

SK[®] 200-4R-B[™]

VALVE BODY-ACCM-SERVO KIT

SHIFT KIT[®]

System Correction and Calibration

SysKoKit[®]

SysKoKal[®]

THE COMPLAINTS

3-2 CUTLOOSE OR RUNAWAY
1-2 SOFT, SLIDE OR SLIDE BUMP
WRONG GEAR STARTS OR 2ND GEAR STARTS
DOWNSHIFT CLUNK — BANG or ROUGH 2-3
PART THROTTLE TO 1ST UNDER 35 MPH
TV WON'T ADJUST PROPERLY
LATE SHIFTS or EARLY SHIFTS
KICKDOWN DELAY OR BIND UP ABOVE 50 MPH
BUZZ, MOAN or PUMP CLATTER

WHAT IS SUCCESS??? ARE YOU READY FOR SOME?
IF YOU KNOW WHY YOU ARE DOING IT,
IT COULD TURN OUT BETTER THAN EXPECTED.

START HERE — AND READ THE WHOLE THING.

Are you ready to road test this trans and NOT HAVE a 3-2 cutloose or a 1-2 slide or slide bump?

Are you ready to road test this trans and NOT HAVE now or 6 months from now, a 3-2 cutloose, a 1-2 slide or a slide bump?

Would you like to give this vehicle back to your customer without the "traditional" downshift clunk and severe neutral to drive engagement?

Are you ready for gear changes that are crisper with more throttle, instead of longer and softer?

You can uncross your fingers about the 2nd gear band and the direct clutch burnout also, because the CAUSES of their failure will be corrected.

All of the UPSHIFTS and DOWNSHIFTS in this trans are ACCUMULATED, except the 2-1 downshift @ 8 MPH. This means that ANY slide, bump, bang, or clang is proof of a SLIPPING friction unit, that does *not* apply during the ACCUMULATOR action, then applies abruptly.

Even when you get this job for other reasons, such as a stripped Sun Gear Shell (Input Drum) or broken pump rings, have you noticed that the shifting complaints just seem to APPEAR, like the intestinal flu with a good headache for a bonus?

THE QUESTIONS

1. Are the CAUSES there since day one and nobody noticed?
2. Do they "wear in" over time and miles from WARP & WEAR?
3. Are they inherent in the design and time lets them appear?
4. Is it something that you do or do not do during repair?

SYSTEMS CORRECTION AND CALIBRATION KIT

MOST OF THIS THICK PAPER IS TECHNICAL INFO, THAT IS **NOT IN THE REPAIR MANUALS**, SO THAT YOU CAN PREVENT ERROR, AND ALSO CORRECT THE ERRORS SOMEONE ELSE COULD HAVE "**BUILT IN.**"

THE SHIFT KIT[®] IS THE EASY PART.

SOME OF THE ANSWERS

1. SINCE DAY ONE? Some of the complaints are noticed from the start, with a careful road test on a hot day. The complaints new or nearly new are a 1-2 slide, 1-2 slide bump, a long soft 1-2 above 5/8 throttle (starts at 32 and finishes at 40MPH), a slight flair or cutloose during a 3-2 part throttle KD at 26-40MPH, a long delay during KD above 55MPH, a coasting downshift clunk, and a rough forward engagement.

Why aren't these complaints dealt with during warranty?

Though the complaints are there, they are not yet interfering with the vehicle's ability to get "there" and back again. Also, it's new, it smells good, it's comfortable, and who wants to admit, in much of a hurry, that his @ \$20,000 decision wasn't quite perfect.

Those who do complain and have enough horse power to get the service person's attention AND are also willing to be without their car while the dealer "investigates" the complaint, usually hear the standard "Fairy Tale". "I really don't think there is anything wrong with it. Yes, some of them do have this complaint. The engs are working on this problem, we will let you know if a solution is discovered." And, the mind boggling statement of paradoxical nonsense, which is, "George, don't you worry about a thing, just keep driving, because it's GUARANTEED."

All of that yak, is just a backhanded way of not telling the truth of, "I am sorry George, but we don't know how to fix it."

2. WARP AND WEAR: Does play a big part in the complaints. Only when the trans is brand new are all the parts flat, square and parallel. This means that if the flow and regulation were PERFECTLY correct when the trans was new, those same specs could not be correct, even with what could be considered "normal" warp and wear.

3. INHERENT IN THE DESIGN? Of course they are inherent in the design, but if all the inherent possible failings were designed out, the vehicle would cost \$10,000,000 and you (and we) wouldn't have a job. It is now your job to correct the causes of complaint/failure. You are now the one getting paid for the fix, not the factory.

The combination of 1, 2 & 3 added together really matter, but there is something else that changes more than the trans. **THE ENGINE.**

A seasoned engine (40-80,000 miles), at $\frac{5}{8}$ throttle, will have as much power, as wide open throttle had when the engine was brand new. When an engine is new, it requires @ 50 ft. lbs. of torque just to rotate it. With 60,000 miles on it 10 ft. lbs. may turn it. This means that at $\frac{1}{2}$ throttle in 2nd at 30 MPH the engine is delivering 40 lbs. more torque than it did new.

When the engine was new the compression ratio is usually around $7\frac{1}{2}$ to 1. (maybe even less) In 60,000 miles carbon has built up in the chamber to cause a compression ratio of @ $8\frac{3}{4}$ to 1. This increases torque output by @ 16%.

At 60,000 miles the engine has 16% more torque at all throttle openings, plus 40 lbs. from the reduction in engine friction.

NEW ENGINE: With @ $\frac{3}{4}$ throttle a 3-2 kickdown at 30 MPH lets the engine rev up to @ 3000 RPM. When new this is @ 200 ft. lbs. of torque. The converter is still multiplying torque, at this speed at approx. 1.6 to 1. — $200 \times 1.6 = 320$ ft. lbs. the trans must hold —

60,000 MILE ENGINE: $\frac{3}{4}$ throttle 3-2 kickdown produces 200×1.16 (16%) = 232 plus 40 = 272 at engine times 1.6 at converter = 435 ft. lbs. the trans has to hold, during the downshift. It is not going to make it with the original calibration.

Does this explain why a new car may not have a 3-2 cutloose, but a 40-100,000 mile vehicle will have that cutloose even when everything in the trans has been replaced? Does this explain why a 1-2 shift that starts at 40 don't get finished until over 50?

What this means is that unless you do something about it during your repair, it is just not fixed. You will find that when you do the SYSTEM CORRECTION technology it will be fixed and everything else you do is just along "for the ride".

4. THINGS YOU DO OR DON'T: Now we are down to what really counts. You and what you do. When a customer gives you a job, he does not care one iota about concept, design, inherent, disinherent, flat, square, parallel, torque, horsepower and RPM. He also does not give one hoot whether you put in one clutch or 18. Or 46 seals and 11 bushings or what brand of oil you use.

The job is there for only three reasons and if you are going to give the customer honest value for his money, then you have to be there for the same three reasons. These are the things that he needs and wants.

1. Wants the CAUSES of the complaints/failures corrected.
2. Wants the vehicle to respond properly to throttle opening.
3. He wants it to LAST.

These are also the only things that he can use to judge the value of your work. These are also the only things that you should use to judge the VALUE and the PRICE of your work.

This means that the VALUE and PRICE depends upon how well you do 1, 2, & 3 and not on how many bands, clutches, bushings and seals you installed. They have nothing to do with correcting CAUSES, or throttle RESPONSE or how long it will LAST. Those are just things that you do because — (take your pick) — It proves it was O'hauled. — They were burned out — They had miles on them — They were dirty.

Those things may have been the fix in the "Dinosaur" days of the trans business, but not now. A big stack of parts don't fix'em any more. What fixes today's trans's is awareness, awakesness, active data and active parts that are more CONSCIOUS of the signals sent to them and respond better by sending QUICKER and more DISTINCTIVE instructions to the friction units that are just obedient servants.

It doesn't take a genius to see that SYSTEM CORRECTION is the TECHNOLOGY that fixes today's trans's and everything else is "Just along for the ride".

Your application of SYSTEM CORRECTION technology IS the EVIDENCE of both your TECHNICAL ability and your ETHICAL correctness, because without it this trans is NOT FIXED.

"IT'S A LOT EASIER TO FIX THE TRANS THAN IT IS TO DEAL WITH THE HASSLE."

Our very best to you and your customer,

THE TECH TEAM



MR. SHIFT®

FROM

RESEARCH CO.

2621 MERCED AVE., EL MONTE, CALIF. 91733

THE TESTING AND DEVELOPMENT ARM OF

TRANSCO®



Featuring **BOOTSTRAP® TV**

US Patent #4,711,140

Most complaints of LATE or EARLY shifts and clutch or band failure are caused by malfunction of the TV system or a delay in response to throttle opening. We're convinced this new system will continue to perform and prevent the complaints and comebacks caused by TV malfunction.

Want tech assistance? Need Training?

Research tech service has what you need to get those trouble jobs out the door FAST. A private phone number direct to our technicians and tech books with the data you need. \$92 a month. Call (626) 443-0991

GASKETS, SEALS OR DRILLS ARE NOT FURNISHED AS PART OF THIS KIT. SOME MAY BE INCLUDED FROM TIME TO TIME FOR YOUR CONVENIENCE.

STEP 1.

A. Use the spring that fits stem **BLUE** or **RED**

BLUE or RED
2-3 SPRING

STEM
2-3 T.V. VALVE 2-3 SHIFT VALVE

HOLD IT
With lever in "3" manual valve must be flush to 1/16 below flush, **HERE**.

CONVERTER O

'81-'82 Gas — All exports
Diesels have a valve here

'83 and later GAS vehicles with ECM, used this passage transfer plug and do not have Conv CI TV or shift valve.

NOT NECESSARY TO REMOVE

What vehicles need a VB WITH Conv Clutch valves?
All Diesels — All '81 & '82's — Exports / Canada w/o ECM.
Use plate with hole "V".

CONV CLUTCH BUSHING

SOME MODELS HAVE A PLUG HERE

CONVERTER CLUTCH T.V. CONVERTER SHIFT VALVE

'83 & later Gas vehicles with ECM don't use these valves.
Use plate with hole "W".

1-2 SPRING & T.V. VALVE

LOW RANGE

1-2 SHIFT VALVE

LOW OVERRUN

3-4 T.V. VALVE

NOT ALL MODELS
4-3 CONTROL

NOT NECESSARY TO REMOVE

ACCUMULATOR BUSHING

ACCM VALVE

BROWN

3-4 SHIFT VALVE

— The **SHIFT KIT**® installation is in **RED** — The rest is **TECH** that you might just like/need.

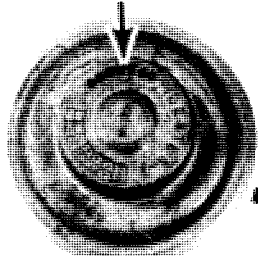
STEP 3.

B.

CHECKBAL
For when tra

CASTING NUMBER ON THE SERVO COVER

Inner steel piston:
Discard the ring



SERVO COVER

COVER

APPLY PISTON

INSTALL SHIM

Install **WHITE** return spring

Install two spacers on pin

APPLY PISTON ORIFICE

If orifice is a cup plug, with a hole in it, it is OK as is.
If the orifice is a drilled hole, install **BLACK** cup plug furnished.

HERE'S HOW: Enlarge the orificed hole with a 5/32" drill (.147-.157) and install the cup plug into it.

BAND ADJUSTMENT

The clearance for the 2nd gear band is **NOT CRITICAL**, but it must have **SOME**.

BEFORE CHECKING CLEARANCE: Push cover out against the snap ring with pump pliers.

WITH PAN OFF: Reach up past the v with screwdriver. Move the band **FRONT**. Must move freely **FRONT** to **REAR** 1/8"

WITH PAN ON: If you can turn the driv BACKWARDS, by hand, and only feel the reduction, the 2nd gear band clearance

SAFETY CHECK: Push the cover "IN" e slide a paper match between the co the snap ring. If 2nd gear band wiggle front to rear, or you can s the driveshaft backwards, by hand,

If it's tight, remove one or two **GOLD** s

CONVERTER CLUTCH SHIFT VALVES

STE

HOLD IT
 or in "3" manual
 must be flush to 1/16
 sh, HERE.

'81-'82 Gas — All exports and
 Diesels have a valve here.

If VB has a valve, it must have
 a PLATE with a hole here.

MANUAL VALVE

"Z"
 When you install the bolts in "Z" holes
 FIRST, all the rest of them will go in with
 clearance. No more oblong gasket holes
 or threaded separator plates.

2-3 SHIFT VALVE
NECESSARY TO REMOVE
 WITH Conv Clutch valves?
 2's — Exports / Canada w/o ECM.
 e with hole "V".

CONVERTER CLUTCH T.V. CONVERTER SHIFT VALVE
 don't use these valves.

1-2 SHIFT VALVE
 4-3 CONTROL

NOT ALL MODELS

REMOVE 3-4 SHIFT VALVE

ACCUMULATOR BUSHING

B.

'83 and later GAS
 NO VALVE HERE.

PLATE HOLE HERE.

W HOLE

V HOLE

TV BALANCE

TV HOLE

GOLD

CHECKBALL LOCATIONS ⊗ **"Z"**
 For when trans is **IN THE CAR**

BAND ADJUSTMENT

The clearance for the 2nd gear band is NOT CRITICAL, but it must have SOME.

BEFORE CHECKING CLEARANCE: Pull the cover out against the snap ring with water pump pliers.

WITH PAN OFF: Reach up past the valve body with screwdriver. Move the band FRONT to REAR. Must move freely FRONT to REAR 1/8" or more.

WITH PAN ON: If you can turn the driveshaft BACKWARDS, by hand, and only feel the gear reduction, the 2nd gear band clearance is OK.

SAFETY CHECK: Push the cover "IN" enough to slide a paper match between the cover and the snap ring. If 2nd gear band will still wiggle front to rear, or you can still turn the driveshaft backwards, by hand, it's OK.

If it's tight, remove one or two GOLD spacers.

— HOLD IT —

CHECK THE TV SYSTEM BEFORE INSTALLING VALVE BODY

WHEN IT'S RIGHT, IT WORKS LIKE THIS:

Look down the drilled TV hole. Each time the plunger is pushed flush, the valve must move leftward and open the hole 1/3 or more. As the plunger is released slowly, the valve must move rightward and close the hole. Try it about a dozen times. It should work EVERYTIME. That's it.

DON'T FORCE THE PLUNGER: If it's hangy or doesn't want to go flush, there is a bind on the TV valve. The TOUGH spring may be cocked and binding on the BLUE spring. Rotate the TOUGH spring and try it again. Still Hangy? Try the TOUGH spring by itself.

GASKETS, SEALS OR DRILLS ARE NOT FURNISHED AS PART OF THIS KIT. SOME MAY BE INCLUDED FROM TIME TO TIME FOR YOUR CONVENIENCE.

BOOTSRAP® System

TOUGH

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TV SPRI

WH

V6's

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NO

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STIL

CLUTCH SHIFT VALVES

STEP 2.

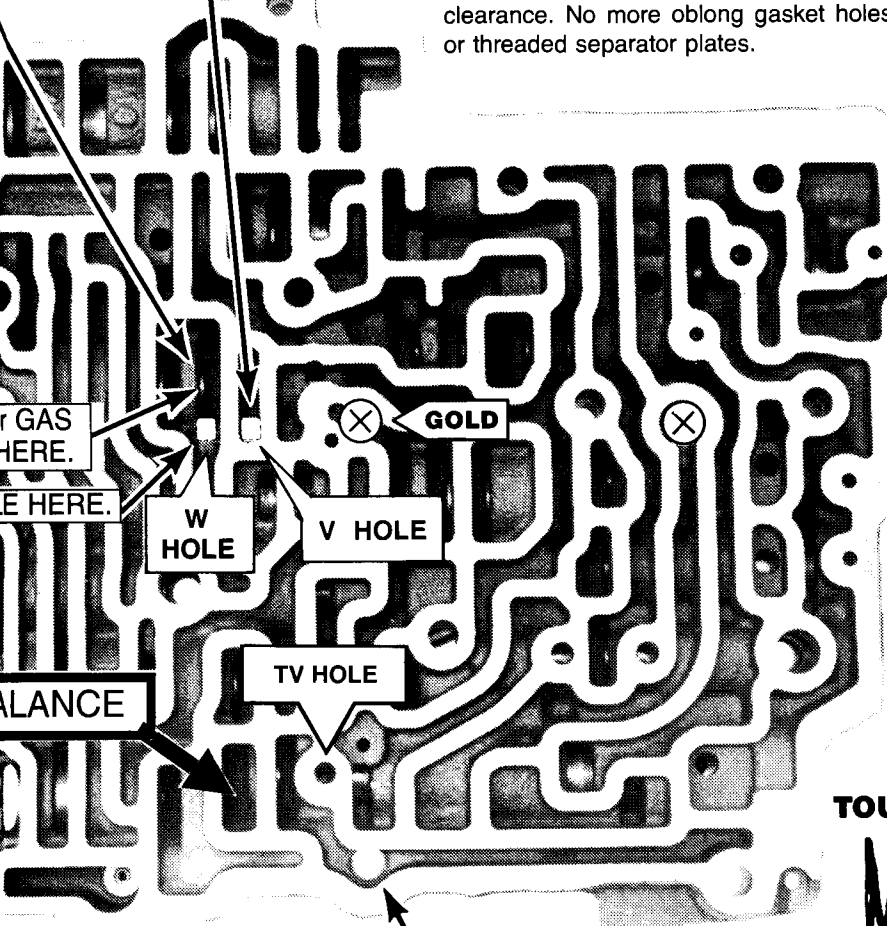
REUSE ORIGINAL LINE BIAS SPRING
 Buick Grand National With V6 Turbo:
 Chev Monte Carlo-SS With Hi-Output V8:

If VB has a valve, it must have a PLATE with a hole here.

MANUAL VALVE

"Z"

When you install the bolts in "Z" holes FIRST, all the rest of them will go in with clearance. No more oblong gasket holes or threaded separator plates.



... GAS HERE.
 ... HERE.

BALANCE

VALVE LOCATIONS (X) **"Z"**
 ... IS IN THE CAR

A. BEIGE

LINE BIAS VALVE



No Change

3-2 CONTROL



NOT NECESSARY TO REMOVE

No Change

M.T.V. UPSHIFT



B. GREEN

M.T.V. DOWN SHIFT



TV LIMIT VALVE No Change



NOT NECESSARY TO REMOVE

C.

TOUGH BLUE

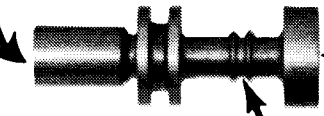
RED



ALL MODELS

Two RIB Valves Use RED Also

IF THE VALVE HAD A SPRING IN THE SMALL END, DISCARD IT.



Look for RIBS

BOOTSRAP® System US Pat 4,711,140

PLUNGER BUSHING

PLUNGER

- HOLD IT -



TV SPRING

"SHIFT KIT"

INSTALL SPACER INSIDE T.V. SPRING

CHECK THE TV SYSTEM BEFORE INSTALLING VALVE BODY

WHEN IT'S RIGHT, IT WORKS LIKE THIS:

Look down the drilled TV hole. Each time the plunger is pushed flush, the valve must move leftward and open the hole 1/3 or more. As the plunger is released slowly, the valve must move rightward and close the hole. Try it about a dozen times. It should work EVERYTIME. That's it.

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WHAT SIZE HOLE IS REALLY THE BEST?

V6's have lower axle ratios. They need small holes. Midsize cars 6 & 8 are lighter. They need small holes.

EXAMPLE: Hole "B"—V6's and midsize cars—.062-.067 Full size V8's — .068-.073 Cheaters get complaints.

SOME COMMON SENSE: Nearly all of the downshift and upshifting complaints and burned friction is caused by DELAYED or UNDER active pressure condition.

The #1 goal of this SysKoKal™ kit is to correct and prevent UNDER active regulation. And the kit FIXES it. When pressure rise is not correct, the accumulator systems cannot work correctly; AND there are NO HOLE SIZES or "Special" plate that can make it work right or prevent friction failure.

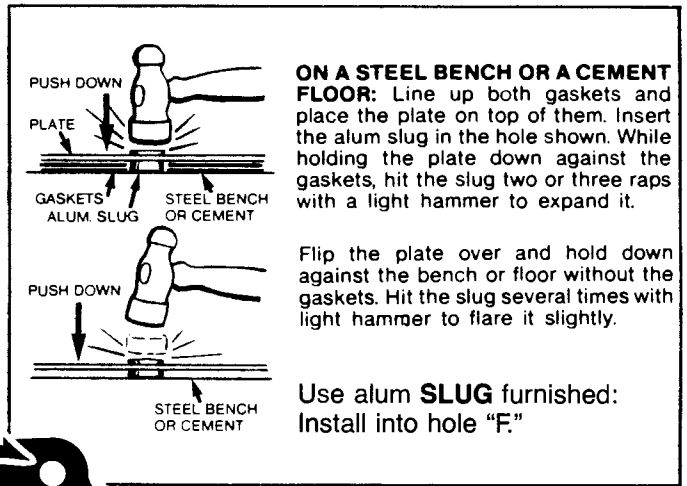
If you install LARGER HOLES than recommended and don't have ROUGH SHIFTS, it is PROOF that the trans STILL HAS a PRESSURE rise or accumulator PROBLEM.

WHO NEEDS A 3-4 DAY HEADACHE FOUR TIMES A YEAR?

Our estimate is that one out of four of these jobs will have the wrong VB and plate combination when it arrives. If you are doing exchanges or any parts cross-mixing without knowing what will work and what won't, you can spend forever fighting NO 2nd, no Lock-up, or early lockup with no unlock. Pay attention to the TECH furnished in this kit. IT WORKS.

All DIESELS AND EXPORTS / Canada that require a govnr switch on the 1-2 Accm casting, MUST have a hole in plate at "G" location.

If you need "G" hole: Use the gasket to locate it. Drill a 1/16"-1/8" hole.



STEP 4: Hole sizes

(.072 drill may be included)

Don't cheat --Use the exact sizes shown
 Passenger Police-Taxis-Limo-Hot Rod

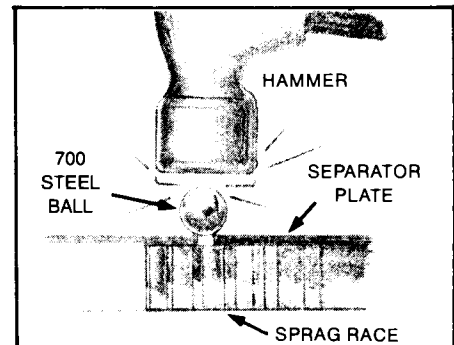
- | | |
|------------------|------------------|
| A = .072-.076 | A = .076-.080 |
| B = .062-.072 | B = .072-.076 |
| C = .072-.076 | C = .076-.080 |
| D = .072-.076 | D = .076-.080 |
| ** E = .110-.113 | ** E = .113-.116 |
| F = Plugged | F = Plugged |

If plate dosen't have hole "E": Use gasket as a guide and drill "E" to .110 to .113

For firmer 1-2 and 2-3 shifts: Order 2nd piston and cover for an 87 Buick Grand National. It is OK if inner steel piston fits loose in 2nd apply piston.

GOT A HOLE THAT IS TOO BIG?

Place the part of the plate with the hole that's too big onto the front or rear face of a sprag race. Put a checkball on the hole and hit it with a light hammer. Then, redrill it to the correct size.



CHECKBALL LOCATIONS ⊗ when trans is **ON THE BENCH**

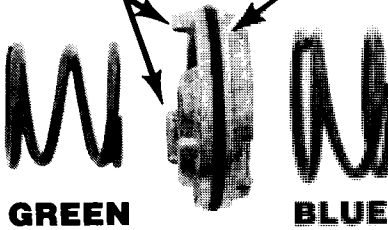
STEP 5.

Install **METAL** ring OR Poly seal furnished.

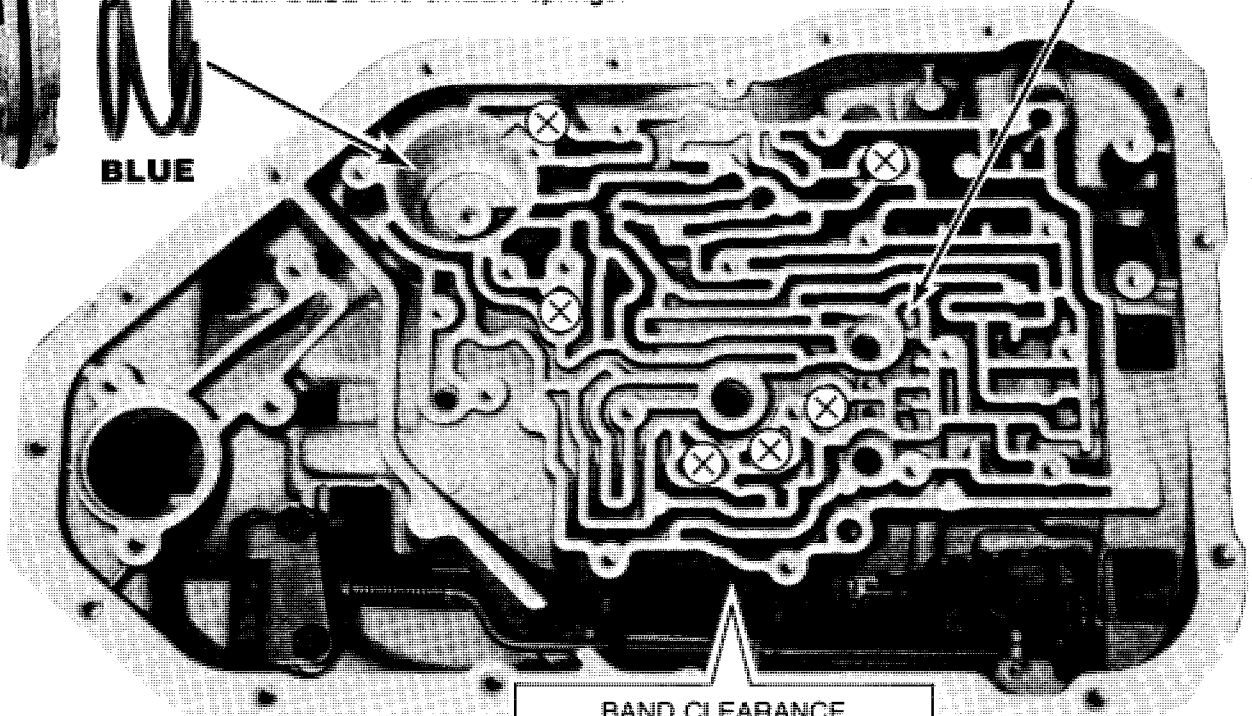
— RIBS —
TOWARDS PLATE

4th ACCM

Install **BLUE** and **GREEN** springs.



No checkball here



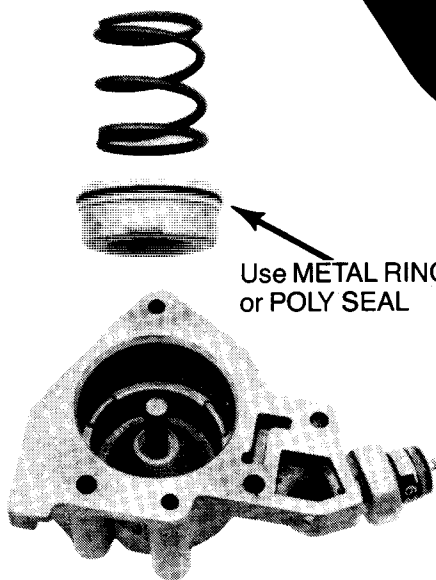
BAND CLEARANCE
MUST SLIDE FRONT TO REAR
FREELY 1/8" or MORE.

GASKETS, SEALS OR DRILLS ARE NOT FURNISHED AS PART OF THIS KIT. SOME MAY BE INCLUDED FROM TIME TO TIME FOR YOUR CONVENIENCE.

"Z"

BIG SPRING
PLAIN OR BLACK

CHECKBALL LOCATIONS ⊗
When trans is **ON THE BENCH**



Use **METAL RING** or **POLY SEAL**

GOLD

LISTEN UP: This trans will **KICK** your **BUTT**, really good, if you let it out the door without a **LOW SPEED 2-1 KICKDOWN**. Recheck it before delivery.

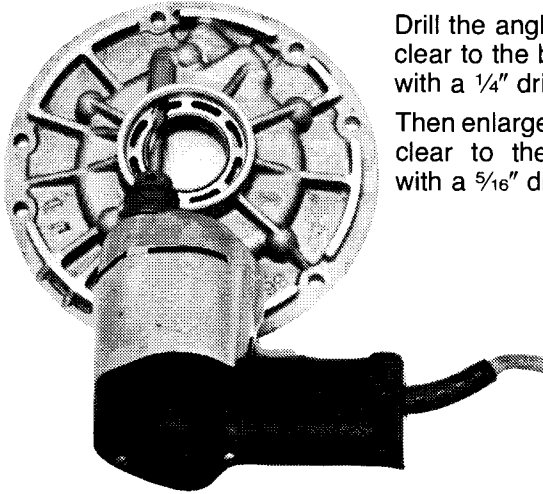
"Z"

2nd ACCM
STEP 6.

SHIFT KIT® is the brand name for valve body kits designed by Gil Younger and manufactured by **TransGo®**. Be careful about calling other valve body kits by our brand name, **"SHIFT KIT®"**. You might end up with some parts that will not be or do what you expected.

IF THE TRANS IS OUT OF THE VEHICLE DO THE PUMP TECH

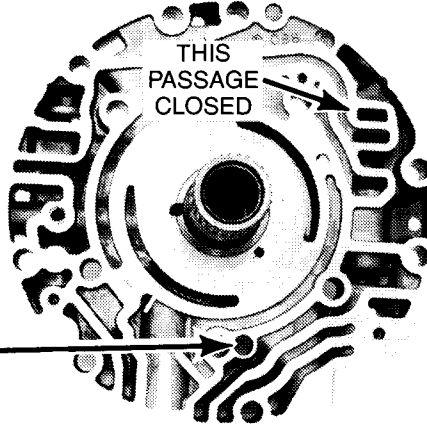
To **REDUCE LEAKS** and **PREVENT** seal from **BLOWING OUT** —
ENLARGE THE FRONT SEAL DRAINBACK HOLE AS SHOWN



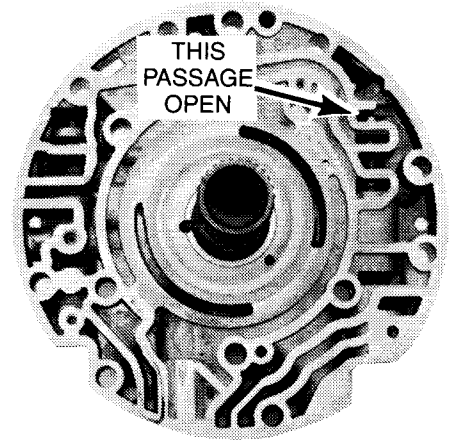
Drill the angle hole clear to the bottom with a 1/4" drill.
 Then enlarge the hole clear to the bottom with a 5/16" drill.

PUMP COVER STYLES (STATOR SUPPORT)

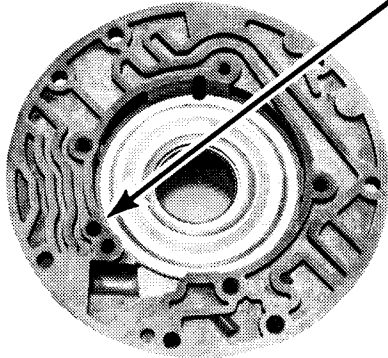
CLOSED STYLE
 REQUIRES PR VALVE WITH HOLE OR FLAT



OPEN STYLE
 OK with all valves



Enlarge these holes to 5/16" also.



GRIND THIS LAND OFF FLUSH WITH THE SPOOL ALL THE WAY AROUND.
 (It's not fussy)

STEP 7.

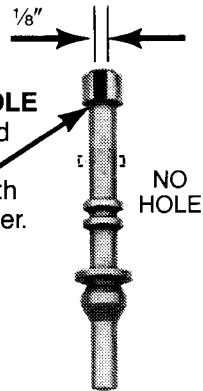
PASSENGER — LIMO
POLICE and TAXIS
 except **EXPORTS / CANADA**

Install **WHITE**

DIESEL — HOT ROD
EXPORTS / CANADA

Install **GREEN**

WHY RISK IT?
 If you have a **NO HOLE** type PR valve, grind a 1/8" wide flat on it. Then it will work with any style pump cover.

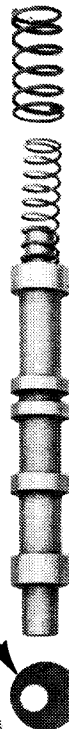


It's not fussy, but if you like a more precision job check it with a micrometer. It should measure .352-.360.

CONVERTER CLUTCH VALVE (vertical/solenoid valve)

No change here. Reuse original springs.

Outer spring should be **GREEN** and the inner spring **YELLOW**.



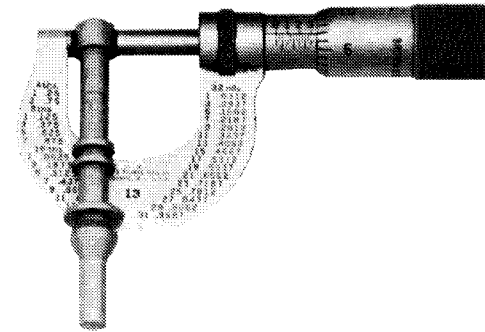
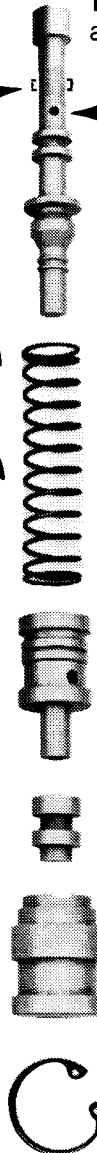
CONVERTER CLUTCH VALVE

— **RETAINER** —
 MUST LOOK LIKE THIS:
 If it has some other style replace it with #8634705.

RETAINER

NoYoYo®
Pump ring kit

Broken rings are a very **EXPENSIVE** comeback.
 Use Hardened **STEEL** rings that don't break. Order-
TransGo® NoYoYo® pump ring kit. For engines that rev over 5500 order **HI-REV** kit.
 Insist on the genuine **TransGo** ring kit or you will get some iron imatations that won't do the same job.
 Same kit fits 700 & 200 4R.



Diesel and V8:
 Use .422 diameter valve.

THROTTLE AND TV CABLE RELATIONSHIP

More than thirty five years I've been working on trans's. It's common knowledge that I've researched, designed and produced more, successful problem correcting trans parts, than all other persons or companies put together.

ALSO: By many times over, myself and our tech crew, has indentified, isolated, researched and corrected more causes of complaint/failures, that shops have, than everybody else, including the car factories.

AND YET: Even with all of this experience and all of these results, there are only a VERY FEW THINGS that I am certain that I know PERFECTLY. One of them is: When you adjust the cables EXACTLY like these instructions, they will be RIGHT. ANY OTHER WAY — Or not doing it, is WRONG.

GASOLINE — 1. REMOVE the AIR CLEANER and place it on your **BENCH (PLEASE)**.

2. Push the TV adjusting **TAB** and move the cable housing **TOWARDS** the **CARB**, as far as it will go.

3. Have someone floor the gas pedal from **INSIDE** the car. While they hold the pedal floored, you **BEND** the **THROTTLE CABLE BRACKET** away from the carb until the **CARB ARM BOTTOMS SOLIDLY** against its stop.

4. While someone is still holding the pedal floored, **DEPRESS** the adjusting **TAB** and slide the TV cable housing **AWAY** from **CARB FIRMLY** until it stops. Release **TAB** and let it lock. (Go to Step 5)

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DIESEL— 1. Release the locking tab and push the cable **HOUSING** an inch or more towards bare **CABLE**.

2. Have someone floor the throttle pedal from inside the cab, while you adjust the rods or cable until the arm on the injector pump is against its wide open stop.

3. While the throttle is still being held wide open, release the **TAB** and push the **HOUSING FIRMLY** away from the bare cable until it stops and engage the **TAB**.

4. Go to step 5.

5. **POCKETKNIFE** a deep **MARK** on the cable **HOUSING** tight up against the front of the adjustment assembly. This **MARK** is **MAX TV**.

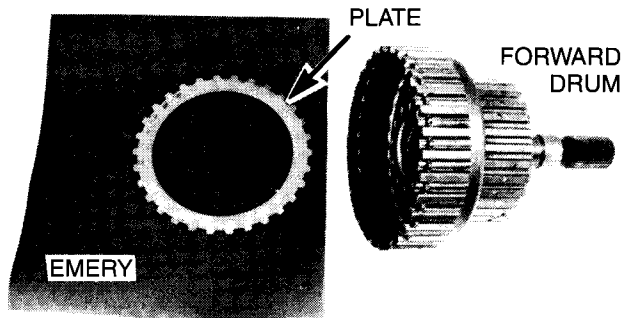
6. Depress **TAB** and move mark $\frac{1}{8}$ " towards carb (forward).

7. Road test **BEFORE** installing **AIR CLEANER**.

8. **The first check is for DETENT.** Here's how: Make a very light or min throttle 1-2 shift. As soon as it shifts, floor the throttle. The trans **MUST** shift back into 1st. If it doesn't you need more TV.

SOME HINTS: The mark you made is **MAX TV**. Moving the mark **AWAY** from the adjustment assembly reduces **TV**. Diesel and gas V8's work best from max to two clicks away (about $\frac{3}{32}$ "). V6's work better with about 4 clicks away from max ($\frac{5}{32}$ ").

LISTEN UP: This trans will **KICK** your **BUTT** good, if you let it out the door without a **LOW SPEED 2-1 KICKDOWN**.



If you are overhauling this trans, there are some other "NICE THINGS" you might want to do while it is apart.

FOR A SMOOTH NEUTRAL TO DRIVE ENGAGEMENT: Sand the forward clutch steel plates, by hand, with 40-180 grit emery. Yes, even NEW ones. HERES WHY: If the plates stop the trans rotation before the cushion spring bottoms, the engagement will be smooth.

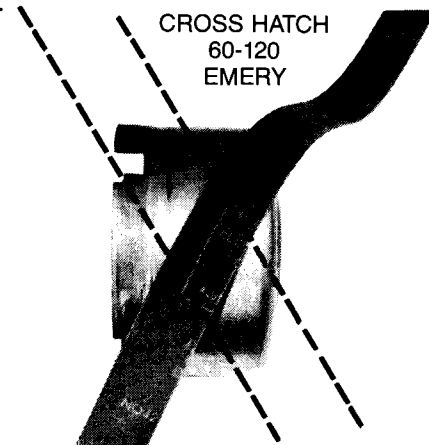
HIGH DRUM SURFACE: Sand around the drum with 60-120 emery on two angles to get a cross hatch pattern. This will help the trans have smoother shifts at light throttle openings.

WORN PLATE AT CENTER CHECKBALL: — No big deal. A small leak won't matter. A .015 over GOLD ball is furnished for normal wear. If plate is worn badly, use the .030 over BLACK ball from SK 279 Kit.

CHECKBALL INSTALLED MUST HAVE CLEARANCE: Hold the plate firmly down against the valve body. The ball must still wiggle.

It could happen that somebody has already done some TRICK and you have a too firm 1-2 shift. If this happens, give us a ring and we will help you unTRICK it. Product support: (626) 443-7451

Research has a trouble shooting service by phone & FAX and HI-TECH training for the serious technician who needs to get it right FAST. Everyday you spend on job that won't ship reduces shop volume a \$1000 that week and stresses you out. Let us help you get the jobs out FAST. \$92 a month. Call (626) 443-0991

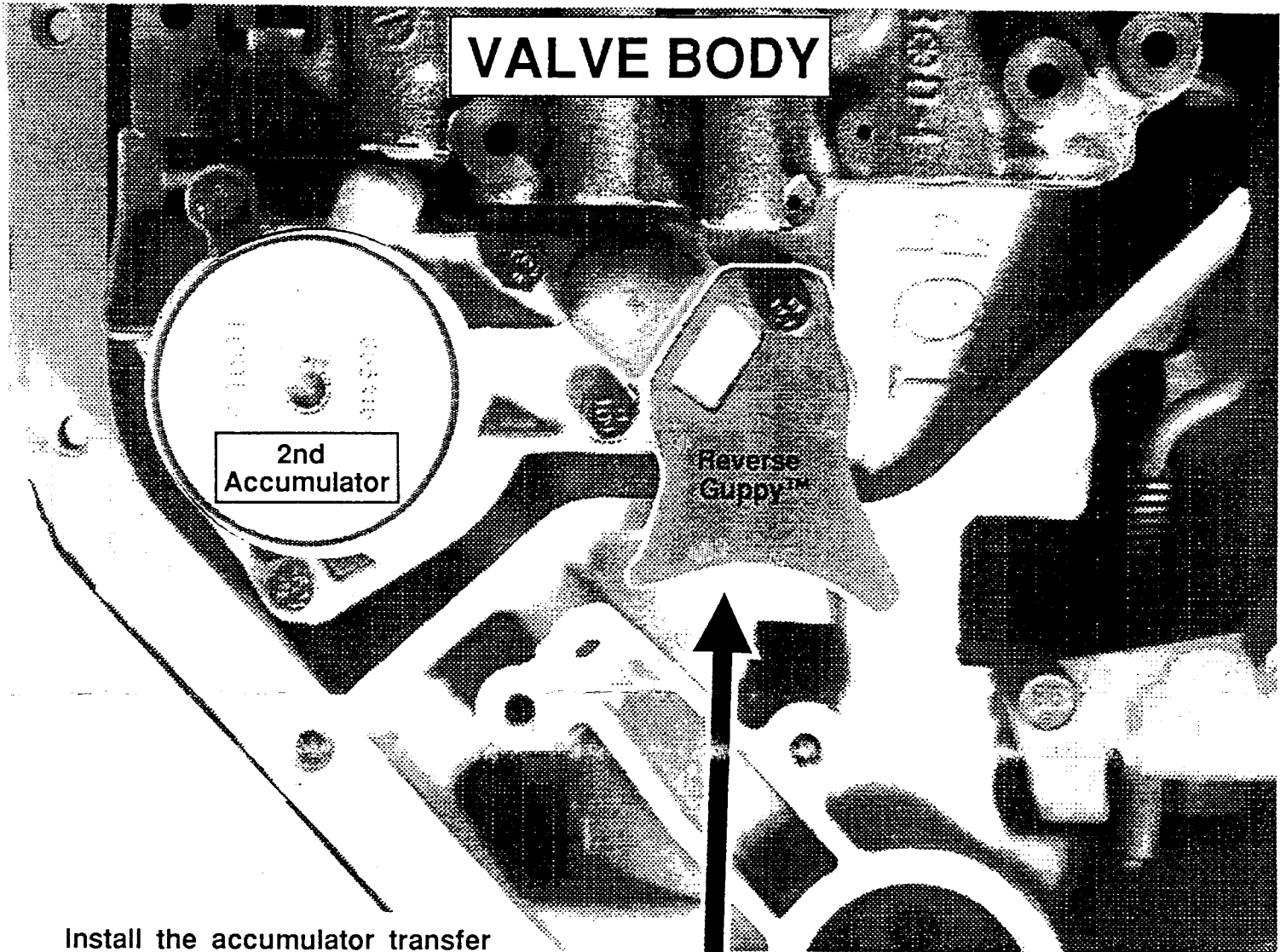


SUN GEAR SHELL (INPUT DRUM)

If the rotating movement of the sun gear is more than a $\frac{1}{4}$ of a tooth it should be replaced. You will likely be able to find a used 200 that is still in good condition if cost is a factor. But you should be aware that a good used one is not FOREVER even tho 2-3 years of service could be expected. To get a FOREVER fix order a new heat treated Input Drum 8648484. It retails from your GM dealer at @ \$24.50

200 4R Reverse Fix

Prevents/corrects hot chatter or slip in Reverse



Install the accumulator transfer plate and the 2nd accumulator assembly loosely with bolts.

Remove one bolt and install Guppy™ on top of transfer plate. Swing it leftward against the accm casting.

Tighten all the bolts.

Yes, the Guppy™ just sticks out over the edge. When the pan is installed, it will pressure the Guppy™ against the plate and fix the reverse leak.

Another fix from your TransGo® tech team.



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