

# Transmission Type... 6T70/75

Rebuilder's Kwik  
Reference Guide



## Clutch Clearances

## Adjusted By:

1-2-3-4/Forward Clutch ..... .033 - .095 .....Not Adjustable  
 Low/Reverse Clutch..... .047 - .100 .....Not Adjustable  
 2-6 Intermediate Clutch .... .035 - .088 .....Not Adjustable  
 4-5-6/Over-Drive Clutch .... .044 - .090 .....Not Adjustable  
 3-5-Reverse Clutch..... .039 - .092 .....Not Adjustable

## Torque Specifications

Pump Cover to Body .....110 Lbs. In.  
 Pump to Case .....106 Lbs. In.  
 Valve Body 1/2 .....106 Lbs. In.  
 Valve Body to Case .....106 Lbs. In.  
 Solenoid Block/TEHCM to Valve Body .....106 Lbs. In.  
 TCC Tubes to Stator M5 Bolts ..... 62 Lbs. In.  
 TCC Tubes to Stator M6 Bolts .....106 Lbs. In.  
 Stator Support to Bell Housing ..... 30 Lbs. Ft.  
 Park Pawl Bracket Bolts .....106 Lbs. In.  
 Differential Baffle .....106 Lbs. In.  
 Lube Baffle .....106 Lbs. In.  
 OSS Hold Down Bolt ... ..106 Lbs. In.  
 ISS Hold Down Bolt .....106 Lbs. In.  
 End Cover to Case .....106 Lbs. In.  
 Case 1/2 ..... 18 Lbs. In.  
 Side Cover .....106 Lbs. In.

## Unit Endplays

## Location

## Selective

Differential Bearing Preload\* .....Under Bearing Race on Torque Converter Housing ...Shim  
 Transfer Shaft Bearing Preload\* .....Under Bearing Race on Torque Converter Housing ...Shim

\*Special Tools Required

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### Clutch and Band Application Chart

GM			SS 1 On/Off	SS 2 On/Off	PCS 5 1-2-3-4 NL	PCS 4 2-6 NL	PCS 2 3-5-Rev NH	PCS 3 4-5-6/LR NH	4-5-6 Overdrive Clutch	3-5-Rev Direct Clutch	2-6 Interm Clutch	Low Rev	1-2-3-4 Forward	Low Diode
Ford			SSE On/Off	** On/Off	SSA N.L	SSC N.L	SSB N.H	SSD N.H						
RANGE	GEAR	RATIO												
PARK	P	-	ON	ON	OFF	OFF	OFF	ON				APP		
REV	R	2.880	ON	OFF	OFF	OFF	ON	ON		APP		APP*		
NEU	N	-	ON	ON	OFF	OFF	OFF	ON				APP*		
D	1ST BRAKING	4.484	ON	ON	ON	OFF	OFF	ON				APP		HOLD
	1ST	4.484	OFF	ON	ON	OFF	OFF	OFF					APP	F/W
	2ND	2.872	OFF	ON	ON	ON	OFF	OFF			APP		APP	F/W
	3RD	1.842	OFF	ON	ON	OFF	ON	OFF		APP			APP	F/W
	4TH	1.414	OFF	ON	ON	OFF	OFF	ON	APP				APP	F/W
	5TH	1.000	OFF	ON	OFF	OFF	ON	ON	APP	APP				F/W
	6TH	0.742	OFF	ON	OFF	ON	OFF	ON	APP		APP			F/W

\*Applied not holding

\*\*Ford does not use SS2

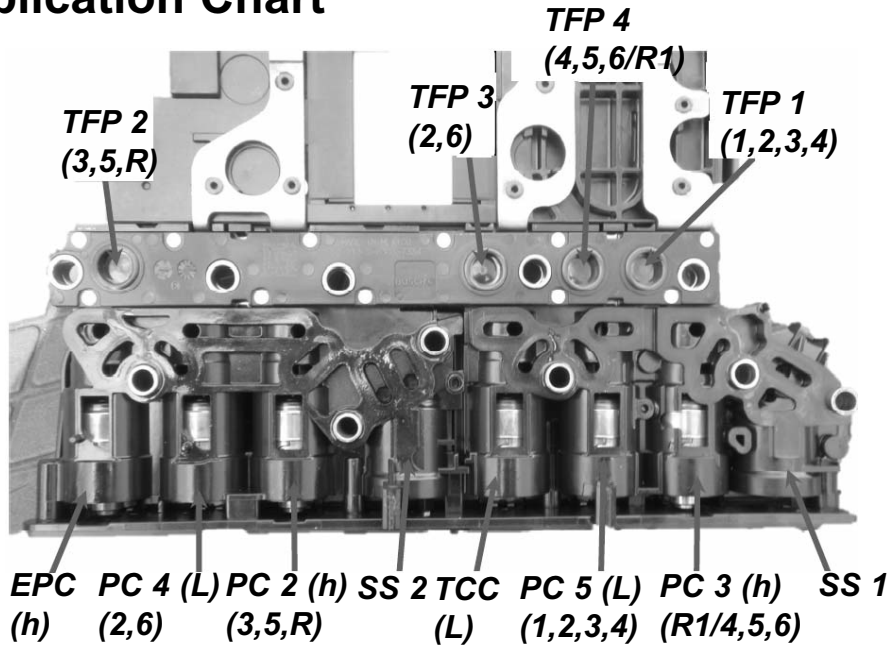
<b>Ford</b>	<b>GM</b>
<b>Forward</b>	<b>1-2-3-4</b>
<b>Intermediate</b>	<b>2-6</b>
<b>Direct</b>	<b>3-5-Reverse</b>
<b>Over-Drive</b>	<b>4-5-6</b>
<b>Low Reverse</b>	<b>Low Reverse</b>

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### Solenoid Application Chart



Shift Solenoid 20-40 ohms .3-.6 amps  
 Pressure Solenoids 4-7 ohms 1.7-3.0 amps

Range	Shift Sol. 1	Shift Sol. 2	N.L. CPC Sol. 5 1-2-3-4 CL.	N.L. CPC Sol. 4 2-3 Cl.	N.H. CPC Sol. 2 3-5 Rev Cl.	N.H. CPC Sol. 3 4-5-6, Low/Rev Cl.	TCC PC Sol. Torq Conv Cl.	Line PC Sol. Line Pres Cont	Gear Ratio	
Park	On	On	Off	Off	On	Off	Off	On**	—	
Reverse	On	Off	Off	Off	Off	Off	Off	On**	2.880	
Neutral	On	On	Off	Off	Off	On	Off	On**	—	
D r i v e	1st Braking	Off	On	Off	On	Off	Off		4.484	
	1st	Off	On	On	Off	On	Off	On**	4.484	
	2nd	Off	On	On	On	On	On*	On**	2.872	
	3rd	Off	On	On	Off	Off	On	On*	On**	1.842
	4th	Off	On	On	Off	On	Off	On*	On**	1.414
	5th	Off	On	Off	Off	Off	Off	On*	On**	1.000
6th	Off	On	Off	On	On	Off	On*	On**	0.742	

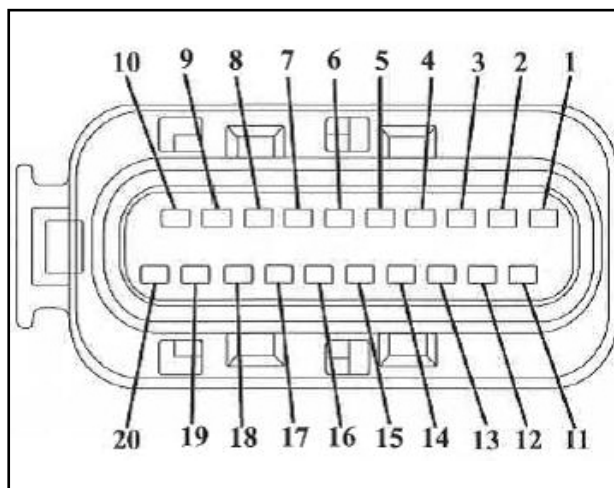
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### Solenoid Connector

20-Way Case Connector Terminal Identification



View looking into 20-Way Case Connector

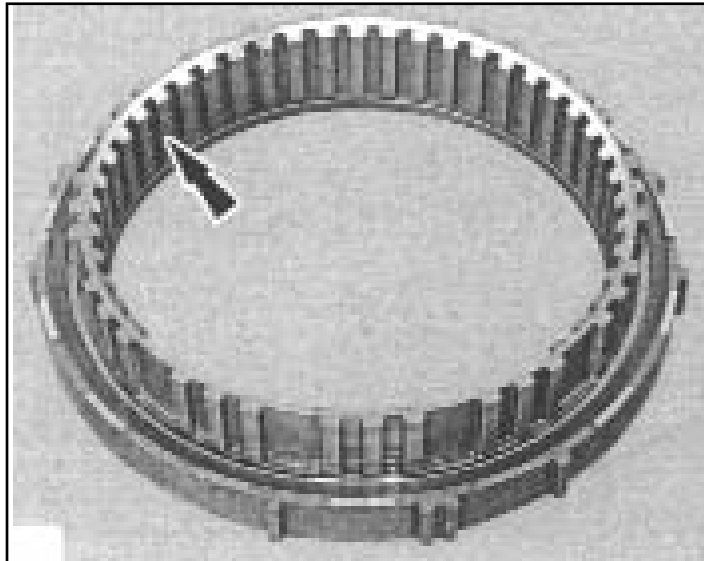
Pin Number	Circuit Function
1	PSM Ground
2	CAN HI
3	I CAN HI- Termination
4	Not Used
5	CAN HI
6	Tap Up/Tap Down Switch
7-9	Not Used
10	Battery Positive Power
11	I CAN LO-Termination
12	CAN LO
13	Ignition 1 Voltage Power
14	CAN LO
15	Accessory Voltage
16	Stop Lamp Switch Signal
17	Not Used
18	Ground
19	Battery Positive Voltage (Optional)
20	Park/Neutral Signal

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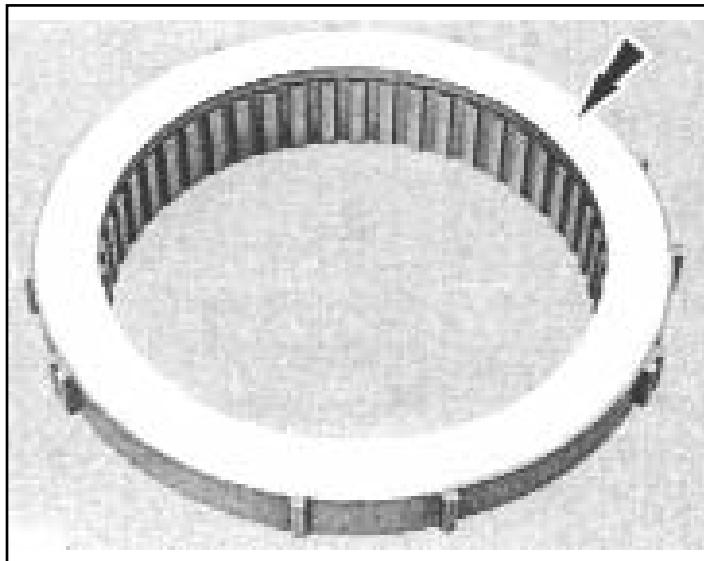
## Low One-Way Clutch



### **NOTE**

THE LOW ONE-WAY CLUTCH CANNOT BE DISASSEMBLED.

*Clean and inspect the low one-way clutch for cracks and damaged splines. The internal splined section should rotate clockwise and lock when rotated counterclockwise. If any damage is found or the clutch does not rotate or lock, install a new low one-way clutch.*



*Inspect the forward clutch surface for damage. If the surface is burned or worn excessively, install a new one-way clutch.*

### **CAUTION**

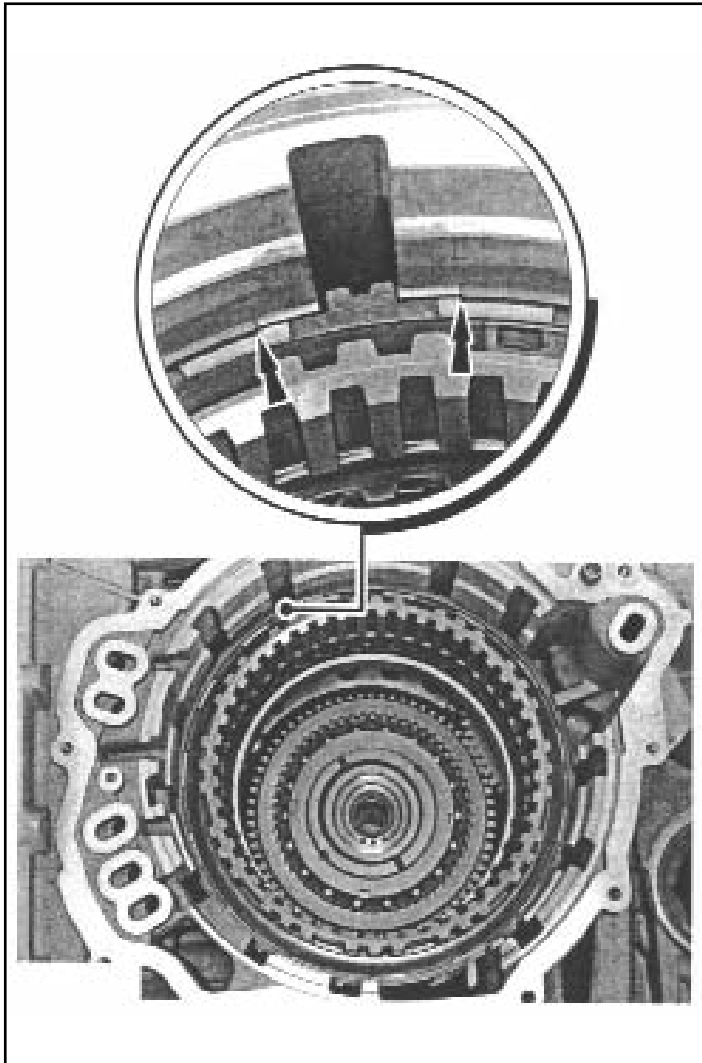
DO NOT CLEAN IN WATER OR WITH WATER-BASED SOLVENTS. DAMAGE TO THE COMPONENT MAY OCCUR.

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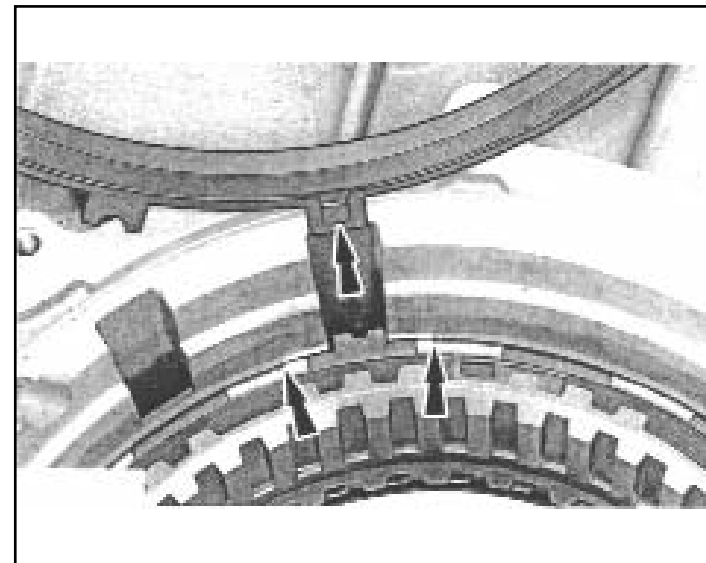
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## Technical Tips For Rebuilding This Unit



*The low one-way clutch snap ring gap must be positioned as shown so that the low/reverse clutch pressure plate tab fits into the gap when it is installed late in this procedure.*



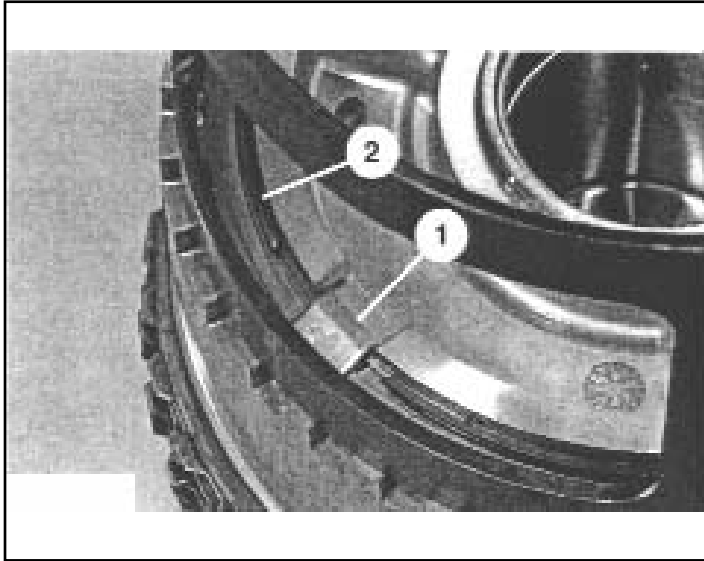
*Compare the position of the low one-way clutch snap ring gap with the tab on the low/reverse clutch pressure plate to be sure that the gap is in the right position*

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## Technical Tips For Rebuilding This Unit

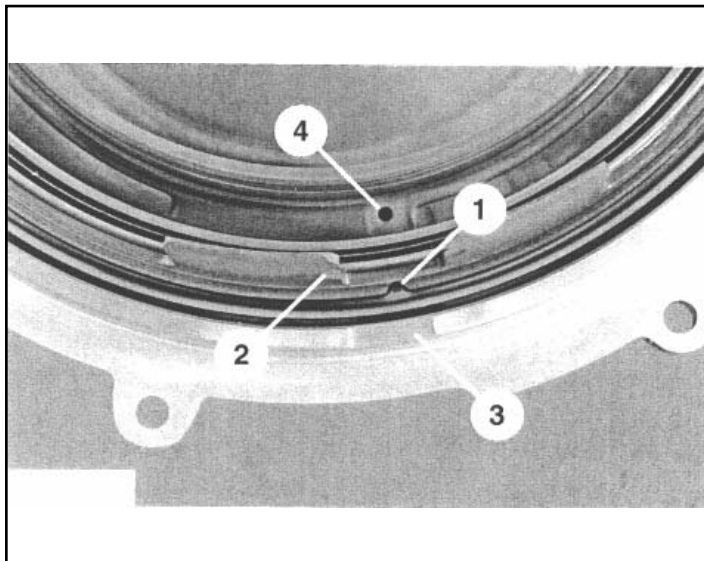


### CAUTION

ONLY COMPRESS THE DIRECT CLUTCH PISTON RETURN SPRING FAR ENOUGH TO INSTALL THE DIRECT CLUTCH CYLINDER SNAP RING. IF THE PISTON IS COMPRESSED TOO FAR, THE PISTON ALIGNMENT TAB MAY BE BROKEN OFF.

### NOTE

ALIGN THE TAB ON THE DIRECT CLUTCH CYLINDER WITH THE SLOT ON THE OVERDRIVE/DIRECT CLUTCH HUB AND SHAFT ASSEMBLY.

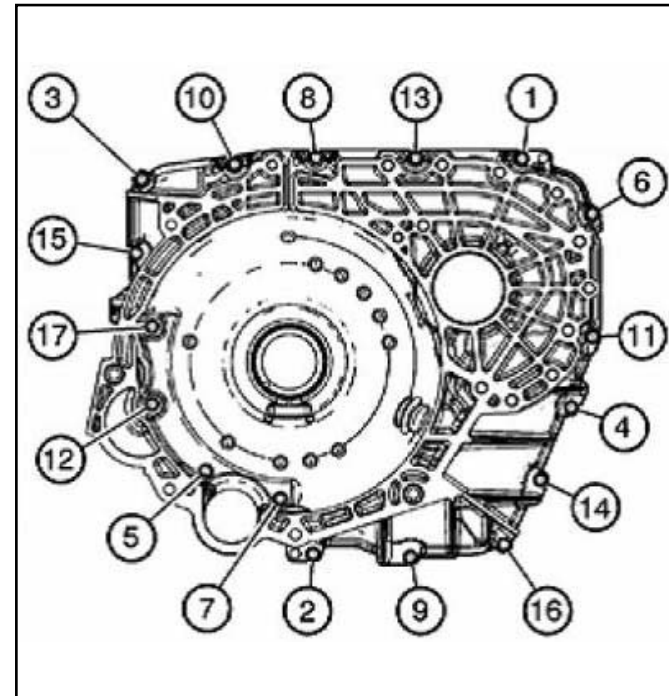
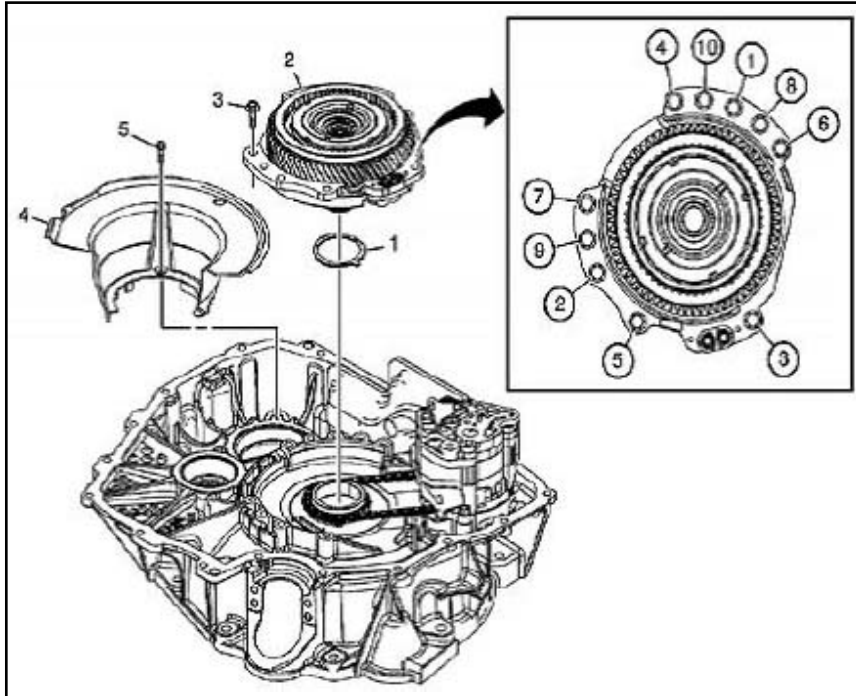


*Make sure the low/reverse piston bleed hole and semicircle area are aligned with the indentation in the cover and the intermediate cylinder fill hole.*

1. *Low/reverse piston bleed hole*
2. *Low/reverse piston semicircle area*
3. *Cover indentation*
4. *Intermediate cylinder fill hole*

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## Case Half and Stator Support Tightening Sequence



Case Torque

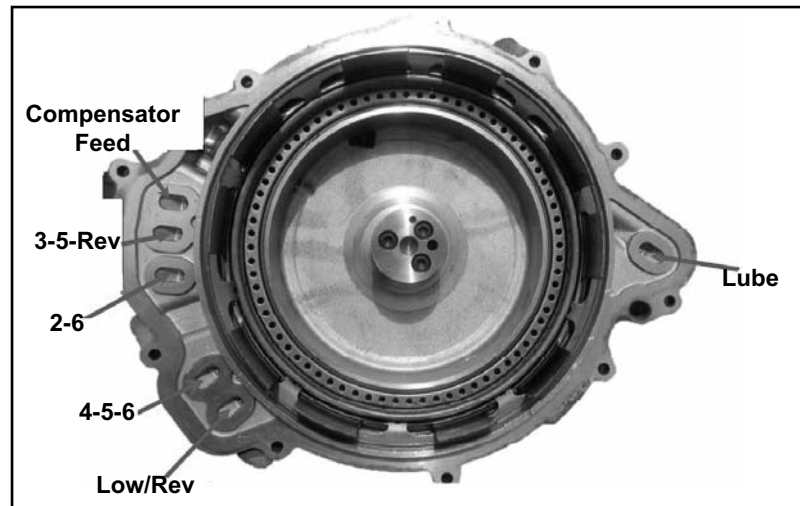
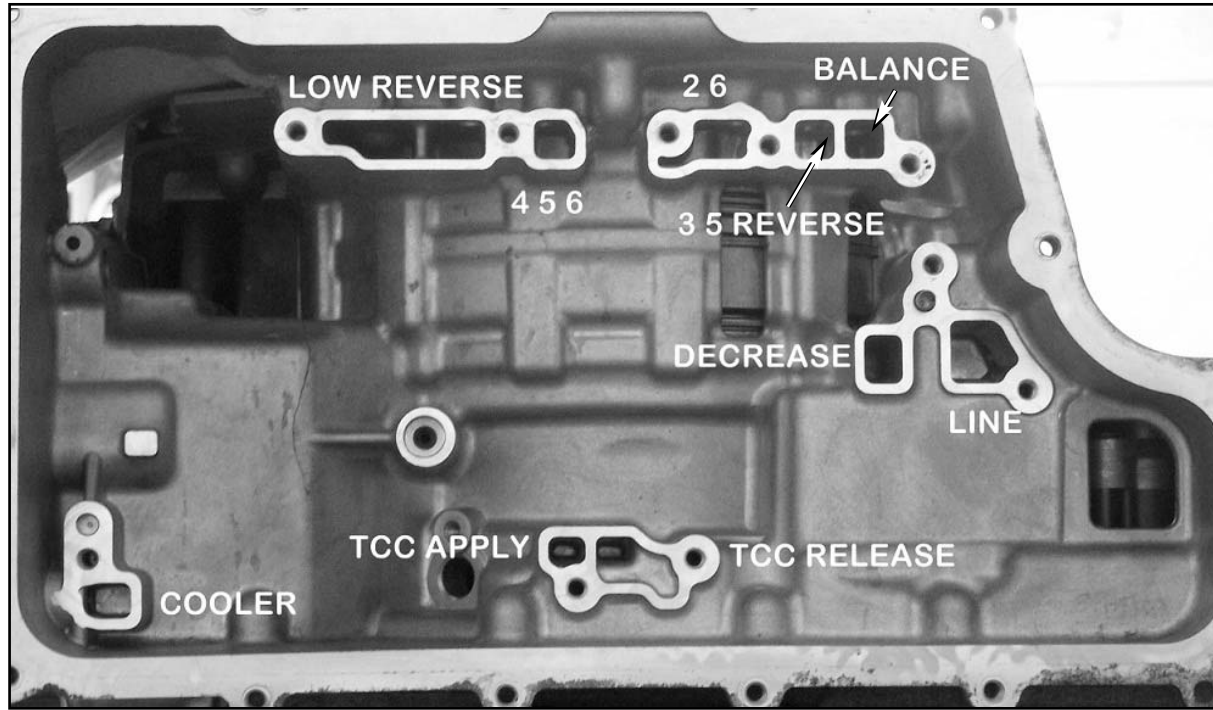


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## Airtest

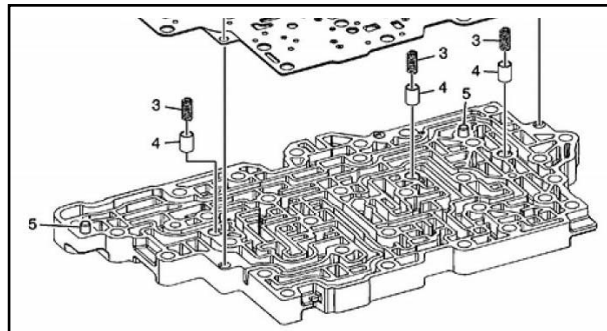
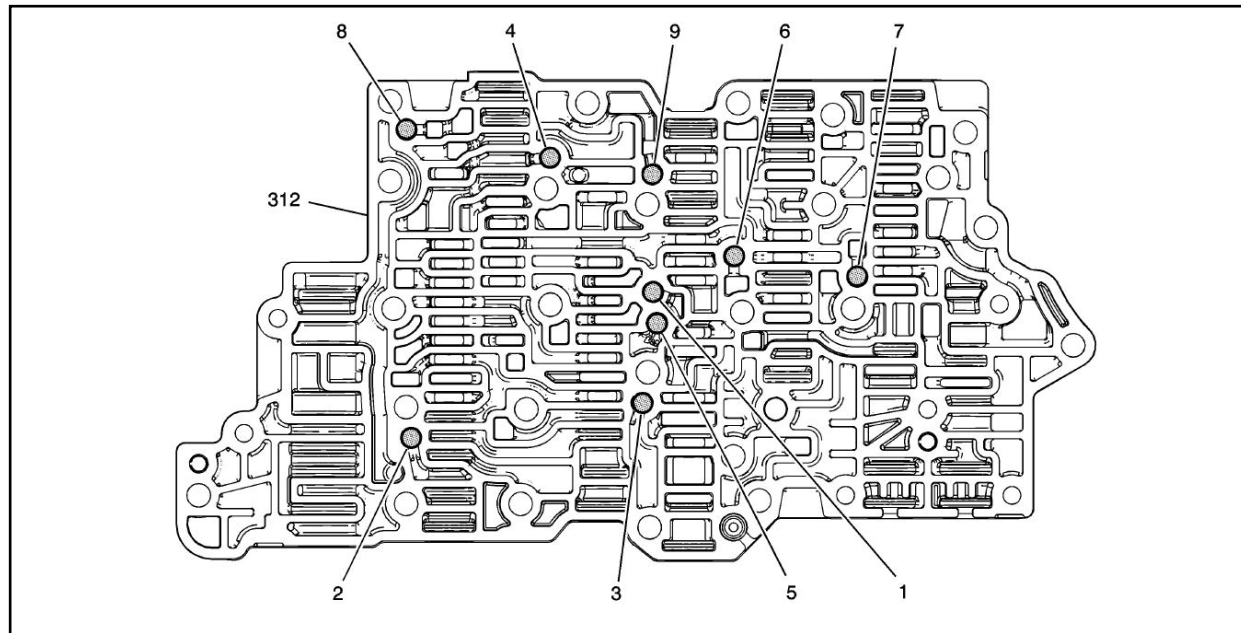


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## Valve Body

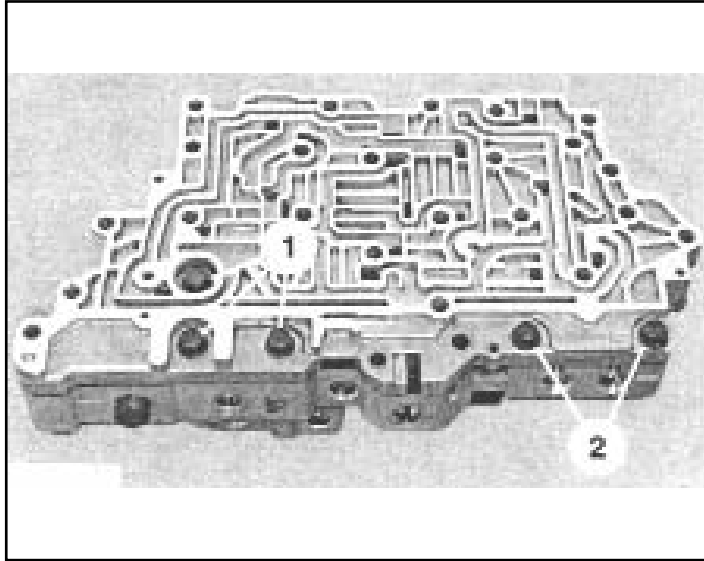


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## Technical Tips For Rebuilding This Unit



### NOTE

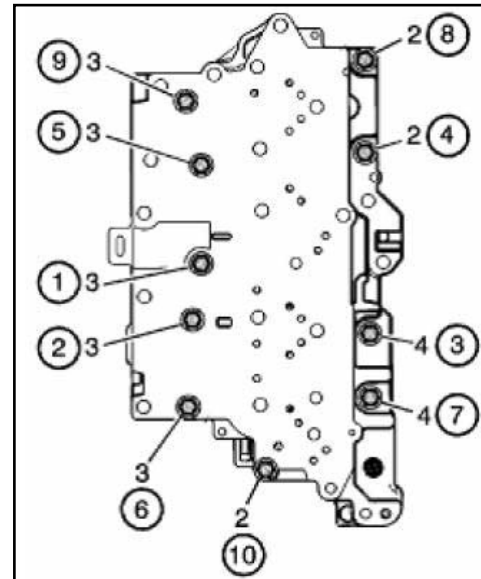
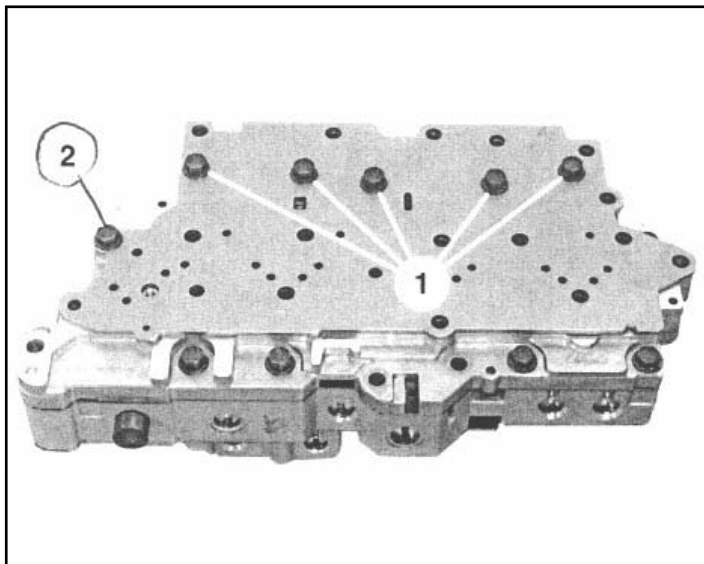
INSTALL THE DIFFERENT LENGTH BOLTS IN THE CORRECT LOCATION AS NOTED DURING DISASSEMBLY.

*Install the transfer plate assembly and hand tighten the 5 bolts.*

1. 63 mm (2.48 in) bolts
2. 35 mm (1.37 in) bolts

*Tighten the 5 bolts.*

- *Tighten to 12 Nm (9 lb.-ft.).*



*Install the cover assembly and hand tighten the 6 bolts.*

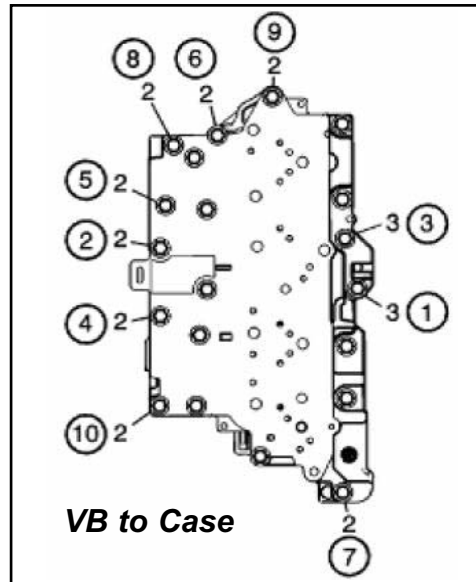
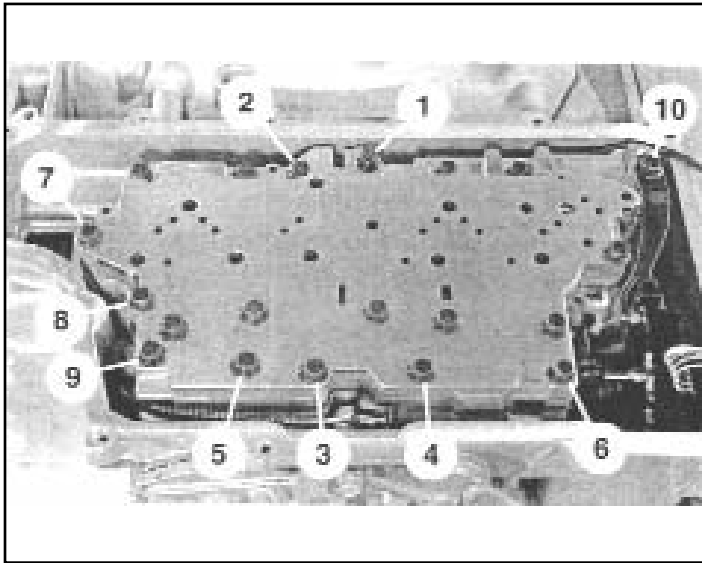
1. 63 mm (2.48 in) bolts
2. 35 mm (1.37 in) bolts

*Tighten the 6 bolts.*

- *Tighten to 12 Nm (9 lb.-ft.)*

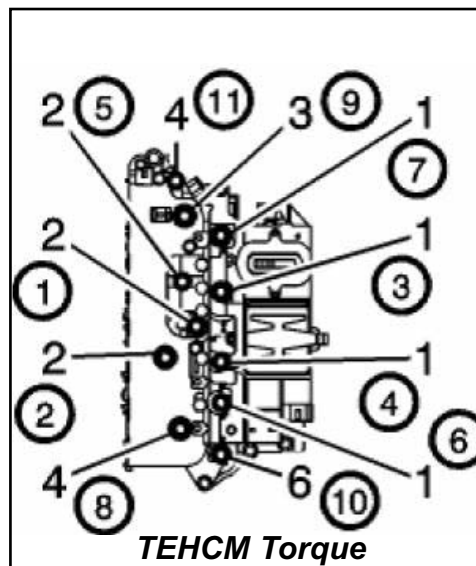
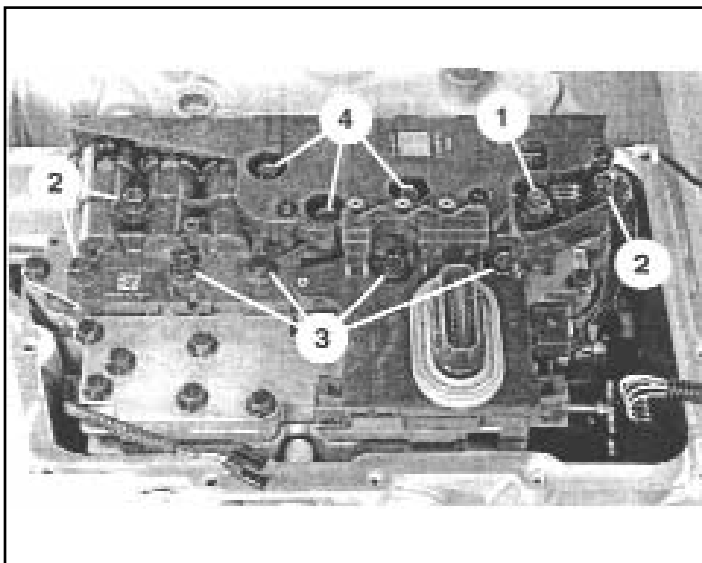
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## Technical Tips For Rebuilding This Unit



Install the 10 main control valve body bolts.  
Tighten the bolts in the sequence shown.

- Tighten to 12 Nm (9 lb-ft)



**NOTE**

INSTALL THE DIFFERENT LENGTH BOLTS IN THE LOCATIONS NOTED DURING DISASSEMBLY.

Install the 11 solenoid body bolts hand tight.

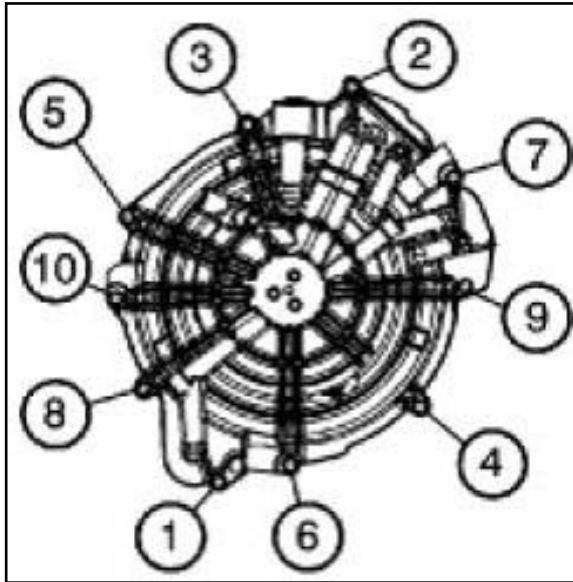
1. 42 mm (1.65 in) bolt
2. 63 mm (2.48 in) bolts
3. 80 mm (3.14 in) bolts
4. 95 mm (3.74 in) bolts

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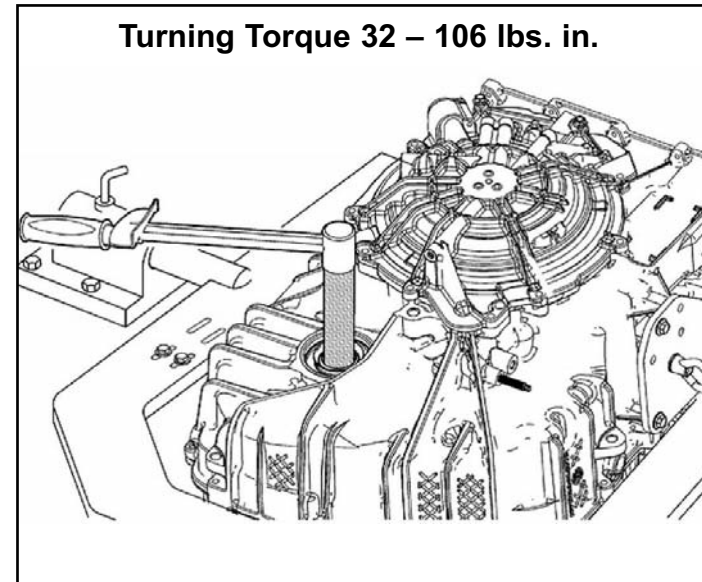
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## Technical Tips For Rebuilding This Unit



*End Cover Torque*



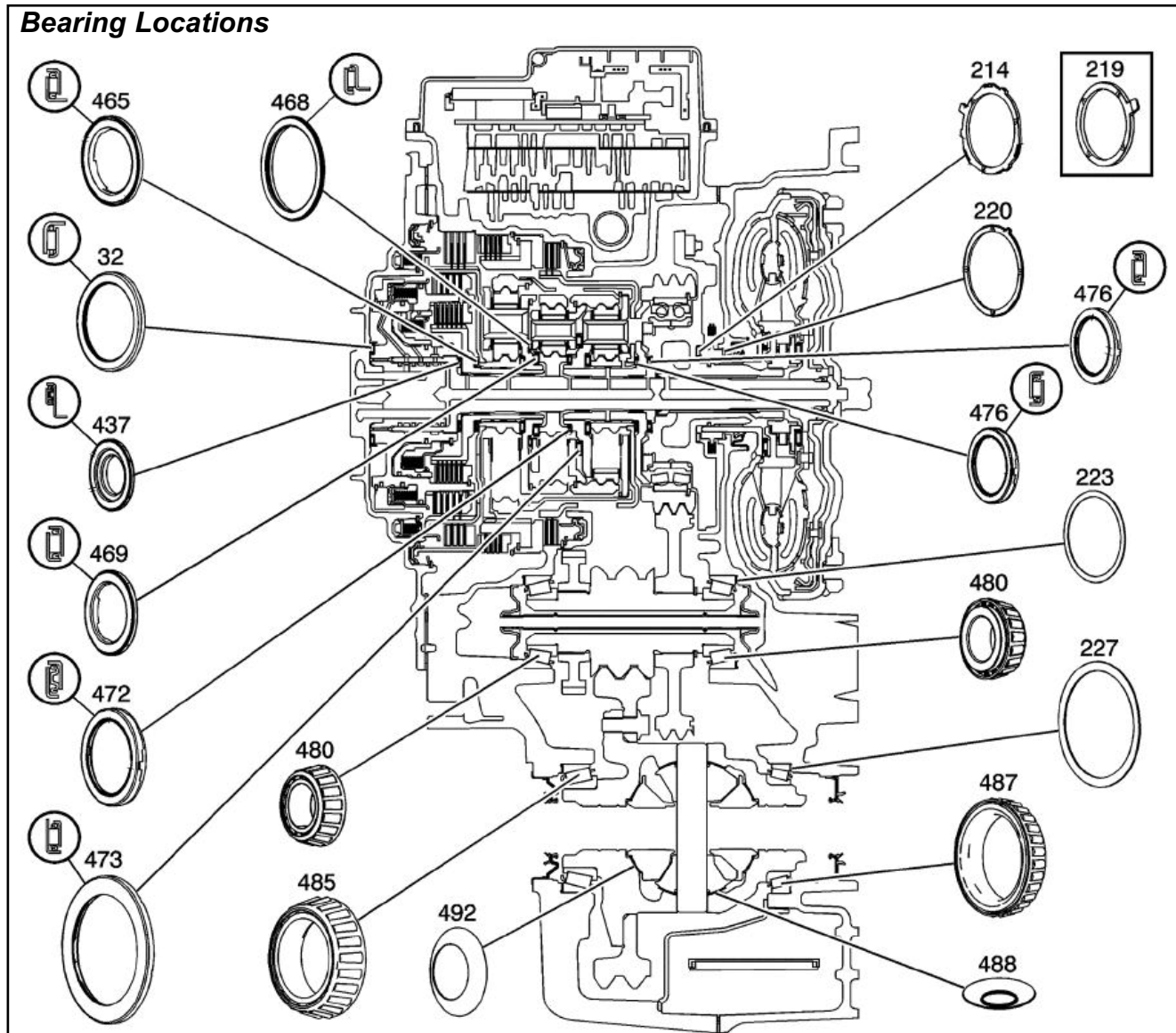
*Differential Turning Torque*

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## Technical Tips For Rebuilding This Unit



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## Technical Tips For Rebuilding This Unit

