



## CHECKBALL BOOK *Import Volume I*

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*Updated  
October, 2003*

# INTRODUCTION

## ***IMPORT CHECKBALL BOOK VOLUME I***

This booklet contains the checkball locations, screen locations, check valve locations, and relief valve locations, for the upper and lower valve bodies, and the accumulator housing if it contains one of the above. We have also covered any updated information and any changes that may have occurred in the many different model years. This booklet contains some of the Imported transmissions that we have seen in North America. Refer to the Index page for exact transmission models covered.

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*The information and part numbers contained in this booklet have  
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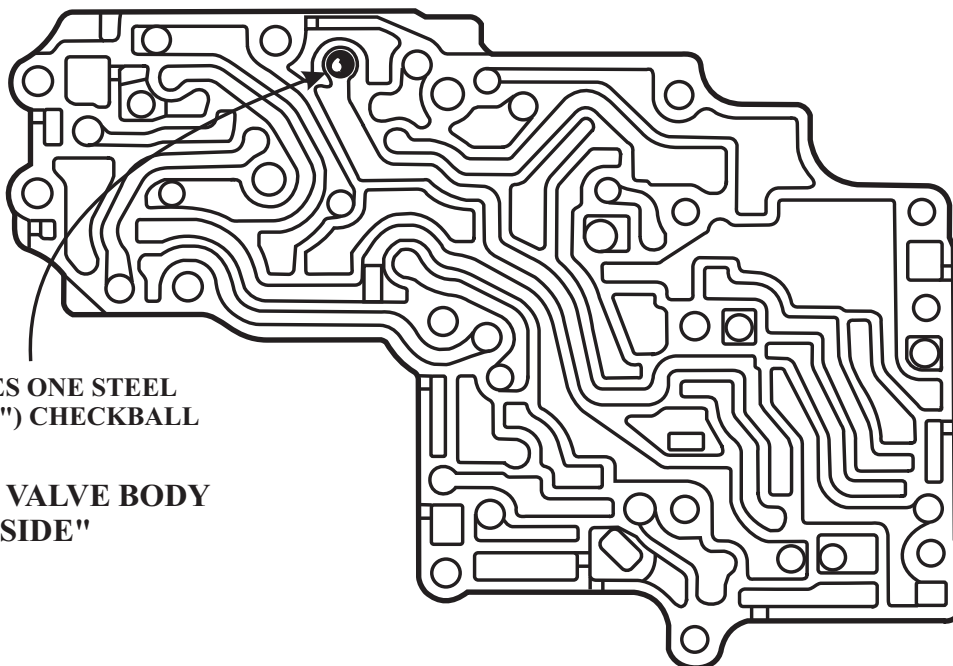
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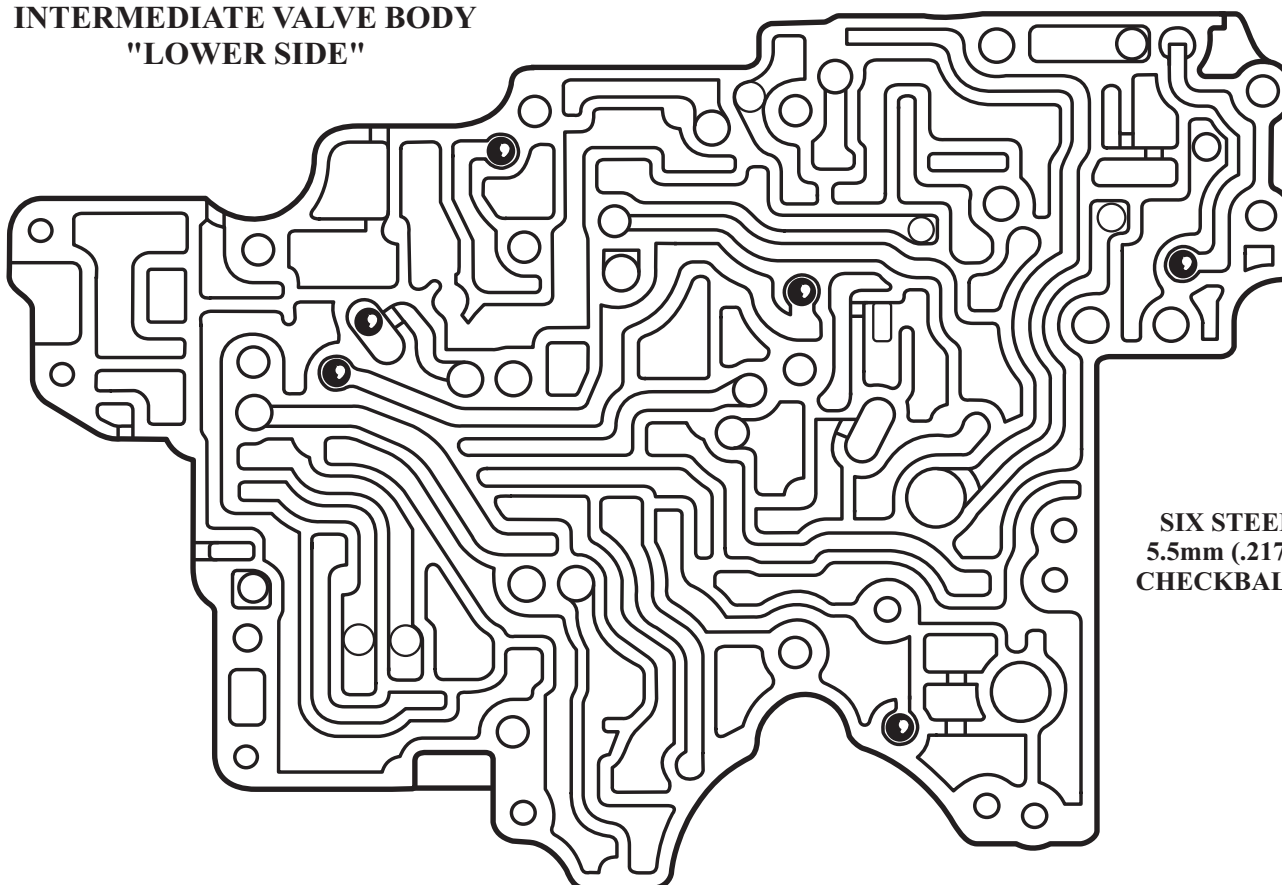
## GEO STORM JF403E INTERMEDIATE VALVE BODY



REQUIRES ONE STEEL  
5.5mm (.217") CHECKBALL

INTERMEDIATE VALVE BODY  
"UPPER SIDE"

INTERMEDIATE VALVE BODY  
"LOWER SIDE"

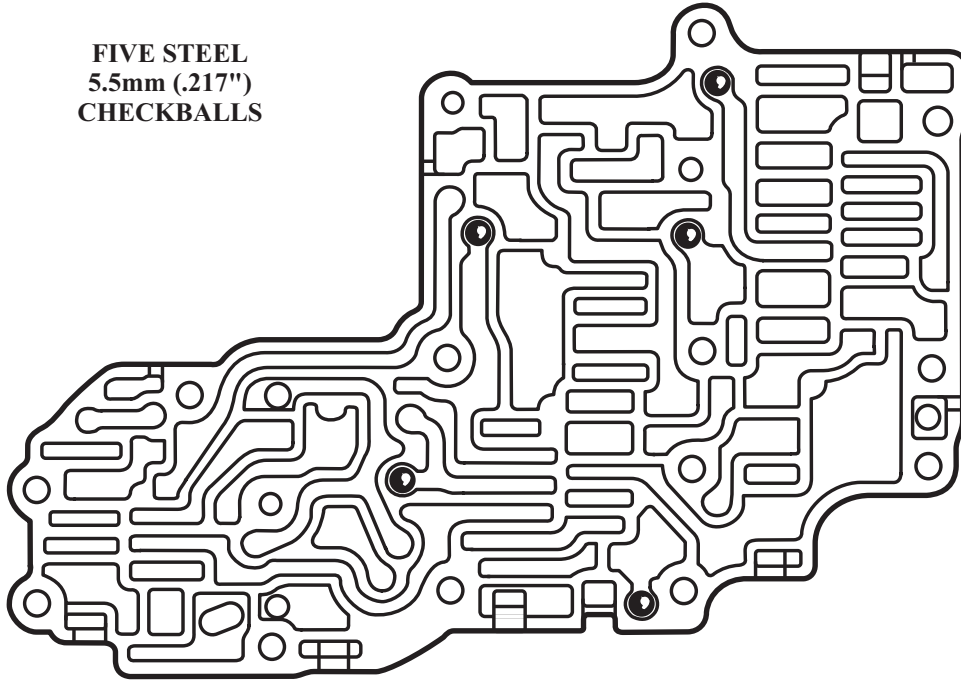


SIX STEEL  
5.5mm (.217")  
CHECKBALLS

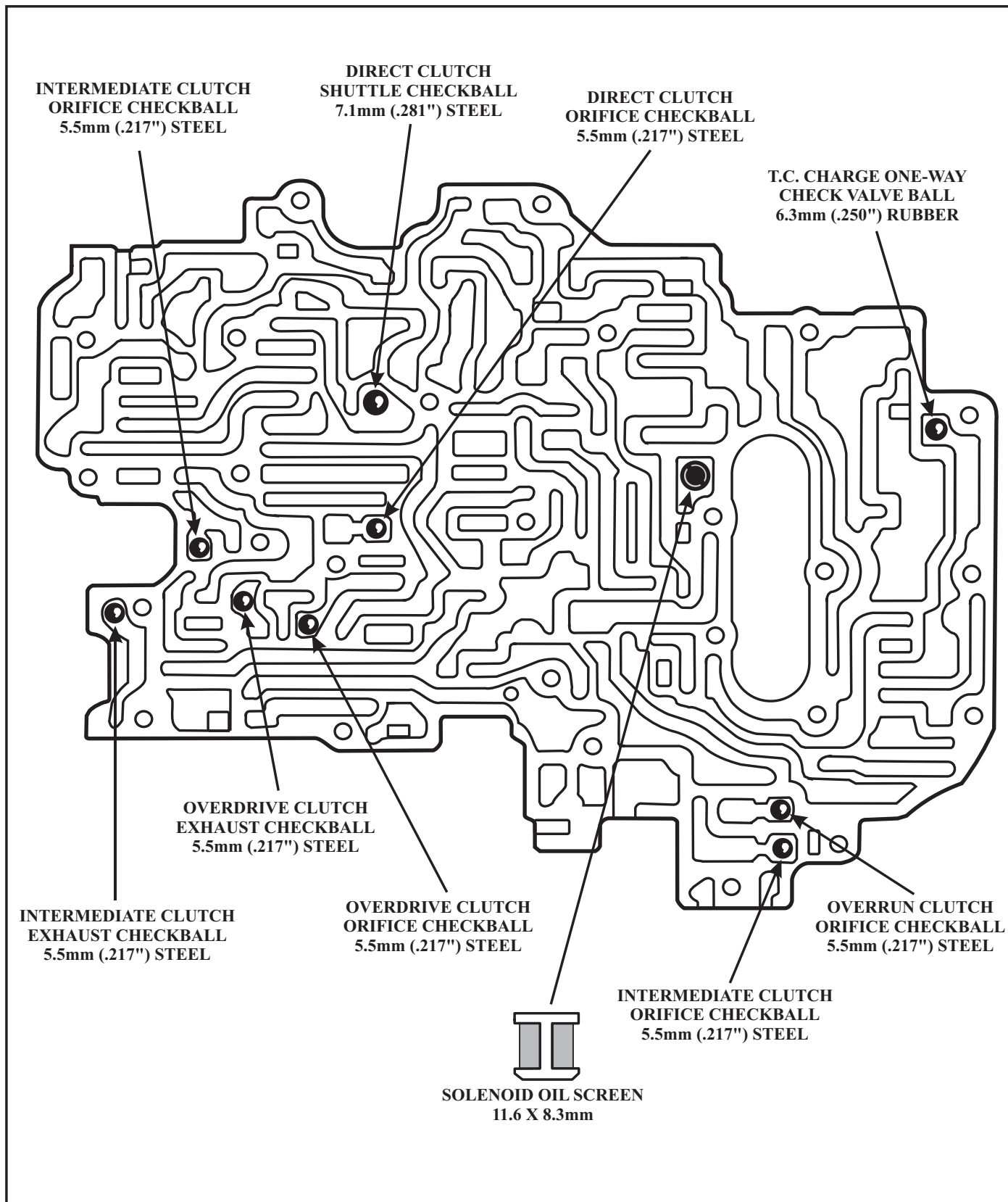
**GEO STORM JF403E**  
**UPPER VALVE BODY**

**UPPER VALVE BODY**

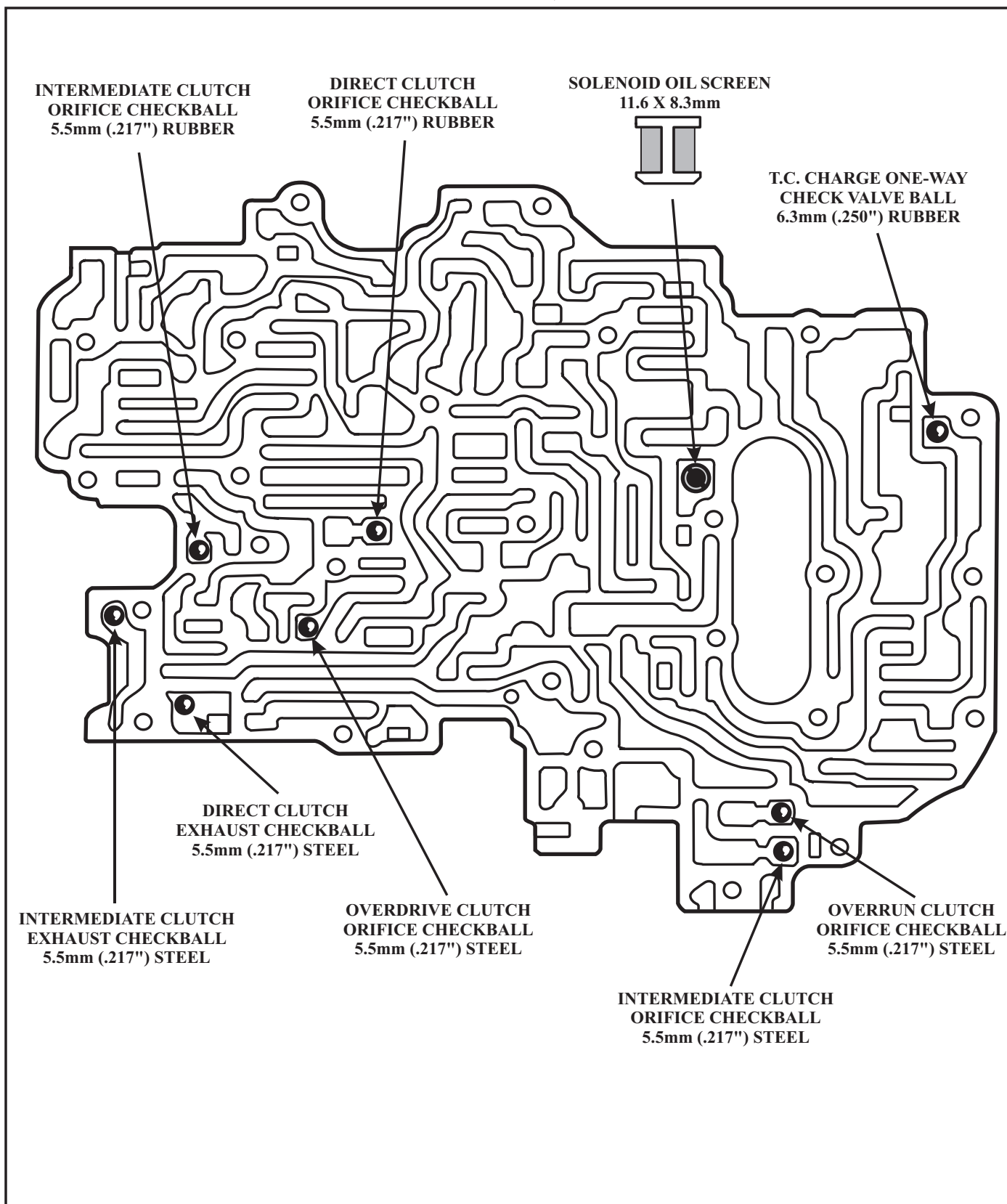
**FIVE STEEL**  
**5.5mm (.217")**  
**CHECKBALLS**



### ISUZU TROOPER WITH AW-3080LE TRANSMISSION CHECKBALL LOCATIONS, 88-89 MODELS ONLY



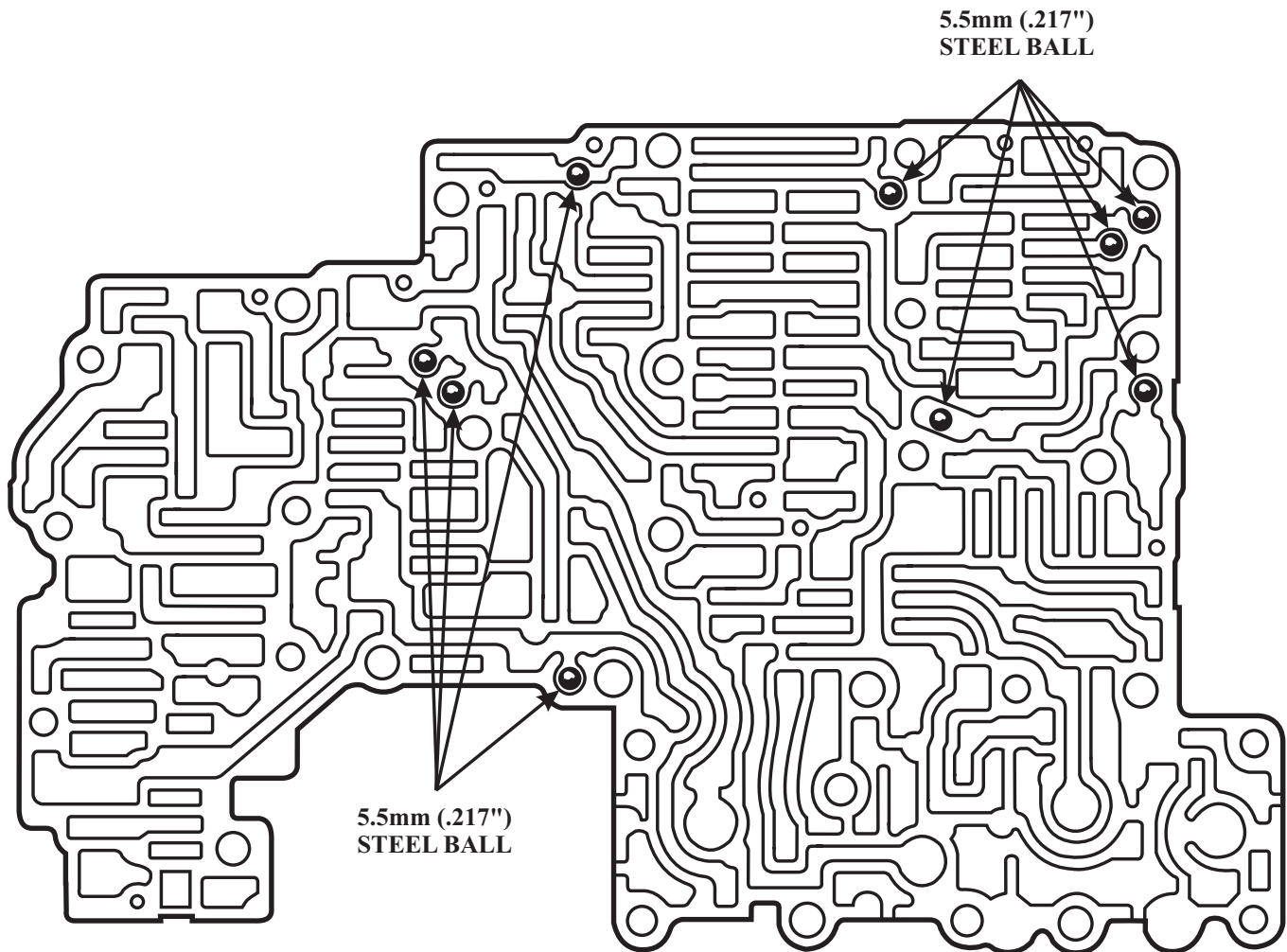
### ISUZU TROOPER WITH AW-3080LE TRANSMISSION CHECKBALL LOCATIONS, 90-91 MODELS ONLY





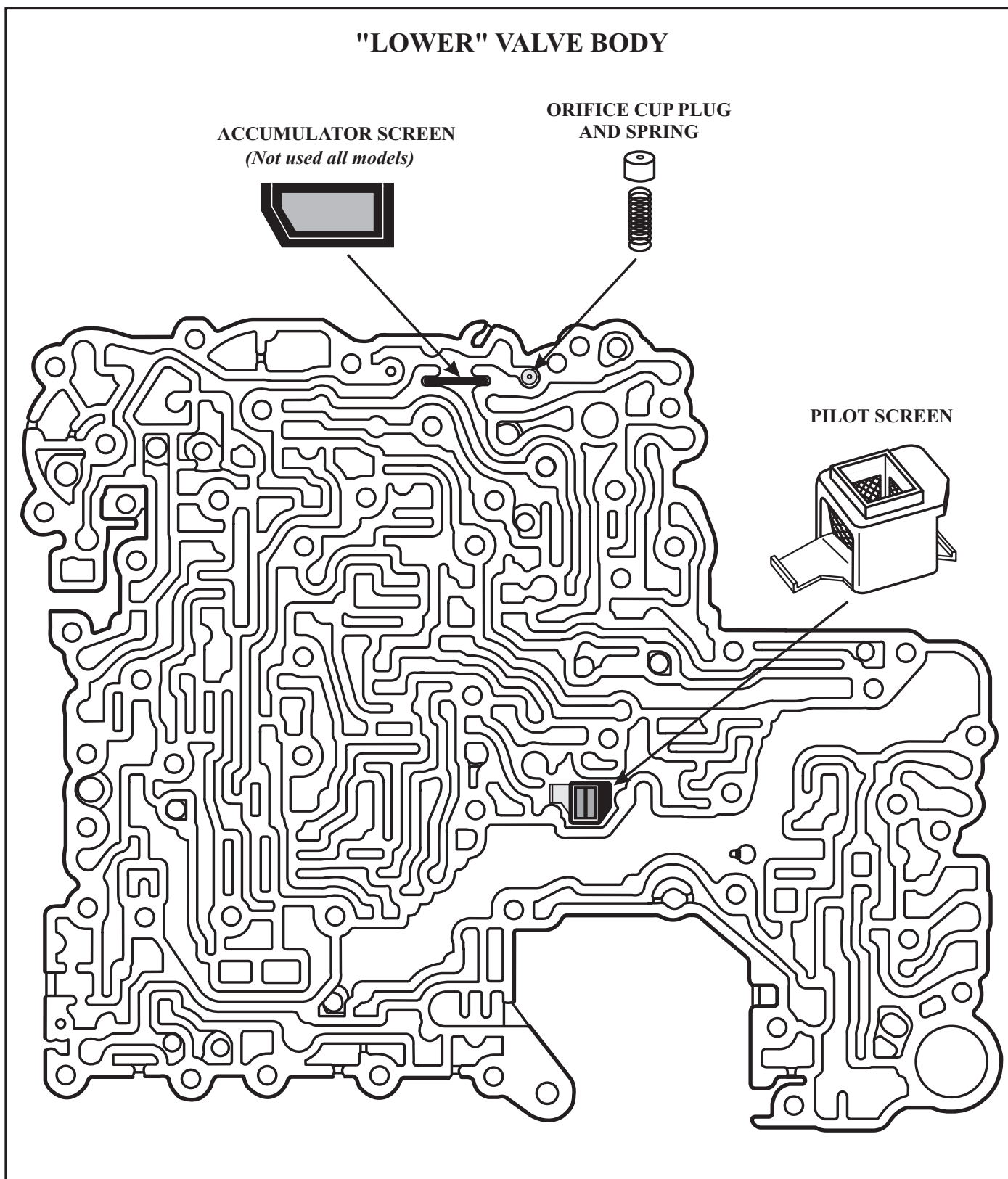
**ISUZU AND G.M. TILTMMASTER TRUCKS**  
**JR403-E CHECKBALL LOCATIONS**

**MAIN VALVE BODY**  
**REQUIRES NINE CHECKBALLS**

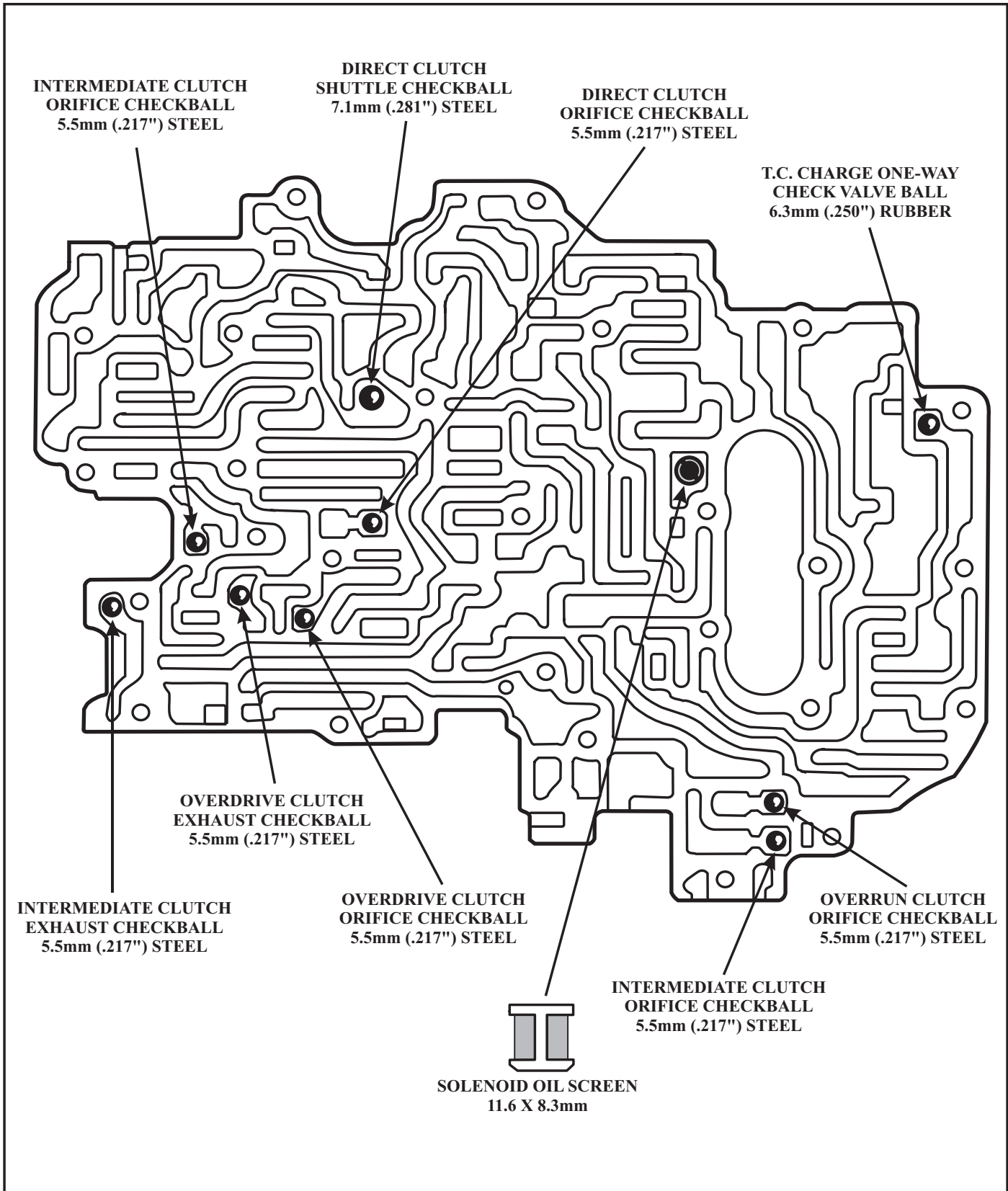




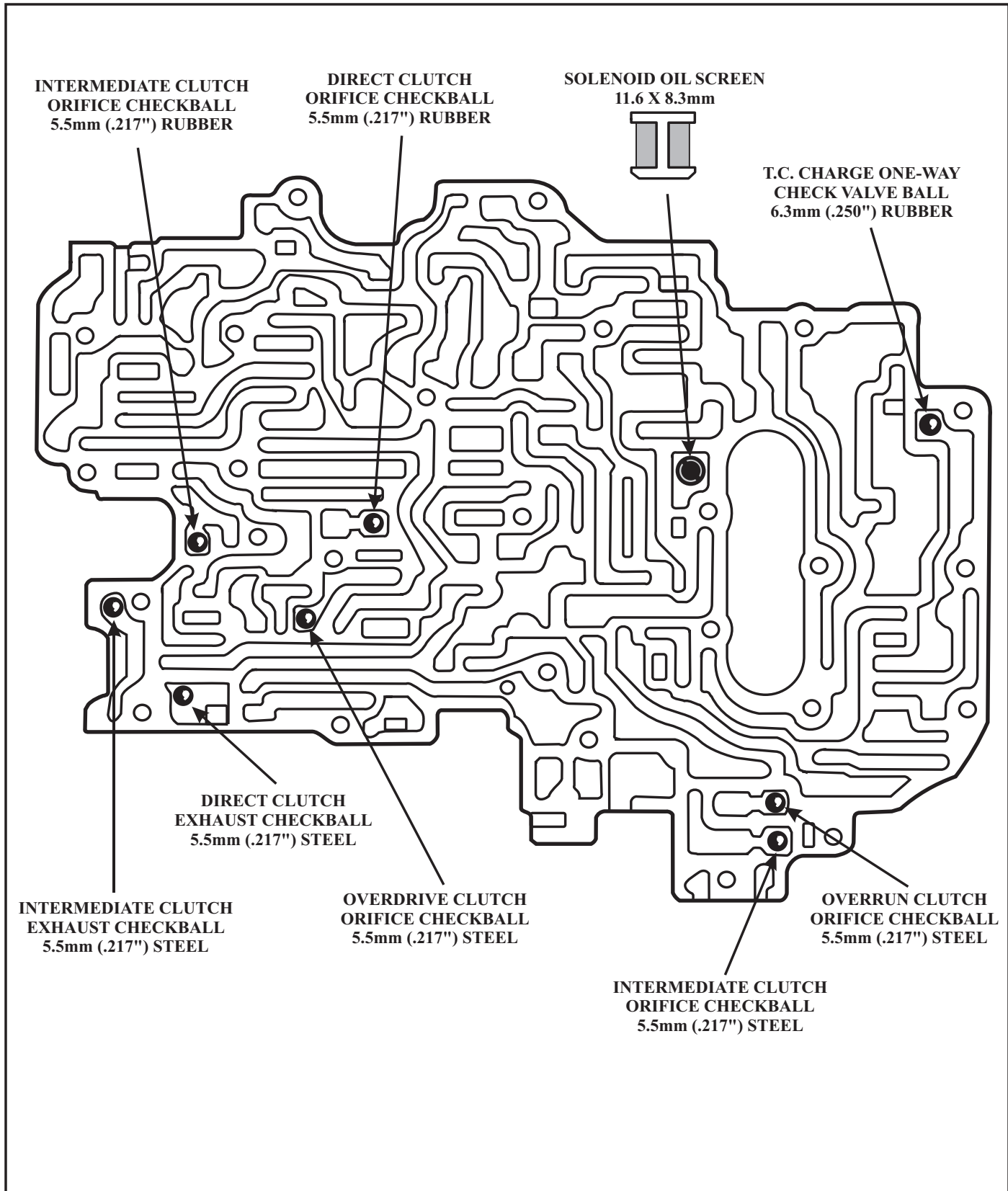
### ISUZU AND G.M. TILTMETER TRUCKS JR403-E SCREEN AND ORIFICE LOCATIONS



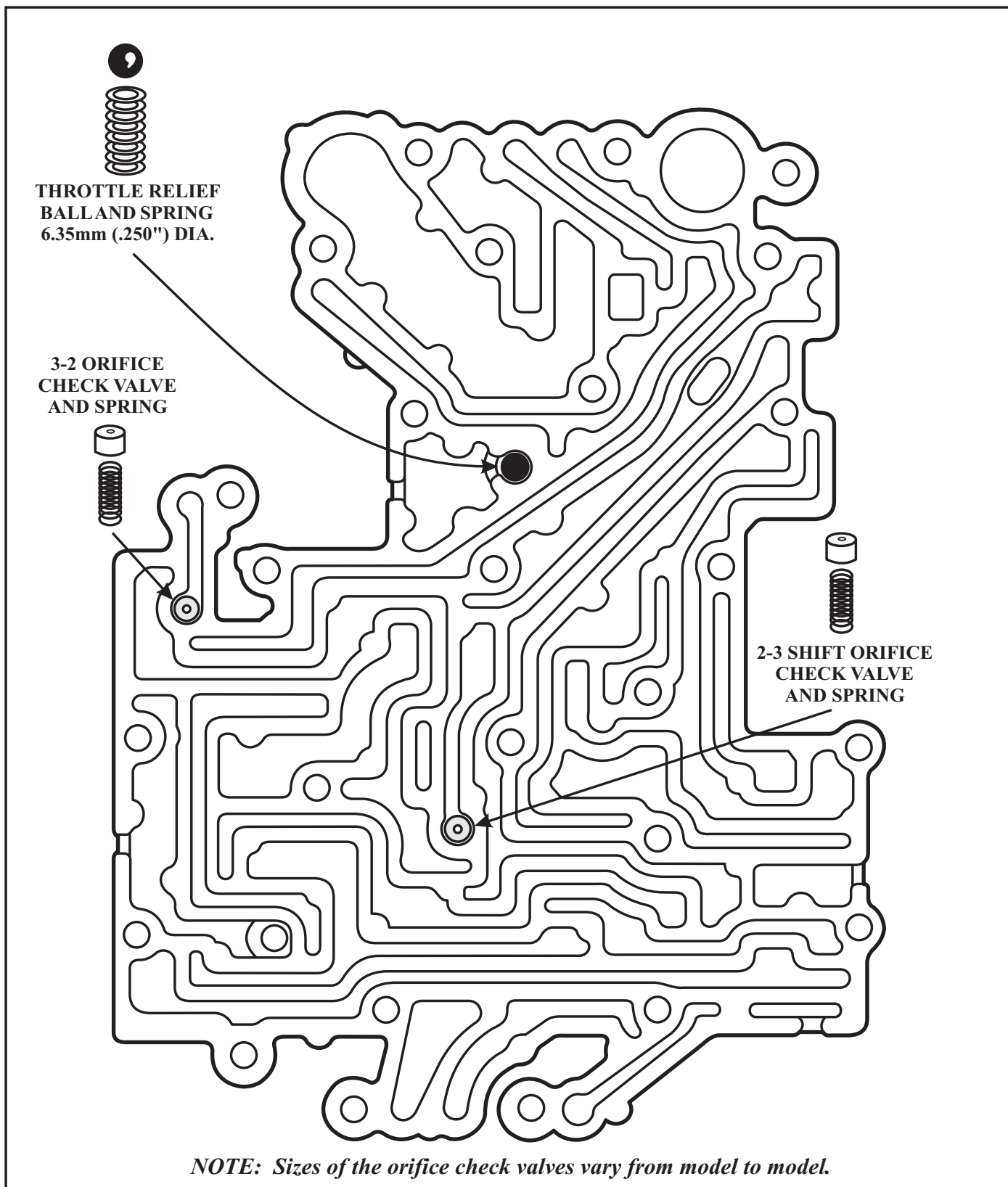
### JEEP CHEROKEE WITH AW-4 TRANSMISSION CHECKBALL LOCATIONS, 87-89 MODELS ONLY



### JEEP CHEROKEE WITH AW-4 TRANSMISSION CHECKBALL LOCATIONS, 90-94 MODELS ONLY

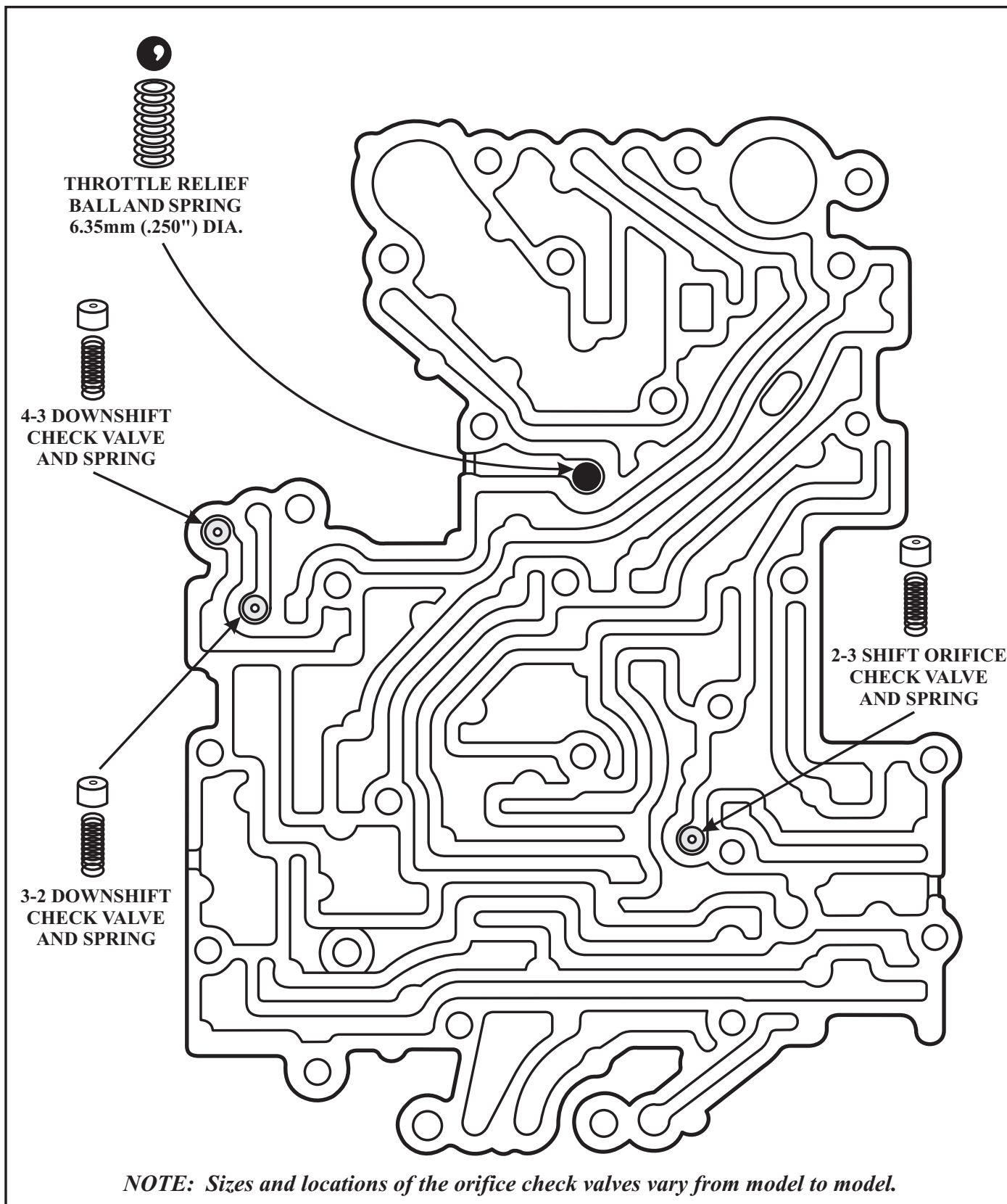


### NISSAN AND FORD GRANADA 3N71B TRANSMISSION VALVE BODY CHECKBALL AND ORIFICE LOCATIONS



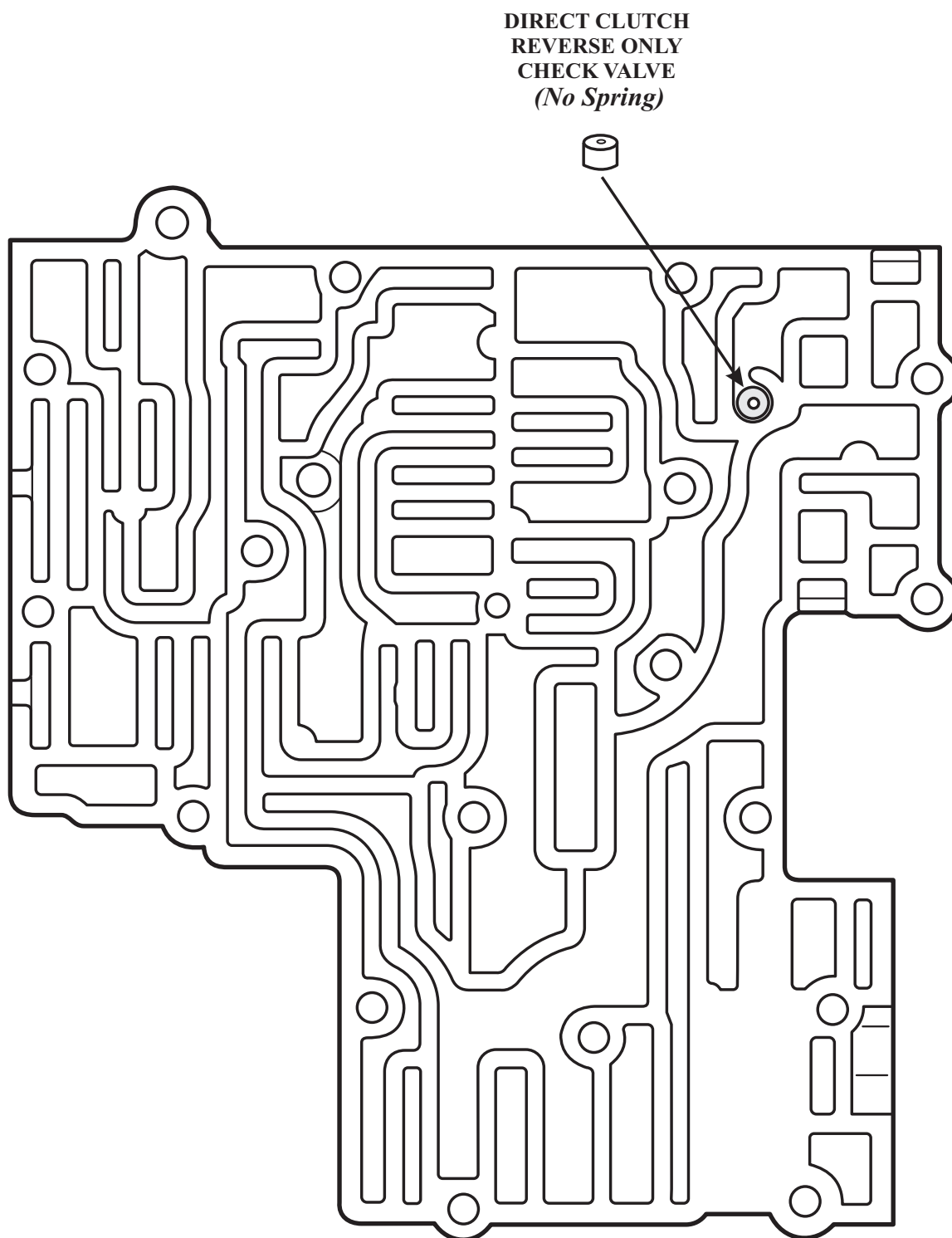
### NISSAN 4N71B TRANSMISSIONS

#### VALVE BODY CHECKBALL AND ORIFICE LOCATIONS



### NISSAN 4N71B TRANSMISSIONS

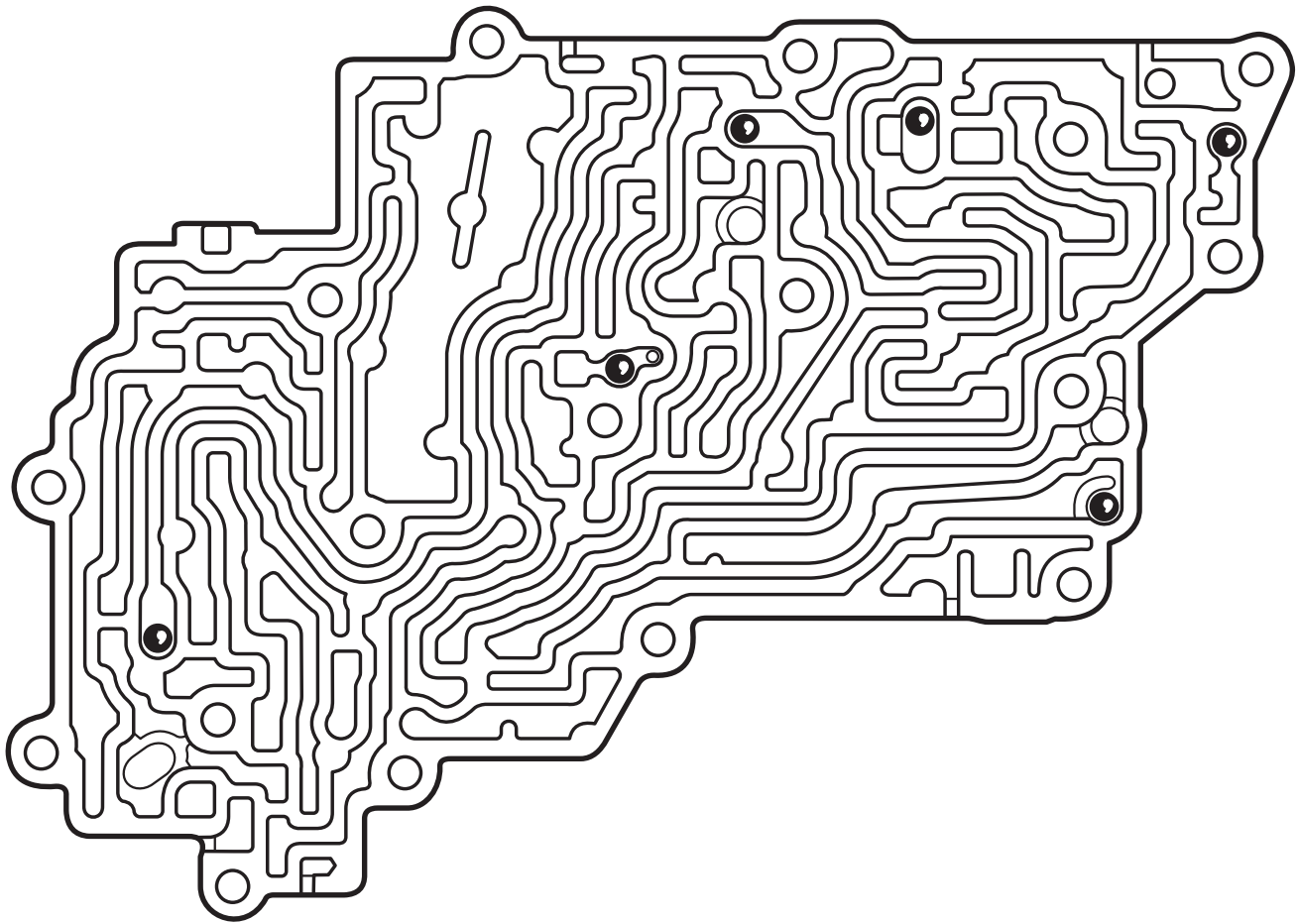
#### VALVE BODY CHECKBALL AND ORIFICE LOCATIONS



*NOTE: Sizes of the orifice check valves vary from model to model.*

**NISSAN RL3FO1A, RN3FO1A TRANSMISSIONS**  
**VALVE BODY CHECKBALL LOCATIONS**

**REQUIRES SIX (6) 5.5mm (.217")  
DIAMETER STEEL CHECKBALLS  
IN THE LOCATIONS SHOWN BELOW**

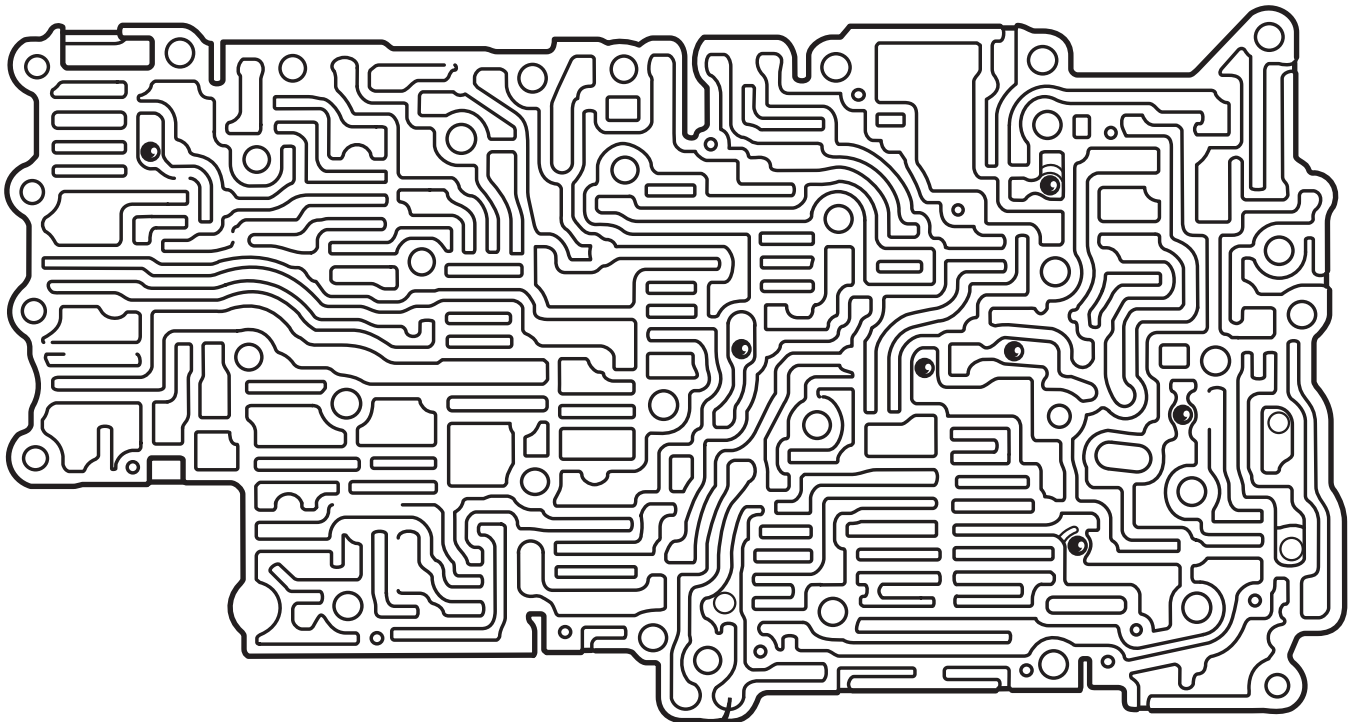




## NISSAN RL4F02A ALL MODELS CHECKBALL LOCATIONS

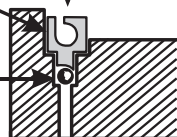
### UPPER VALVE BODY

REQUIRES SEVEN .217" DIAMETER  
STEEL CHECKBALLS IN THE  
LOCATIONS SHOWN BELOW



RETAINER

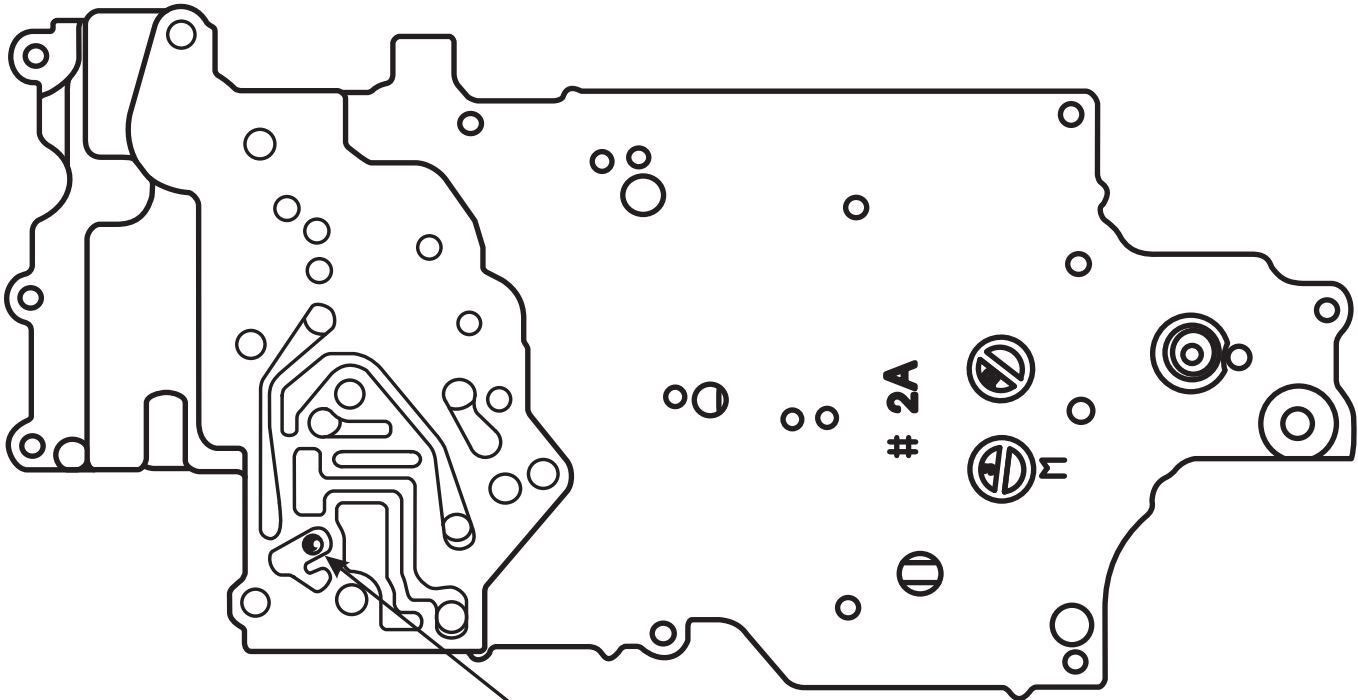
.186" STEEL  
CHECKBALL



REQUIRES .186" DIAMETER  
STEEL CHECKBALL HERE  
AND RETAINER AS SHOWN

## NISSAN RL4F02A ALL MODELS CHECKBALL LOCATIONS

### LOWER VALVE BODY

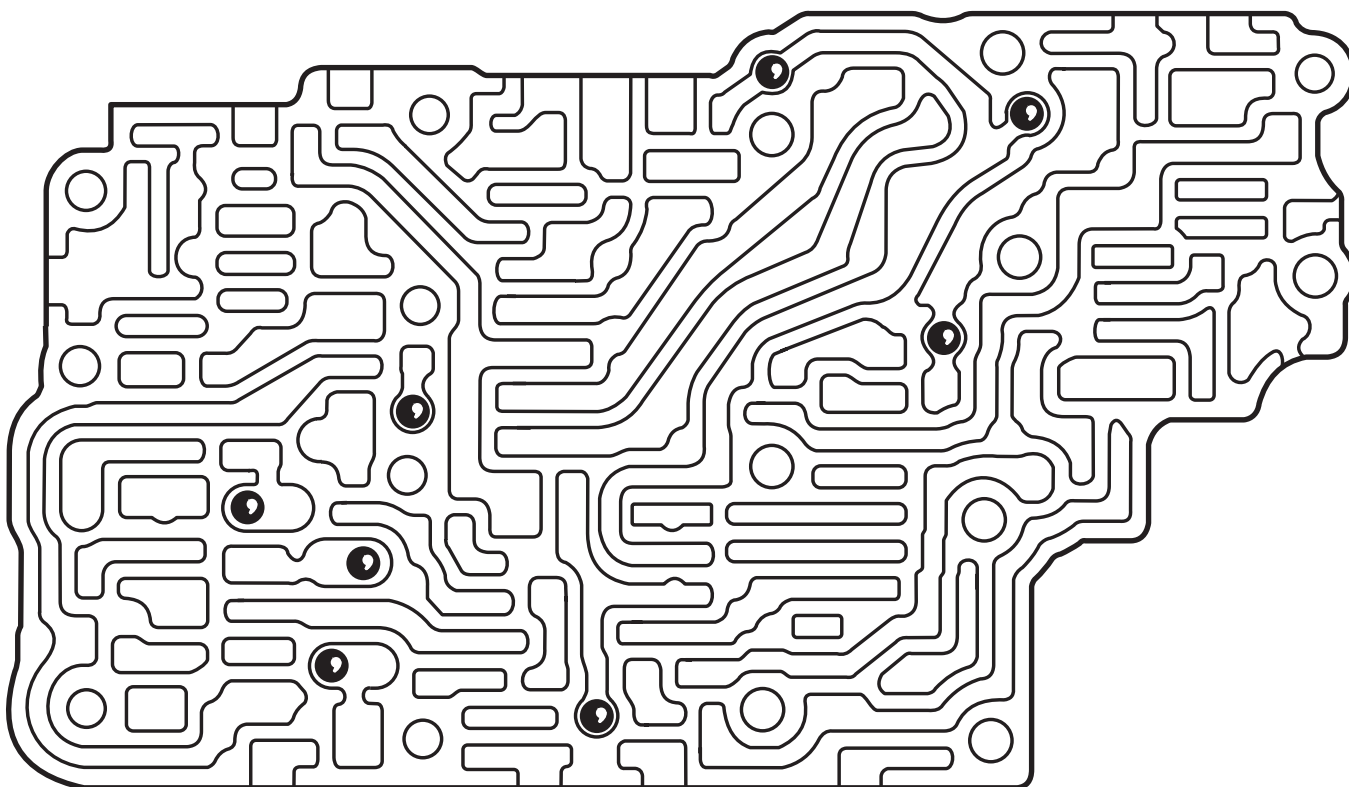


REQUIRES ONE 5.5mm (.217")  
DIAMETER STEEL CHECKBALL  
IN LOCATION SHOWN ABOVE

## NISSAN RL4FO3A TRANSAXLE

### "UPPER" VALVE BODY CHECKBALL LOCATIONS

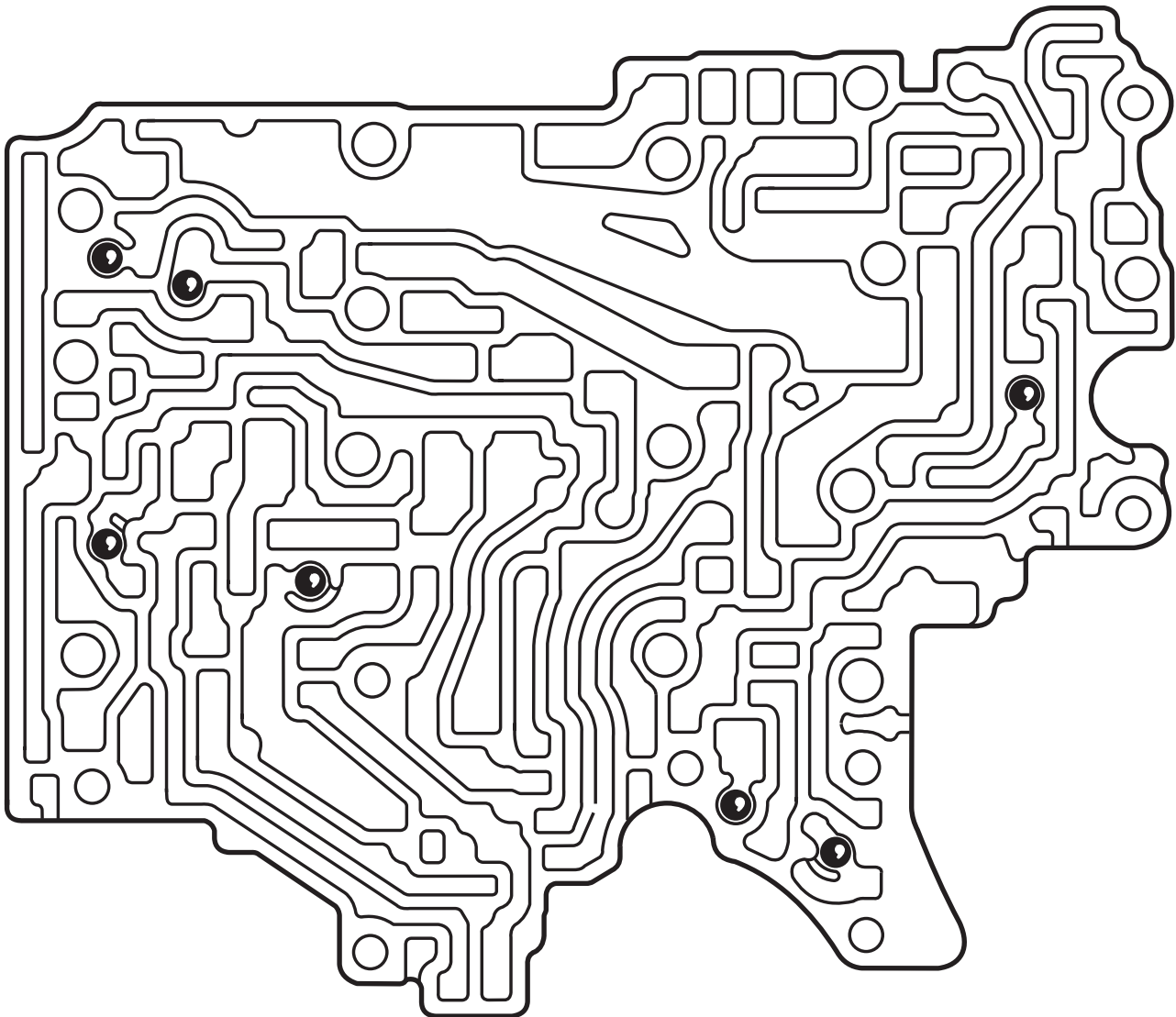
REQUIRES EIGHT (8) STEEL  
CHECKBALLS IN LOCATIONS SHOWN  
5.5mm (.217") DIAMETER



**NISSAN RL4FO3A TRANSAXLE**

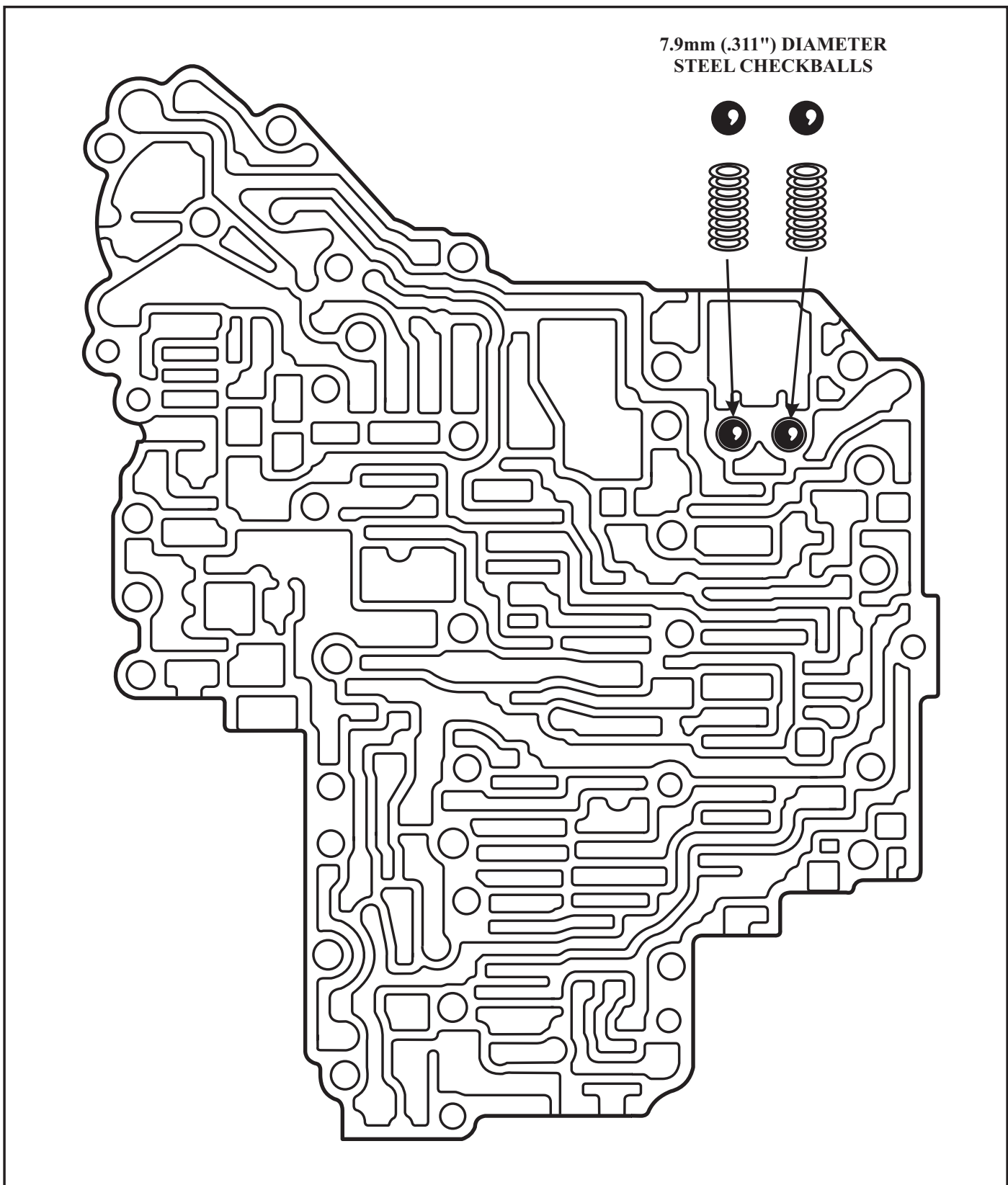
**"INTERMEDIATE" VALVE BODY CHECKBALL LOCATIONS**

**REQUIRES SEVEN (7) STEEL  
CHECKBALLS IN LOCATIONS SHOWN  
5.5mm (.217") DIAMETER**



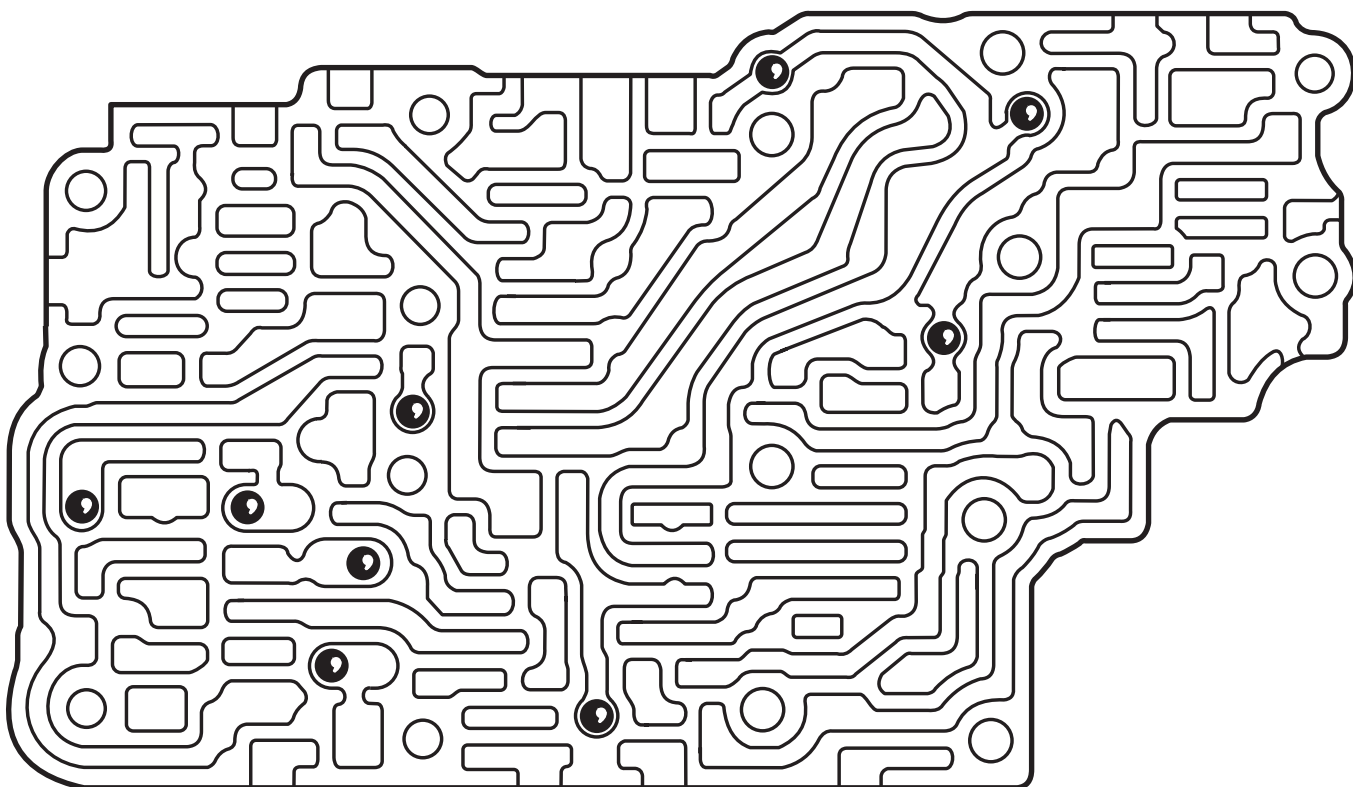
## NISSAN RL4FO3A TRANSAXLE

### "LOWER" VALVE BODY CHECKBALL LOCATIONS



**NISSAN RL4FO3V TRANSAXLE**  
**"UPPER" VALVE BODY CHECKBALL LOCATIONS**

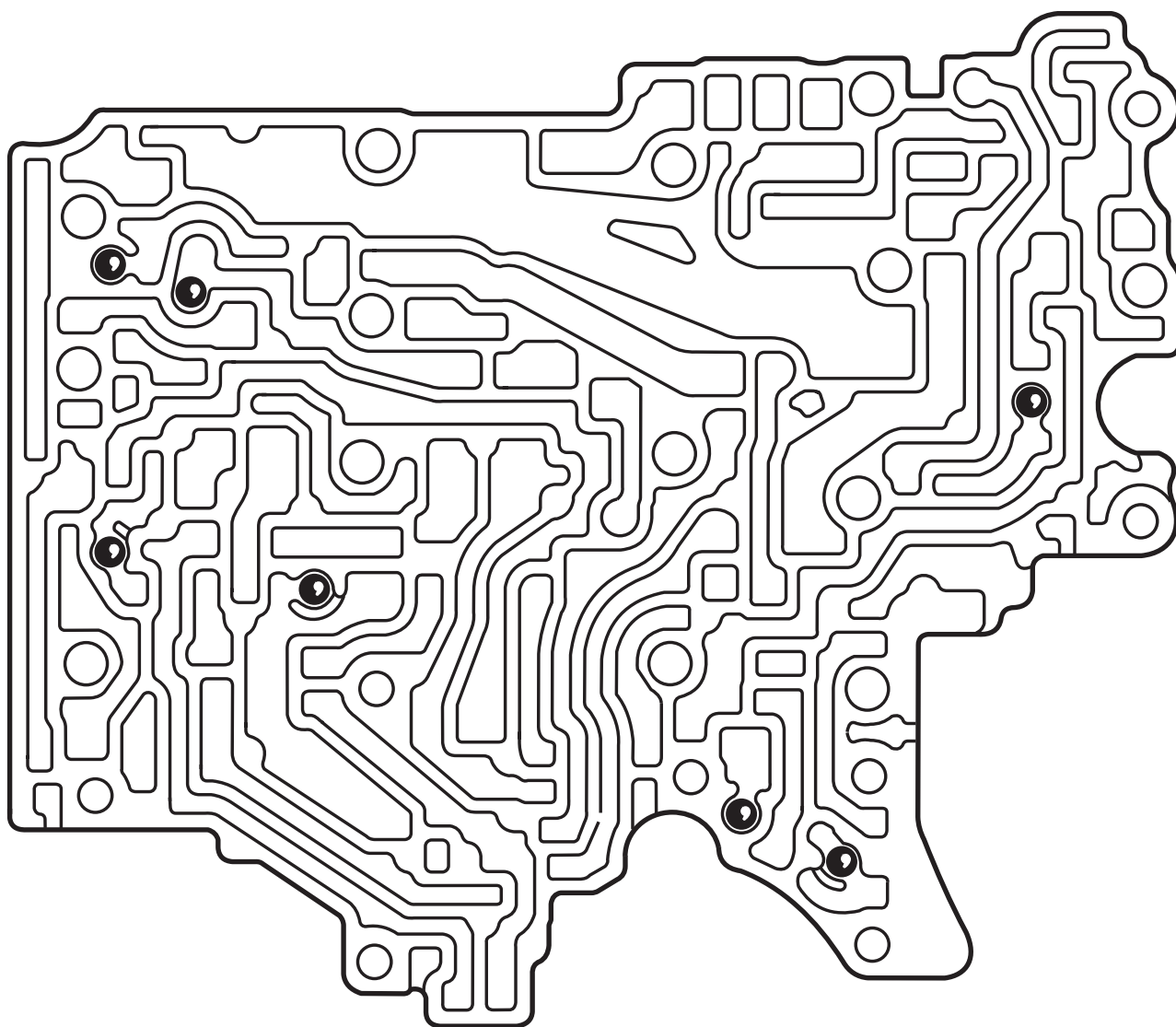
**REQUIRES NINE (9) STEEL  
CHECKBALLS IN LOCATIONS SHOWN  
5.5mm (.217") DIAMETER**



**NISSAN RL4FO3V TRANSAXLE**

**"INTERMEDIATE" VALVE BODY CHECKBALL LOCATIONS**

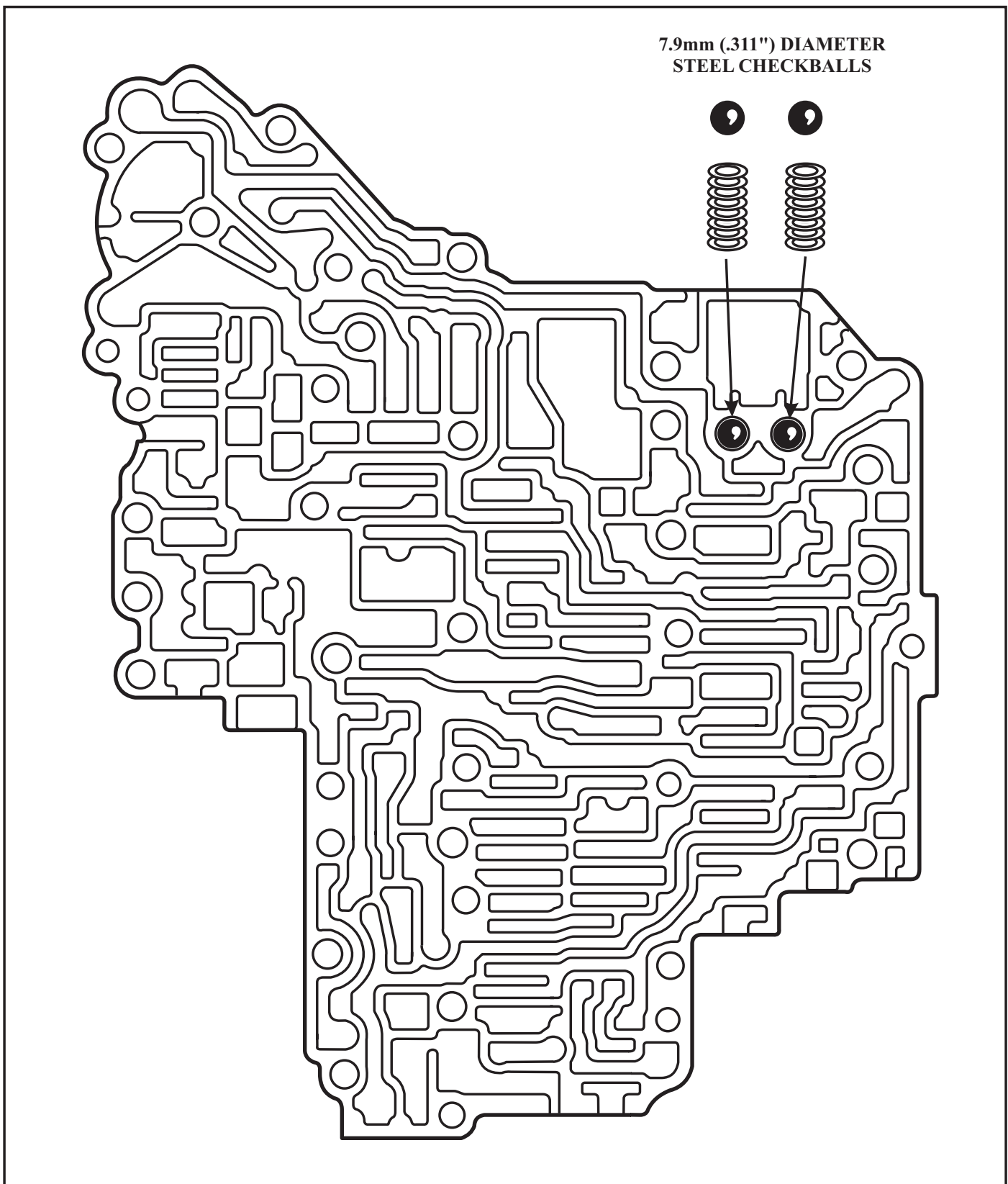
**REQUIRES SEVEN (7) STEEL  
CHECKBALLS IN LOCATIONS SHOWN  
5.5mm (.217") DIAMETER**





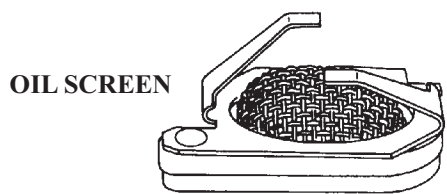
## NISSAN RL4FO3V TRANSAXLE

### "LOWER" VALVE BODY CHECKBALL LOCATIONS



## NISSAN RE4F02A ALL MODELS CHECKBALL LOCATIONS

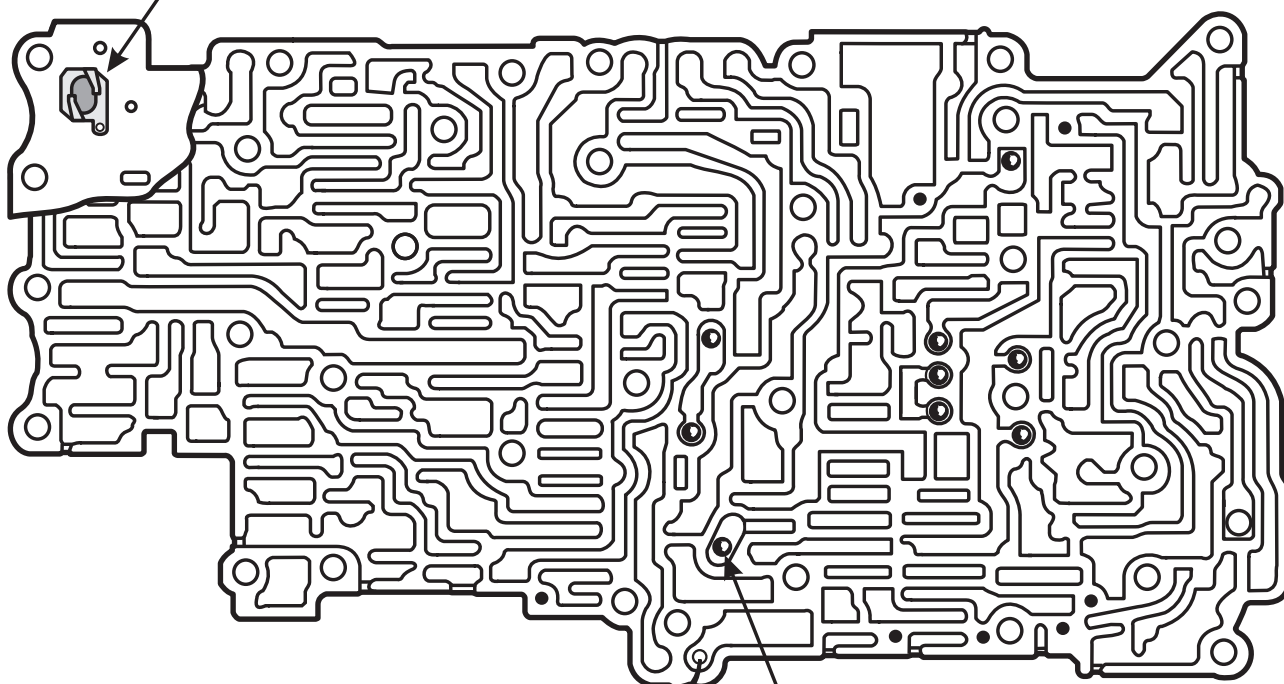
### UPPER VALVE BODY



OIL SCREEN

REQUIRES NINE .217" DIAMETER  
STEEL CHECKBALLS IN THE  
LOCATIONS SHOWN BELOW

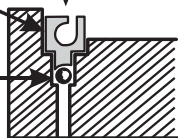
OIL SCREEN TO BE PLACED  
ON SPACER PLATE WITH THE  
LEGS FACING "UP", AS SHOWN



2 HOLES IN SPACER = BALL  
1 HOLE IN SPACER = NO BALL

RETAINER

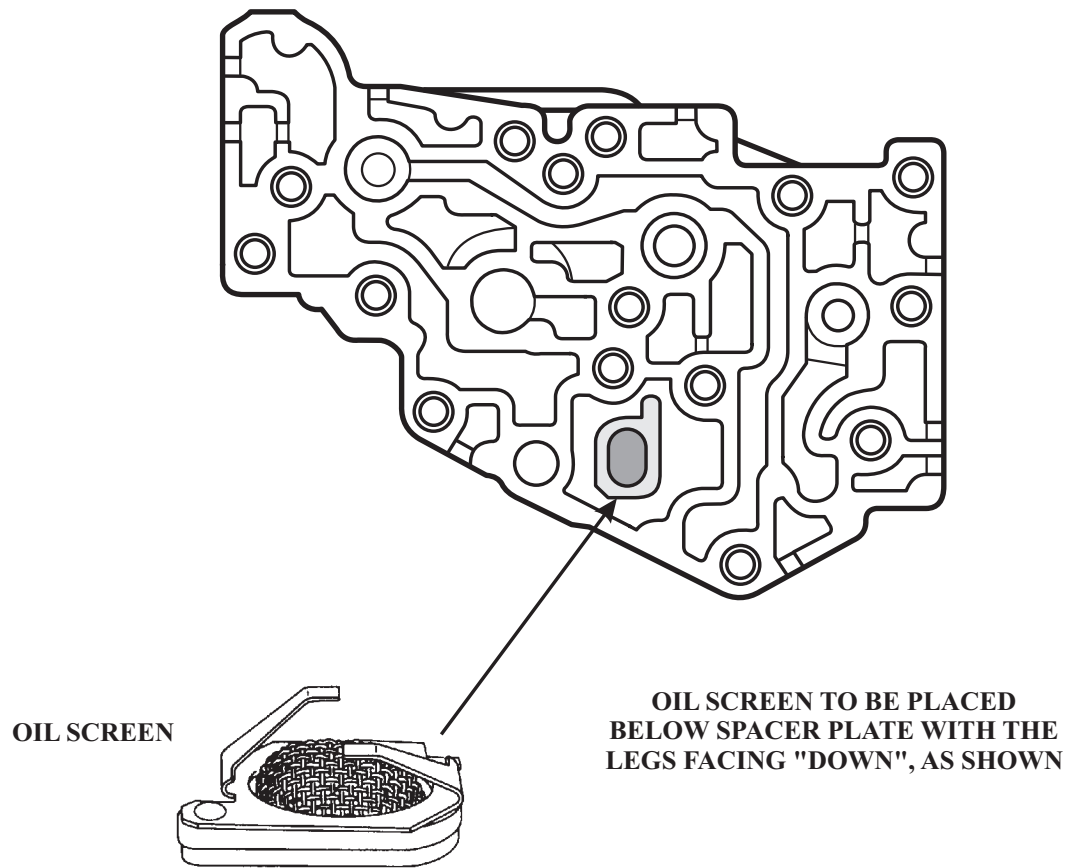
.186" STEEL  
CHECKBALL



REQUIRES .186" DIAMETER  
STEEL CHECKBALL HERE  
AND RETAINER AS SHOWN

**NISSAN RE4F02A ALL MODELS  
SCREEN LOCATION**

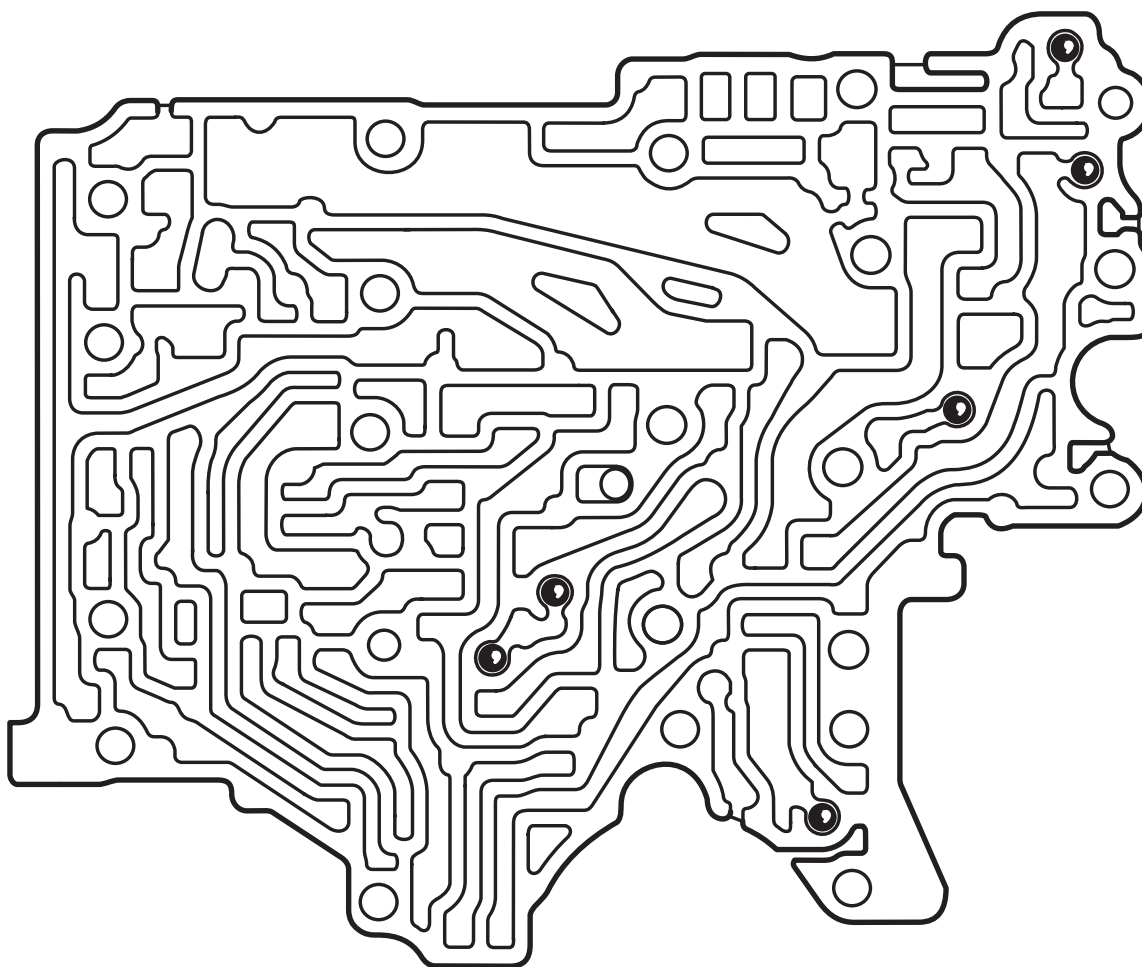
**SOLENOID BODY**



**NISSAN RE4F03A/V TRANSAXLES  
NX AND SENTRA**

**"INTERMEDIATE" VALVE BODY CHECKBALL LOCATIONS**

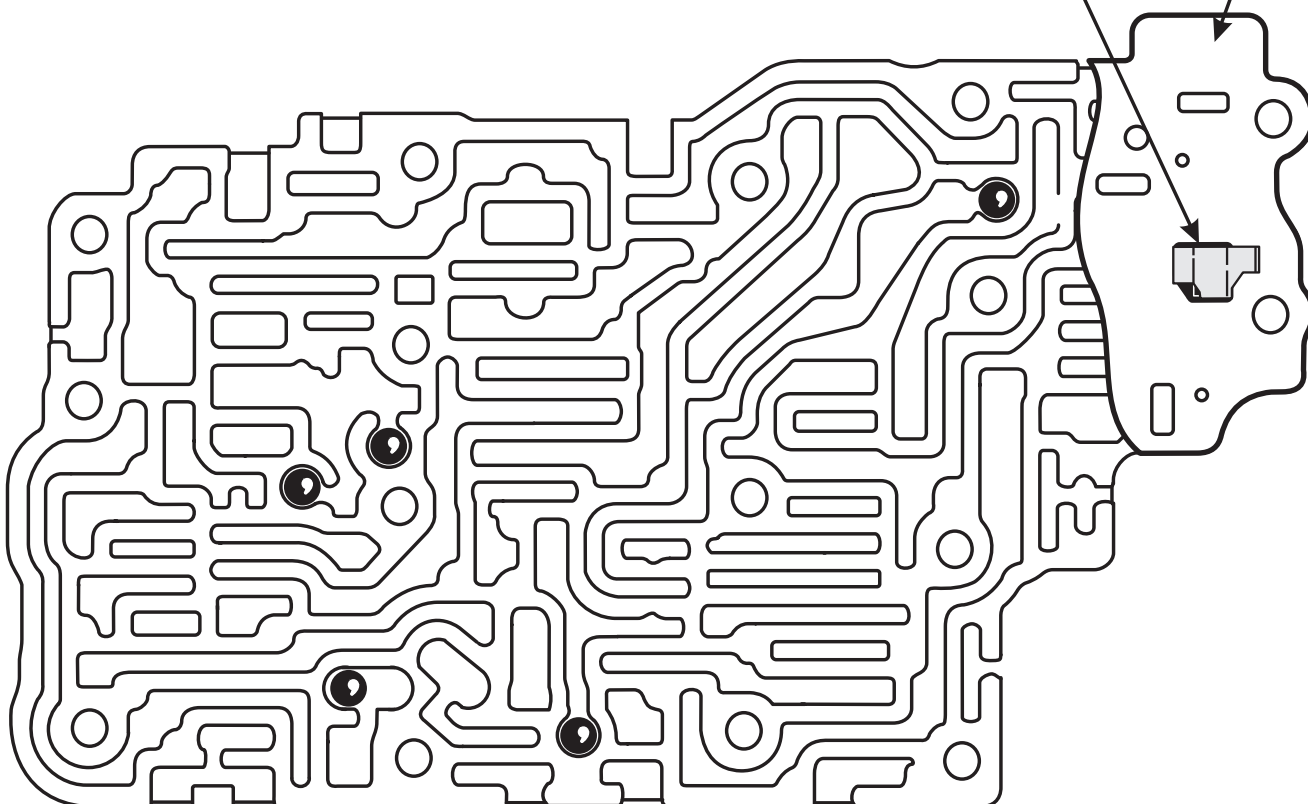
**REQUIRES SIX (6) STEEL CHECKBALLS  
5.5mm (.217") DIAMETER IN THE  
LOCATIONS SHOWN BELOW**



## NISSAN RE4F03A/V TRANSAXLES NX AND SENTRA "UPPER" VALVE BODY CHECKBALL LOCATIONS

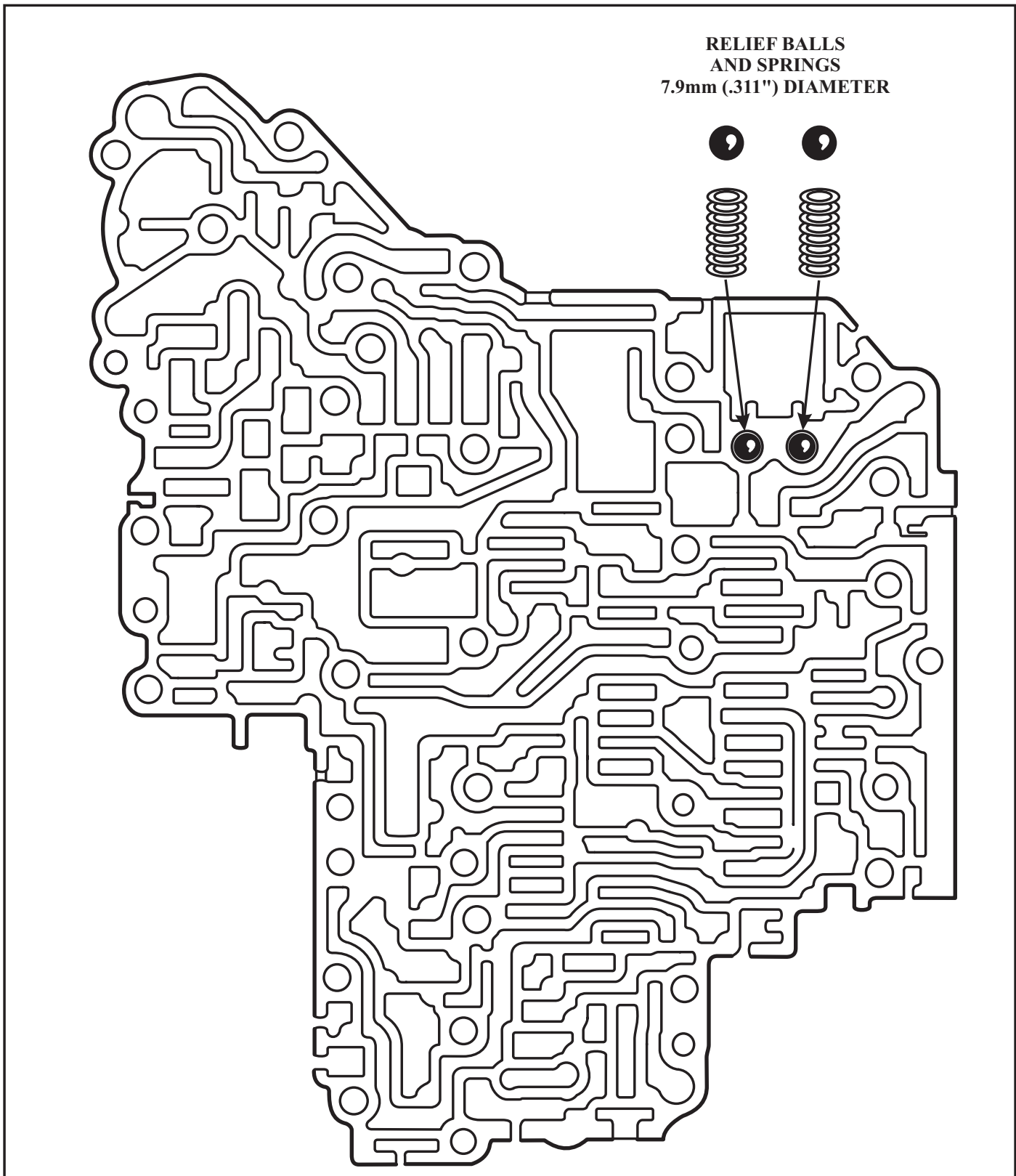
REQUIRES FIVE (5) STEEL CHECKBALLS  
5.5mm (.217") DIAMETER IN THE  
LOCATIONS SHOWN BELOW

PILOT FILTER INSTALLED  
ON SPACER PLATE WITH  
LEGS UP AS SHOWN



## NISSAN RE4F03A/V TRANSAXLES NX AND SENTRA

### "LOWER" VALVE BODY RELIEF BALL LOCATIONS

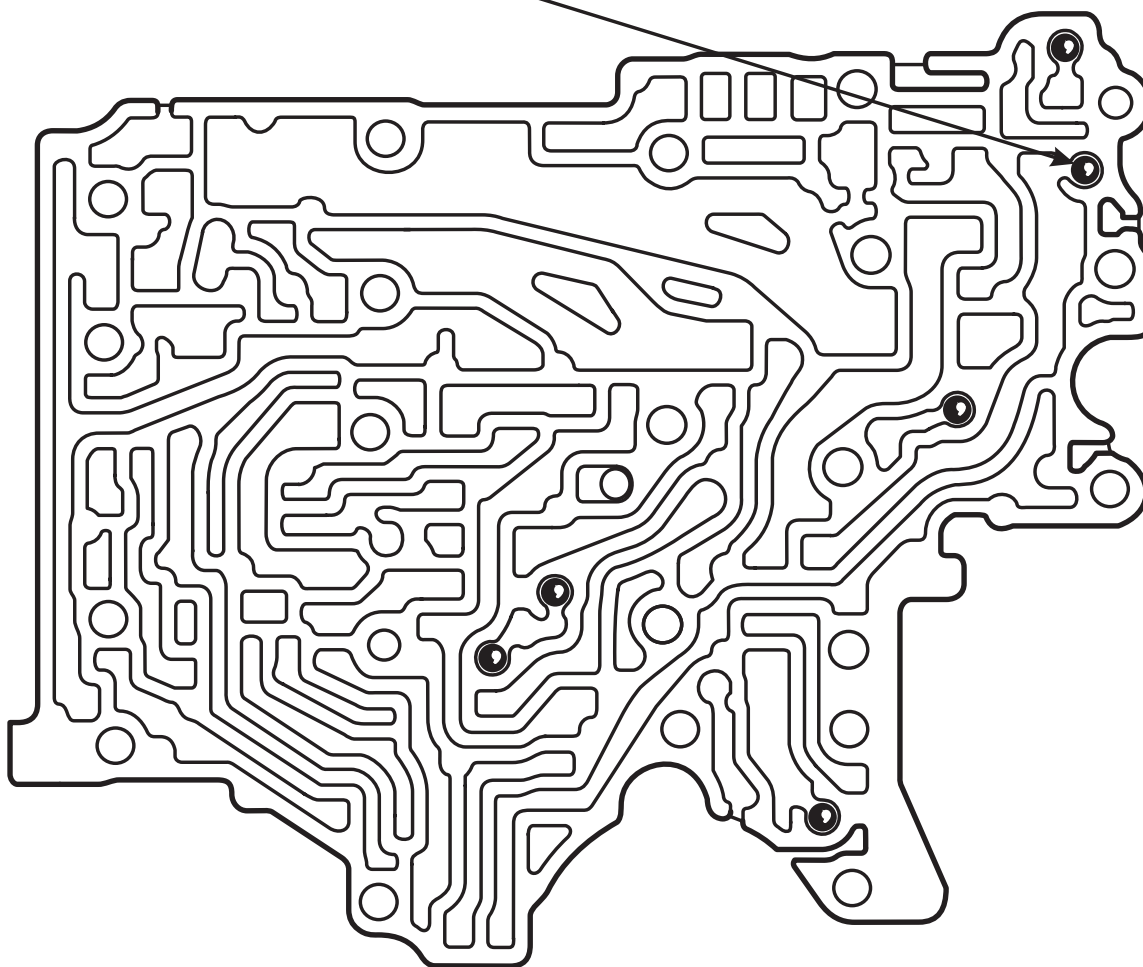


### NISSAN RE4F04A TRANSAXLES

#### "INTERMEDIATE" VALVE BODY CHECKBALL LOCATIONS

REQUIRES SIX (6) STEEL CHECKBALLS  
5.5mm (.217") DIAMETER IN THE  
LOCATIONS SHOWN BELOW

*This Checkball Omitted  
On 1995-Up Models*



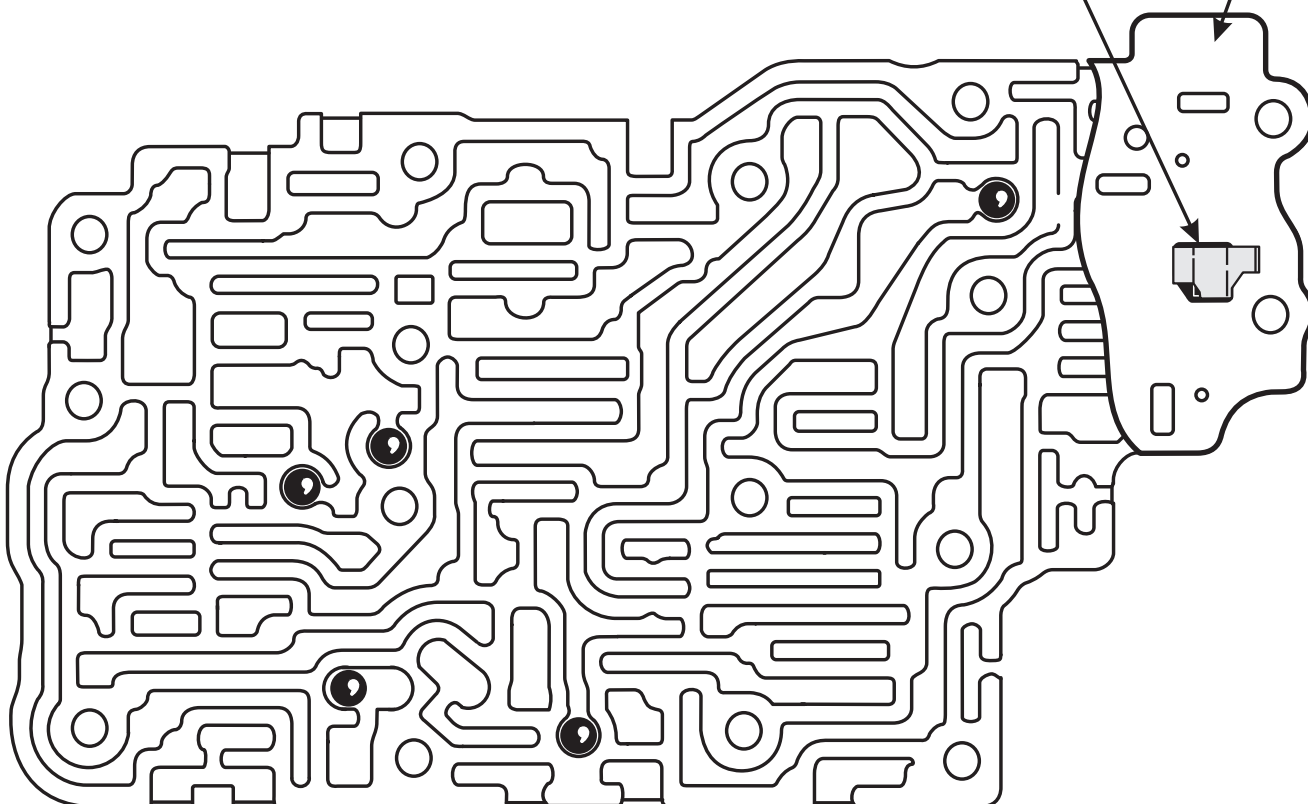


## NISSAN RE4F04A TRANSAXLES

### "UPPER" VALVE BODY CHECKBALL LOCATIONS

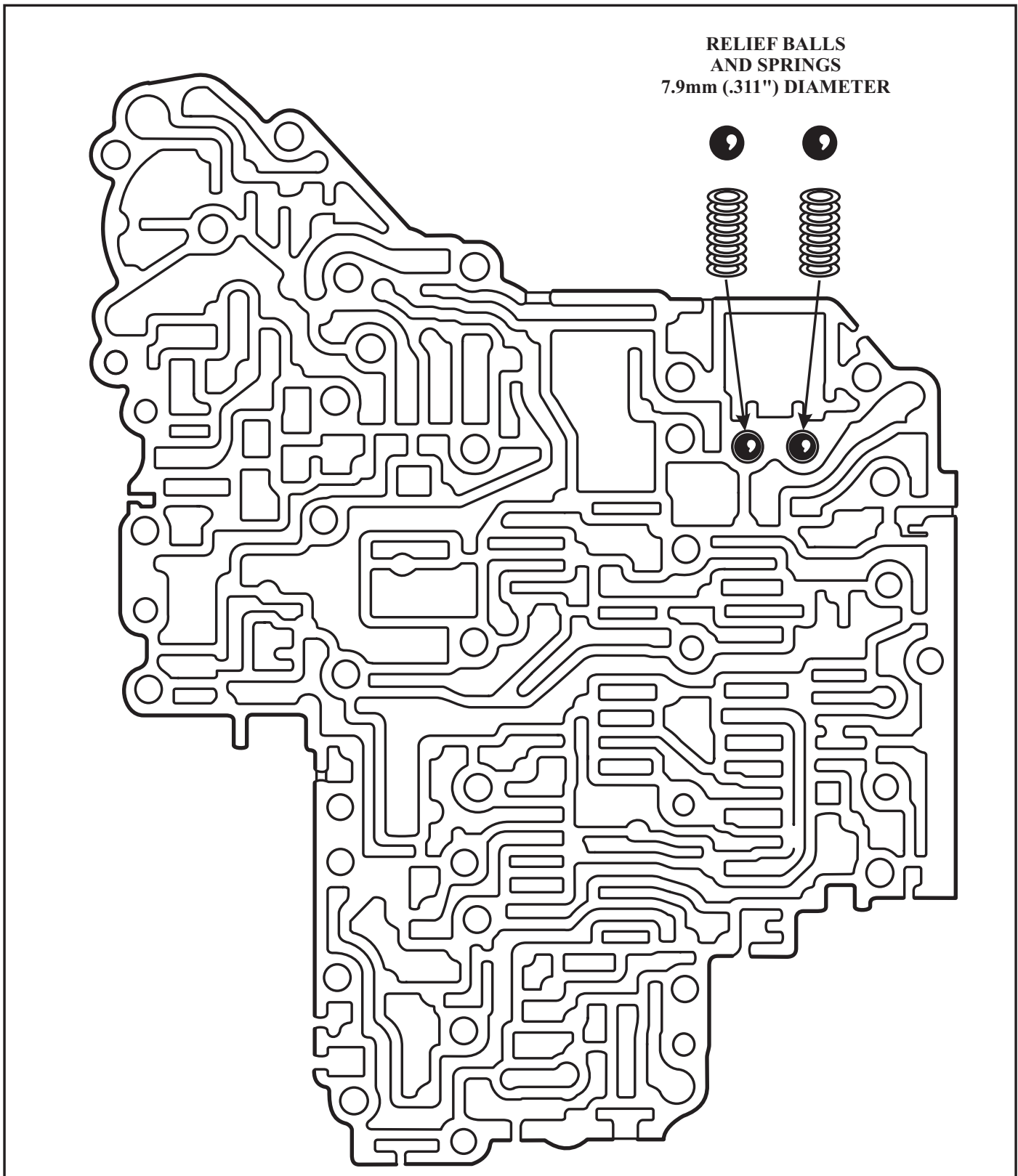
REQUIRES FIVE (5) STEEL CHECKBALLS  
5.5mm (.217") DIAMETER IN THE  
LOCATIONS SHOWN BELOW

PILOT FILTER INSTALLED  
ON SPACER PLATE WITH  
LEGS UP AS SHOWN



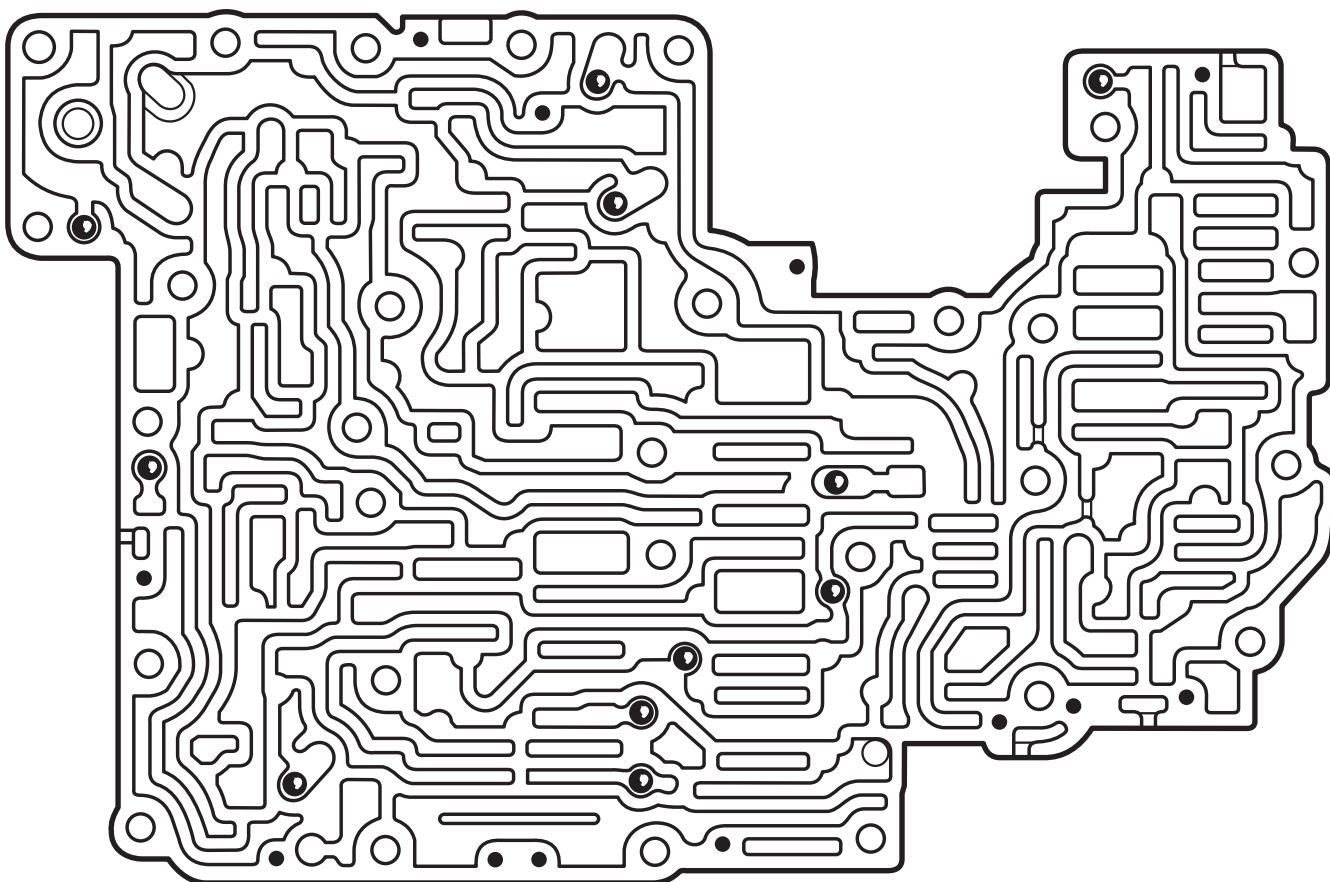
## NISSAN RE4F04A TRANSAXLES

### "LOWER" VALVE BODY RELIEF BALL LOCATIONS

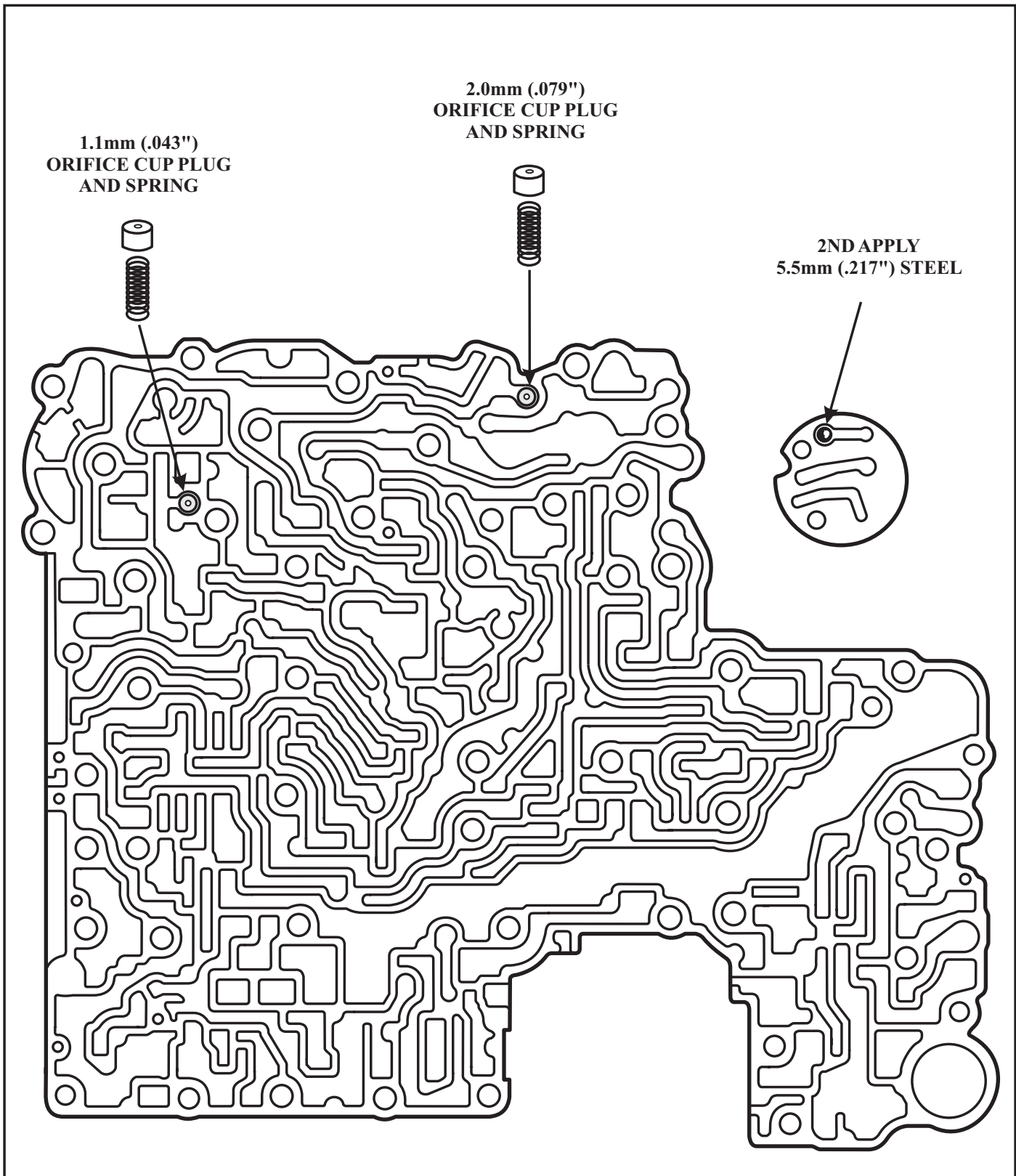


**NISSAN RL4R01A**  
**UPPER VALVE BODY CHECKBALL LOCATIONS**

REQUIRES ELEVEN 5.5mm (.217") DIAMETER  
STEEL CHECKBALLS IN LOCATIONS SHOWN

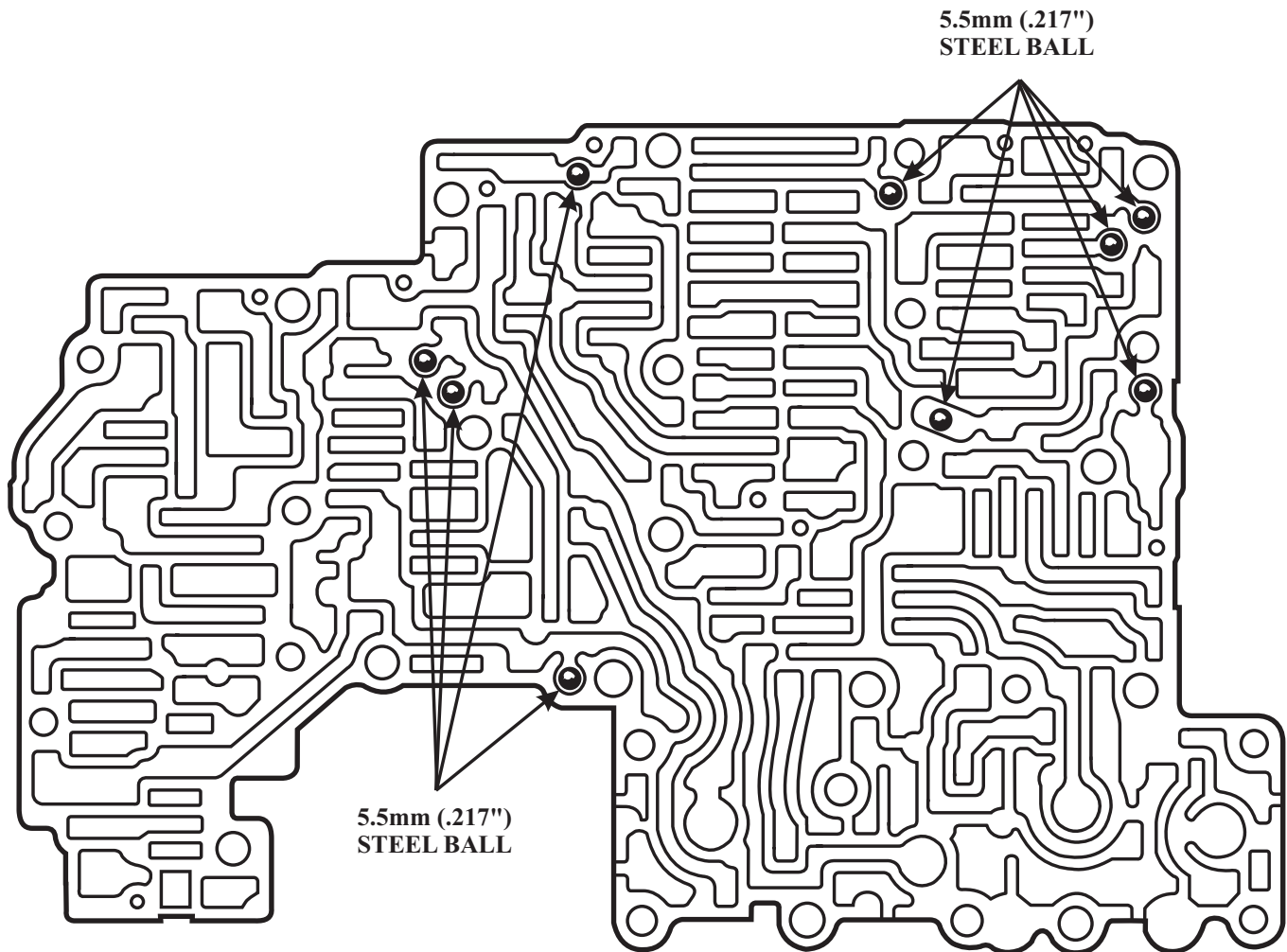


## NISSAN RL4R01A LOWER VALVE BODY ORIFICE LOCATIONS

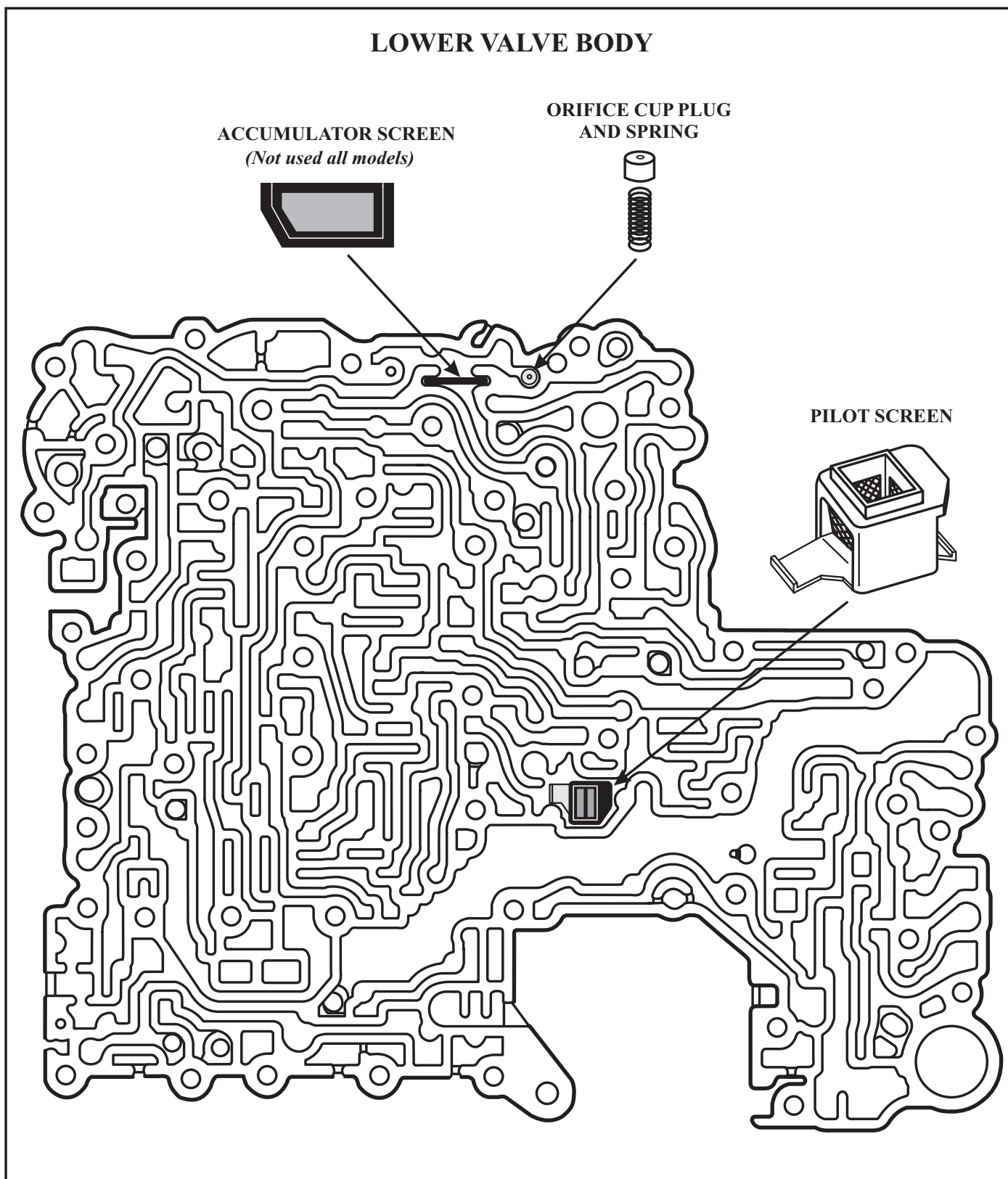


## NISSAN RE4R01A ALL MODELS CHECKBALL LOCATIONS

MAIN VALVE BODY  
REQUIRES NINE CHECKBALLS

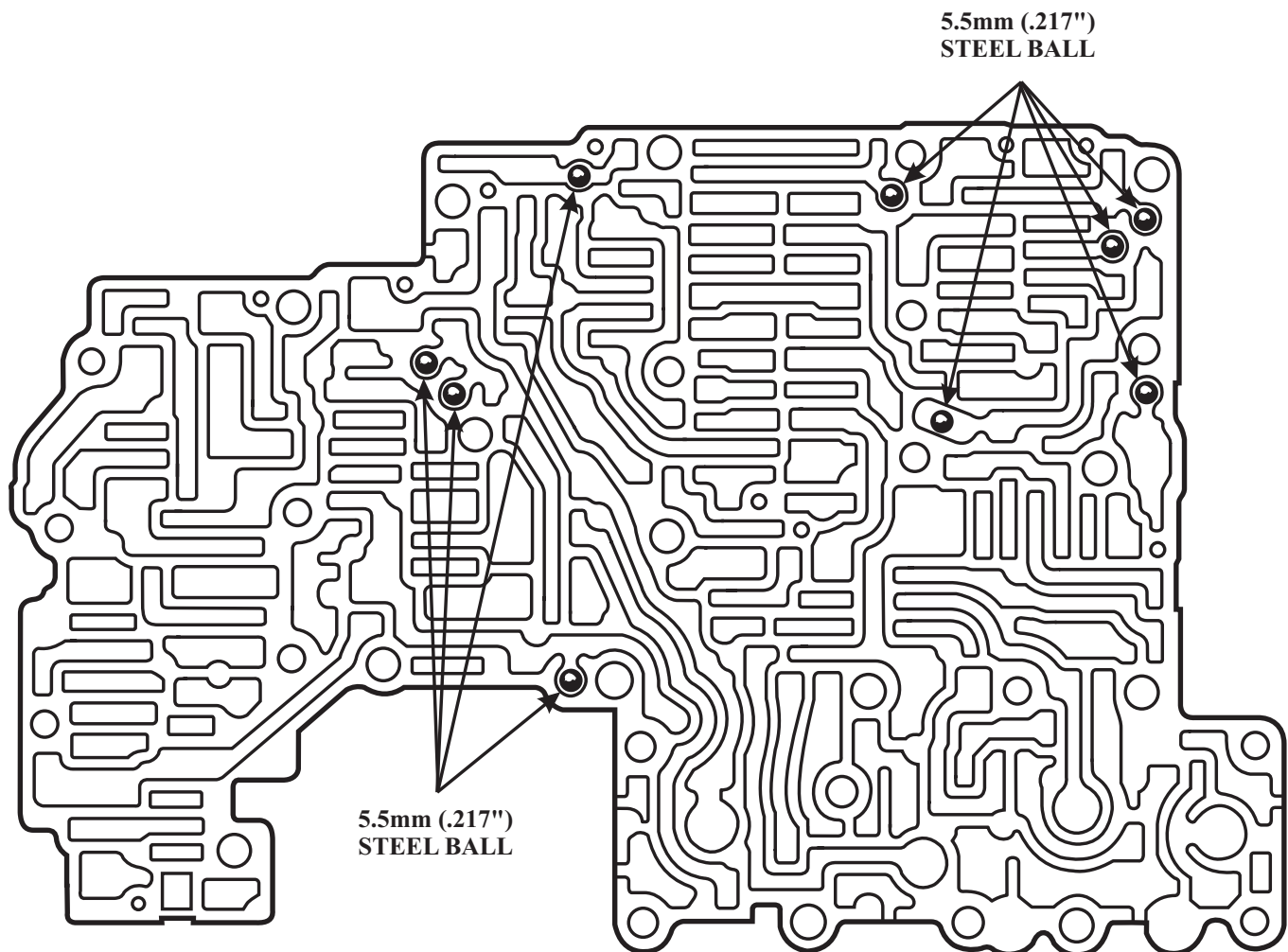


### NISSAN RE4R01A ALL MODELS SCREEN AND ORIFICE LOCATIONS



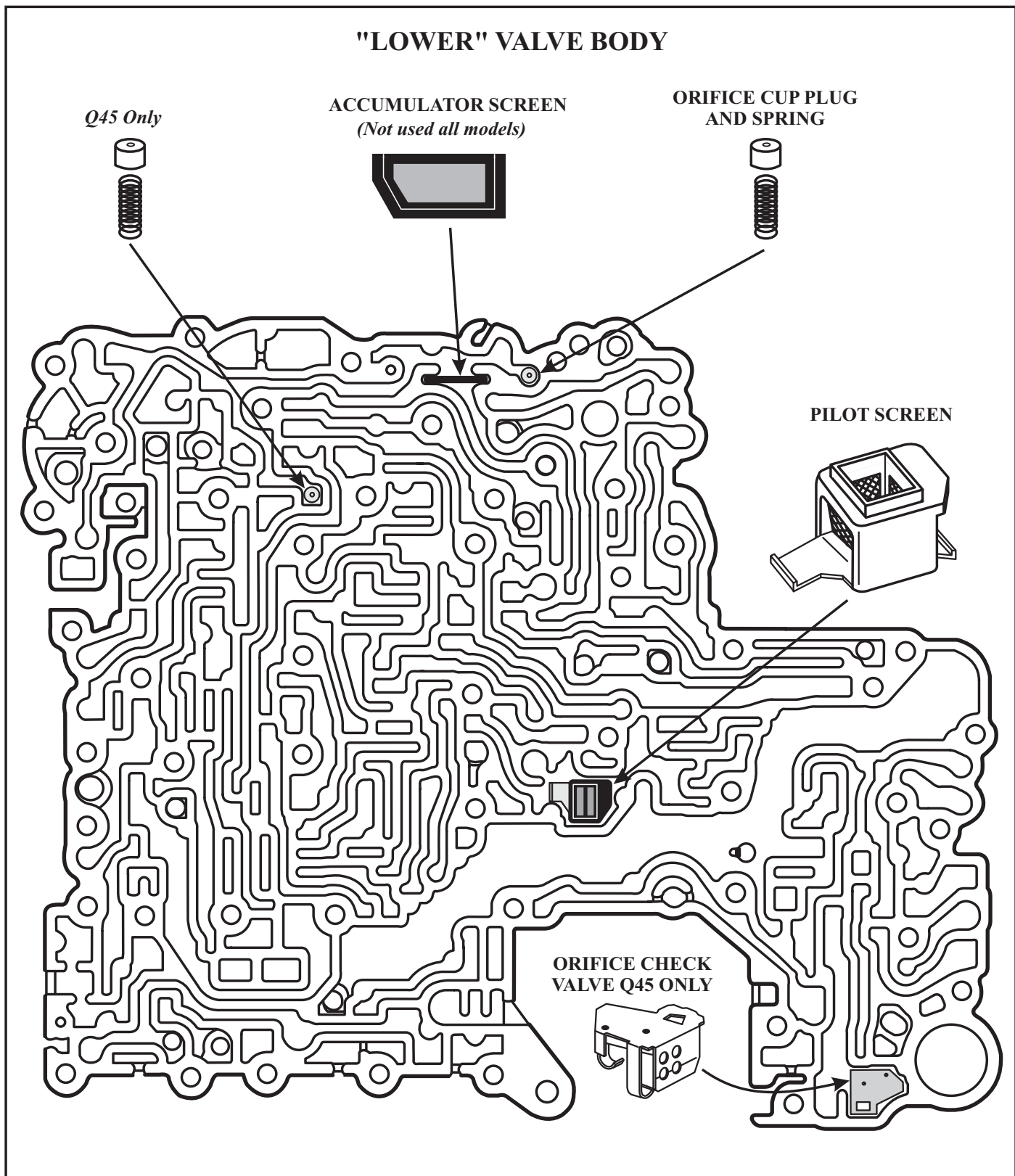
## NISSAN RE4R03A TRANSMISSIONS 300ZX TWIN TURBO AND Q45 CHECKBALL LOCATIONS

**MAIN VALVE BODY  
REQUIRES NINE CHECKBALLS**

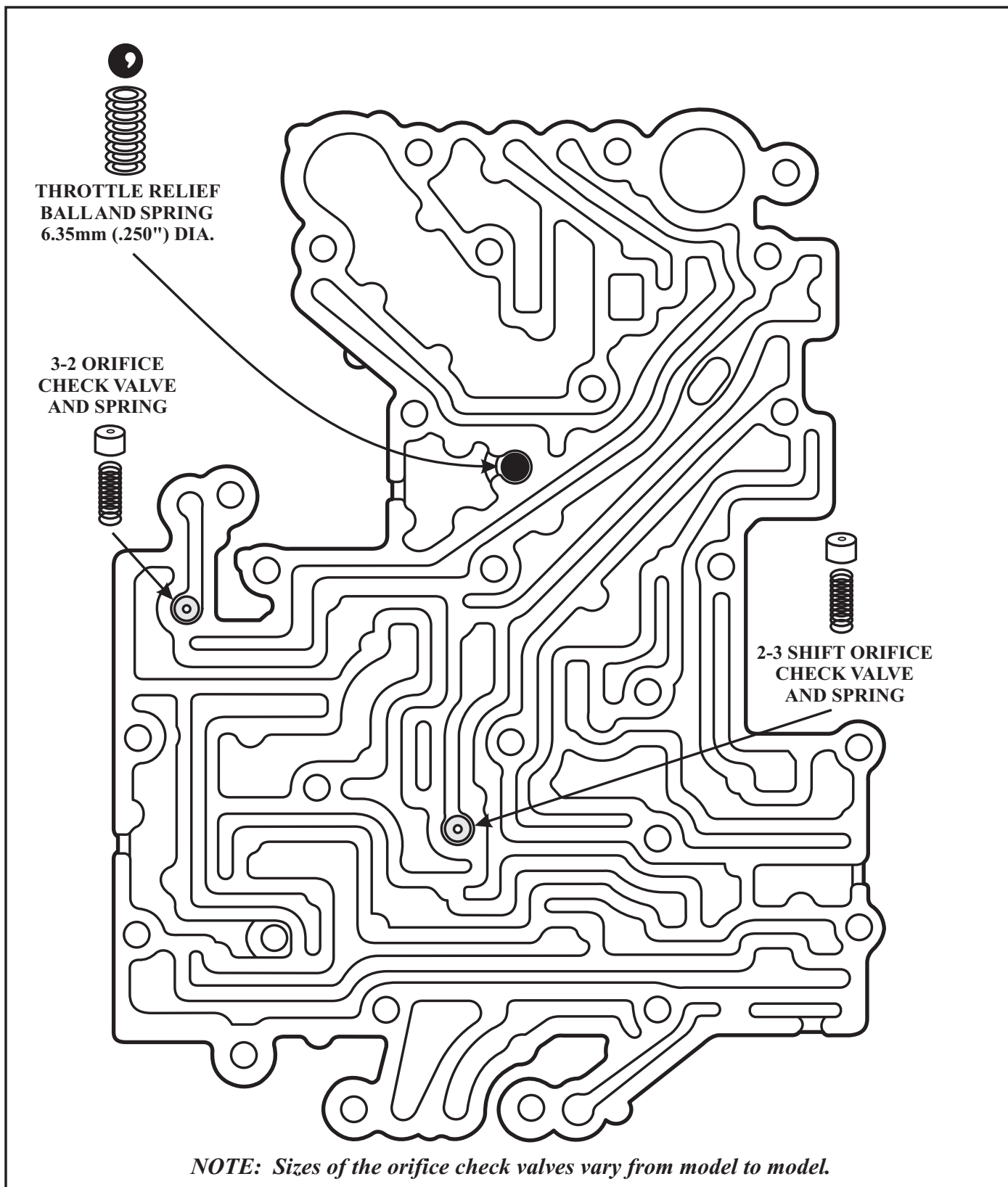




### NISSAN RE4R03A TRANSMISSIONS 300ZX TWIN TURBO AND Q45 CHECKBALL LOCATIONS

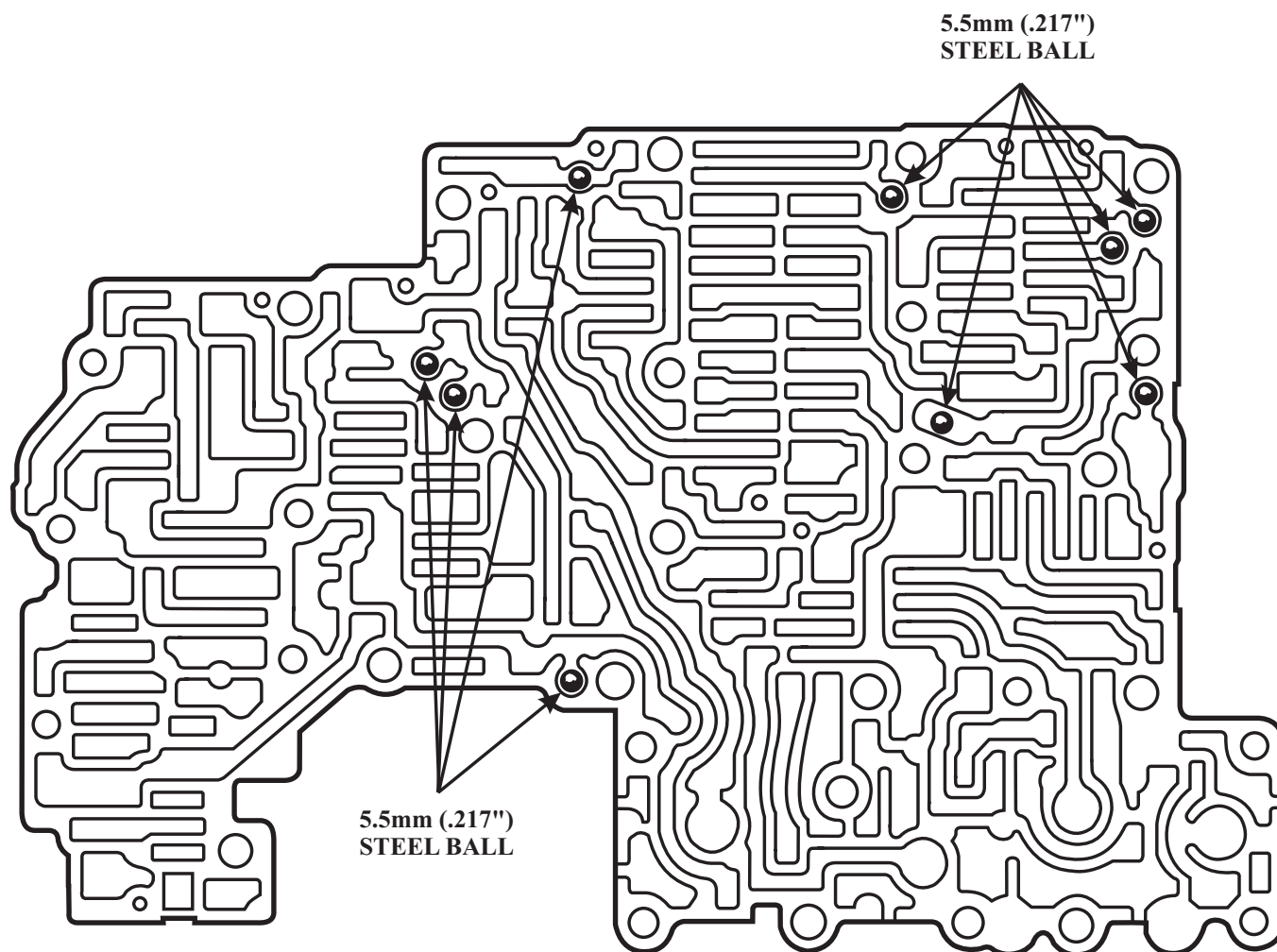


### SUBARU 3-SPEED TRANSMISSION VALVE BODY CHECKBALL AND ORIFICE LOCATIONS



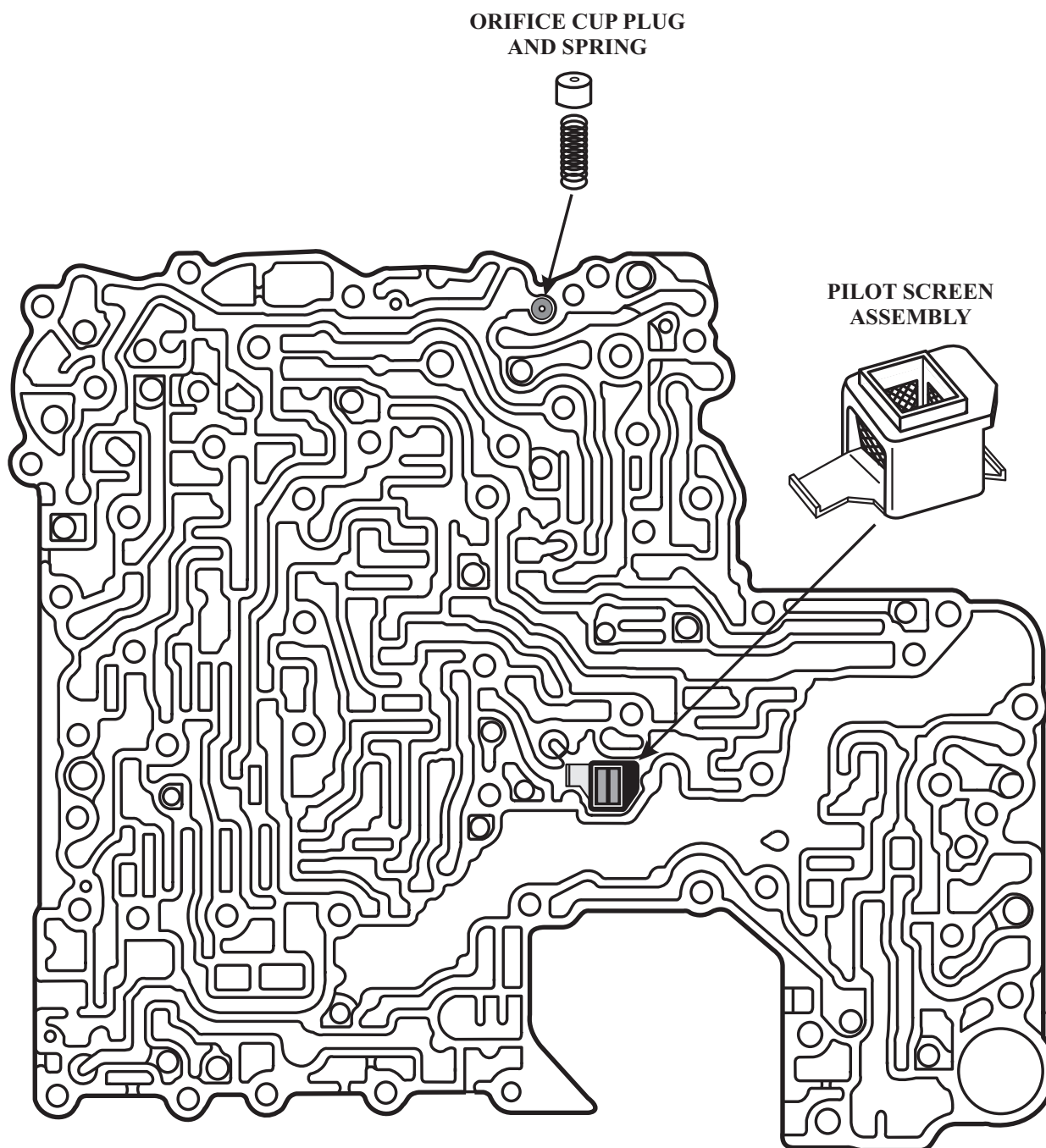
## SUBARU 4-SPEED ALL MODELS CHECKBALL LOCATIONS

MAIN VALVE BODY  
REQUIRES NINE CHECKBALLS

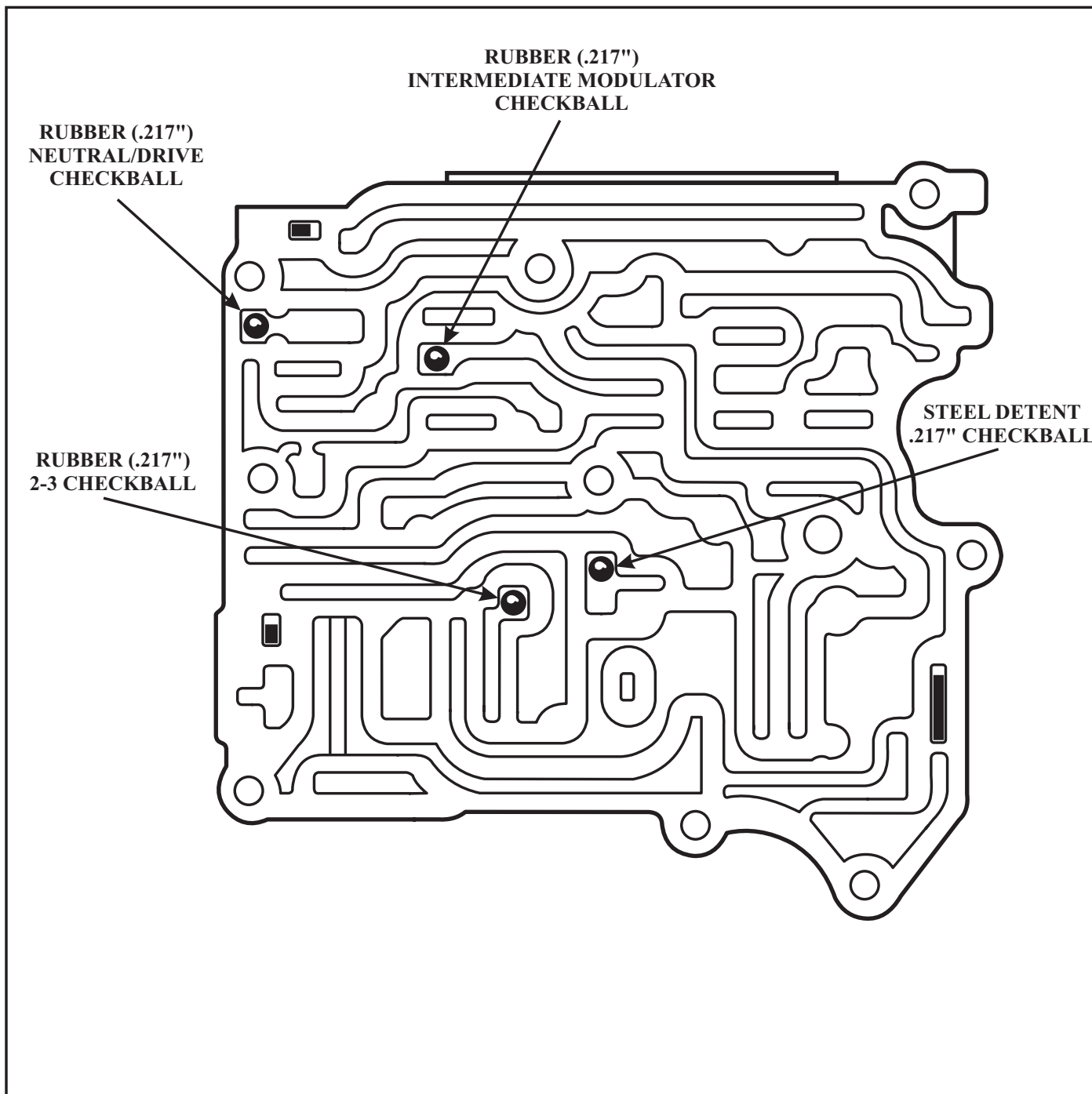


## SUBARU 4-SPEED ALL MODELS SCREEN AND ORIFICE LOCATIONS

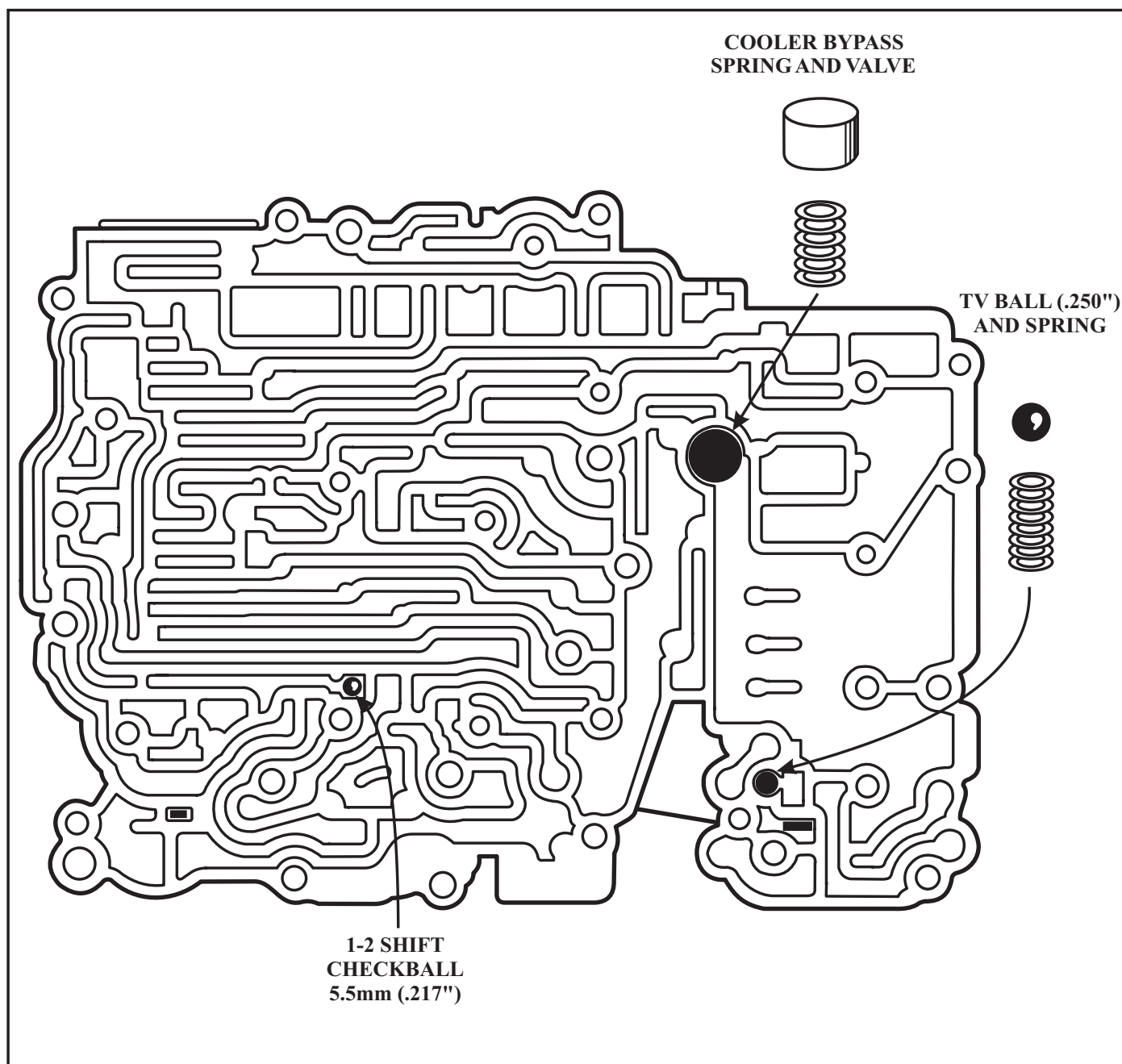
### LOWER VALVE BODY



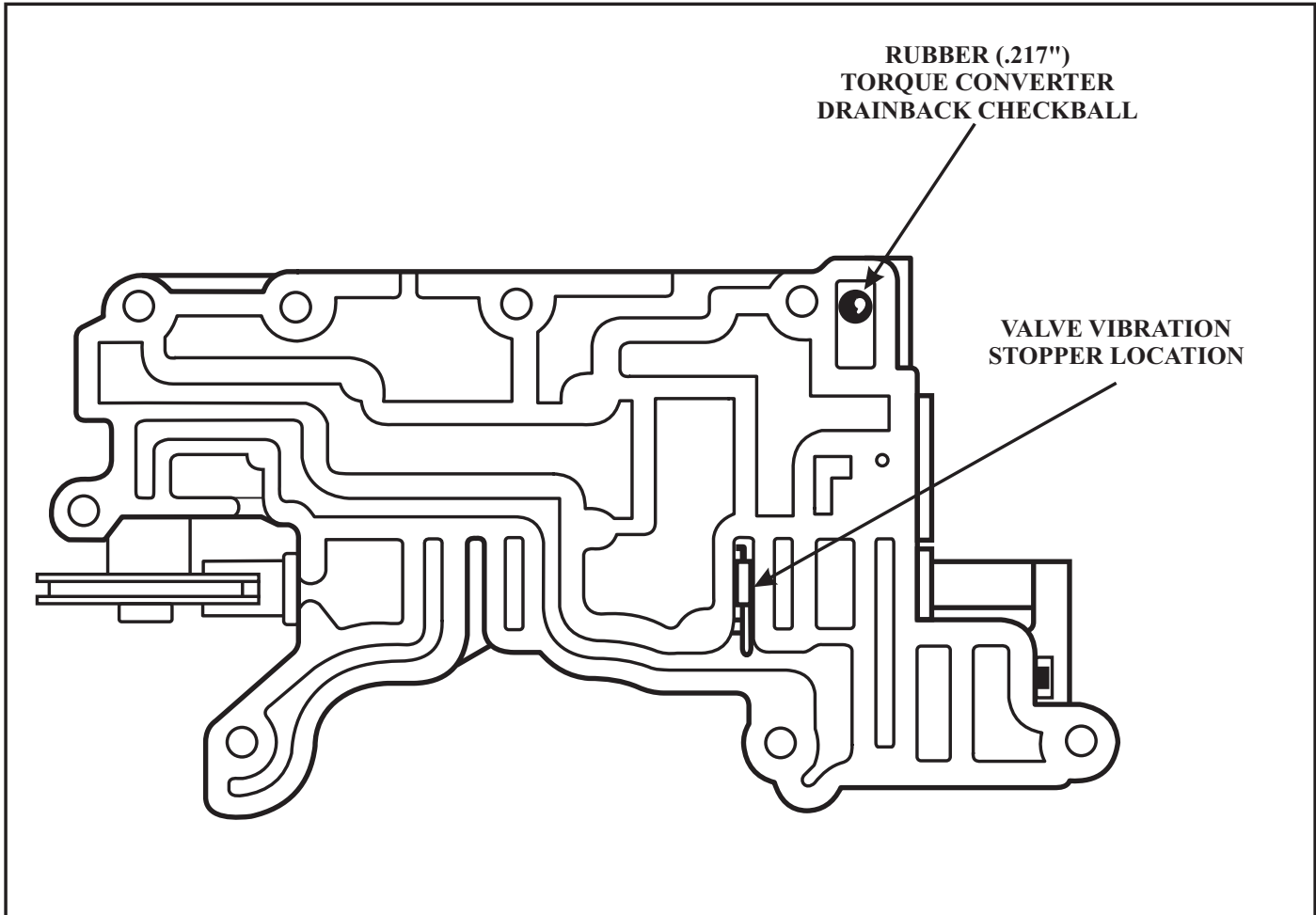
## TOYOTA A40, A41, A43 "UPPER" VALVE BODY CHECKBALL LOCATION



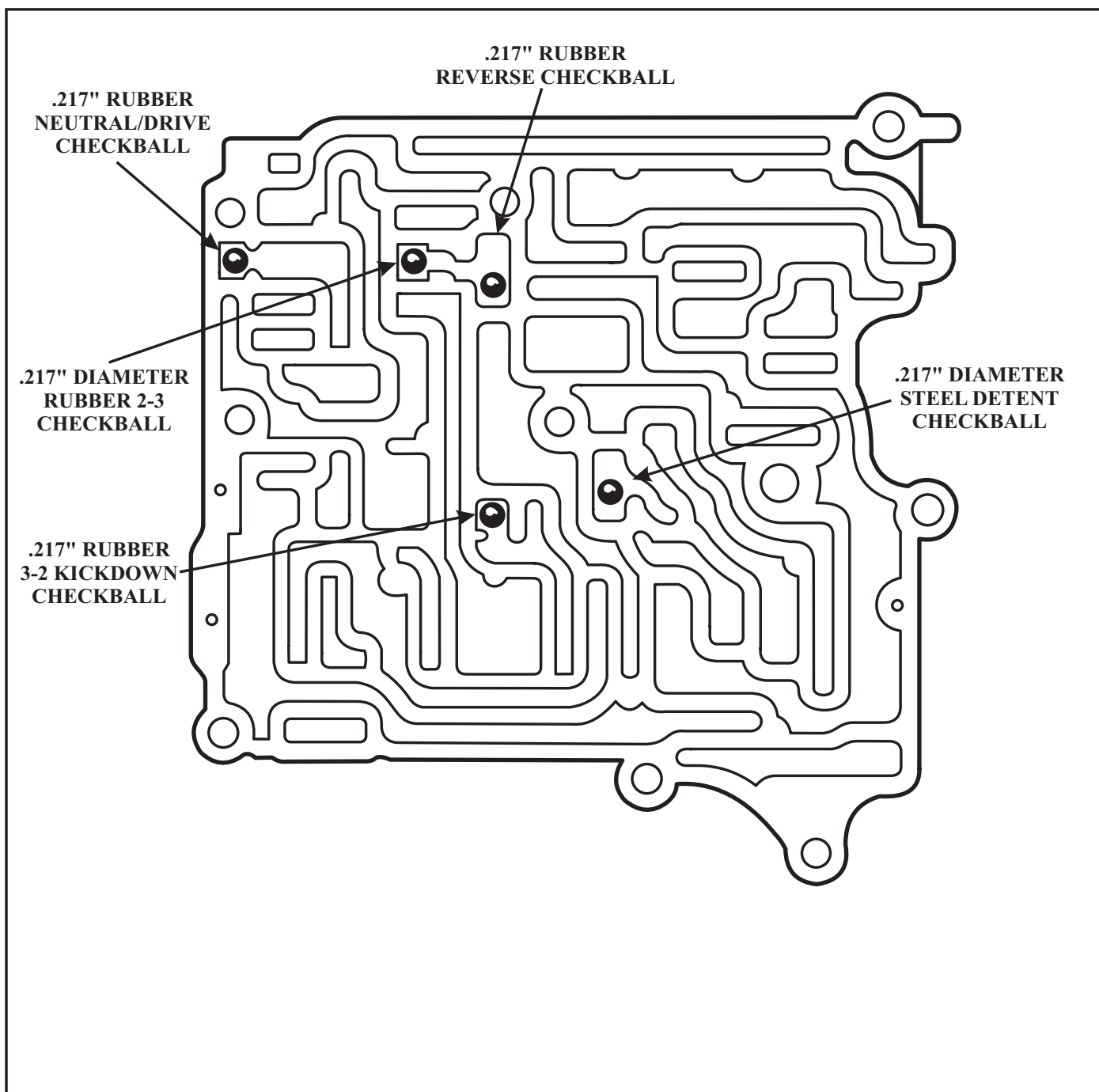
## TOYOTA A40, A41, A43 'LOWER' VALVE BODY CHECKBALL AND VALVE LOCATIONS



## TOYOTA A40, A41, A43 THROTTLE VALVE BODY CHECKBALL LOCATION

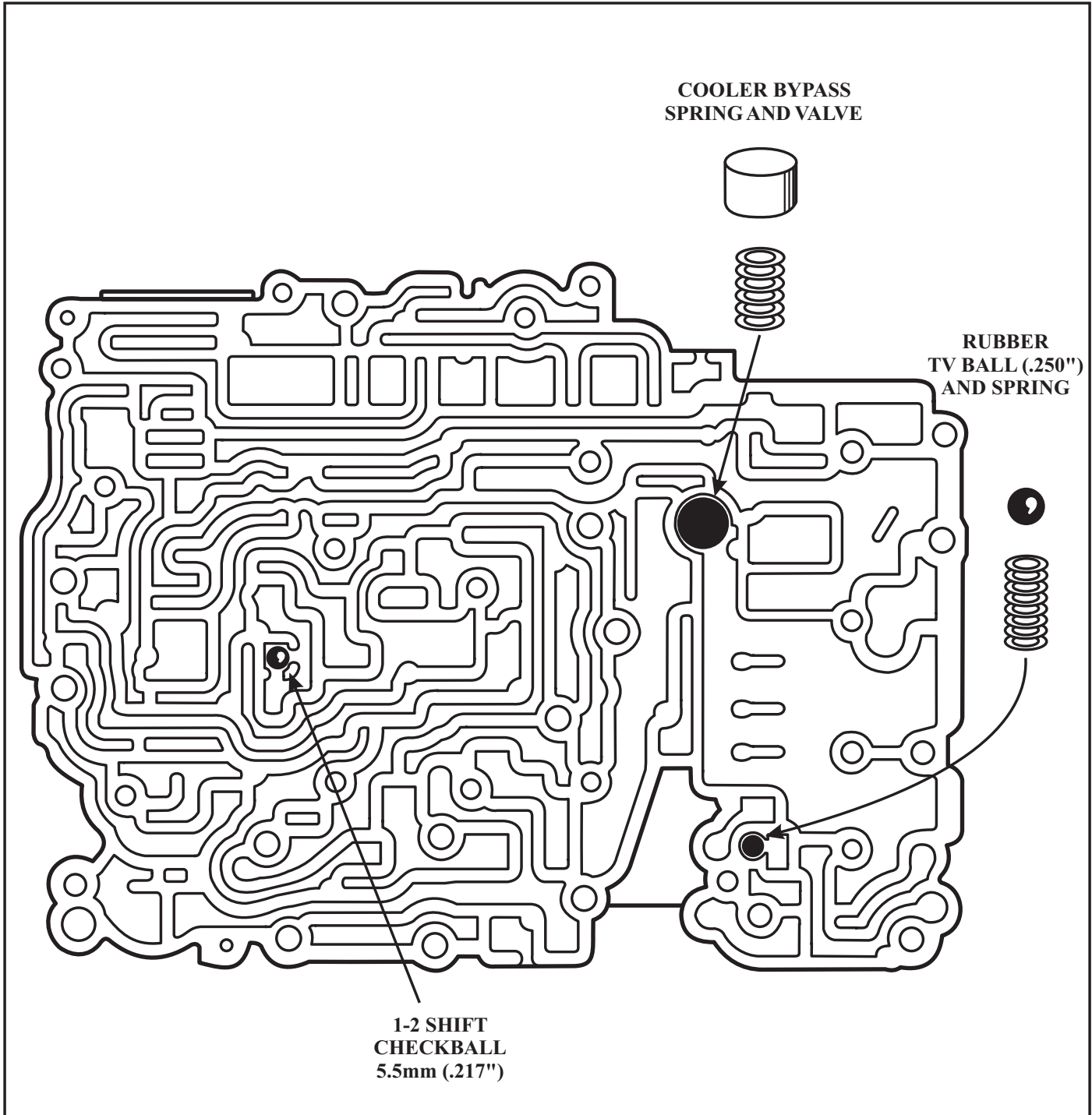


## TOYOTA A40D "UPPER" VALVE BODY CHECKBALL LOCATION

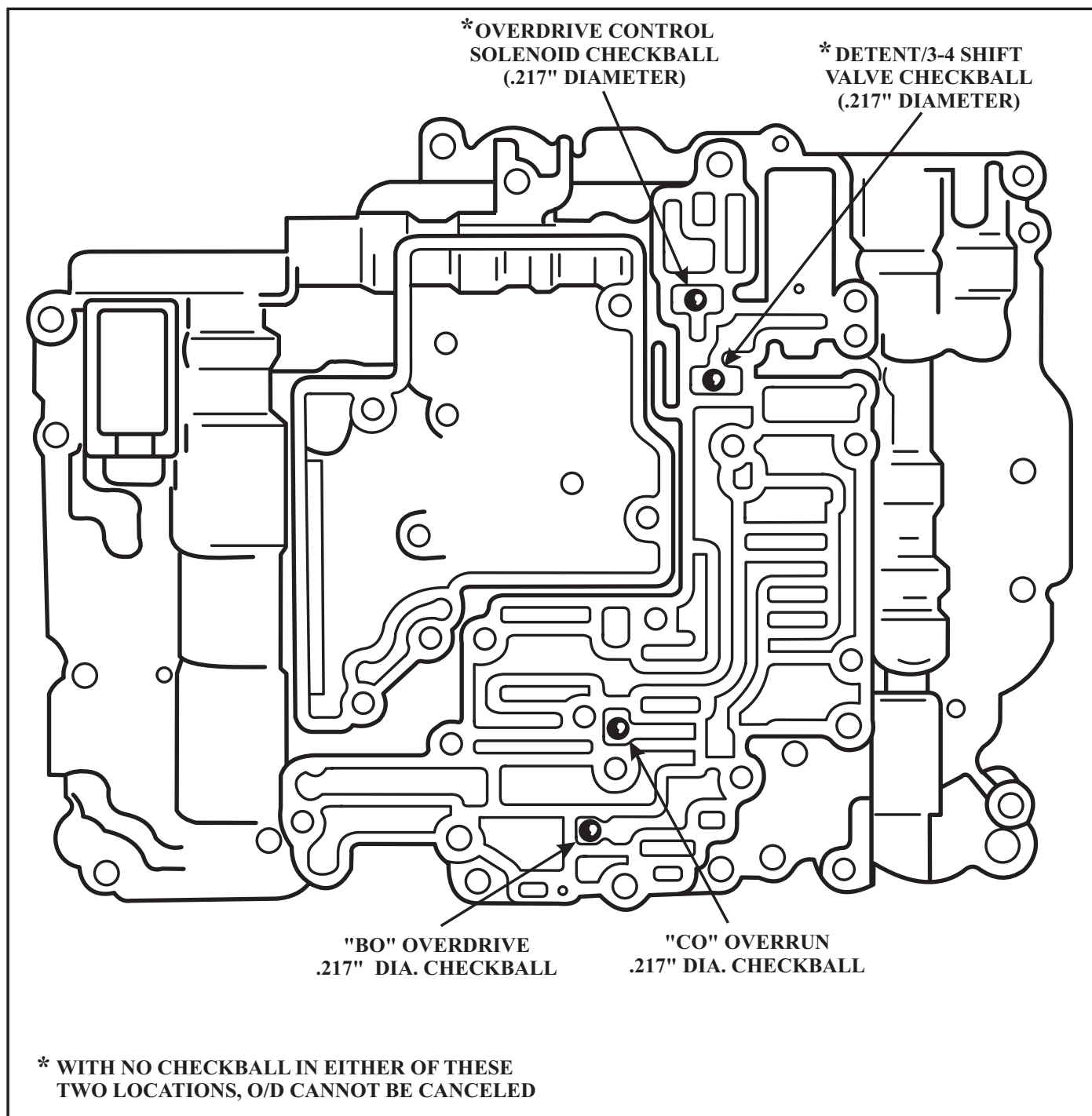




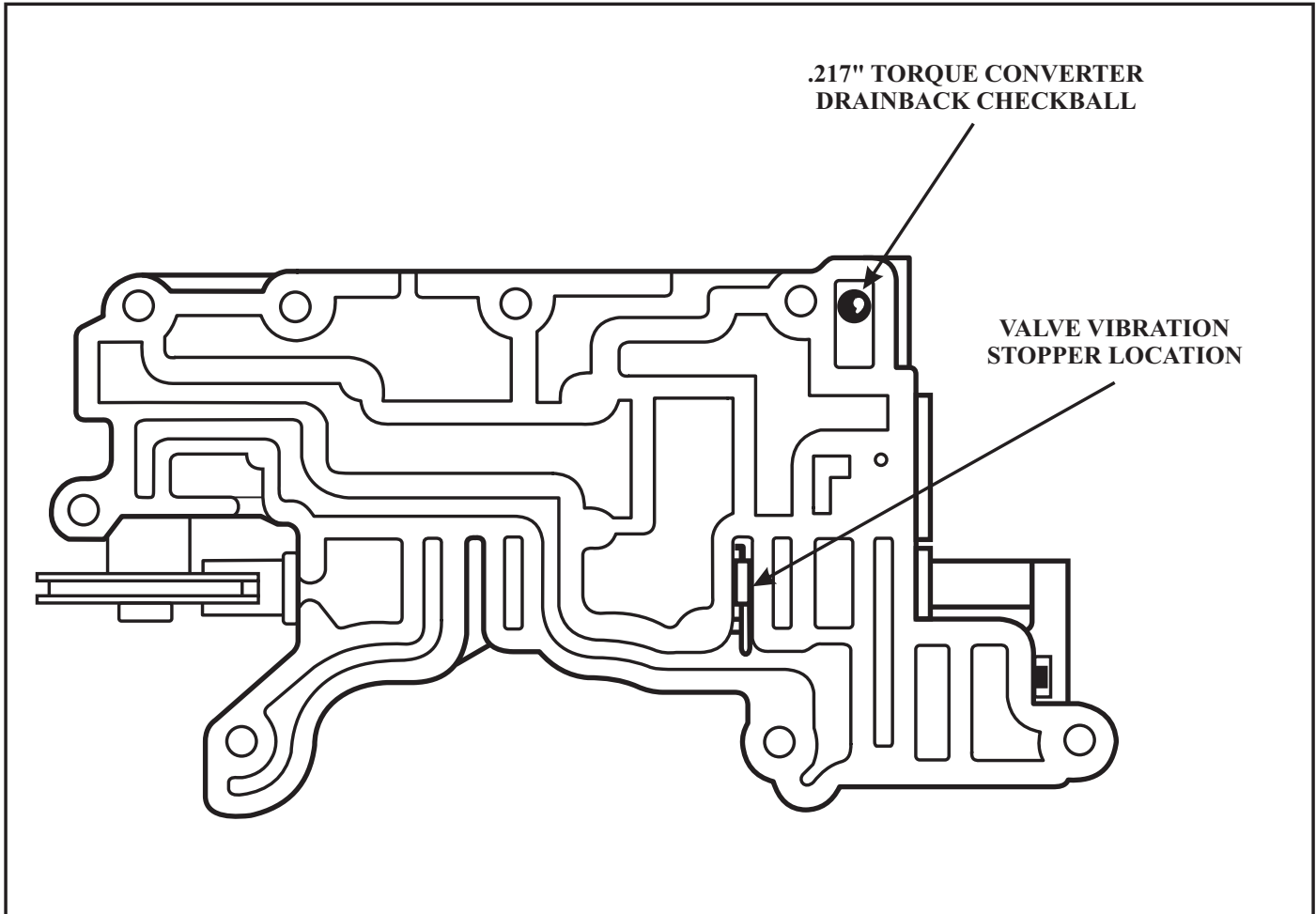
## TOYOTA A40D "LOWER" VALVE BODY "CASE SIDE" CHECKBALL LOCATION



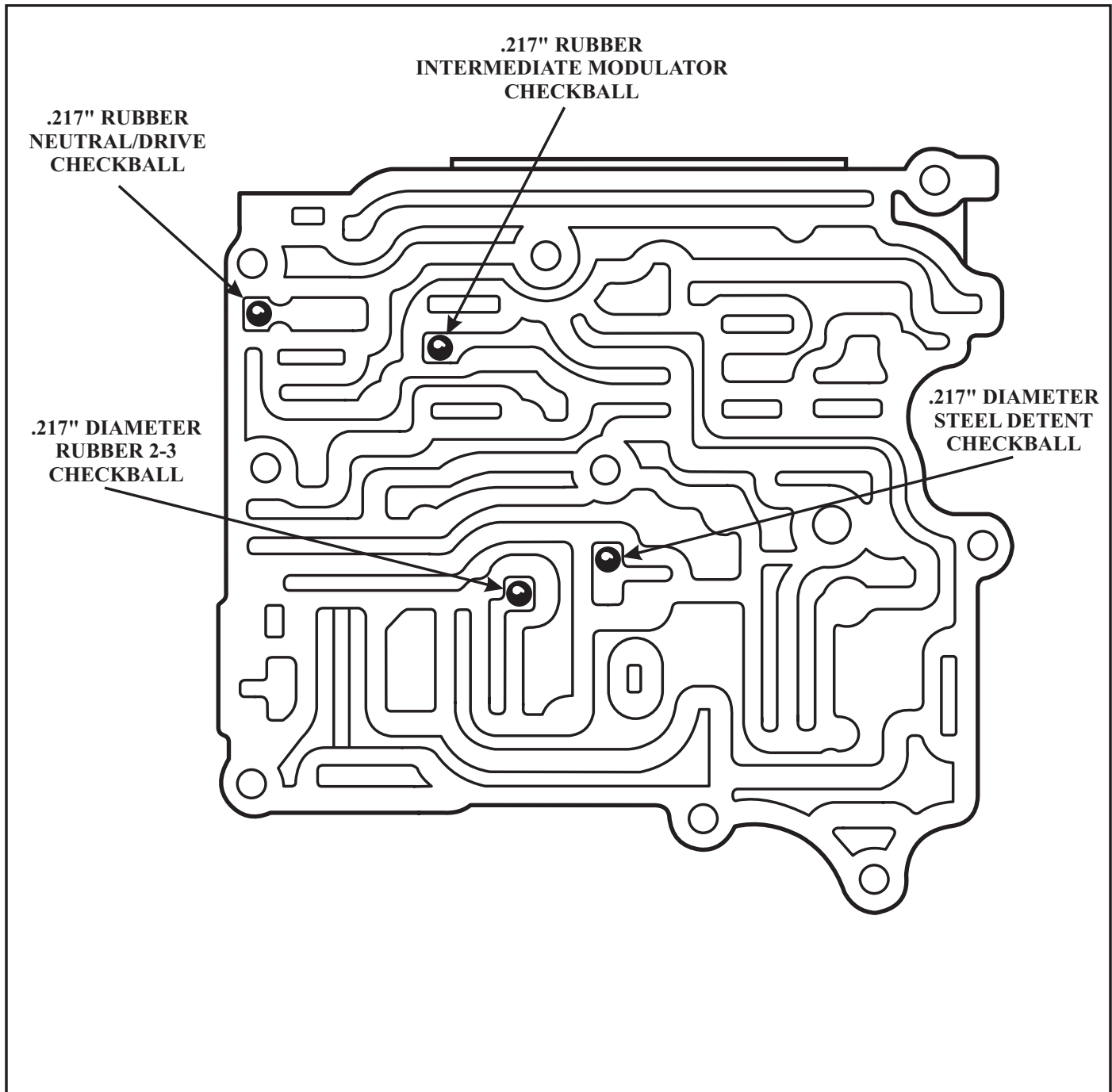
### TOYOTA A40D "LOWER" VALVE BODY "FILTER SIDE" CHECKBALL LOCATION



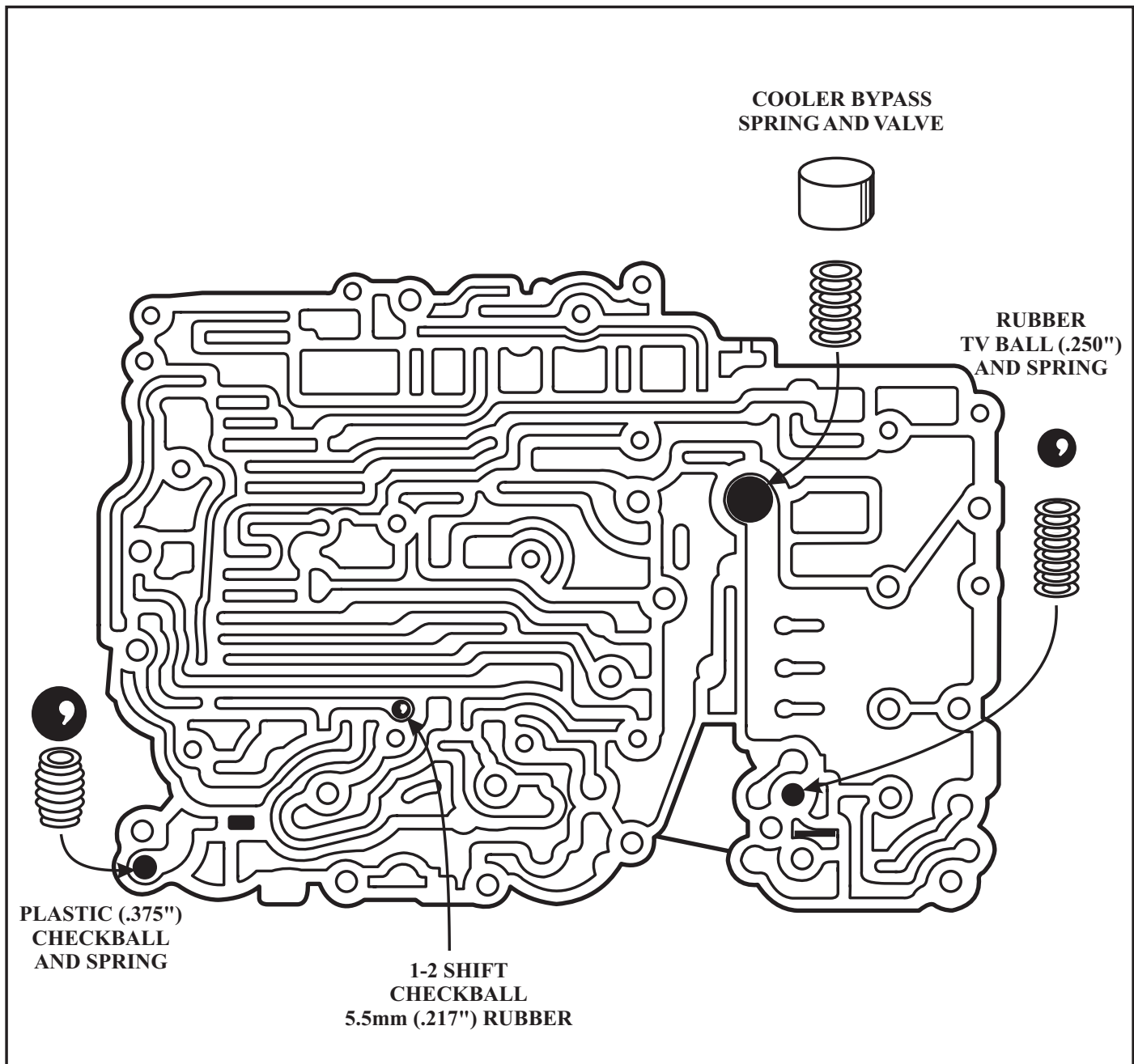
**TOYOTA A40D THROTTLE VALVE BODY**  
**CHECKBALL LOCATION**



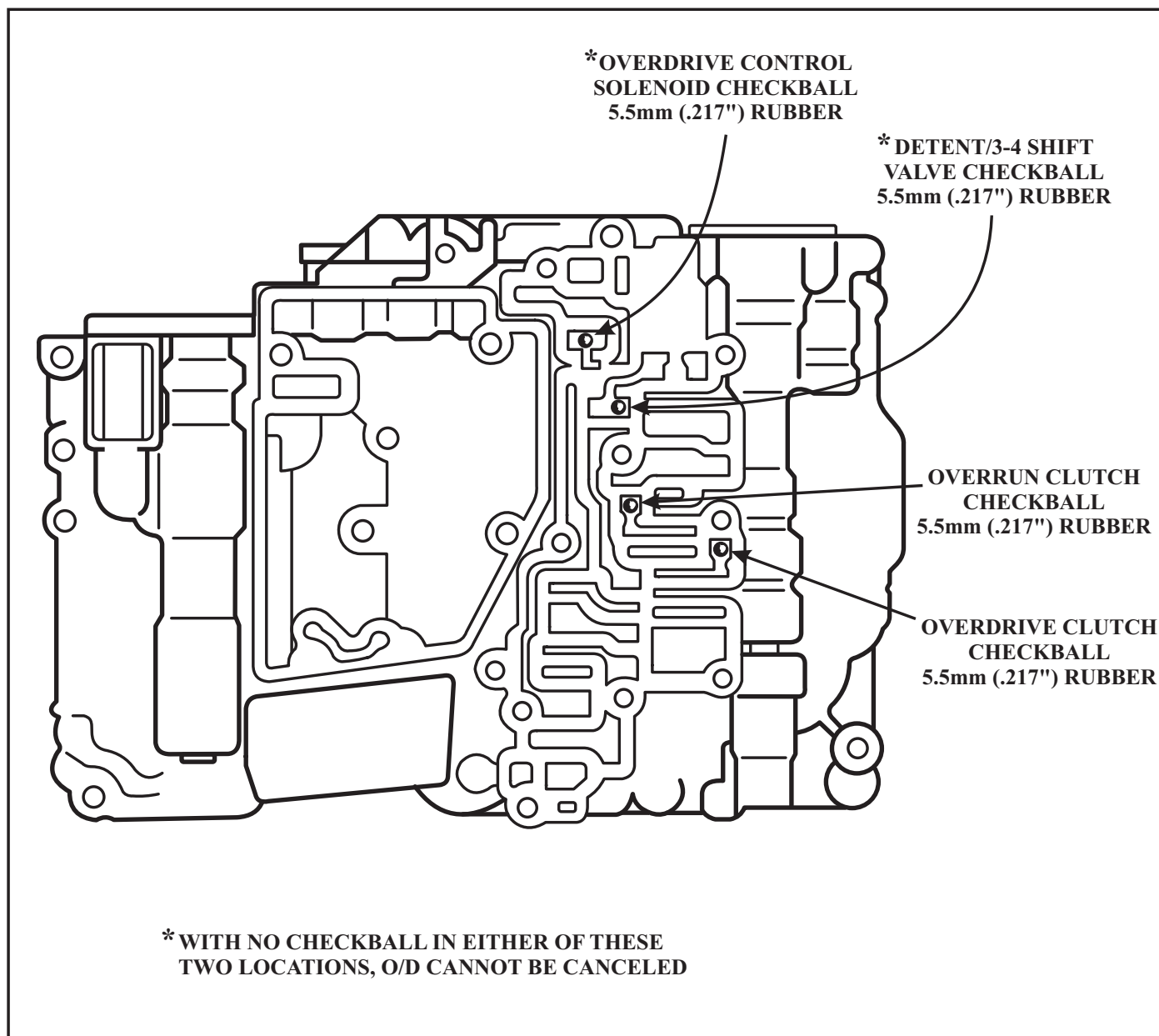
### TOYOTA A42D, A43D, A44D "UPPER" VALVE BODY CHECKBALL LOCATION



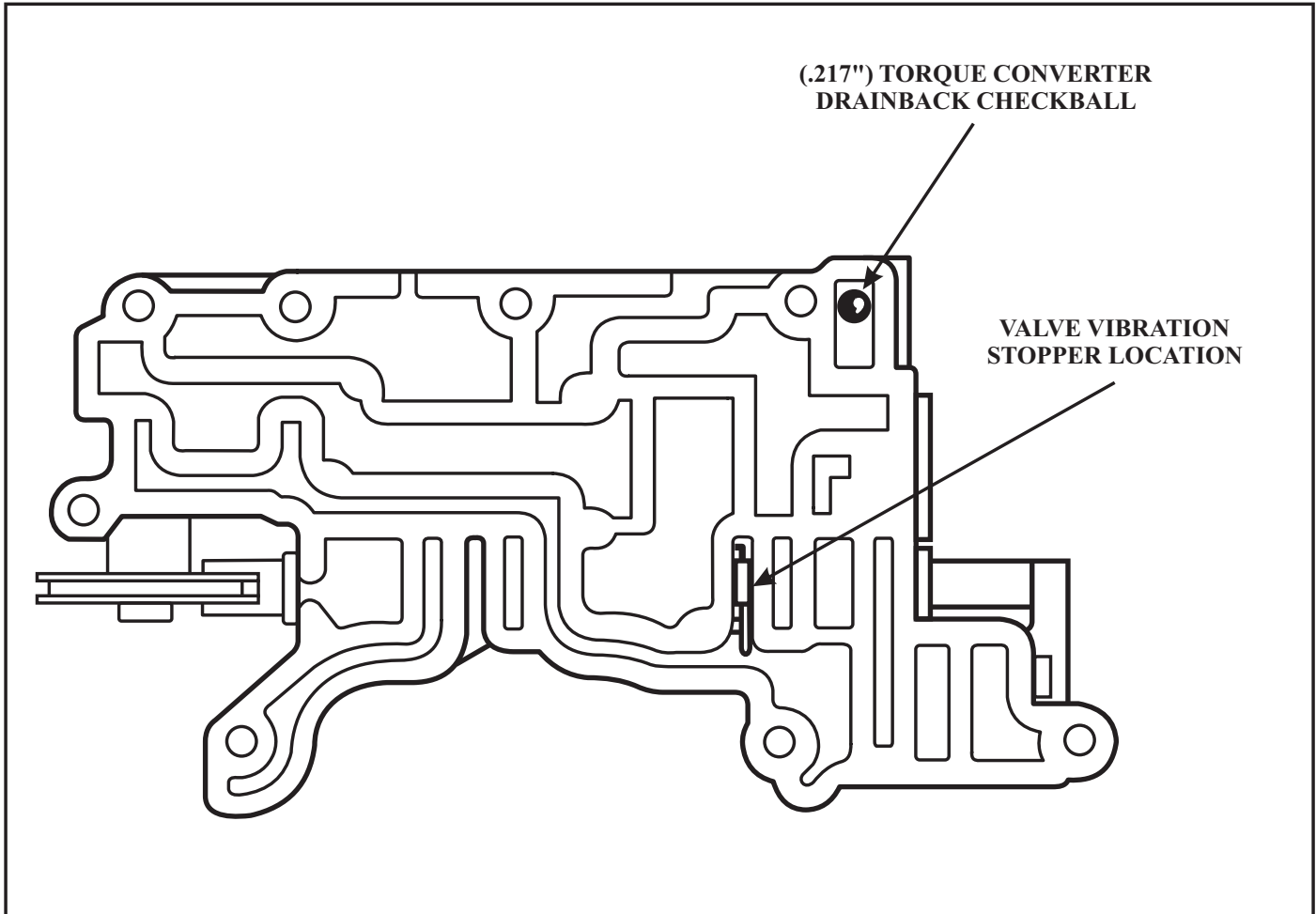
## TOYOTA A42D, A43D, A44D "LOWER" VALVE BODY "CASE SIDE" CHECKBALL LOCATION



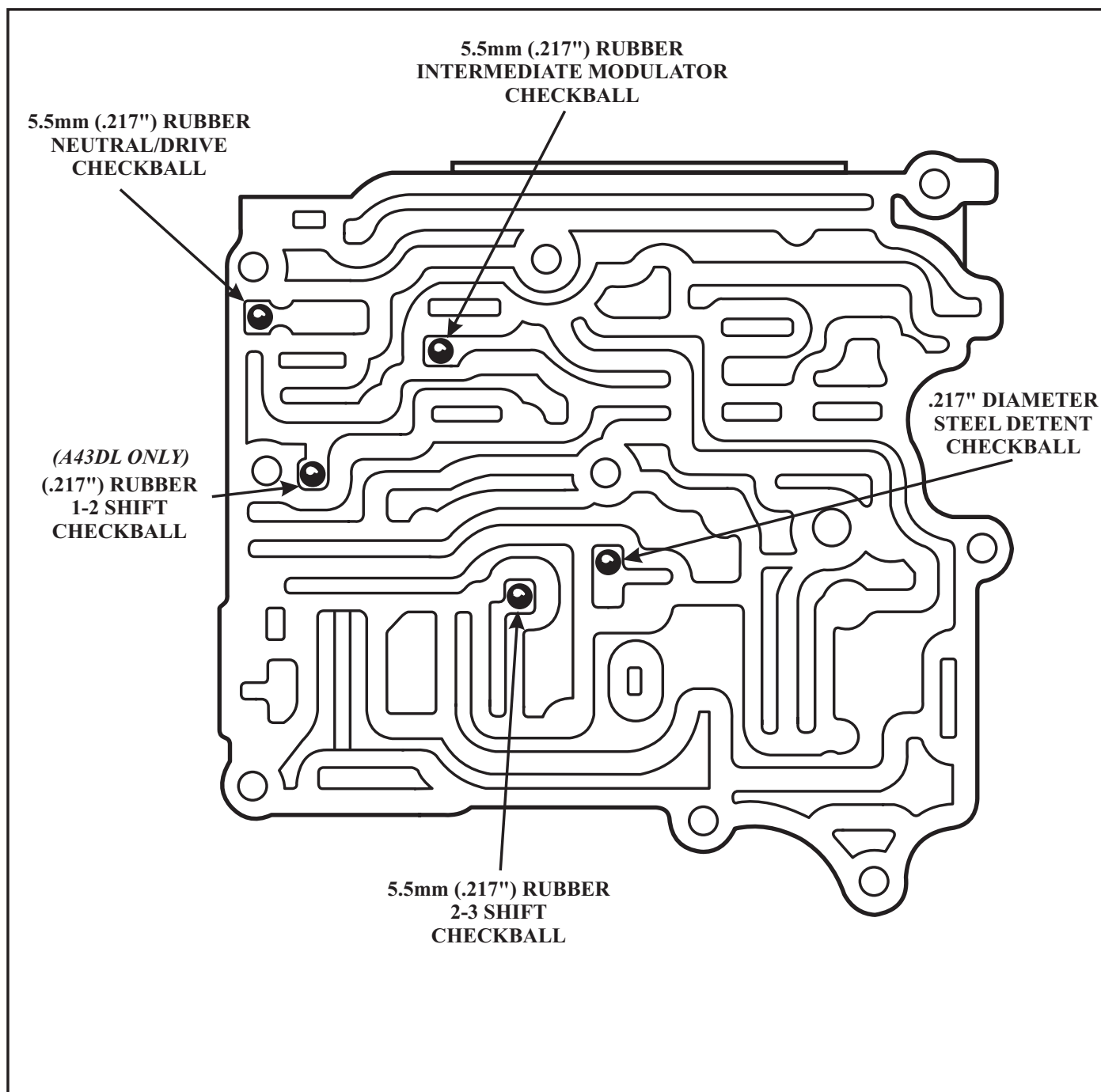
## TOYOTA A42D, A43D, A44D "LOWER" VALVE BODY "FILTER SIDE" CHECKBALL LOCATION



**TOYOTA A42D, A43D, A44D THROTTLE VALVE BODY  
CHECKBALL LOCATION**

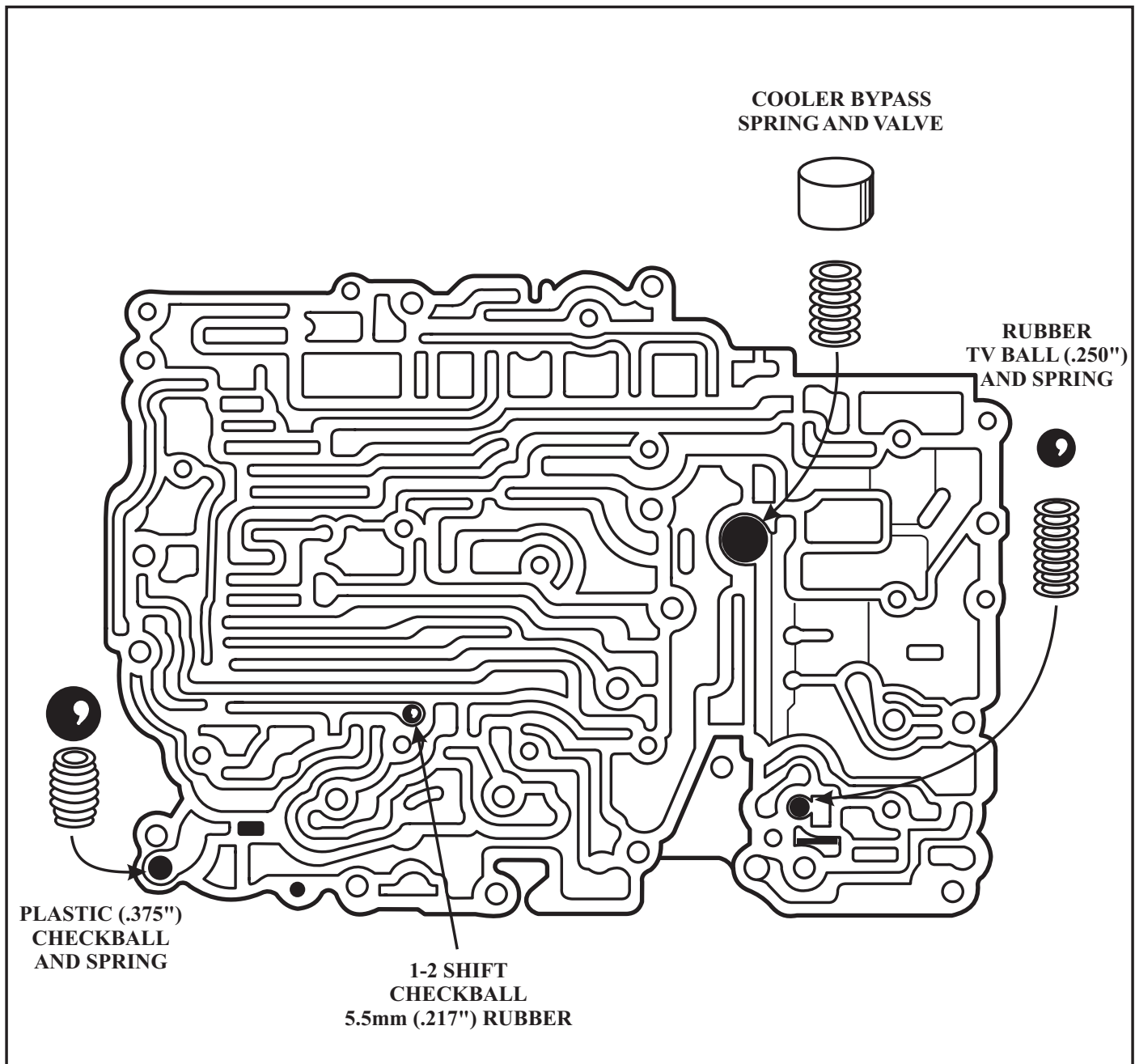


### TOYOTA A43DL, A44DL, A45DL "UPPER" VALVE BODY CHECKBALL LOCATION

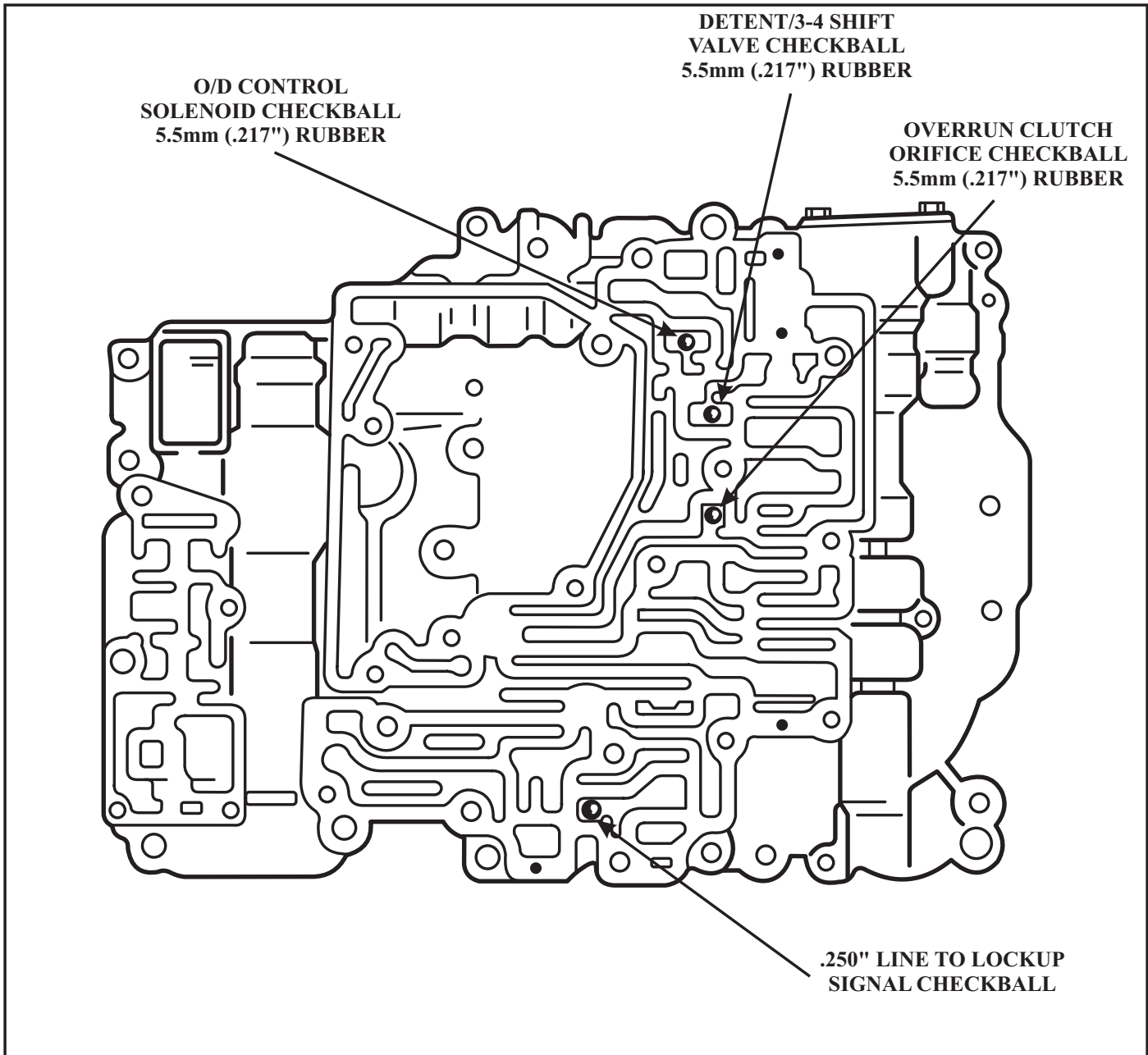




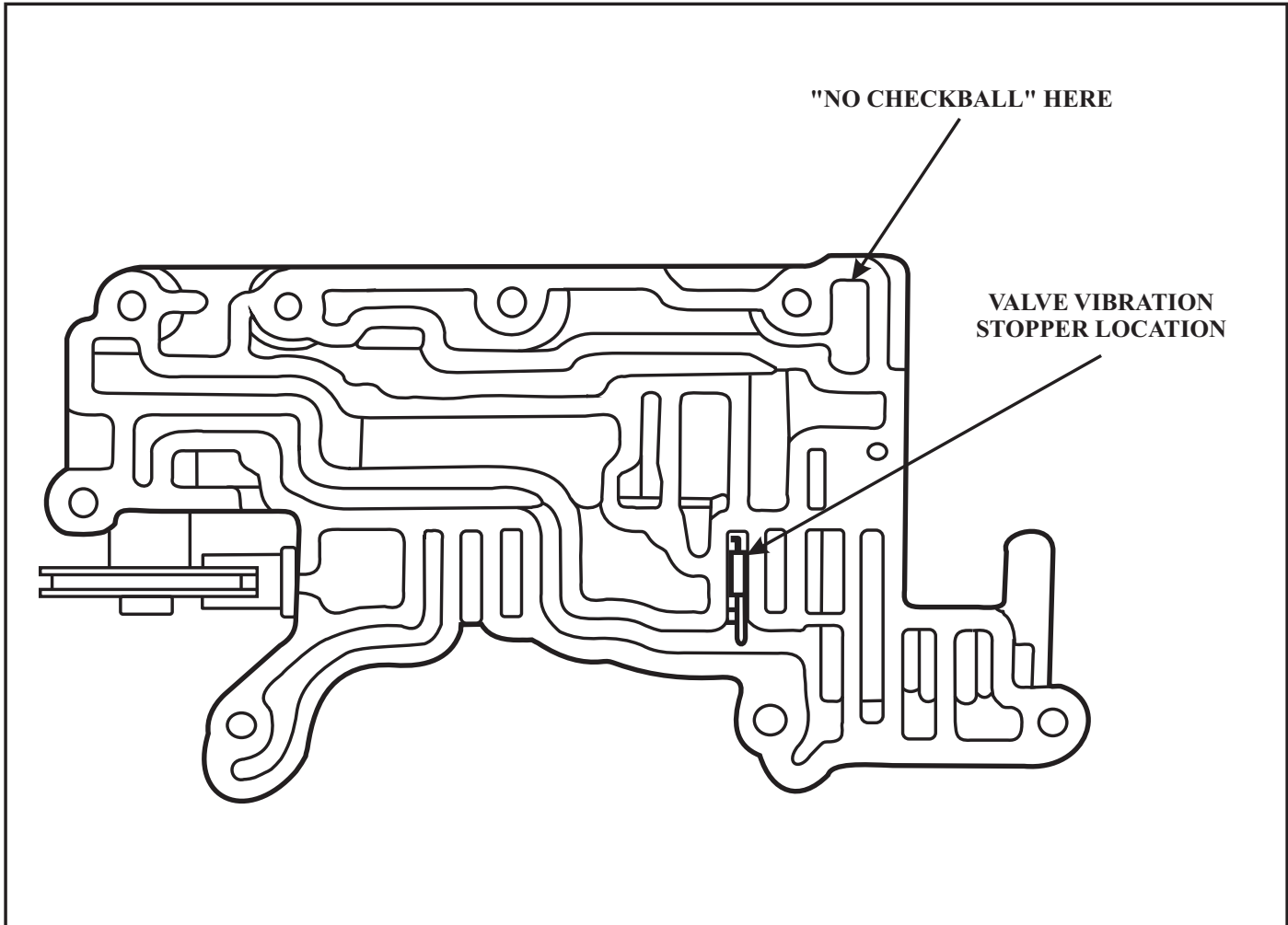
## TOYOTA A43DL, A44DL, A45DL "LOWER" VALVE BODY "CASE SIDE" CHECKBALL LOCATION



## TOYOTA A43DL, A44DL, A45DL "LOWER" VALVE BODY "FILTER SIDE" CHECKBALL LOCATION

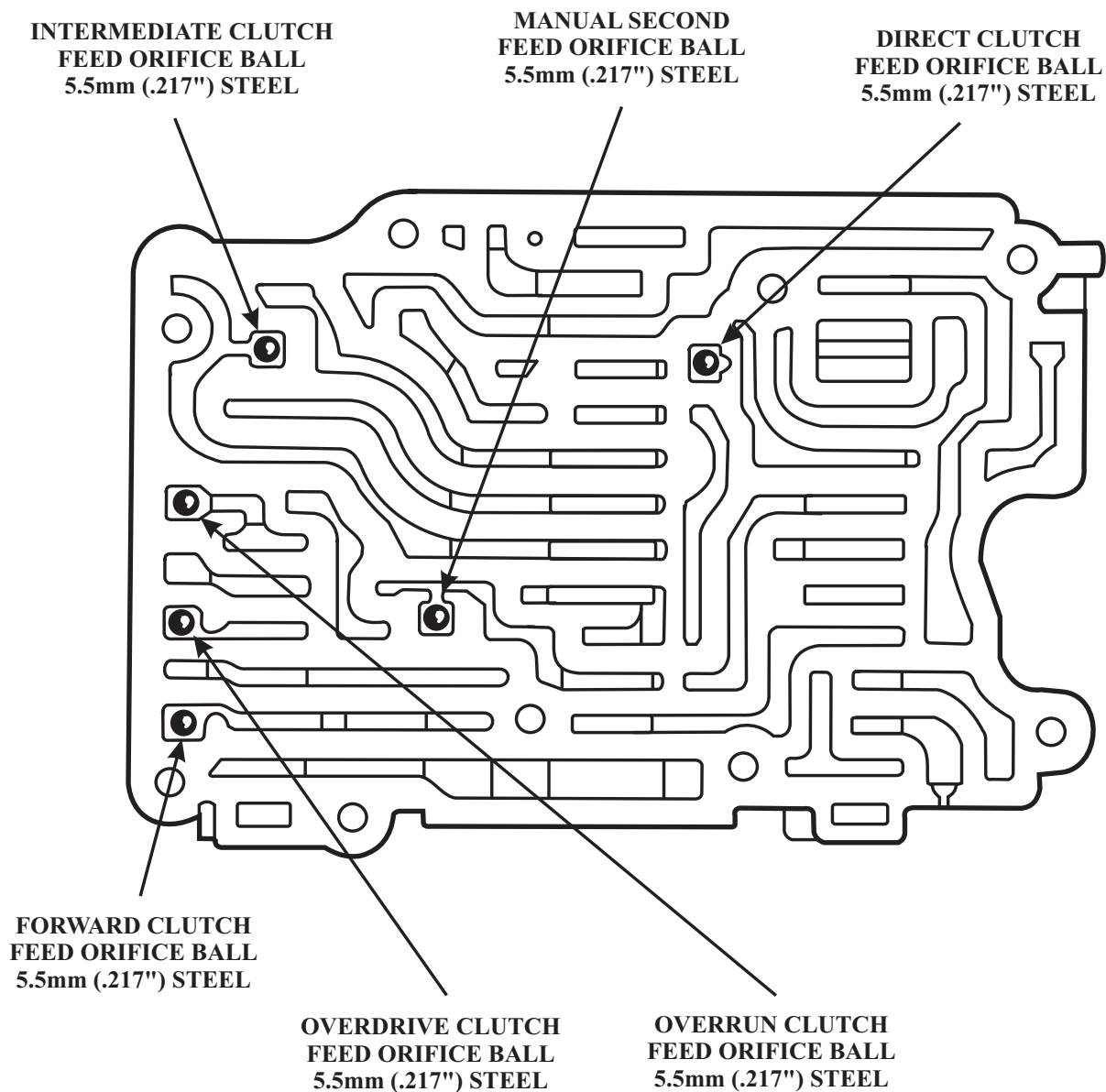


## TOYOTA A43DL, A44DL, A45DL THROTTLE VALVE BODY CHECKBALL LOCATION



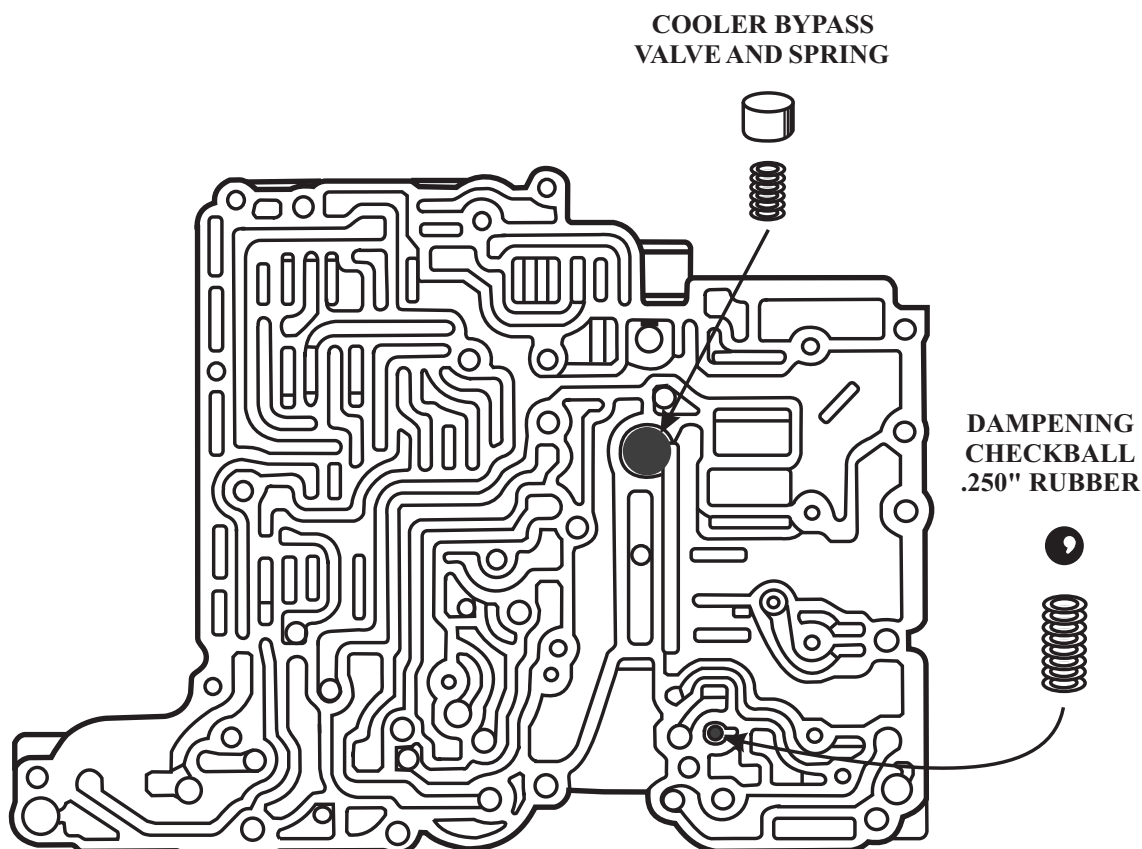
### TOYOTA A43DE SERIES TRANSMISSION

#### "UPPER" VALVE BODY CHECKBALL LOCATIONS



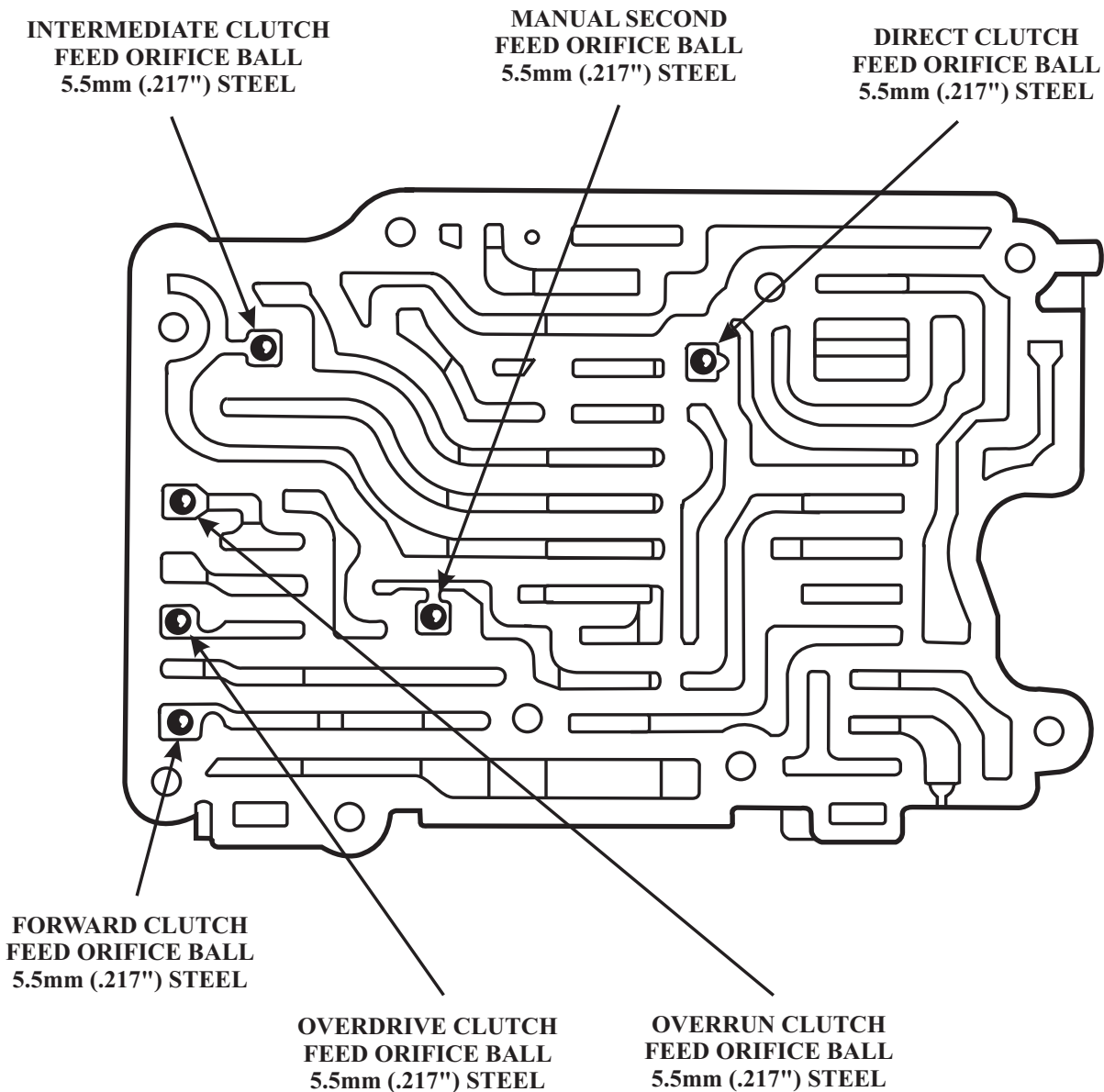
## TOYOTA A43DE SERIES TRANSMISSION

### "LOWER" VALVE BODY BALL AND VALVE LOCATIONS



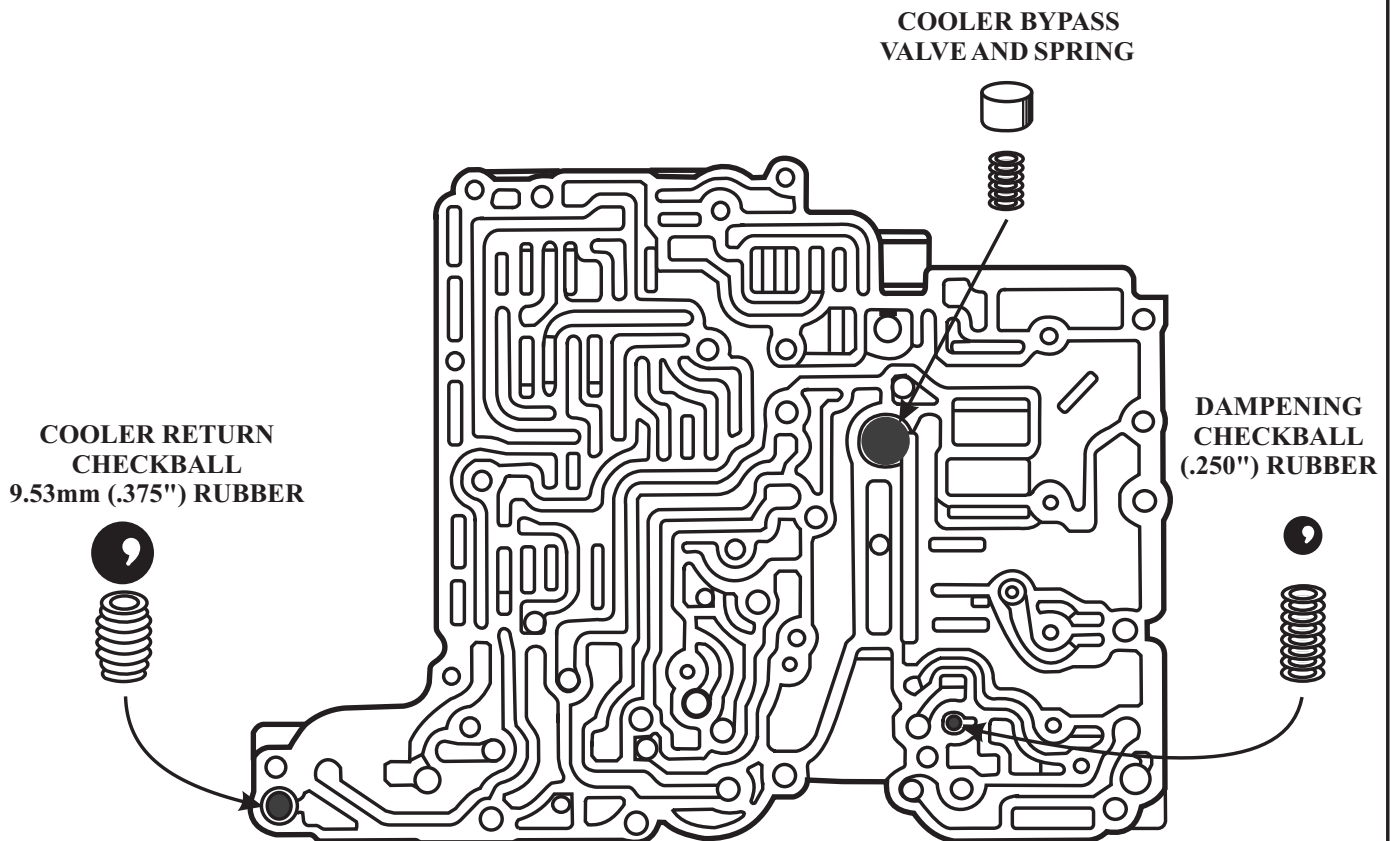
### TOYOTA A46DE, A46DF SERIES TRANSMISSION

#### "UPPER" VALVE BODY CHECKBALL LOCATIONS



### TOYOTA A46DE, A46DF SERIES TRANSMISSION

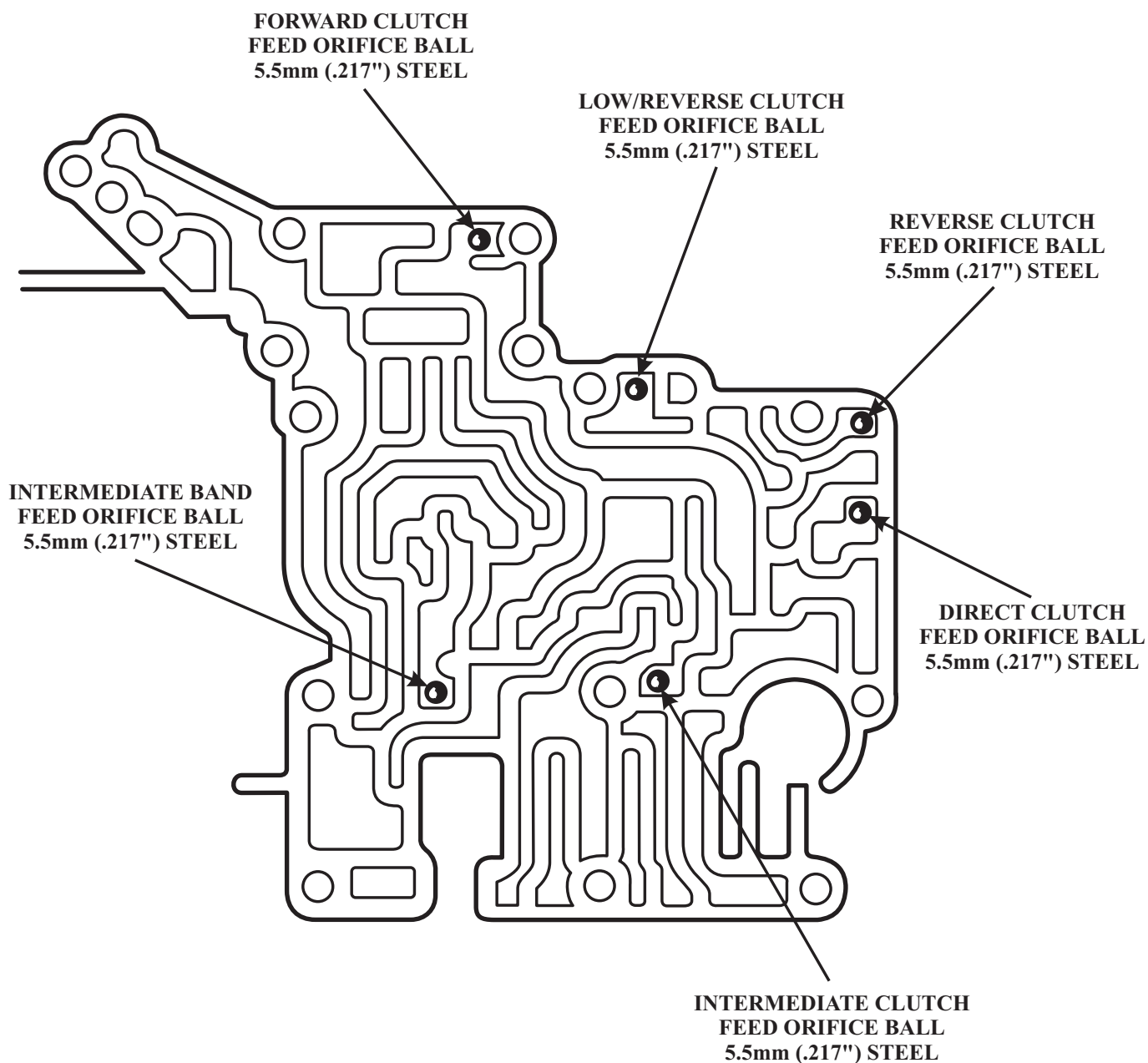
#### "LOWER" VALVE BODY BALL AND VALVE LOCATIONS





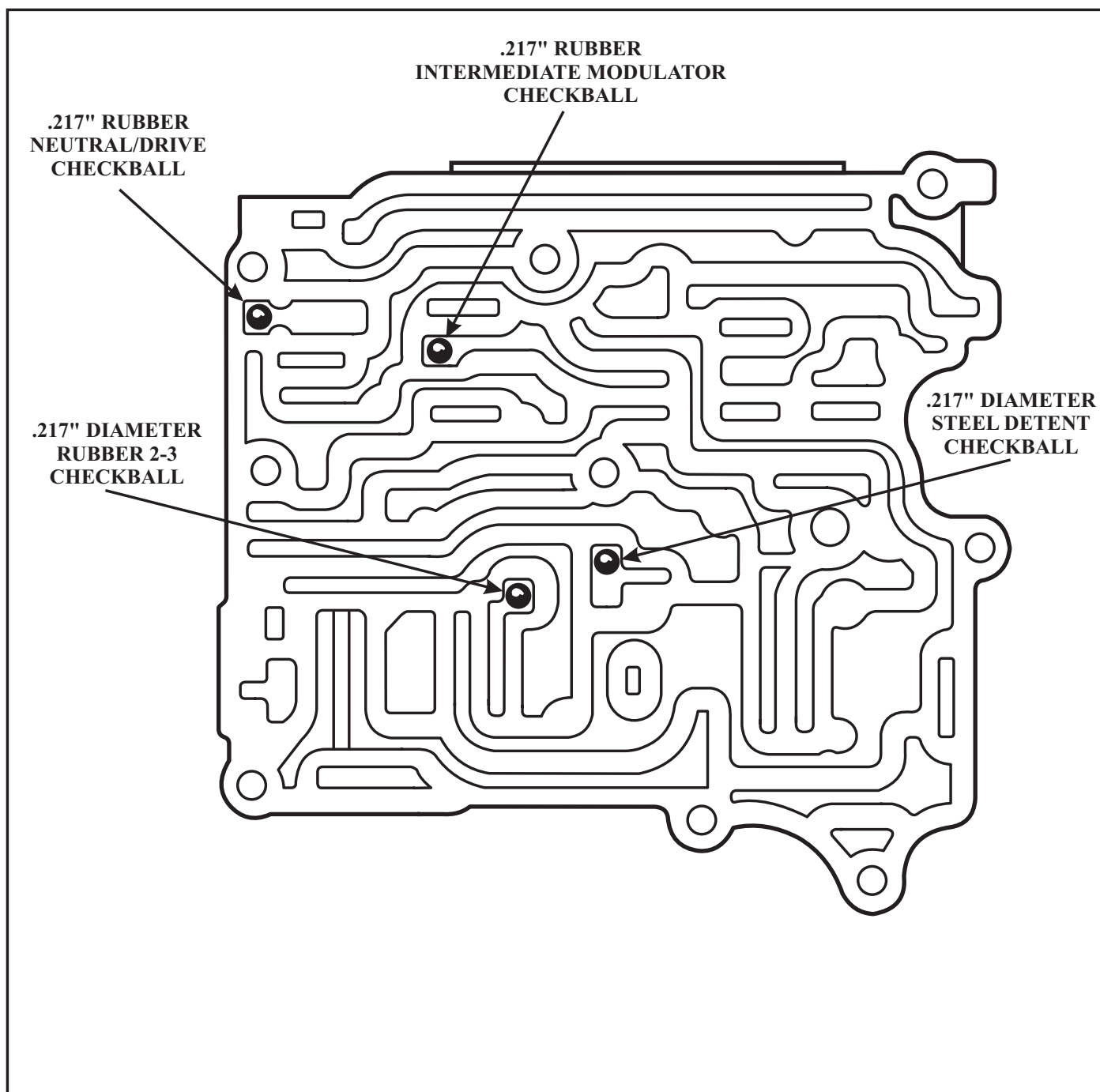
### TOYOTA A55, A55F SERIES TRANSMISSIONS 1980-1988 TOYOTA TERCEL

#### CASE CHECKBALL LOCATIONS

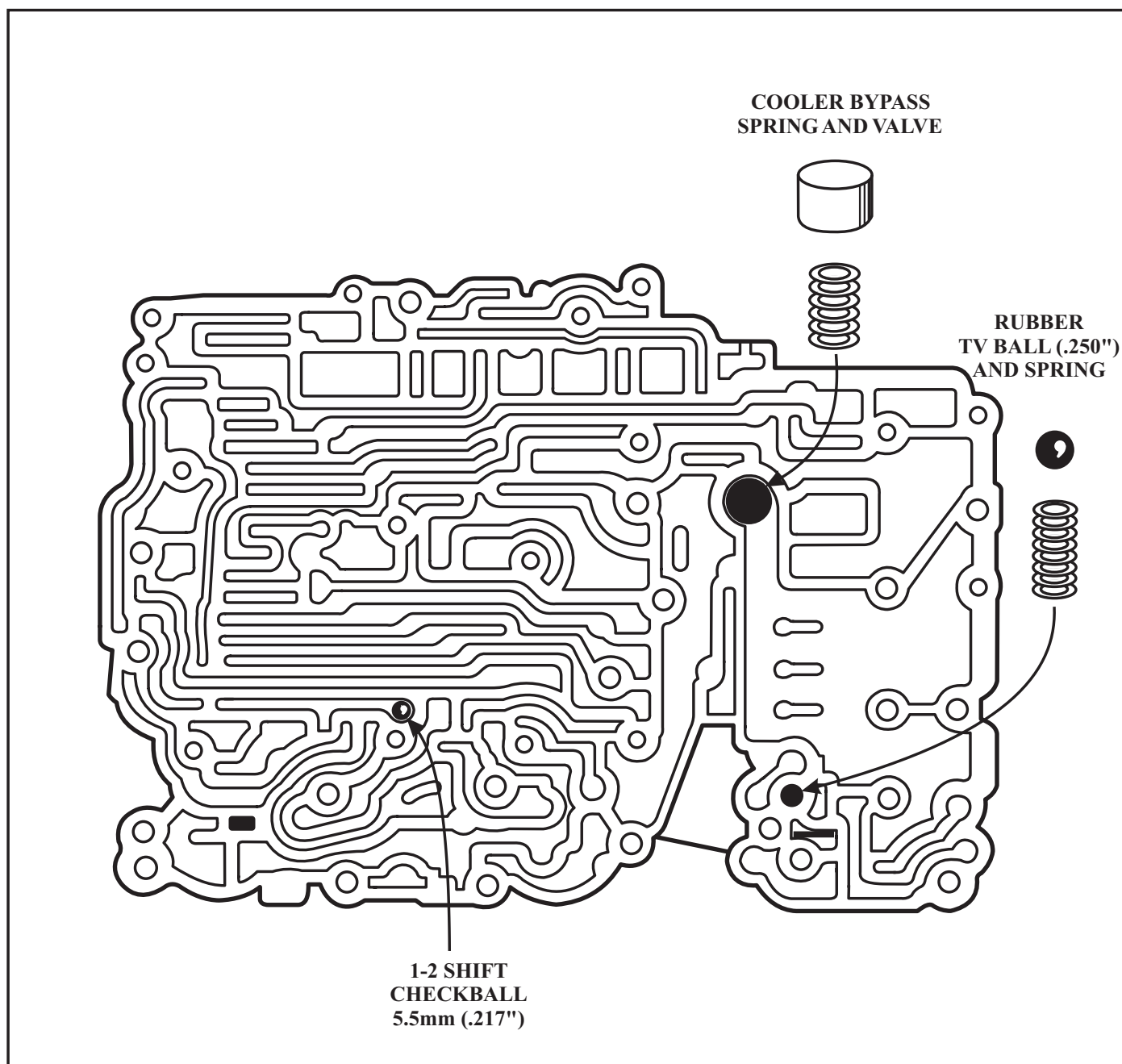


ad

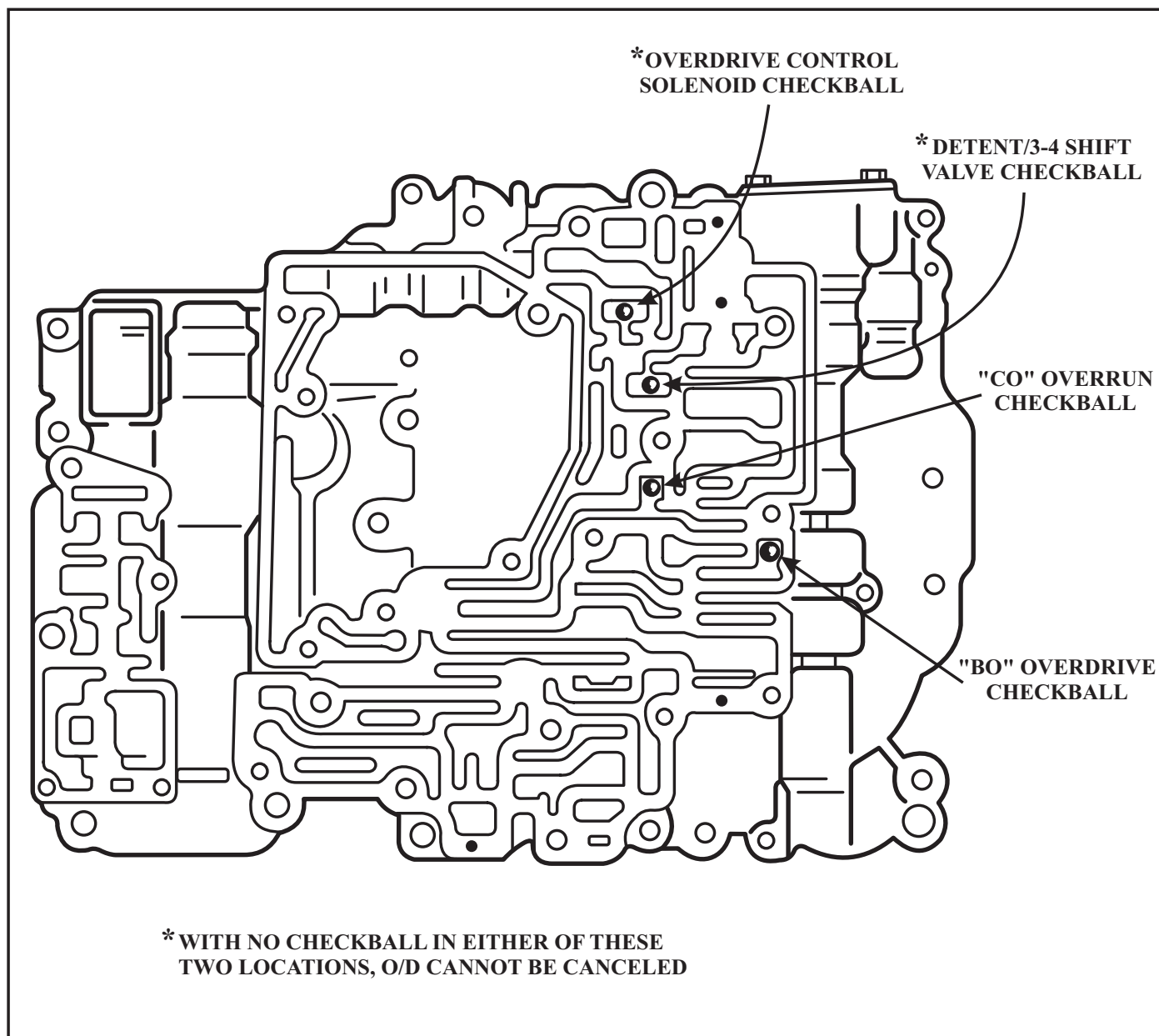
### TOYOTA AW55, AW70, AW71 "UPPER" VALVE BODY CHECKBALL LOCATION



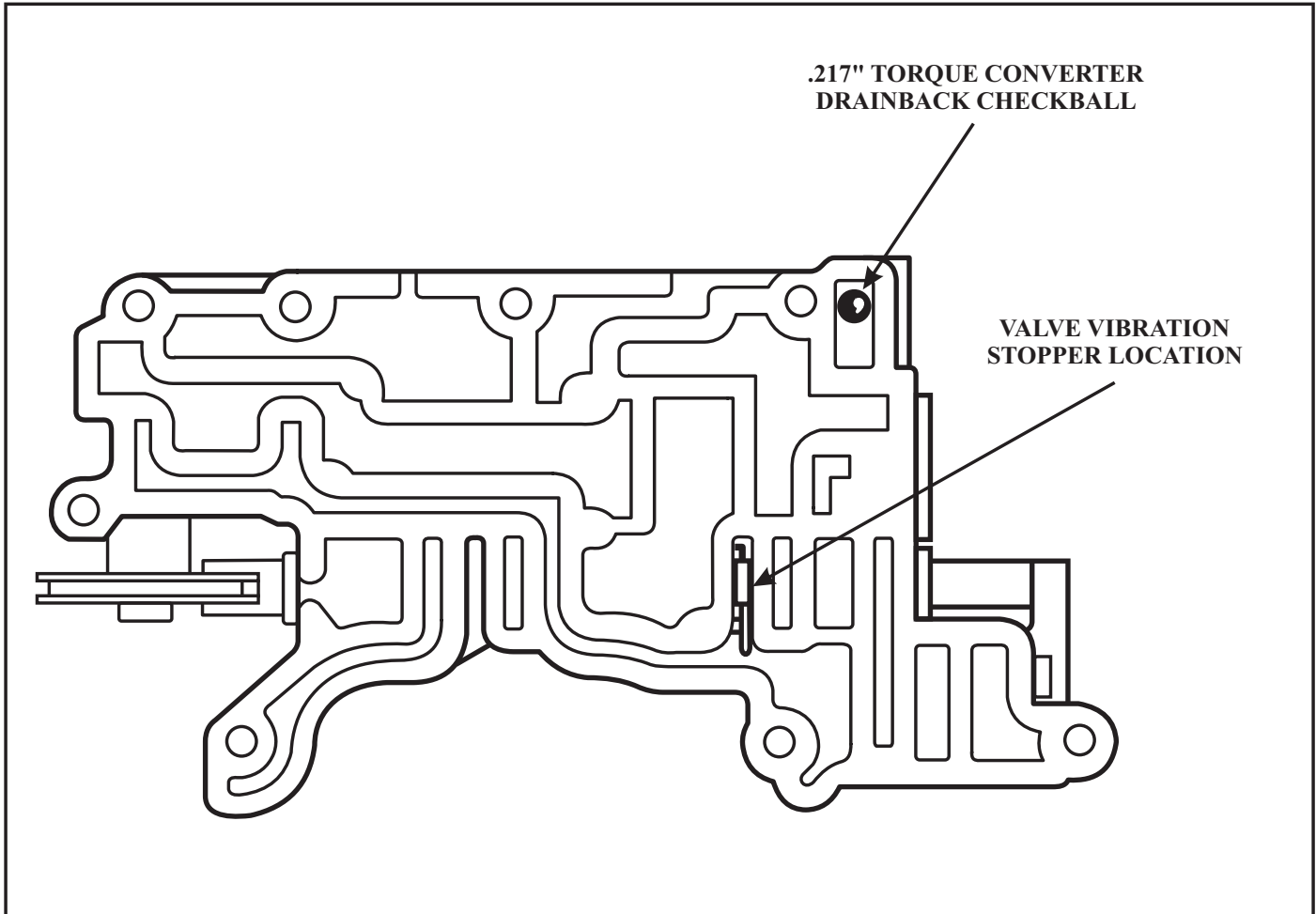
## TOYOTA AW55, AW70, AW71 "LOWER" VALVE BODY "CASE SIDE" CHECKBALL LOCATION



### TOYOTA AW55, AW70, AW71 "LOWER" VALVE BODY "FILTER SIDE" CHECKBALL LOCATION



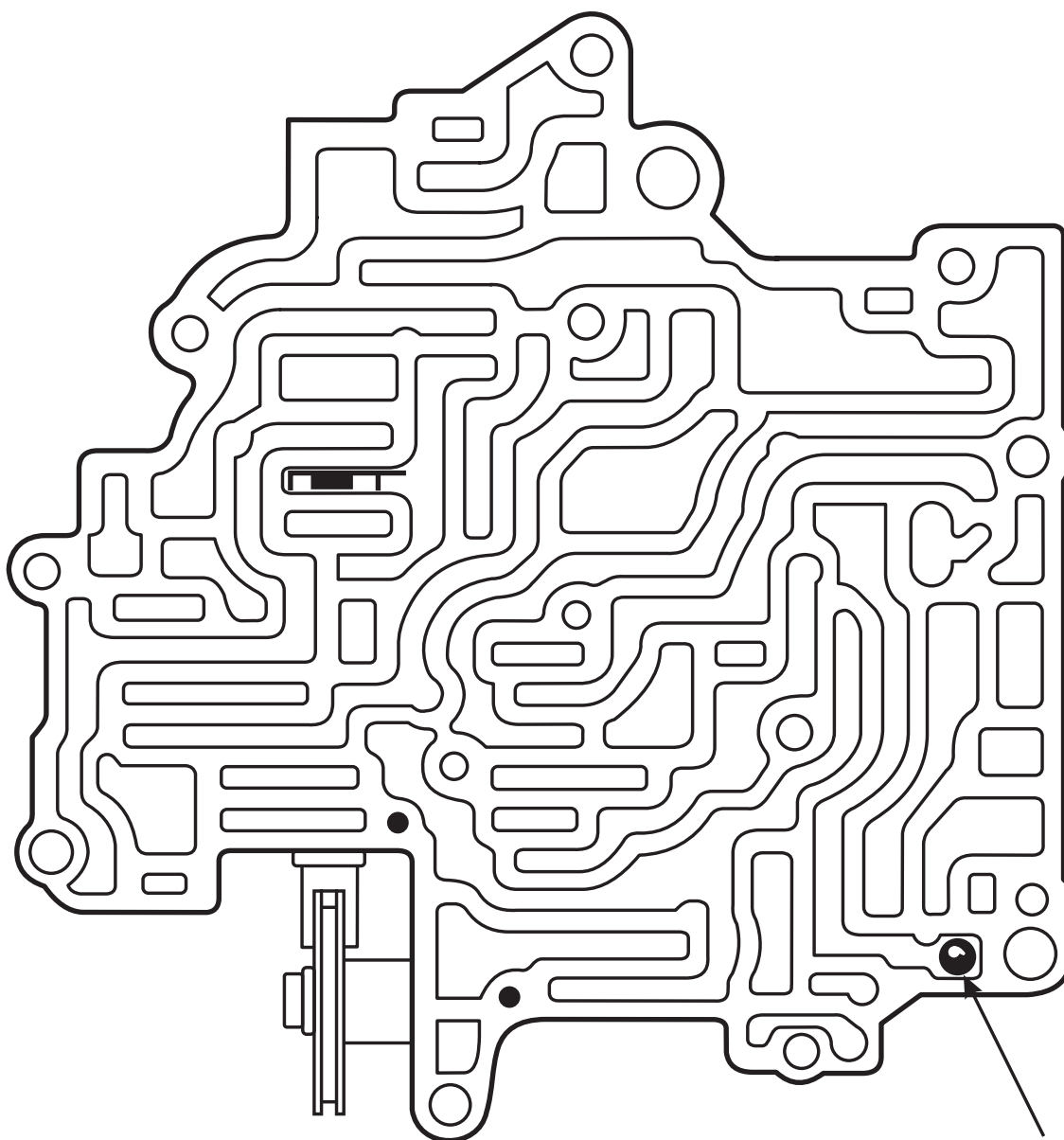
**TOYOTA AW55,AW70,AW71 THROTTLE VALVE BODY  
CHECKBALL LOCATION**



## TOYOTA A130L, A131L, A132L SERIES TRANSMISSIONS

COROLLA 1984-1995 1.6L AND TERCEL 1988-1995 1.5L

### "UPPER" VALVE BODY CHECKBALL LOCATIONS

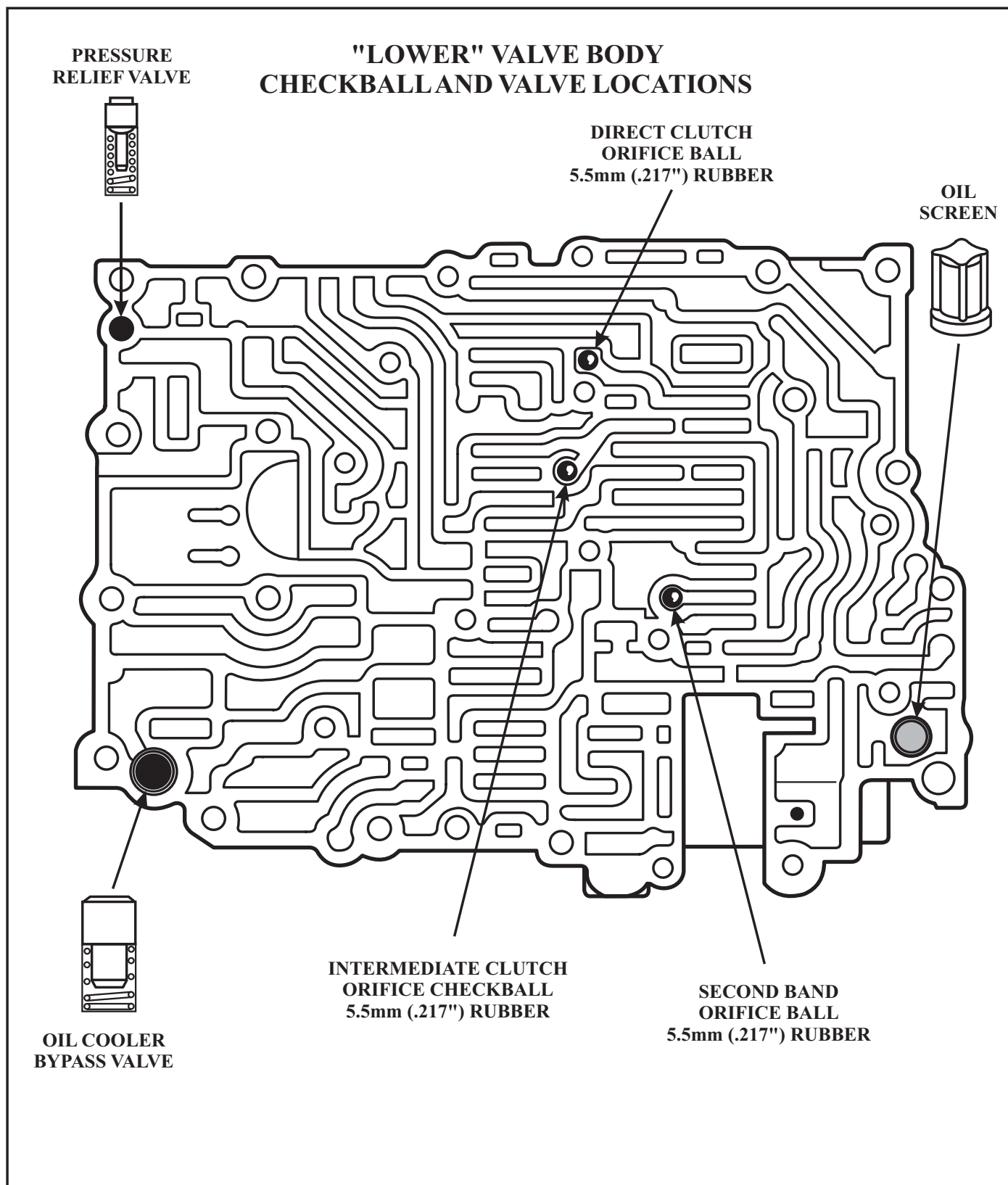


FORWARD CLUTCH  
FEED ORIFICE  
5.5mm (.217\") RUBBER



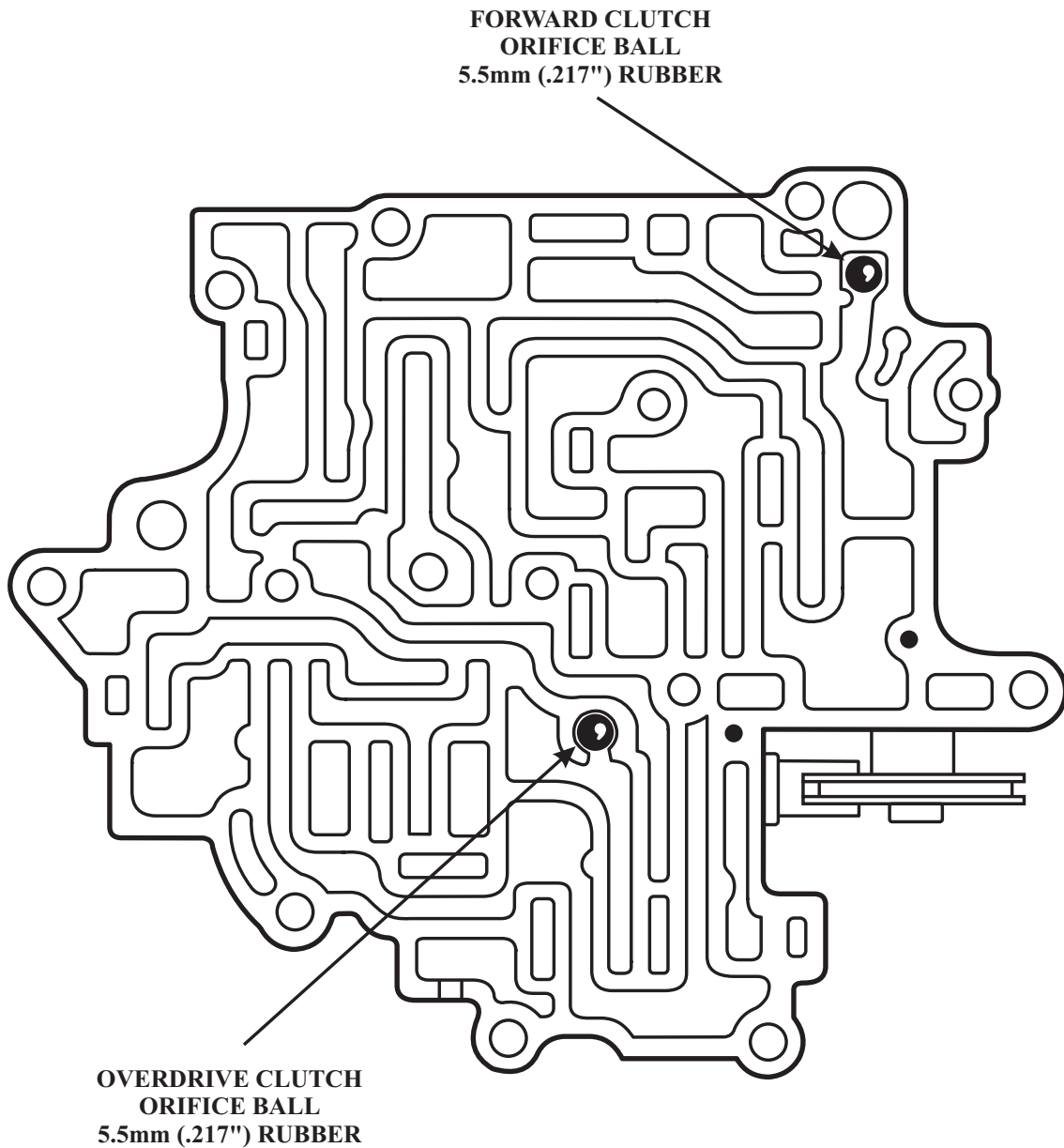
## TOYOTA A130L, A131L, A132L SERIES TRANSMISSIONS

COROLLA 1984-1995 1.6L AND TERCEL 1988-1995 1.5L



**TOYOTA A140L SERIES TRANSMISSIONS**  
**CAMRY 1983-1993 AND CELICA 1986-1989**

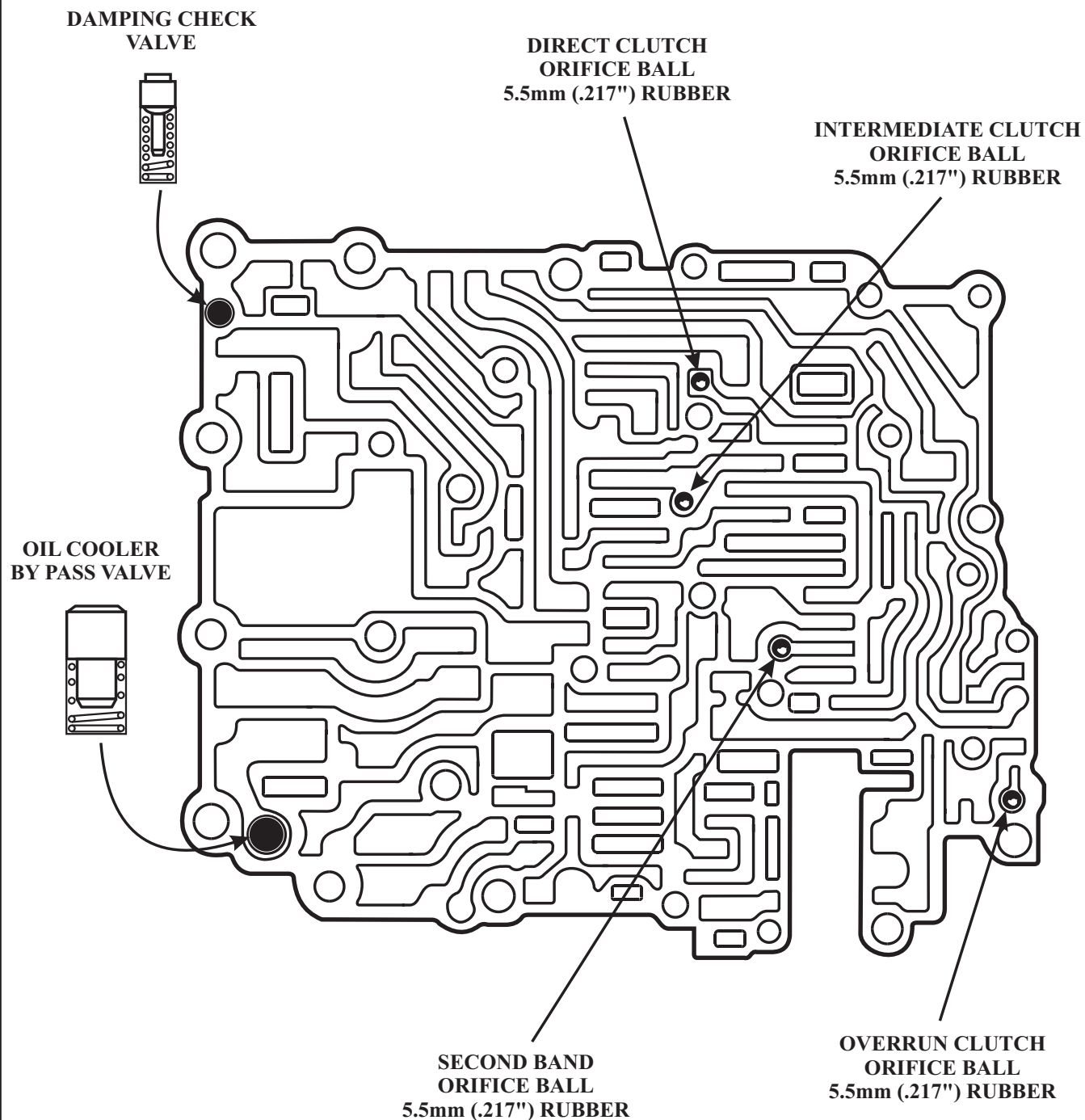
**"UPPER" VALVE BODY**  
**CHECK BALL LOCATION**



## TOYOTA A140L SERIES TRANSMISSIONS

CAMRY 1983-1993 AND CELICA 1986-1989

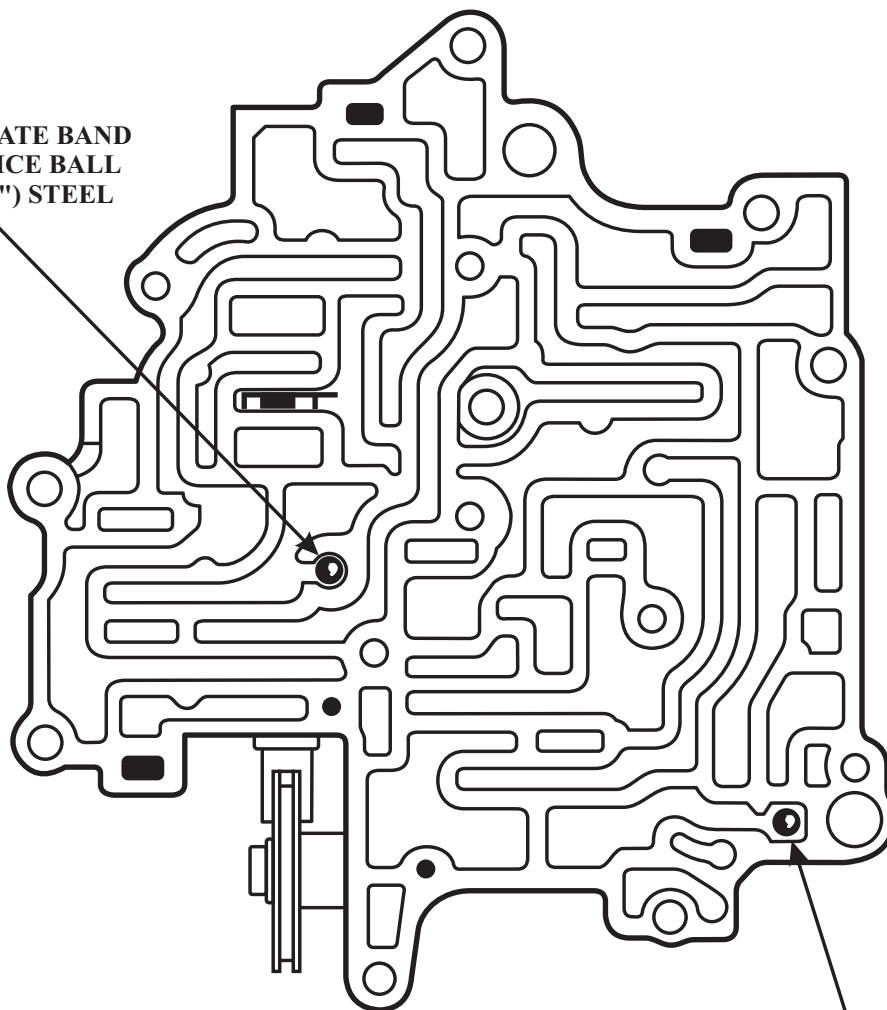
### "LOWER" VALVE BODY CHECK BALL LOCATION



**TOYOTA A140E, A141E SERIES TRANSMISSIONS**  
**CAMRY 1983 - 1995**

**"UPPER" VALVE BODY**  
**CHECKBALL LOCATIONS**

**INTERMEDIATE BAND  
FEED ORIFICE BALL**  
5.5mm (.217") STEEL

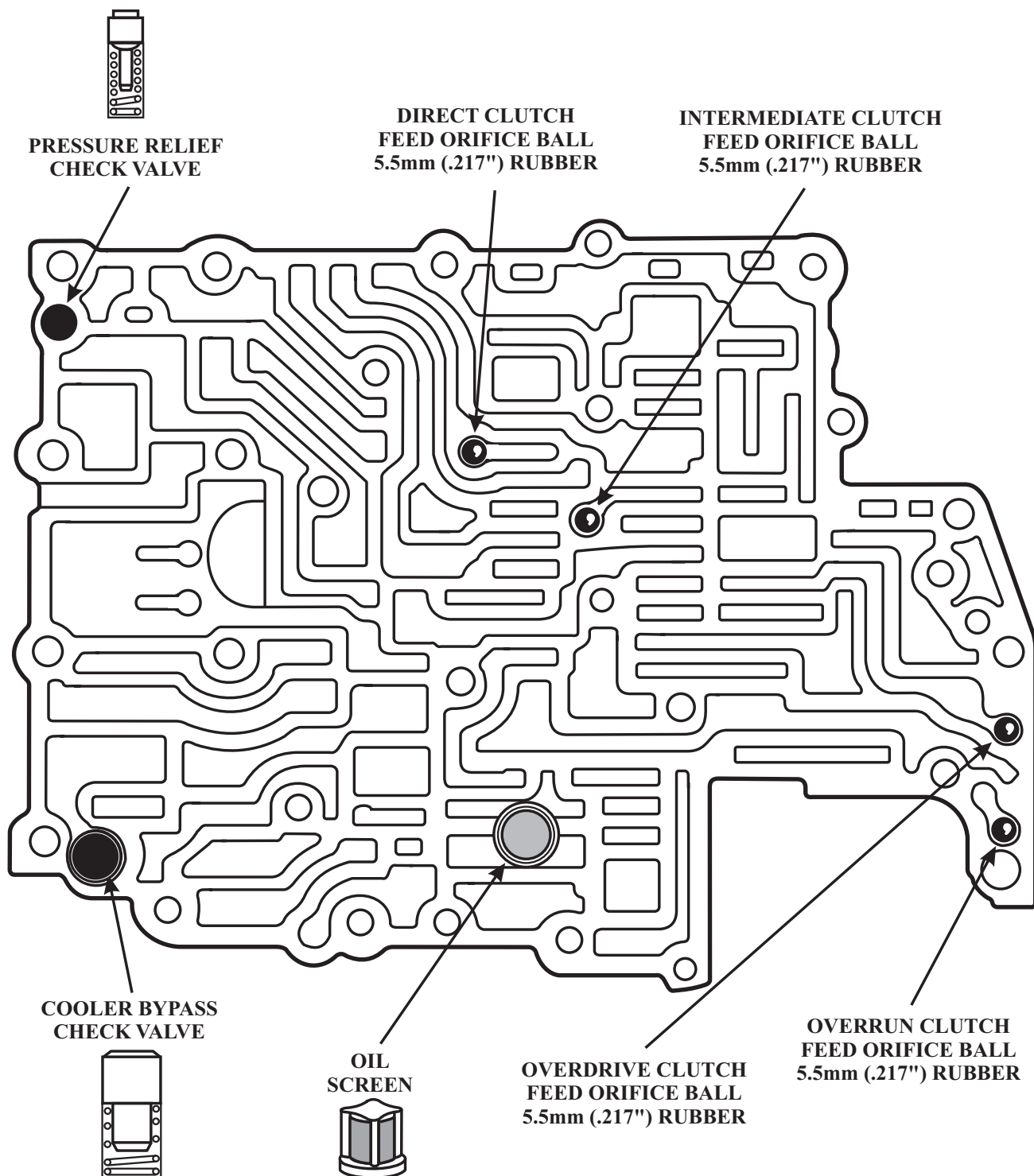


**FORWARD CLUTCH  
FEED ORIFICE BALL**  
5.5mm (.217") STEEL

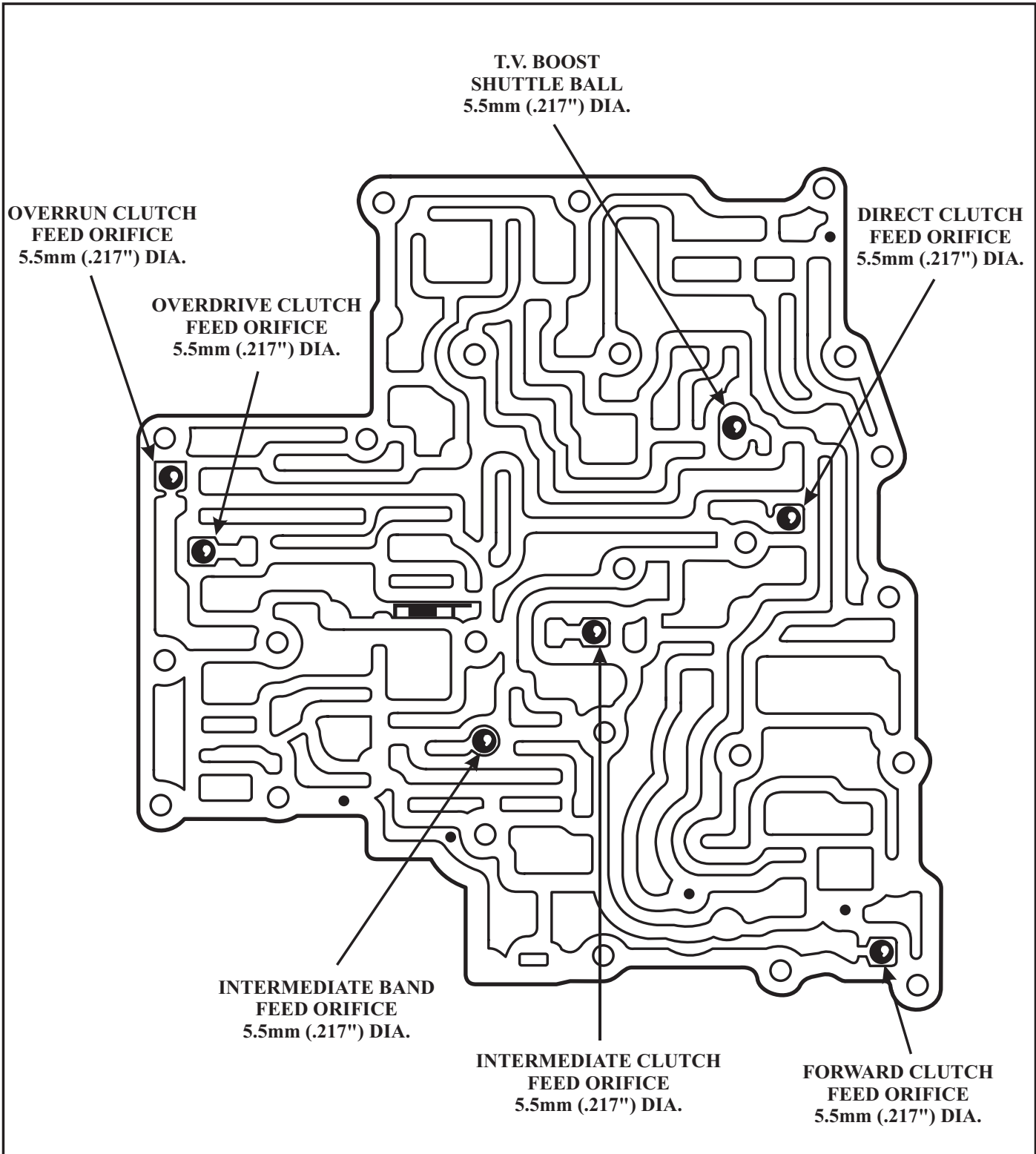
### TOYOTA A140E, A141E SERIES TRANSMISSIONS

#### CAMRY 1983 - 1995

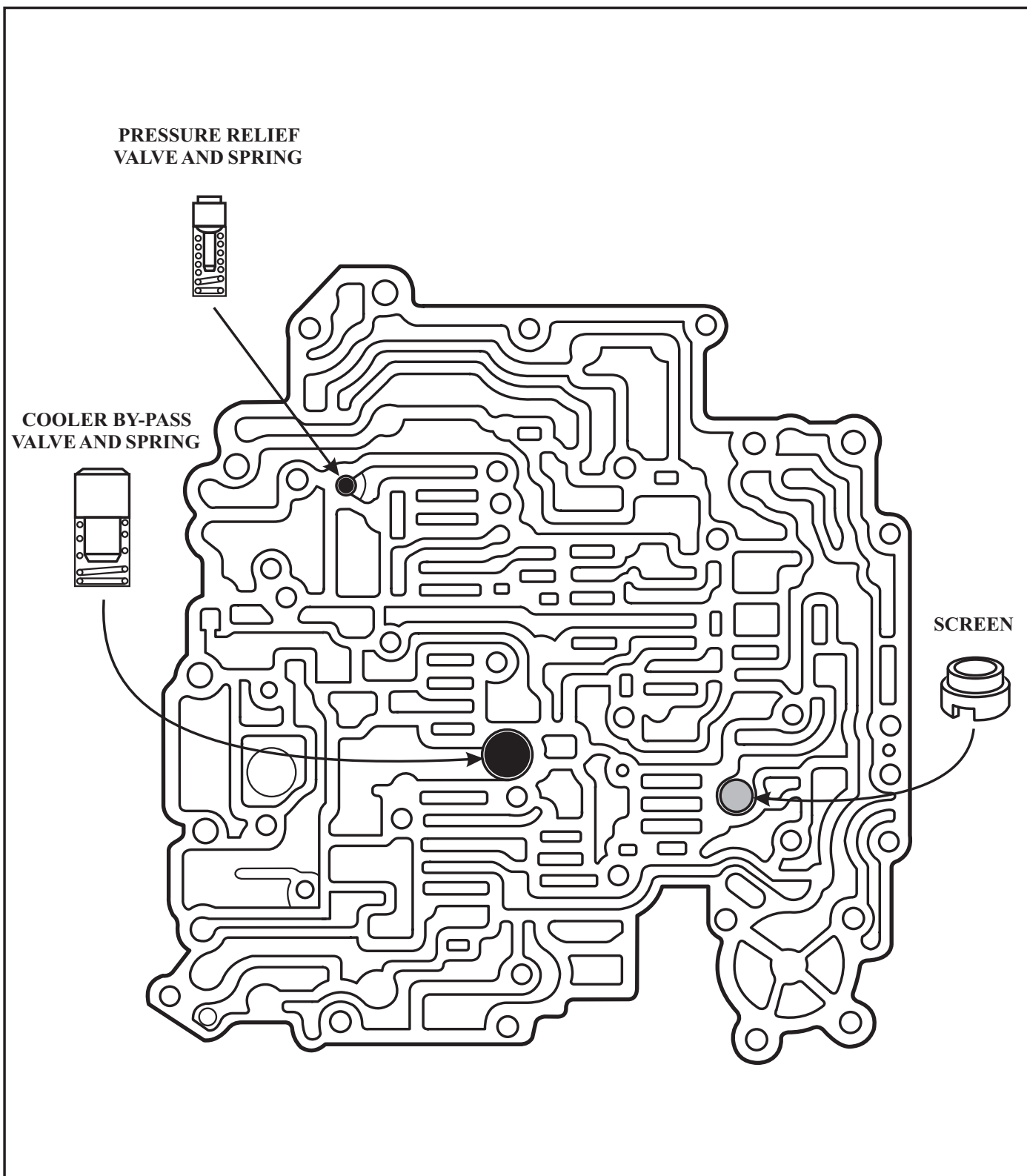
#### "LOWER" VALVE BODY CHECKBALL AND VALVE LOCATIONS



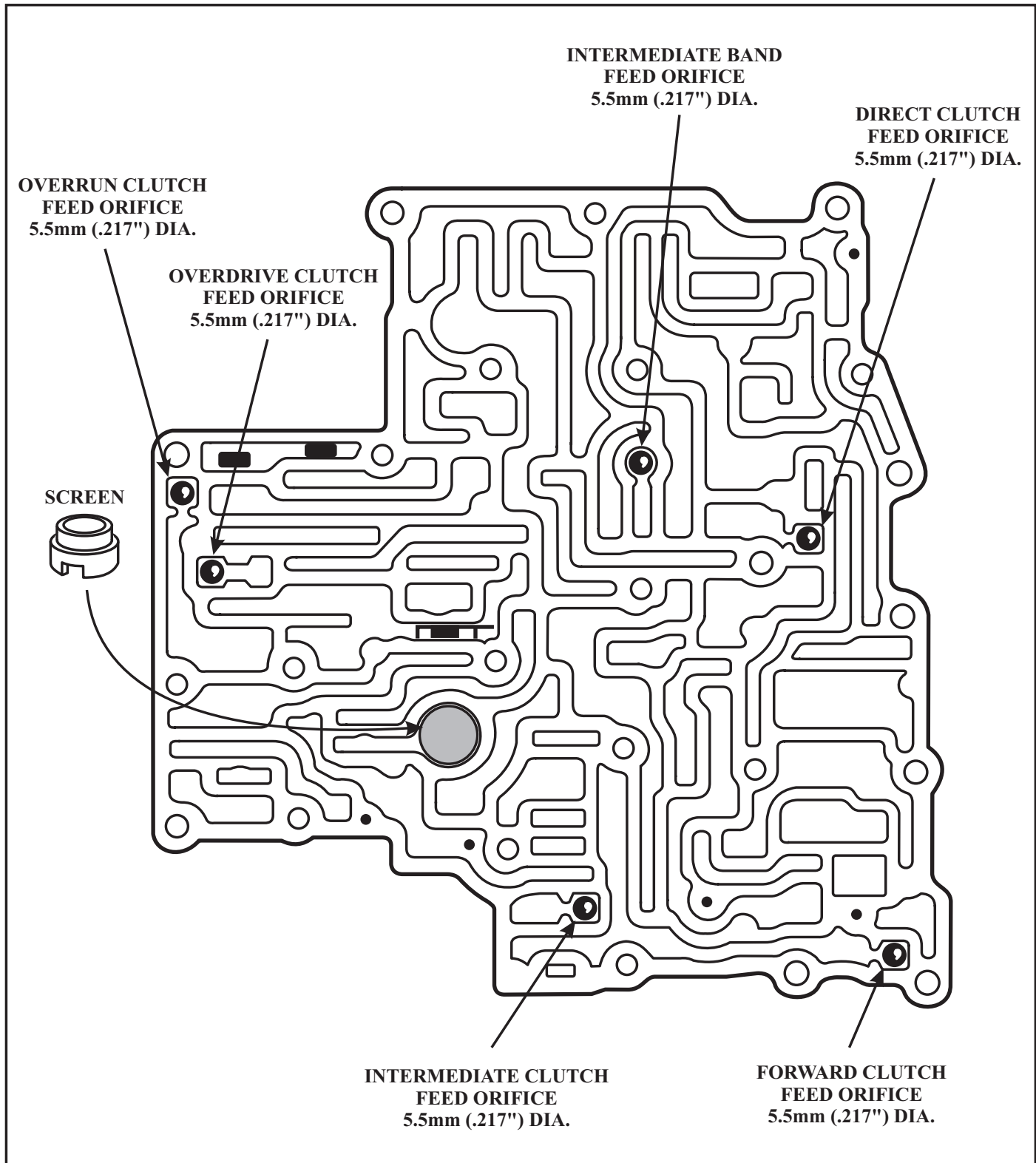
### TOYOTA A240L, A243L TRANSMISSIONS "UPPER" VALVE BODY CHECKBALL LOCATIONS



## TOYOTA A240L, A243L TRANSMISSIONS CHECK VALVE AND SCREEN LOCATIONS FOR "LOWER" VALVE BODY

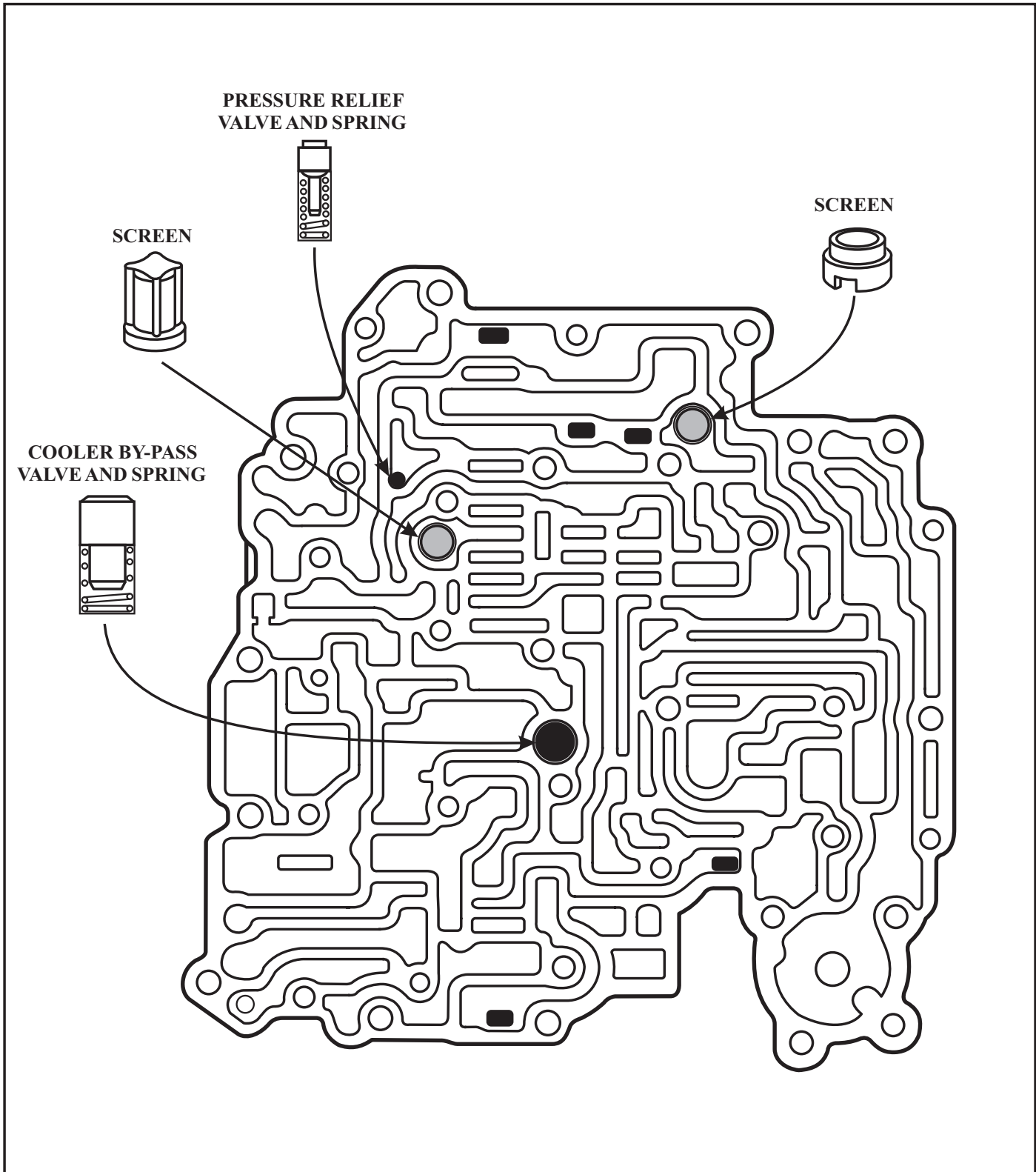


### TOYOTA A241E, A244E TRANSMISSIONS "UPPER" VALVE BODY CHECKBALL LOCATIONS



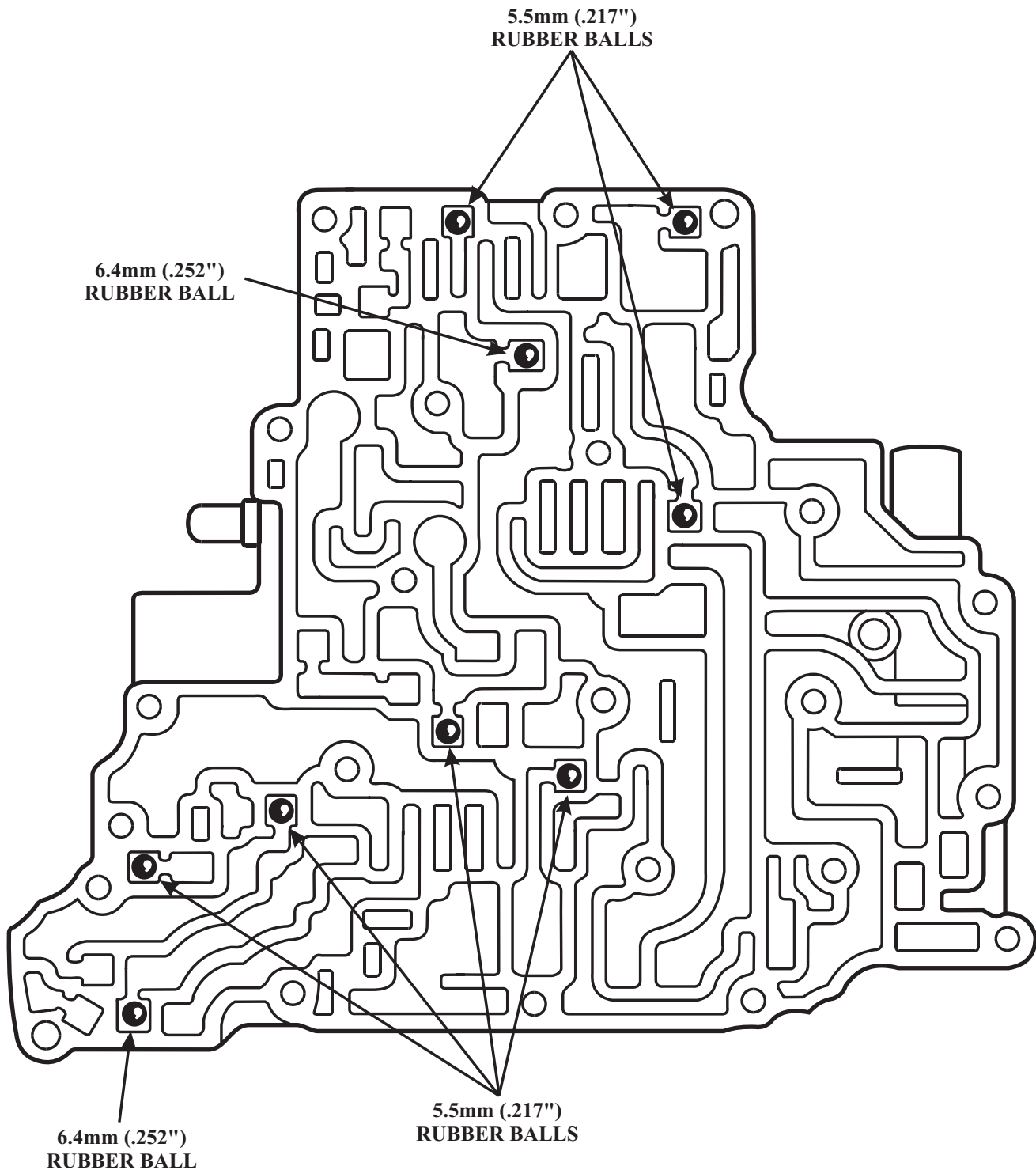


## TOYOTA A241E, A244E TRANSMISSIONS CHECK VALVE AND SCREEN LOCATIONS FOR "LOWER" VALVE BODY

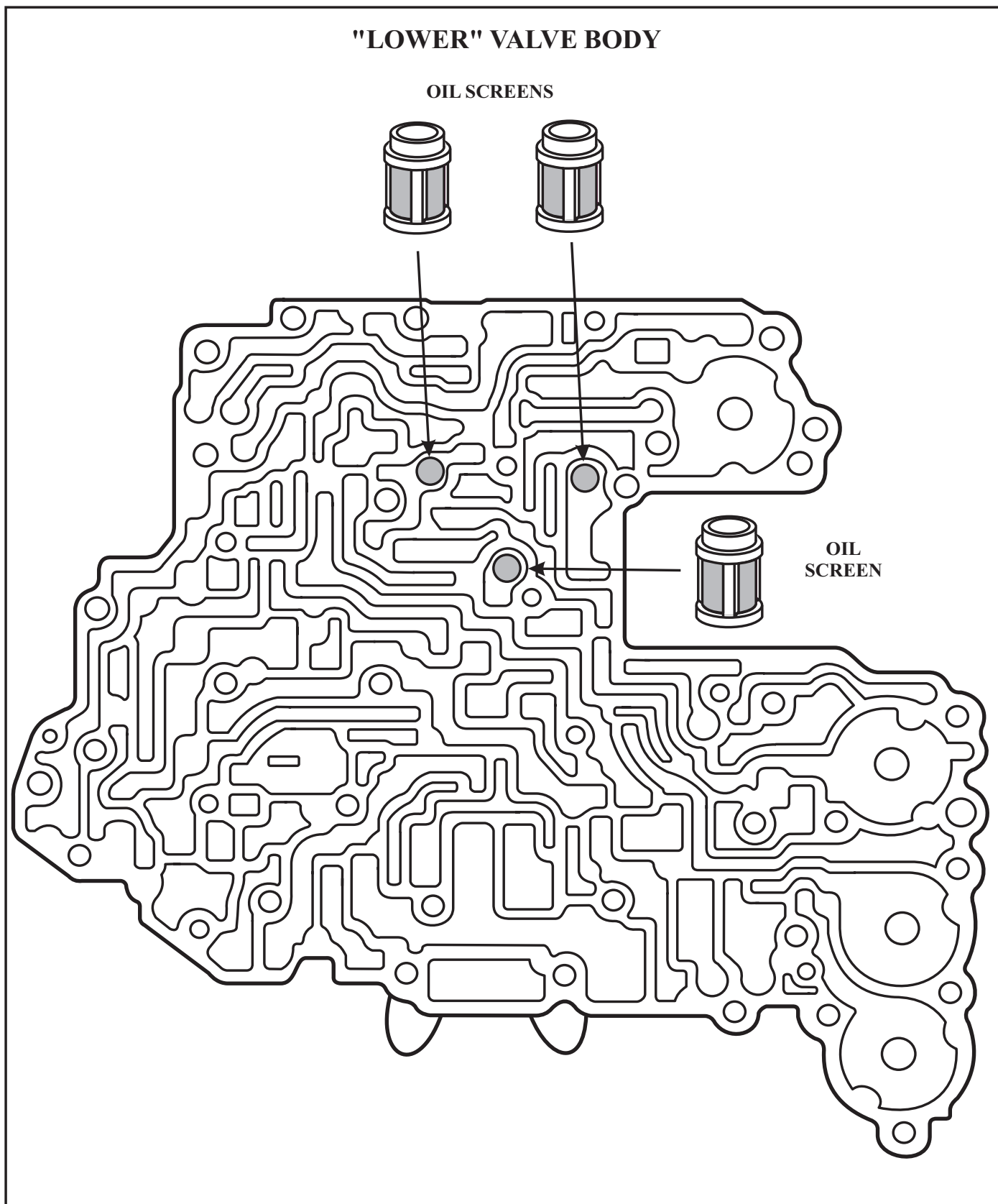


## TOYOTA A245 SERIES TRANSAXLES

### "UPPER" VALVE BODY



## TOYOTA A245 SERIES TRANSAXLES



### TOYOTA A340E SERIES "2WD" TRANSMISSIONS A340E "2WD" 4-RUNNER & TRUCK 1985-1989

#### "UPPER" VALVE BODY

See Page 86 for "Lower" Valve Body

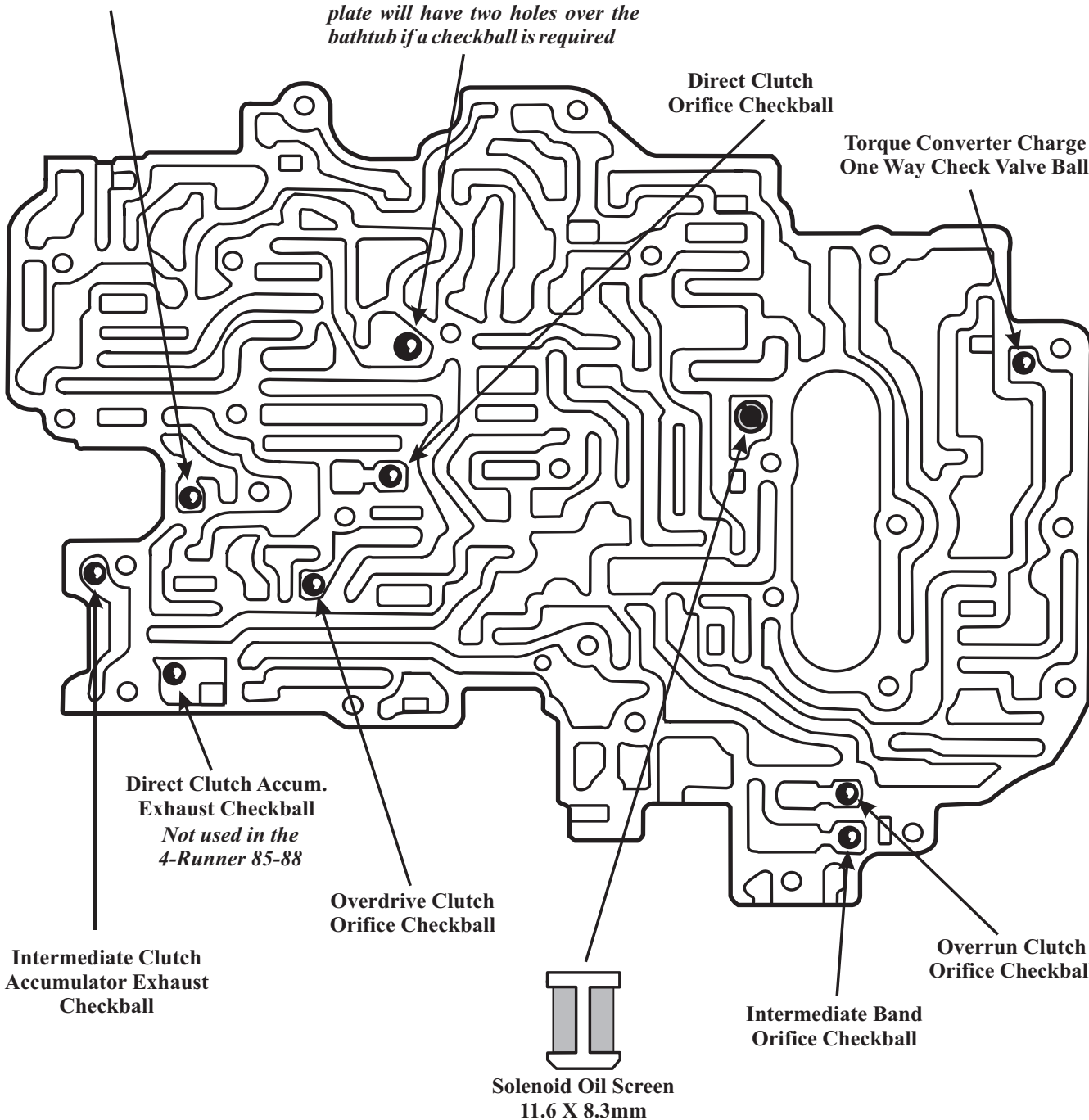
#### Direct Clutch Shuttle Ball

*NOTE: Use of this ball when not required may cause premature direct clutch failure. The spacer plate will have two holes over the bathtub if a checkball is required*

Intermediate Clutch  
Orifice Checkball

Direct Clutch  
Orifice Checkball

Torque Converter Charge  
One Way Check Valve Ball



Direct Clutch Accum.  
Exhaust Checkball  
*Not used in the  
4-Runner 85-88*

Overdrive Clutch  
Orifice Checkball

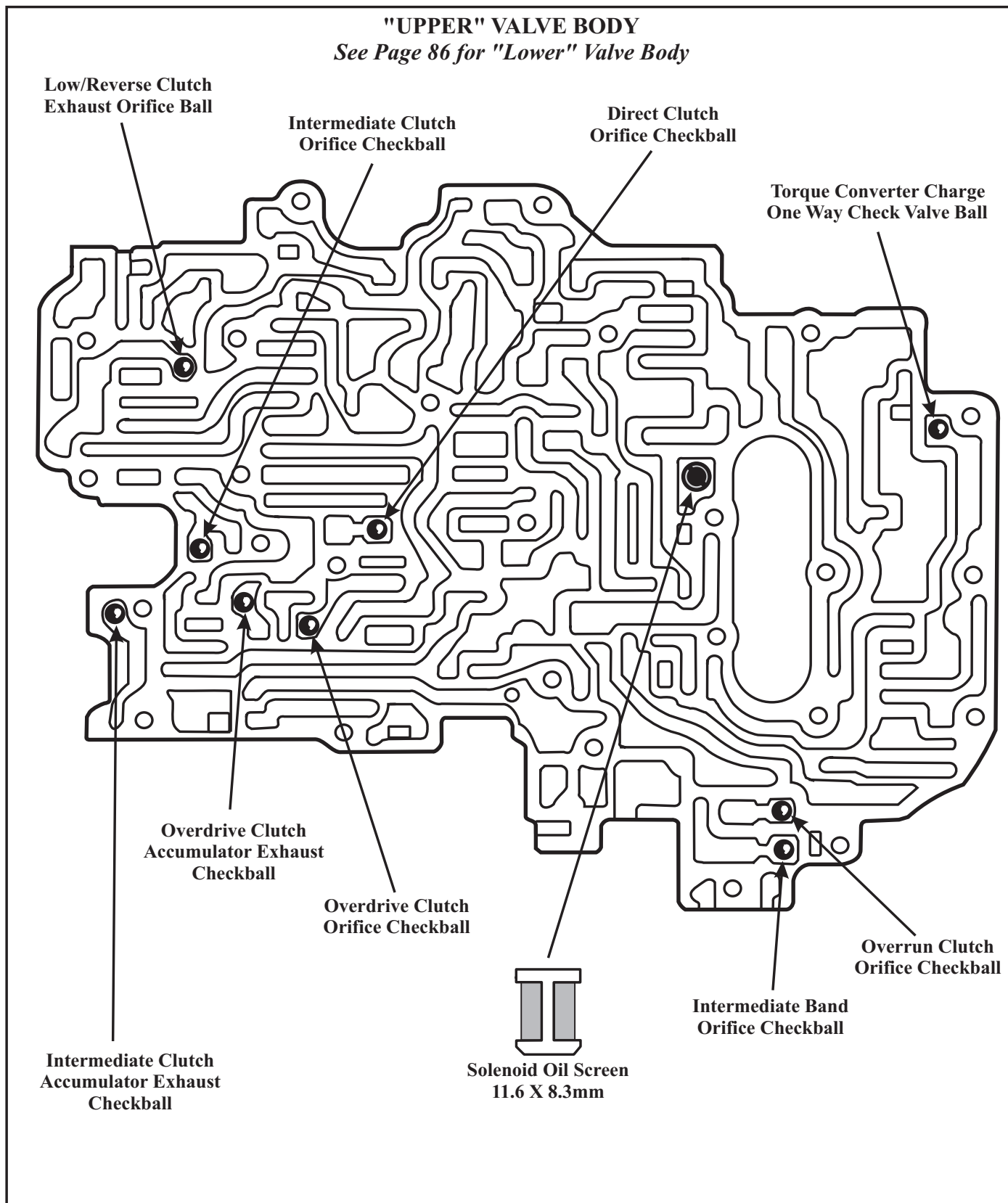
Intermediate Clutch  
Accumulator Exhaust  
Checkball

Solenoid Oil Screen  
11.6 X 8.3mm

Intermediate Band  
Orifice Checkball

Overrun Clutch  
Orifice Checkball

### TOYOTA A340E SERIES "2WD" TRANSMISSIONS A340E "2WD" 4-RUNNER & TRUCK 1990-1995



### TOYOTA A340E SERIES "2WD" TRANSMISSIONS A340E "Except" 4-RUNNER & TRUCK 1985-1989

#### "UPPER" VALVE BODY

See Page 86 for "Lower" Valve Body

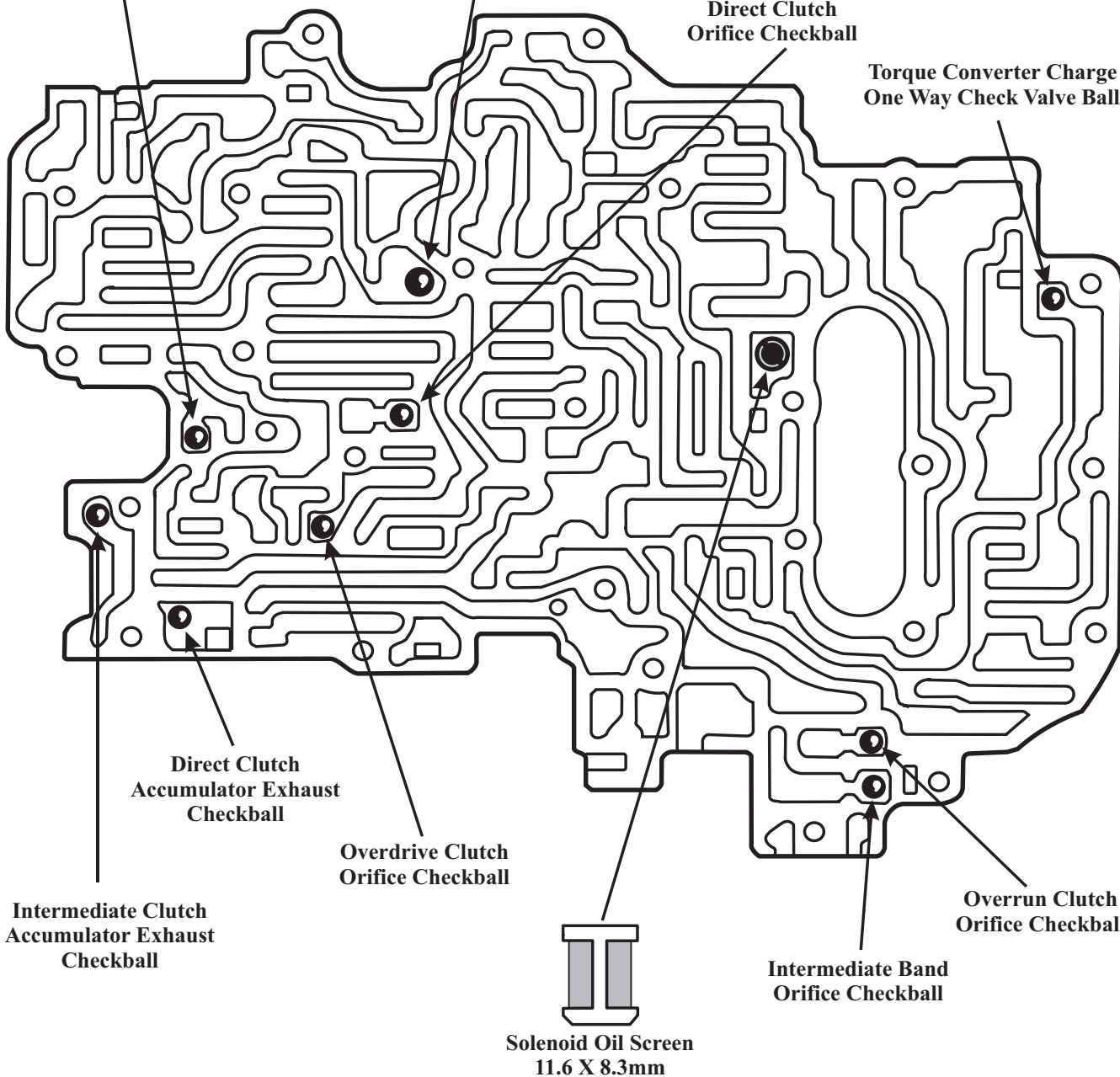
#### Direct Clutch Shuttle Ball

*NOTE: Use of this ball when not required may cause premature direct clutch failure. The spacer plate will have two holes over the bathtub if a checkball is required*

Intermediate Clutch  
Orifice Checkball

Direct Clutch  
Orifice Checkball

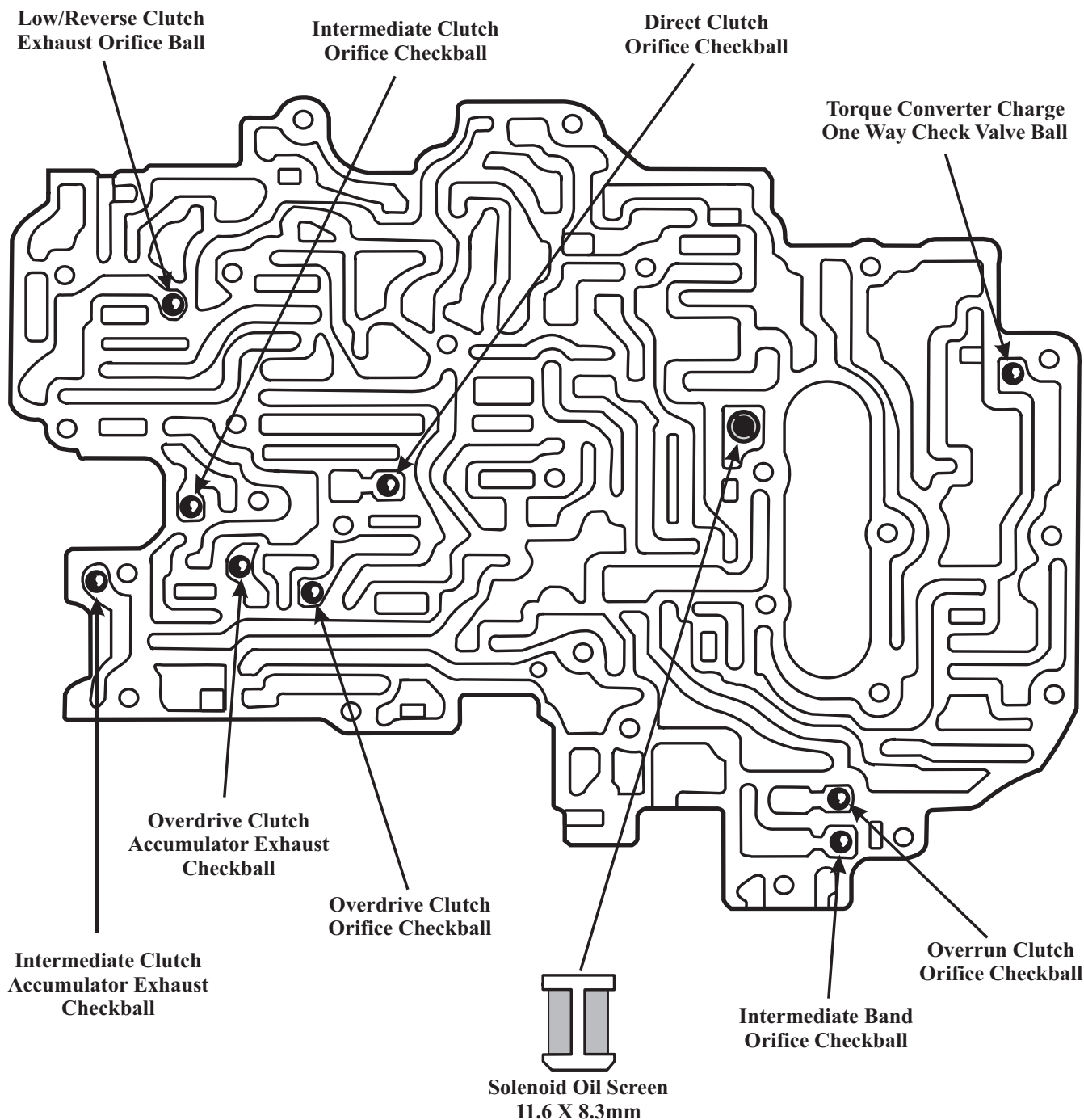
Torque Converter Charge  
One Way Check Valve Ball



### TOYOTA A340E SERIES "2WD" TRANSMISSIONS A340E "Except" 4-RUNNER & TRUCK 1990-1995

#### "UPPER" VALVE BODY

See Page 86 for "Lower" Valve Body

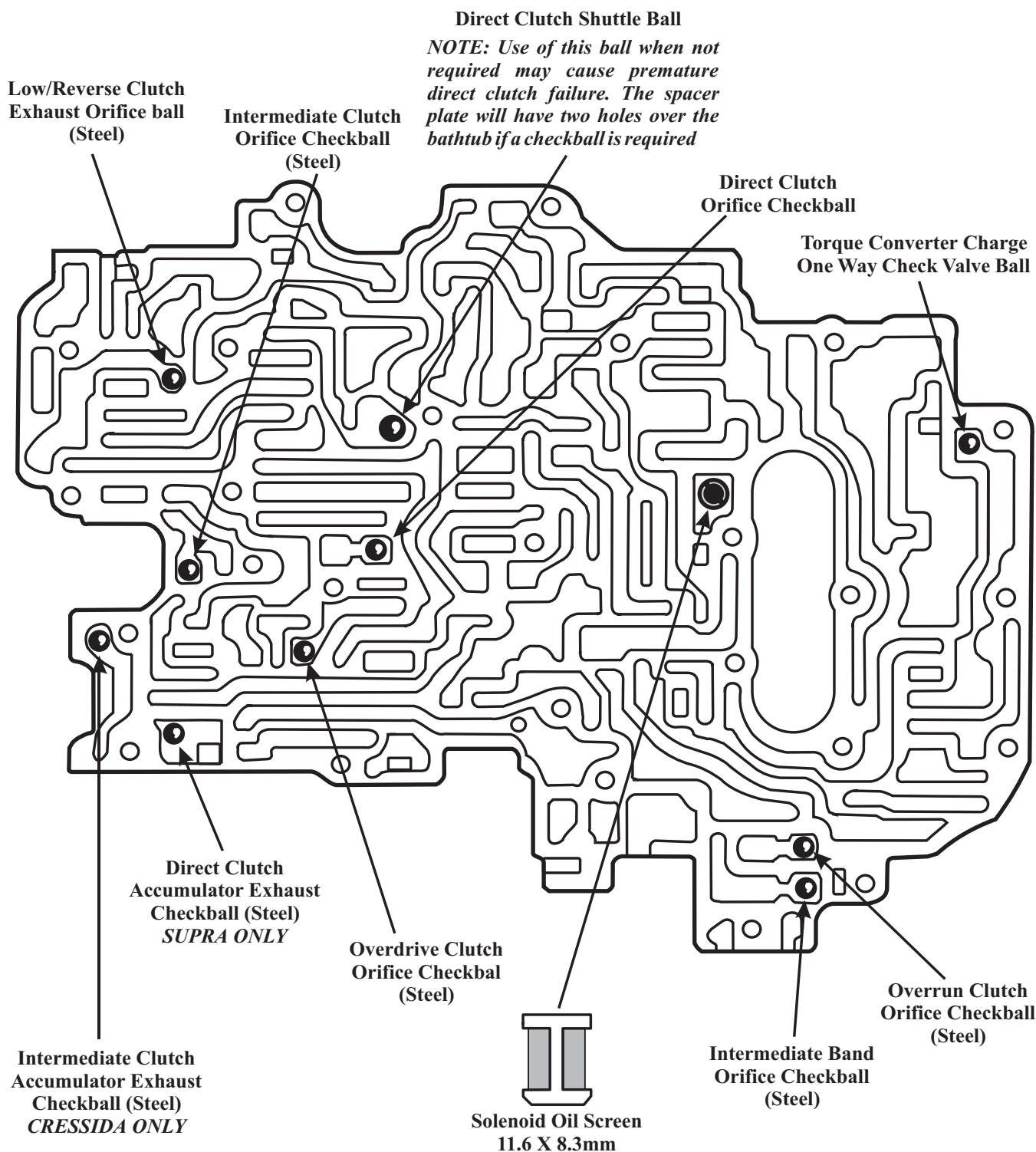




### TOYOTA A340E SERIES "2WD" TRANSMISSIONS A340E CRESSIDA AND SUPRA 1985-1988

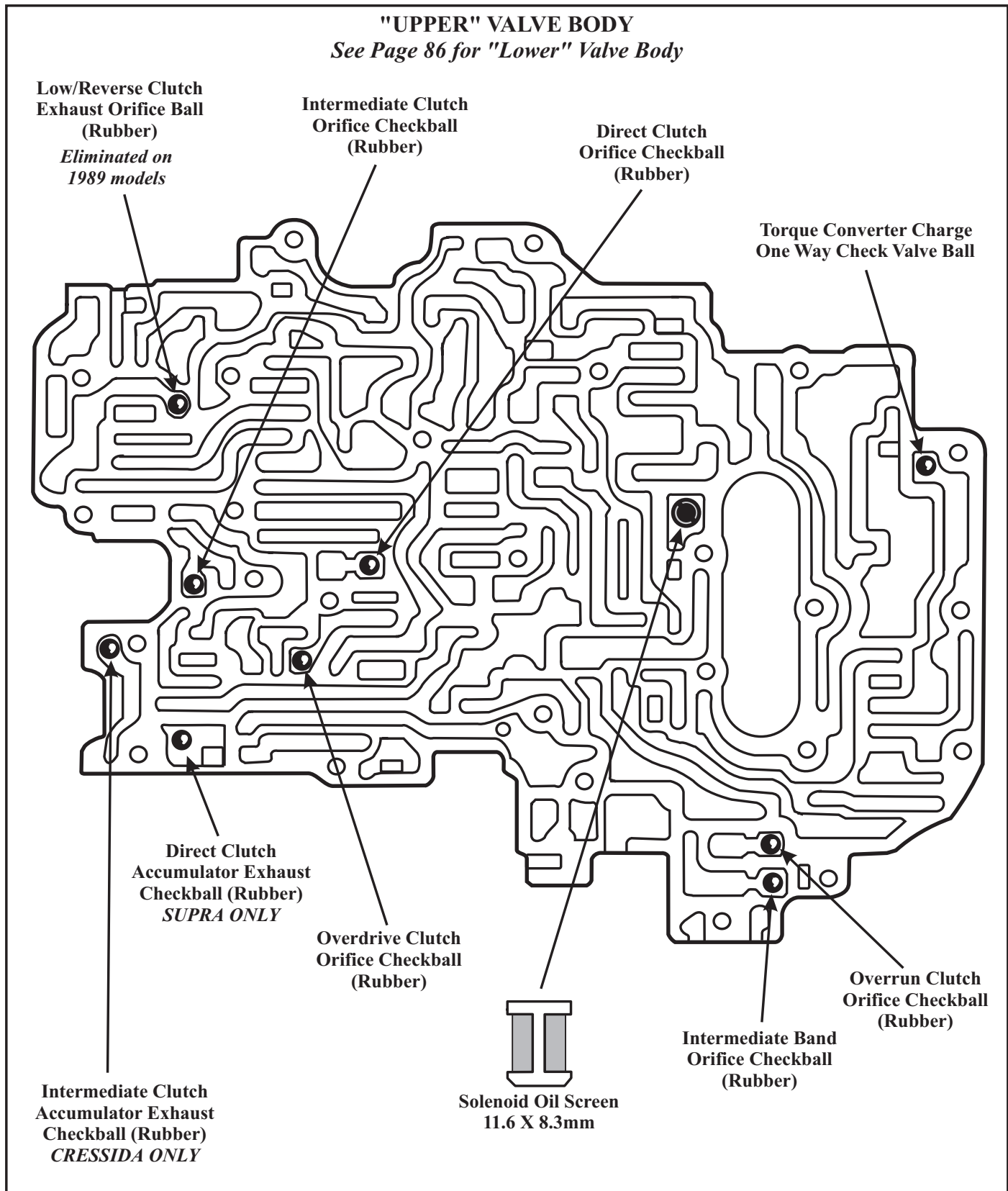
#### "UPPER" VALVE BODY

See Page 86 for "Lower" Valve Body





### TOYOTA A340E SERIES "2WD" TRANSMISSIONS A340E CRESSIDA AND SUPRA 1989-1995



### TOYOTA A340E SERIES 4WD TRANSMISSIONS A340H "4WD" 4-RUNNER & TRUCK 1985-1988

#### "UPPER" VALVE BODY

See Page 86 for "Lower" Valve Body

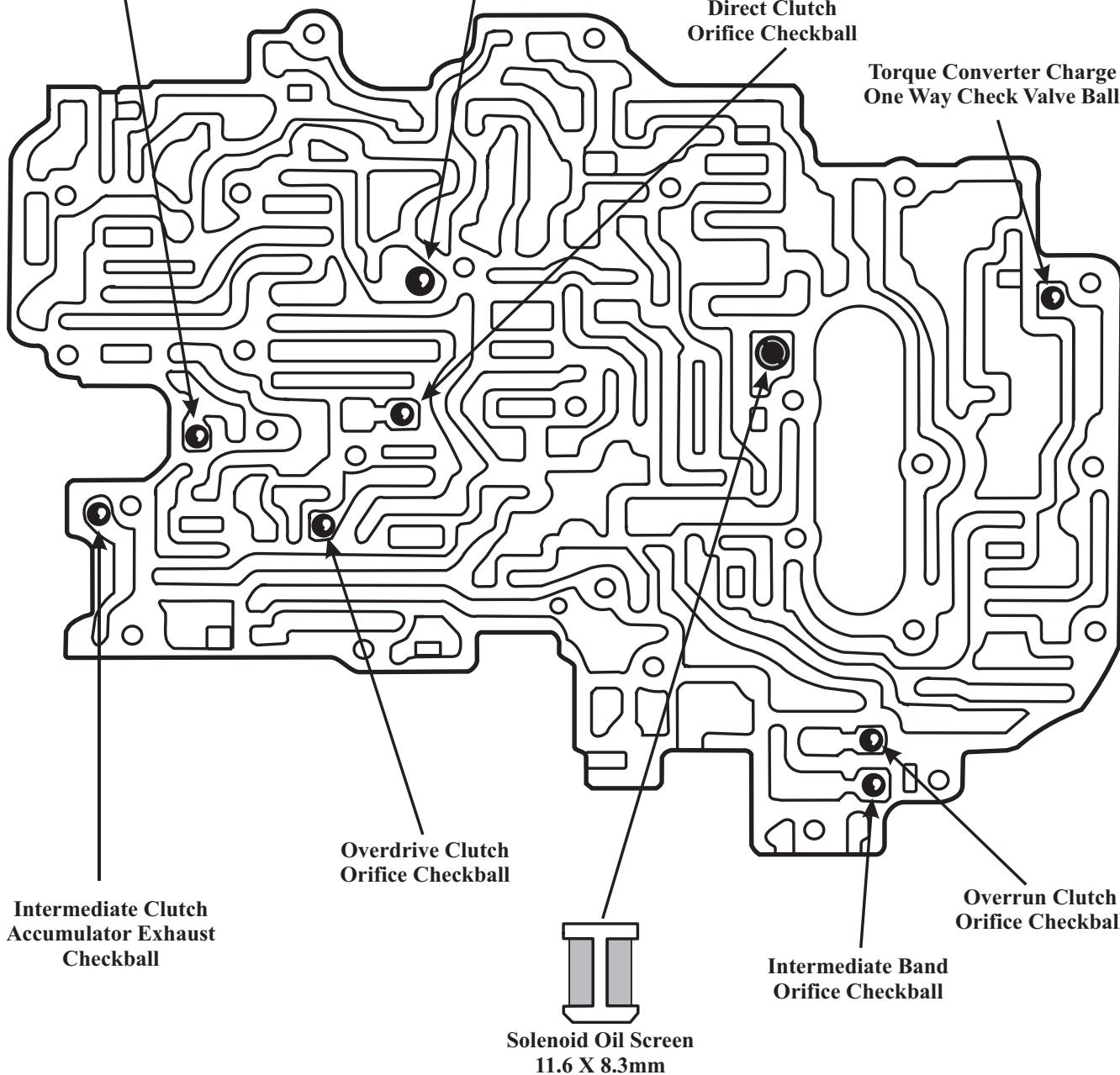
#### Direct Clutch Shuttle Ball

*NOTE: Use of this ball when not required may cause premature direct clutch failure. The spacer plate will have two holes over the bathtub if a checkball is required*

Intermediate Clutch  
Orifice Checkball

Direct Clutch  
Orifice Checkball

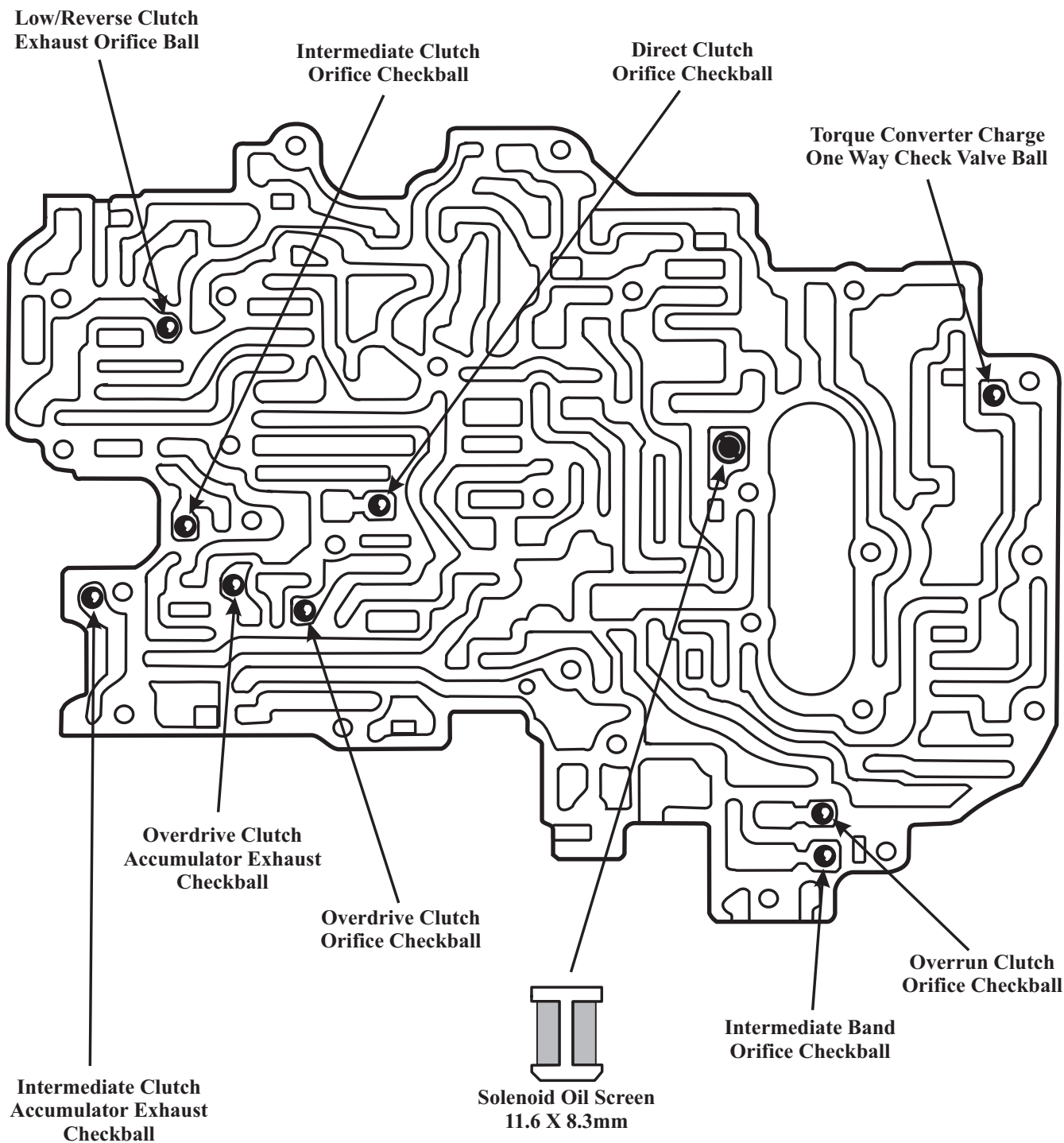
Torque Converter Charge  
One Way Check Valve Ball



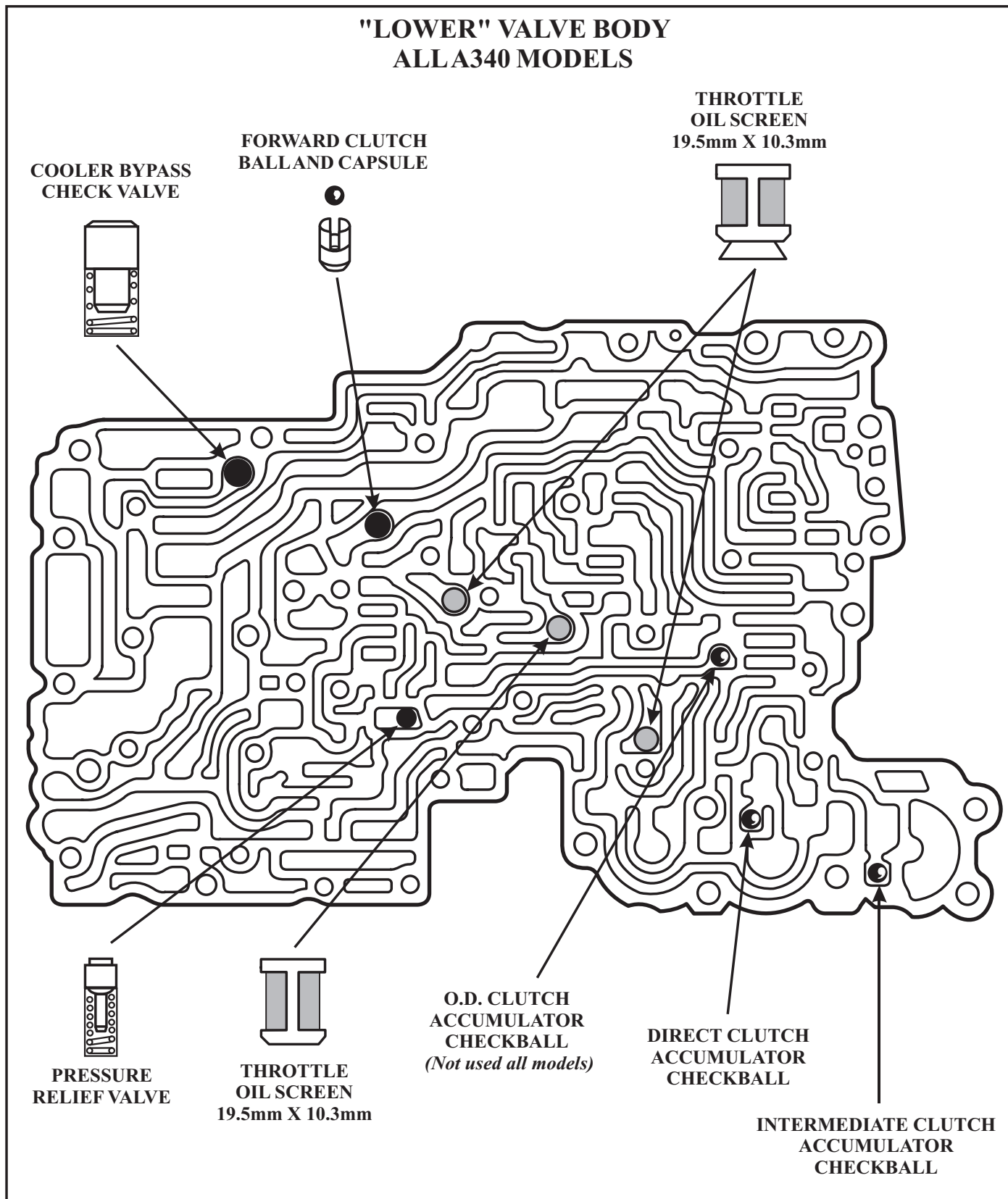
### TOYOTA A340H SERIES 4WD TRANSMISSIONS

#### A340H "4WD" 4-RUNNER & TRUCK 1989-1995

**"UPPER" VALVE BODY**  
See Page 86 for "Lower" Valve Body.

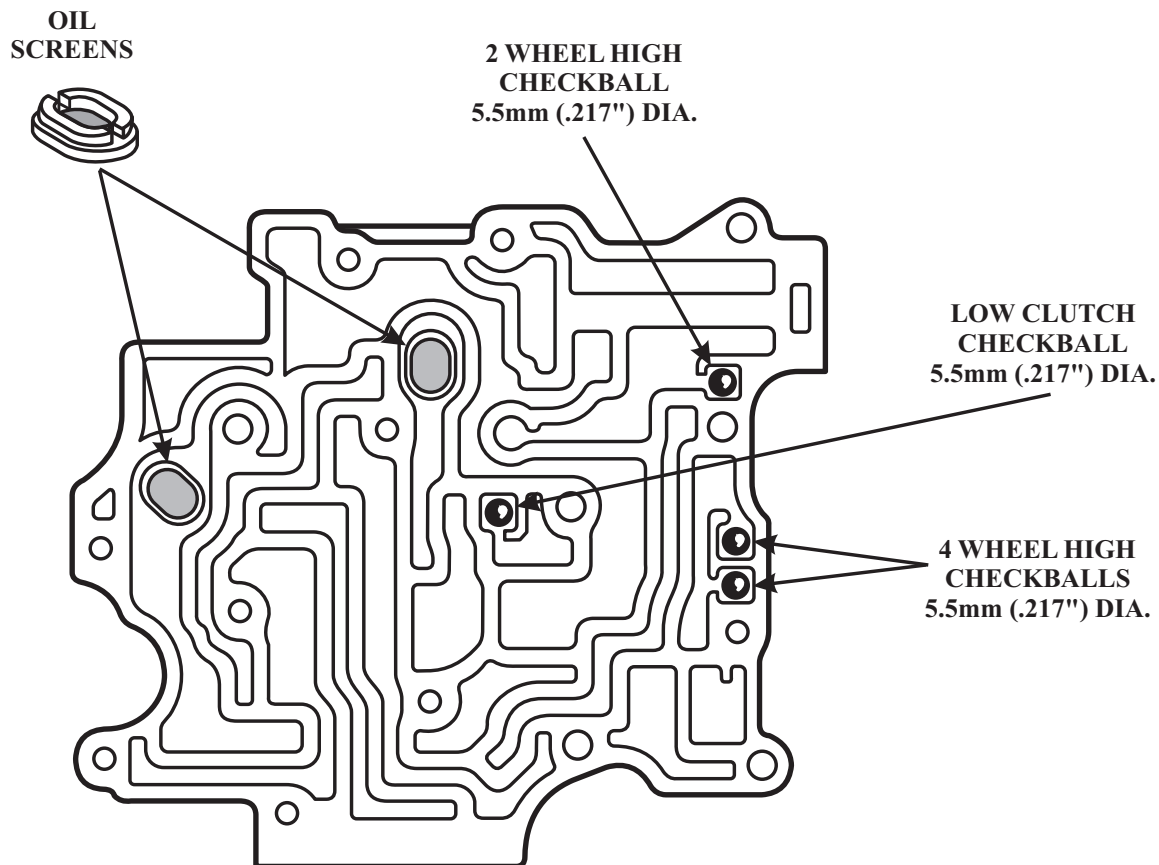


## TOYOTA A340 SERIES TRANSMISSIONS



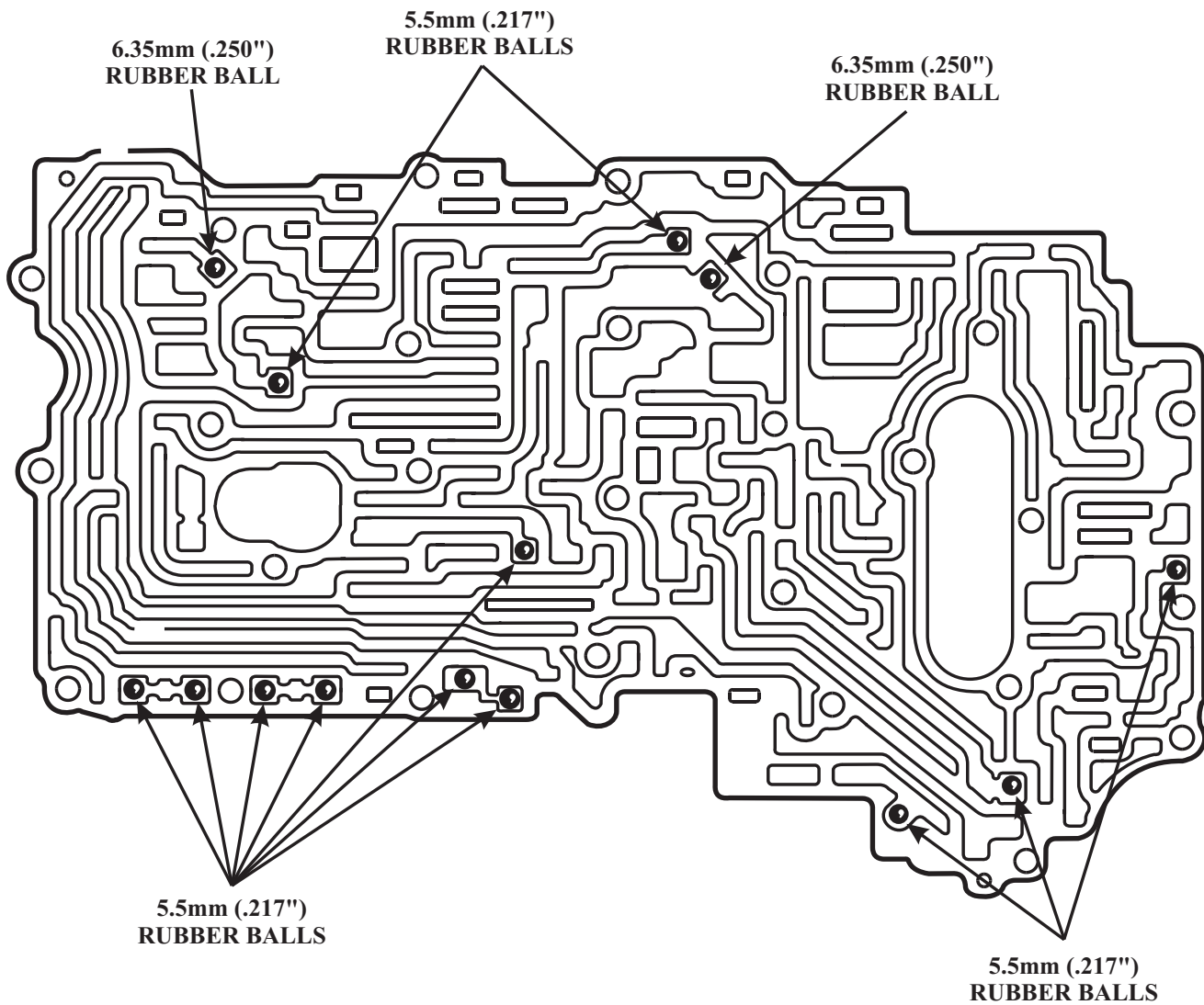
## TOYOTA A340H TRANSFER CASE

### CHECKBALL AND SCREEN LOCATIONS



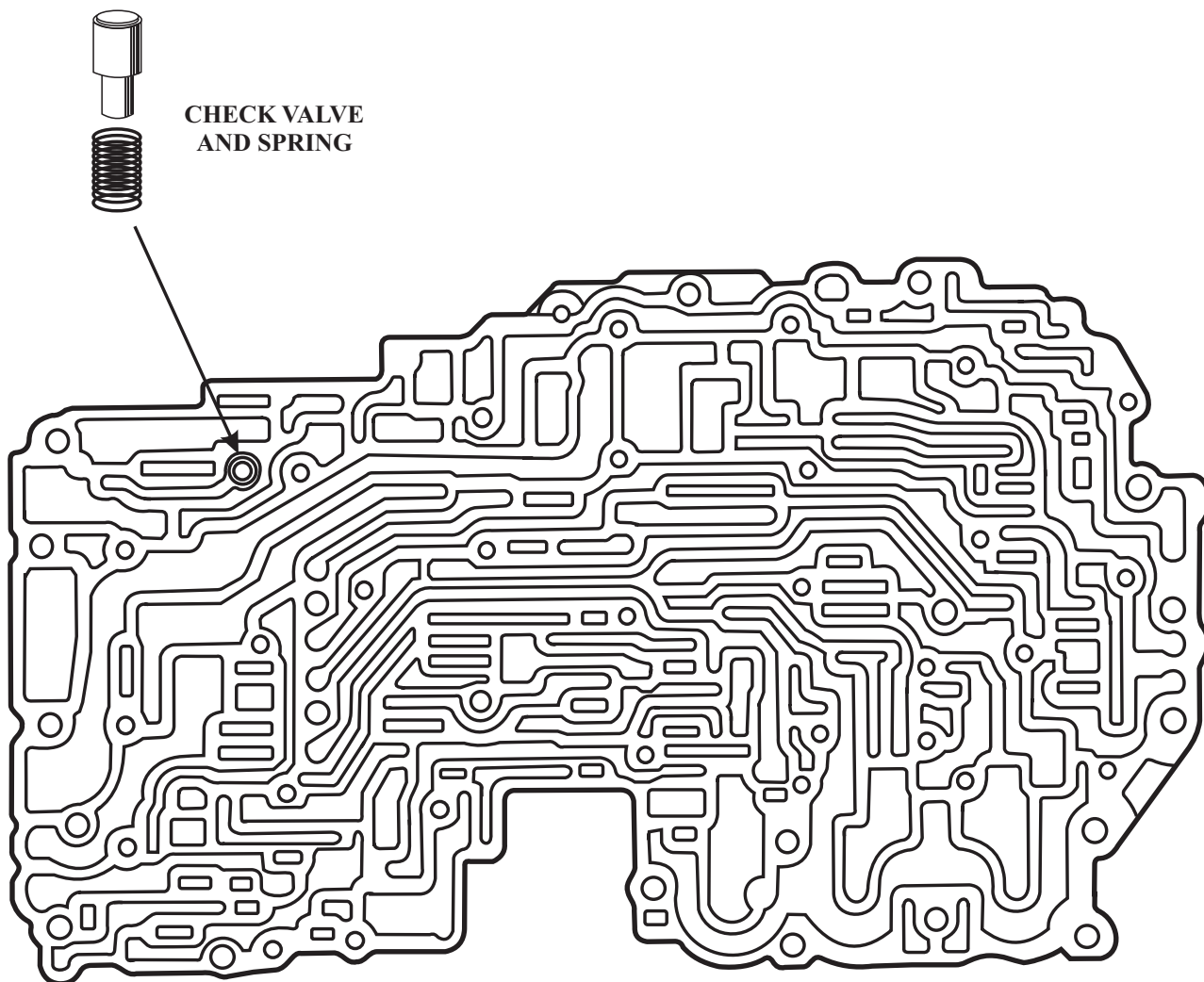
### TOYOTA A341E SERIES TRANSMISSIONS A341E LEXUS AND 1993 AND UP SUPRA

#### "UPPER" VALVE BODY A341E MODELS



**TOYOTA A341E SERIES TRANSMISSIONS**  
**A341E LEXUS AND 1993 AND UP SUPRA**

**"LOWER" VALVE BODY A341E MODELS**

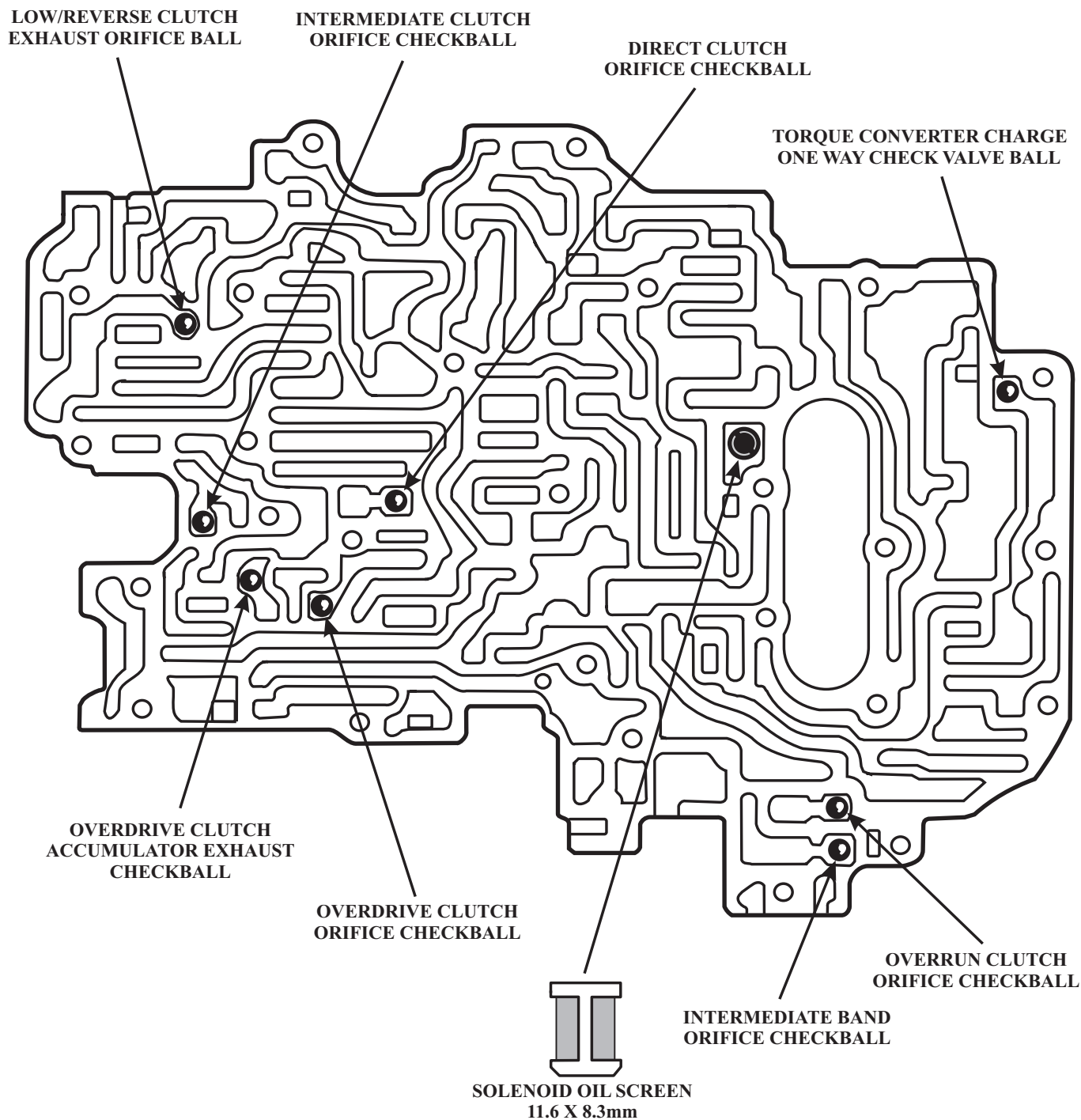




### TOYOTA A343F SERIES TRANSMISSIONS

#### A343F TOYOTA LANDCRUISER 1995

#### "UPPER" VALVE BODY A343F MODELS

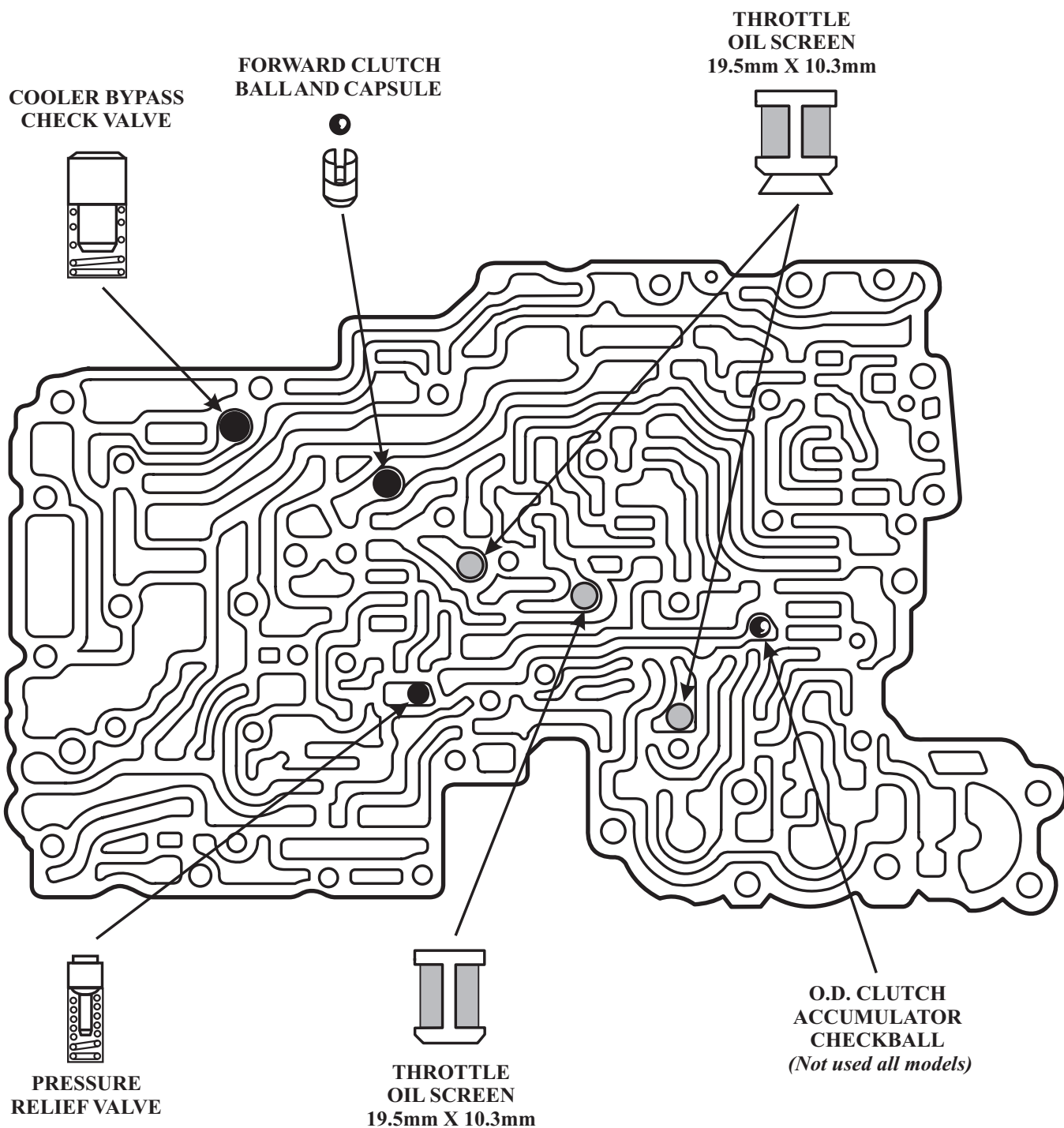




### TOYOTA A343F SERIES TRANSMISSIONS

#### A343F TOYOTA LANDCRUISER 1995

#### "LOWER" VALVE BODY A343F MODELS

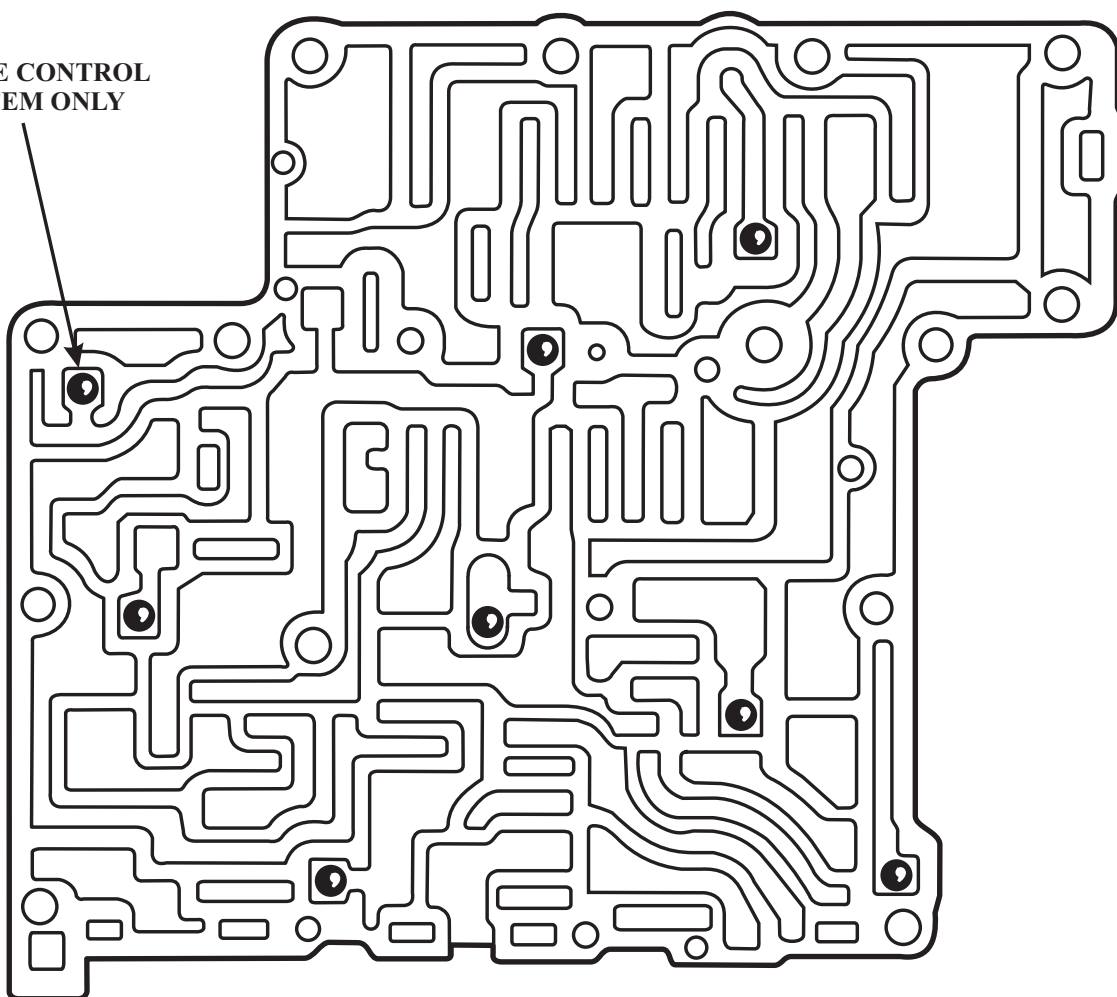


## TOYOTA A440F TRANSMISSIONS

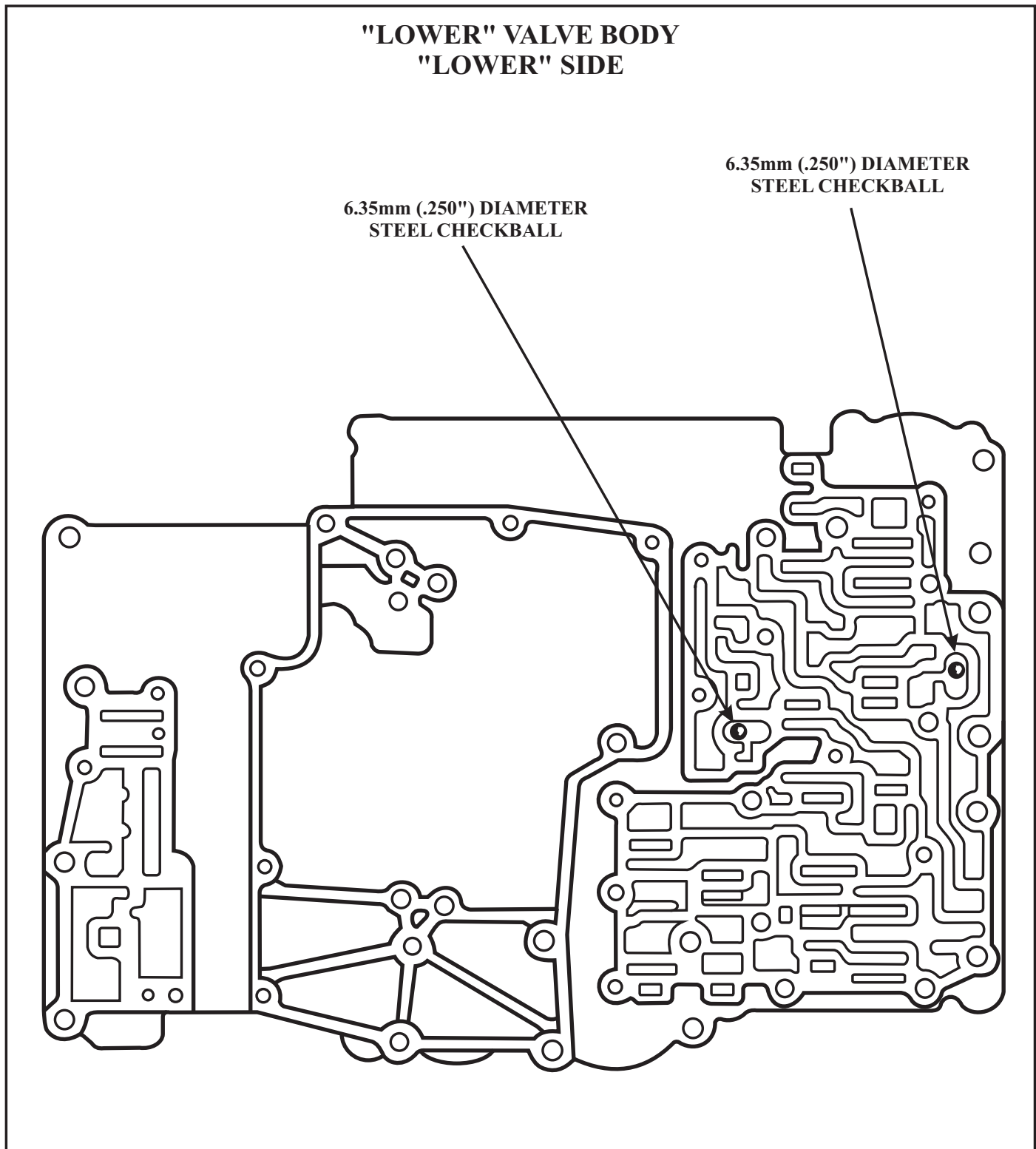
### "REAR UPPER" VALVE BODY CHECKBALL LOCATIONS

REQUIRES SEVEN (7) CHECKBALLS  
6.35mm (.250") DIAMETER ON MODELS  
WITHOUT CRUISE CONTROL SYSTEM

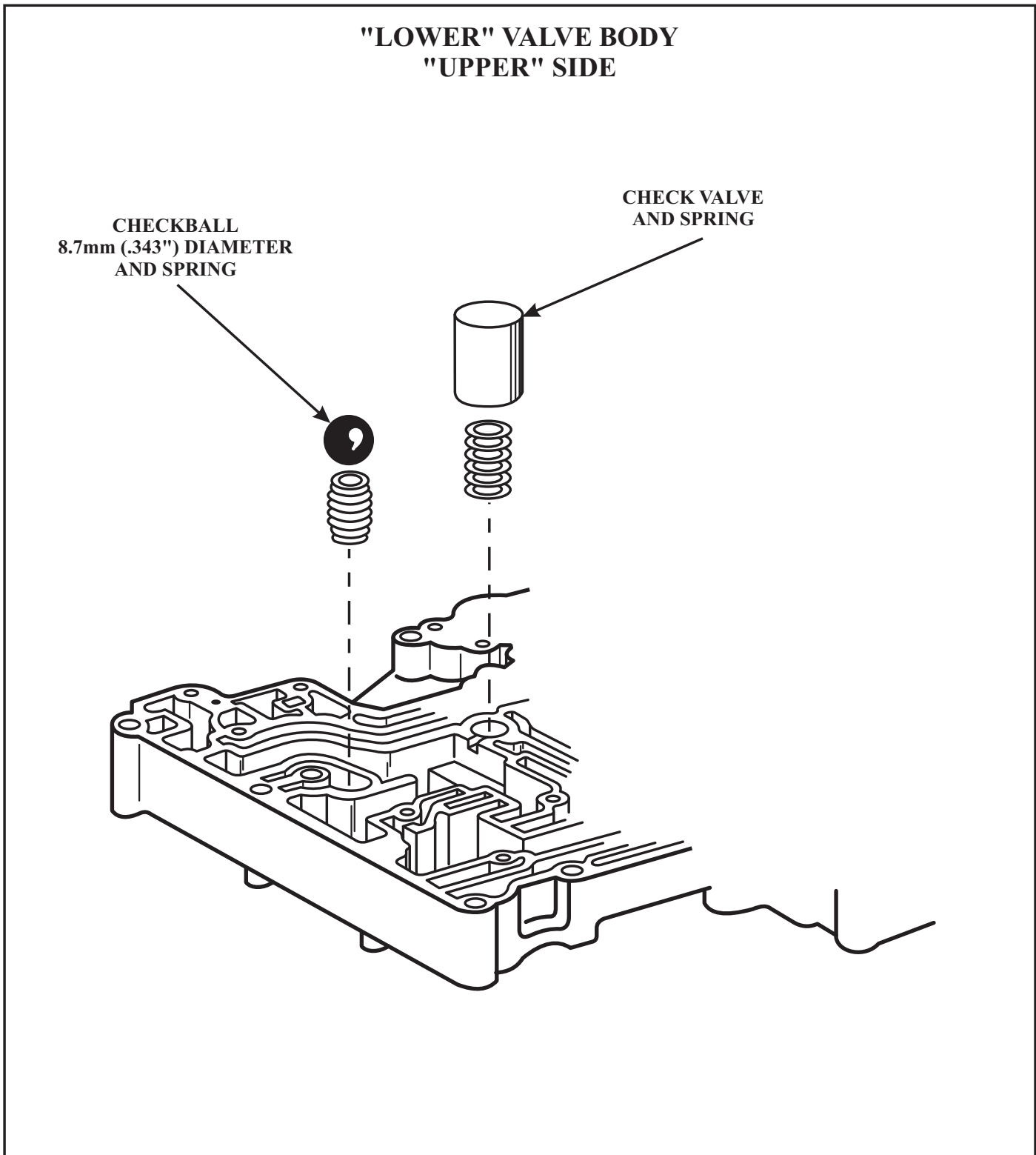
CRUISE CONTROL  
SYSTEM ONLY



### TOYOTA A440F TRANSMISSION CHECKBALL LOCATIONS



## TOYOTA A440F TRANSMISSION CHECKBALL AND CHECK VALVE LOCATIONS

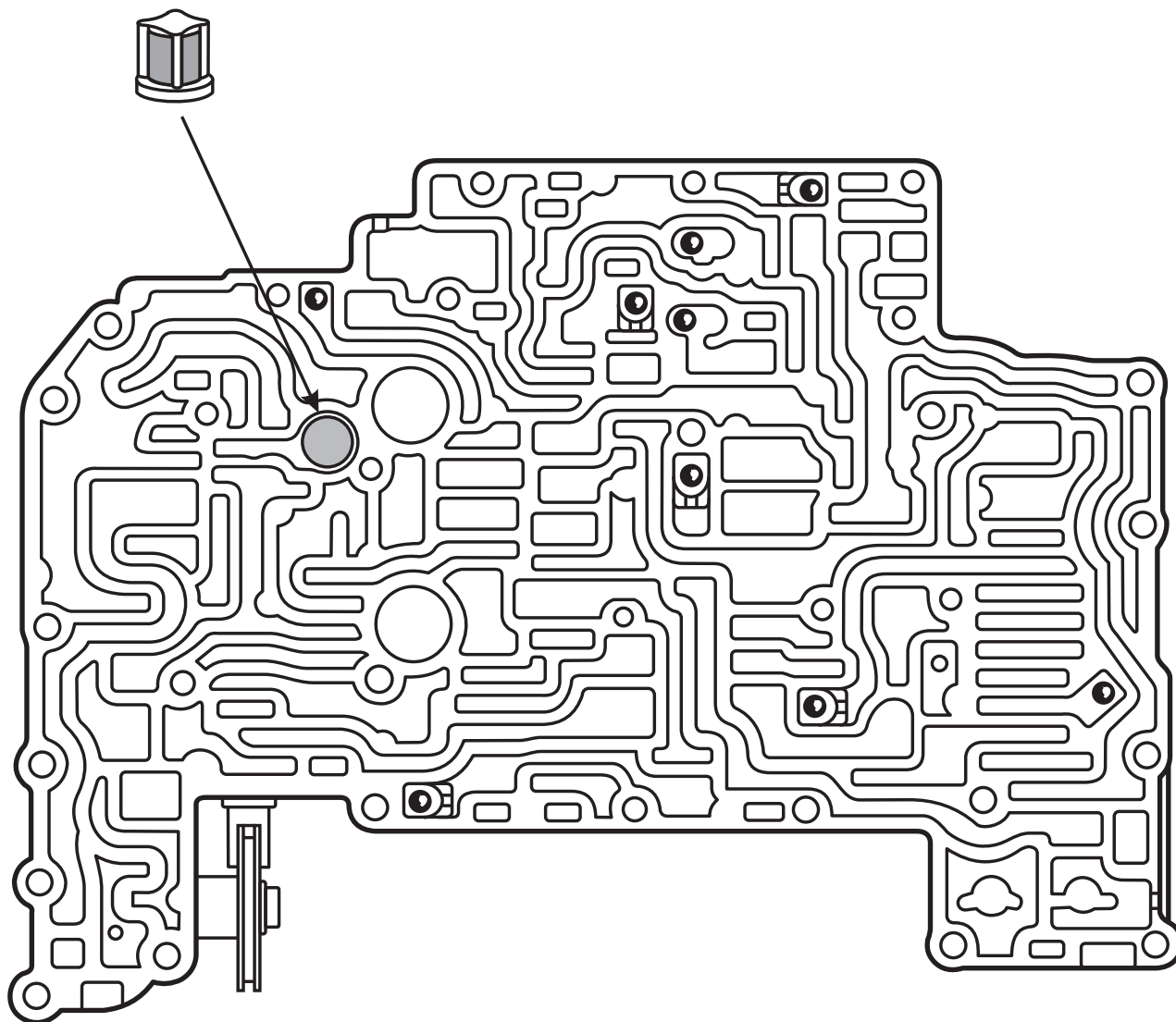


**TOYOTA A442F TRANSMISSIONS**  
**CHECKBALL LOCATIONS**

**"UPPER" VALVE BODY**

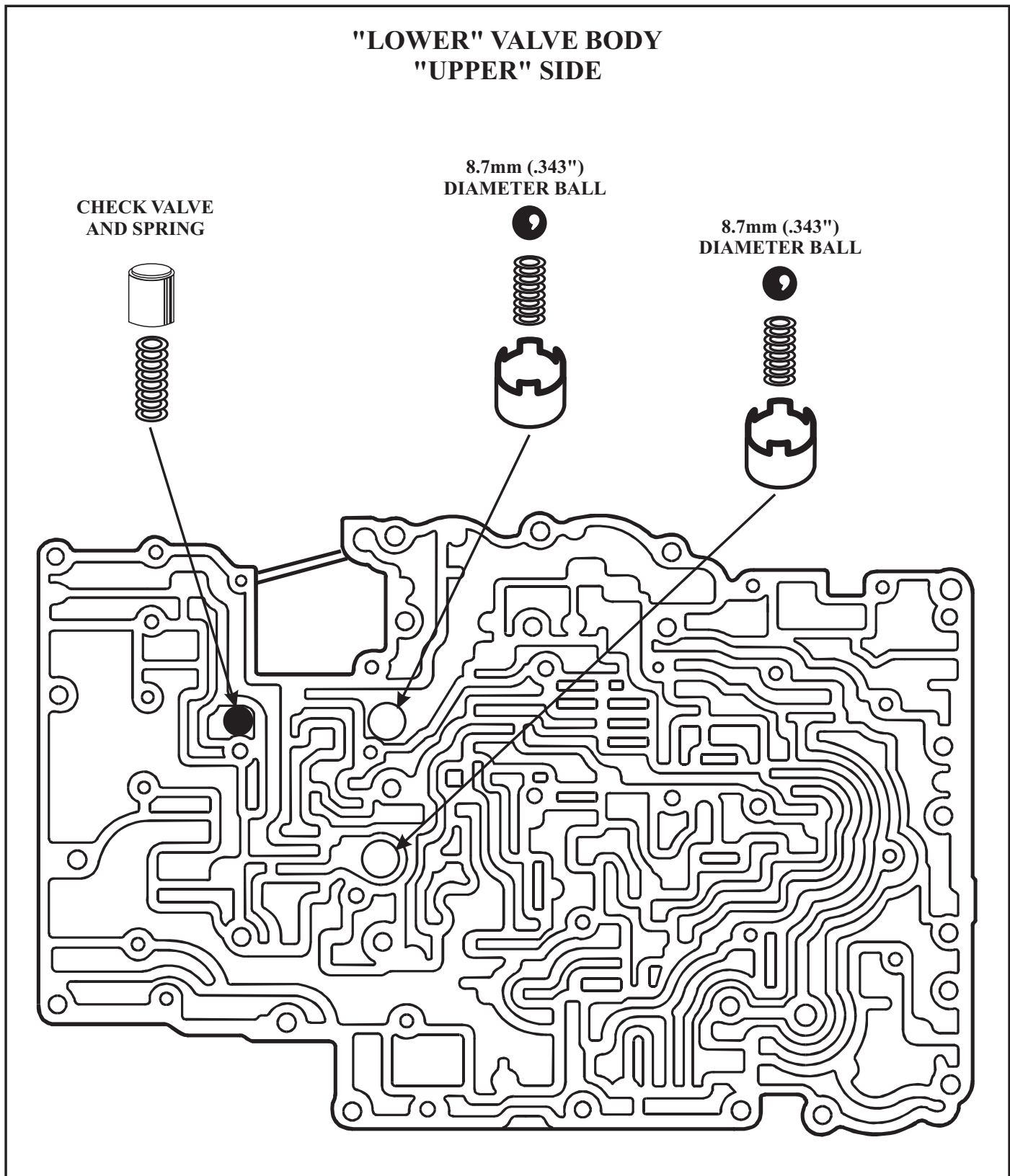
**REQUIRES NINE (9) STEEL CHECKBALLS**  
**6.35mm (.250") IN DIAMETER IN THE**  
**LOCATIONS SHOWN BELOW**

**OIL SCREEN**



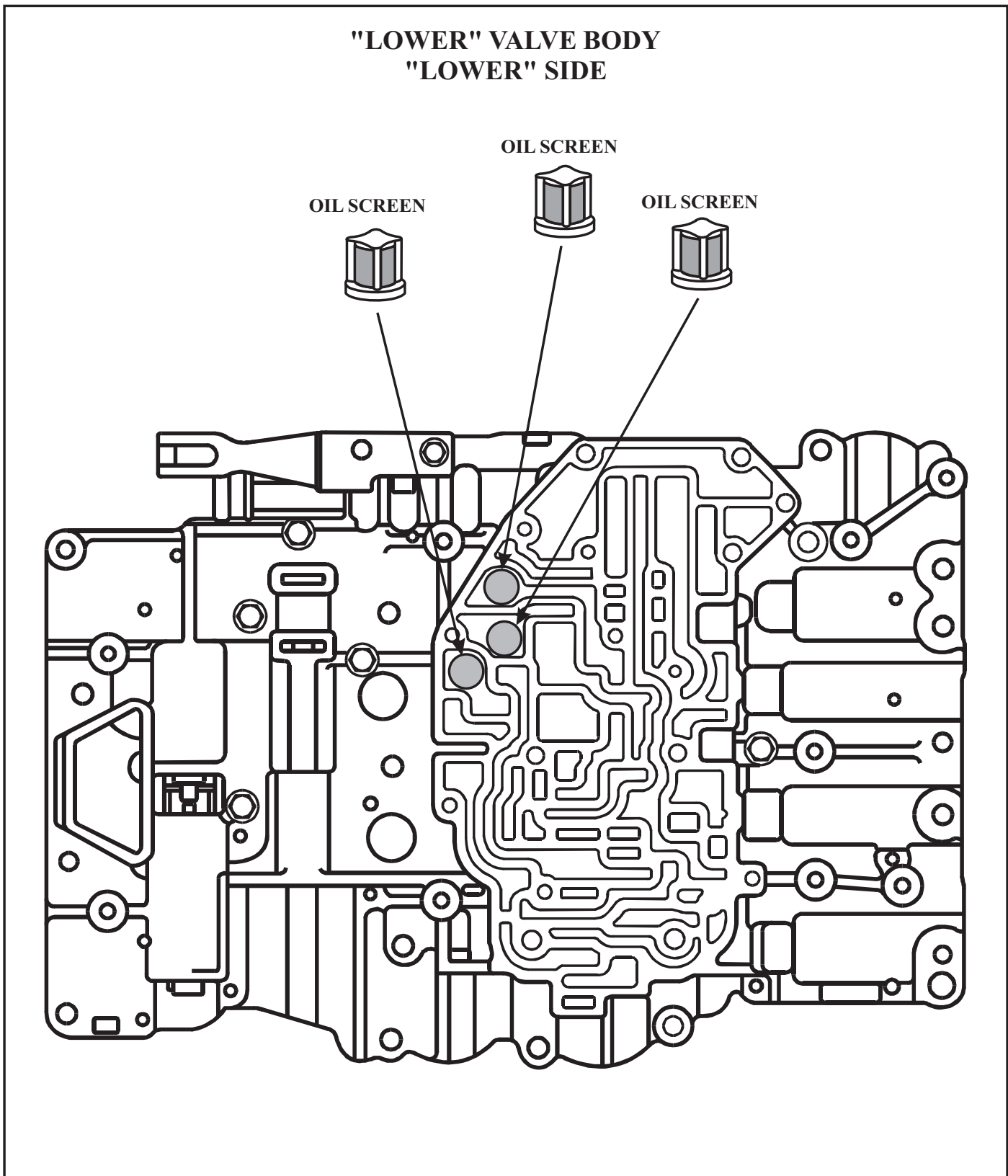
## TOYOTA A442F TRANSMISSIONS

### CHECKBALL AND CHECK VALVE LOCATIONS



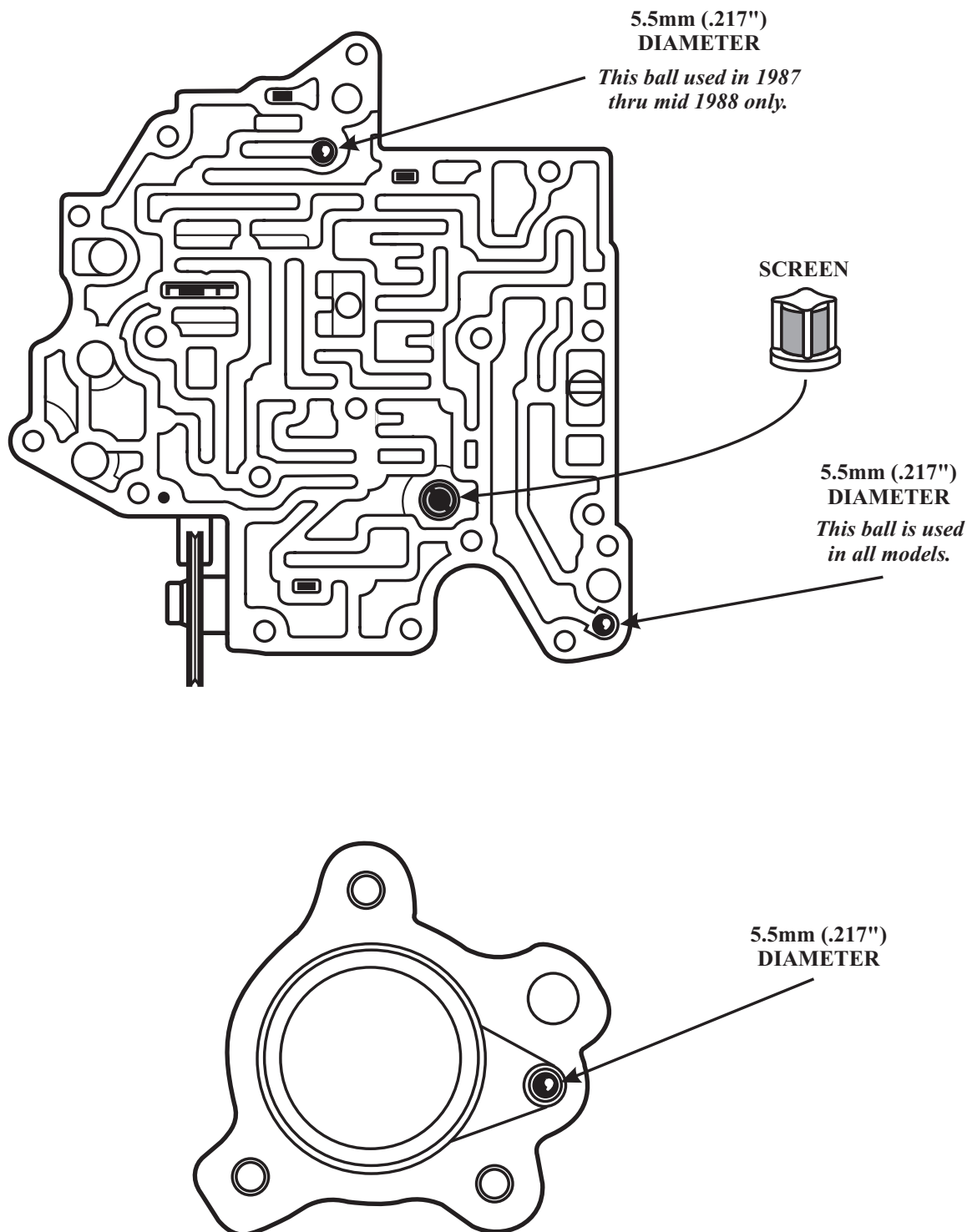
### TOYOTA A442F TRANSMISSIONS

#### OIL SCREEN LOCATIONS



### TOYOTA A540E TRANSMISSIONS

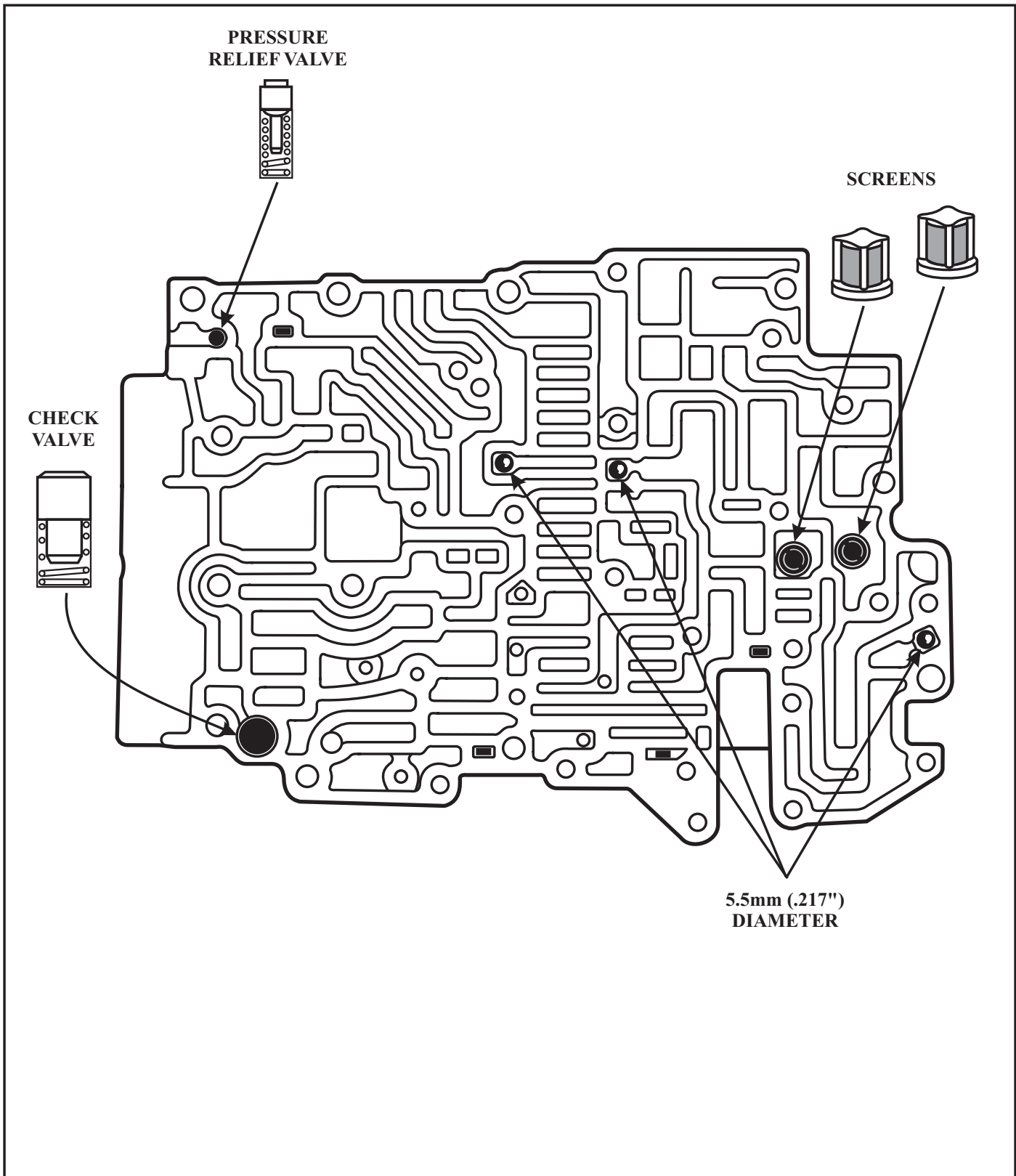
#### "UPPER" VALVE BODY AND ACCUMULATOR HOUSING





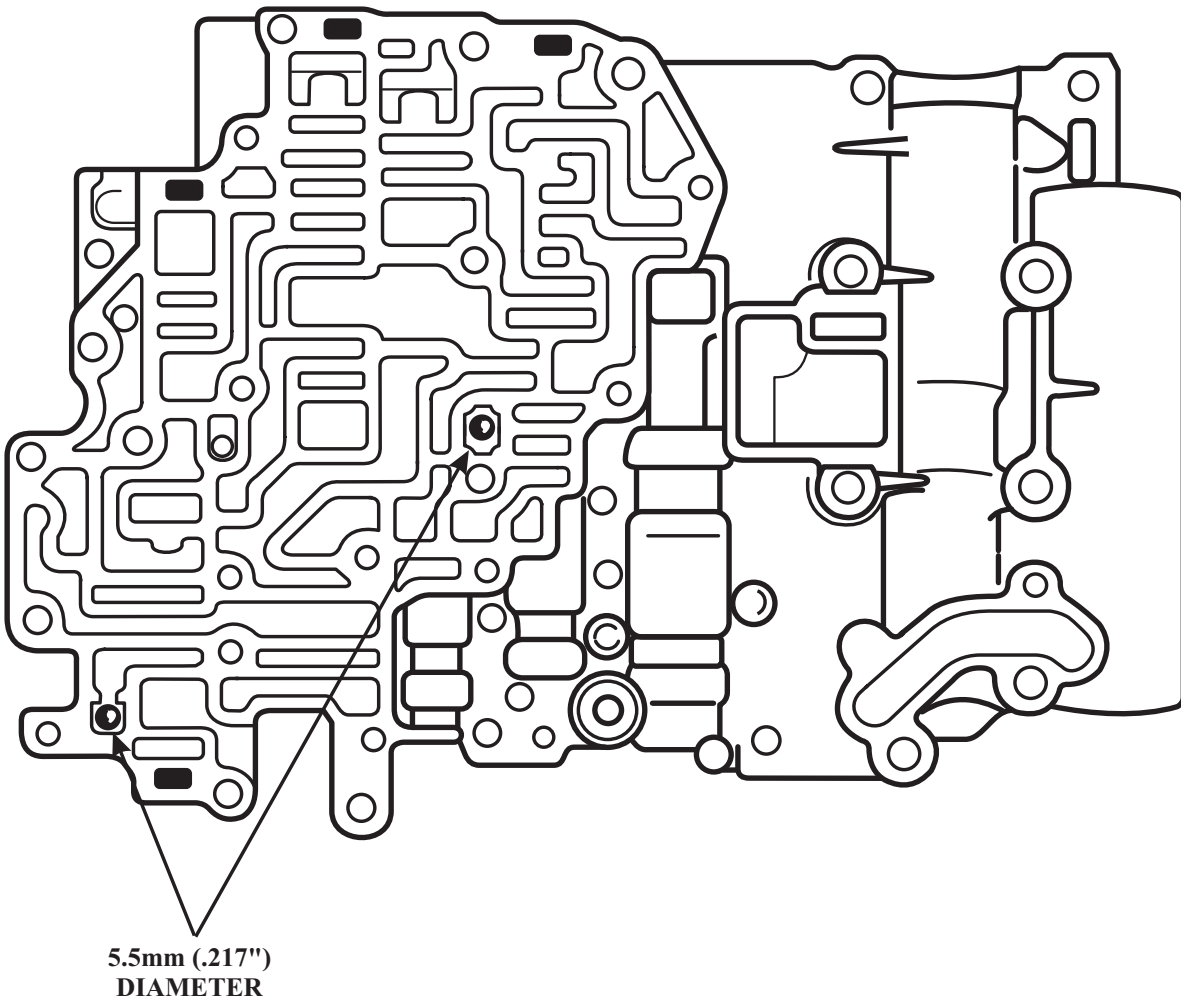
## TOYOTA A540E TRANSMISSIONS

"LOWER" VALVE BODY, "CASE" SIDE



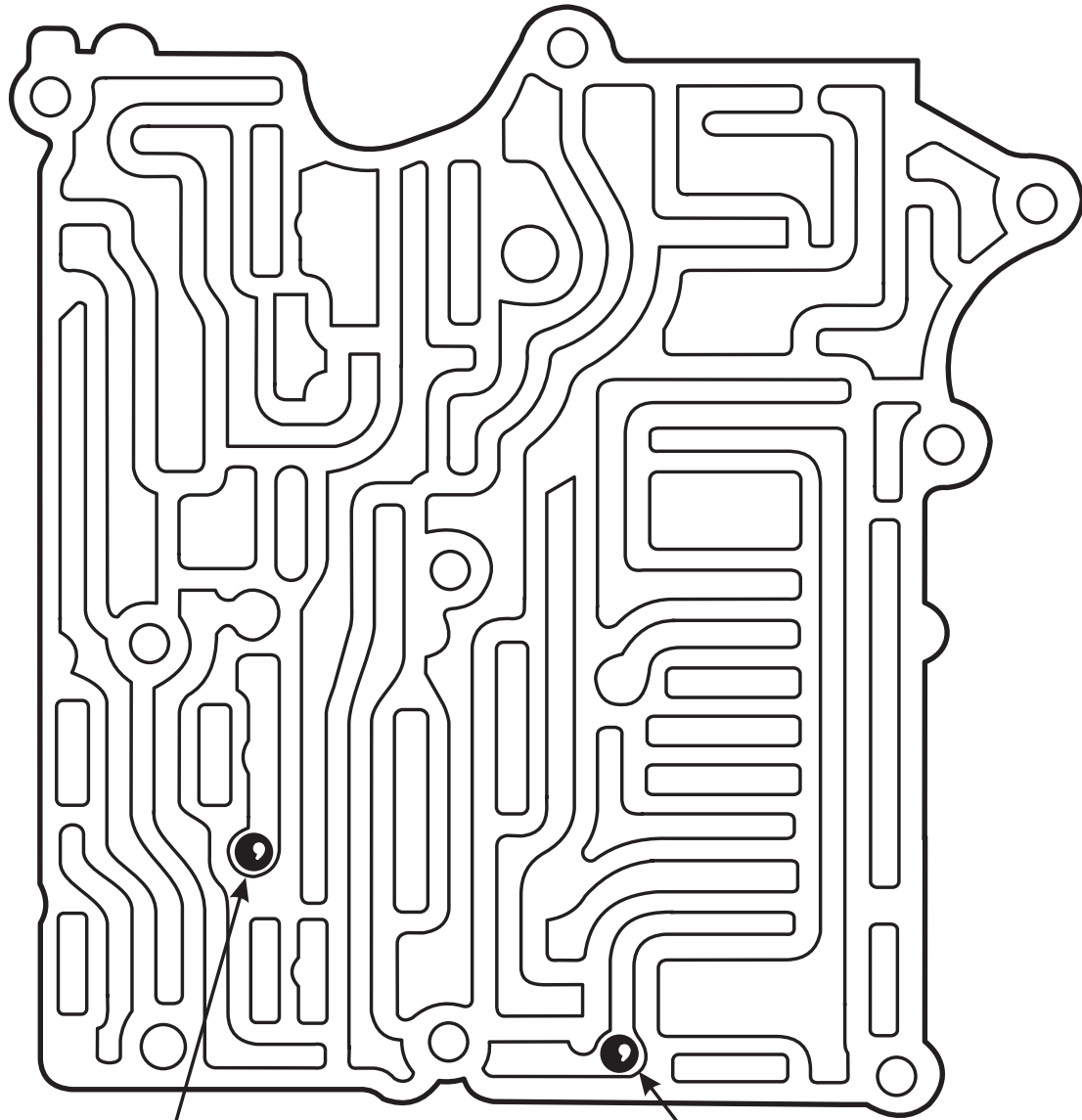
## TOYOTA A540E TRANSMISSIONS

### "LOWER" VALVE BODY, "FILTER" SIDE



## VOLVO BW55 TRANSMISSIONS

### "UPPER" VALVE BODY CHECKBALL LOCATIONS

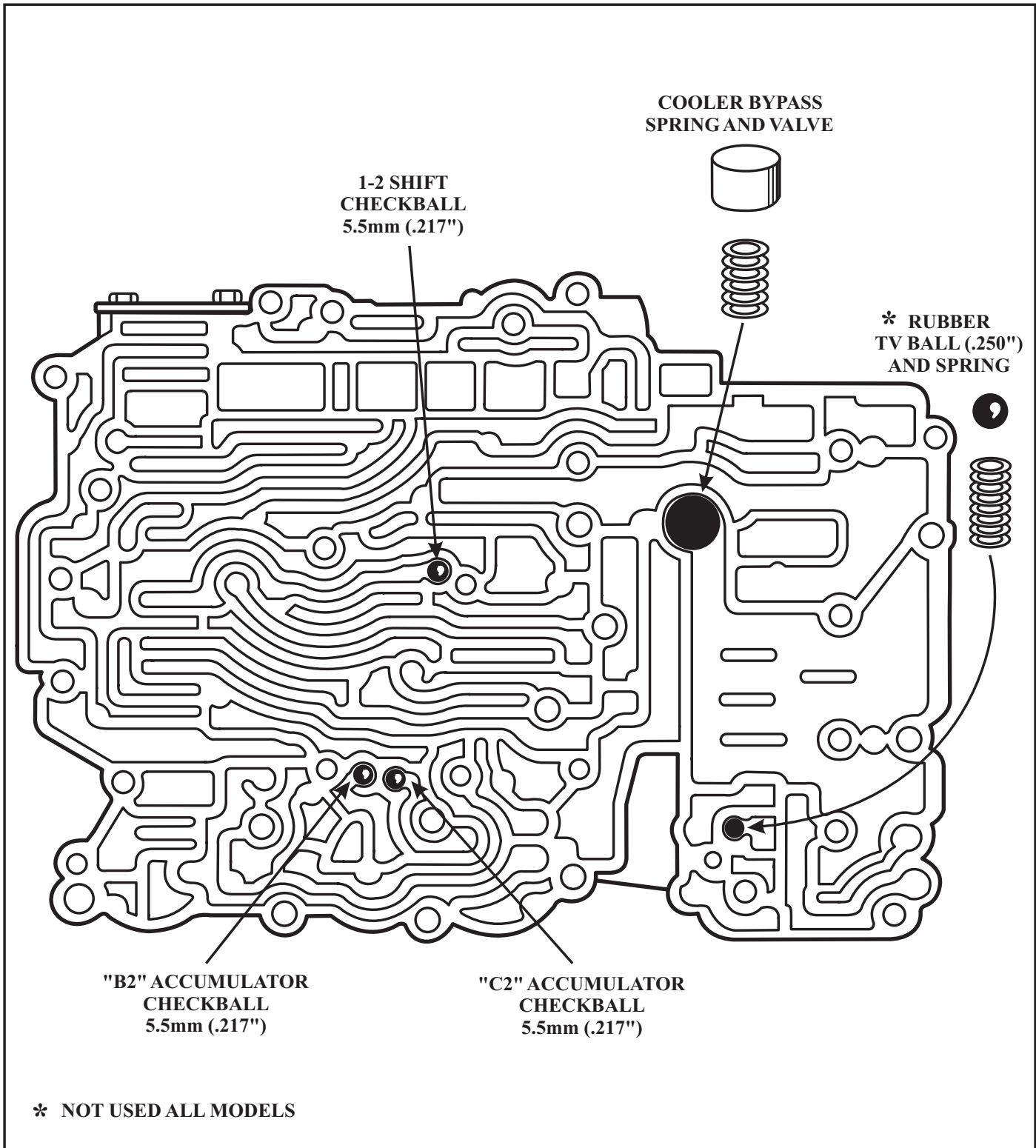


\* .217" RUBBER  
"B1" ACCUMULATOR  
CHECKBALL

.217" RUBBER  
"C1" ACCUMULATOR  
CHECKBALL

\* DELETED IN LATER MODELS

## VOLVO BW55 "LOWER" VALVE BODY "CASE SIDE" CHECKBALL LOCATION



**VOLVO BW55 THROTTLE VALVE BODY**  
**CHECKBALL LOCATION**

