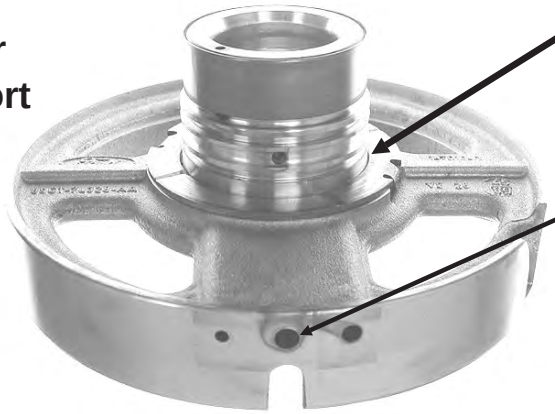
A4LD-A Junior - Shift Kit®
SK® A4LD™ System Upgrade

Reduces/Prevents/Corrects:

Direct clutch failure -- Delayed lockup release, chugs engine --
Soft 1-2 -- Cutloose 2-3 -- Delay or Bang reverse--Lockup too soft
Late shifts at light throttle -- No 4th -- 1-3 upshift at light throttle

Custom direct clutch rings.

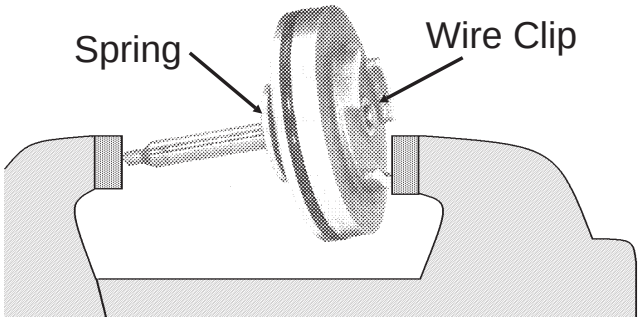
Center Support



Custom Rings: Should rotate with drum. Dip support & rings in oil before installing rings in grooves. Supplied rings fit supports with .080 and .120 wide ring grooves .

Prevent a comeback: The bronze washer here can be disaster. Use C3 black plastic washer instead. Trans with snap drums, shell and support will not use this washer.

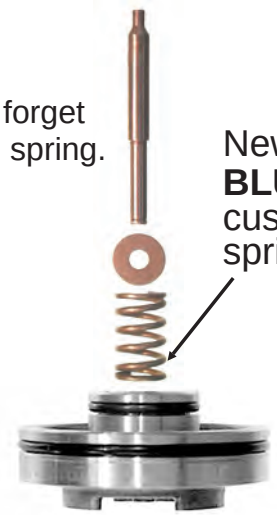
Air check direct clutch



Reverse piston: Squeeze in vise. Discard wire clip and cushion spring.

Governor **

A new governor housing helps prevent stuck governor.
E5ZZ-7C063-A Large land .575
E89Z-7C063-A Large land .602



No wire clip

CAUTION: ***Don't turn output shaft with reverse piston removed. Band can fall out of position.***

Intermediate Band Adjust is critical to 2-3 and 3-2 shift feel:

Tighten band until output shaft [or drive shaft] will not turn in one direction by hand. Loosen adjustment until shaft will just turn by hand. Then loosen exactly 3/4 turn more and tighten lock nut.

08Jan2014

Valve Body Assembly

Drill at A, springs at BCDEFG, washer at H

Many valves are aluminum. They are very easy to scratch. Check all valves for sticking, but you may not want to remove a valve unless it is stuck or needs spring change. Some models don't have all the springs shown in picture. So don't be surprised if transition, orifice control, or throttle boost valve does not have a spring.

Pressure boost valve & bushing

D. BLUE and White
Pressure regulator

Cutback Valve

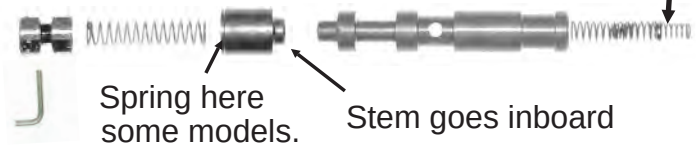
C. Copper
Twist small end of spring on the stem

B. White
Inner & outer

2nd type

1-2 transition

2-3 backout

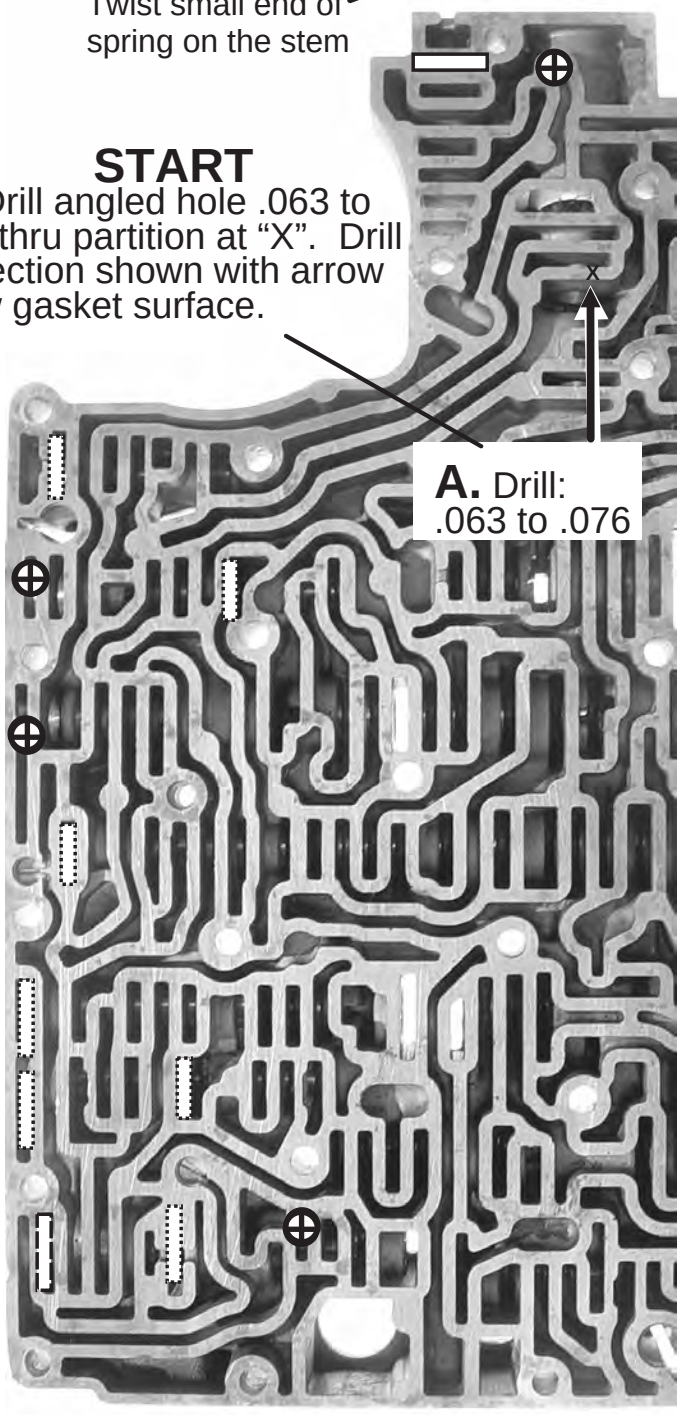


Spring here some models.

Stem goes inboard

START

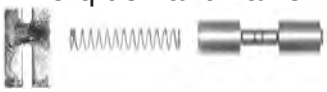
A. Drill angled hole .063 to .076 thru partition at "X". Drill in direction shown with arrow below gasket surface.



A. Drill: .063 to .076

85/86 Retainer/plug

Torq demand valve



B. BLUE
Inner & outer

1st type

1-2 Transition

2-3backout

Orifice control

Throttle boost valve
Some had no spring

3-2 coast valve

3-2 KD timing

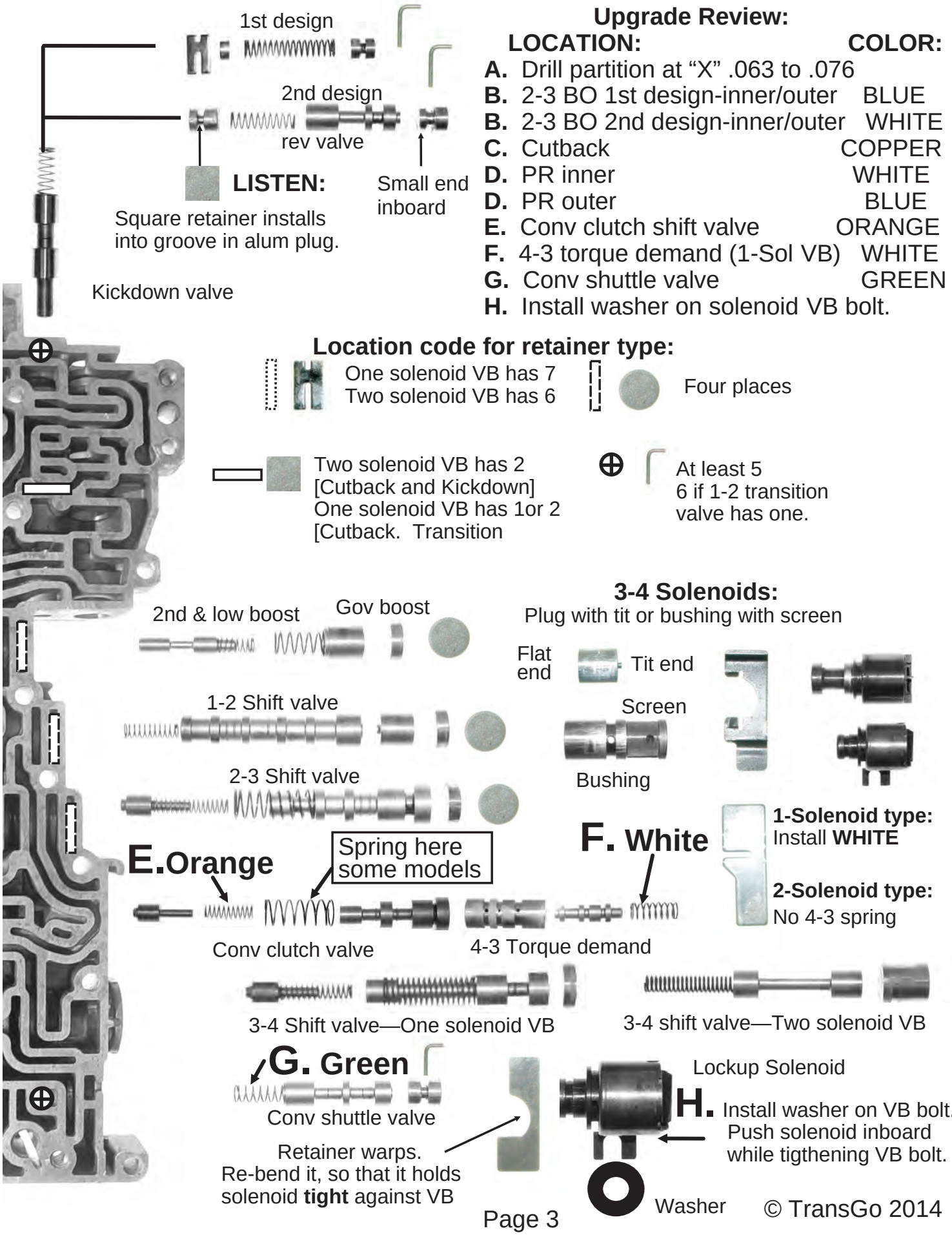
3-2 High clutch kickdown valve

3-2 Inner servo release kickdown

1-2 Accm valve

3-4 Accm valve

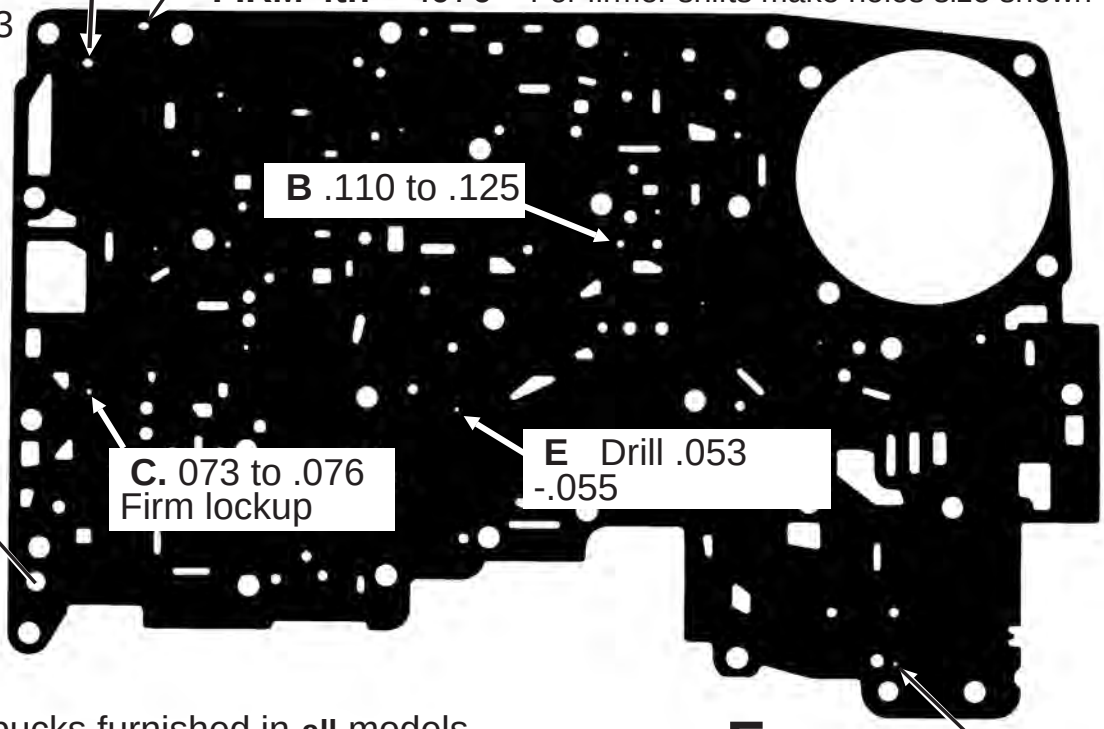
Don't Remove



A. If under .055, drill to .055 **FIRM 4th**—-.063

A. If under .055, drill to .055 **FIRM 4th**—-.076

Make holes ABCDEF size shown:
Corrects long shifts, but doesn't make them firm. For firmer shifts make holes size shown "FIRM".

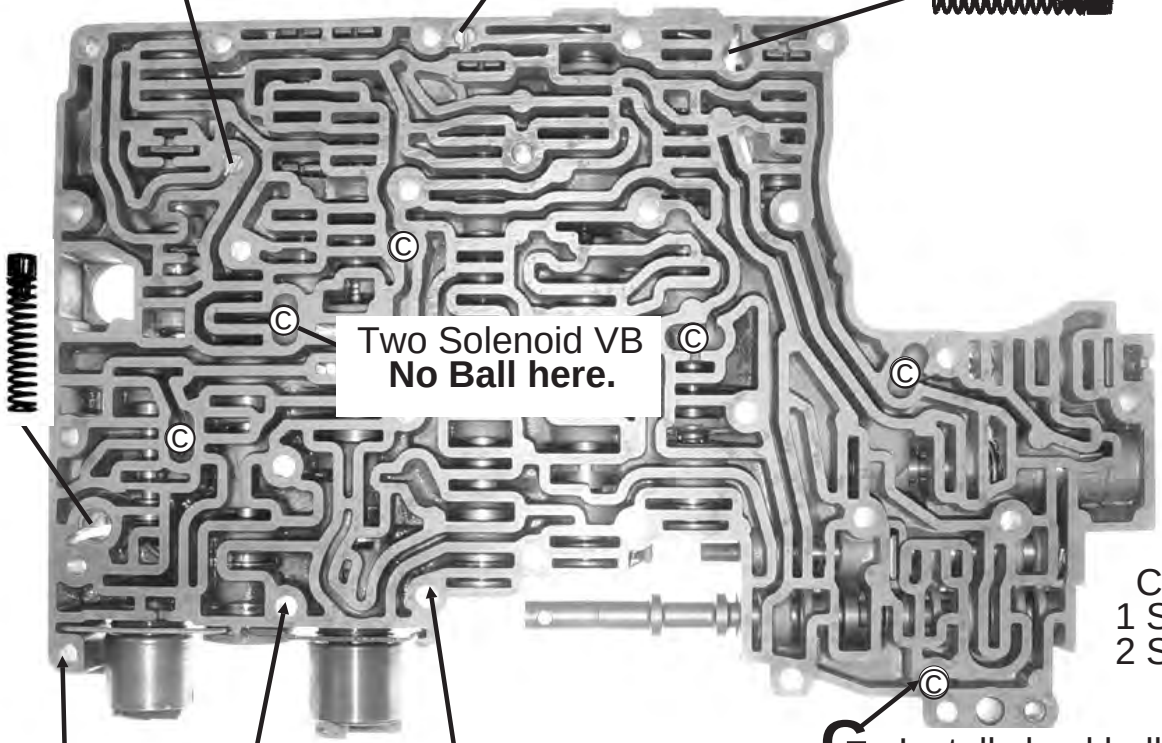


Install pucks furnished in **all** models.

FIRMER 4th: Drill puck .063

FIRMER 2nd: Drill puck .063

F. Drill .080 to .089 **Must have this hole**



© CHECKBALLS
1 Solenoid 6 balls
2 Solenoid 5 balls

G. Install checkball here. **All Models** (Even if VB did not have one here on disassembly).

To prevent bending VB (no 4th), tighten bolts around edge less than the others.

Use one hand with spintight or torque the edge bolts to 75 inch lbs. All others to 90 inch lbs.

A4LD Tips

IMPORTANT:

A very different Kickdown cable adjustment is needed before road test.

A. Follow cable from trans to adjuster. It looks same as GM type, but may be turned sideways.

B. Depress tab and push cable housing into adjuster 1/2 “

C. Road test: You must not have a 2-1 or 3-1 KD at 20 MPH.

D. Then pull the cable housing out of adjuster about 1/8" at a time until there is a 2-1 or 3-1 kickdown at 20 MPH.

E. If KD is too hard to get pull cable out of adjuster another click or two.

COMPLAINTS: Won’t move in D4
OK in D3—-Bindup during manual 3-4.
CAUSE: Sprag backwards

Lockup chugging down to low speed:
This kit corrects several causes of chugging, but will not correct chugging caused by worn out solenoid. How to fix it: If chugging occurs to low speed, disconnect wires to trans. If chugging still occurs replace solenoid with a NEW 2nd design solenoid E5TZ-7F037-A. Installing another used 1st design solenoid may not fix it.

Direct clutch piston seals

Direct Drum Rubber Must Fit Correctly. Some shops install C4 (square type piston seals) or C5 (lip type seals) in the stamped sheet metal drums for better fit.

Some later cast drums have bigger piston bore diameter, piston, and seal. Pay attention when choosing new seal from gasket kit. Do Not stretch the small seal over the big piston. It might pass air check on bench but won't work in car.

Complaint: No lockup, late shifts overly sensitive 3-2 tip - in down shifts, Even with good VB and gov.
Cause: Center support bolt loose.

Complaint: Feels like 2nd gear starts in D4 position, OK in D3.
Cause: OD solenoid stuck on. 2nd design is better than 1st design **Replace IT.**

Complaint: Slow or no converter fill, won't pick up oil, very late or no upshift, may not move or stops moving. High line pressure.
Cause: C3 Modulator installed.

Modulator pin is just under 1-3/8"
Spring tension = 8lb to 8lb 4oz.

Modulator identification
A4LD Recess: 1/4" deep
C3 Recess: is 1/8" deep

#E5TZ-7A377-C