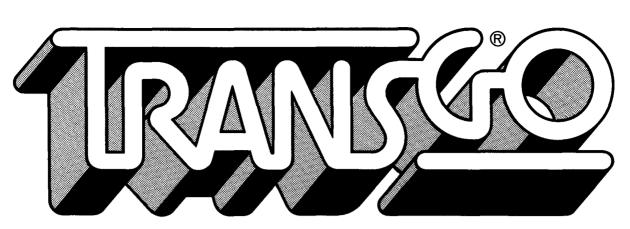
When moving backwards (Reverse), always come to a COMPLETE STOP before selecting a forward gear. Do not attempt to make a rolling reverse "Wheelie" or start a burn out while moving backwards. The entire force of changing directions goes to the low roller (Sprag).

We thank you very much for using this kit. We hope that you will enjoy using it as much as we enjoyed making it.

Now you are ready to throw a shift that will make the 4 Speeders Jealous!

TRANSGO • 2621 MERCED AVENUE • EL MONTE, CALIFORNIA 91733





## REPROGRAMMED AUTOMATIC

## 1967-72 Cast Iron Case Cruise-O-Matic

TOOLS RECOMMENDED FOR EASIEST, QUICKEST INSTALLATION

SCREW DRIVER
BLADE
PHILLIPS

SPEED HANDLE OR RATCHET

76" SOCKET

%" SOCKET

%6"WRENCH

SOCKET D

This Trans-GO Kit was a very intelligent decision. Your transmission will love you for it. This kit transforms a good working "stock" automatic transmission into a rugged, responsive, hi-performance unit.

A Trans-GO Kit will more than double the life of your transmission under high load conditions. There's no reason to lose precious efficiency with soft shifts that generate heat and consume horsepower.

VACUUM MODULATOR WRENCH OR WATER PUMP PLIERS

2

CRESCENT WRENCH



Trans-GO brings automatic transmission performance out of the dark ages into the space age, in one giant step. Installed in your transmission, a Trans-GO Kit recalibrates it to hi-performance specifications. It controls shift timing and "shift feel" for instant response and racing performance.

HAND DRILL

Cleanliness is important. An ideal place for valve body work is a clean table or work bench free of any other parts or springs. A piece of cardboard makes an excellent working surface once the valve body has been drained of transmission fluid.

Now you are ready to throw a skift that will make the 4 Speeders Jealous!

THIS KIT WILL NOT FIT 1973 OR LATER TRANSMISSIONS OR ANY TRANSMISSION WITH DUAL DIAPHRAGM MODULATOR.

## STEP 1

Loosen oil pan and drain oil. If filler tube screws into pan, remove it. It fluid is to be reused it should be drained into a clean container.

## STEP 2

Disconnect vacuum hose from the vacuum modulator located on left rear corner of transmission case. Unscrew vacuum modulator and remove it and push rod. (See Photo No. 2A) Use thin 3/4" wrench, water pump pliers or pipe wrench.

## STEP 3

The transmission oil screen is held in place with a metal clip, notice how it is installed. Remove clip and oil screen. REMOVE THESE TWO TUBES CONNECTING

**VALVE BODY TO PRESSURE REGULATOR** 

## STEP4

Remove the two tubes connecting valve body to pressure regulator. To remove big tube, unplug at valve body first. Be very careful, do not bend or distort tubes. (See Photo No. 2A)

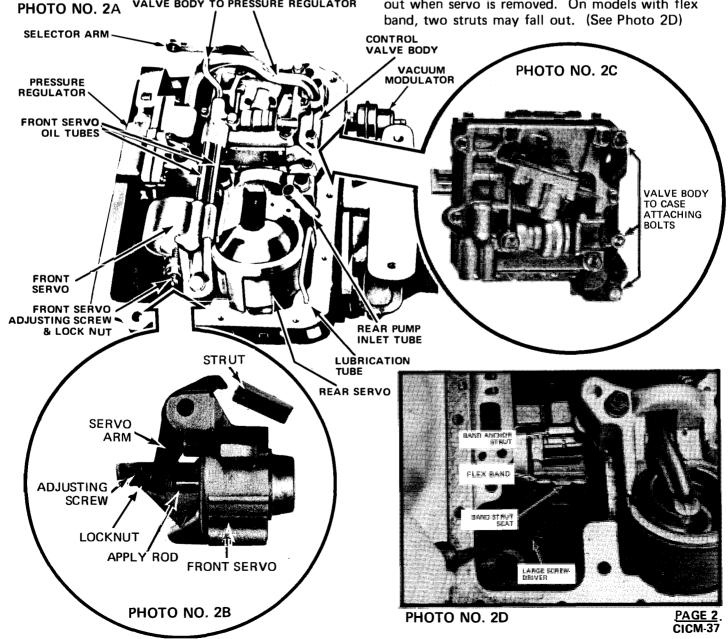
## STEP 5

If you are installing a 37-1 Kit, go directly to step 8. If you are installing a 37-2 or L37-2 Kit, continue as follows:

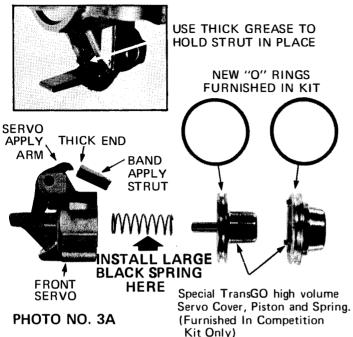
Loosen locknut on front servo adjusting screw and back screw out until the servo arm touches the apply rod. (See Photo No. 2B)

## STEP 6

Remove both front servo attaching bolts (use 9/16 socket) (some servos have only one bolt) and the three bolts attaching valve body to case (use 7/16 socket). Remove valve body and front servo together. Watch for band apply strut, it connects servo arm to the front band and will probably fall out when servo is removed. On models with flex band, two struts may fall out. (See Photo 2D)



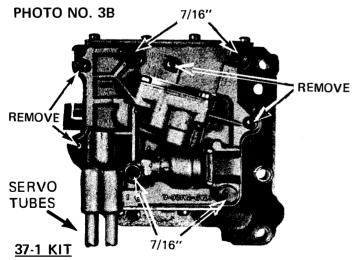
Remove two tubes between servo and valve body. Install new servo parts as shown. (See Photo No. 3A)



Install thick end of strut into band apply arm (Photo No. 3A). Use thick grease to hold it in position. While installing servo onto case, slide thin end of strut into strut seat on band.

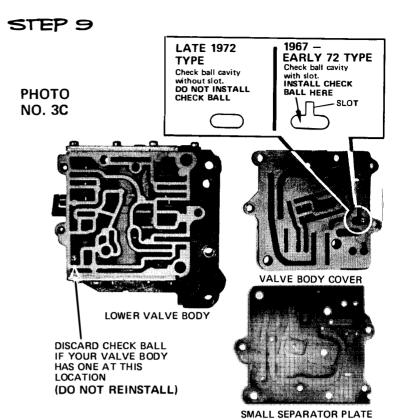
If you have flex band as shown in Photo No. 2D, see that anchor strut is in position and hold band with screwdriver as servo is installed.

## STEP 8 VALVE BODY



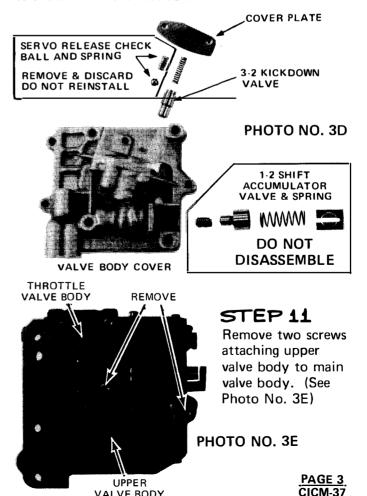
Remove four bolts (use 7/16" socket) and four screws that attach valve body cover. (See Photo No. 3B) Slide valve body cover off servo tubes. Remove small separator plate with cover. Remove three bolts attaching valve body to case (use 7/16" socket and remove valve body. (See Photo No. 2C) 37-2 or L37-2 KITS

Remove four bolts (use 7/16" socket) and four screws that attach valve body cover. (See Photo No. 3B)

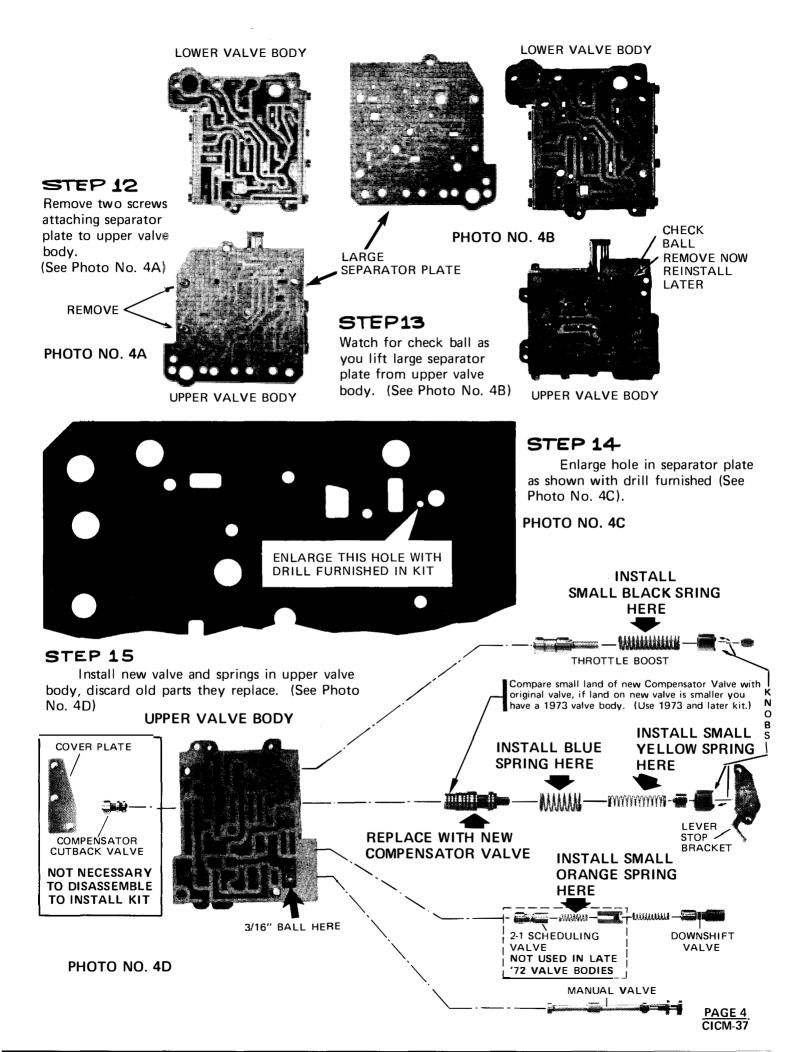


## STEP 10

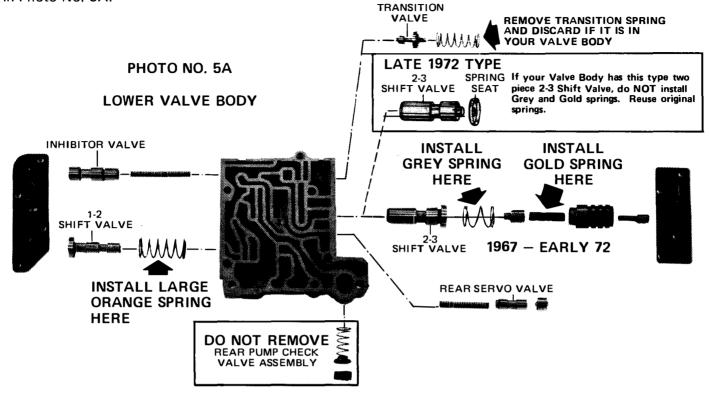
Remove and discard spring and ball from cover as shown in Photo No. 3D.



VALVE BODY



Install new springs in lower valve body and discard old springs. Remove transition spring as shown in Photo No. 5A.



## STEP 17 VALVE BODY REASSEMBLY

Install check ball in upper valve body as shown in Photo No. 4B. Install large separator plate onto upper valve body as shown in Photo No. 4A.

Install upper valve body onto lower valve body. DO NOT INSTALL THE REMAINING SMALL SEPARATOR PLATE AND VALVE BODY COVER AT THIS TIME.

## STEP 18

Place valve body onto transmission case and start the three attaching bolts shown in Photo No. 2A. Do not tighten them now.

Make sure pin in selector arm is between the two spools on end of manual valve. The kickdown lever beside it must be between downshift valve and lever stop bracket. When arm on outside of case is moved by hand the lever must push against downshift valve.

## STEP 19

Place check ball in correct location in cover. (See Photo No. 3C)

Place small separator plate on cover, slip cover onto servo tubes and install the 4 screws and 4 1/4" bolts and tighten them.

DO NOT OVERTIGHTEN BOLTS OR SCREWS.

## STEP 20

Install the two tubes between valve body and pressure regulator. Insert the big tube first into pressure regulator then push it into valve body, wiggle valve body to make installation easier. To install small tube it may be necessary to tap lightly with small hammer or screwdriver handle.

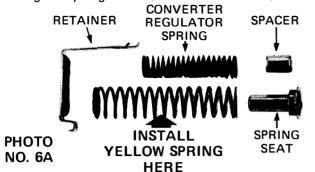
## STEP 21

Tighten the three valve body attaching bolts and the front servo bolts.

VALVE BODY BOLTS -80 inch pounds (Firm one hand pressure with speed wrench.)

SERVO BOLTS – 25 foot pounds (Firm with ratchet wrench.)

Install new YELLOW pressure regulator spring, use original spring seat. (See Photo No. 6A)



# DO NOT DISASSEMBLE OR REMOVE FROM TRANSMISSION CONVERTOR REGULATOR VALVE PRESSURE REGULATOR VALVE PRESSURE REGULATOR BODY

## STEP 23

With Lock Nut loose, turn Adjusting Screw until 1/4" bolt will just pass between Servo Apply Rod and the end of Adjusting Screw with slight drag. (See figure No. 6B) Then turn Adjusting Screw "IN" (Clockwise) one (1) Turn and tighten Lock Nut.

(Use 1/4" bolt from valve body or any bolt that a 7/16" wrench will fit.)

1/4" bolt being inserted between Servo Rod and Band Adjusting Screw.



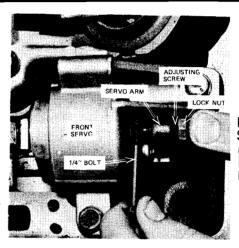


PHOTO NO. 6B

Pull back on Servo Apply Lever until all slack is removed from Band Apply Linkage

## STEP 24

Wash oil pickup screen and install using metal retainer.

## STEP 25

Push rod into new vacuum modulator (furnished) and install on transmission, connect vacuum hose.

## STEP 26

Clean transmission oil pan, remove old gasket, install pan using new gasket, connect filler tube.

## **STEP 27**

Pour three (3) quarts of fluid into transmission. Start engine with selector in "P" (PARK) and add fluid until level is at full mark on dipstick.

## **PERFORMANCE**

We recommend using Ford "F" fluid in this transmission. It works just fine.

We do not recommend any special fluid. Most of these "special" fluids lack some lubricating qualities, and can shorten the life of bushings, bearings, pumps and thrust washers.

## STEP 28 ROAD TESTING

Drive approximately two miles easy before attempting high throttle up-shifts. During this two miles move shift lever to all forward positions a dozen or more times. Check oil level and add oil if necessary. Do not run above full mark. IMPORTANT: After vehicle has been driven 10 to 20 miles RECHECK OIL LEVEL.

## STEP 29 PERFORMANCE TUNING Adjusting the Vacuum Modulator.

Remove vacuum hose from modulator. Adjust screw is inside of tube. Use very small screwdriver. For later or firmer shifts turn screw "IN" (clockwise) no more than 6 turns. For early or softer shifts turn screw "OUT" no more than 2 turns. Early shifts give better economy and overall performance.

Only RANGO exclusive reprogramming gives you everything

PERFORMANCE: Positive upshifts and downshifts at your finger tips for maximum performance.

CONVENIENCE: Automatic shifts in "D" position.

SAFETY: Manual downshifts to 2nd at any speed and to 1st at 40-50 MPH depending on

axle ratio and carburetion.

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# Stick Shift KIT NO. L37-3, 37-3

## 1967-72 Cast Iron Case Cruise-O-Matie

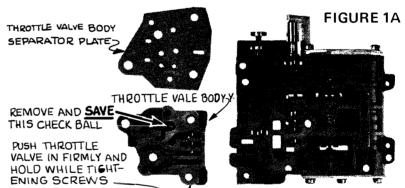
## READ THIS BEFORE STARTING INSTALLATION

Installing this kit <u>COMPLETELY ELIMINATES</u> automatic shifting. "D" position is High Gear, "2" position is Second Gear, "1" position is Low Gear.

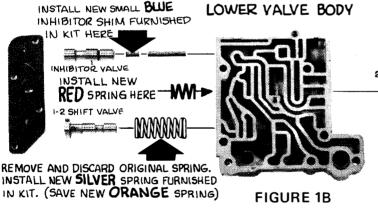
Proceed with L37-2, 37-2 Reprogramming Kit\* installation until you complete Step 10., then follow this instruction sheet to install Stick Shift parts.

## • (IN ADDITION TO STEP 11) See Figure 1A.

- A. Remove Throttle Valve Body and Throttle SEPARATOR PLATE Valve Body Separator Plate under it.
  - B. Remove and SAVE Check Ball.
- C. Reinstall Throttle Valve Body and its Separator Plate. Start screws but do not tighten. Push Throttle Valve in firmly and hold while tightening screws.

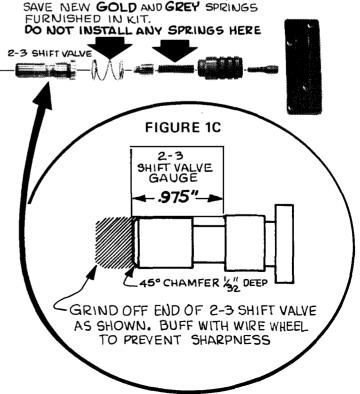


REMOVE AND DISCARD ORIGINAL SPRINGS.



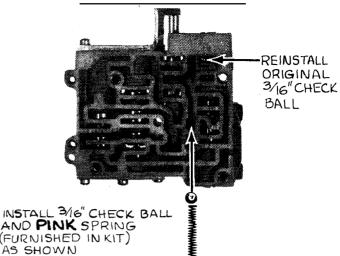
2. (IN ADDITION TO STEP 16) See Figure 1B.

- A. Remove <u>INNER</u> and <u>OUTER</u> 2-3 shift springs as shown.
- B. Grind 2-3 Shift Valve (See Figure 1C). Use paper template in kit to measure proper length. This length must be very accurate.
- C. Install Small <u>BLUE</u> Inhibitor Shim, <u>RED</u> 2-3 Shift Spring and <u>SILVER</u> 1-2 Shift Spring. (See Figure 1B)



- 3. (IN ADDITION TO STEP 17) See Figure 2A
  Be sure to reinstall original 3/16" Check Ball in
  Upper Valve Body as shown. Now install the new
  3/16" Check Ball and PINK spring in location
  indicated in Figure 2A.
- **4.** Continue to install Reprogramming Kit<sup>T.M.</sup> as shown in Step 8 of Reprogramming instructions.
- **5.** Disconnect downshift cable or rod at the transmission. It is best to have manifold vacuum connected to the modulator. If vacuum is not possible leave tube on modulator "open." Do not use "trick" plugs to eliminate modulator. MODULATOR MUST BE USED even if vacuum is not connected.
- **6.** If you have a bind-up on the 1-2 shift, back off rear band adjustment one additional turn.

## UPPER VALVE BODY



## TO CONVERT BACK TO AUTOMATIC SHIFTS:

- A. Remove 3/16" Check Ball and <u>PINK</u> Spring from the Throttle Valve Body. Reinstall original 3/16" Check Ball in Throttle Valve Body. (See Figure 1A.)
- B. Remove Small <u>BLUE</u> Inhibitor Shim, <u>RED</u> 2-3 Shift Spring and <u>SILVER</u> 1-2 Shift Spring.

  Install <u>ORANGE</u> 1-2 Shift Spring, <u>GREY</u> 2-3 Shift Spring and <u>GOLD</u> 2-3 Shift Spring. (See Step 2, Figure 1B of this instruction sheet.)
- C. Reconnect and adjust Downshift Rod or Cable.

## IMPORTANT OPERATING INSTRUCTIONS:

When moving backwards (Reverse), always come to a COMPLETE STOP before selecting a forward gear. Do not attempt to make a rolling reverse "Wheelie" or start a burn out while moving backwards. The entire force of changing directions goes to the low roller (Sprag).

We thank you very much for using this kit. We hope that you will enjoy using it as much as we enjoyed making it.

## Now you are ready to throw a skift that will make the 4 Speeders Jealous!

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