

# SK® 325 VALVE BODY & SERVO KIT SHIFT KIT™

This kit is a HI-TECH product. It is made for the HI-TECH shop who is interested in making the trans work right.

This is NOT a HIGH PERFORMANCE kit. It eliminates slow sliddy shifts and will make a dramatic improvement in driving performance and durability but will NOT make FIRM shifts. In fact a firm shift in this transmission is usually a malfunction. It is caused when the shift is not completed while the accumulator is stroking, then applies suddenly (bumps) when the accumulator bottoms.

If you are basing your success on how good the transmission works, you've got the right PRODUCT and INFORMATION.

**COMPLAINTS this kit CORRECTS:** Are the same COMPLAINTS this trans had when it was NEW. Replacing clutches, band seals might HIDE a few of them AWHILE, but it is not going to FIX them. This kit FIXES them.

#### COMPLAINTS:

Slide Bump 1-2, long SOFT 1-2  
2-3 CUTLOOSE or BUMP 21-33 mph  
2-3 HARSH shift 28-55 mph  
3-2 CUTLOOSE or slide BANG 3-2  
BAND failure and 3rd CLUTCH failure  
CLANG on coasting DOWNSHIFT 19-11 mph  
CORRECTS: overall "LAZY FEELING"

When installed during overhaul this kit will PREVENT your trans from having or developing these COMPLAINTS. When installed in a high mileage trans this kit will CORRECT these complaints unless the band or high clutches are just plain "BLACKED OUT".

If your success just means two upshifts and a passing gear and SELL IT BACK TO THE CUSTOMER, you don't need this kit. This kit is hunting for shops (mechanics) whose success depends on FIXING THEM, so there is no SELLING it BACK to the CUSTOMER with a bunch of DOUBLETALK like "that's the way THEY work". OR: "That is how THEY made them" (he is not paying THEY, he is paying YOU). When you say "THEY" to your customer or boss, you are clearly ducking your responsibility by attempting to blame someone else. When you say "THEY" do you know what that means? It means, "I am not willing (don't know how) to fix it..I am not willing (too proud) to admit I don't know how. I am willing to blame others (they).

By blaming "THEY" is one hoping to convince himself and others (the customer) that he is innocent and THEY are GUILTY?

Are you tired of being in this SPOT?  
No need to be in it; BECAUSE, we have located the errors that "THEY" made and the parts and information in this kit corrects them. Now you will be BLAMED when it works so GOOD.

**WE CARE ABOUT YOU:** If you are still having a problem when you've got this trans back together, our TECHNICAL DEPT will be happy to help. Phone (818) 443-7451.

## SALES PITCH

**THE VALUE:** On the basis of just avoiding comebacks and complaints, this kit doesn't cost money, it saves money. It will do more, all by itself, to prevent complaints and comebacks, than everything else you could put in. In fact, if you think about it a minute, NONE of the other parts you install have anything at all to do with preventing complaints and comebacks. They are the parts that wear out or burn up because of the complaint. This kit is the only part that concerns itself with the CAUSES of COMPLAINTS and COMEBACKS. You are not putting this kit in because the SEPARATOR or SPRINGS are WORN out. You are installing this kit because it CORRECTS the design and production MALFUNCTIONS that CAUSE complaints.

What is it worth to your customer to have a trans that's working as good as it SHOULD instead of one that is just working?

I know, now your going to jump up and say "I am not having comebacks and my units work as GOOD as NEW."

Well let me comment on GOOD. We have upgraded many 325's still in warranty with these parts. The car owners comment is always the same. "This works many times better than brand new." Often the customer doesn't realize why he is disappointed with the way the "WHOLE CAR" responds until you or some other HI-TECH mechanic MAKES the trans work like it SHOULD.

If your standard is to make it work nearly, or just as good as NEW you probably don't want this kit, because with this kit, it will not work that LAZY. Look honestly back into your own memory to the first time you drove a 325. What was your opinion on how "THEY" worked? Have you downgraded your standard because YOU are having to FIX them? You can UPGRADE your standard right now and be that HI-TECH mechanic who has honored the customers car by fixing it.

**SHIFT KIT™** is the brand name for valve body kits designed by Gil Younger and manufactured by TRANSCO®. 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.

**THE INFORMATION,** both written and solid (parts) in a SHIFT KIT™ is the crispest, clearest, highest technical information available and we are here everyday, working, to make it even better whenever possible.

**A SHIFT KIT™** does more to improve DRIVEABILITY of the whole car, than all other parts combined.

**WHY?** Because even a GOOD shift doesn't make the car feel good unless it also happens at the RIGHT TIME.

That's what a SHIFT KIT™ is all about, A GOOD SHIFT AT THE RIGHT TIME.

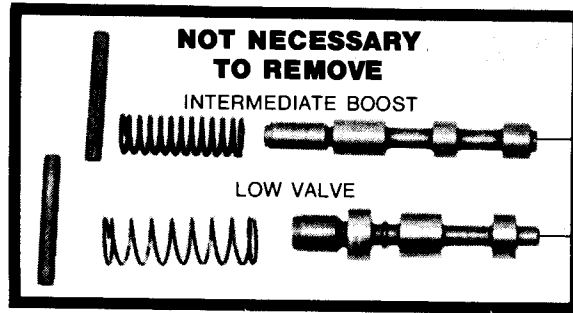
Makes you FEEL good all over.

Sincerely,  
GIL YOUNGER  
Have a nice day!

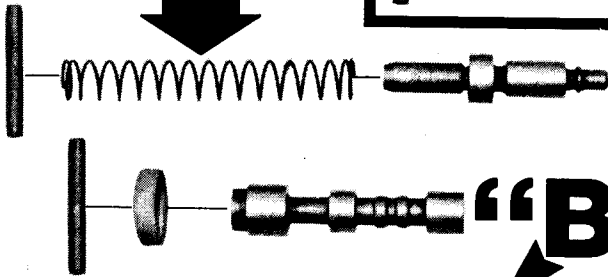


**VALVE BODY:** Install springs furnished where shown.  
All other locations — reinstall original springs.

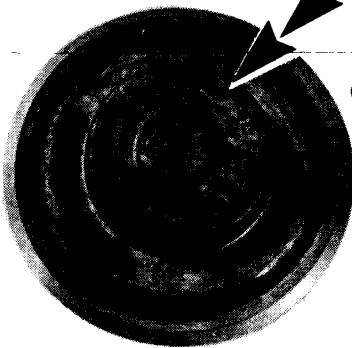
**IMPORTANT:** There are two bolt holes marked "Z".  
These two holes are close fitting "Line Up Holes".  
Always install and tighten these two bolts first and your  
gaskets and separator plate will be aligned perfectly.



**"A"**  
GREEN



**LOOK AT THE CASTING NUMBER ON SERVO COVER**



SERVO COVER

**"B"**

**YELLOW OR PLAIN**  
8630569 Install YELLOW.  
All other numbers install PLAIN.



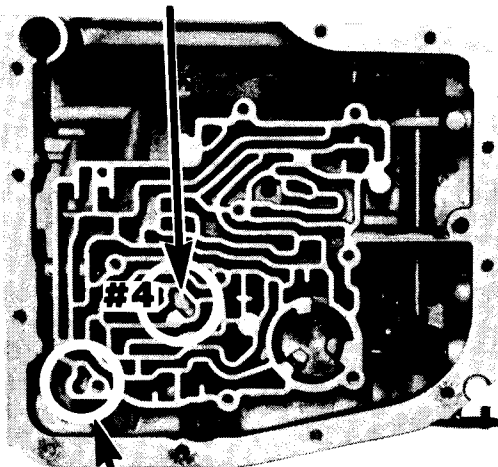
**"C"**  
PLAIN

INSTALL LARGE PLAIN SPRING ON ACCUMULATOR PISTON



T.V. VALVE ROLL PIN

**CASE CHECK BALL**  
(Bathtub) #4



OPTIONAL:  
I prefer leaving it out.

**SEPARATOR VIEW**

CHECKBALLS 1, 2, 3.  
(Use plastic checkball in #3 if available).

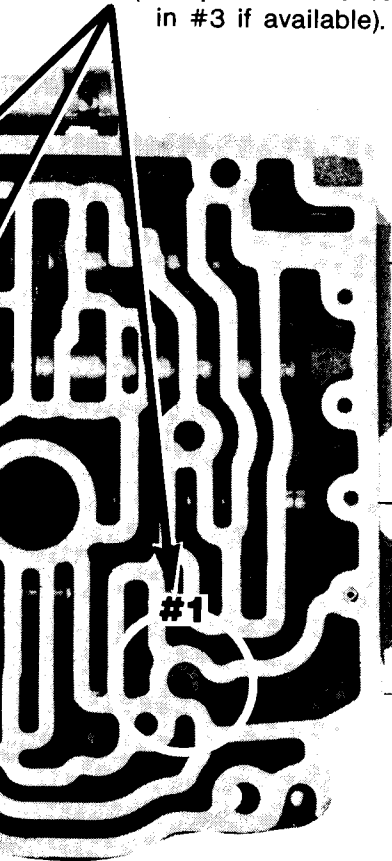
BAND CLEARANCE HOLE



**"Z"**

## VALVE BODY VIEW

Checkballs #1, 2, & 3  
(Use plastic checkball  
in #3 if available).



If you have a **CUSTOMER** who **WANTS** firm **PERFORMANCE** type **SHIFTS**, **WITHOUT** clang bangs and other side effects, we have a worksheet telling how to do it. With **CLASS TOO**.

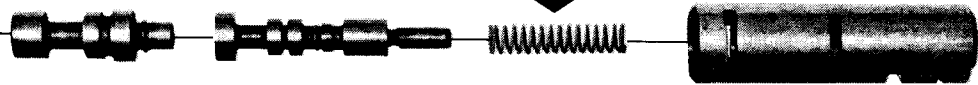
**This trans can handle 455 Olds or blown SMALL BLOCK if it's RIGHT.**

Send \$8.00 to: **PERFORMANCE** 325  
2621 Merced Ave.  
El Monte, CA 91733

### "D"

**SILVER**

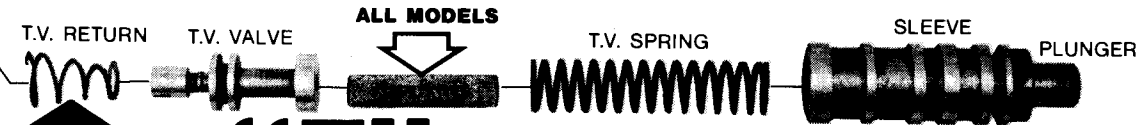
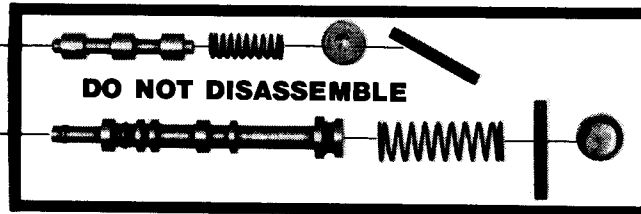
2-3 VALVE



### "E"

**ORANGE**

1-2 VALVE



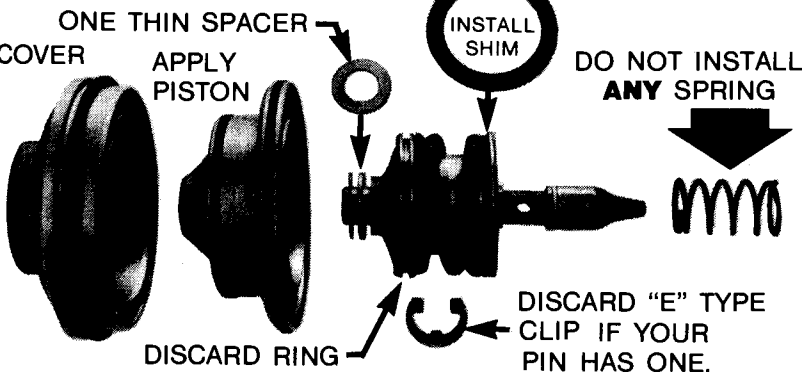
**PLAIN:** Large end  
installs into body.

### "F"

**TV RETURN SPRING IS OPTIONAL:** If TV valve roll pin  
won't come out easy and TV valve is not stuck, you will  
be OK without spring.

## BAND ADJUSTMENT SPACERS, CUSHION SHIM AND PISTON ORIFICE

### WITH 8630569 COVER



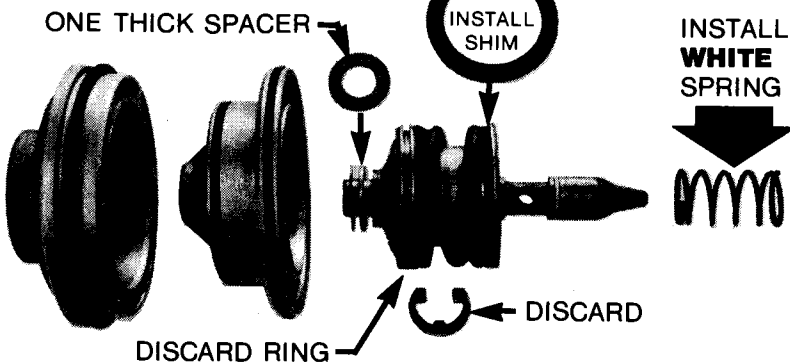
### LOOK AT THE SERVO PISTON ORIFICE:

If it has a CUP PLUG in it, just leave it like it is. It's OK.

If it has a DRILLED HOLE in it — ENLARGE the hole with any drill between .154 & .161 and then INSTALL the CUP PLUG furnished.

Any of these drill sizes will work.  
5/32"-#23-22-21-20 or 4mm.

### ALL OTHER COVERS



**CHECKING BAND CLEARANCE:** After the servo cover is installed grab it with water pump pliers and pull it to make sure it is out against snap ring. Reach up thru the square hole (on the other side of valvebody) with a screwdriver and wiggle the band front to back. It must wiggle freely. If it does not wiggle freely, remove spacer (gold washer). If it's still too tight, grind the pin shorter on the small end. If you think it's loose, add spacers until it's snug then remove spacers until it wiggles.

## FIXING THROTTLE CABLE & TV RELATIONSHIP

GIVE your CUSTOMER the full BENEFIT of this KIT and your TALENT by giving him the BEST possible RELATIONSHIP between SHIFTING and engine TORQUE.

This may look like the "LONG WAY AROUND", but in fact you will find it is the FASTEST way possible to give your work a real TOUCH OF PERFECTION.

Don't worry about FIGURING IT OUT, just follow the steps and in 5 MINUTES you will be road TESTING the RESULTS.

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

2. Push the TV adjusting TAB and move the cable housing 1½ inches TOWARDS the CARB.

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 it's stop.

4. While someone is still holding the pedal floored, DEPRESS the adjusting TAB and slide the TV cable housing AWAY from CARB until it stops. Release TAB and let it lock.

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 1/8" towards carb. (forward)

7. Road test BEFORE installing air CLEANER.

**SOME POINTERS:** The mark you made is MAX TV. Adjusting cable housing FORWARD REDUCES TV. Forward

more than 3/8" can cause no detent (3-1), or no passing gear above 40 MPH.

V8's work best between 1/8" and MAX mark. V6's 1/8 to 3/16" from mark.

**WARNING: NEVER** set the cable so that your MARK DISAPPEARS. (more than MAX). If you do, the first time somebody floors the gas SOMETHING will BEND.

**THE POSITIVE ENGINEERING:** By FOLLOWING these steps EXACTLY you will FIX a lot of cars nobody else in town could fix. Also when you have followed these steps and the trans is still not right, you won't need to be driving around for 45 minutes JACKING around with the TV adjustment, because you will KNOW It is NOT the PROBLEM.

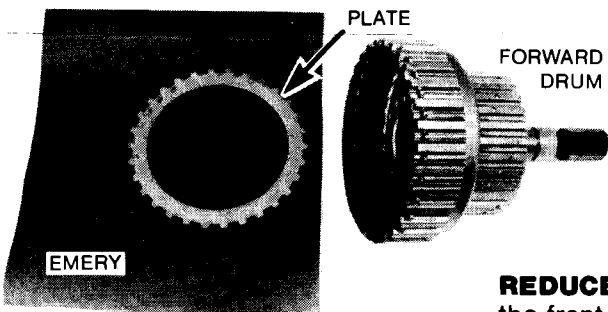
**DON'T BE A SUCKER:** by believing ANYONE who says, "I have already set the TV, or I have CHECKED the TV", you will just be wasting your time. Just BENCH the CLEANER and GO FOR IT before road test. If you do this, you will FIX these cars in less time than other people spend talking about it. AND, on YOUR road test you will already KNOW the TV is RIGHT and can place your ATTENTION on the trans and not have an aggravating half an hour fighting an air cleaner and fiddling with the TV cable.

If you would like a full understanding of HOW and WHY this method works and a paper on FIXING shift TIMING and cutloose complaints on all cable TV THM's.

SEND \$4.50 to:

THM TV 2621 Merced Ave. El Monte, CA 91733

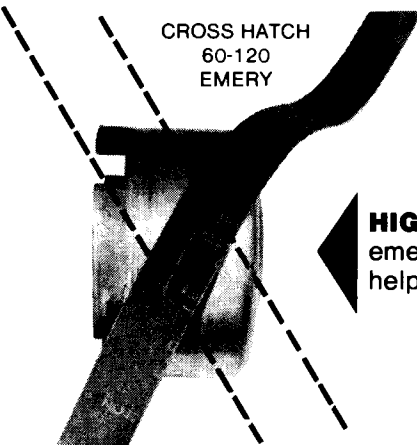
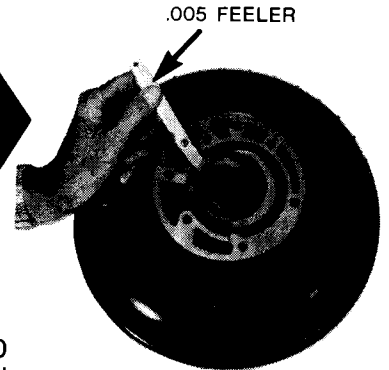
## ADDITIONAL REPAIR AND OVERHAUL INFORMATION



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.

**REDUCE DRAINBACK COMPLAINT:** Place the front pump on the convertor and check the clearance between the pump bushing and convertor with an .005 feeler blade. If it's tight DO NOT REPLACE THE BUSHING, a new one will be even looser.



**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.

**CASE COVER FLATNESS:** This is a most important NICE THING you can do during O.H. for yourself the trans and the customer. Crossleaks at the feed holes in the case cover is the most common cause of high clutch and band failure after O.H. It's easy to fix, takes about 3 minutes to get it FLAT.

**HERES HOW:** Use a really big mill file and file it with pressure at the heel and toe of file until it's shiny across the feed holes. Now tighten by hand, don't screw it up with an impact.

