



CHECKBALL BOOK *Import Volume II*

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*Updated
April, 2004*

INTRODUCTION

IMPORT CHECKBALL BOOK VOLUME II

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 models 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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CHECKBALL BOOK *Import Volume II*

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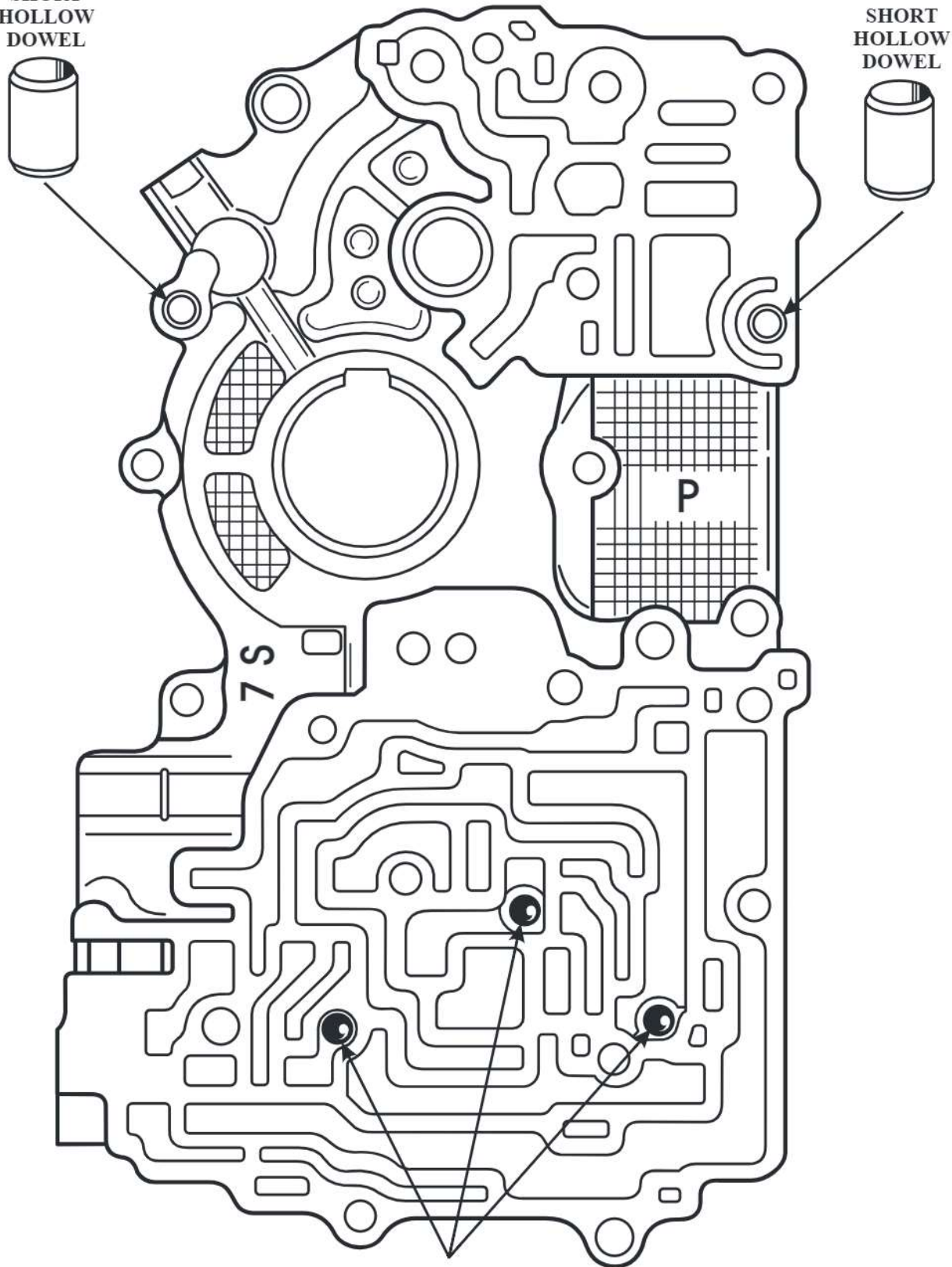
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**ACURA INTEGRA MODEL "CA"
MAIN VALVE BODY "TOP VIEW"**

SHORT
HOLLOW
DOWEL

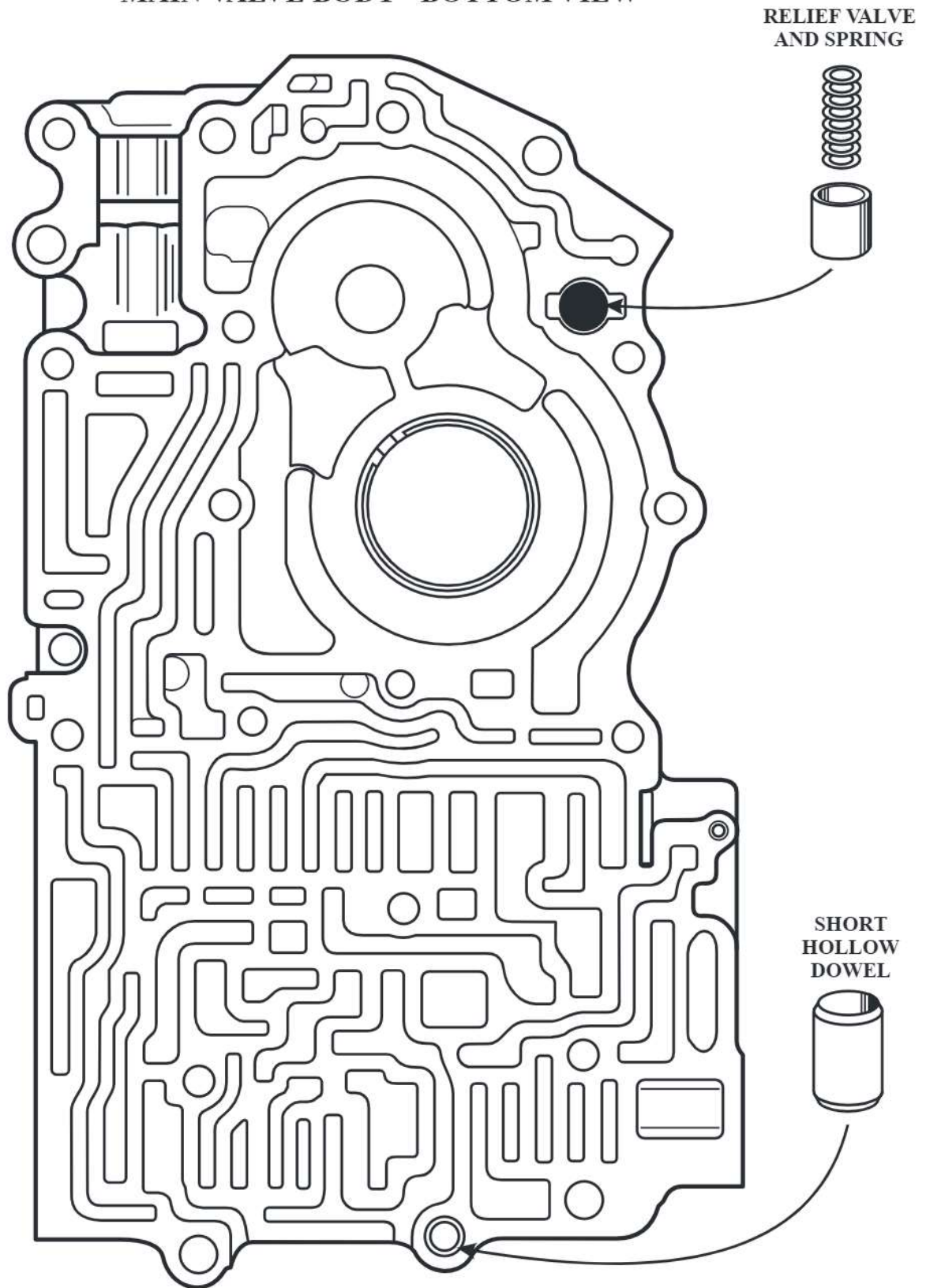
SHORT
HOLLOW
DOWEL



5.5mm (.216") DIAMETER
STEEL CHECKBALLS

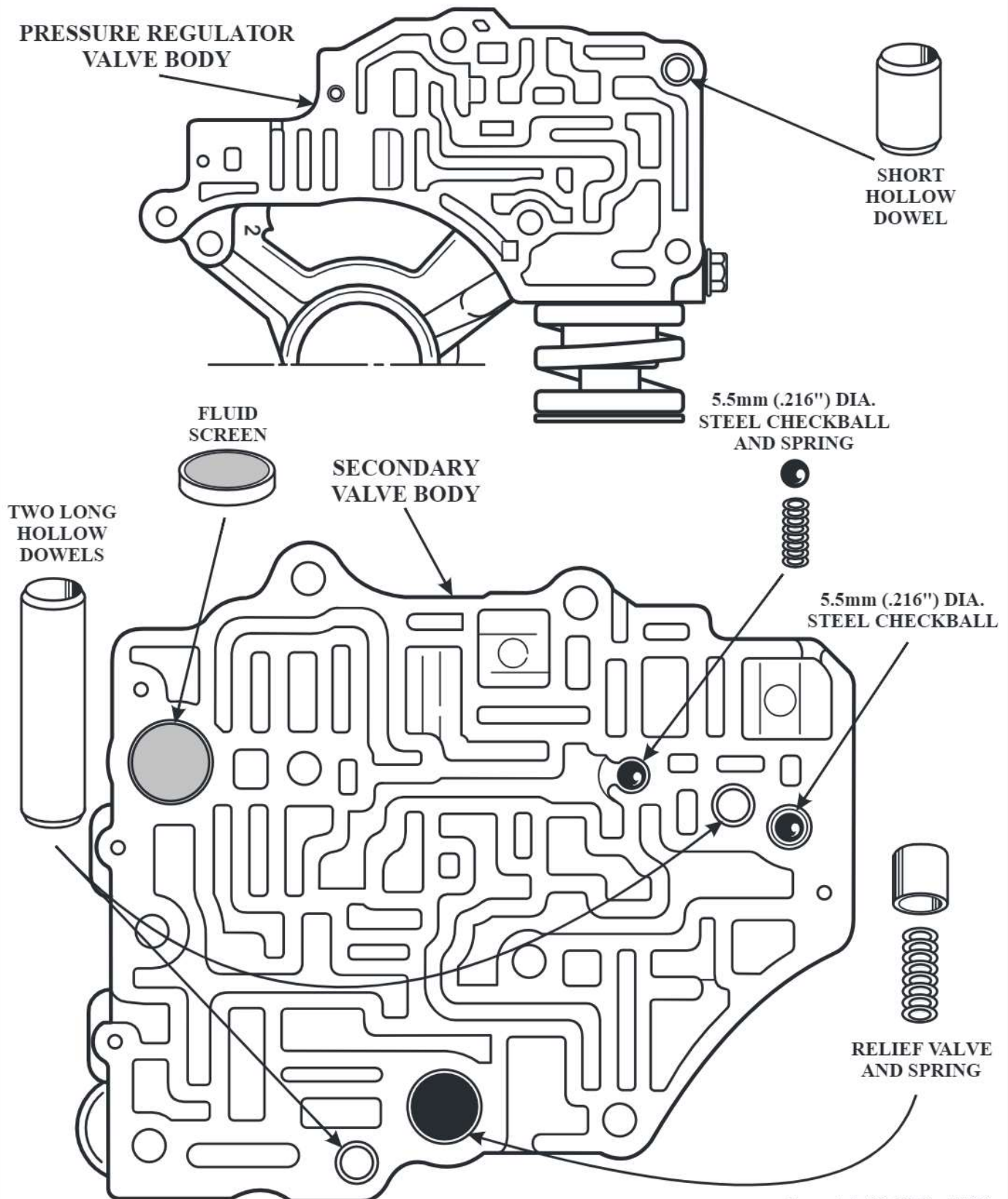
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ACURA INTEGRA MODEL "CA" MAIN VALVE BODY "BOTTOM VIEW"



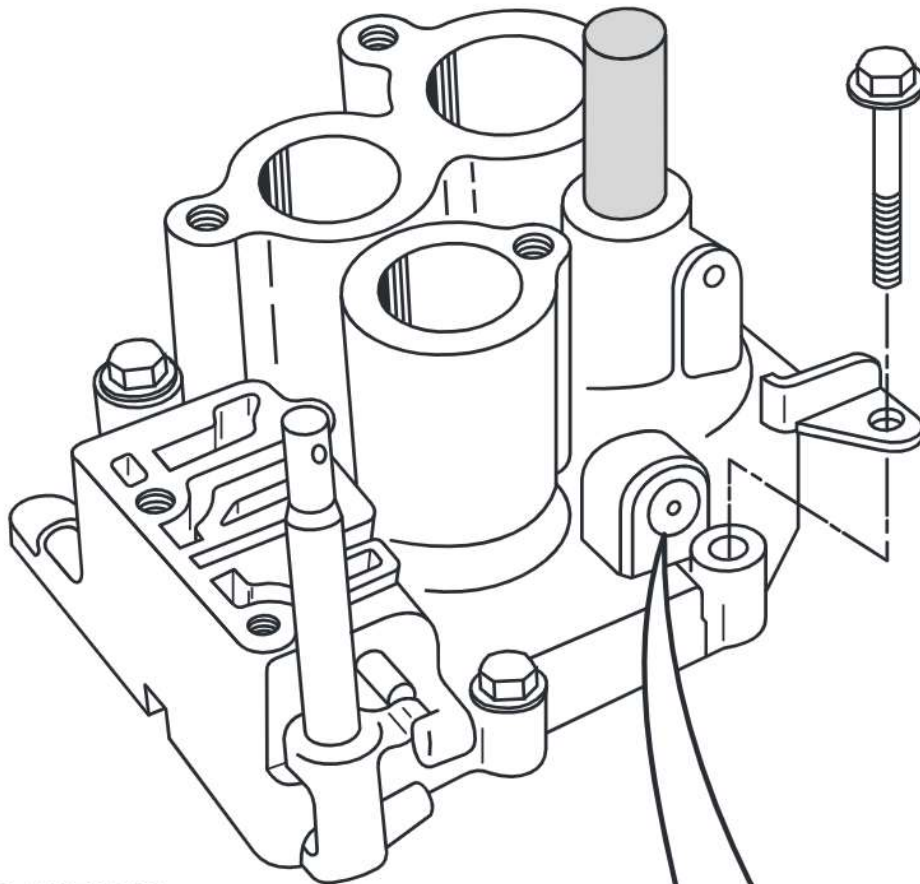
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**ACURA INTEGRA MODEL "CA"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**



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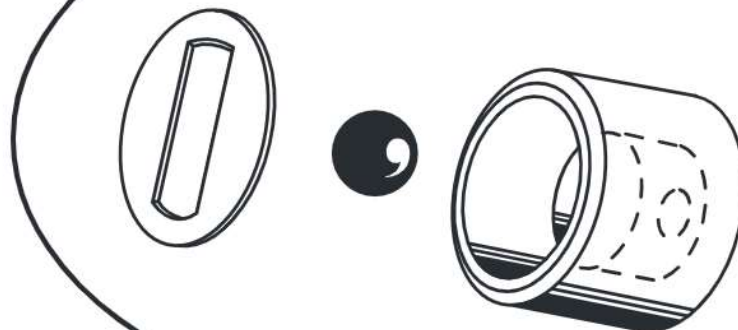
SERVO VALVE BODY



CAUTION:

The Servo Release Check Valve is staked into the servo valve body as shown, but it can fall out or can be blown out during cleaning process.

SERVO RELEASE CHECK VALVE



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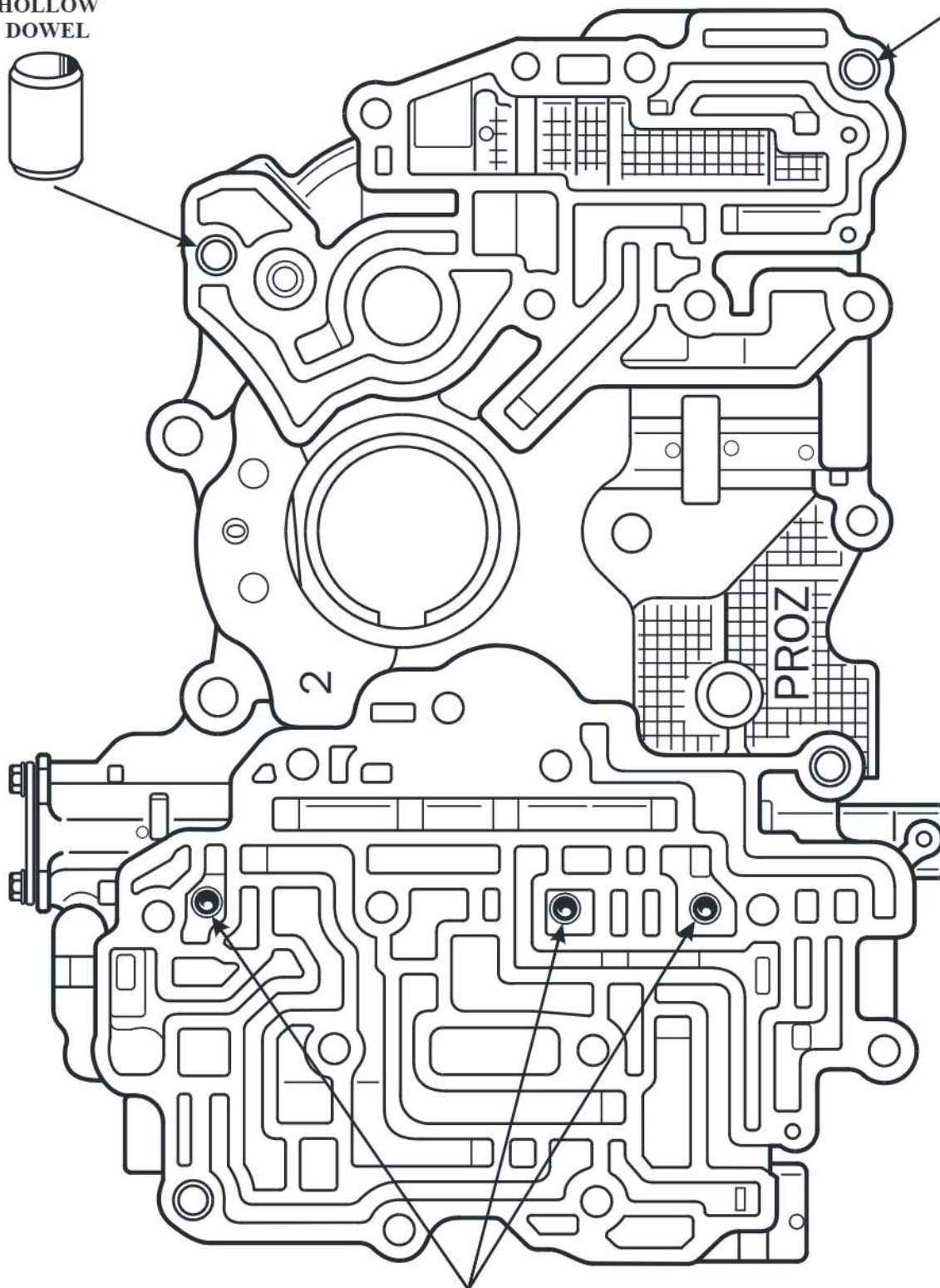
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

**ACURA INTEGRA MODEL "MPRA"
MAIN VALVE BODY "TOP VIEW"**

SHORT
HOLLOW
DOWEL



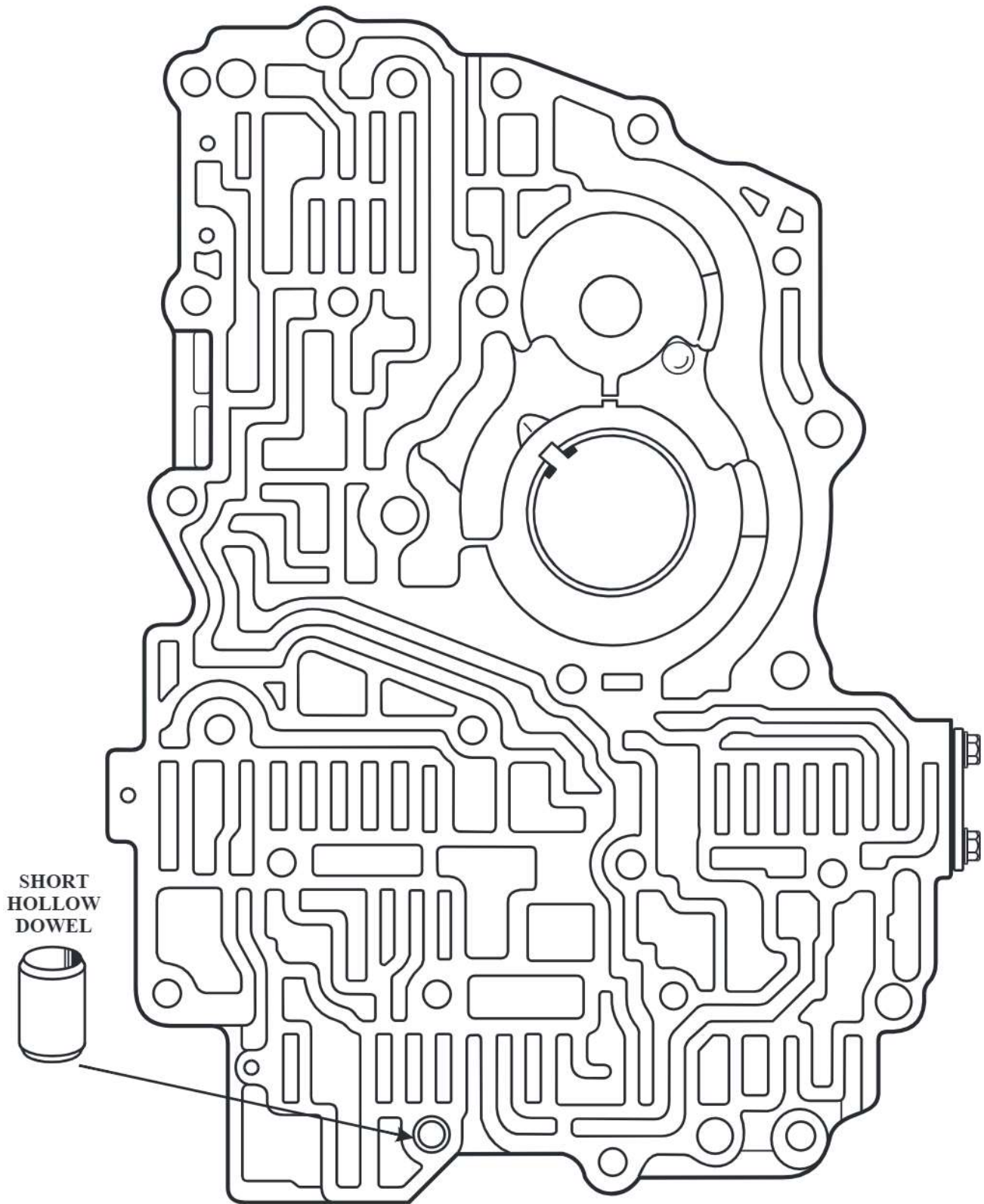
SHORT
HOLLOW
DOWEL



5.5mm (.216") DIAMETER
STEEL CHECKBALLS

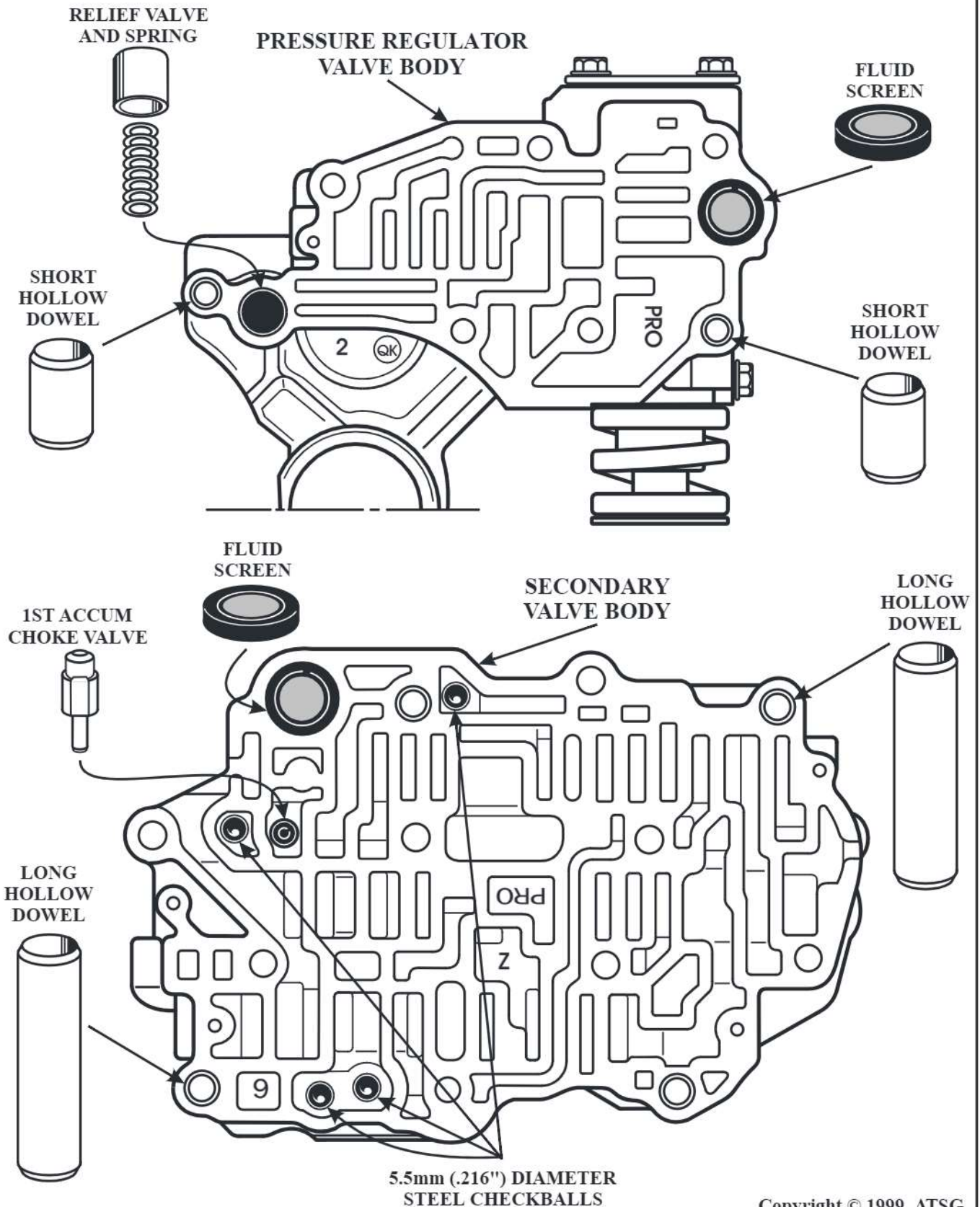
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ACURA INTEGRA MODEL "MPRA" MAIN VALVE BODY "BOTTOM VIEW"



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**ACURA INTEGRA MODEL "MPRA"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**



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We wish to thank the following for supplying the actual valve bodies that have made these illustrations possible.



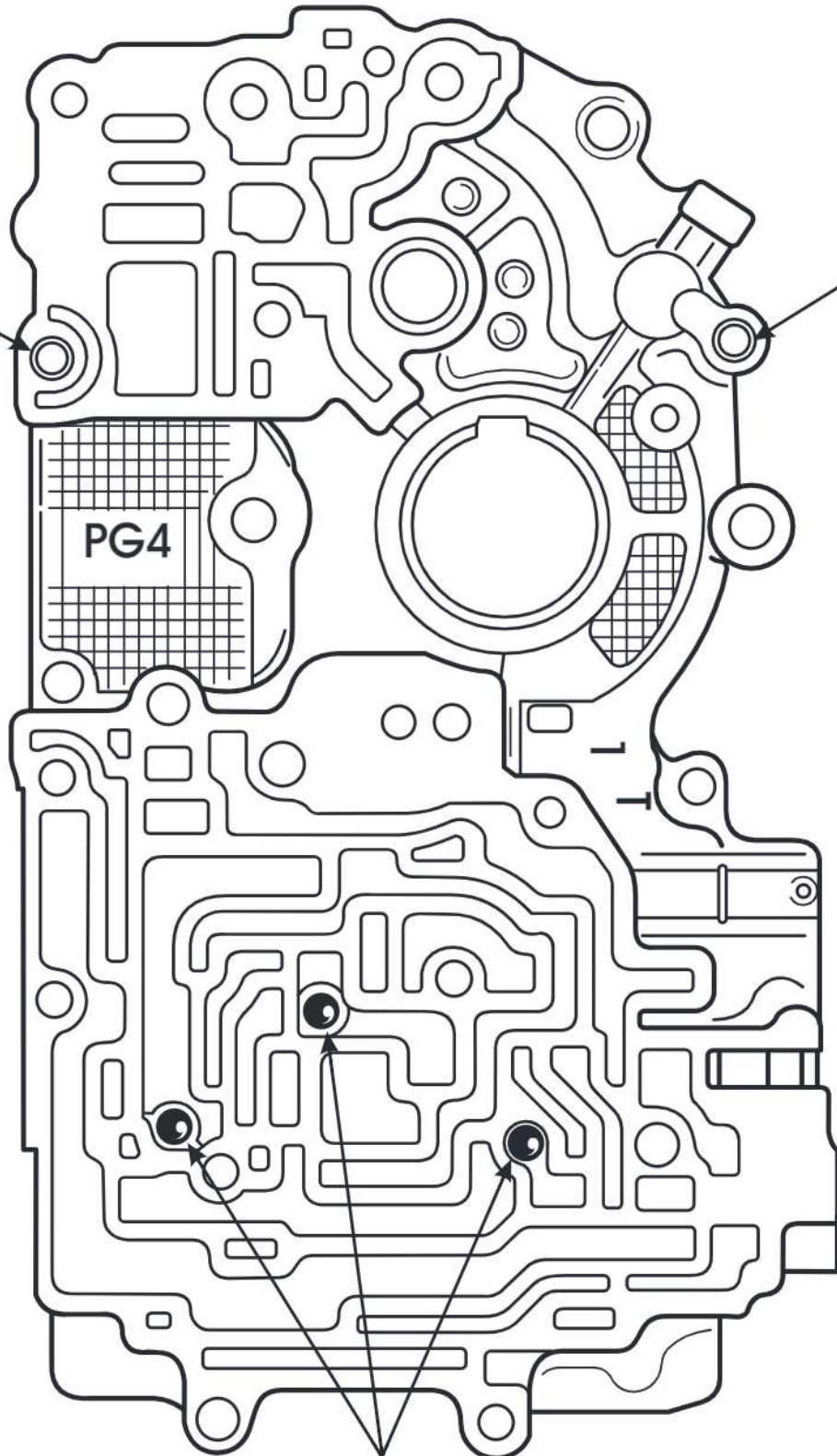
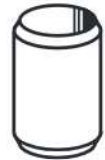
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MIAMI, FLORIDA 33135
TOLL FREE (800) 966-4621
PHONE (305) 642-4621
FAX (305) 541-1444

**ACURA LEGEND MODEL "G4"
MAIN VALVE BODY "TOP VIEW"**

SHORT
HOLLOW
DOWEL



SHORT
HOLLOW
DOWEL



5.5mm (.216") DIAMETER
STEEL CHECKBALLS

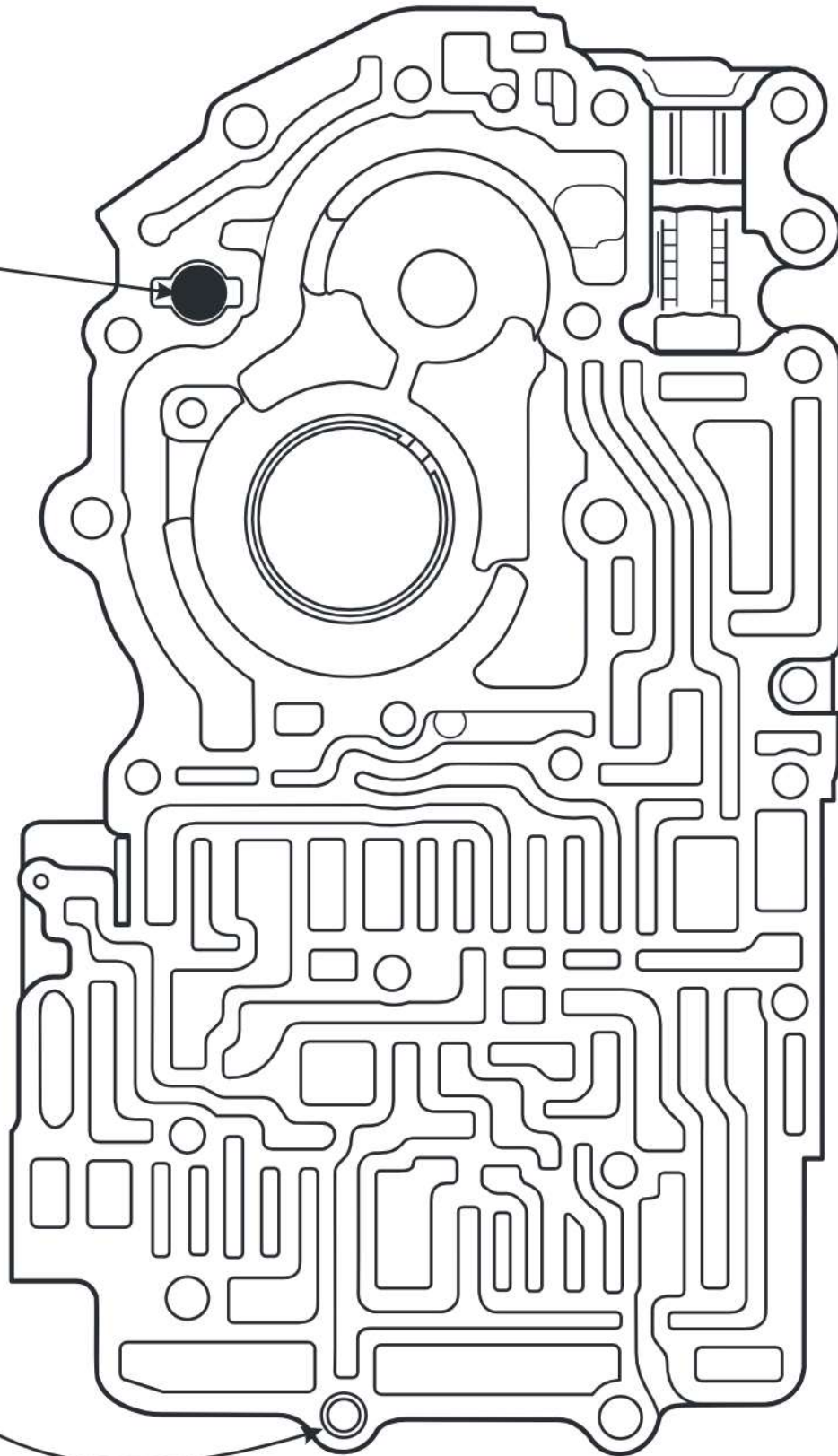
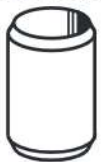
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ACURA LEGEND MODEL "G4" MAIN VALVE BODY "BOTTOM VIEW"

RELIEF VALVE
AND SPRING

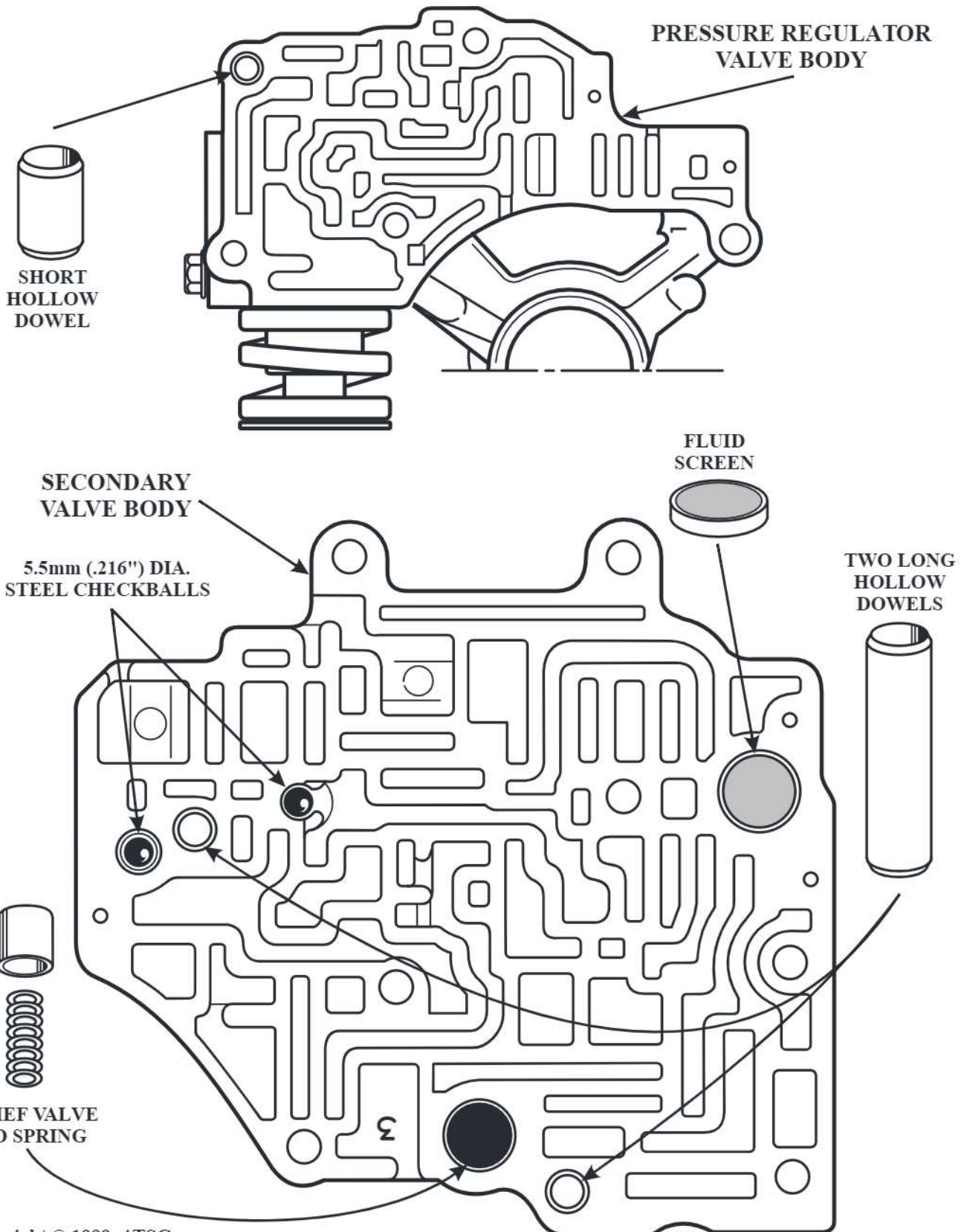


SHORT
HOLLOW
DOWEL



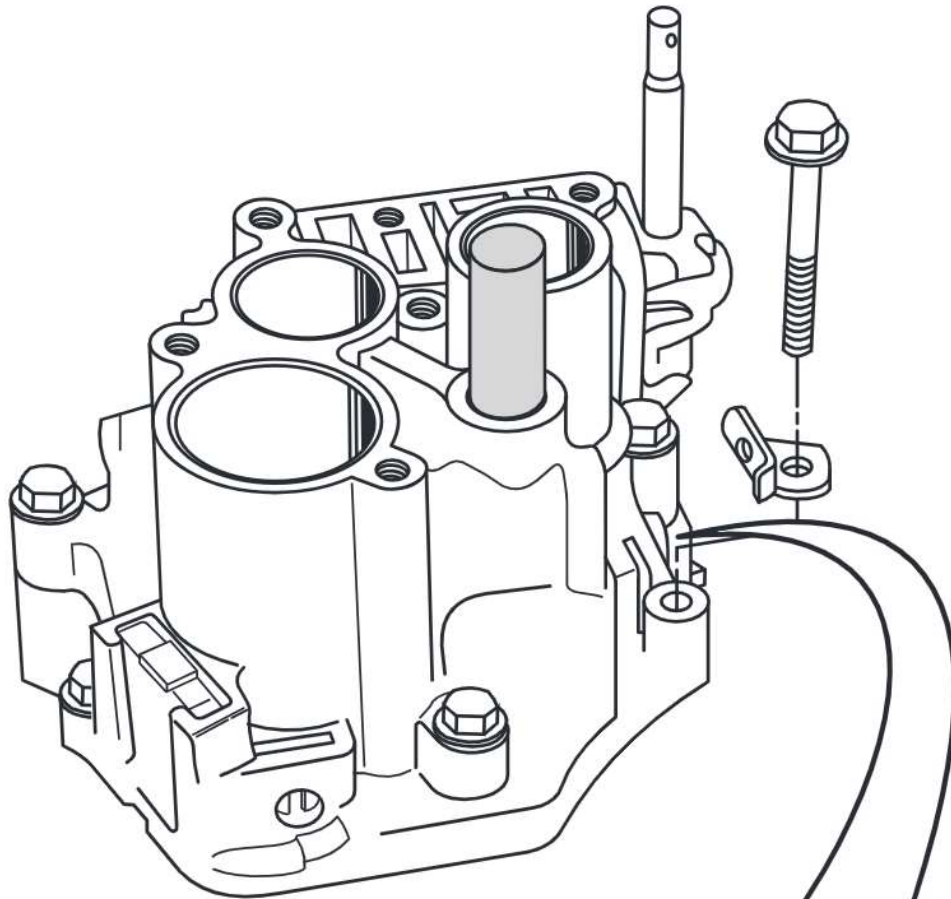
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**ACURA LEGEND MODEL "G4"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**



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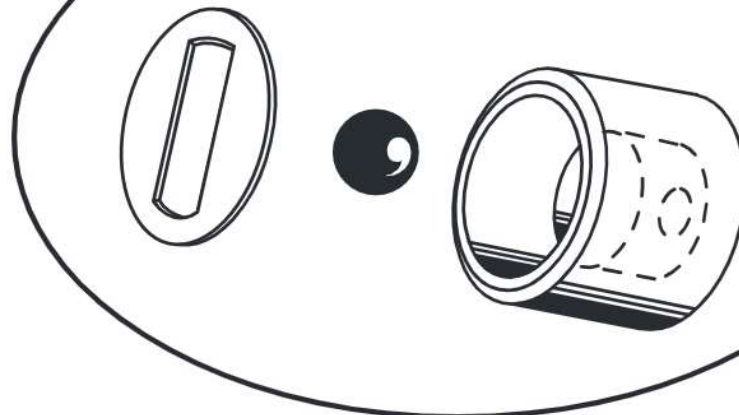
SERVO VALVE BODY



CAUTION:

The Servo Release Check Valve is staked into the servo valve body as shown, but it can fall out or can be blown out during cleaning process.

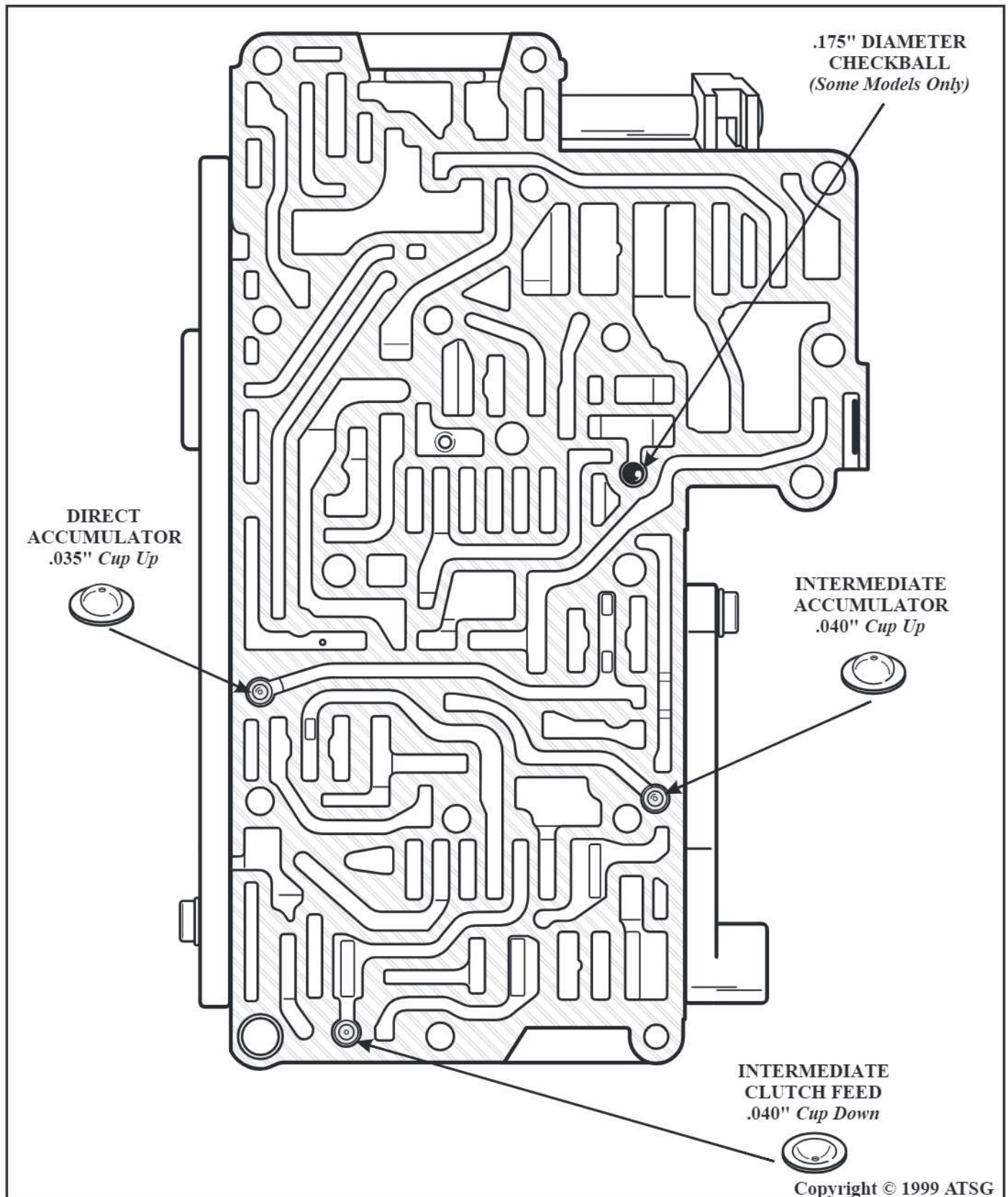
SERVO RELEASE CHECK VALVE



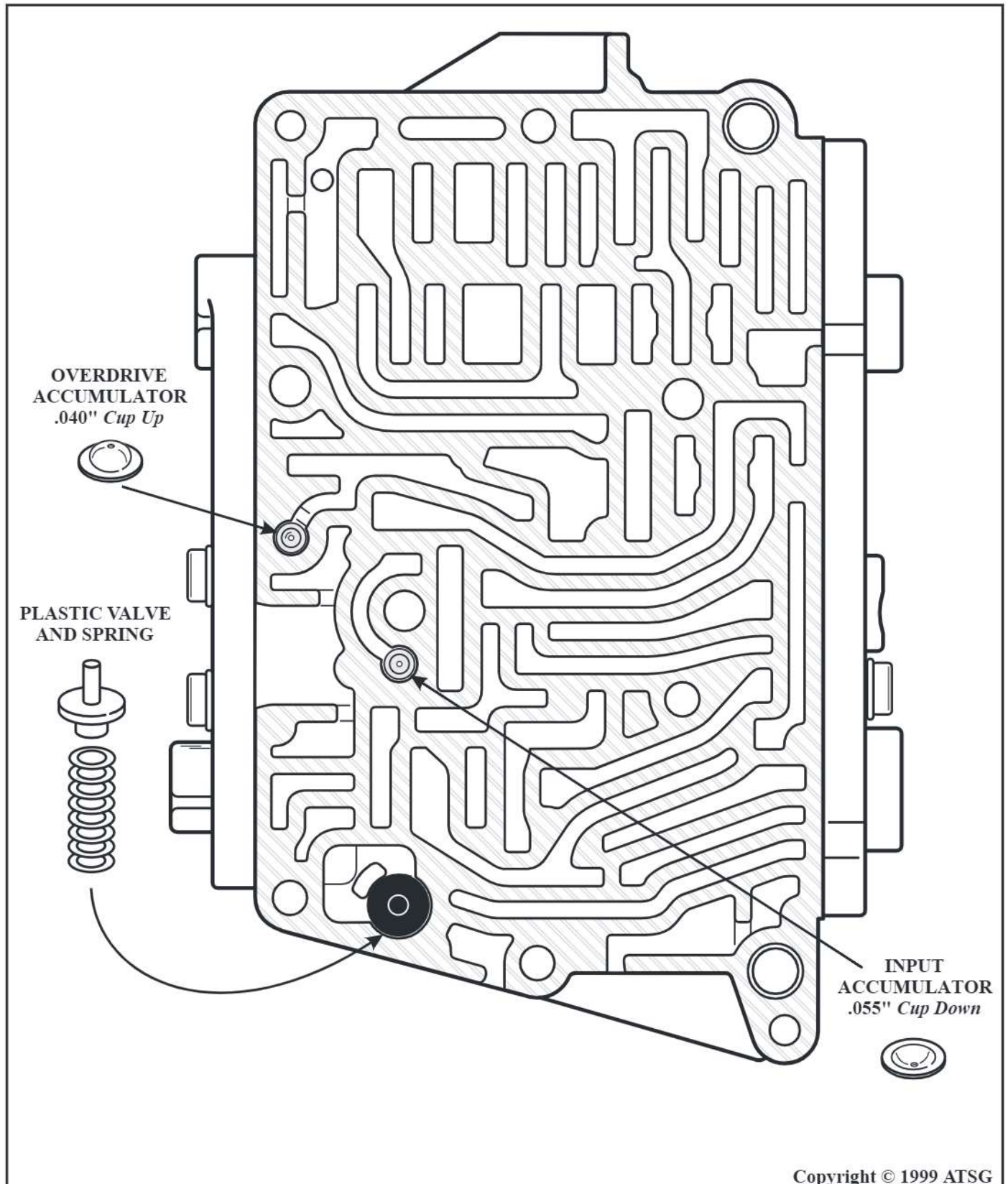
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NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

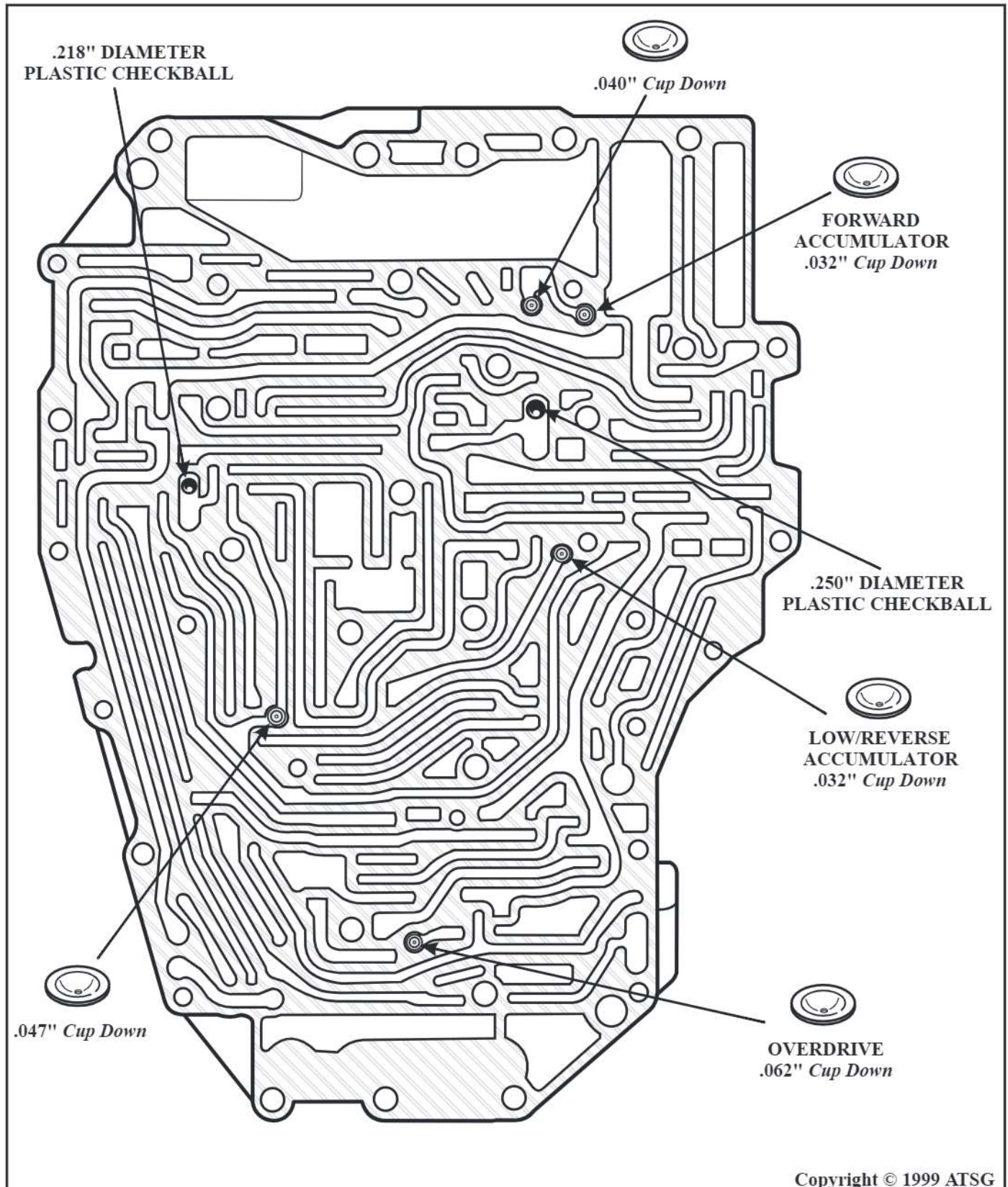
BMW ELECTRONIC ZF4HP-22 (4 SOLENOID ONLY) "LOWER FRONT" VALVE BODY



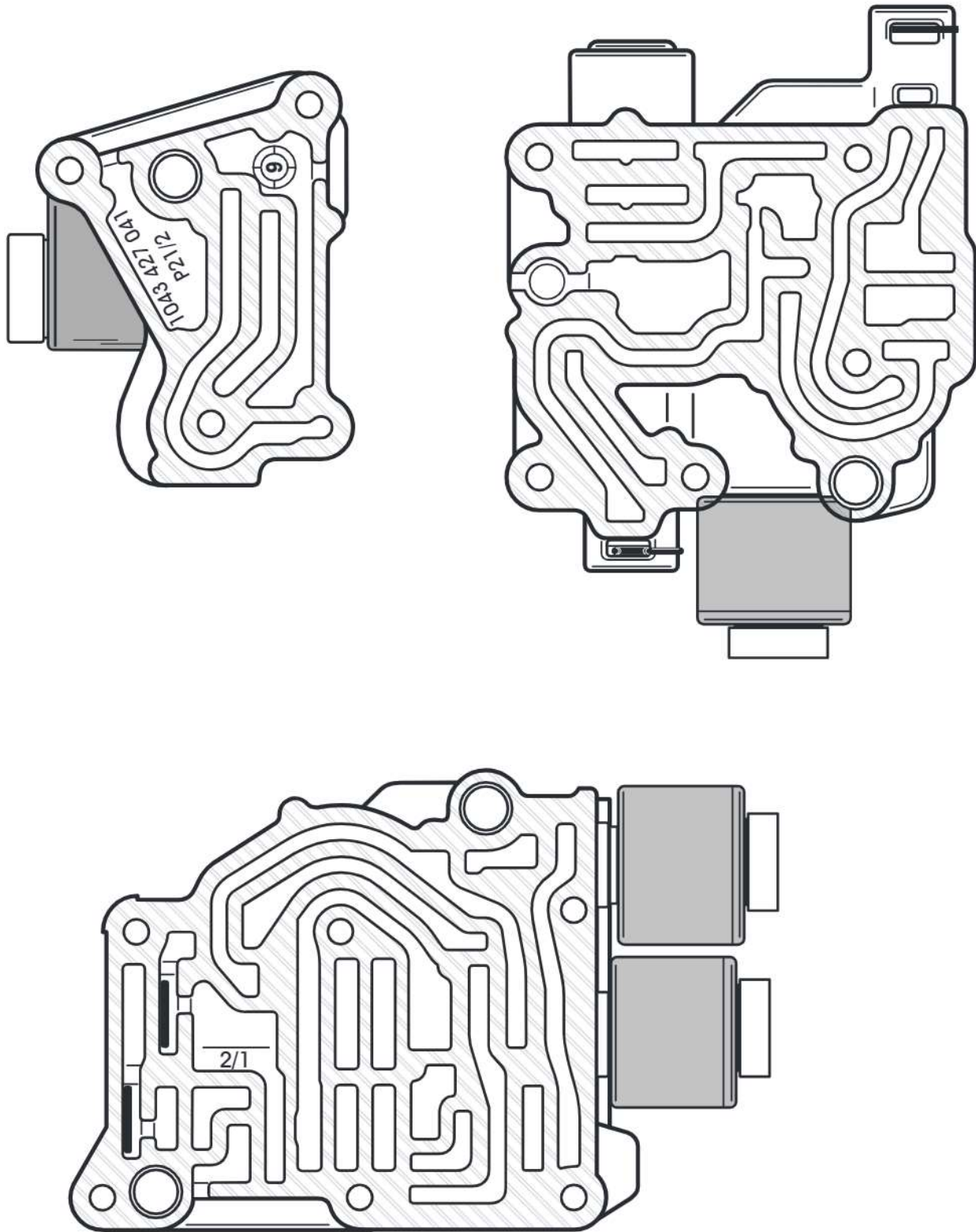
BMW ELECTRONIC ZF4HP-22 (4SOLENOID ONLY) "LOWER REAR" VALVE BODY



BMW ELECTRONIC ZF4HP-22 (4 SOLENOID ONLY) CHANNEL PLATE

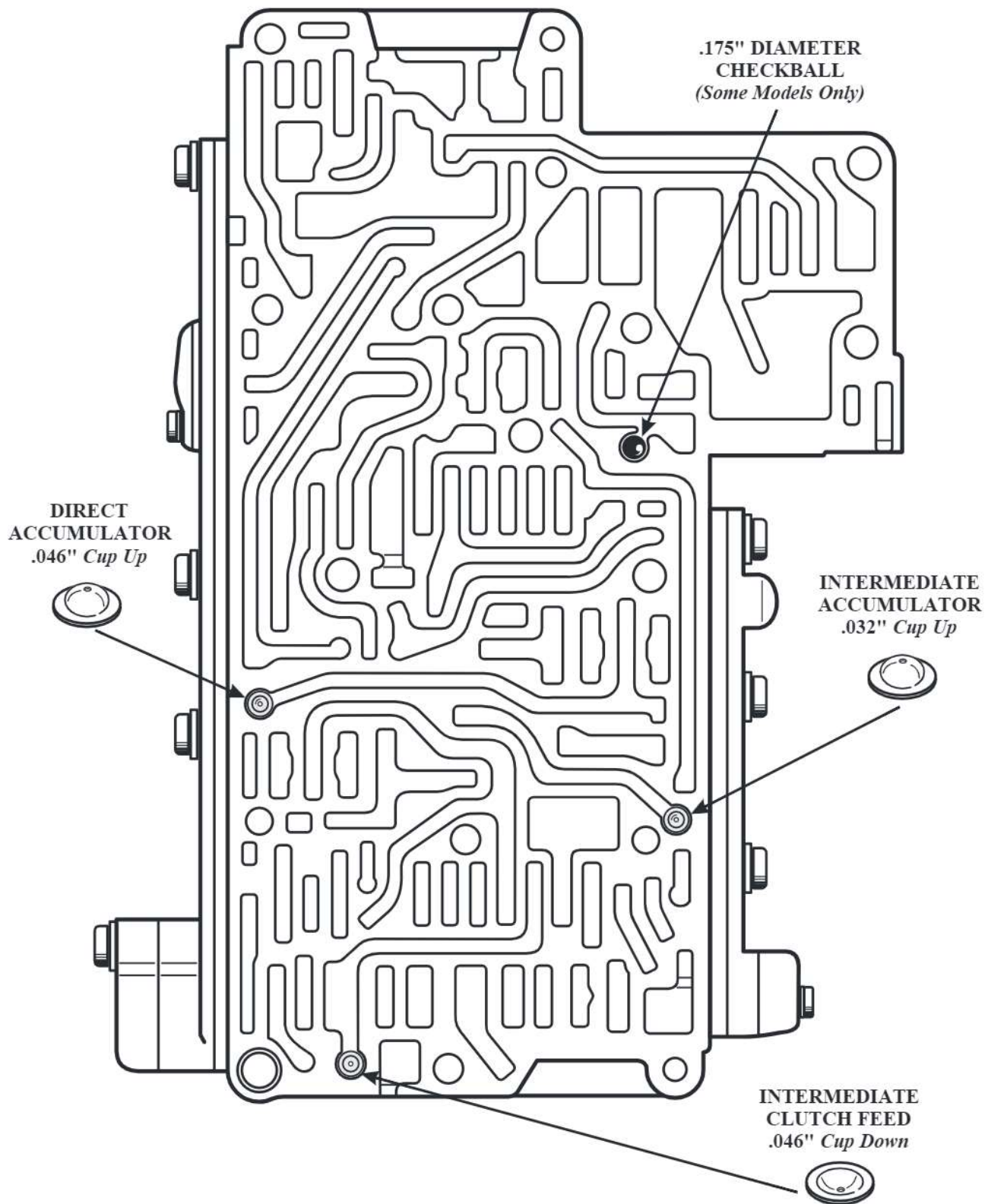


BMW ELECTRONIC ZF4HP-22 (4 SOLENOID ONLY) "UPPER RIGHT" AND "UPPER LEFT" VALVE BODY



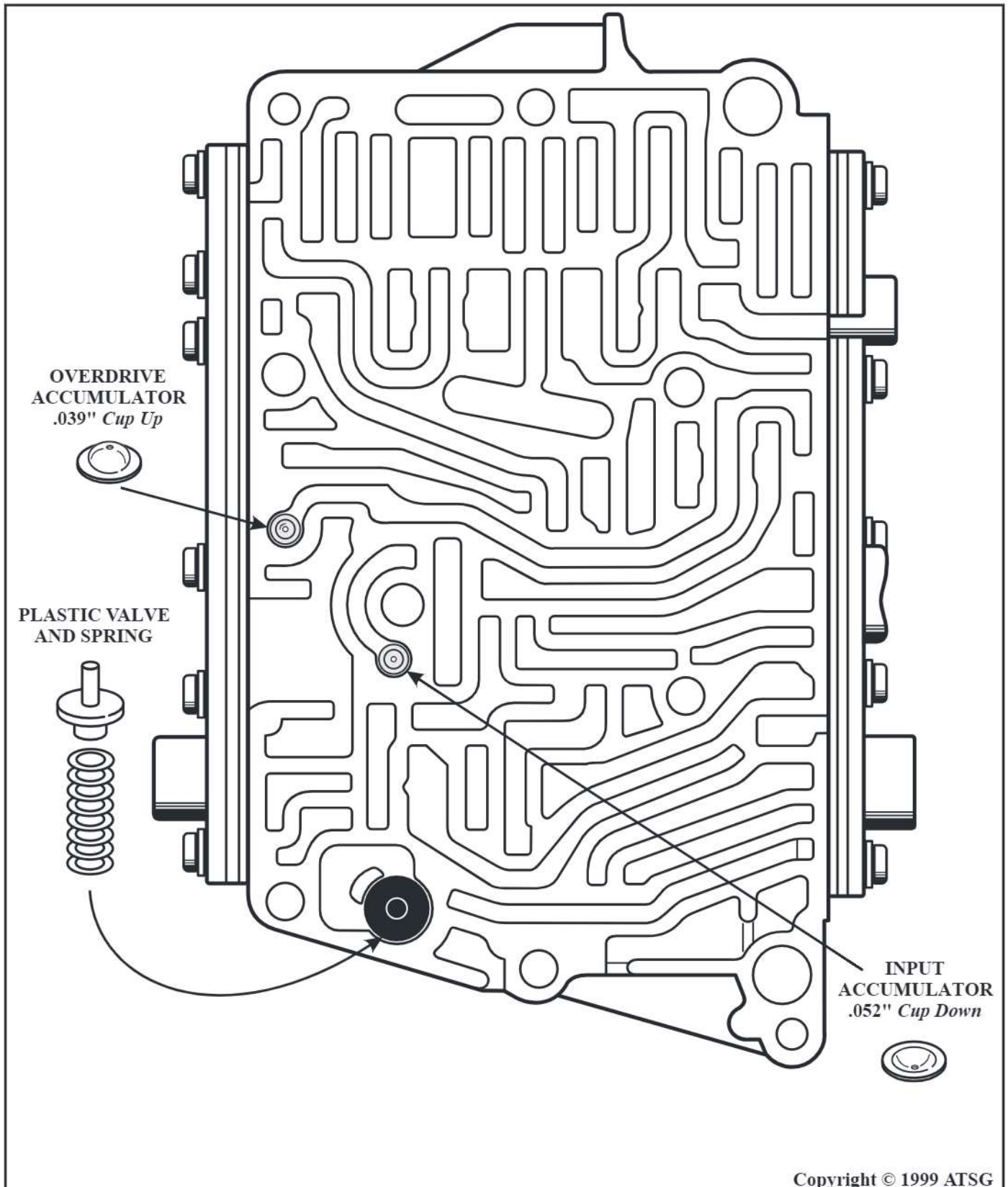
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BMW ELECTRONIC ZF4HP-22 (5 SOLENOID ONLY) "LOWER FRONT" VALVE BODY

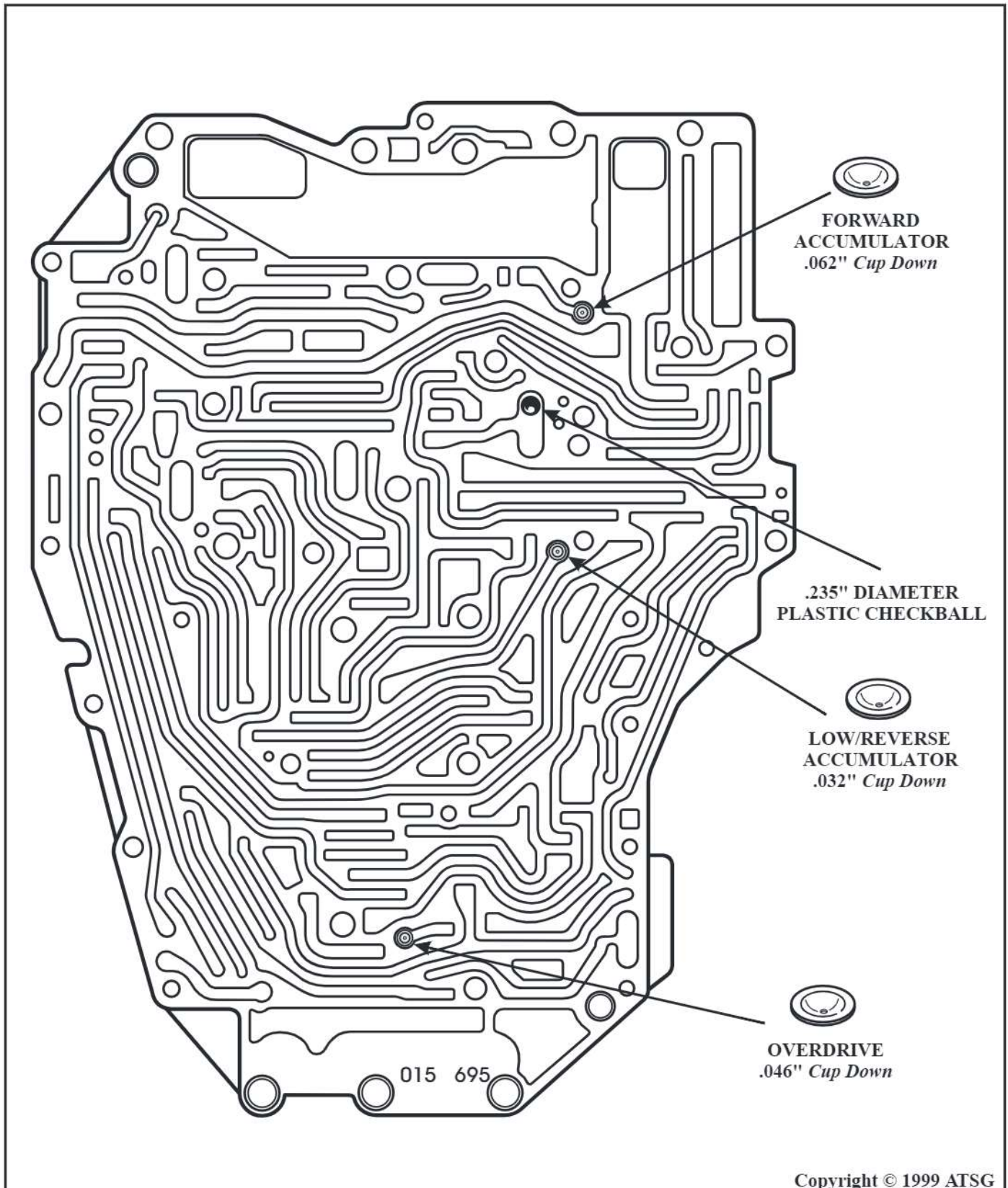


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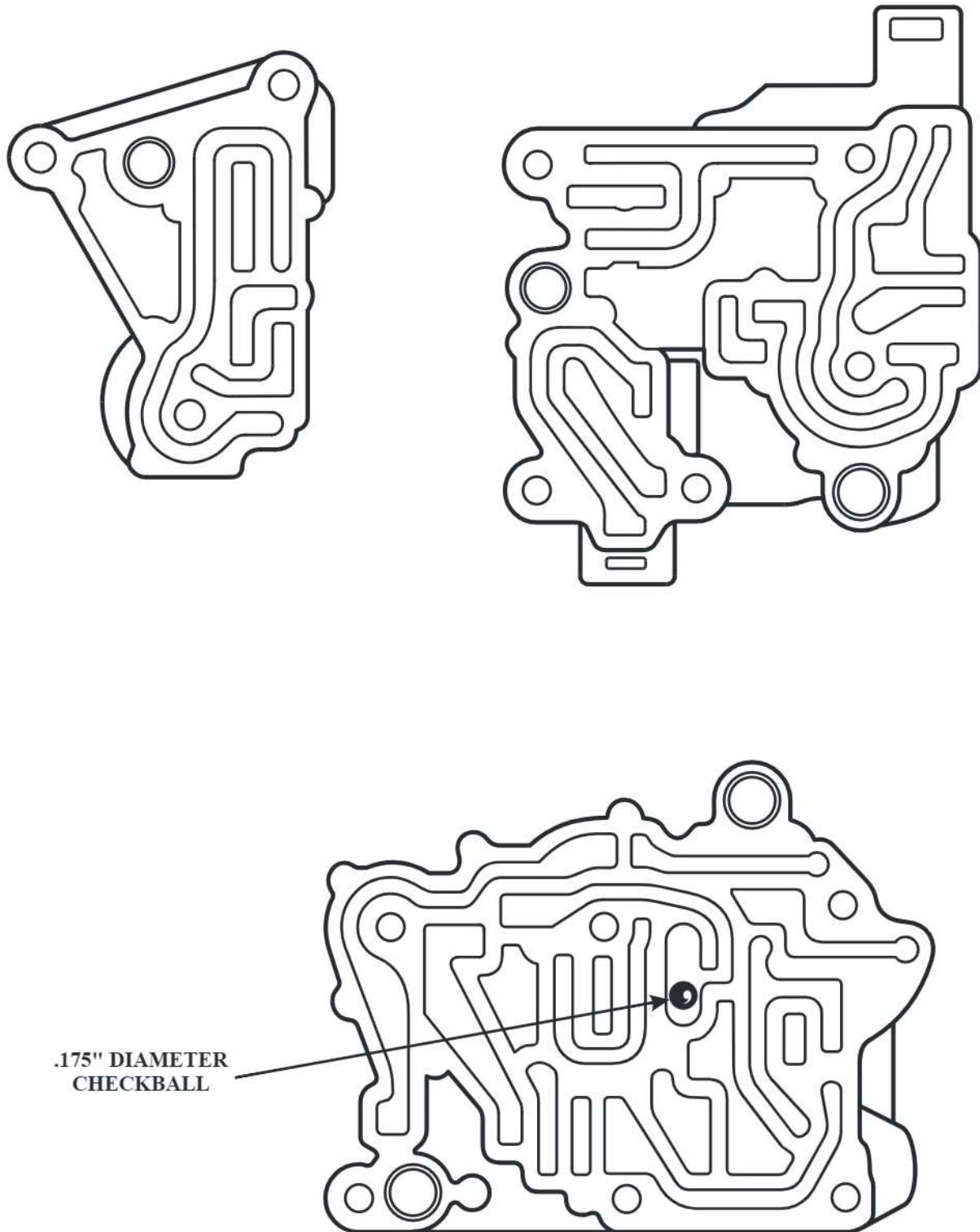
BMW ELECTRONIC ZF4HP-22 (5 SOLENOID ONLY) "LOWER REAR" VALVE BODY



BMW ELECTRONIC ZF4HP-22 (5 SOLENOID ONLY) CHANNEL PLATE

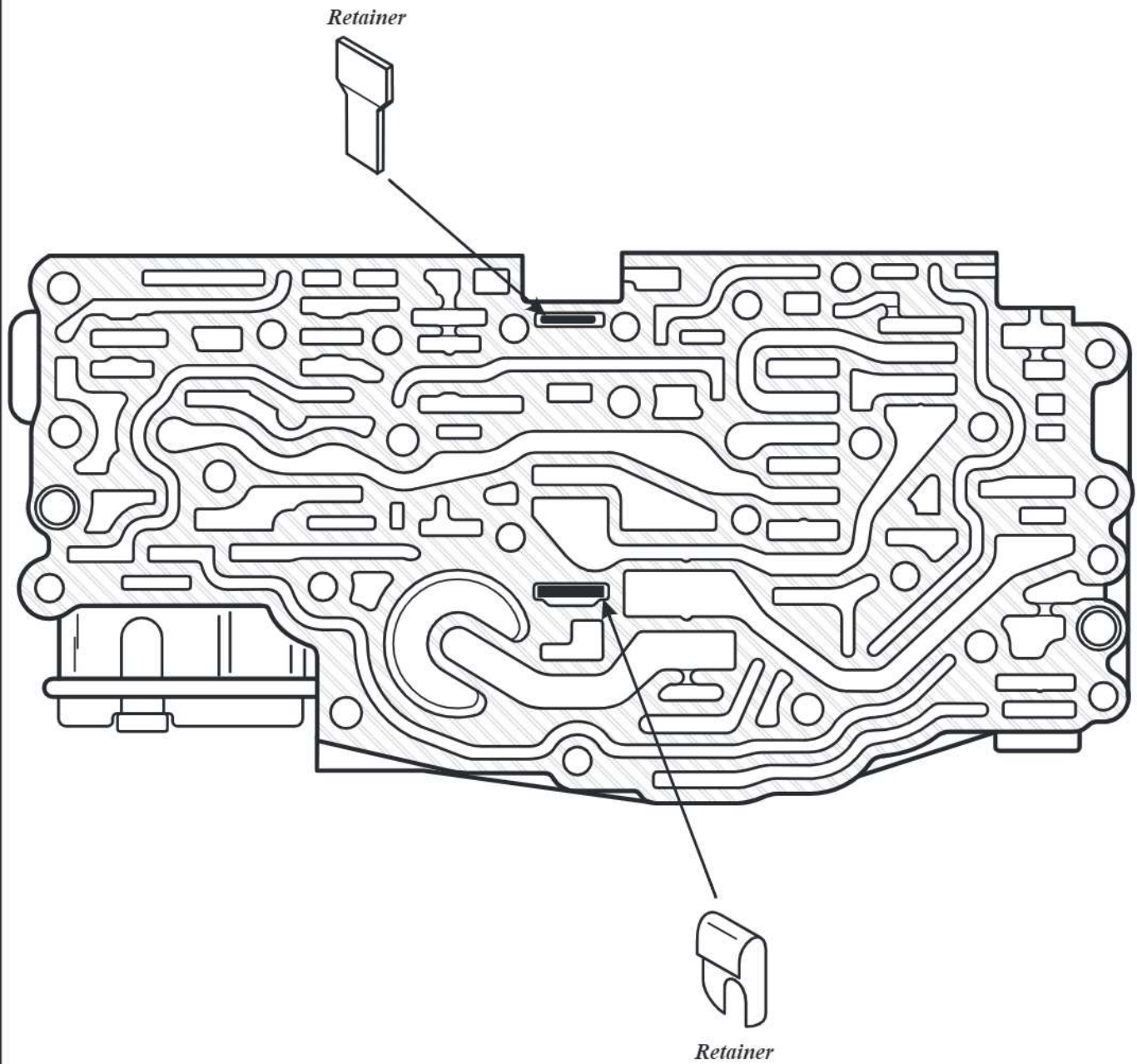


BMW ELECTRONIC ZF4HP-22 (5 SOLENOID ONLY) "UPPER RIGHT" AND "UPPER LEFT" VALVE BODY



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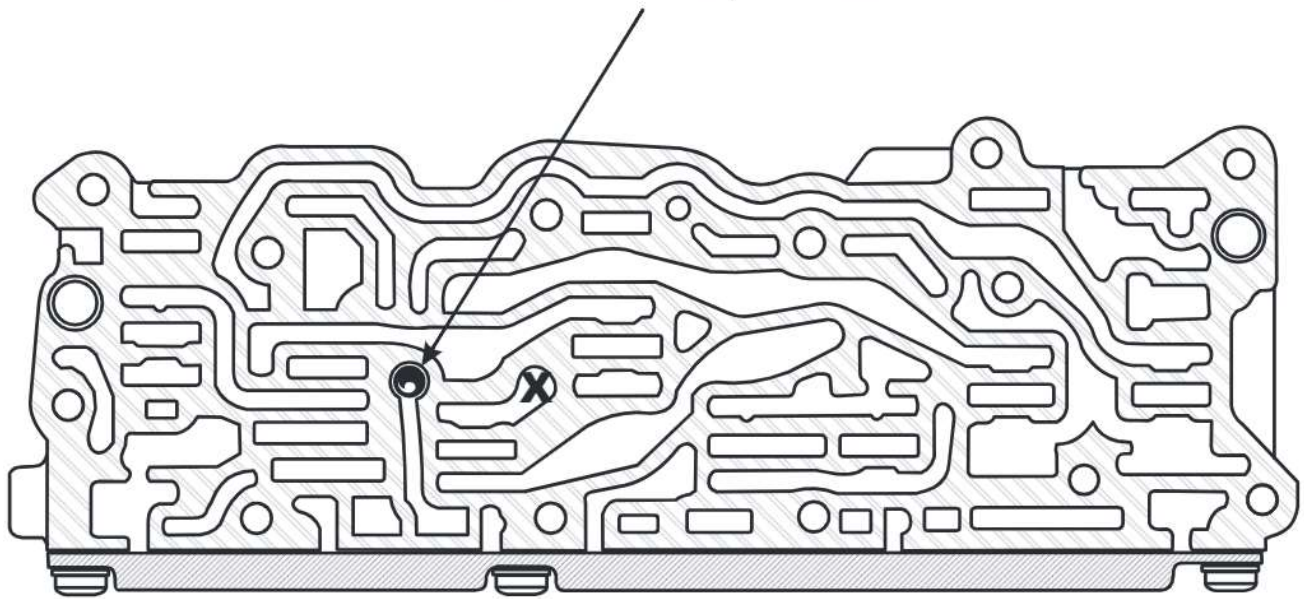
BMW ELECTRONIC ZF5HP-30 "LOWER FRONT" VALVE BODY



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BMW ELECTRONIC ZF5HP-30 "UPPER REAR" VALVE BODY

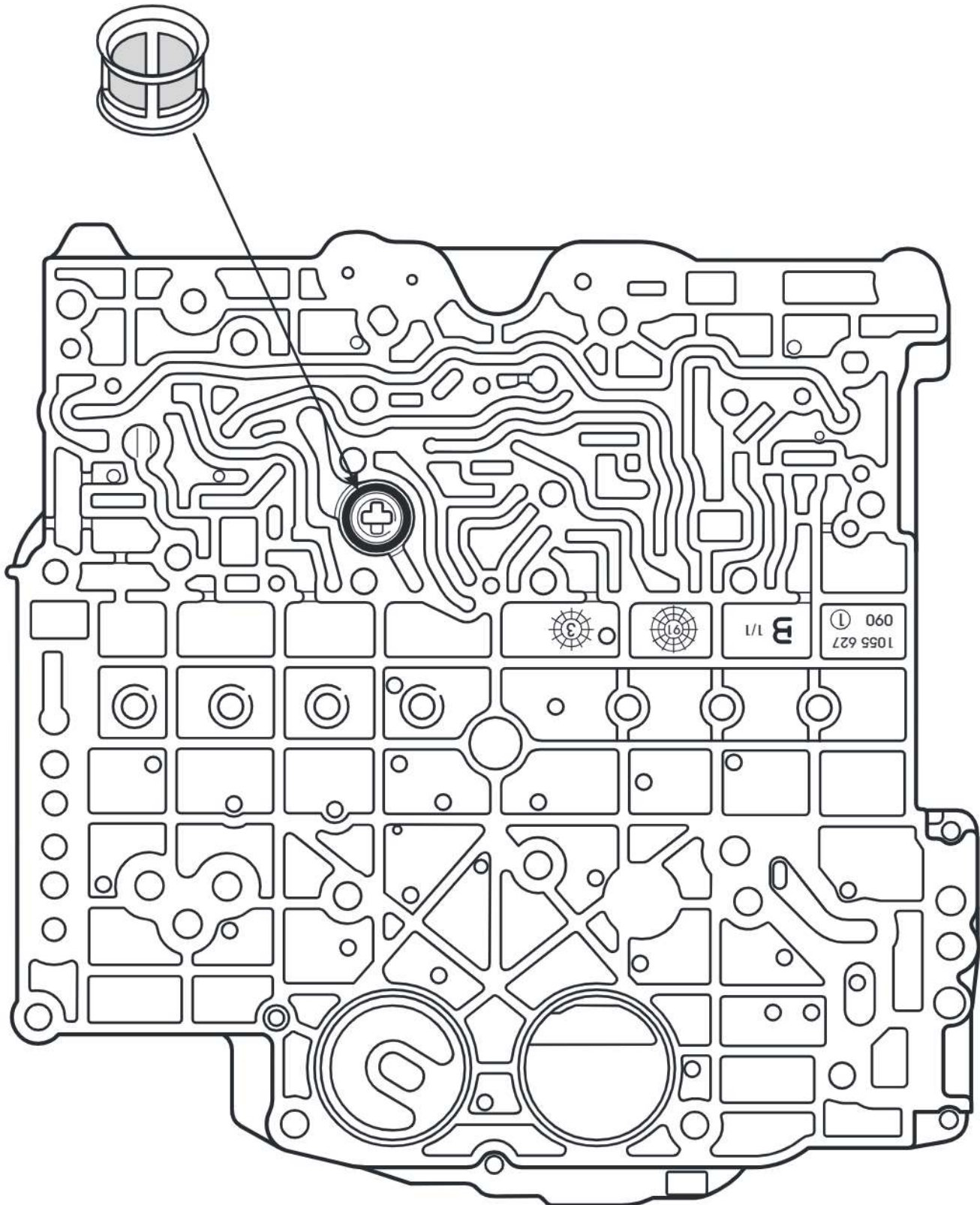
*Only One .250" (6.35mm) ball is located here.
Do Not install a ball in the pocket marked X.*



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BMW ZF-5HP-30 CHANNEL PLATE "UPPER REAR" VALVE BODY SIDE

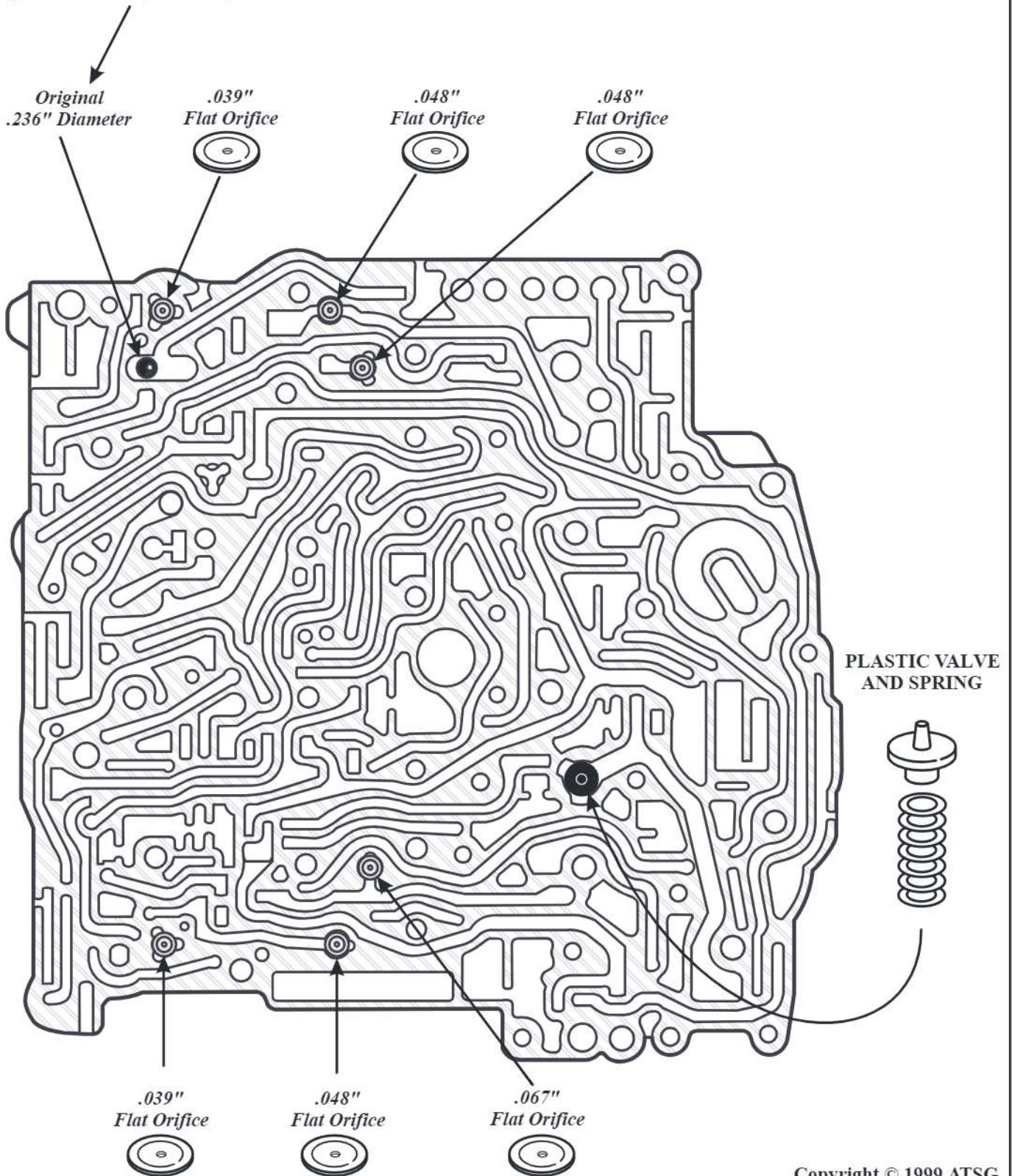
Round Screen



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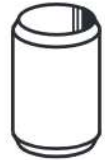
BMW ZF-5HP-30 CHANNEL PLATE "LOWER" VALVE BODY SIDE

Replace the original ball with
a plastic .250" (6.35mm) ball.



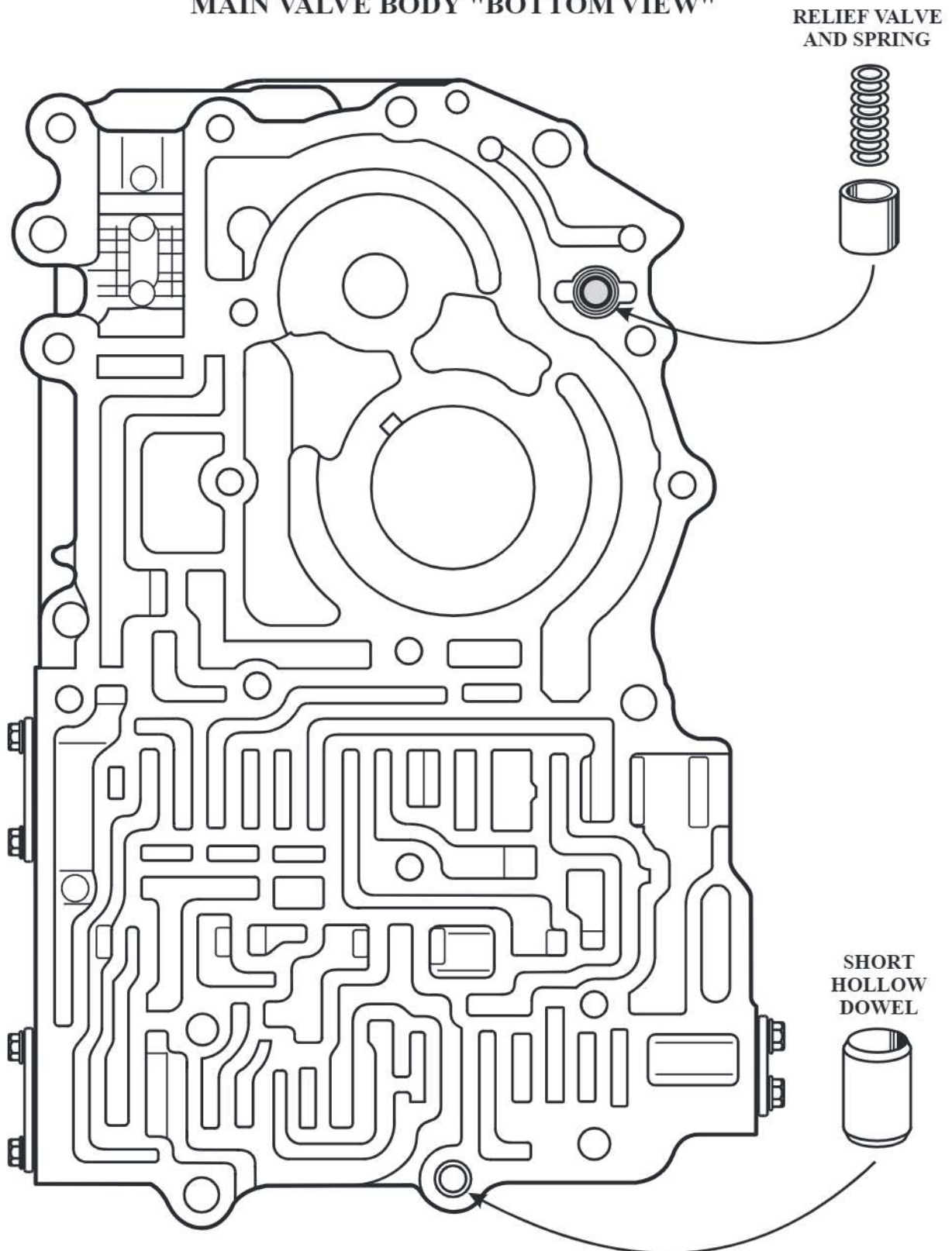
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**TWO
SHORT
HOLLOW
DOWELS**



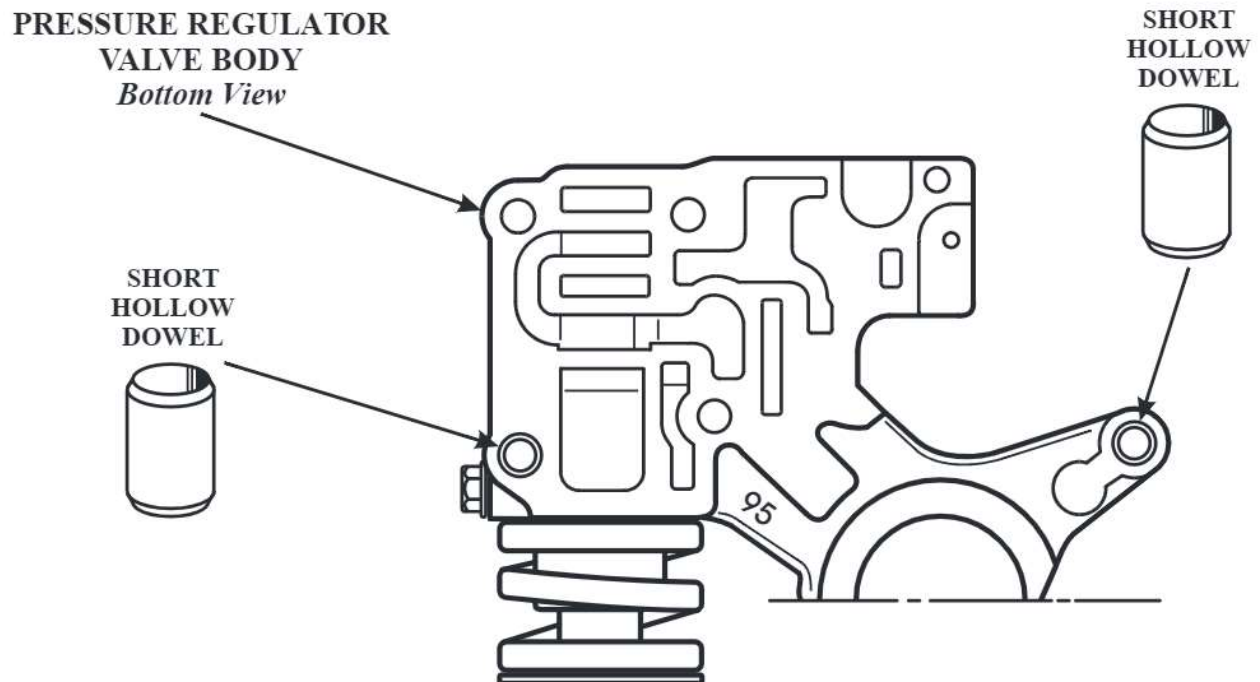
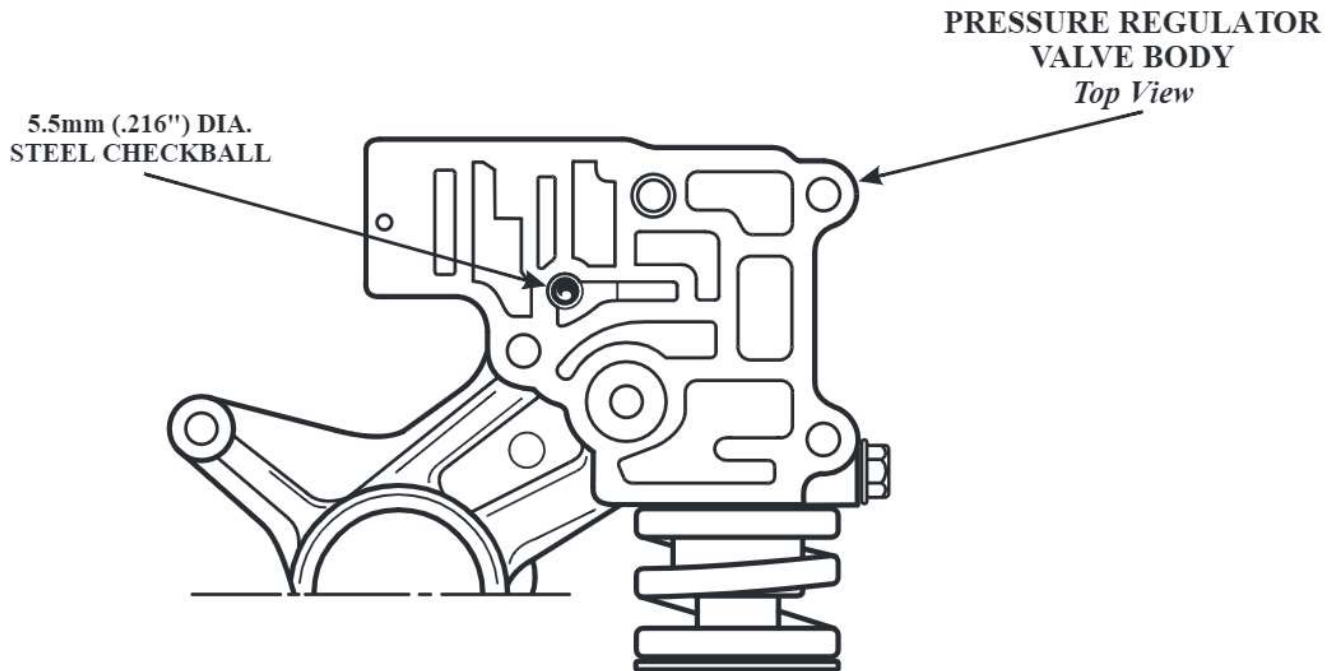
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HONDA ACCORD MODEL "AS" CARBURETED
MAIN VALVE BODY "BOTTOM VIEW"

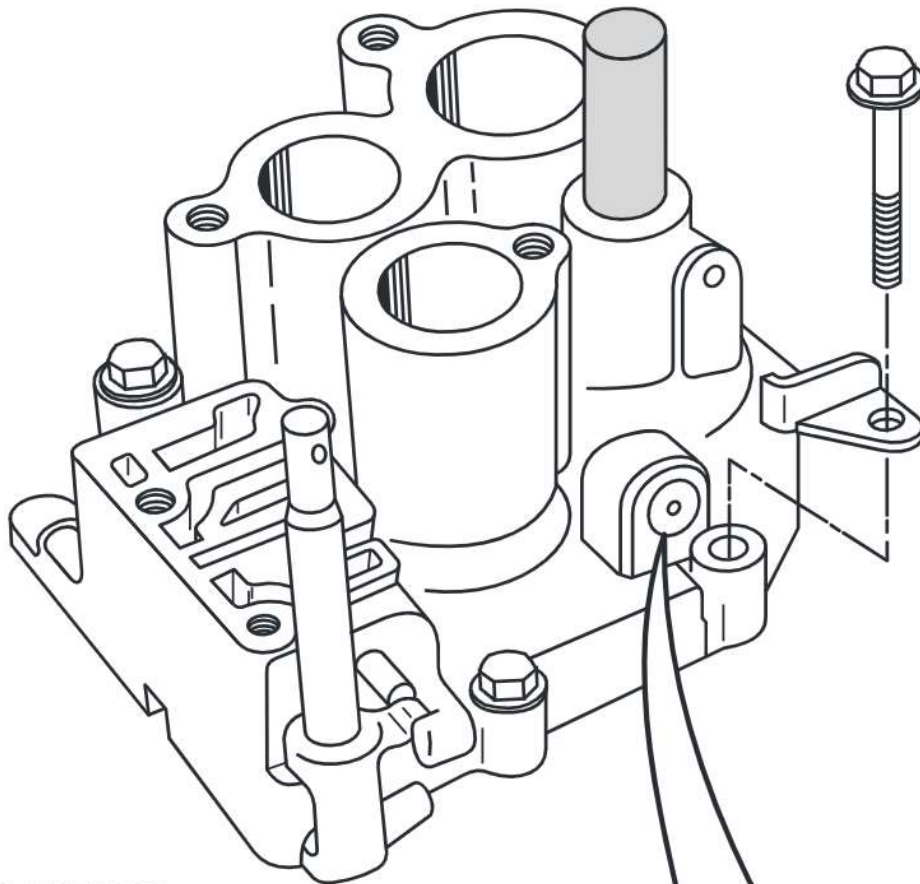


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**HONDA ACCORD MODEL "AS" CARBURETED
"PRESSURE REGULATOR" VALVE BODY**



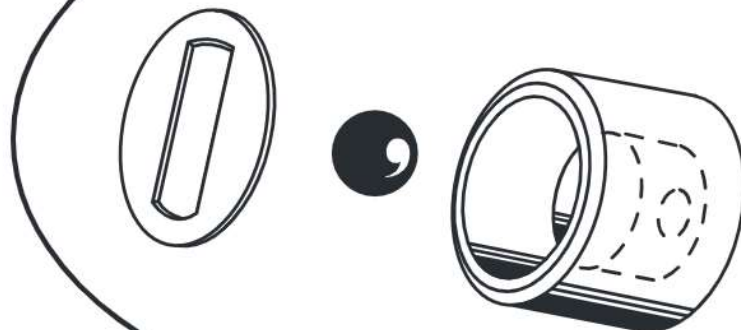
SERVO VALVE BODY



CAUTION:

The Servo Release Check Valve is staked into the servo valve body as shown, but it can fall out or can be blown out during cleaning process.

SERVO RELEASE CHECK VALVE



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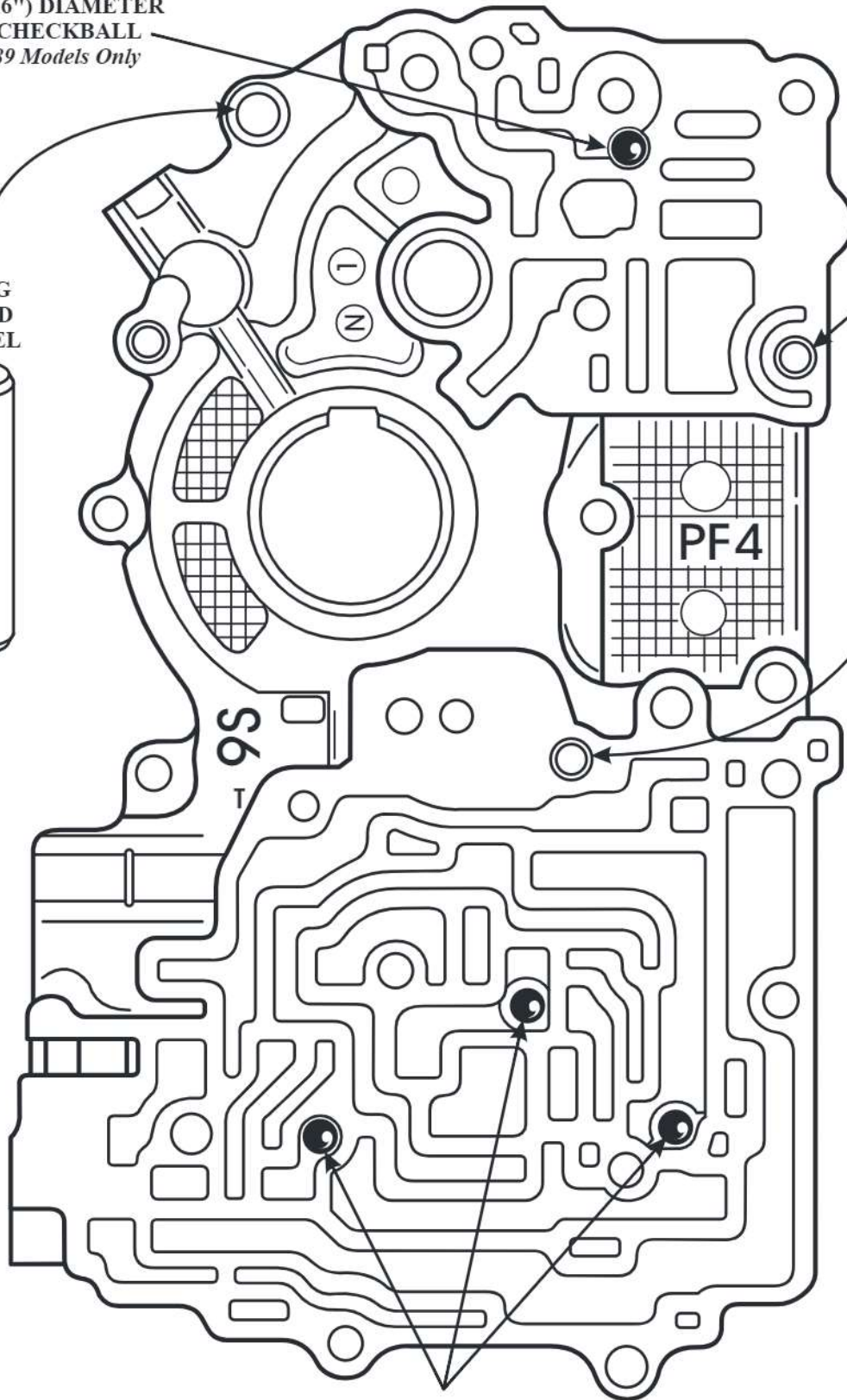
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

**HONDA PRELUDE AND ACCORD MODEL "F4"
MAIN VALVE BODY "TOP VIEW"**

5.5mm (.216") DIAMETER
STEEL CHECKBALL
1988-1989 Models Only

TWO
SHORT
HOLLOW
DOWELS

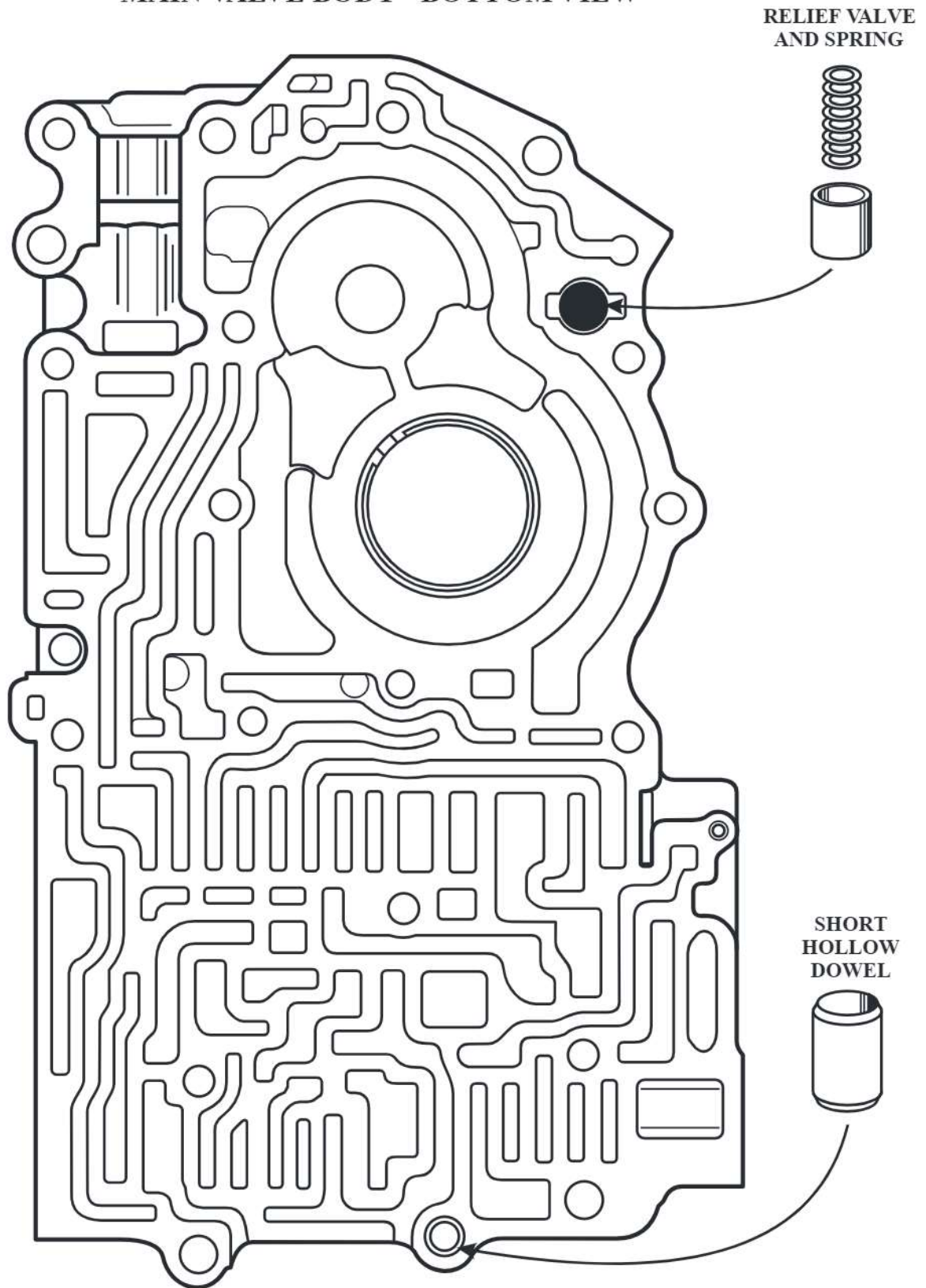
LONG
SOLID
DOWEL



5.5mm (.216") DIAMETER
STEEL CHECKBALLS

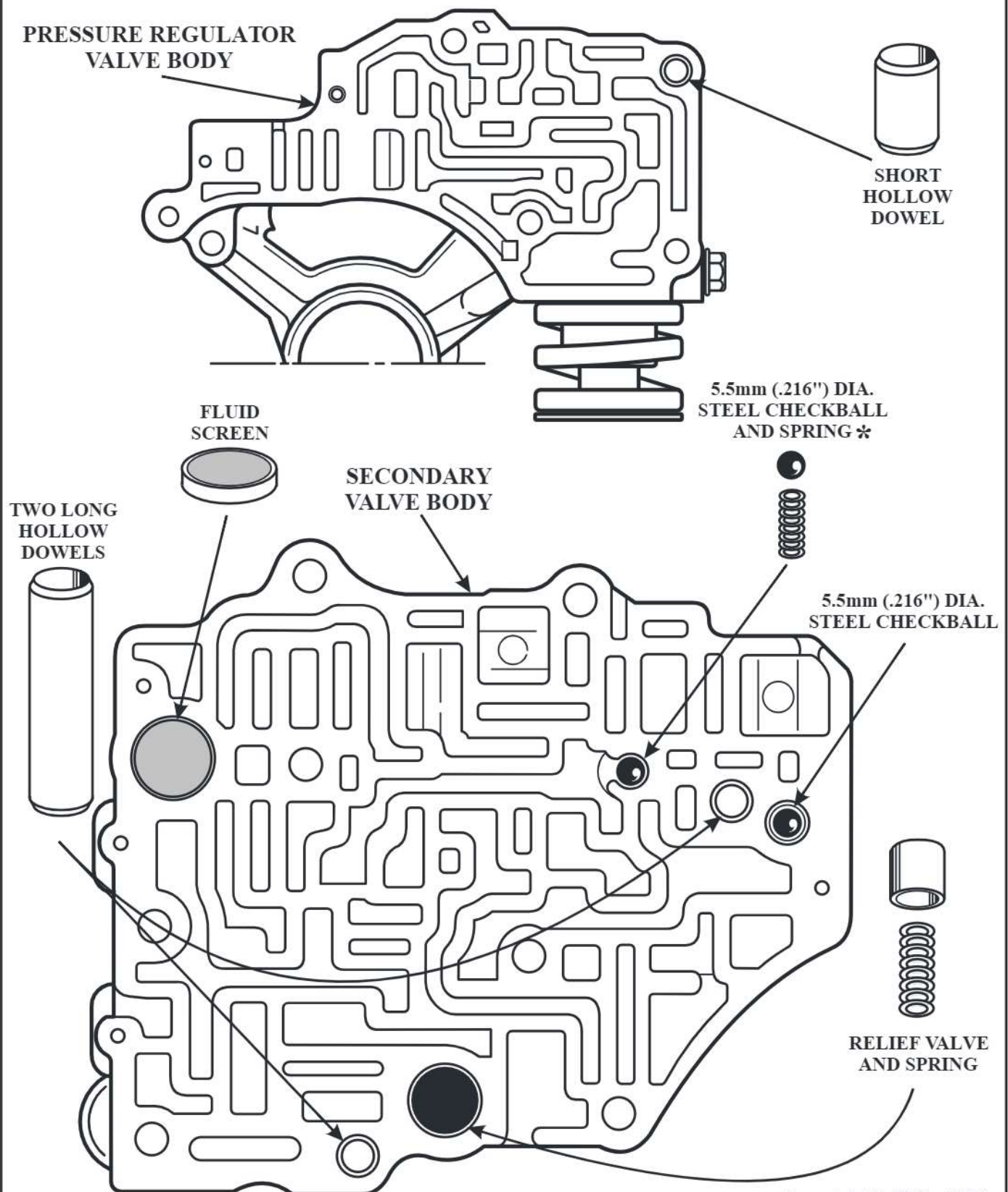
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HONDA PRELUDE AND ACCORD MODEL "F4" MAIN VALVE BODY "BOTTOM VIEW"



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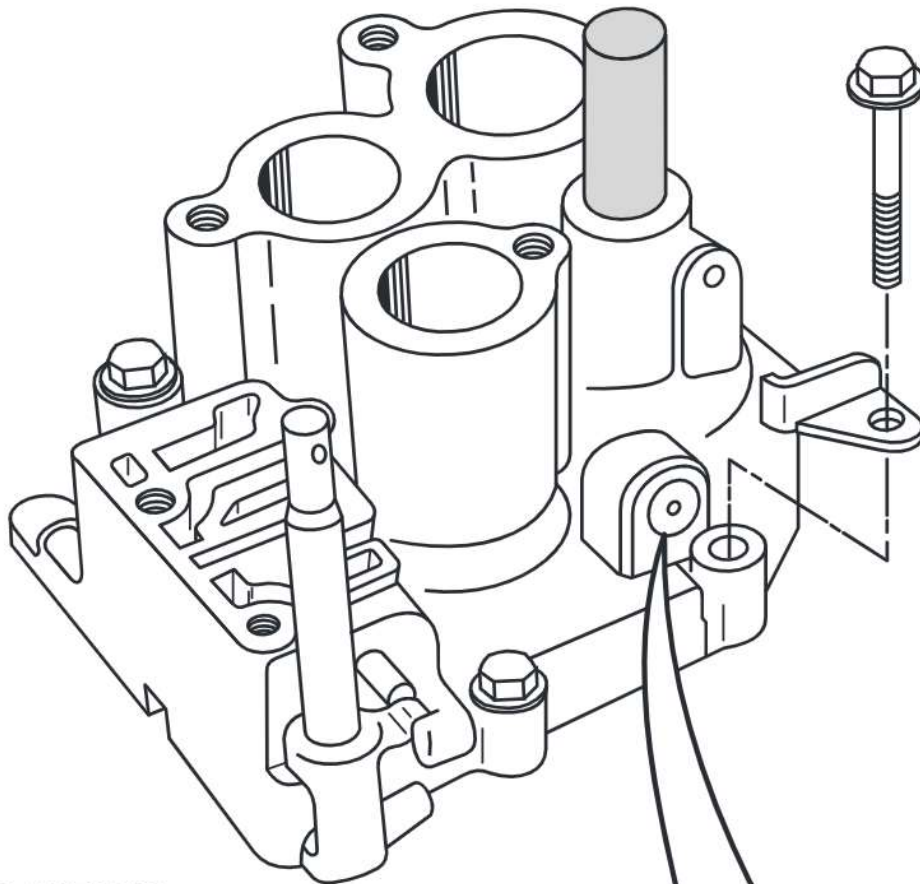
HONDA PRELUDE AND ACCORD MODEL "F4" "PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY



* SOME 1989 MODELS MAYNOT USE SPRING.

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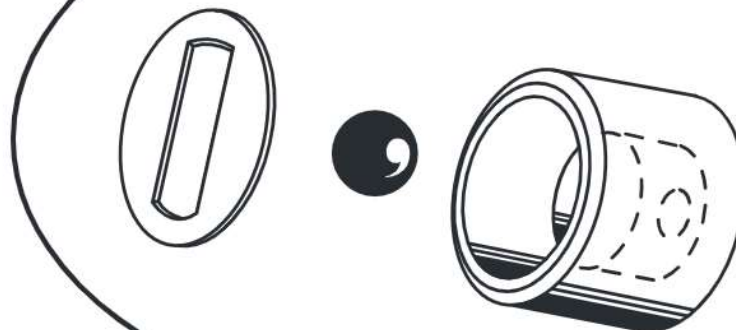
SERVO VALVE BODY



CAUTION:

The Servo Release Check Valve is staked into the servo valve body as shown, but it can fall out or can be blown out during cleaning process.

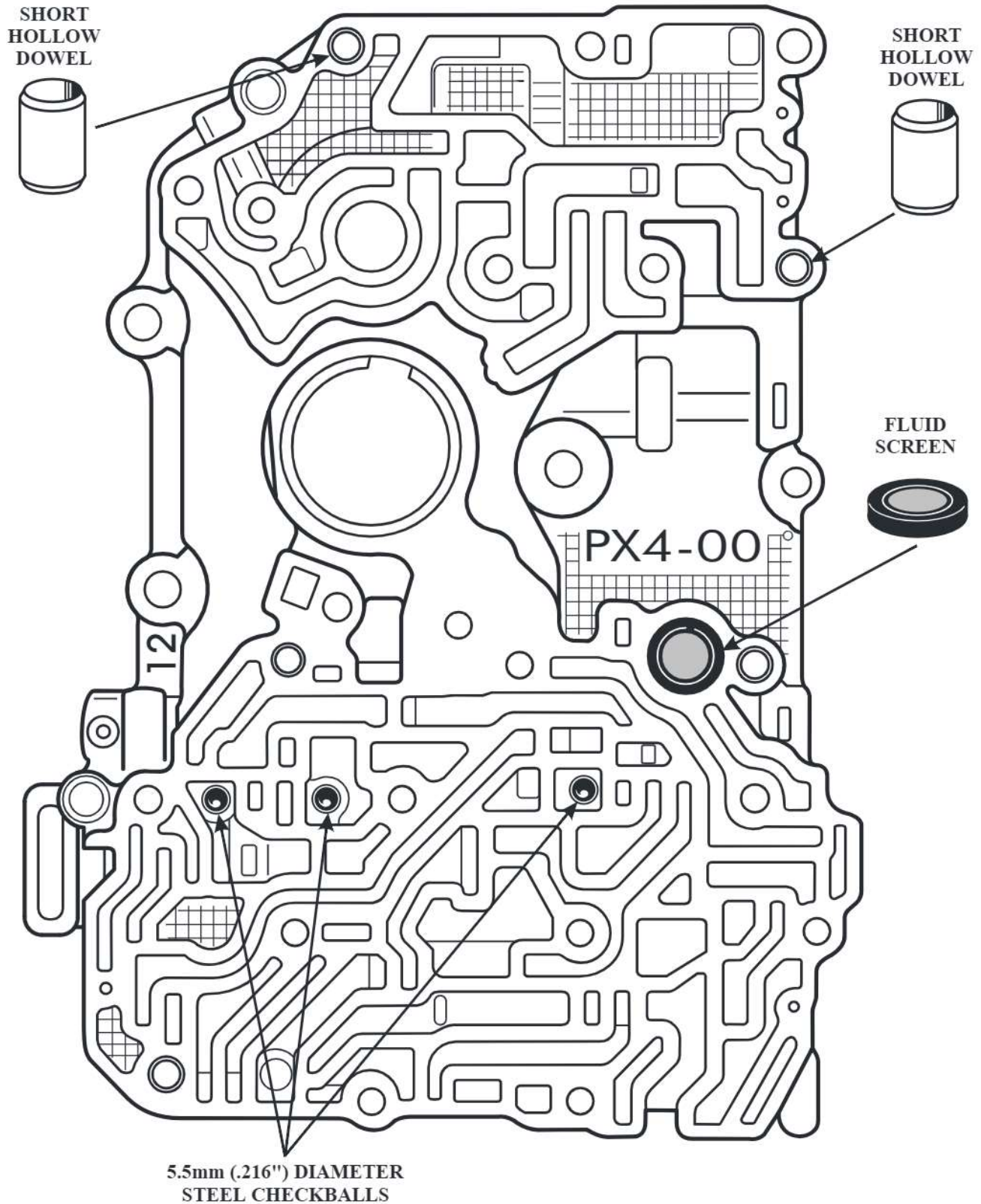
SERVO RELEASE CHECK VALVE



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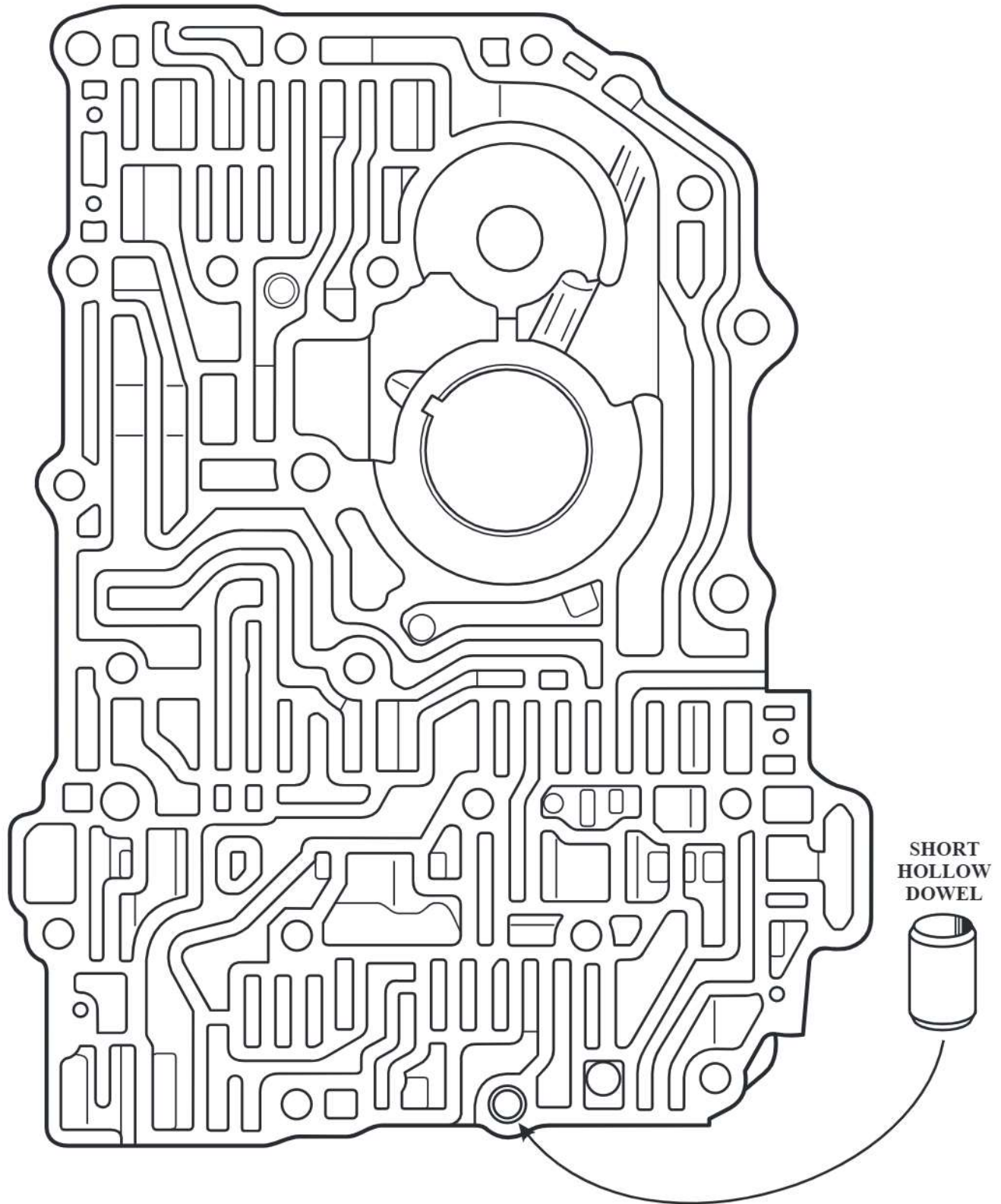
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

HONDA ACCORD MODELS "PX4B" "APX4" "MPOA" "AOYA" "BOYA"
MAIN VALVE BODY "TOP VIEW"



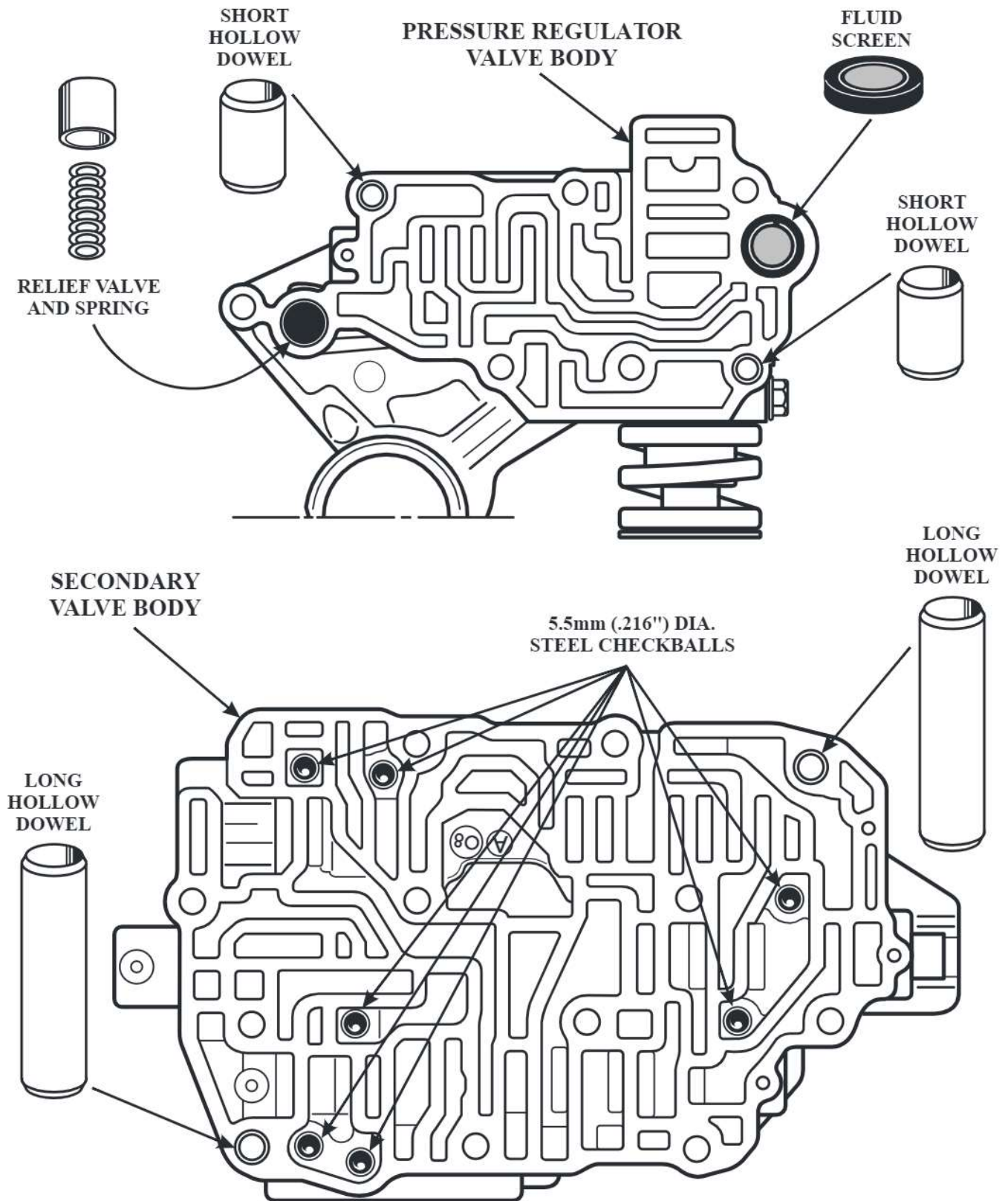
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HONDA ACCORD MODELS "PX4B" "APX4" "MPOA" "AOYA" "BOYA" MAIN VALVE BODY "BOTTOM VIEW"



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HONDA ACCORD MODELS "PX4B" "APX4" "MPOA" "AOYA" "BOYA" "PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY



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HONDA ACCORD MODELS "PX4B" "APX4" "MPOA" "AOYA" "BOYA" ACCUMULATOR BODY

ACCUMULATOR
BODY COVER

1ST ACCUMULATOR
CHOKE VALVE

*Not Necessary
To Remove*

5.5mm (.216") DIA.
STEEL BALL

BOTTOM VIEW

SHORT
HOLLOW
DOWEL

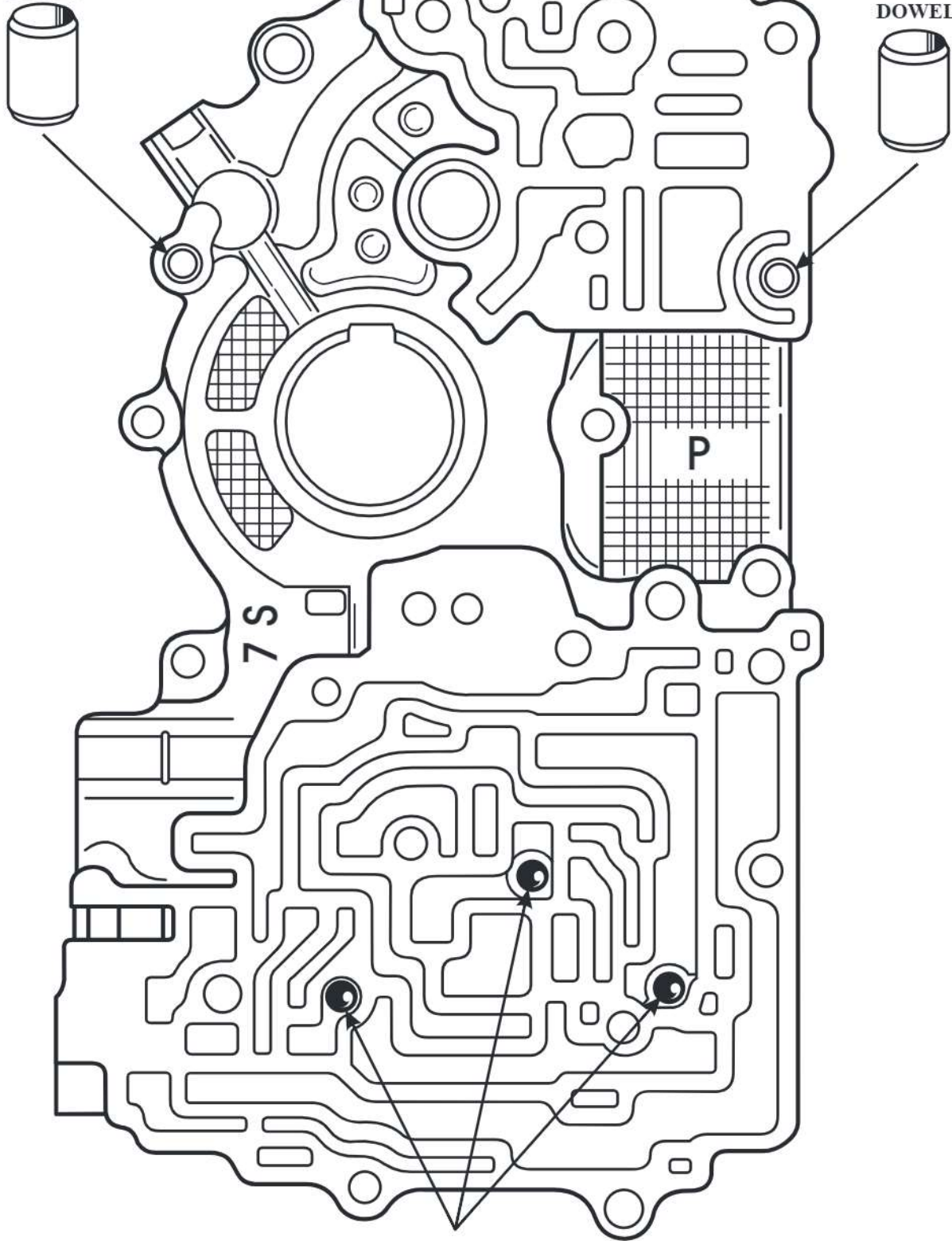
SHORT
HOLLOW
DOWEL

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**HONDA CIVIC MODEL "CA"
MAIN VALVE BODY "TOP VIEW"**

SHORT
HOLLOW
DOWEL

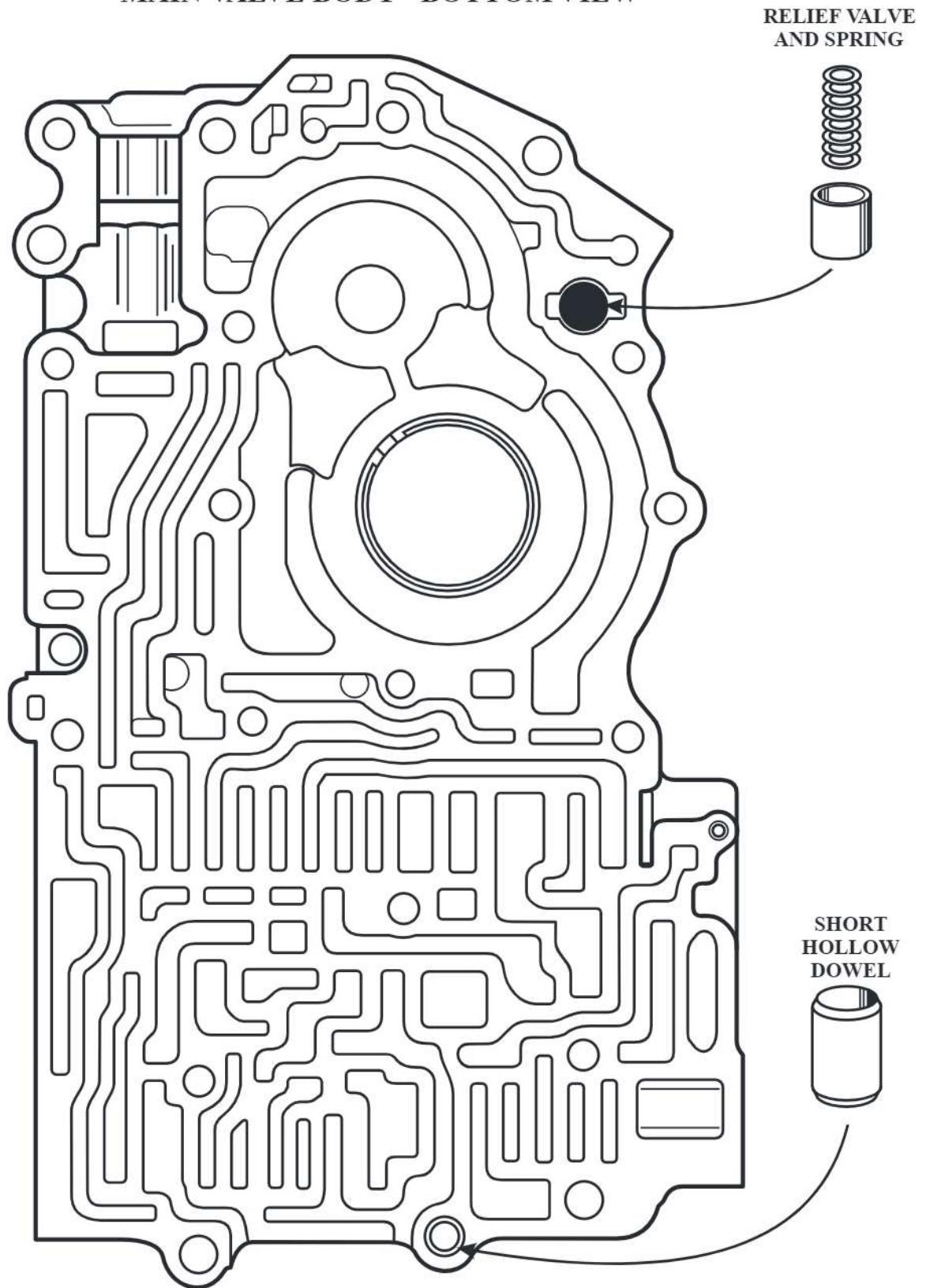
SHORT
HOLLOW
DOWEL



5.5mm (.216") DIAMETER
STEEL CHECKBALLS

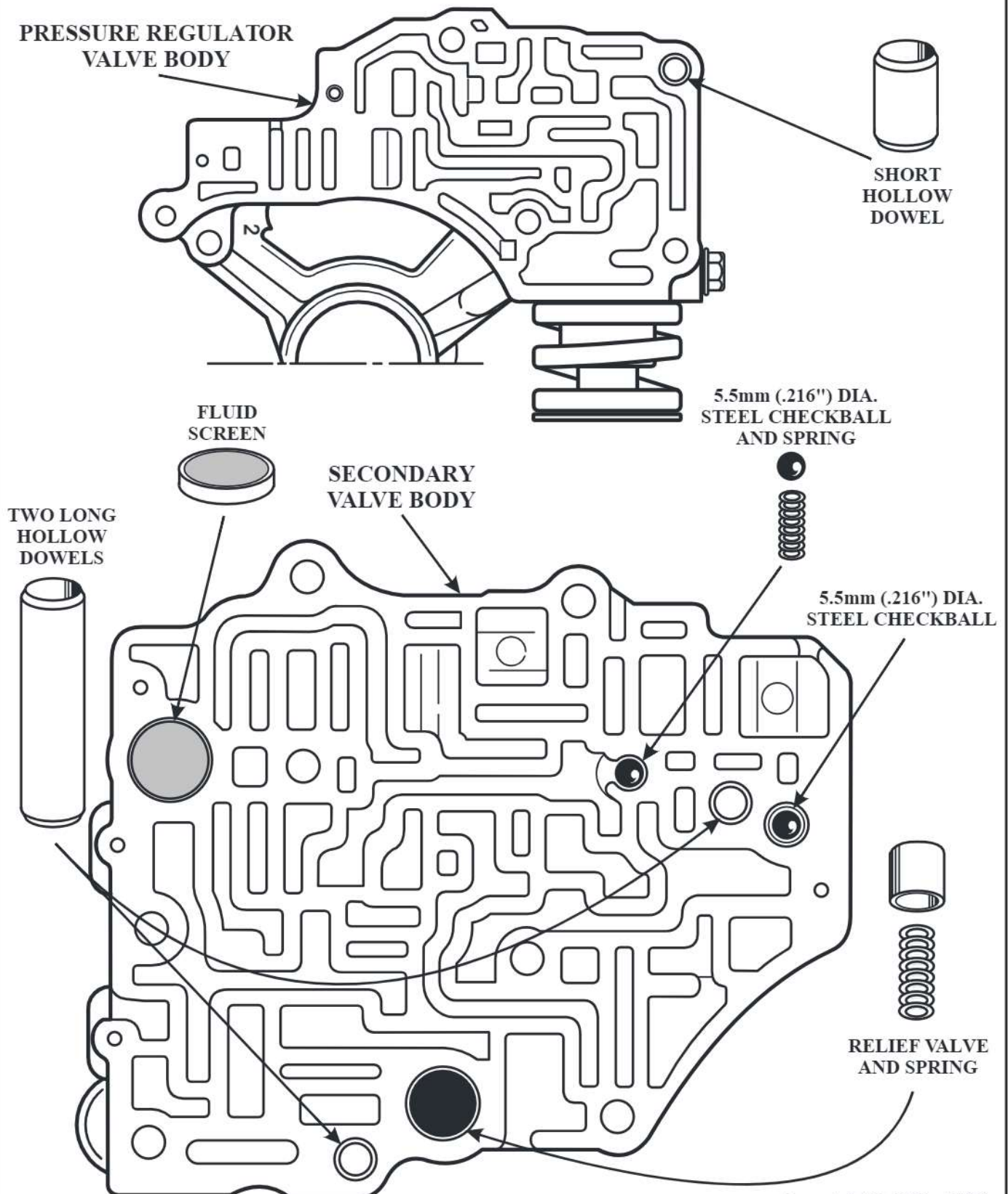
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HONDA CIVIC MODEL "CA" MAIN VALVE BODY "BOTTOM VIEW"



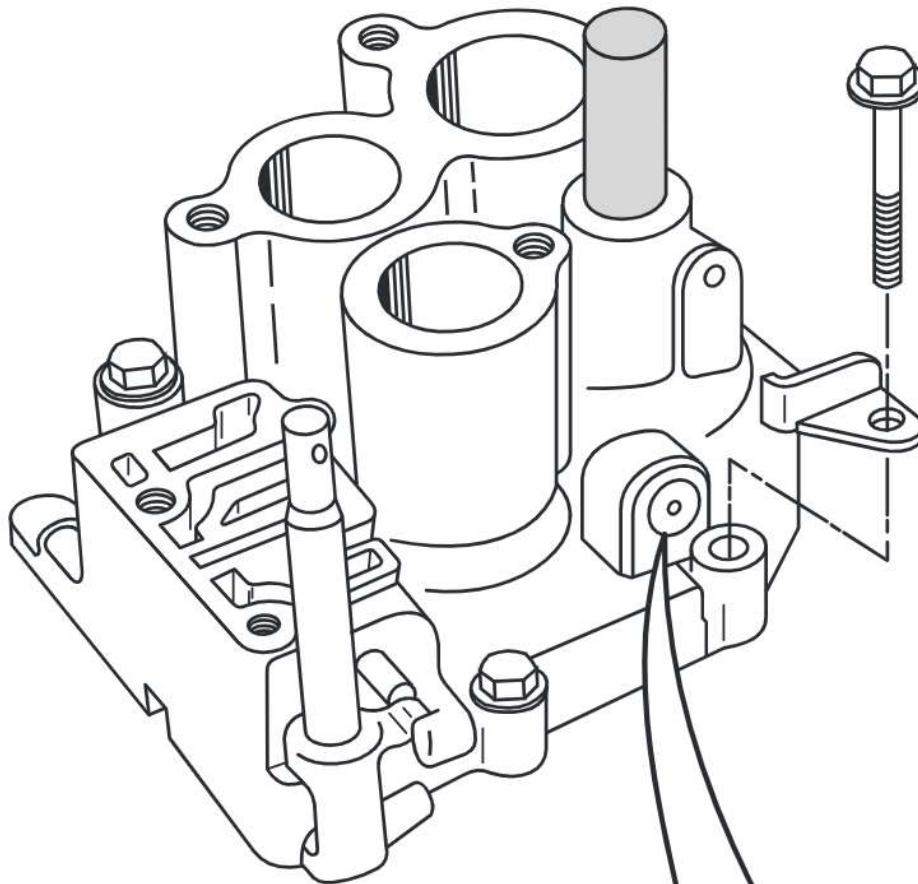
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HONDA CIVIC MODEL "CA"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY



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SERVO VALVE BODY



CAUTION:

The Servo Release Check Valve is staked into the servo valve body as shown, but it can fall out or can be blown out during cleaning process.

SERVO RELEASE CHECK VALVE



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NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

1988 HONDA CIVIC MODEL "L4", "ML4A" MAIN VALVE BODY "TOP VIEW"

5.5mm (.216") DIAMETER
STEEL CHECKBALLS

RELIEF VALVE
AND SPRING

SHORT
HOLLOW
DOWEL

SHORT
HOLLOW
DOWEL

LONG
SOLID
DOWEL

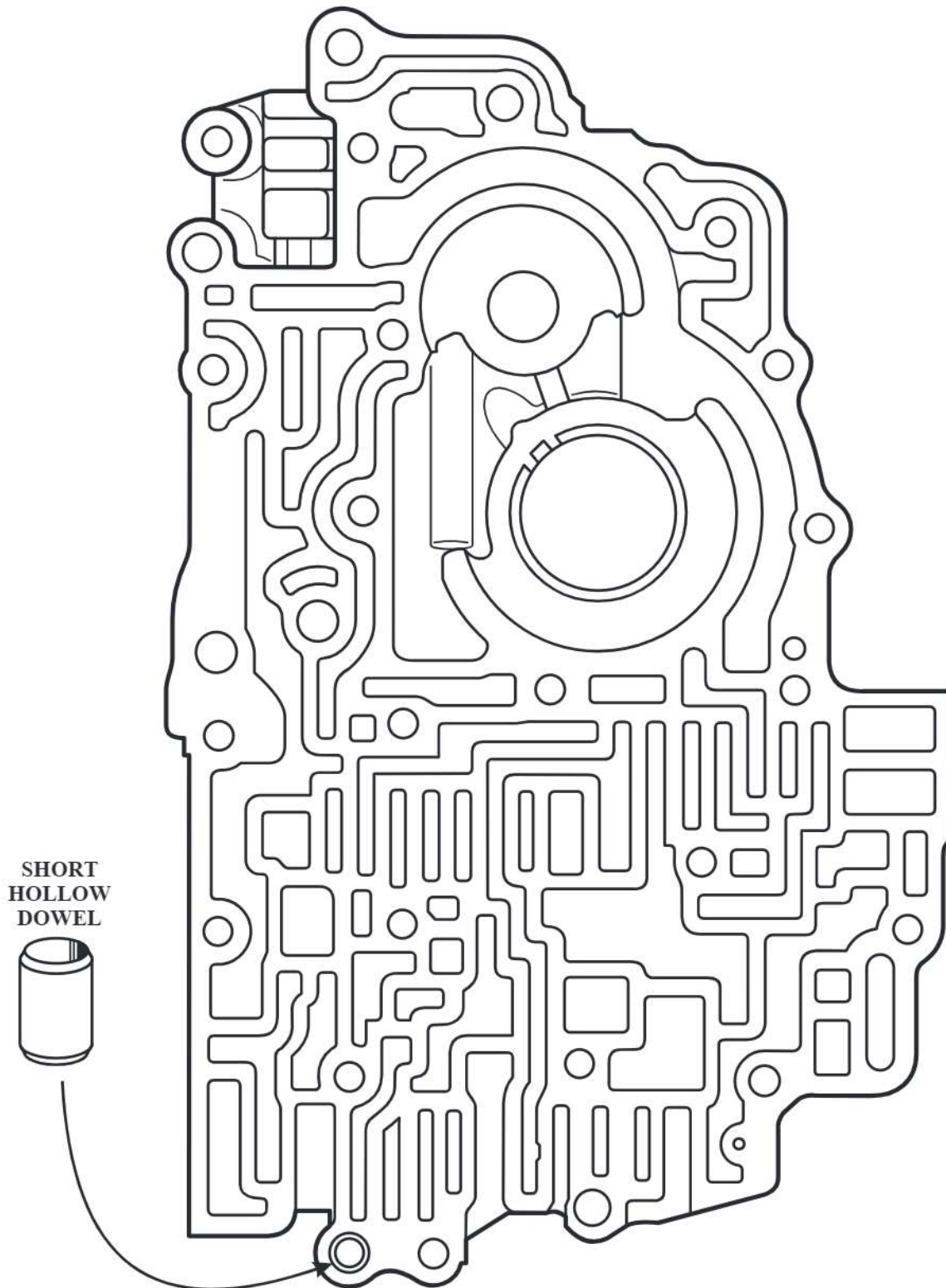
5.5mm (.216") DIAMETER
STEEL CHECKBALLS

FLUID
SCREEN

5.5mm (.216") DIAMETER
STEEL CHECKBALLS

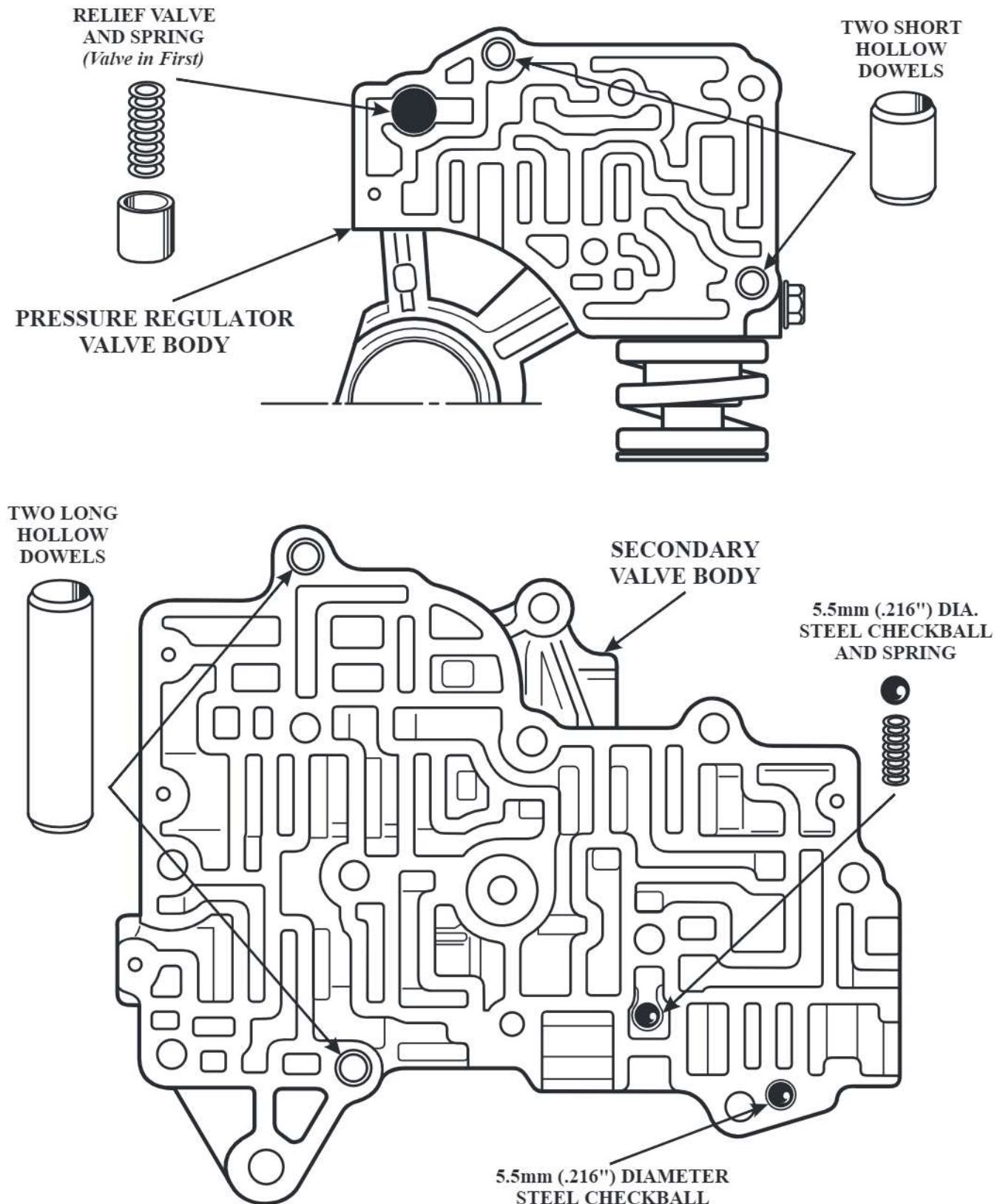
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1988 HONDA CIVIC MODEL "L4", "ML4A" MAIN VALVE BODY "BOTTOM VIEW"



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1988 HONDA CIVIC MODEL "L4", "ML4A" "PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY



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1989-1990 HONDA CIVIC MODEL "L4", "ML4A" MAIN VALVE BODY "TOP VIEW"

5.5mm (.216") DIAMETER
STEEL CHECKBALL

RELIEF VALVE
AND SPRING
Valve In First



TWO
SHORT
HOLLOW
DOWELS



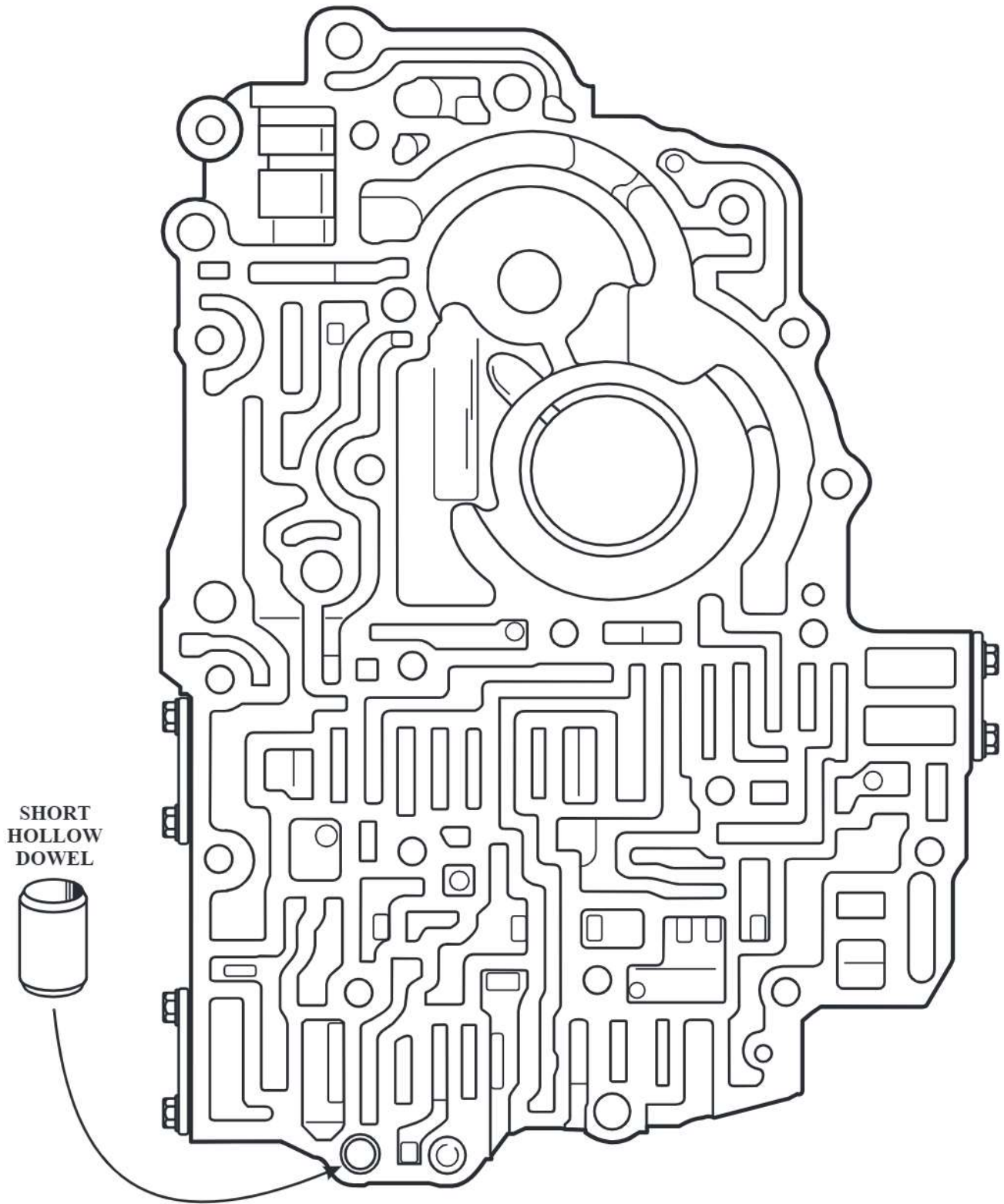
FLUID
SCREEN



5.5mm (.216") DIAMETER
STEEL CHECKBALLS

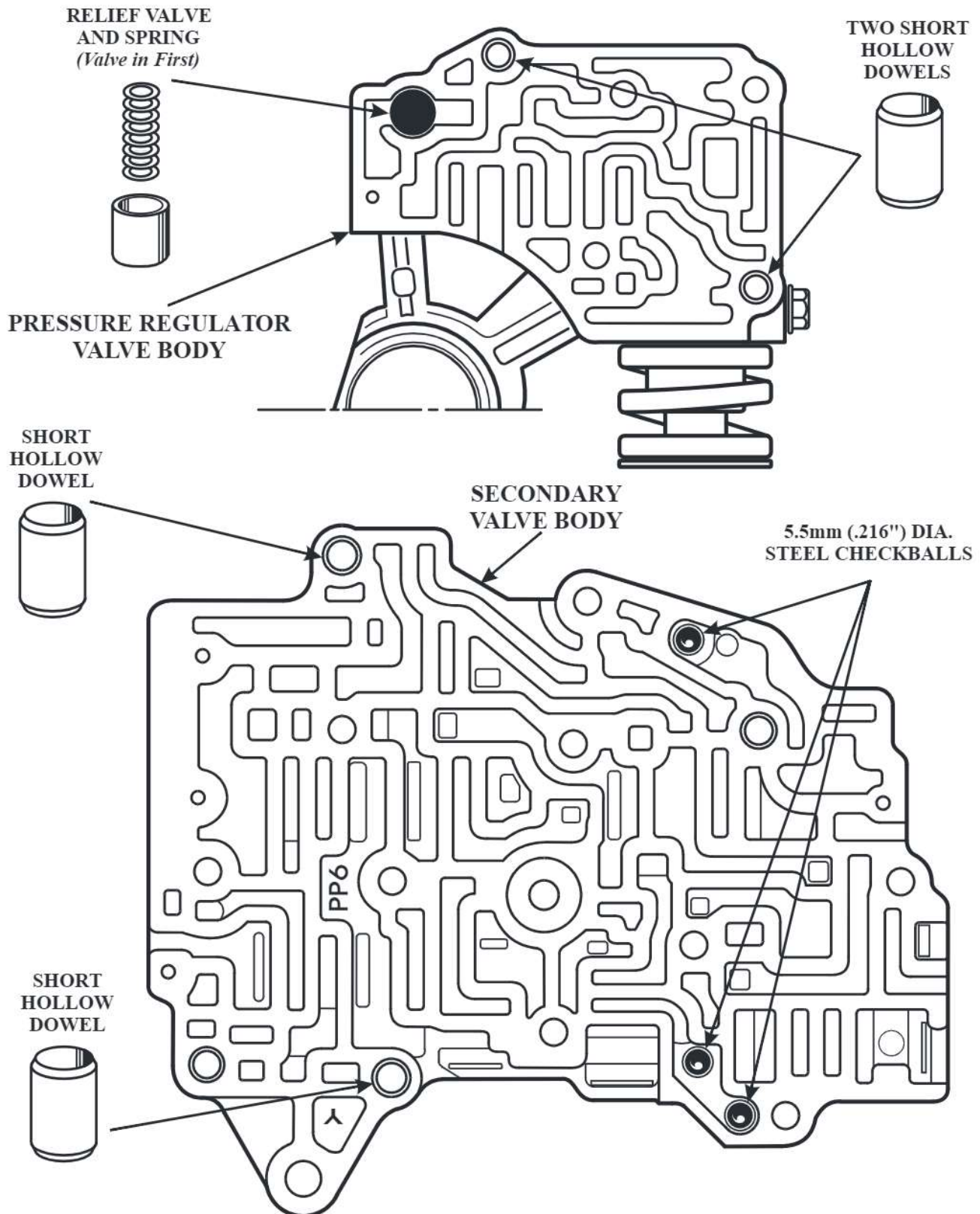
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1989-1990 HONDA CIVIC MODEL "L4", "ML4A"
MAIN VALVE BODY "BOTTOM VIEW"



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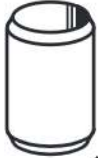
1989-1990 HONDA CIVIC MODEL "L4", "ML4A" "PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY



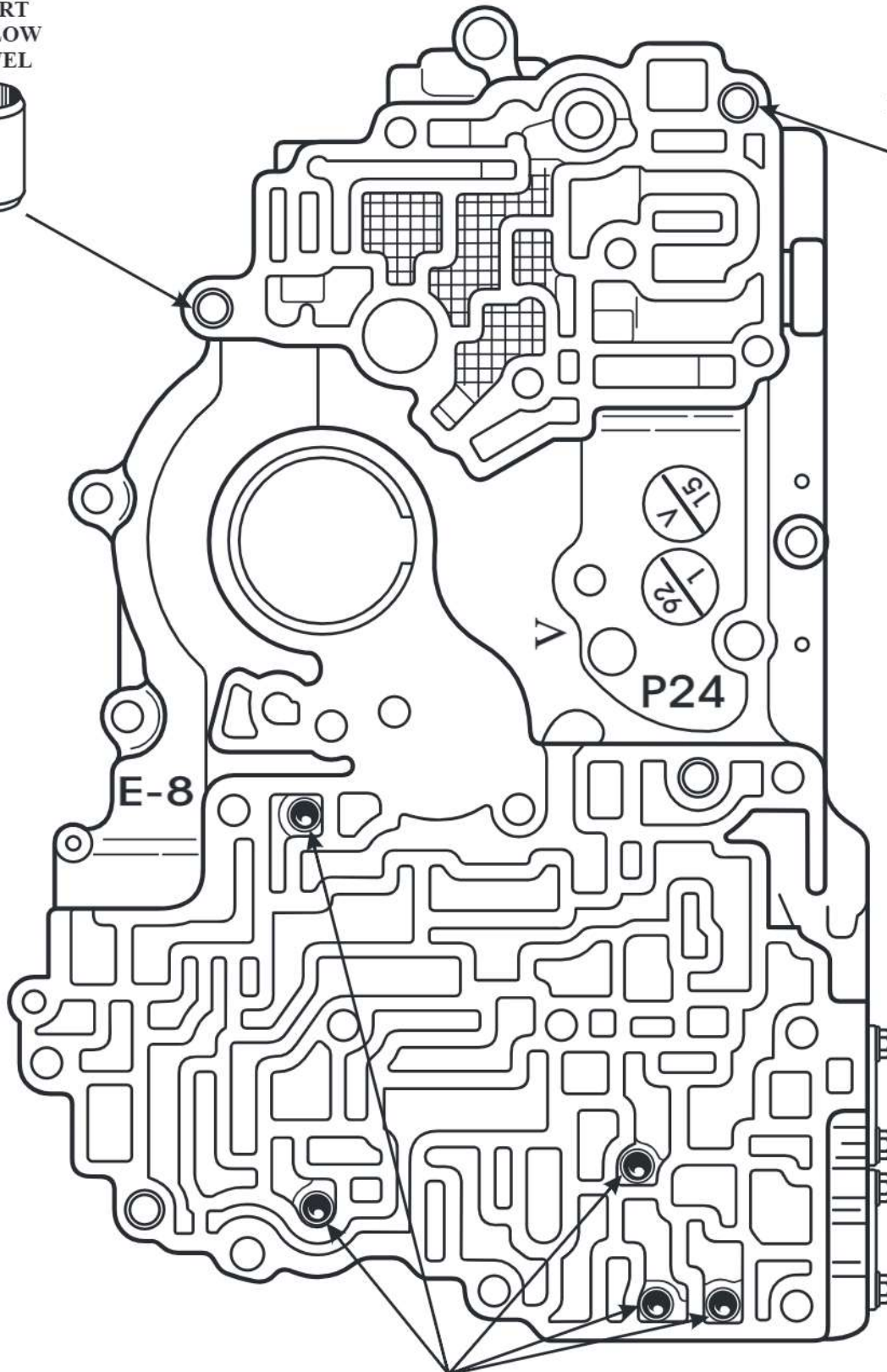
Copyright © 1999 ATSG

**HONDA CIVIC MODEL "M24A"
MAIN VALVE BODY "TOP VIEW"**

SHORT
HOLLOW
DOWEL



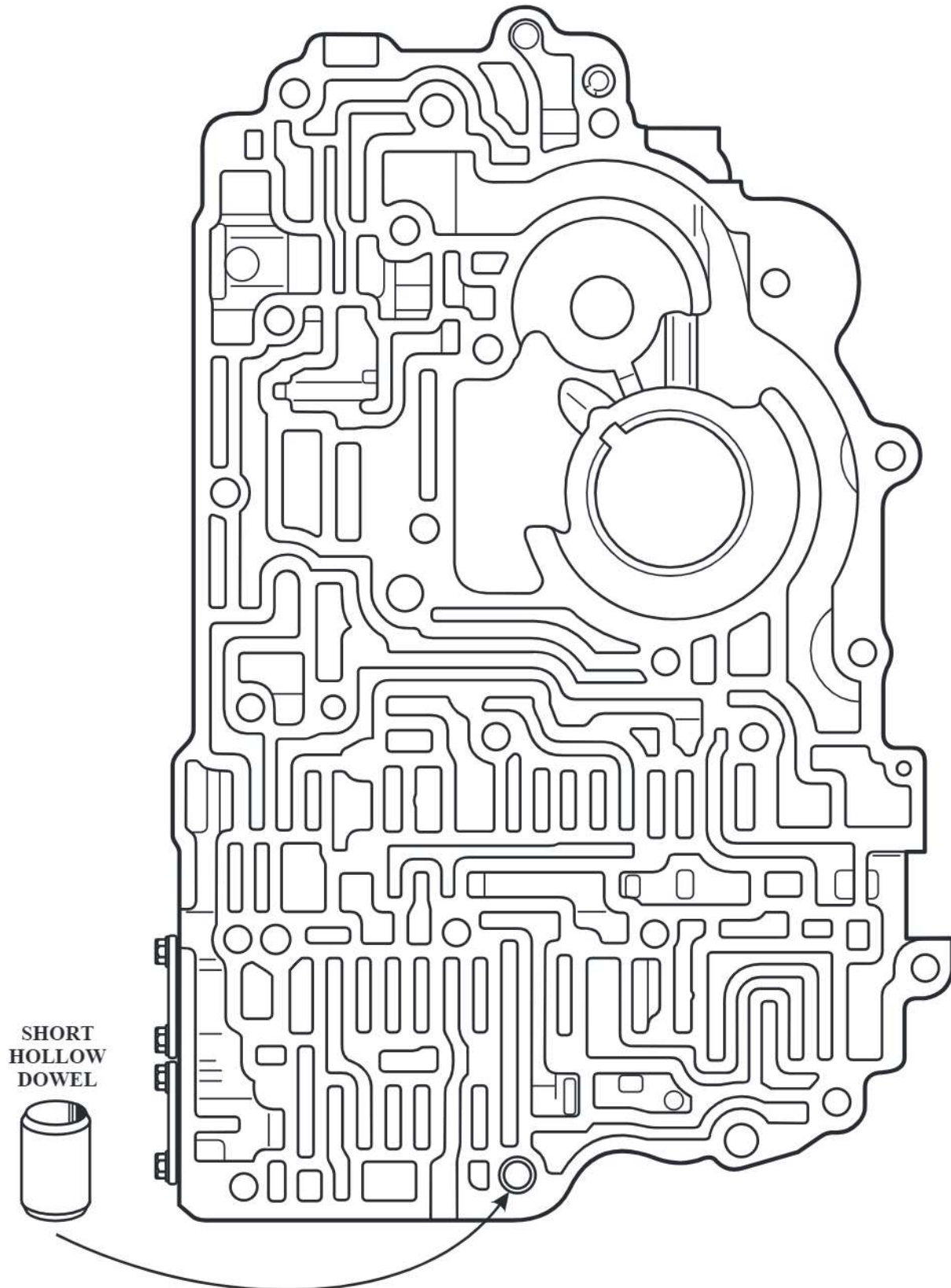
SHORT
HOLLOW
DOWEL



5.5mm (.216") DIAMETER
STEEL CHECKBALLS

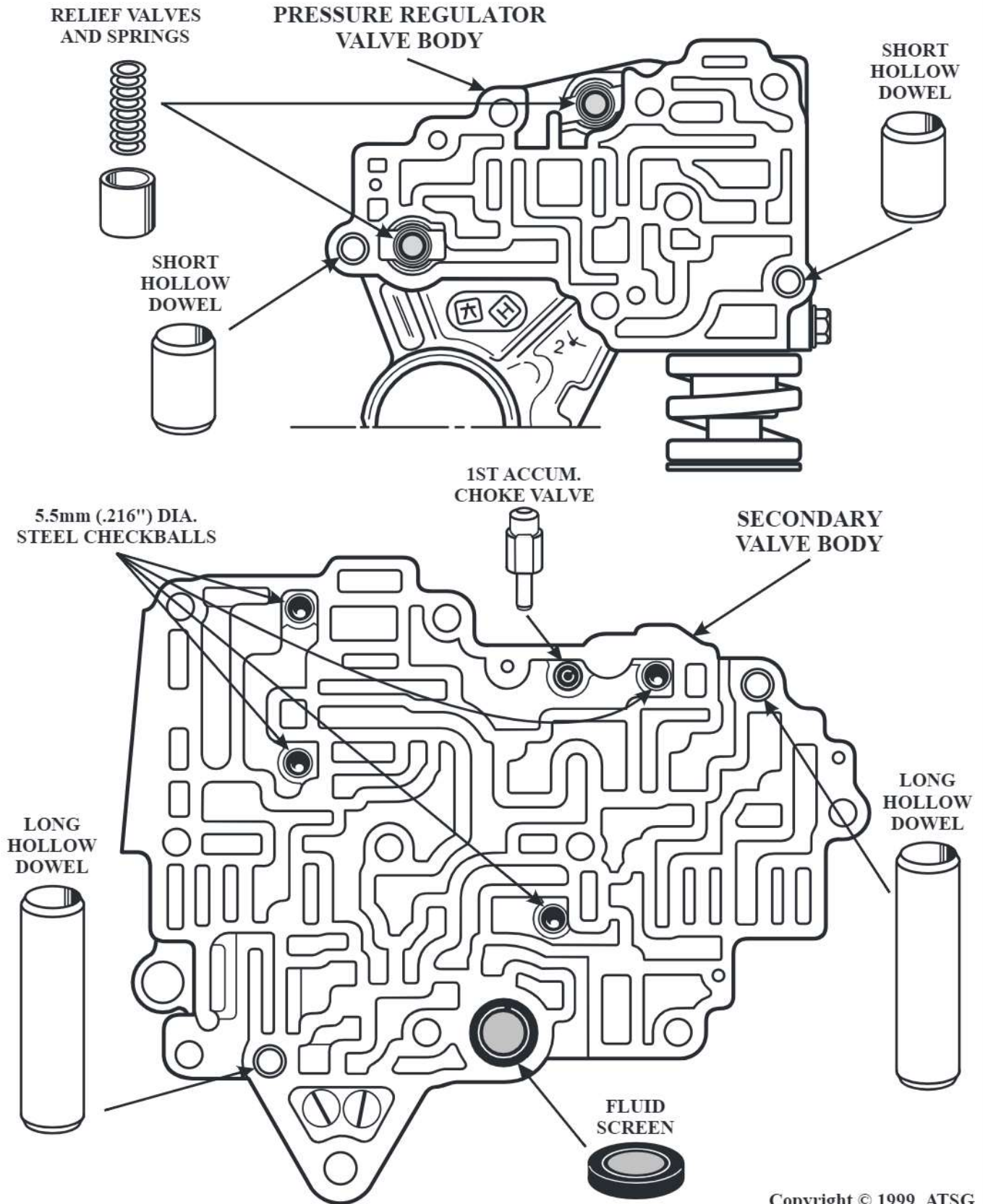
Copyright © 1999 ATSG

HONDA CIVIC MODEL "M24A" MAIN VALVE BODY "BOTTOM VIEW"



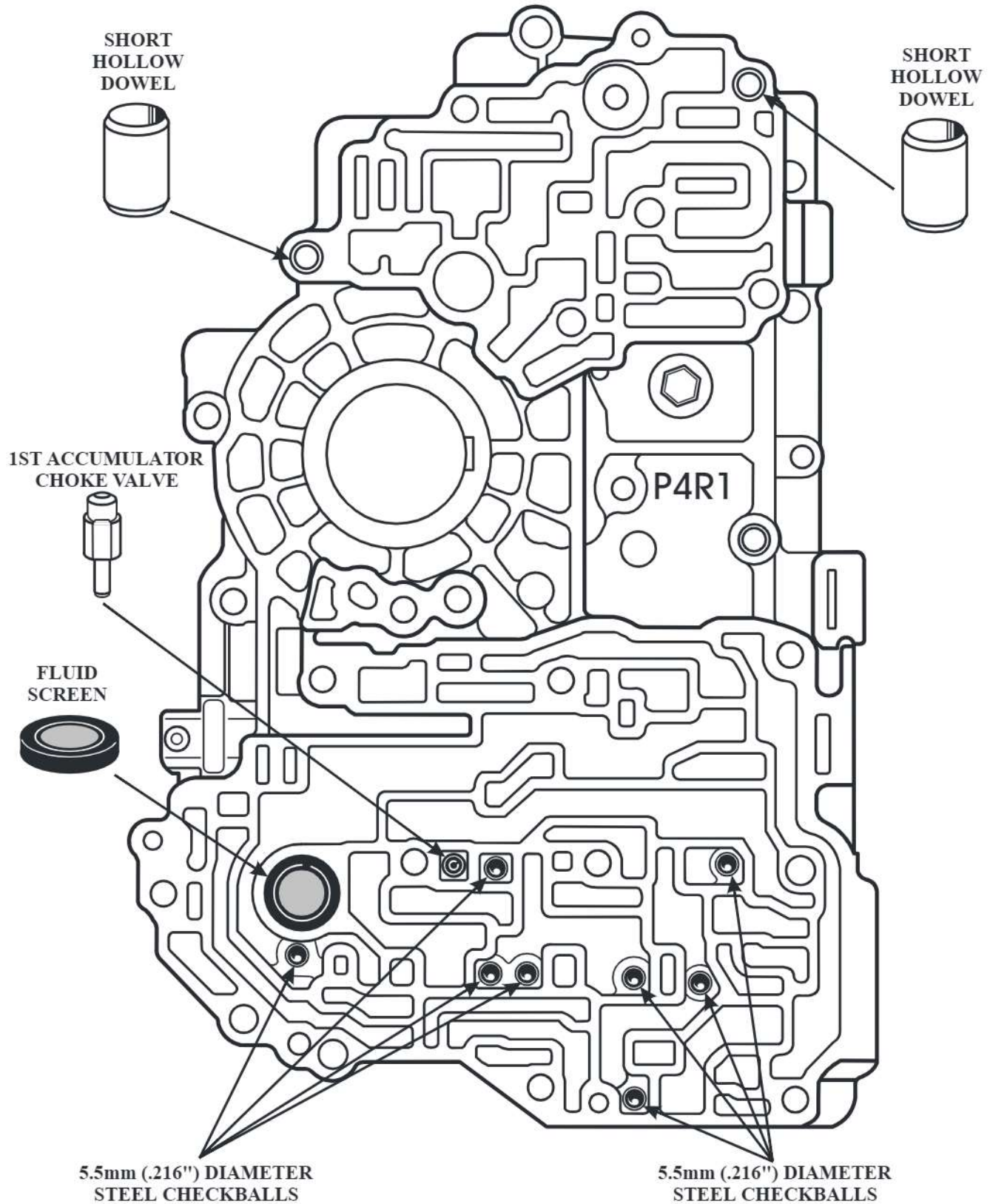
Copyright © 1999 ATSG

**HONDA CIVIC MODEL "M24A"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**



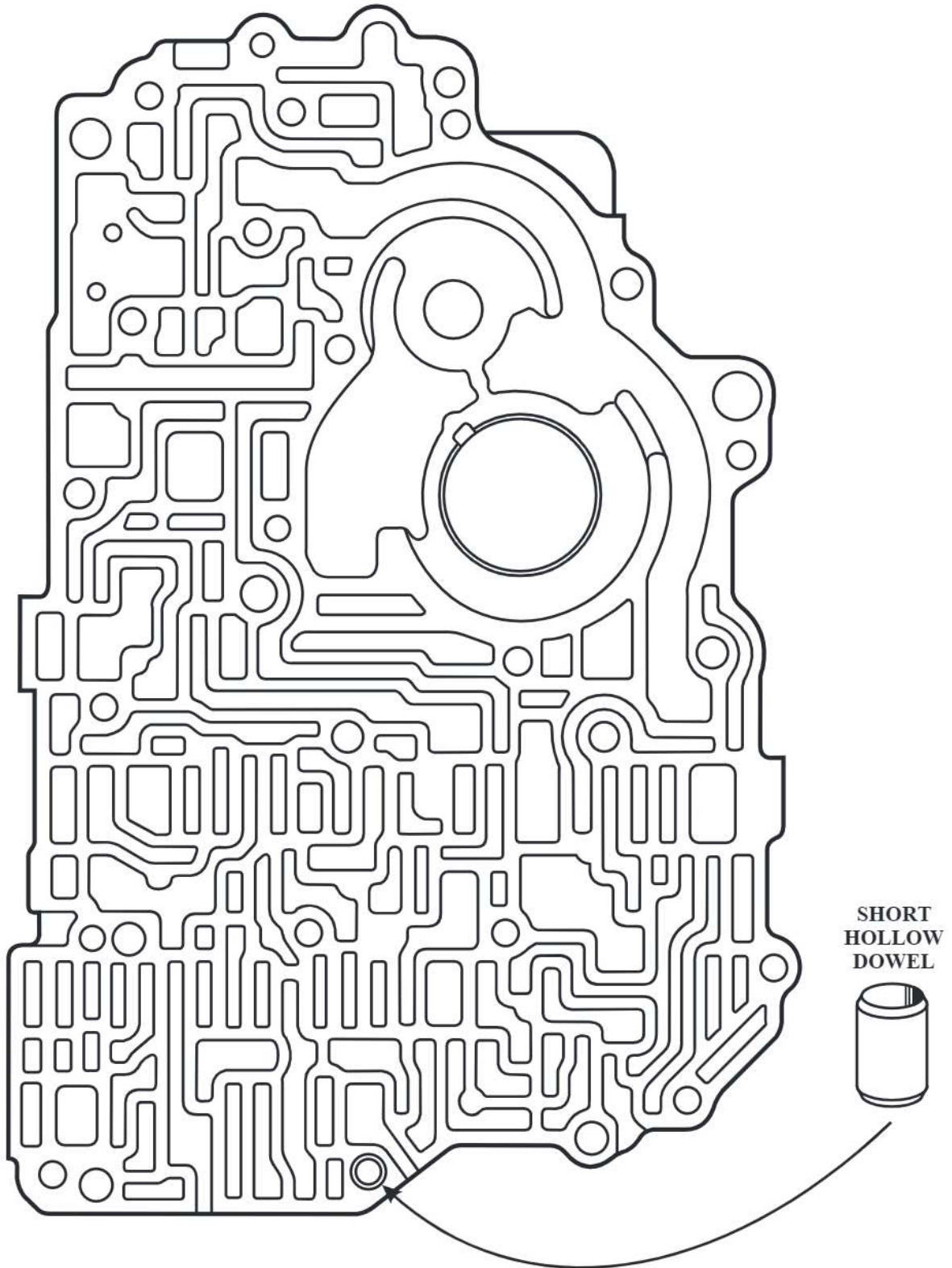
Copyright © 1999 ATSG

**HONDA CIVIC MODEL "A4RA"
MAIN VALVE BODY "TOP VIEW"**



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HONDA CIVIC MODEL "A4RA"
MAIN VALVE BODY "BOTTOM VIEW"



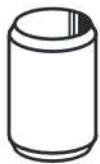
Copyright © 1999 ATSG

**HONDA CIVIC MODEL "A4RA"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

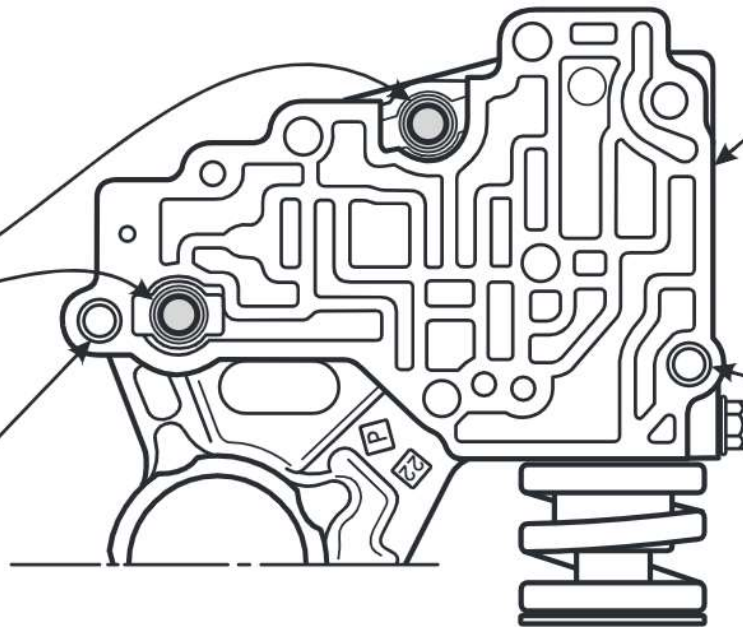
RELIEF VALVES
AND SPRINGS



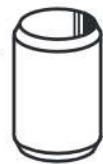
SHORT
HOLLOW
DOWEL



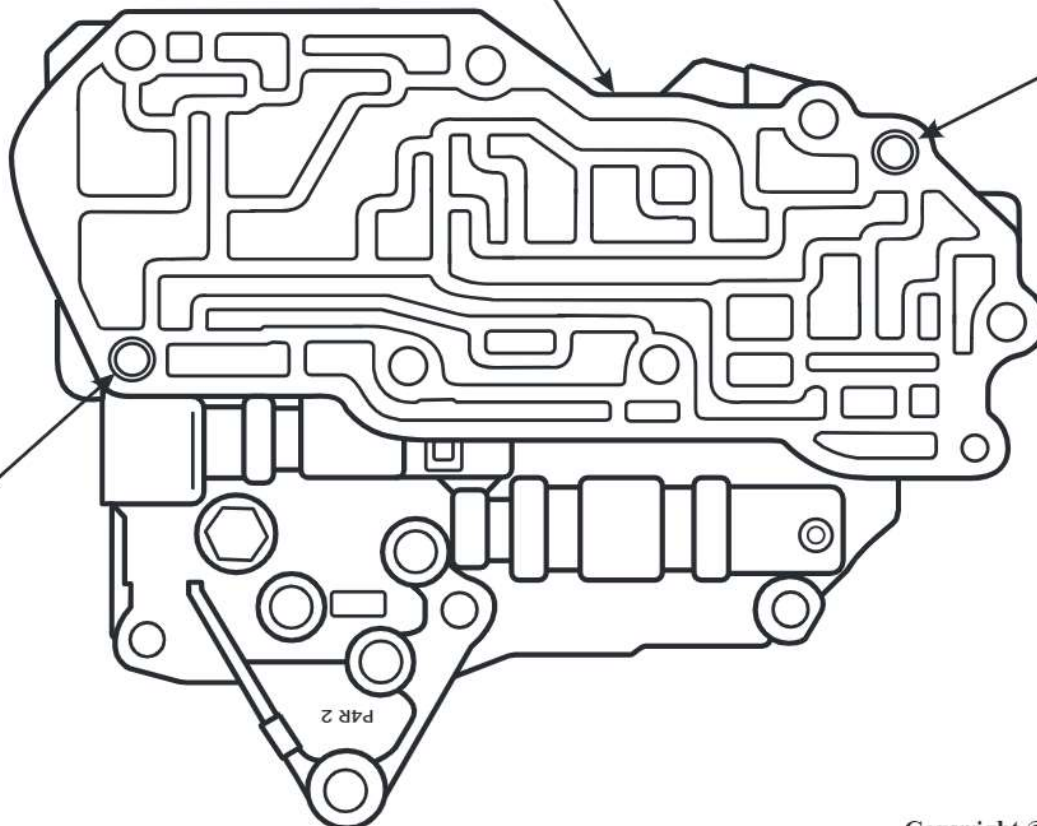
PRESSURE REGULATOR
VALVE BODY



SHORT
HOLLOW
DOWEL



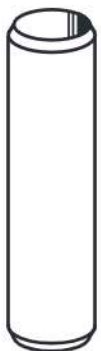
SECONDARY
VALVE BODY



LONG
HOLLOW
DOWEL



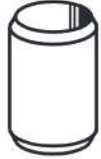
LONG
HOLLOW
DOWEL



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HONDA PRELUDE "Early" MODEL "K4"
MAIN VALVE BODY "TOP VIEW"

SHORT
HOLLOW
DOWEL



SHORT
HOLLOW
DOWEL

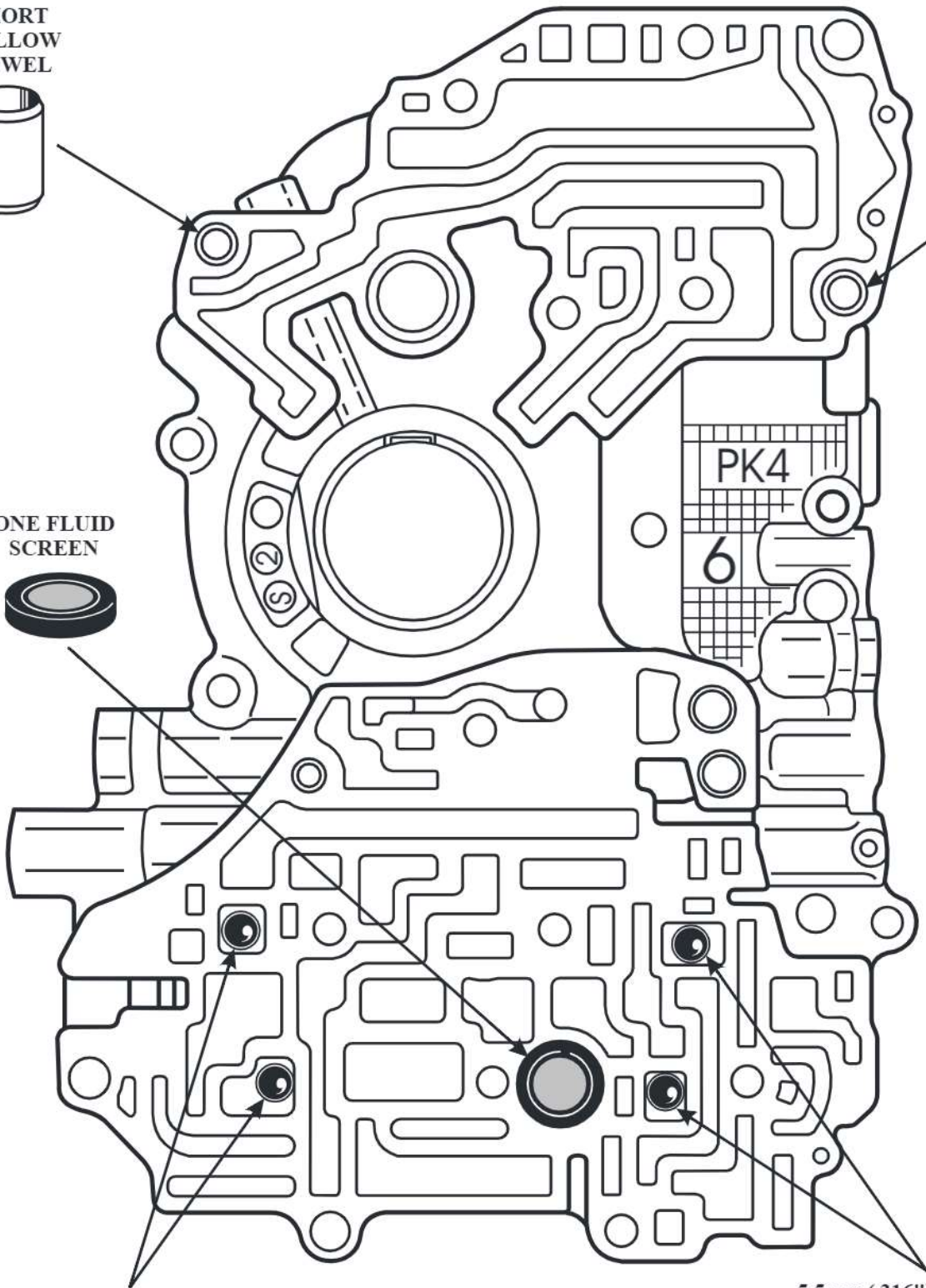


ONE FLUID
SCREEN



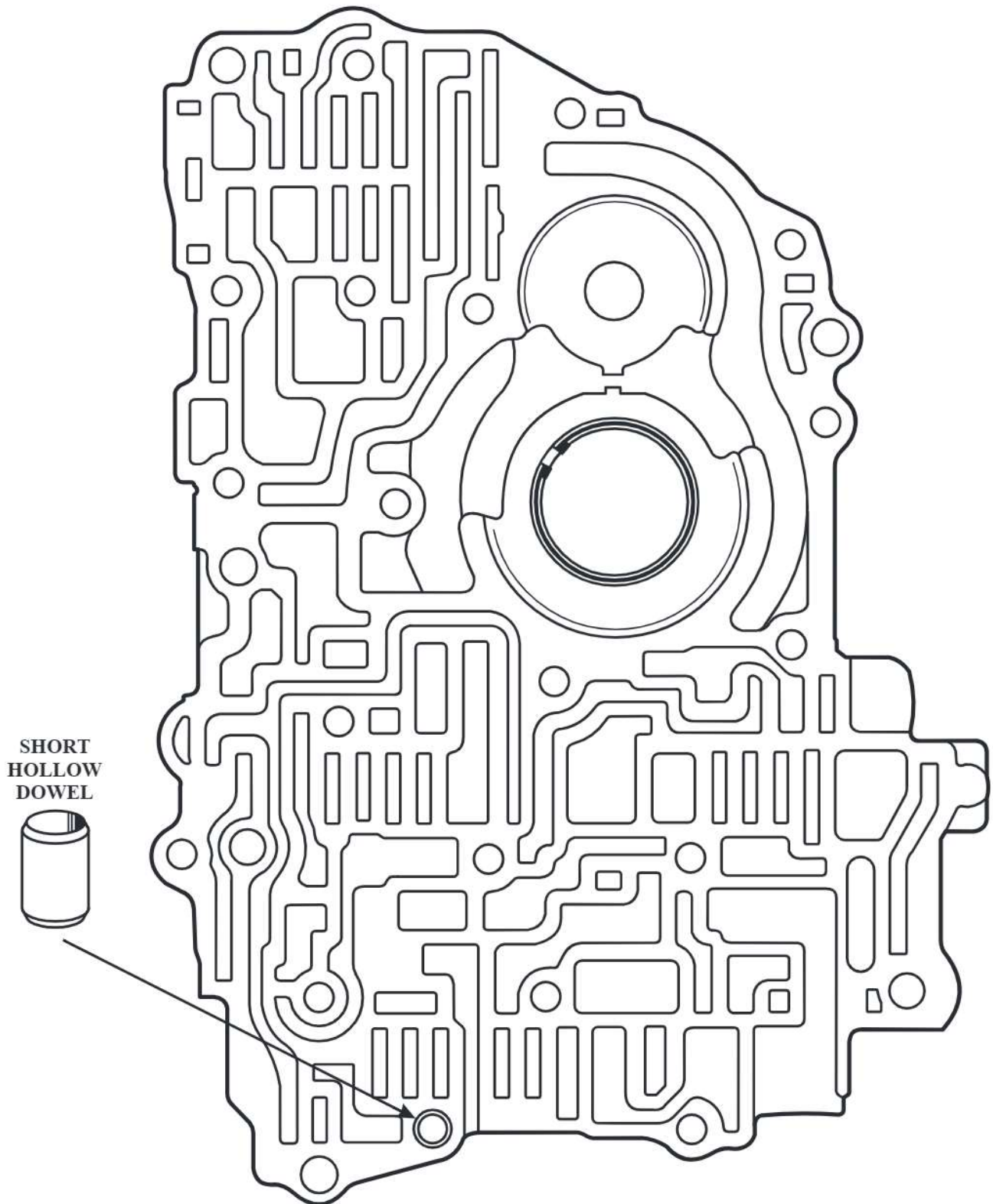
5.5mm (.216") DIAMETER
STEEL CHECKBALLS

5.5mm (.216") DIAMETER
STEEL CHECKBALLS



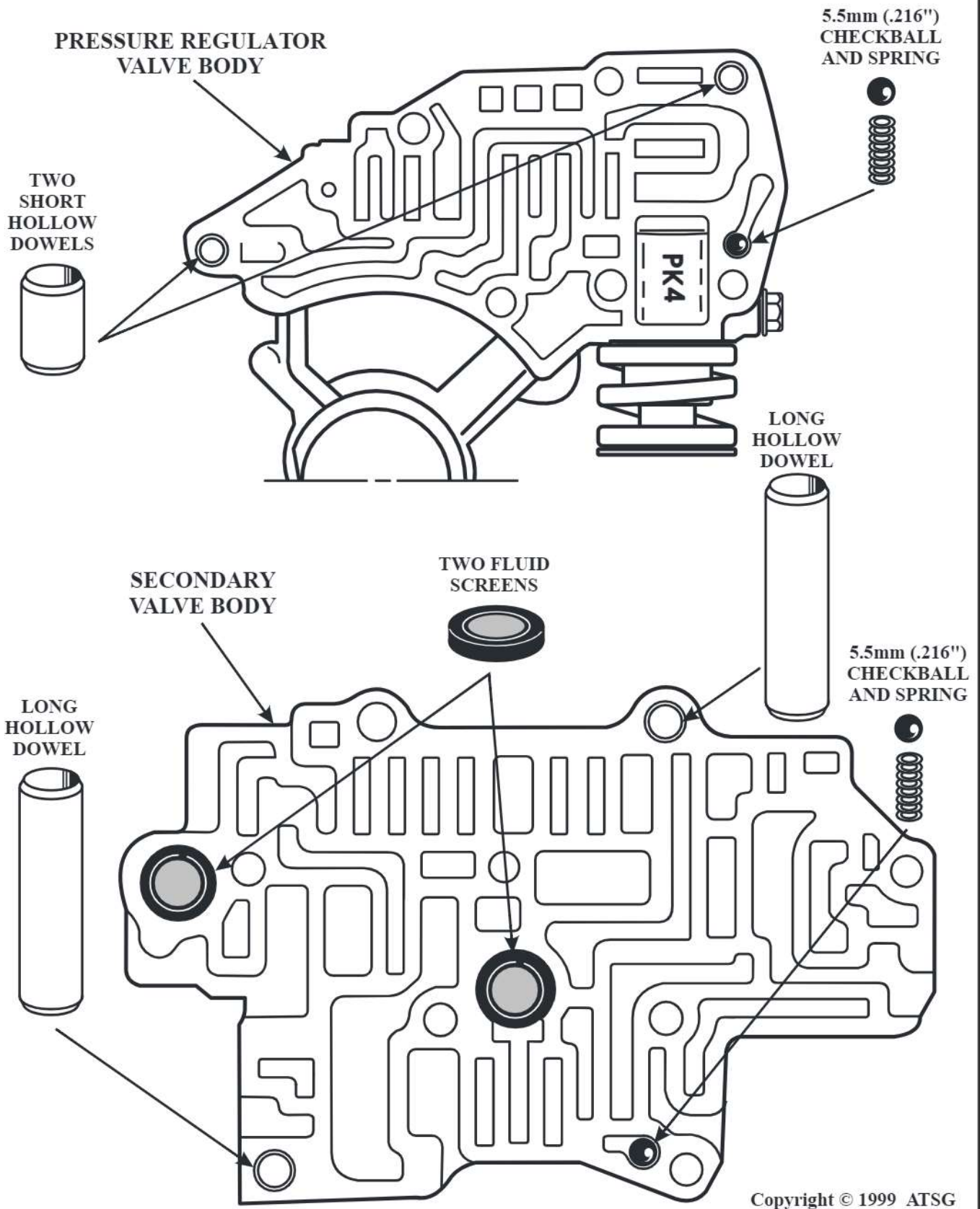
Copyright © 1999 ATSG

HONDA PRELUDE "Early" MODEL "K4" MAIN VALVE BODY "BOTTOM VIEW"



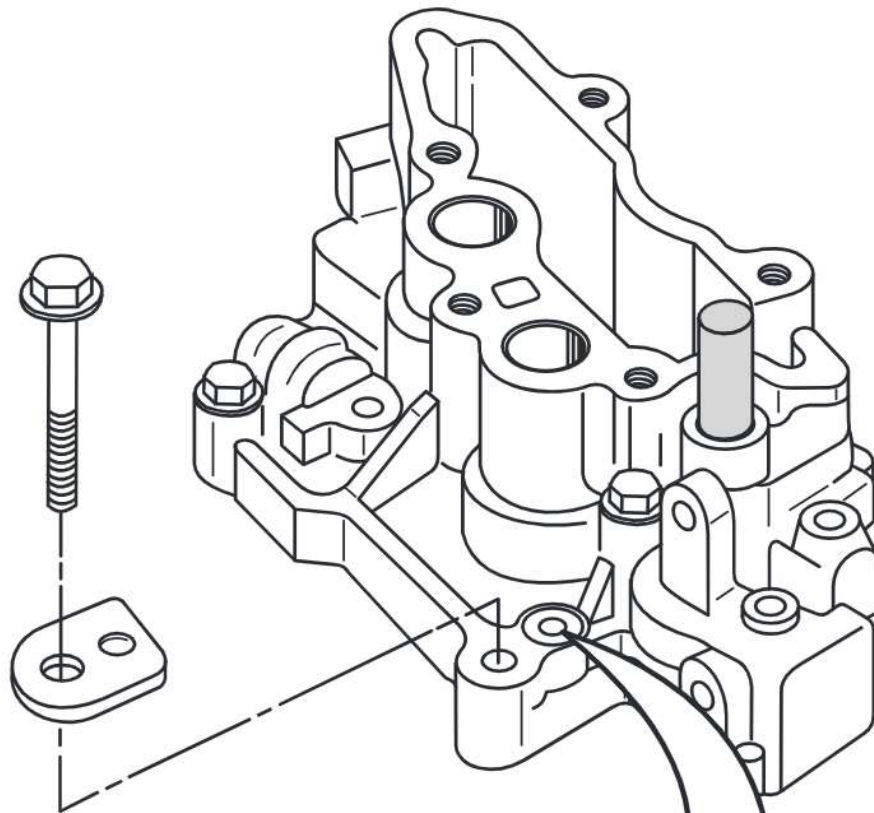
Copyright © 1999 ATSG

HONDA PRELUDE "Early" MODEL "K4"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY



Copyright © 1999 ATSG

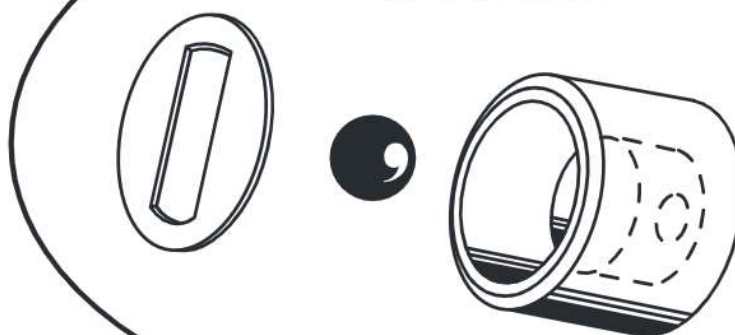
SERVO VALVE BODY



CAUTION:

The Servo Release Check Valve is staked into the servo valve body as shown, but it can fall out or can be blown out during cleaning process.

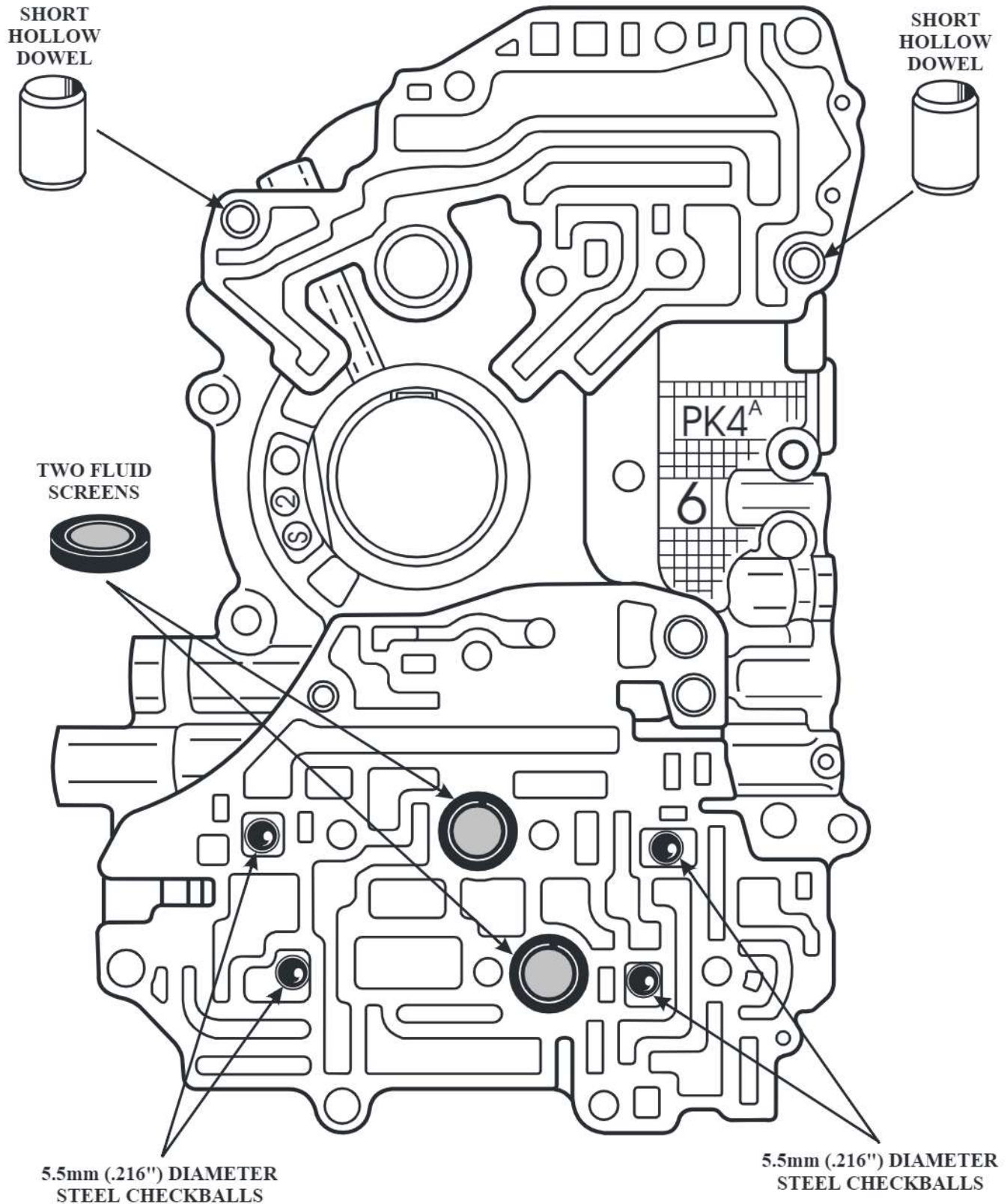
SERVO RELEASE CHECK VALVE



Copyright © 1999 ATSG

NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

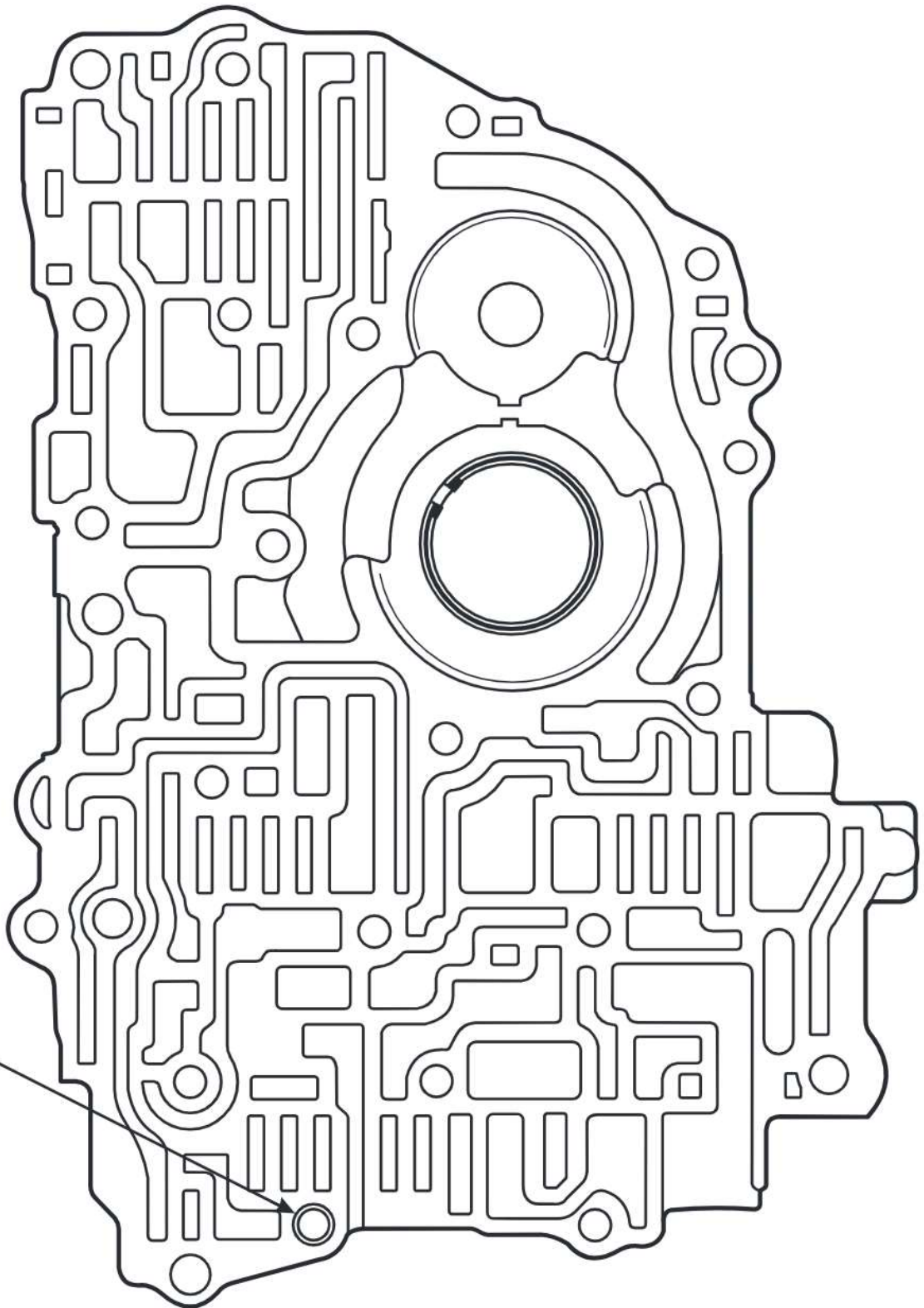
HONDA PRELUDE "Late" MODEL "K4"
MAIN VALVE BODY "TOP VIEW"



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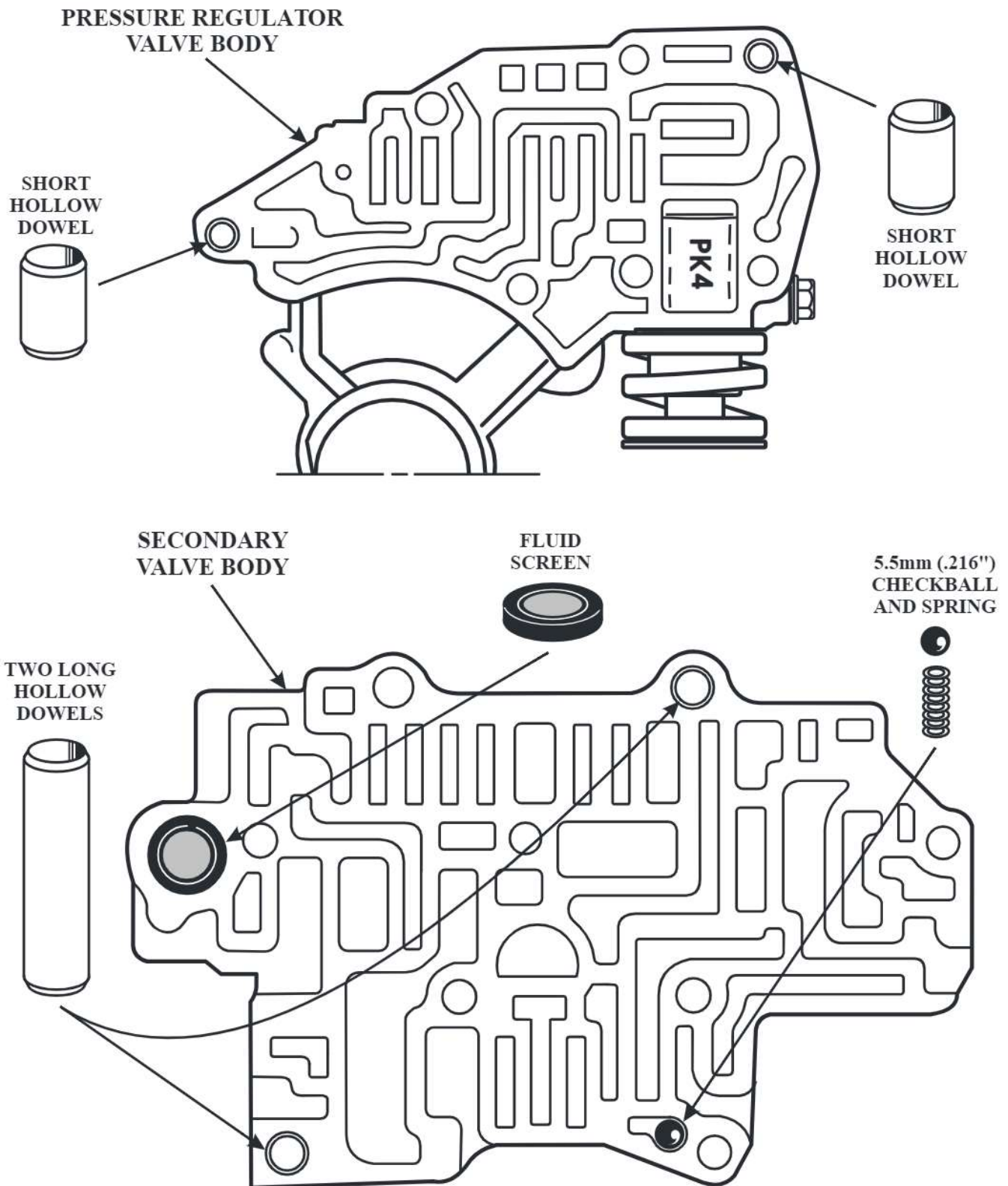
HONDA PRELUDE "Late" MODEL "K4"
MAIN VALVE BODY "BOTTOM VIEW"

SHORT
HOLLOW
DOWEL



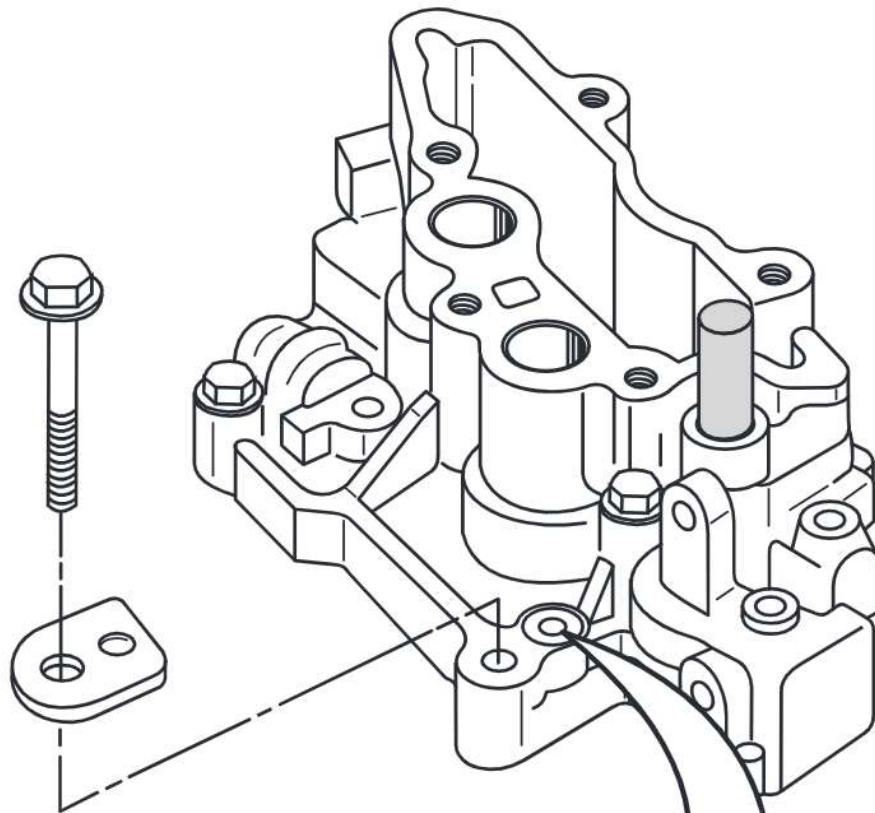
Copyright © 1999 ATSG

HONDA PRELUDE "Late" MODEL "K4"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY



Copyright © 1999 ATSG

SERVO VALVE BODY



CAUTION:

The Servo Release Check Valve is staked into the servo valve body as shown, but it can fall out or can be blown out during cleaning process.

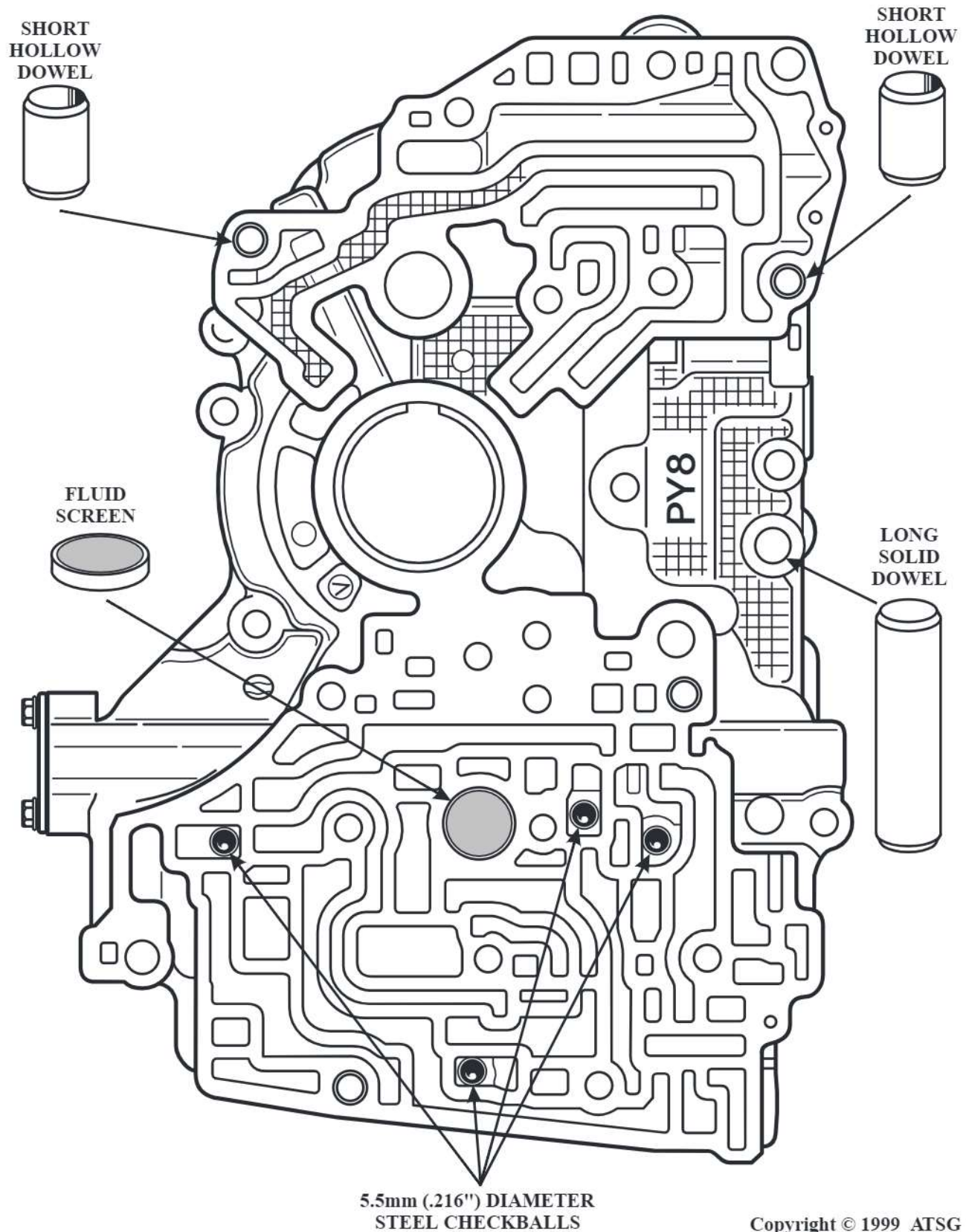
SERVO RELEASE CHECK VALVE



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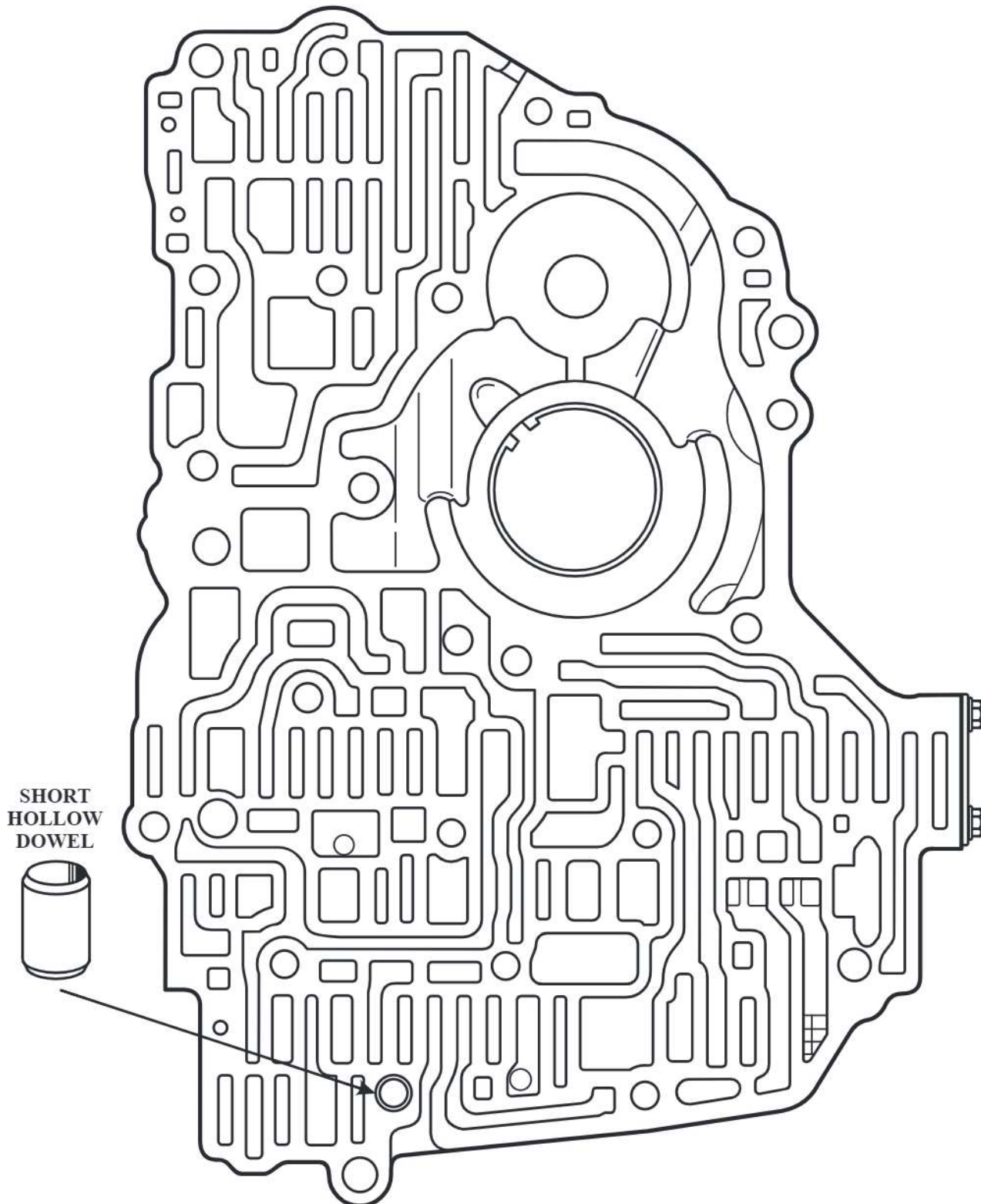
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

**HONDA PRELUDE MODEL "PY8A"
MAIN VALVE BODY "TOP VIEW"**



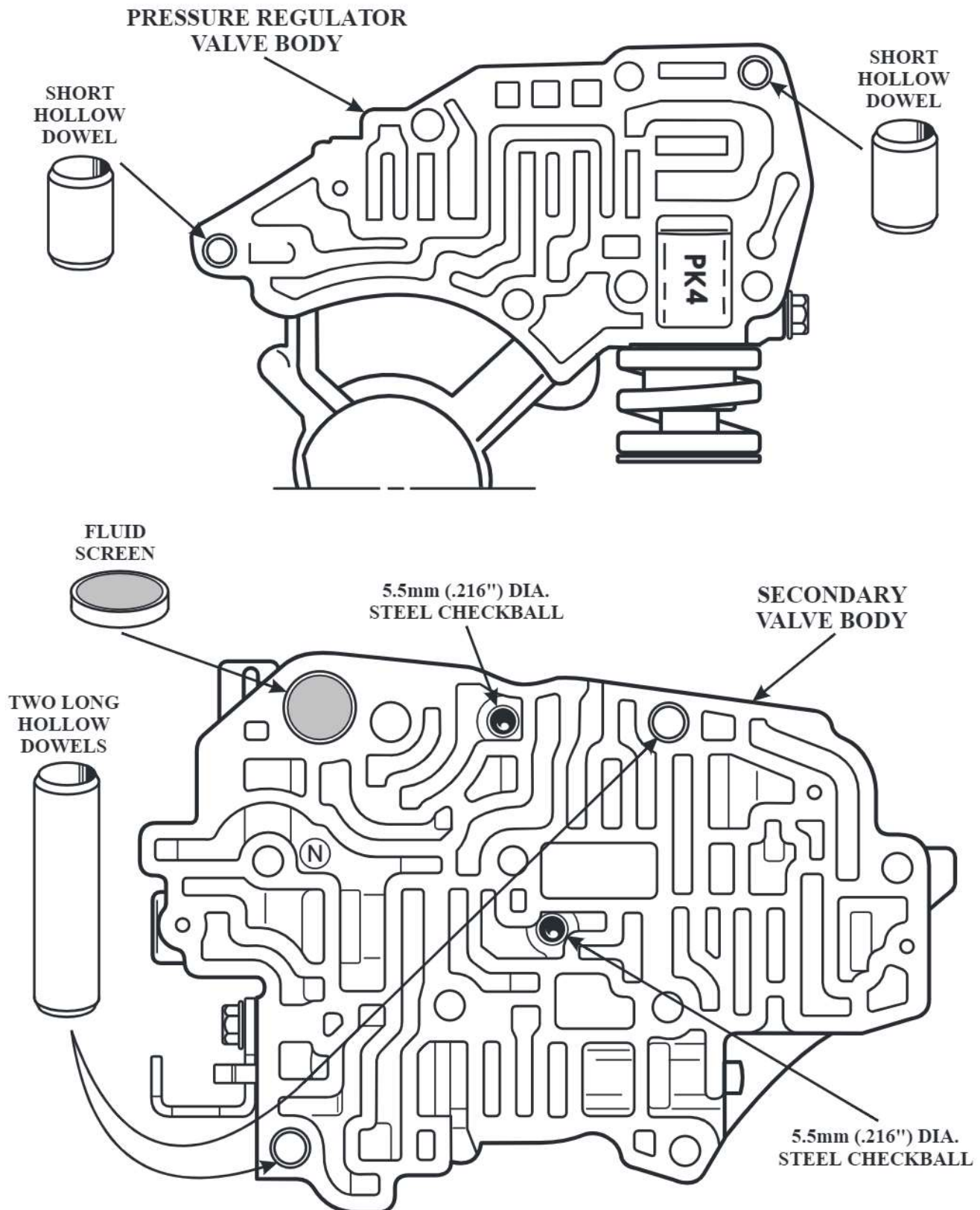
Copyright © 1999 ATSG

HONDA PRELUDE MODEL "PY8A"
MAIN VALVE BODY "BOTTOM VIEW"



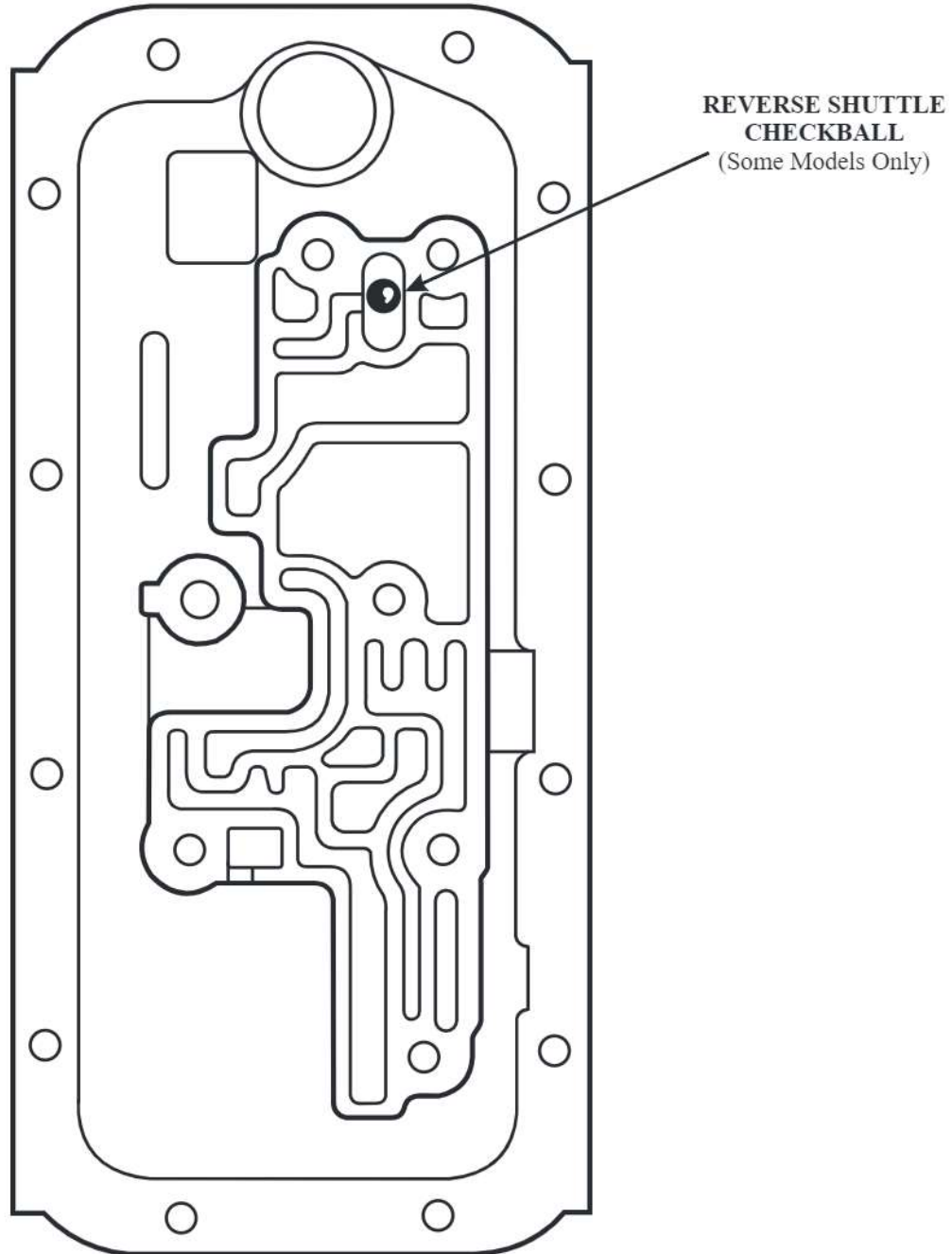
Copyright © 1999 ATSG

HONDA PRELUDE MODEL "PY8A"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY



Copyright © 1999 ATSG

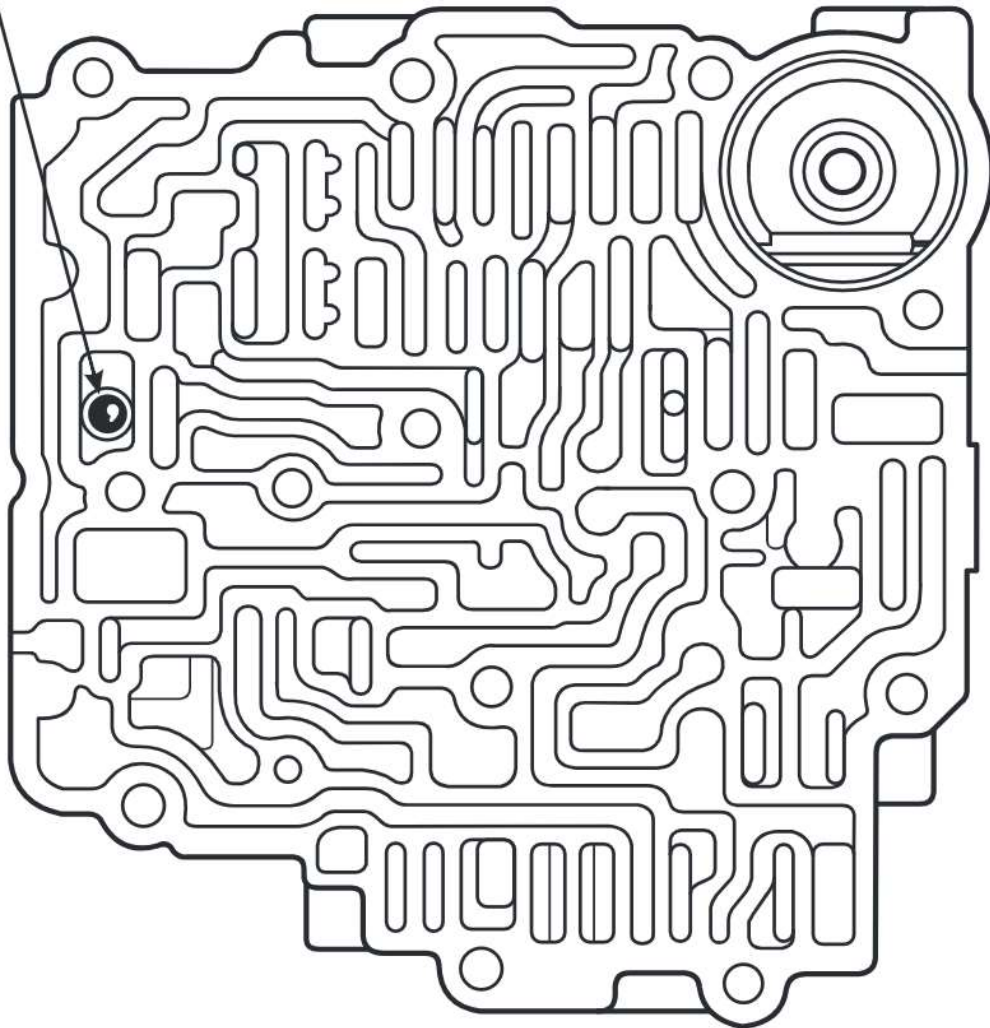
**HONDA PASSPORT CHECKBALL LOCATIONS
4L30-E OVERDRIVE CASE**



Copyright © 1999 ATSG

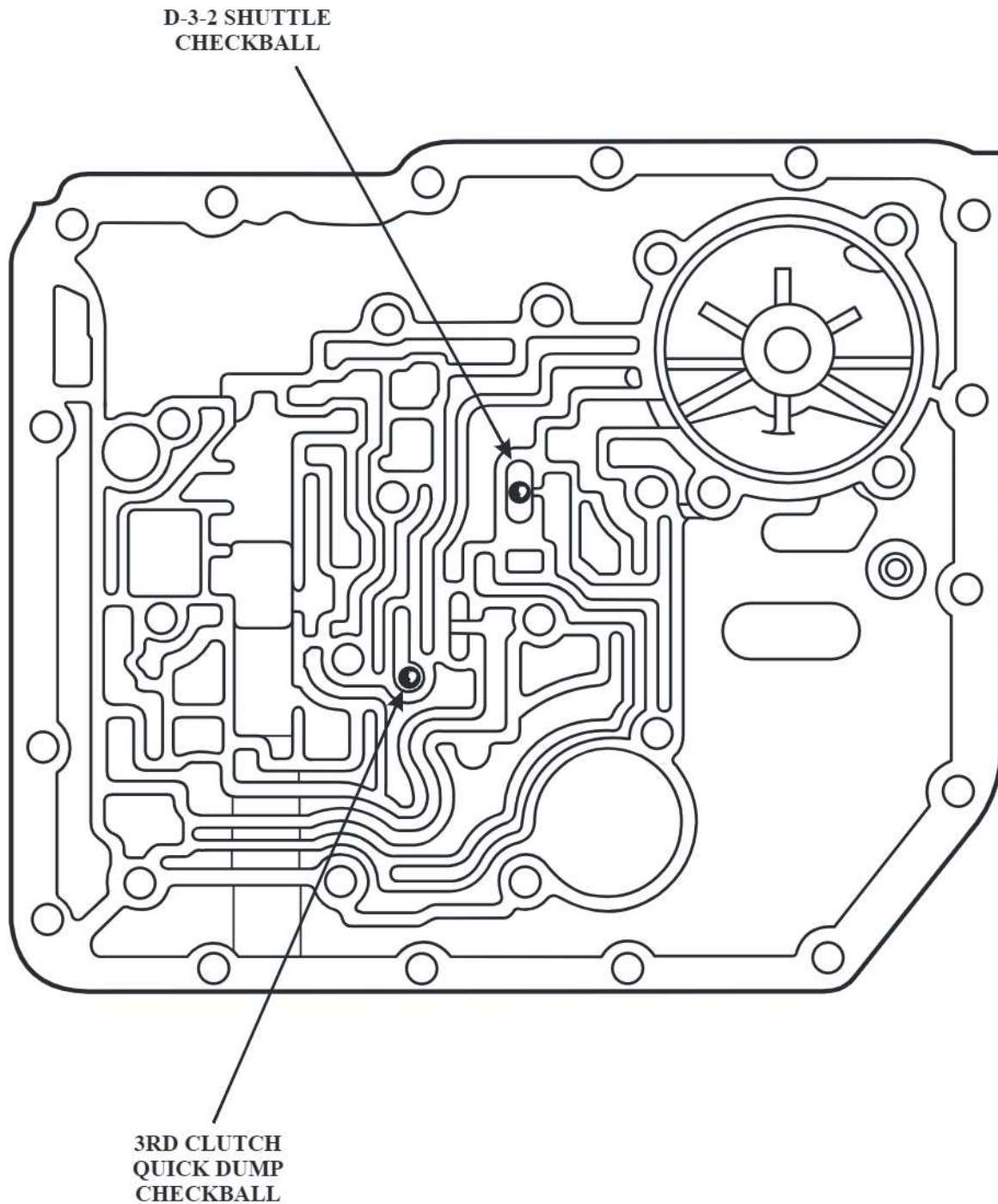
**HONDA PASSPORT CHECKBALL LOCATIONS
4L30-E MAIN VALVE BODY**

**3RD CLUTCH
CHECKBALL**



Copyright © 1999 ATSG

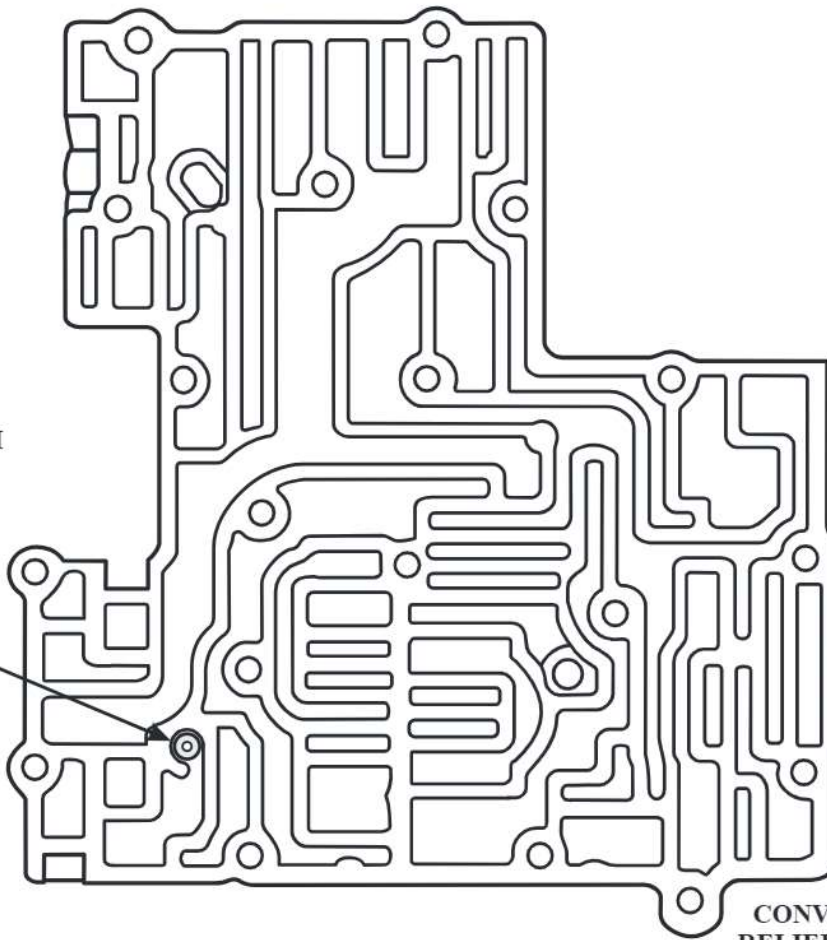
**HONDA PASSPORT CHECKBALL LOCATIONS
4L30-E MAIN CASE**



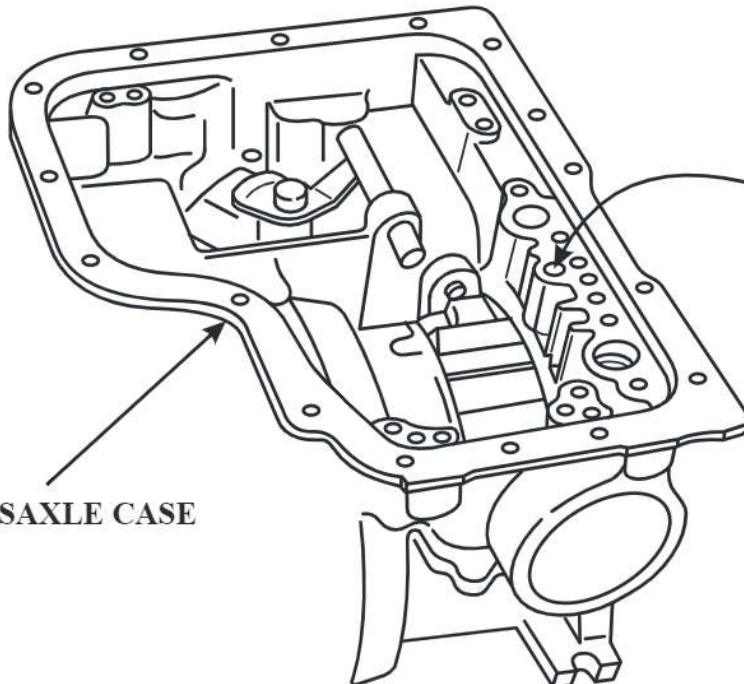
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F3A/KF-100 TRANSAXLE "UPPER" VALVE BODY AND CASE

DIRECT CLUTCH
FEED ORIFICE,
REVERSE ONLY
(No Spring)



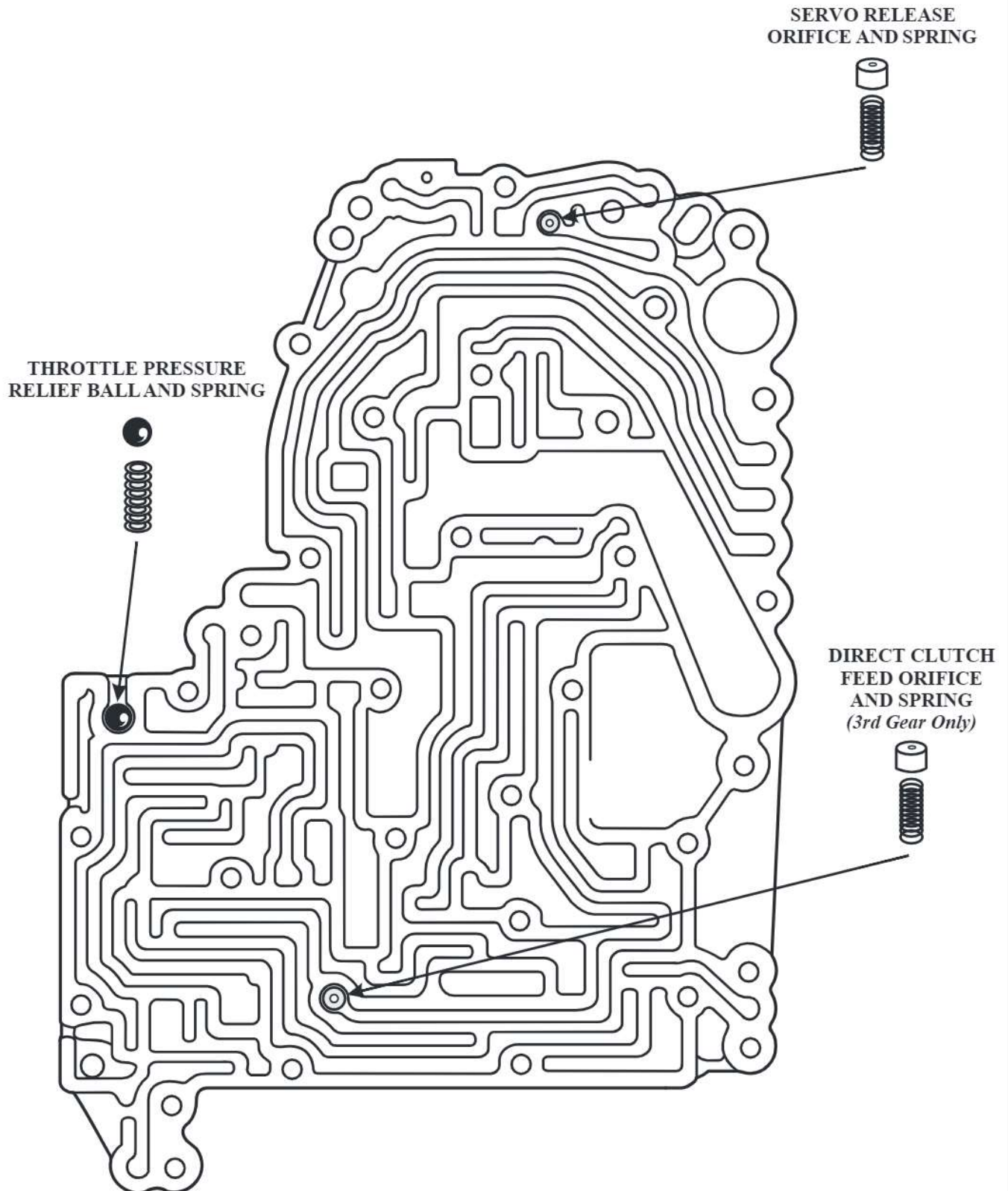
CONVERTER PRESSURE
RELIEF BALL AND SPRING



TRANSAXLE CASE

Copyright © 1999 ATSG

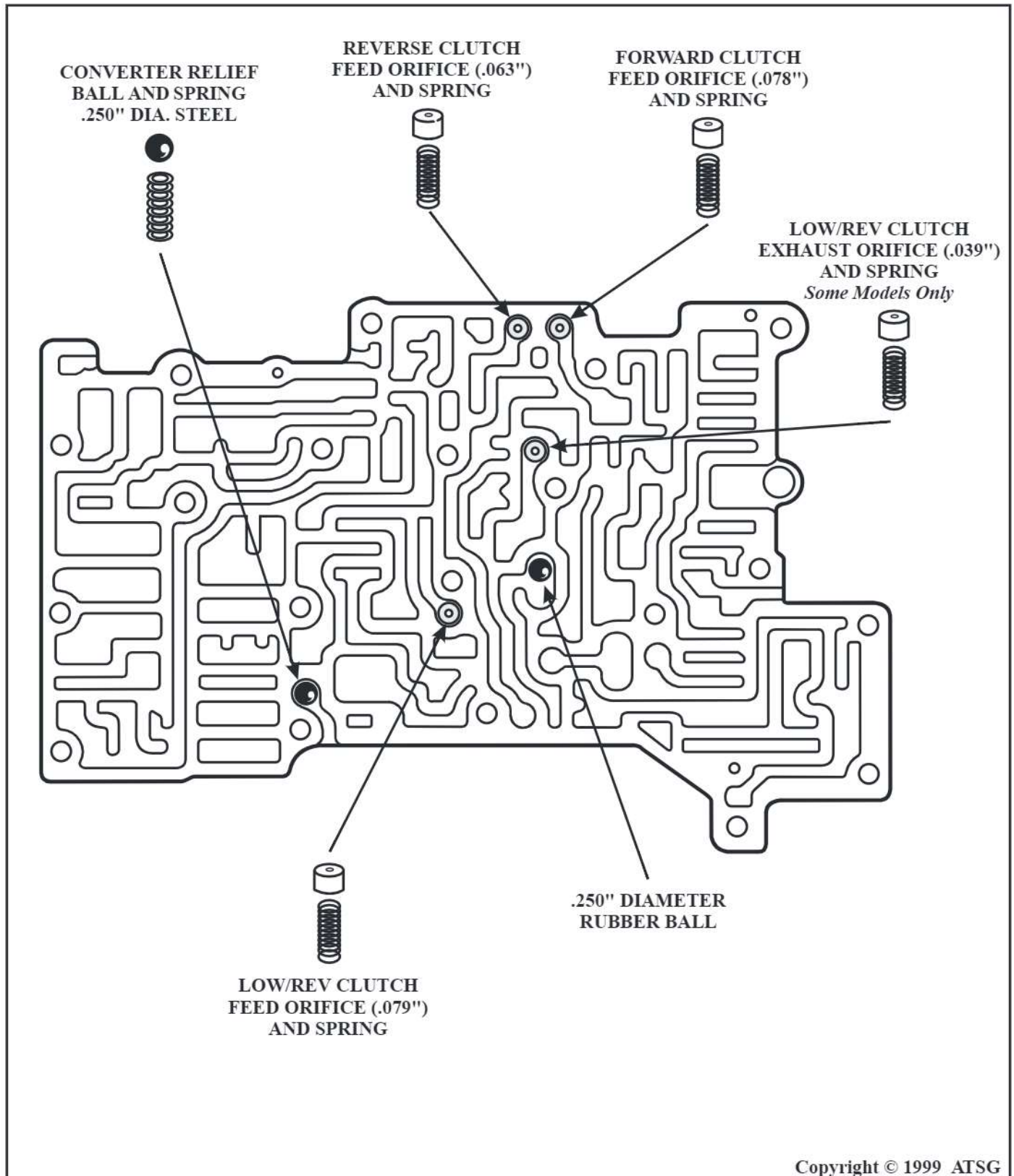
F3A/KF-100 TRANSAXLE "LOWER" VALVE BODY



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MAZDA G4A-HL

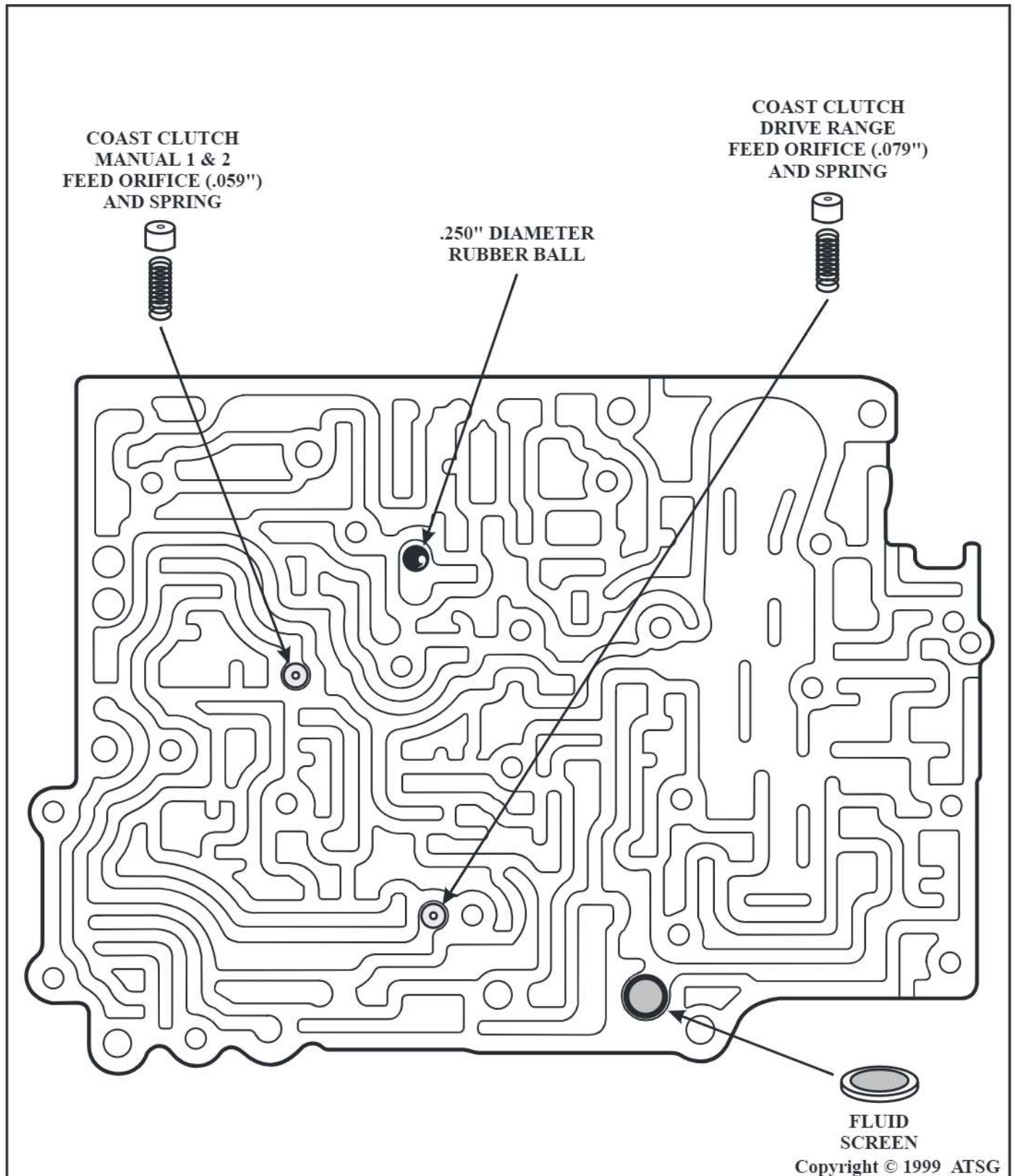
"REAR" CONTROL VALVE BODY ORIFICE AND CHECKBALL LOCATIONS



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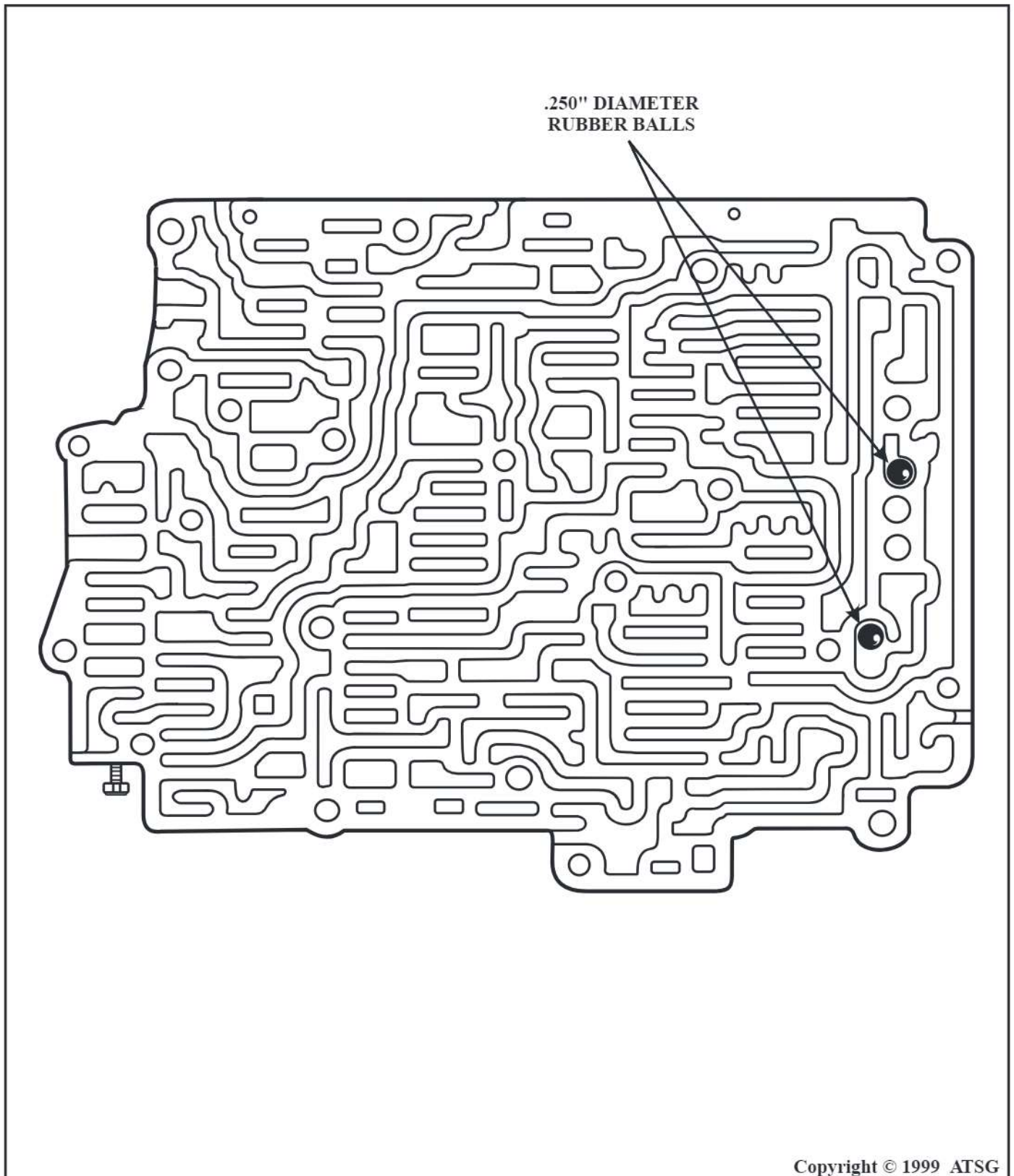
MAZDA G4A-HL

"MAIN" CONTROL VALVE BODY, REAR BODY SIDE ORIFICE AND CHECKBALL LOCATIONS

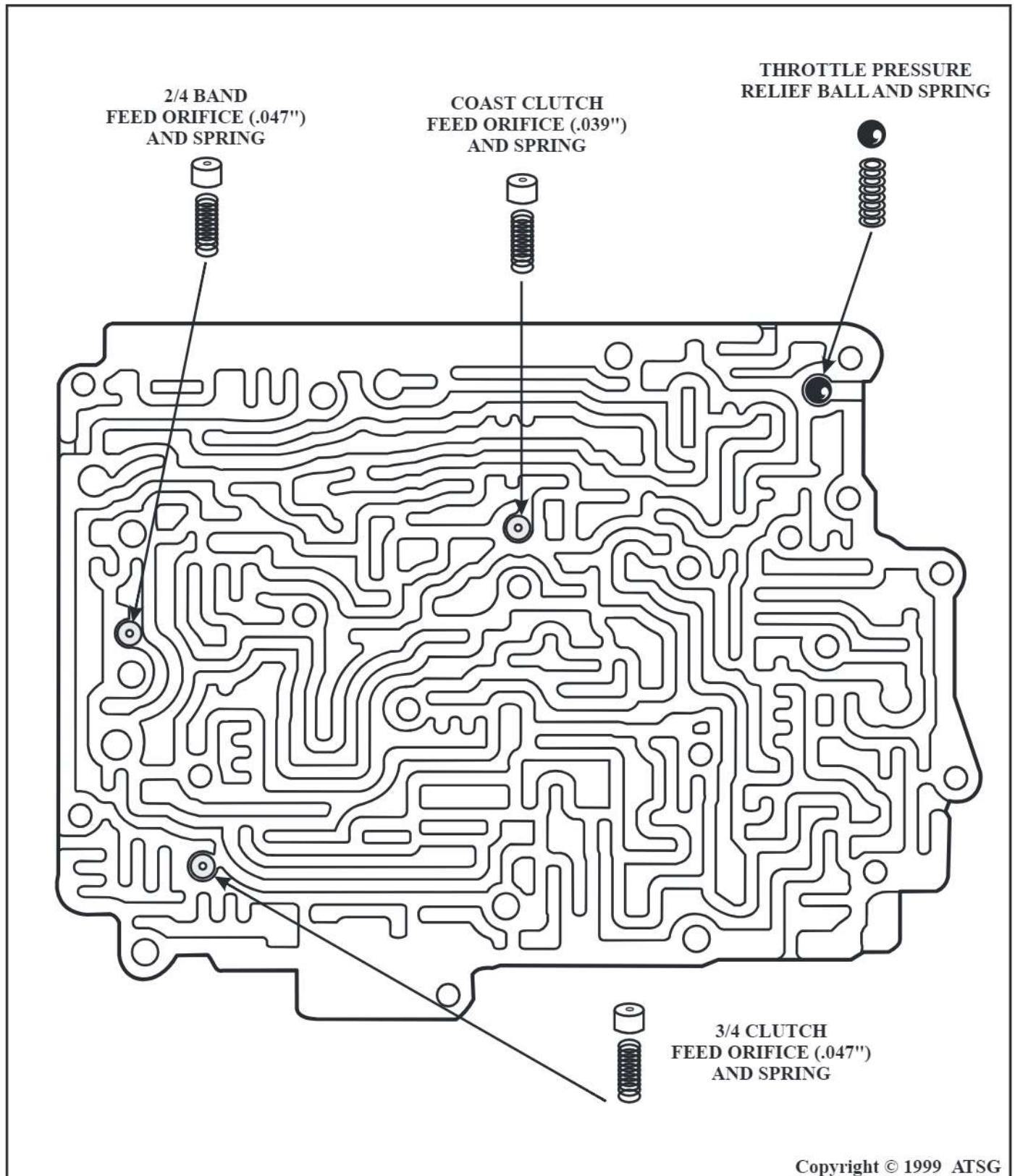


MAZDA G4A-HL

"MAIN" CONTROL VALVE BODY, PREMAIN BODY SIDE ORIFICE AND CHECKBALL LOCATIONS



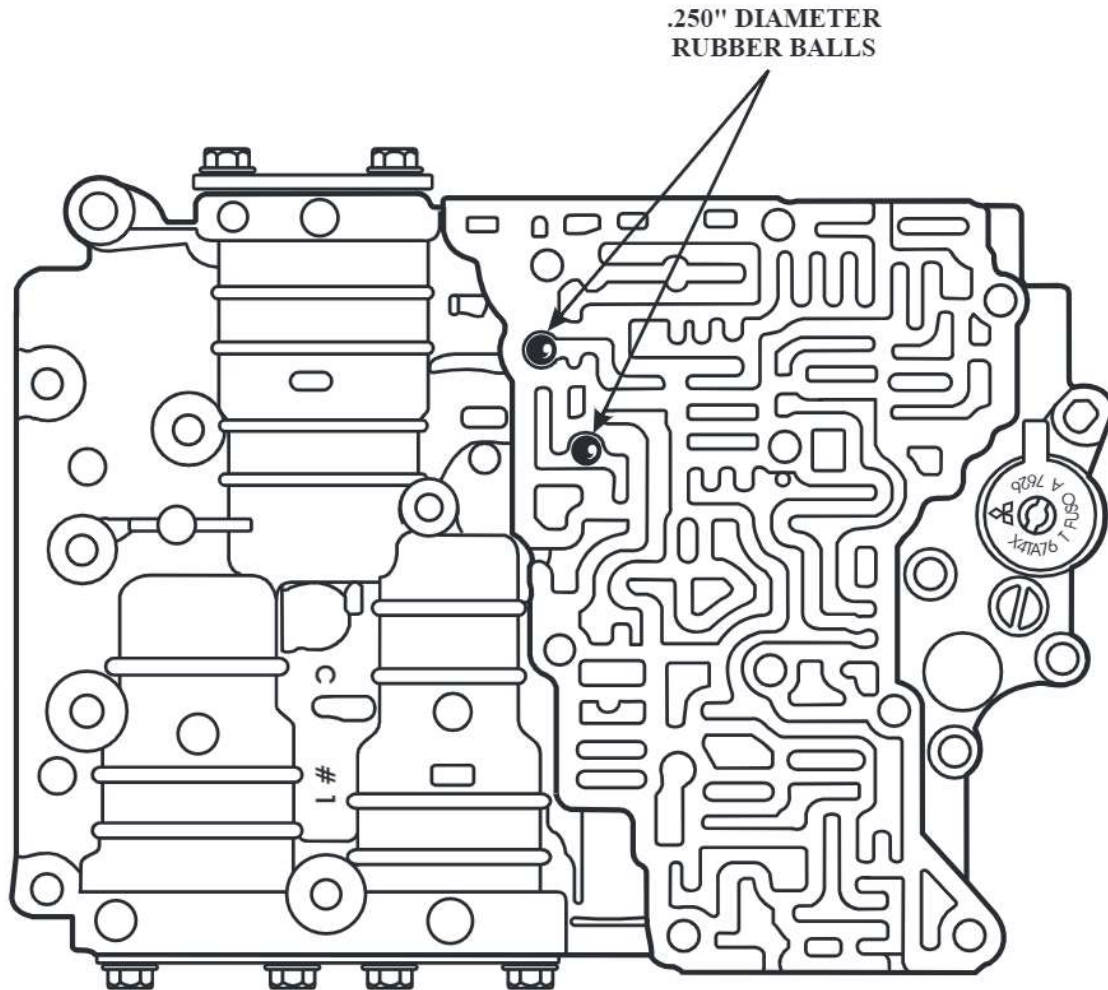
MAZDA G4A-HL "PREMAIN" CONTROL VALVE BODY, MAIN BODY SIDE ORIFICE AND CHECKBALL LOCATIONS



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MAZDA G4A-HL

"PREMAIN" CONTROL VALVE BODY, FRONT BODY SIDE ORIFICE AND CHECKBALL LOCATIONS



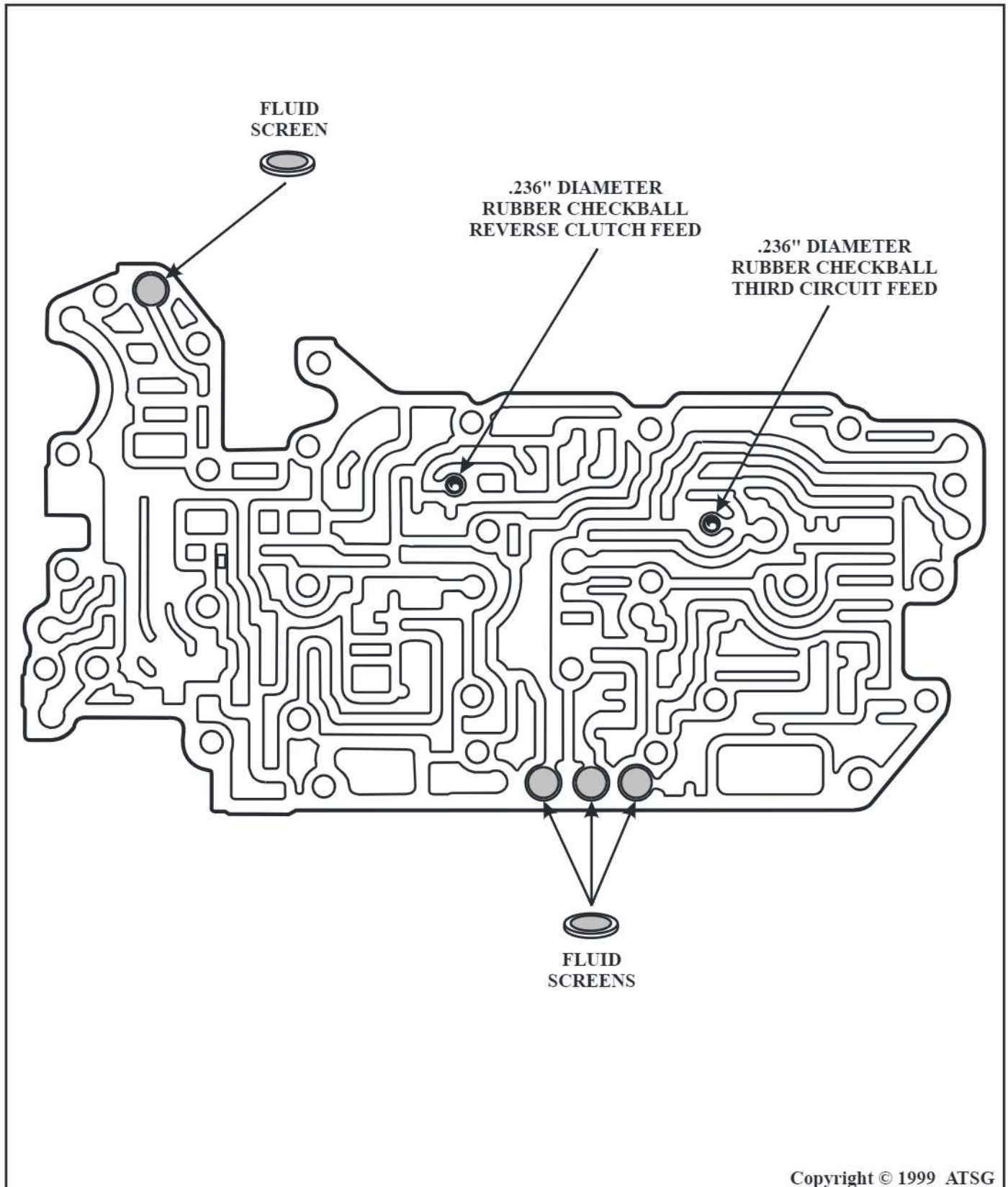
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We wish to thank the following for supplying the actual valve bodies that have made these illustrations possible.



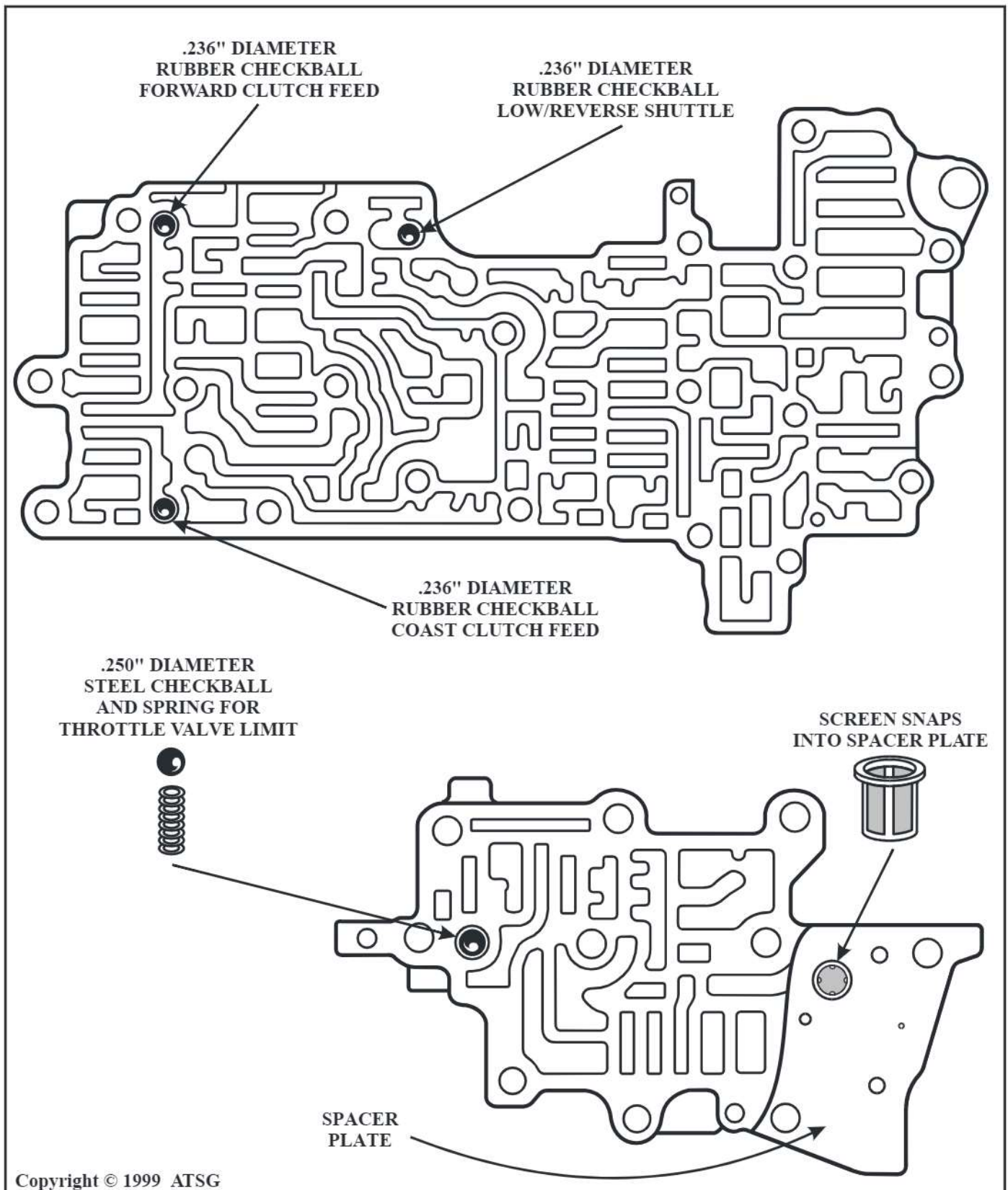
2414 SW 8TH STREET
MIAMI, FLORIDA 33135
TOLL FREE (800) 966-4621
PHONE (305) 642-4621
FAX (305) 541-1444

MAZDA F4A-EL MAIN VALVE BODY



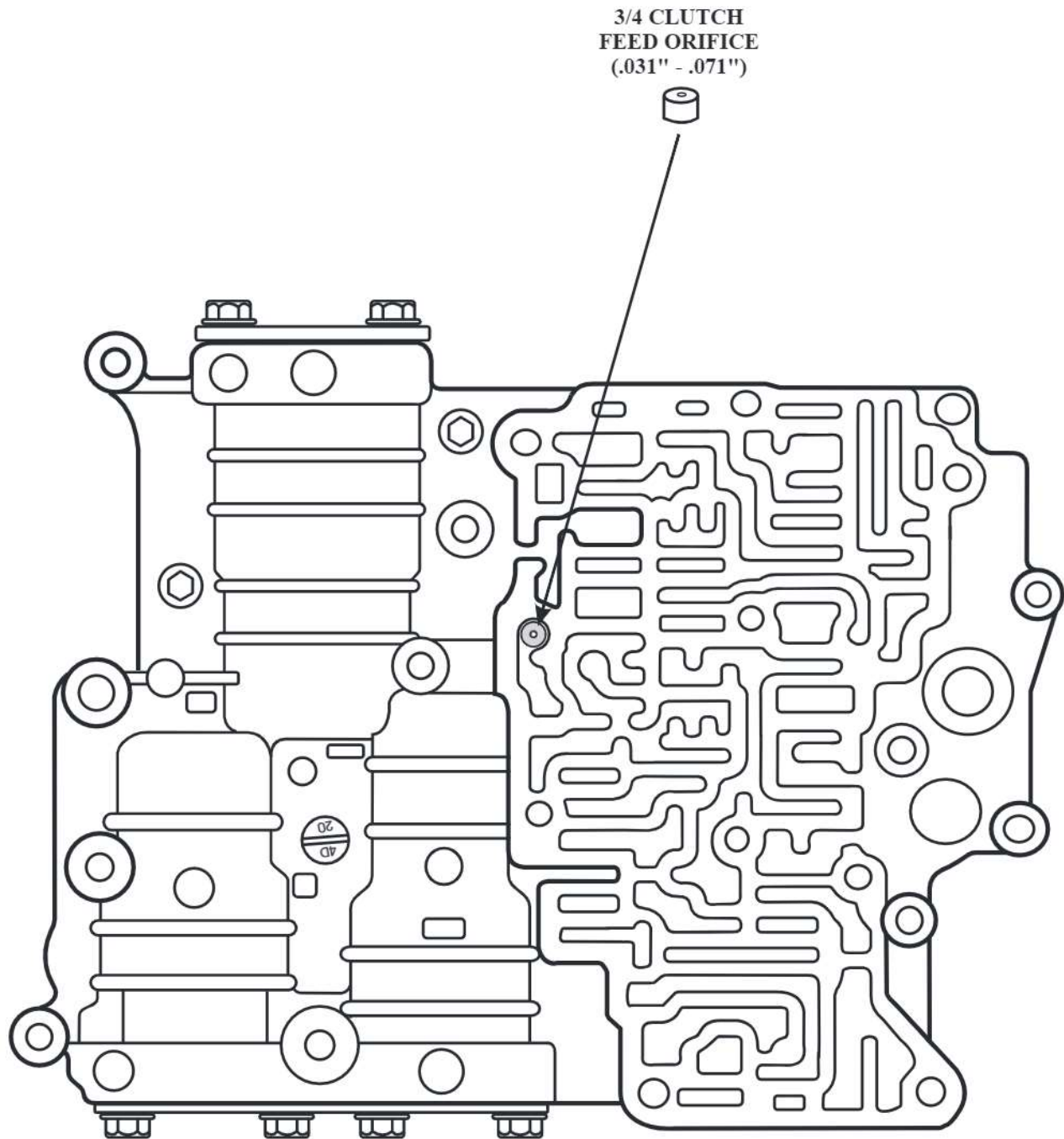
Copyright © 1999 ATSG

MAZDA F4A-EL LOWER VALVE BODY AND THROTTLE VALVE BODY



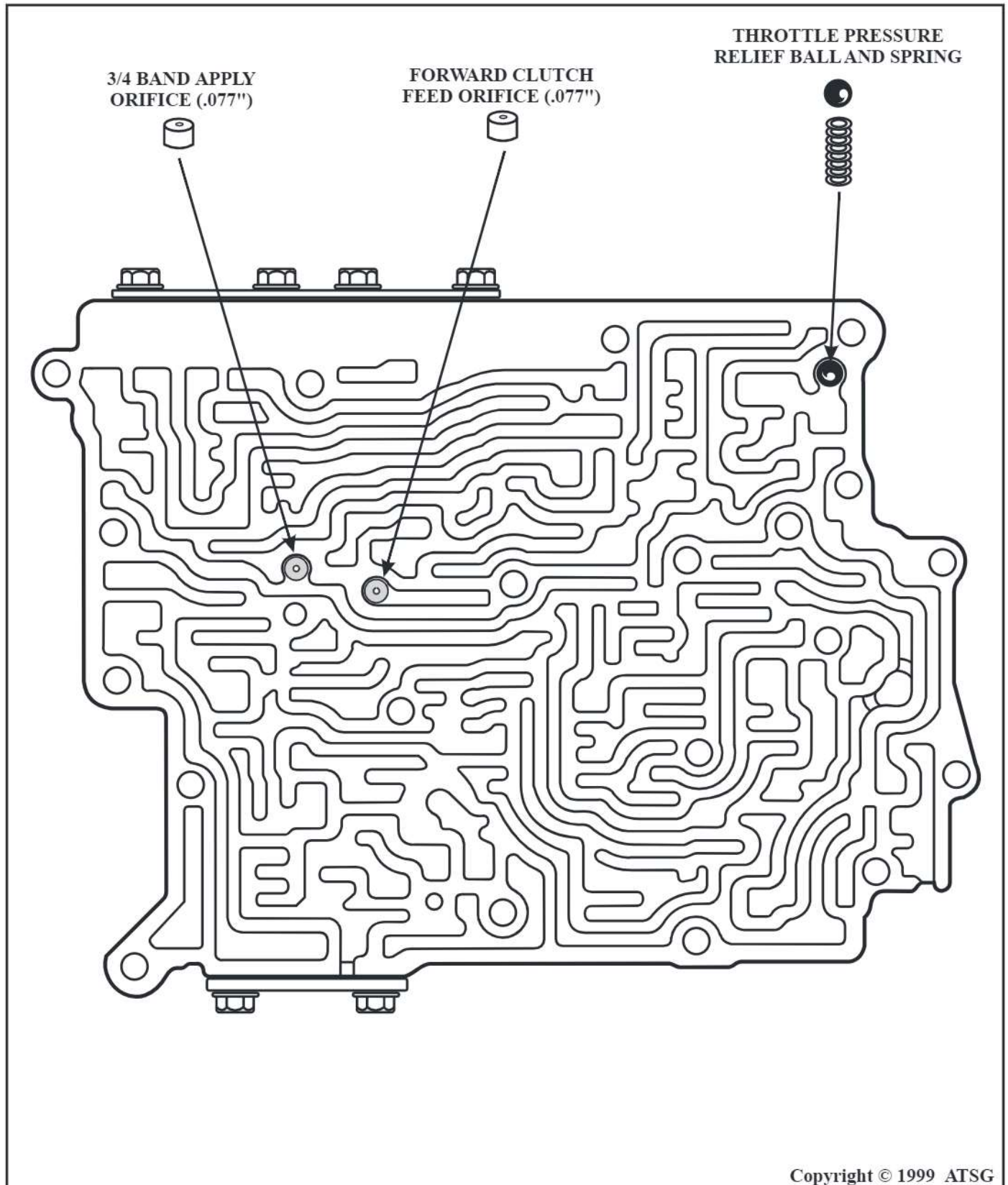
Copyright © 1999 ATSG

MAZDA G4A-EL PREMAIN VALVE BODY "COVER SIDE"

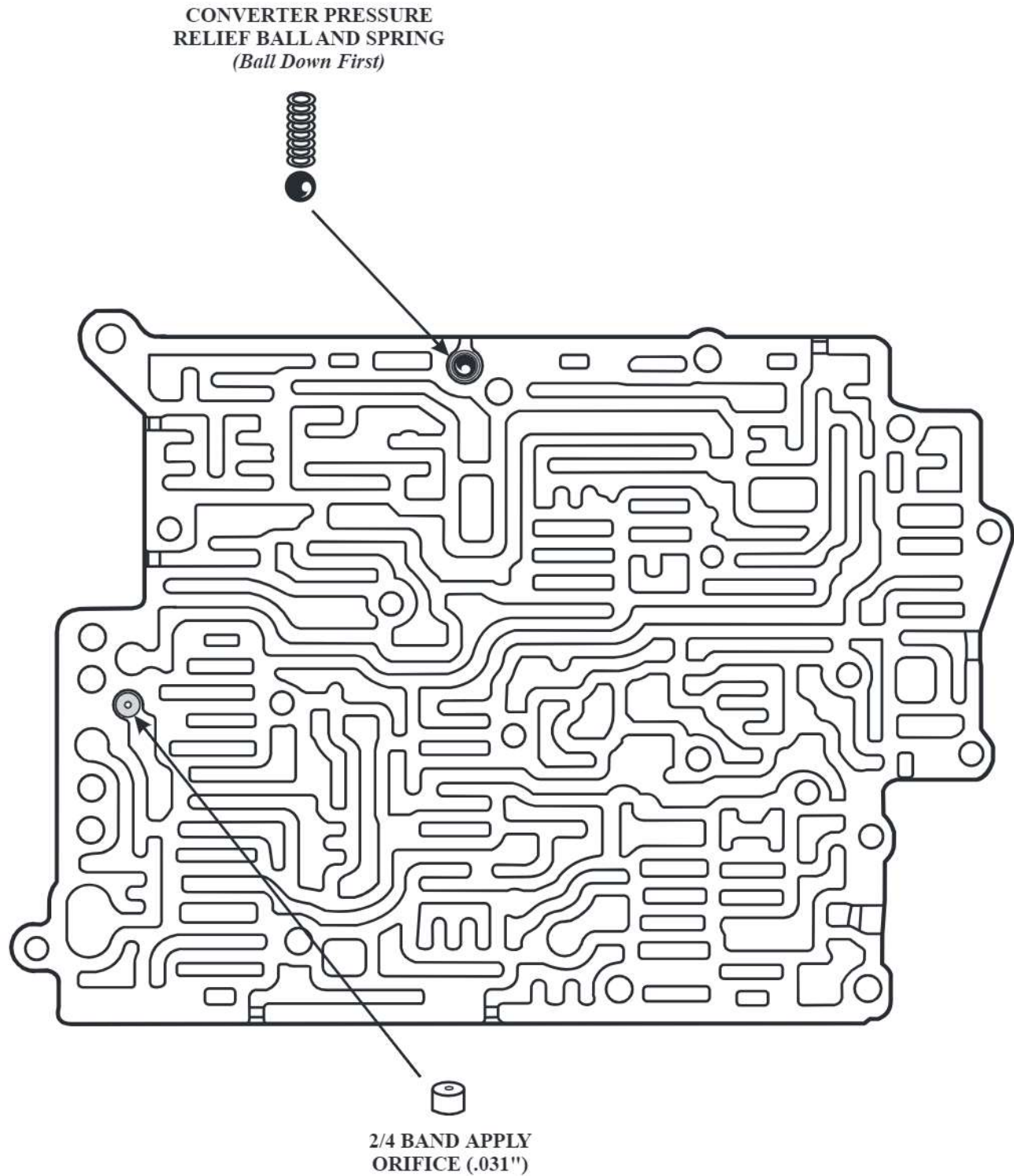


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MAZDA G4A-EL PREMAIN VALVE BODY "MAIN BODY SIDE"

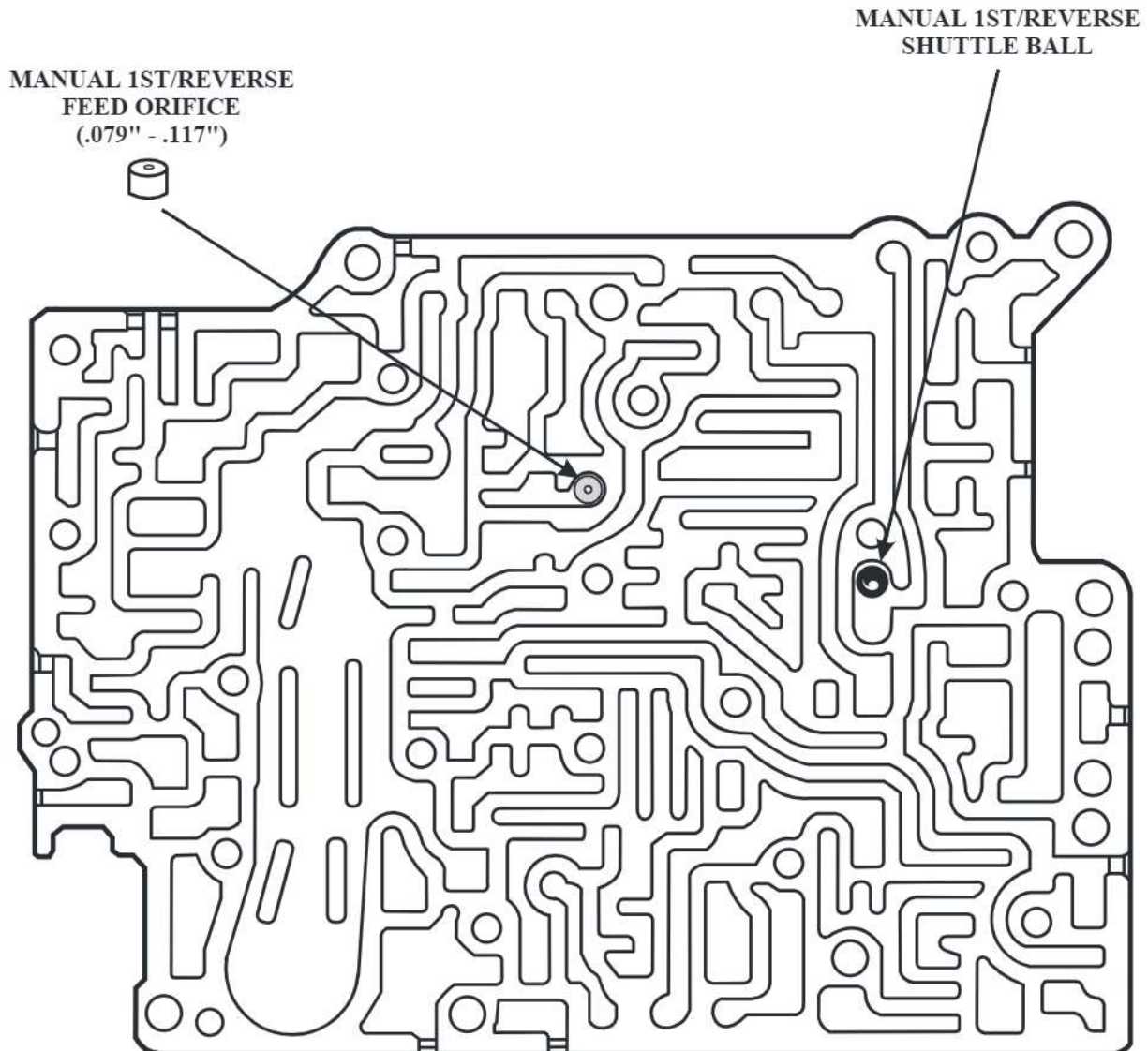


MAZDA G4A-EL MAIN VALVE BODY "PREMAIN BODY SIDE"



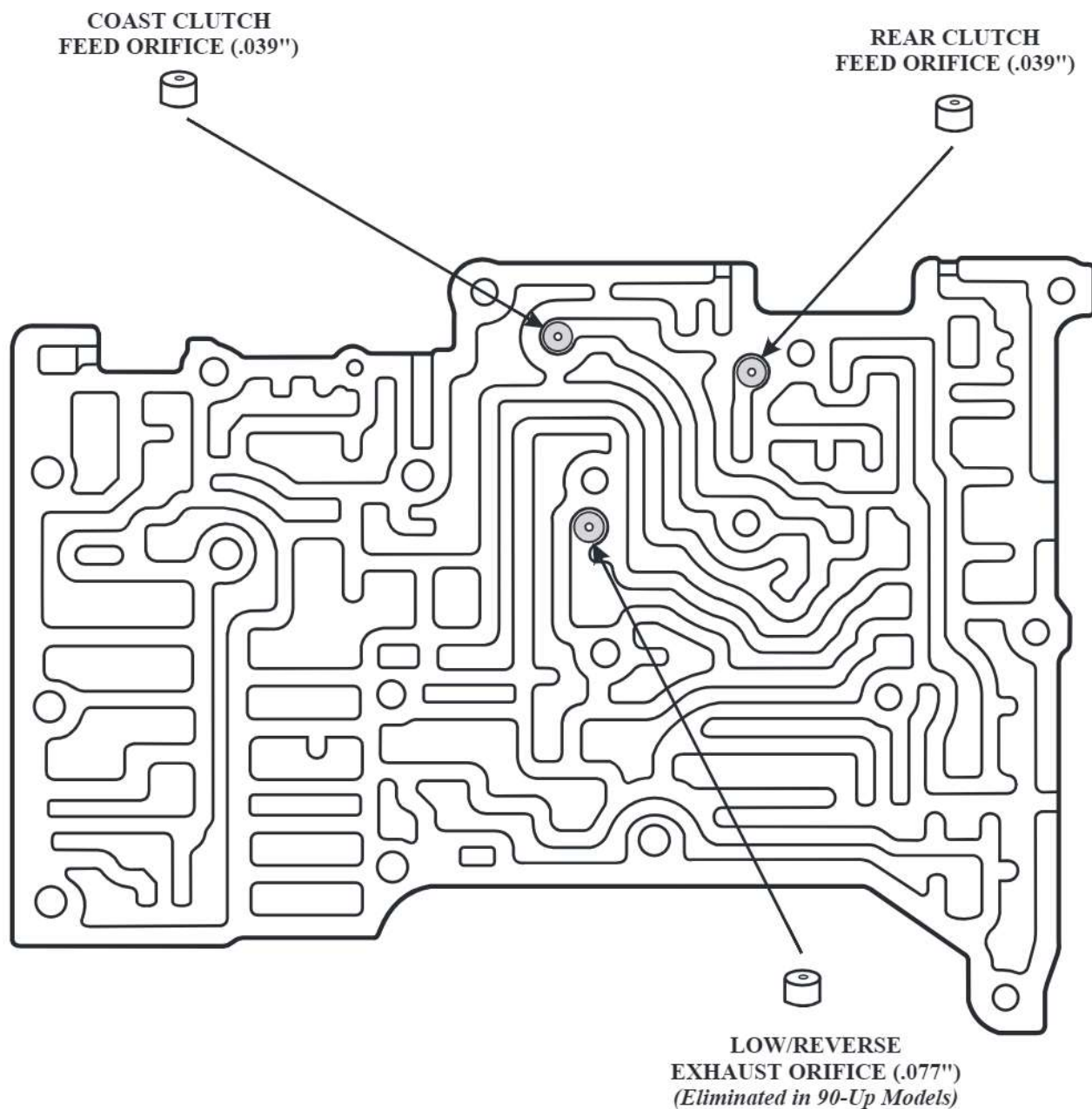
Copyright © 1999 ATSG

MAZDA G4A-EL MAIN VALVE BODY "REAR BODY SIDE"



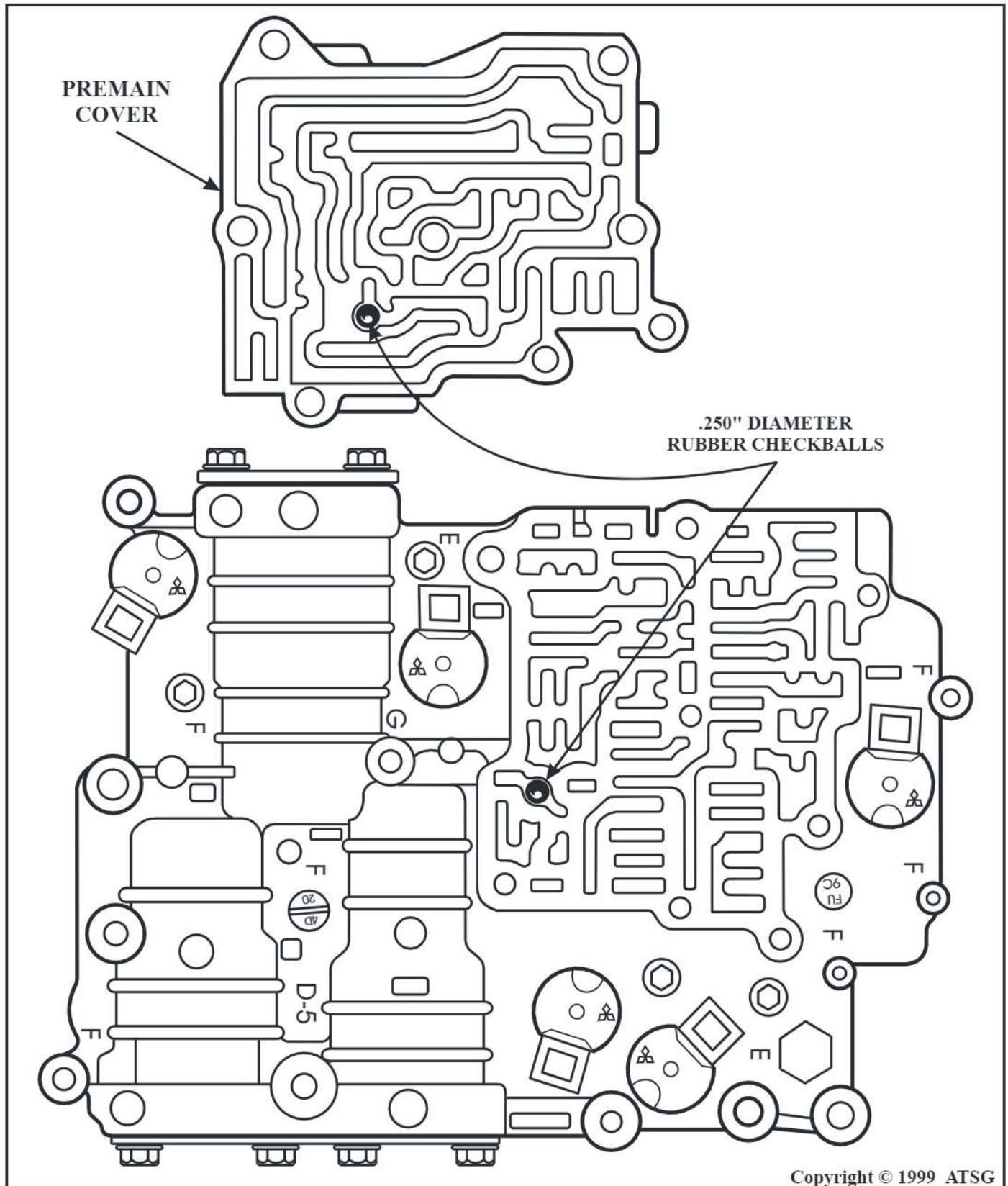
Copyright © 1999 ATSG

MAZDA G4A-EL REAR VALVE BODY

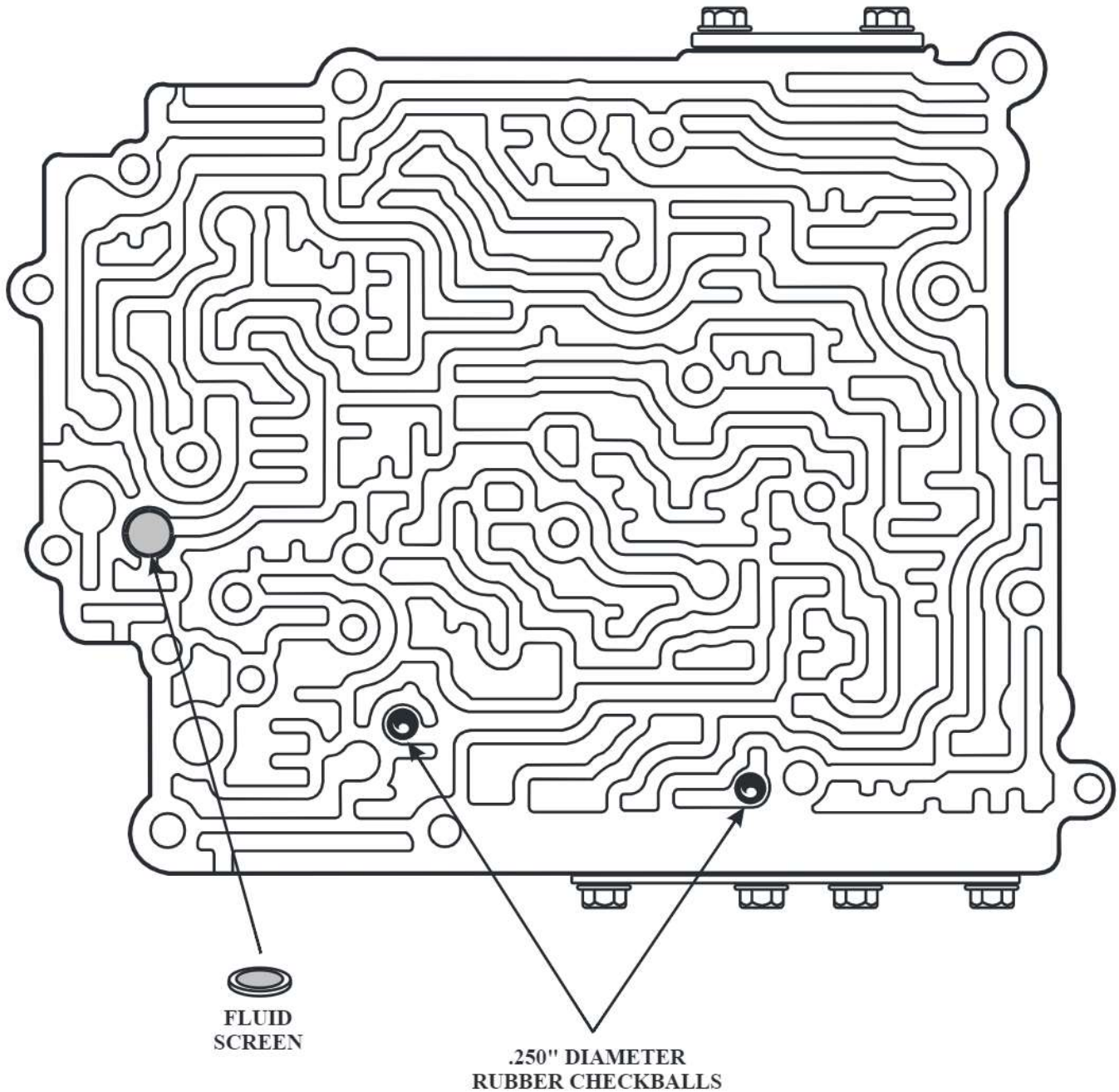


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MAZDA GF4A-EL, 7 SOLENOID PREMAIN VALVE BODY "COVER SIDE", AND COVER

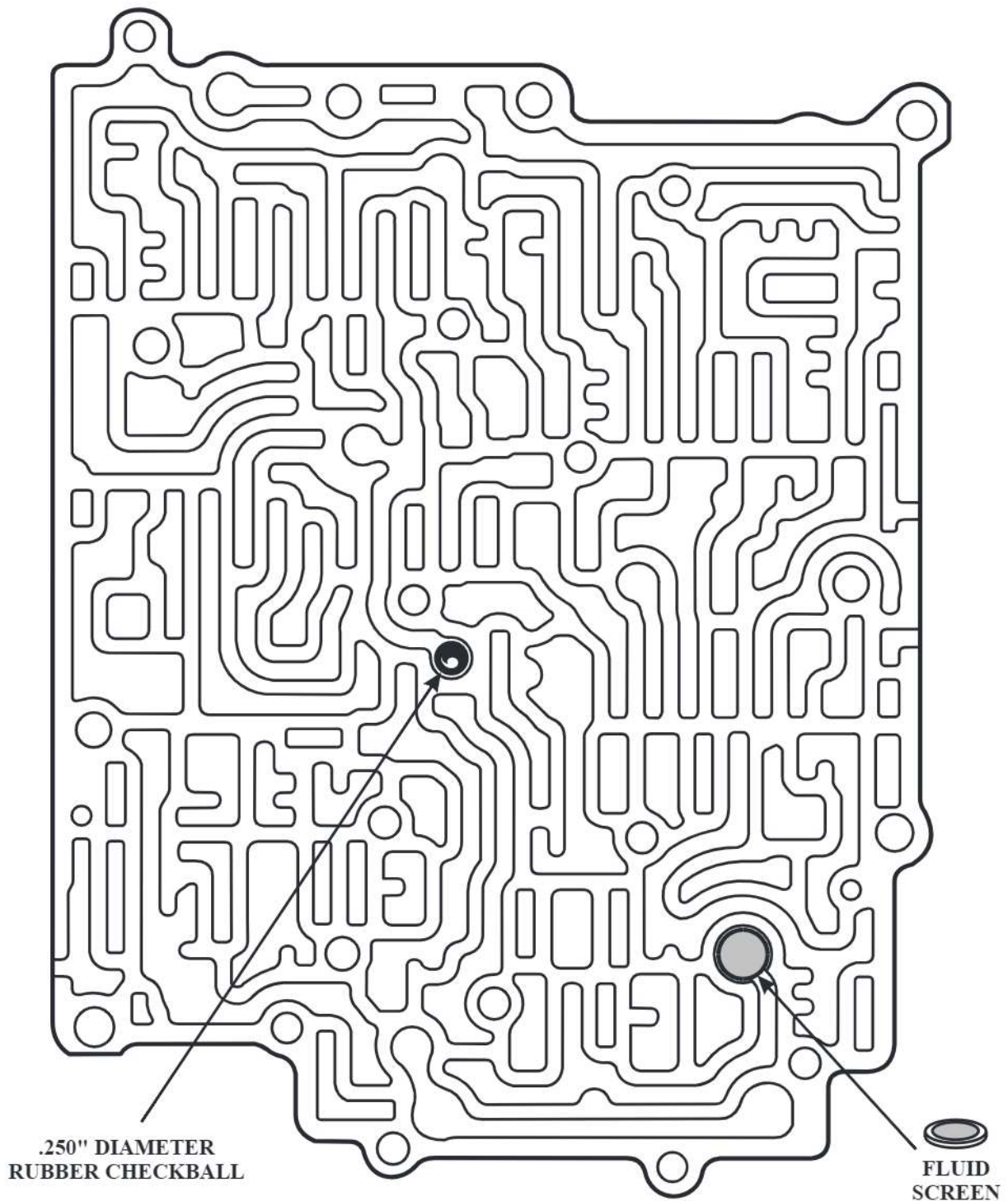


MAZDA GF4A-EL, 7 SOLENOID PREMAIN VALVE BODY "MAIN BODY SIDE"



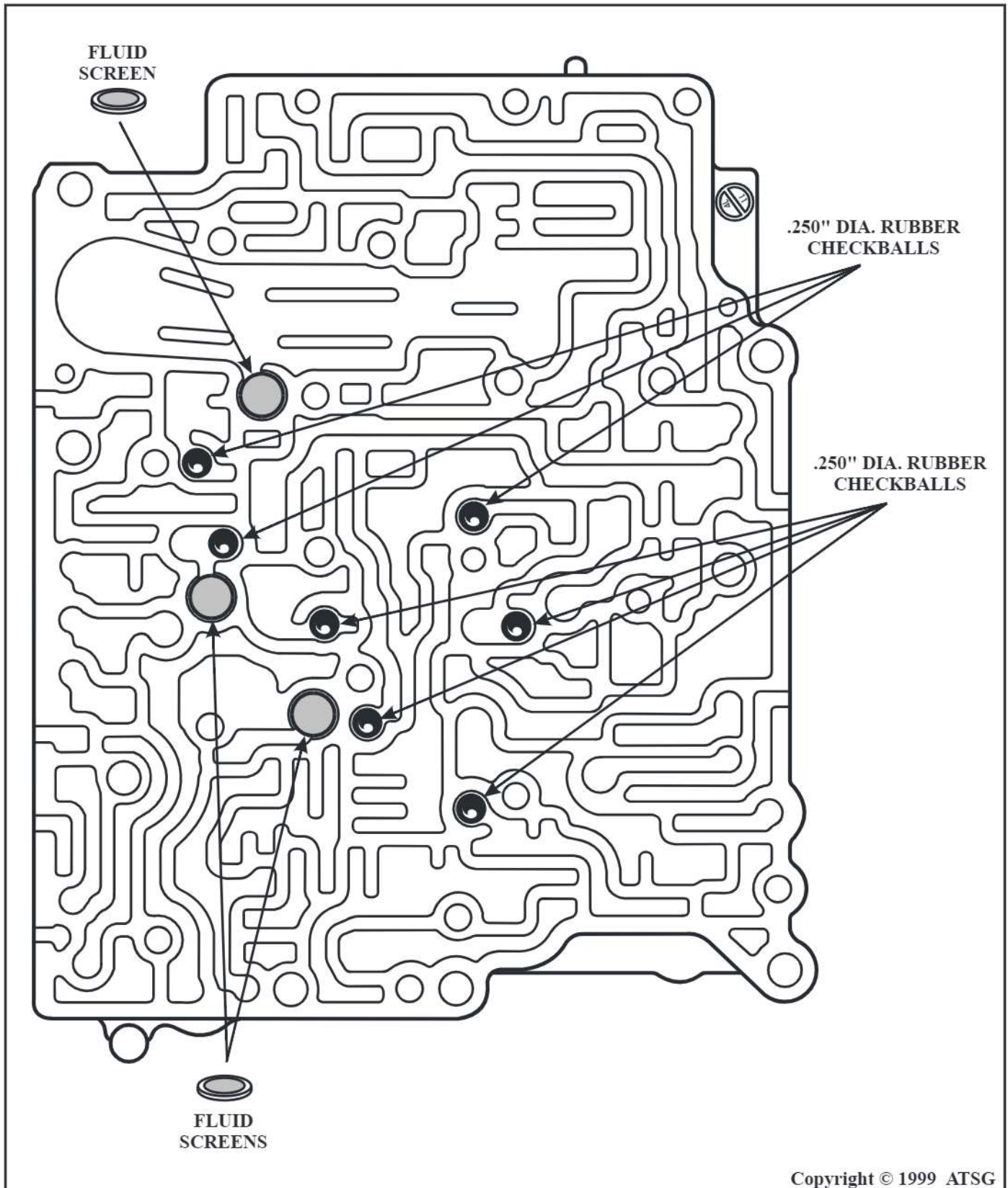
Copyright © 1999 ATSG

MAZDA GF4A-EL, 7 SOLENOID
MAIN VALVE BODY "PREMAIN BODY SIDE"



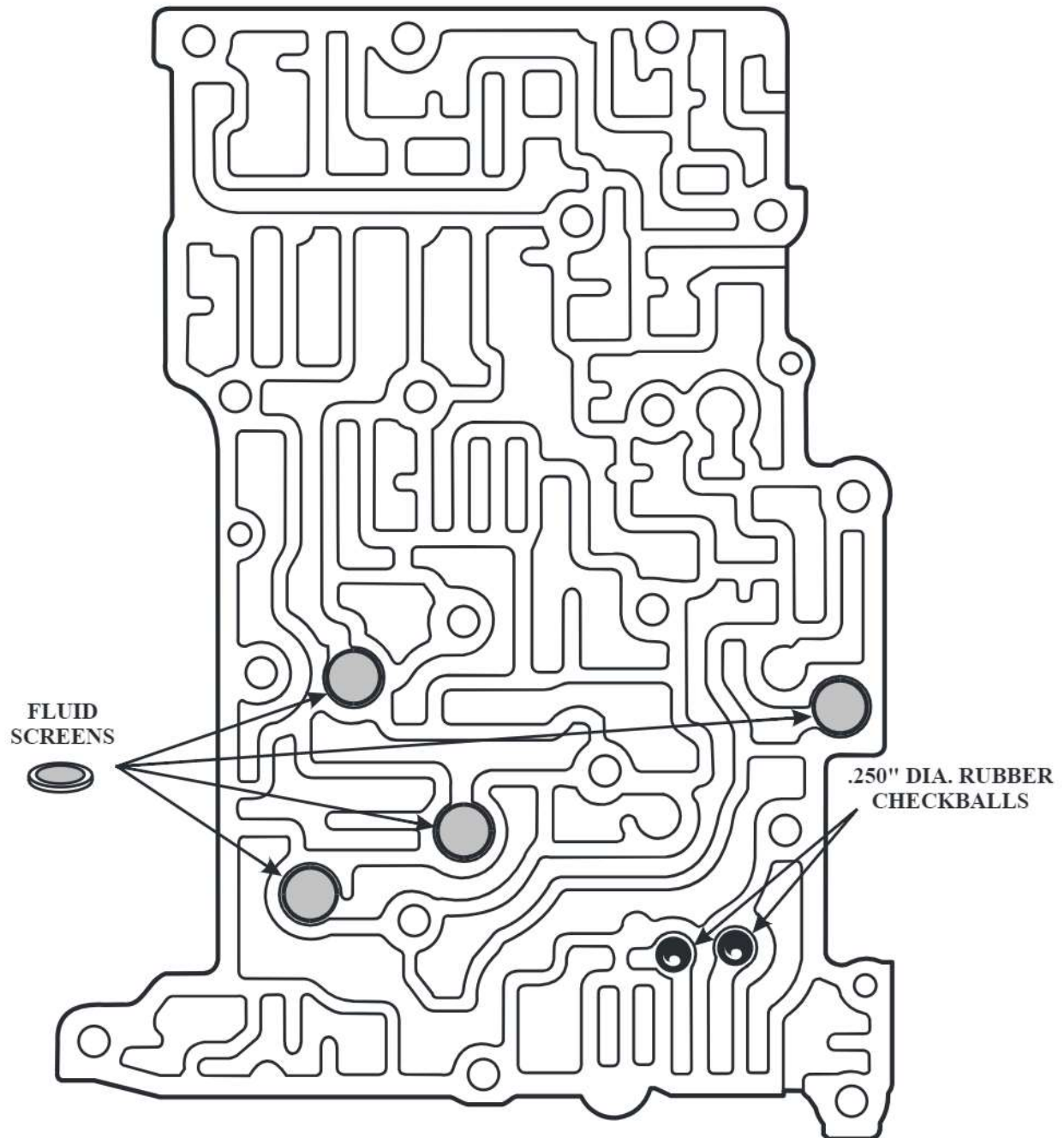
Copyright © 1999 ATSG

MAZDA GF4A-EL, 7 SOLENOID MAIN VALVE BODY "REAR BODY SIDE"



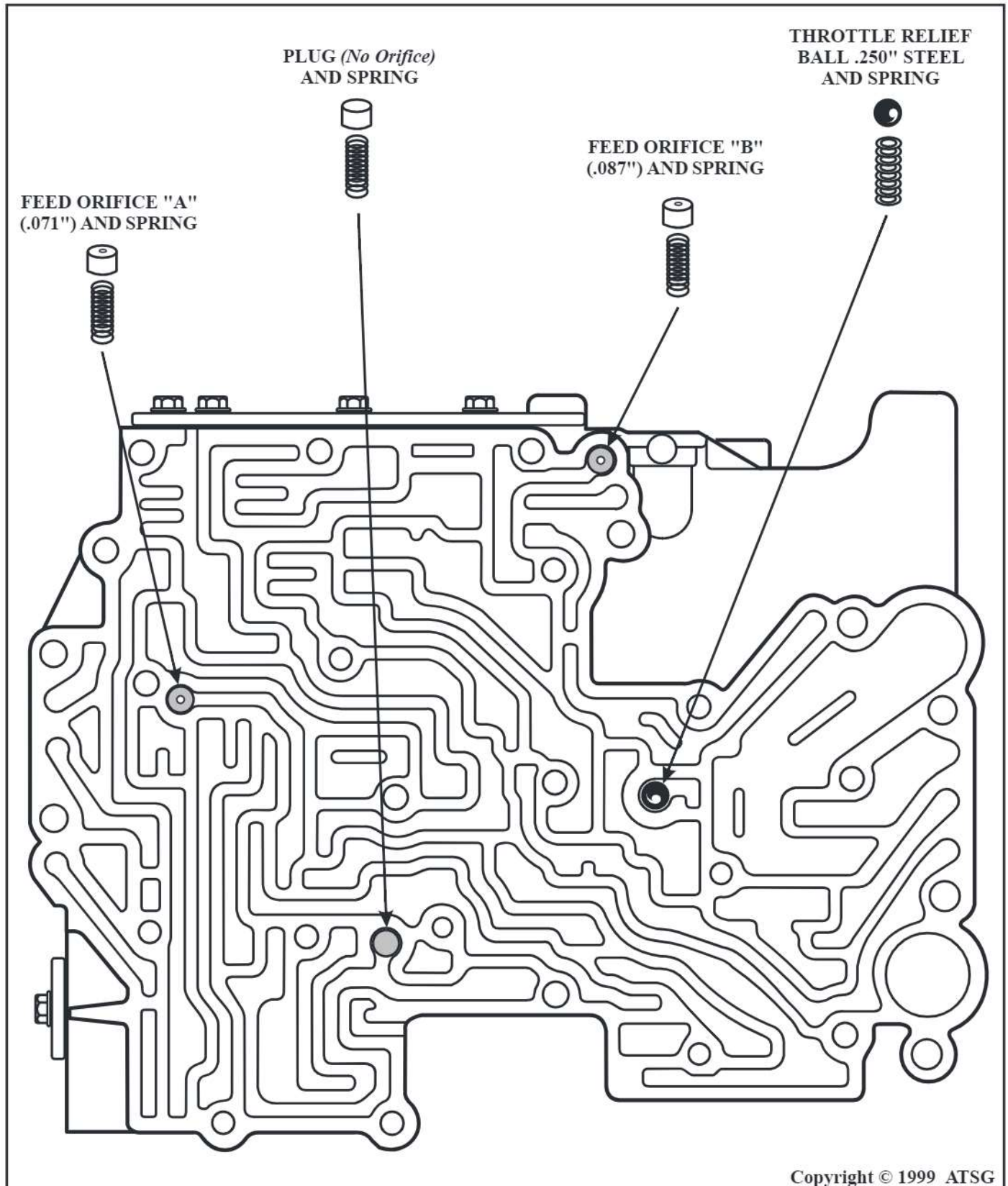
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MAZDA GF4A-EL, 7 SOLENOID REAR VALVE BODY "MAIN BODY SIDE"

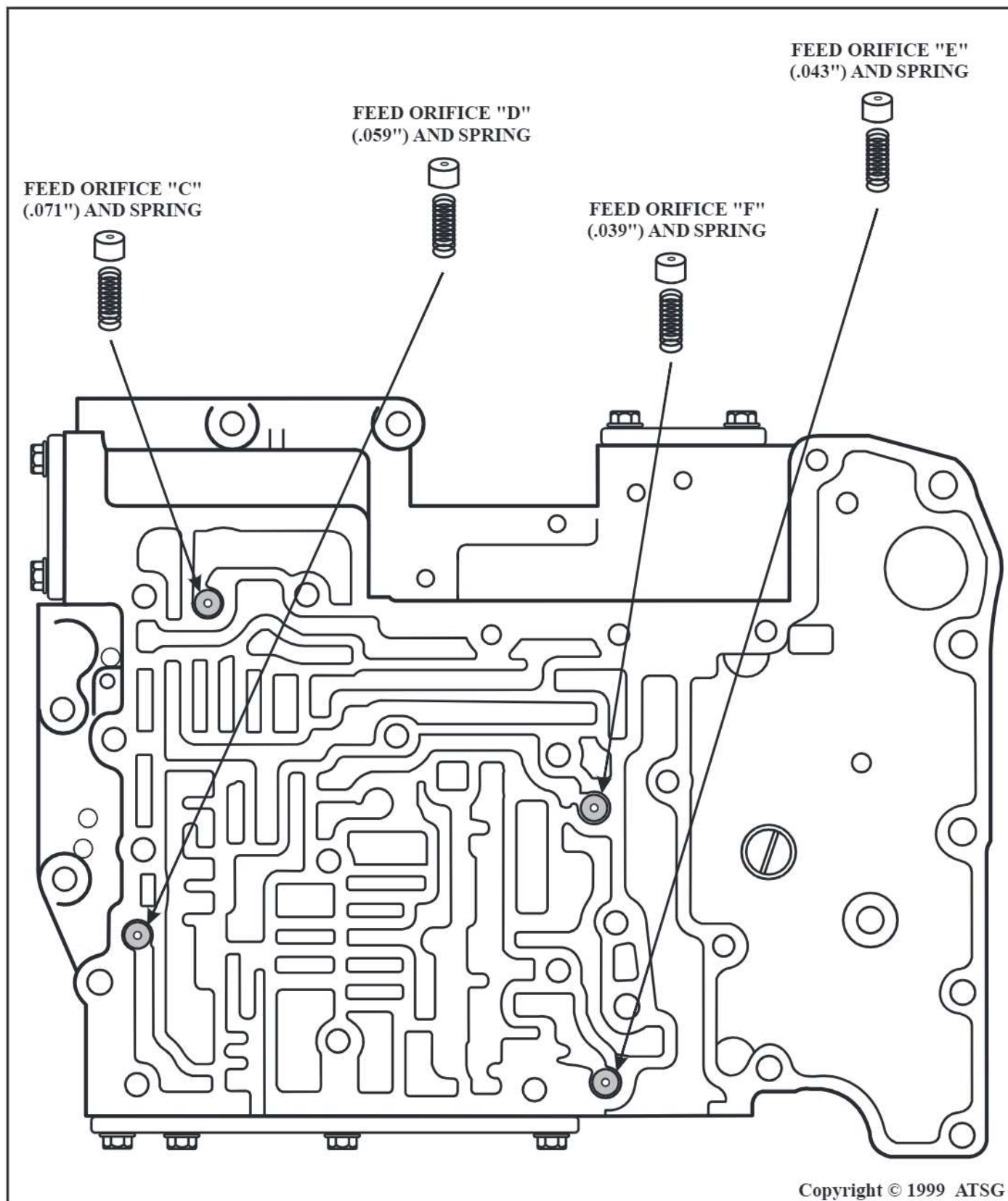


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MAZDA N4A-EL LOWER VALVE BODY "UPPER BODY SIDE"

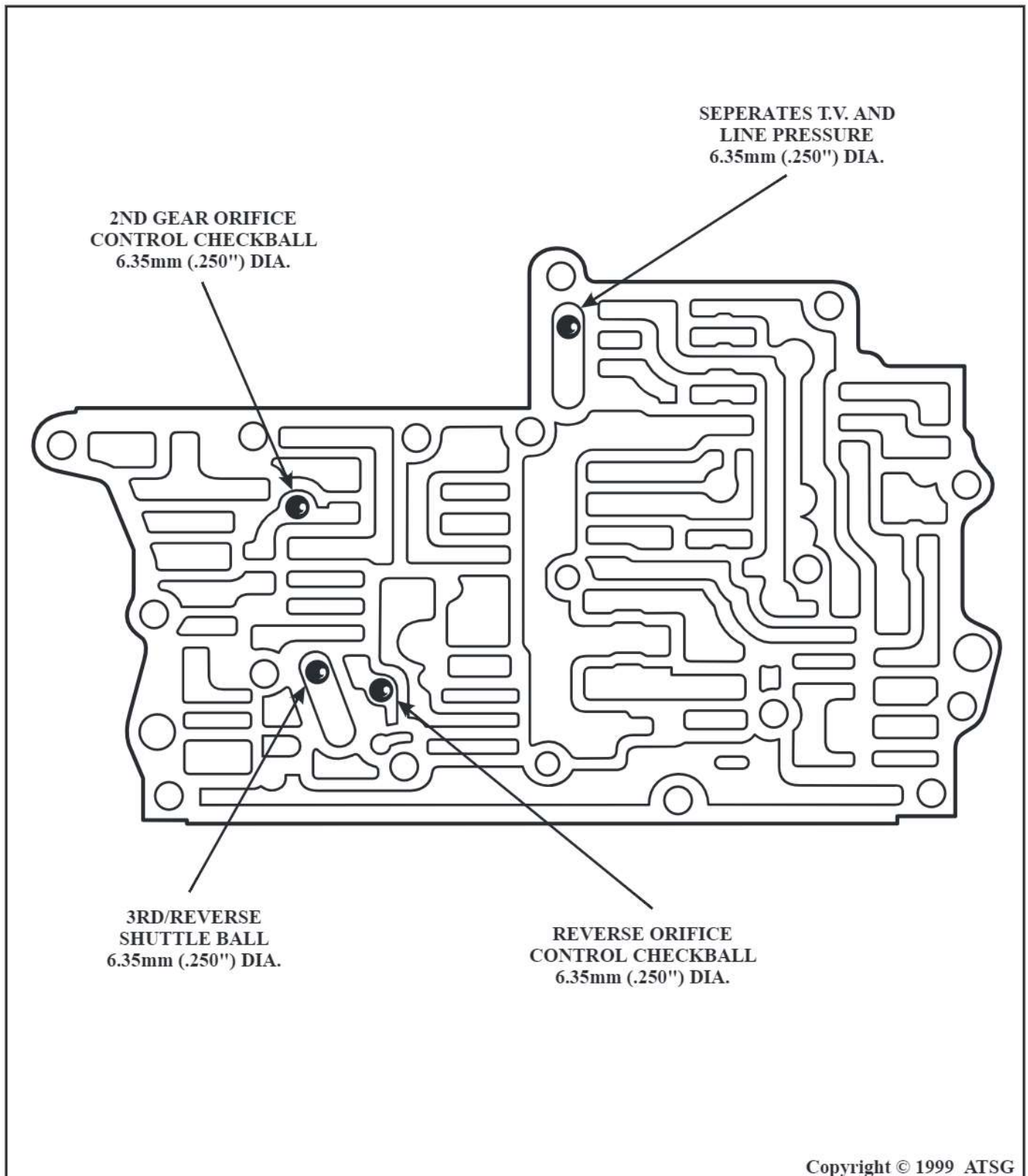


MAZDA N4A-EL LOWER VALVE BODY "COVER SIDE"



MITSUBISHI KM171

"UPPER" VALVE BODY CHECKBALL LOCATIONS



MITSUBISHI KM171

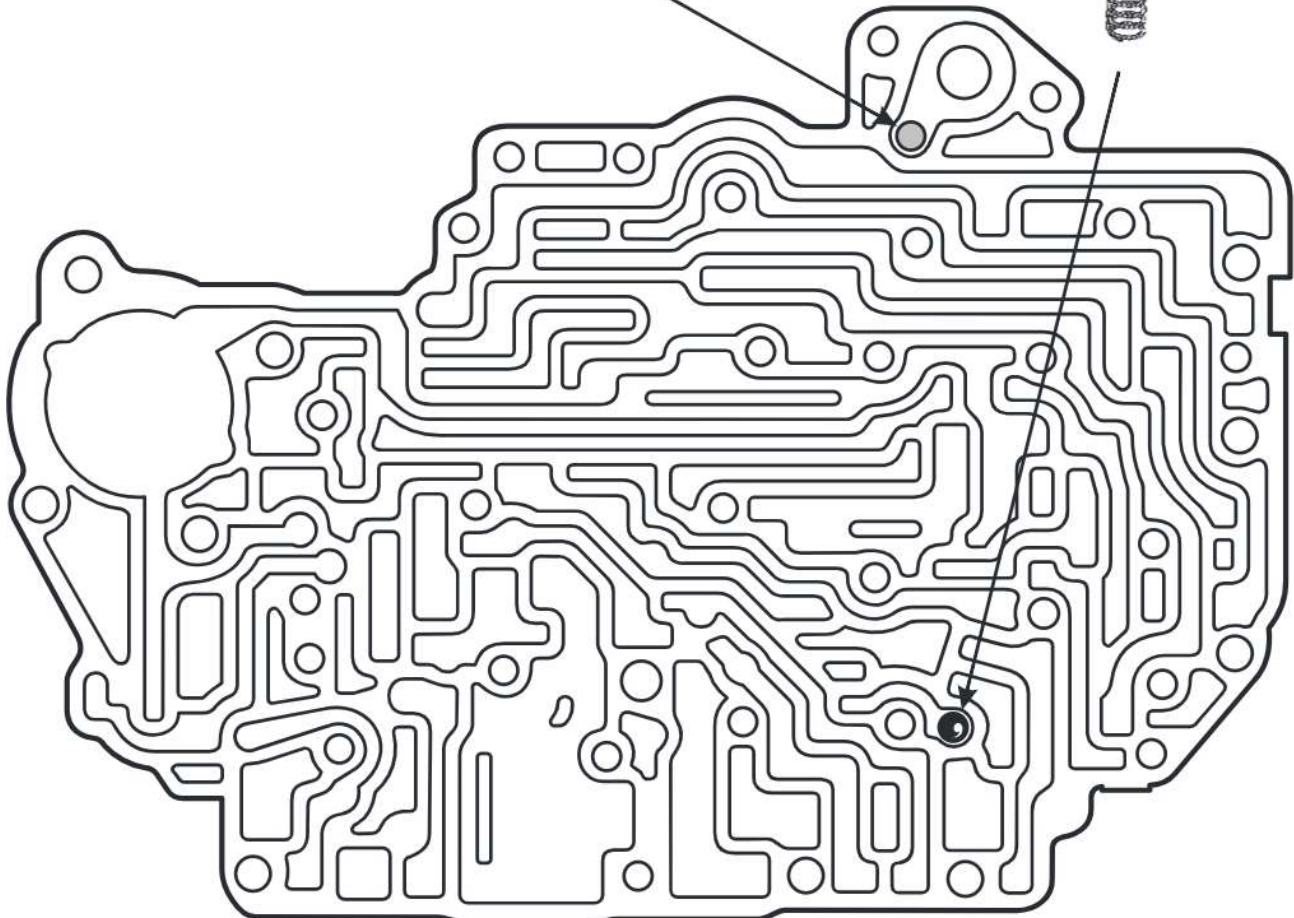
INTERMEDIATE PLATE "UPPER" VALVE BODY SIDE CHECKBALL LOCATIONS

**SOLENOID
FILTER**
Lock-Up Models Only



**LOW RELIEF
BALL AND SPRING**

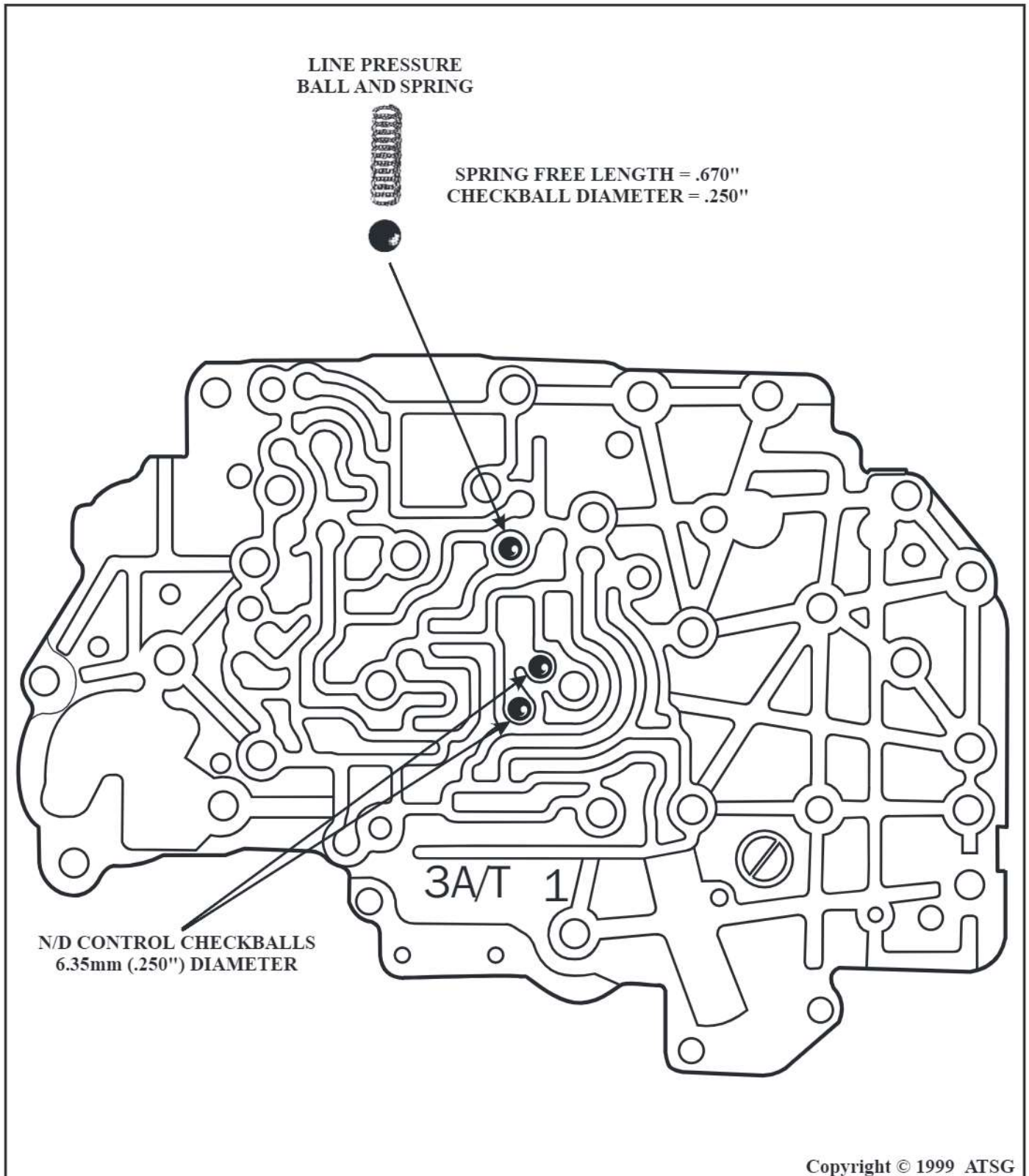
SPRING FREE LENGTH = .485"
CHECKBALL DIAMETER = .250"



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MITSUBISHI KM171

INTERMEDIATE PLATE "LOWER" VALVE BODY SIDE CHECKBALL LOCATIONS



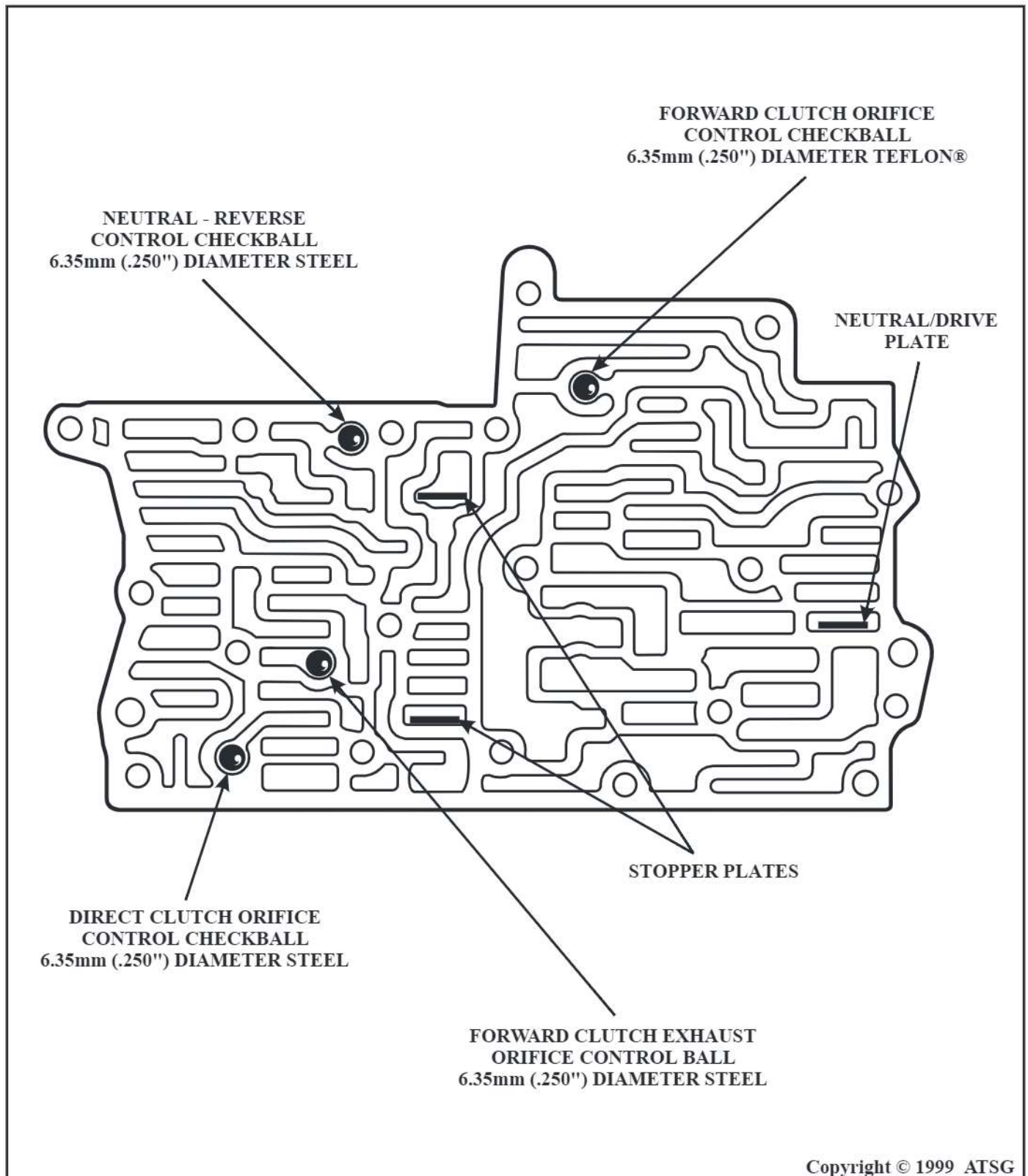
We wish to thank the following for supplying the actual valve bodies that have made these illustrations possible.



2414 SW 8TH STREET
MIAMI, FLORIDA 33135
TOLL FREE (800) 966-4621
PHONE (305) 642-4621
FAX (305) 541-1444

MITSUBISHI KM175, KM176, KM177

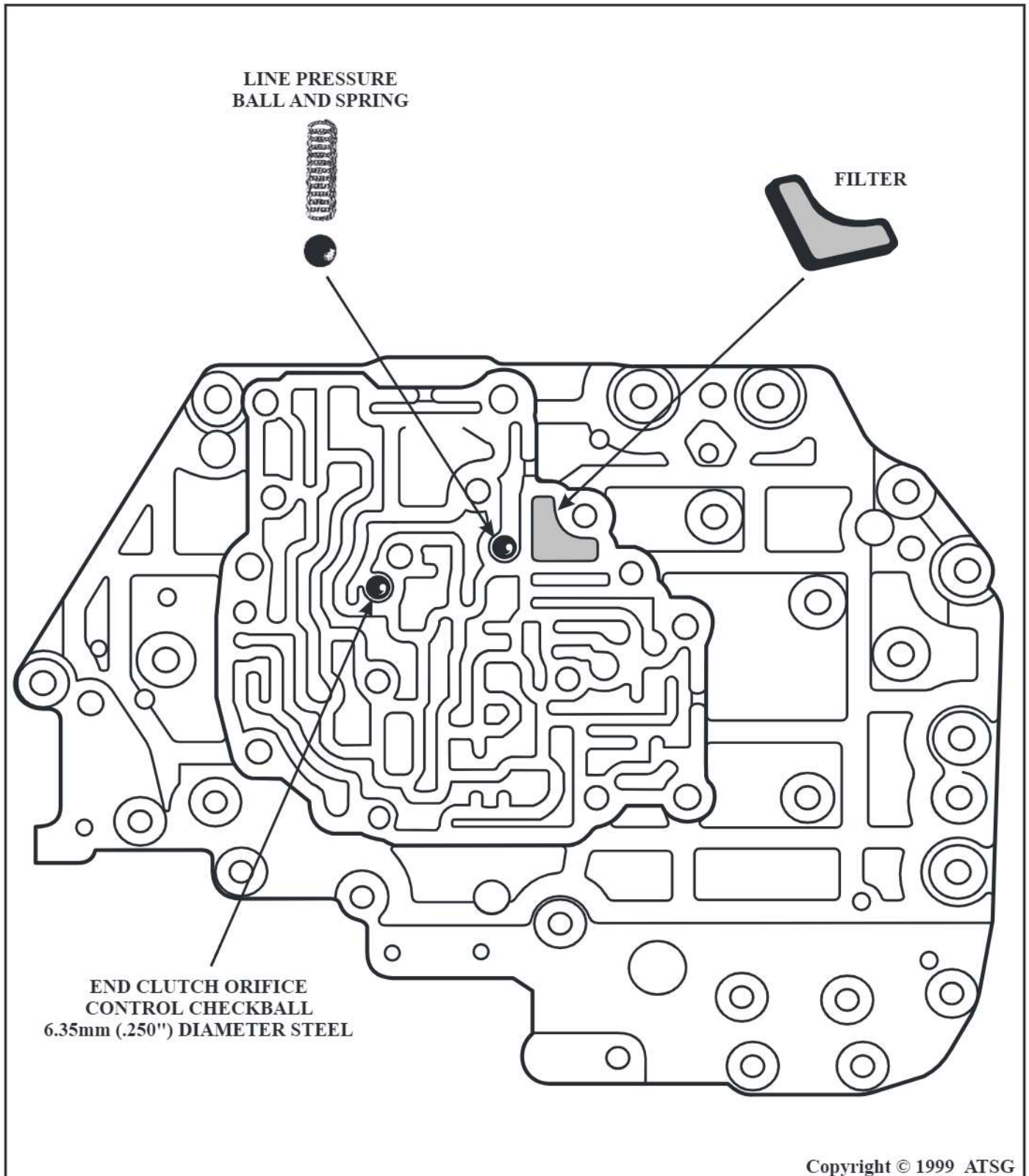
"UPPER" VALVE BODY CHECKBALL LOCATIONS



MITSUBISHI KM175, KM176, KM177

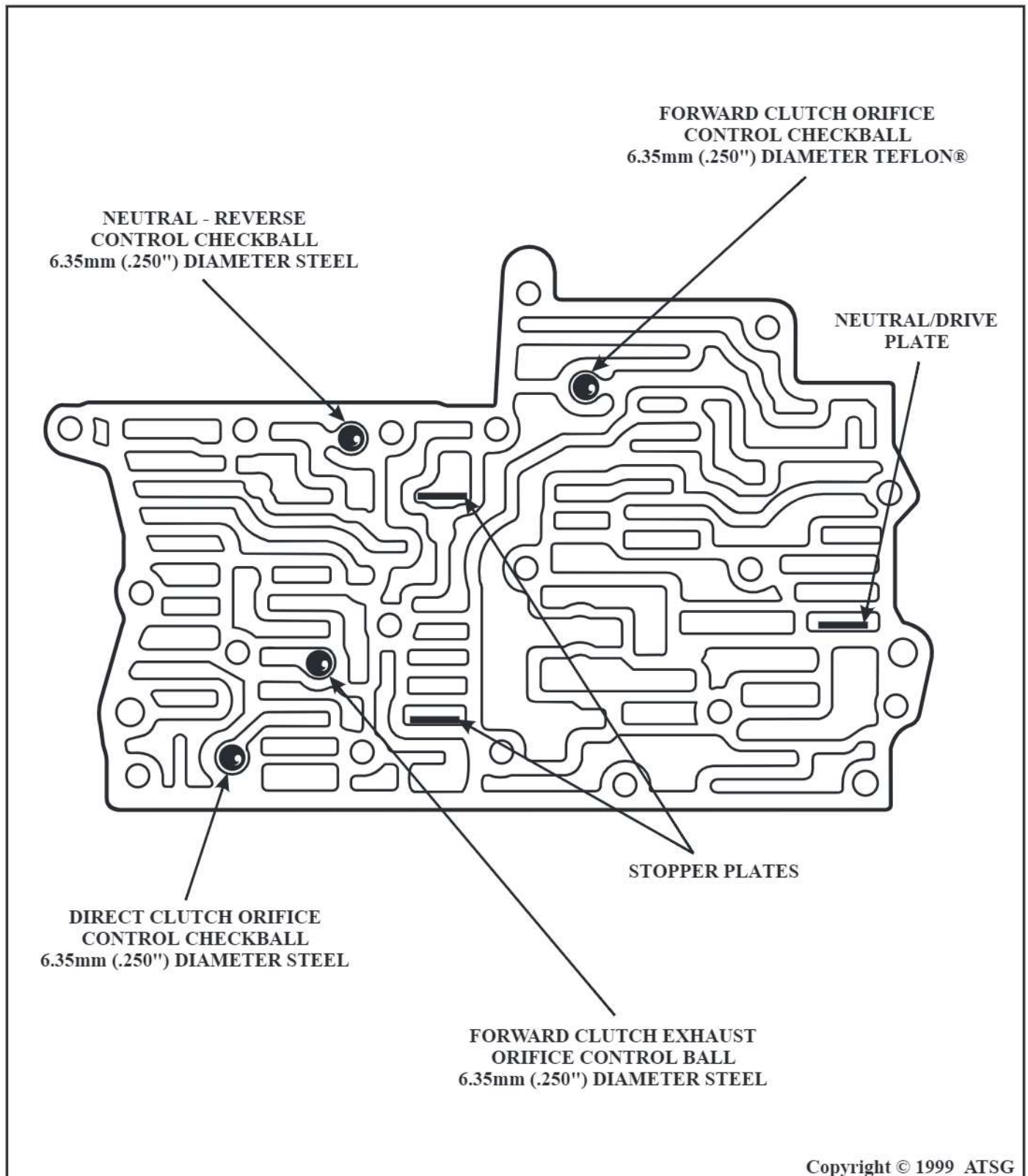
INTERMEDIATE PLATE "LOWER" VALVE BODY SIDE

CHECKBALL LOCATIONS



MITSUBISHI F4A3, W4A3

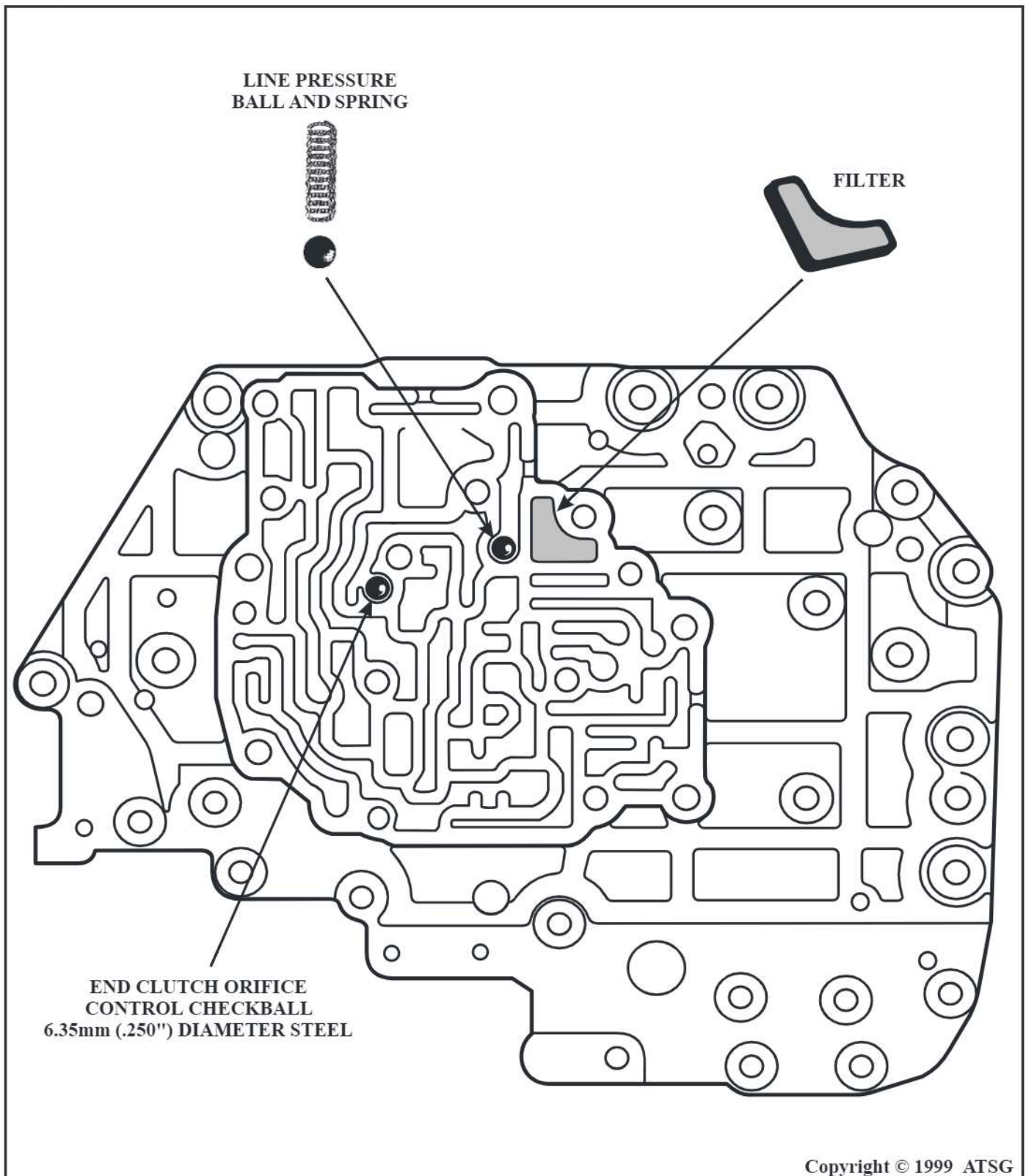
"UPPER" VALVE BODY CHECKBALL LOCATIONS



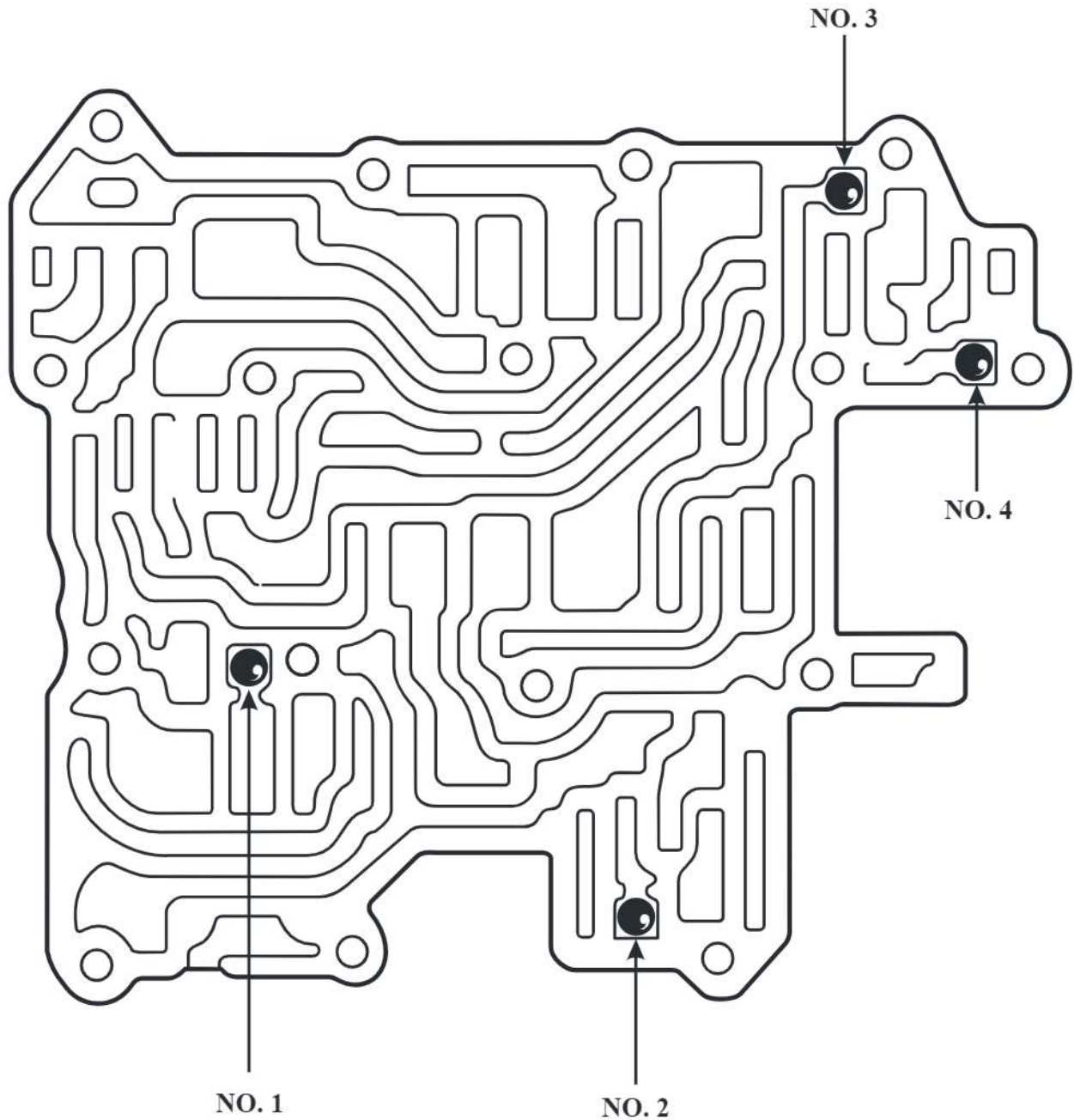
MITSUBISHI F4A3, W4A3

INTERMEDIATE PLATE "LOWER" VALVE BODY SIDE

CHECKBALL LOCATIONS



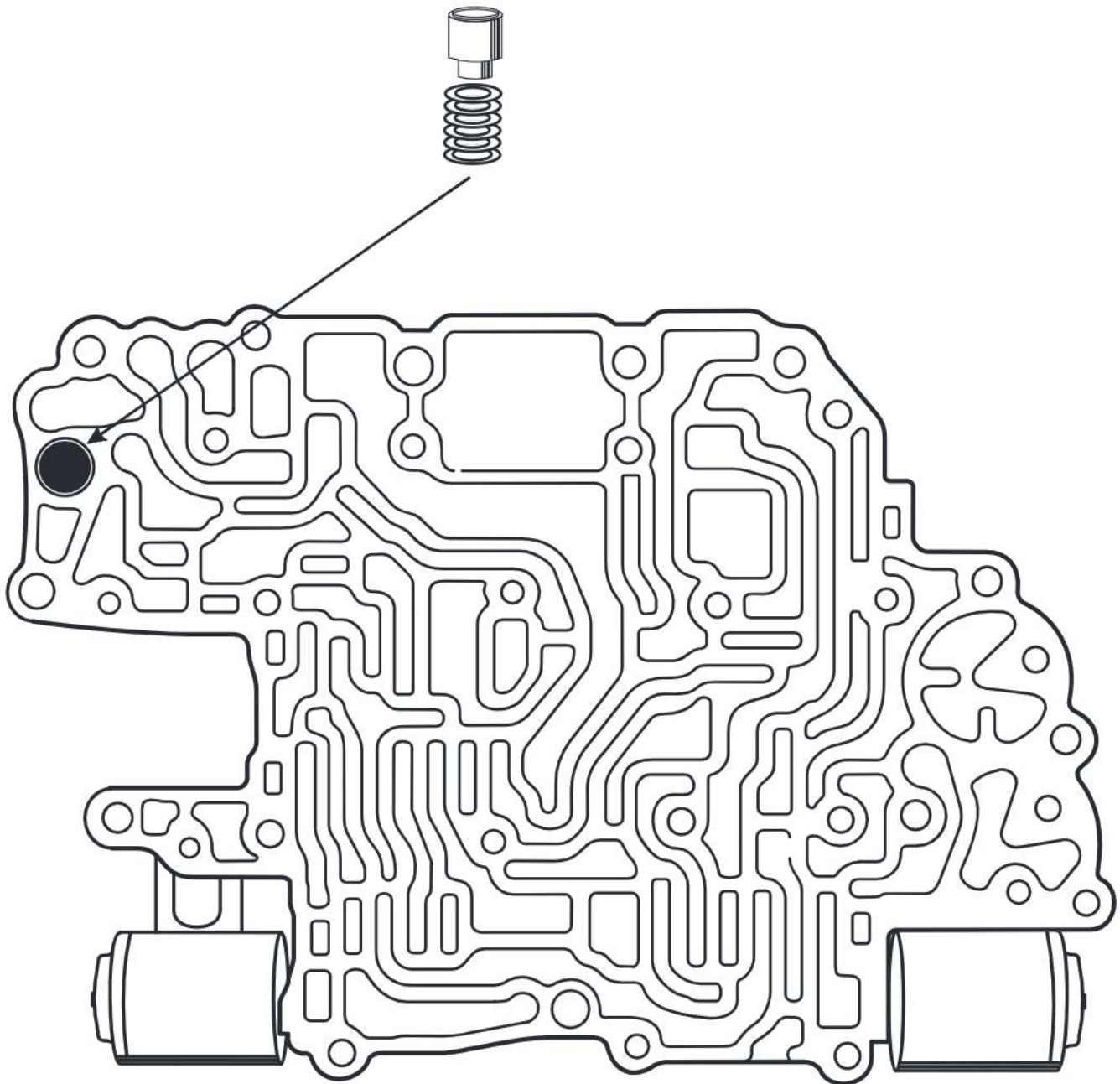
MX17 SPRINT, SUZUKI & GEO "UPPER" VALVE BODY CHECKBALL LOCATIONS



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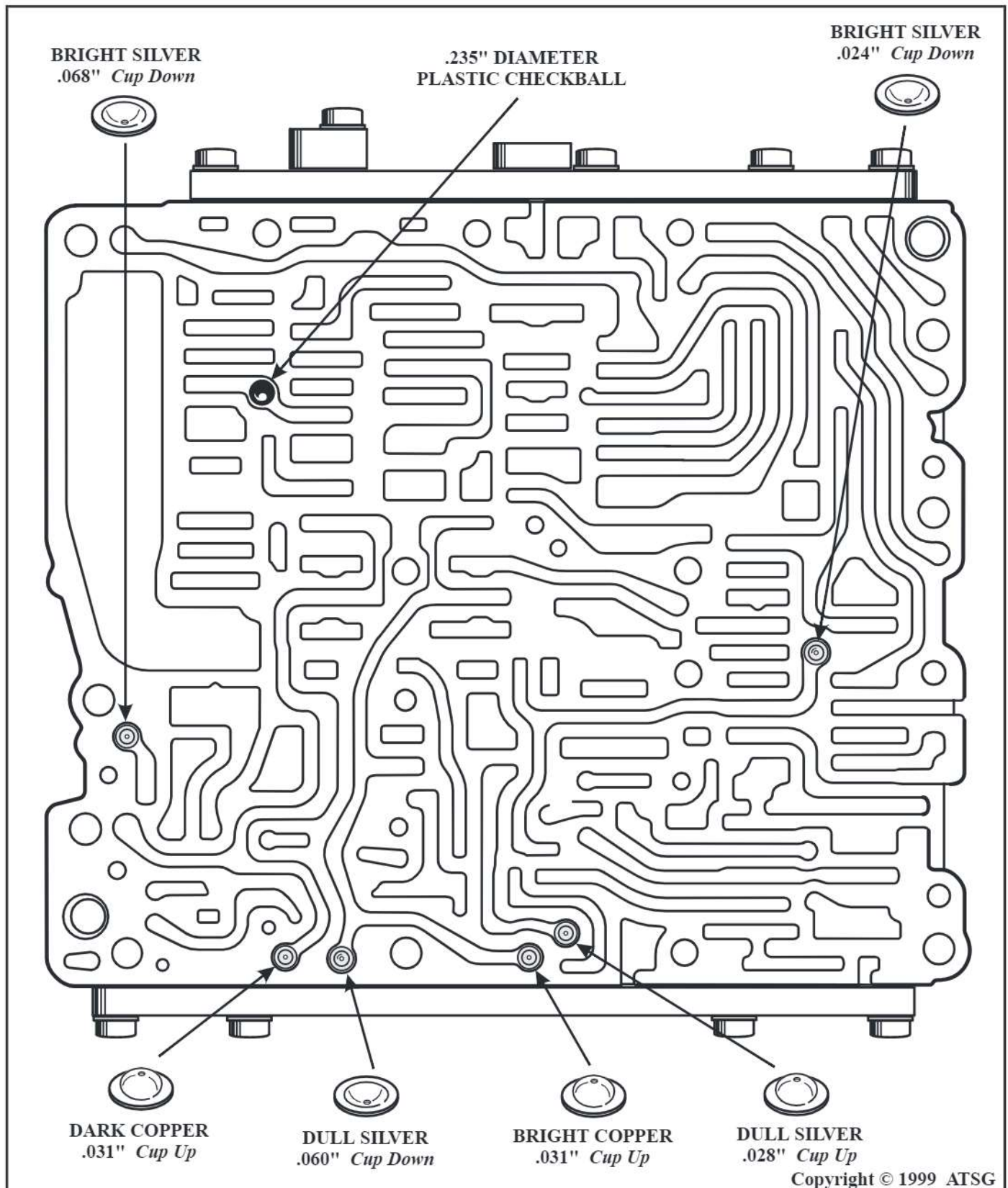
MX17 SPRINT, SUZUKI & GEO "LOWER" VALVE BODY BY-PASS VALVE LOCATION

COOLER BY-PASS
VALVE AND SPRING

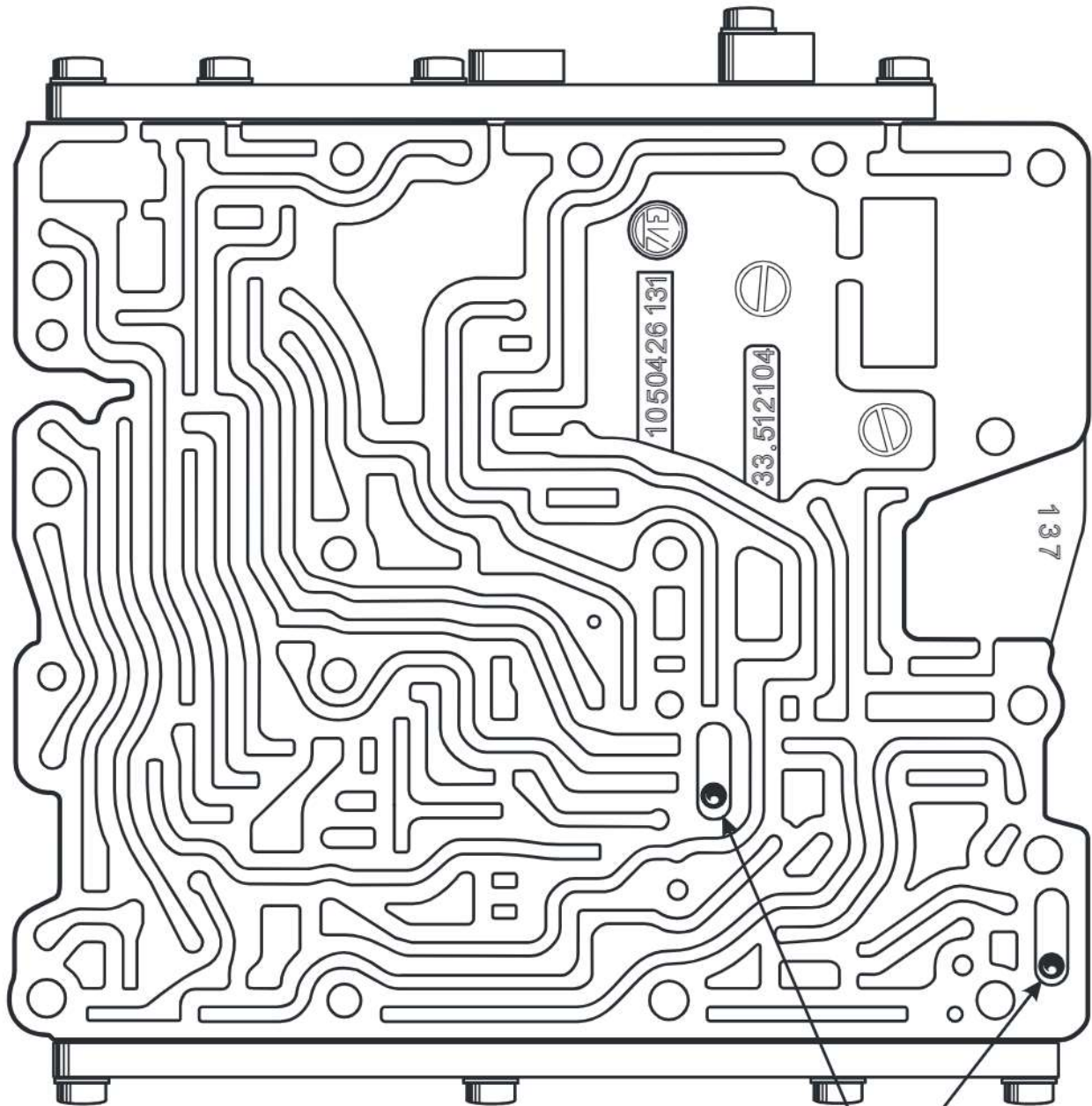


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SAAB HYDRAULIC ZF4HP-18 MAIN VALVE BODY "TRANSFER PLATE SIDE"



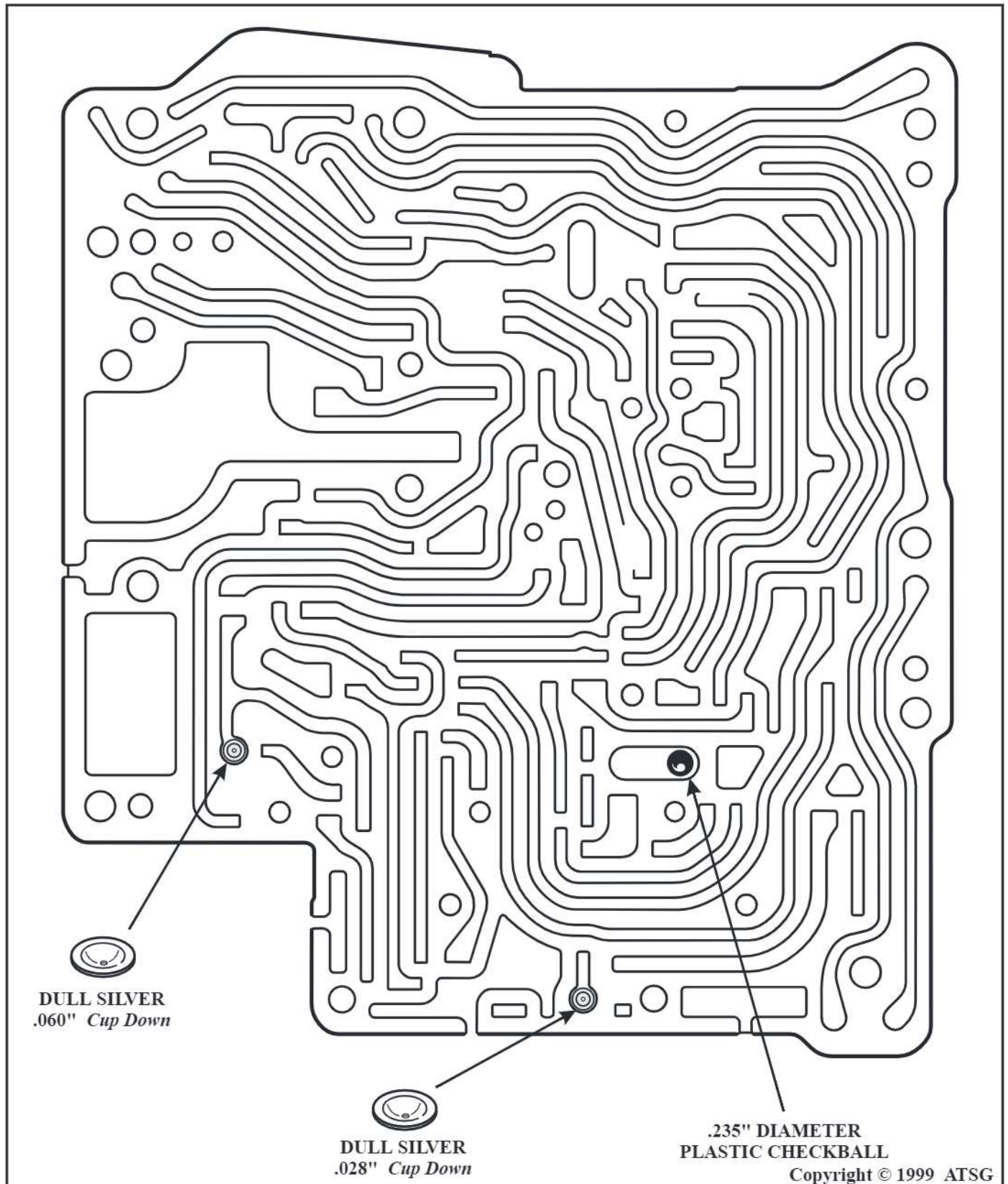
SAAB HYDRAULIC ZF4HP-18 MAIN VALVE BODY "LOWER BODY SIDE"



.235" DIAMETER
PLASTIC CHECKBALLS

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SAAB HYDRAULIC ZF4HP-18 CHANNEL PLATE "MAIN BODY SIDE"

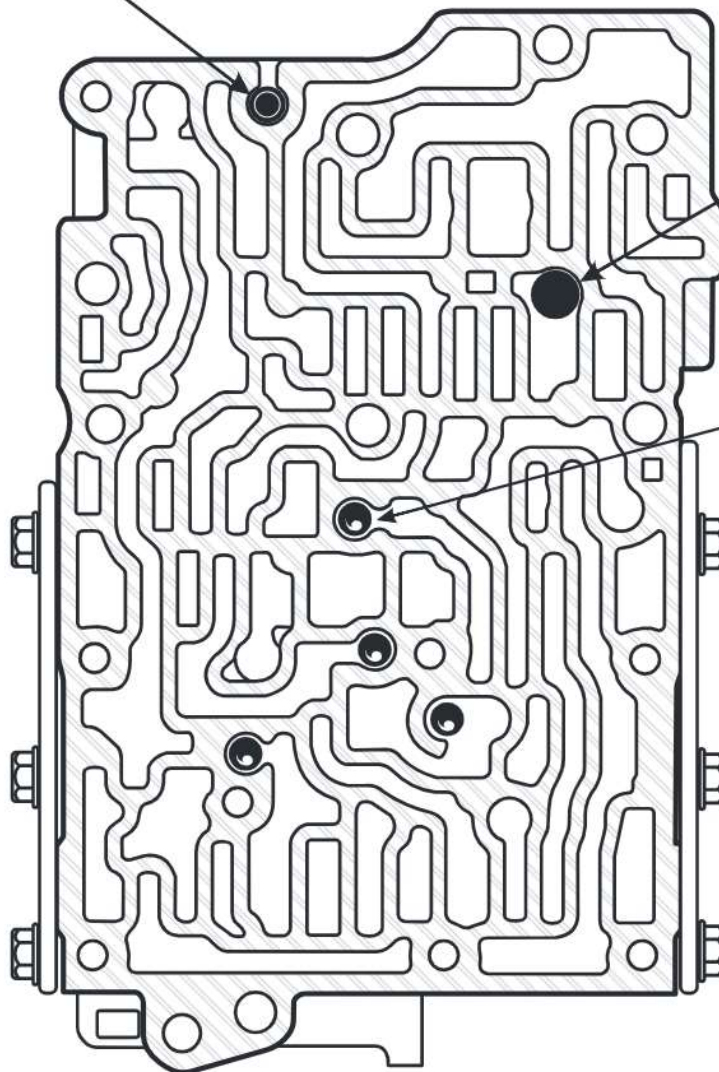


VOLVO/SAAB AW50-42LE
"REAR" VALVE BODY

**PRESSURE RELIEF
VALVE AND SPRING**



**CHECK VALVE
AND SPRING**

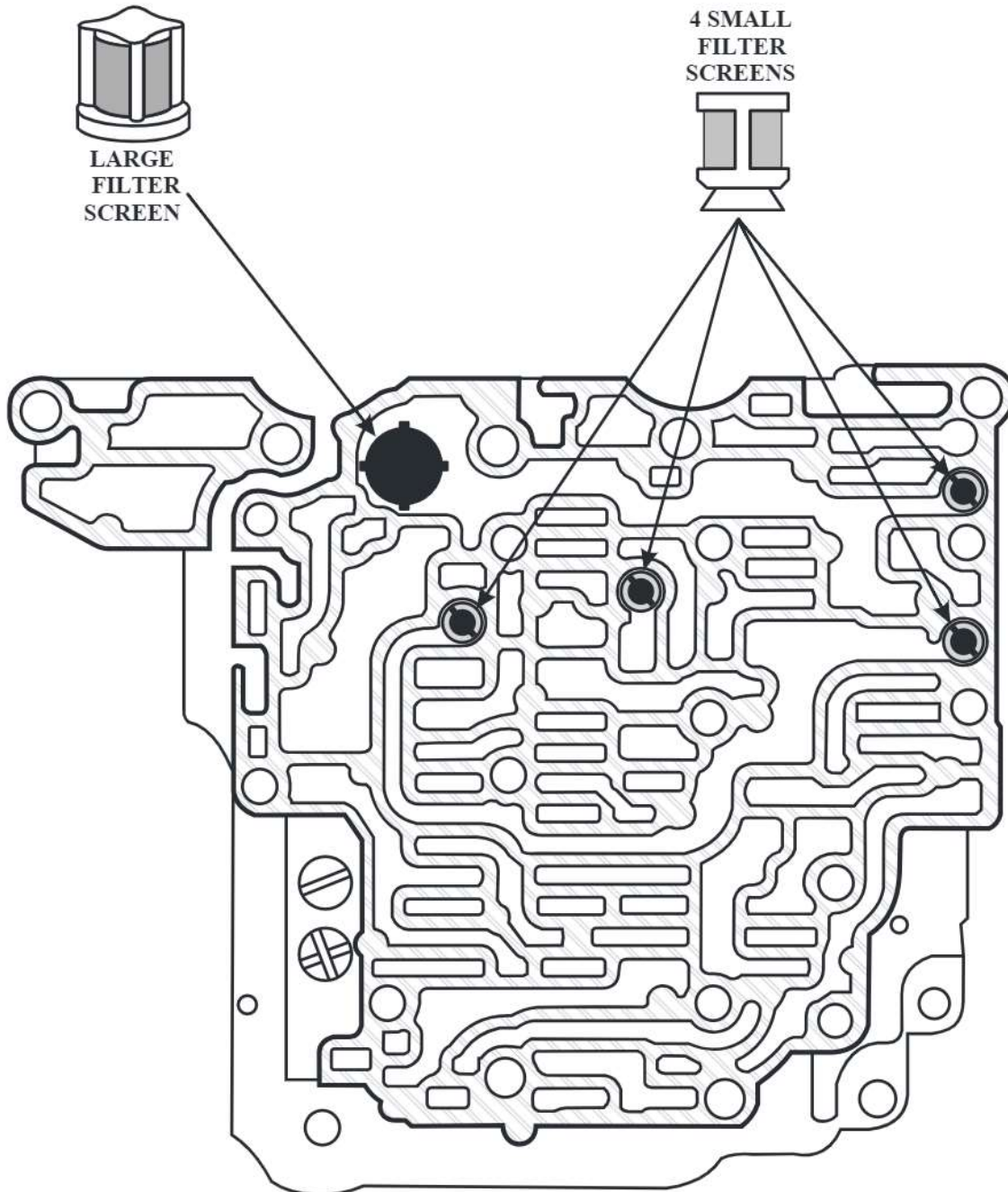


*Not Used In Mid 1995
And Later Models*

REQUIRES FOUR RUBBER CHECKBALLS
5.0mm (.197") IN DIAMETER

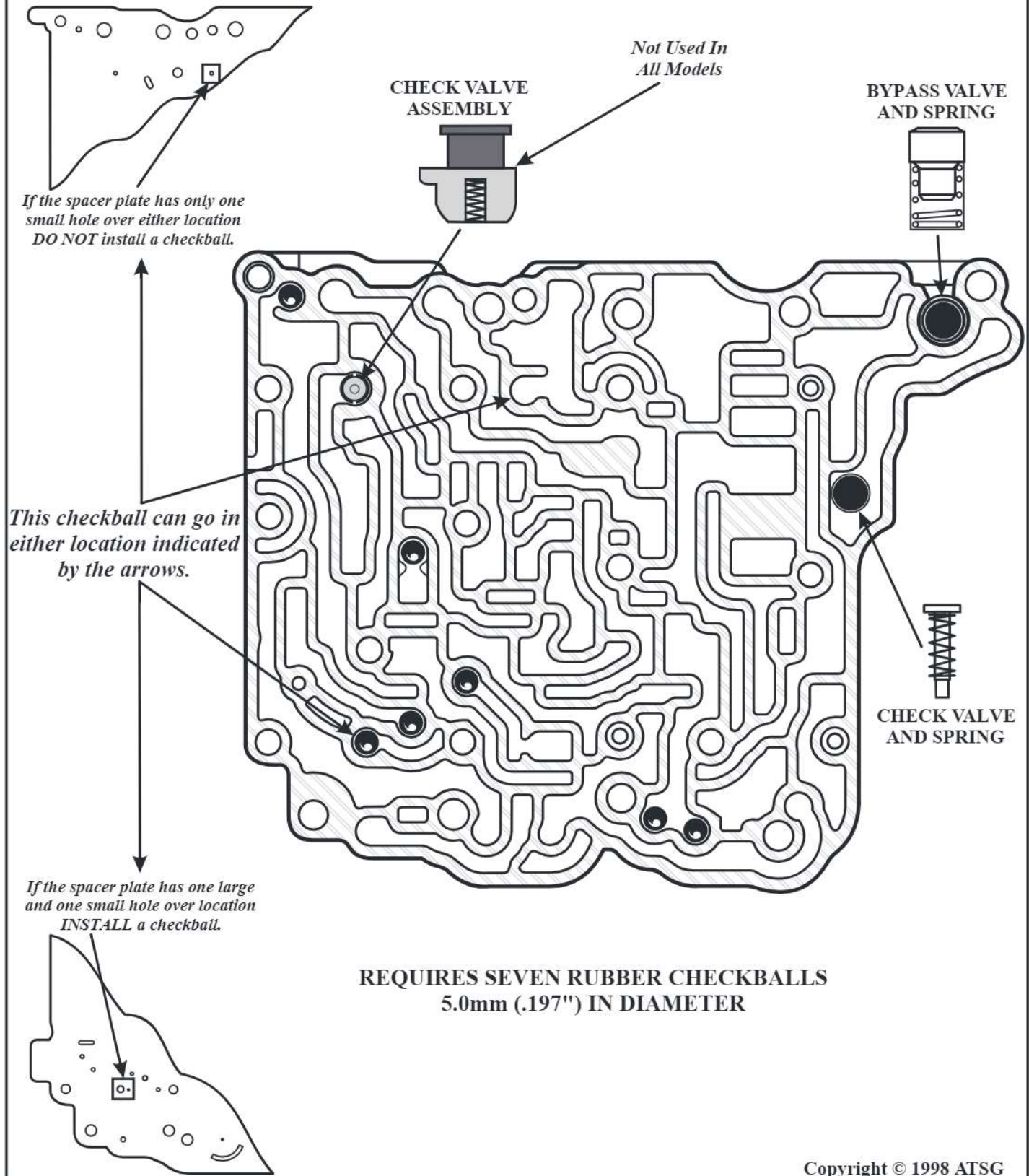
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VOLVO/SAAB AW50-42LE
"CENTER" VALVE BODY, "FRONT" SIDE



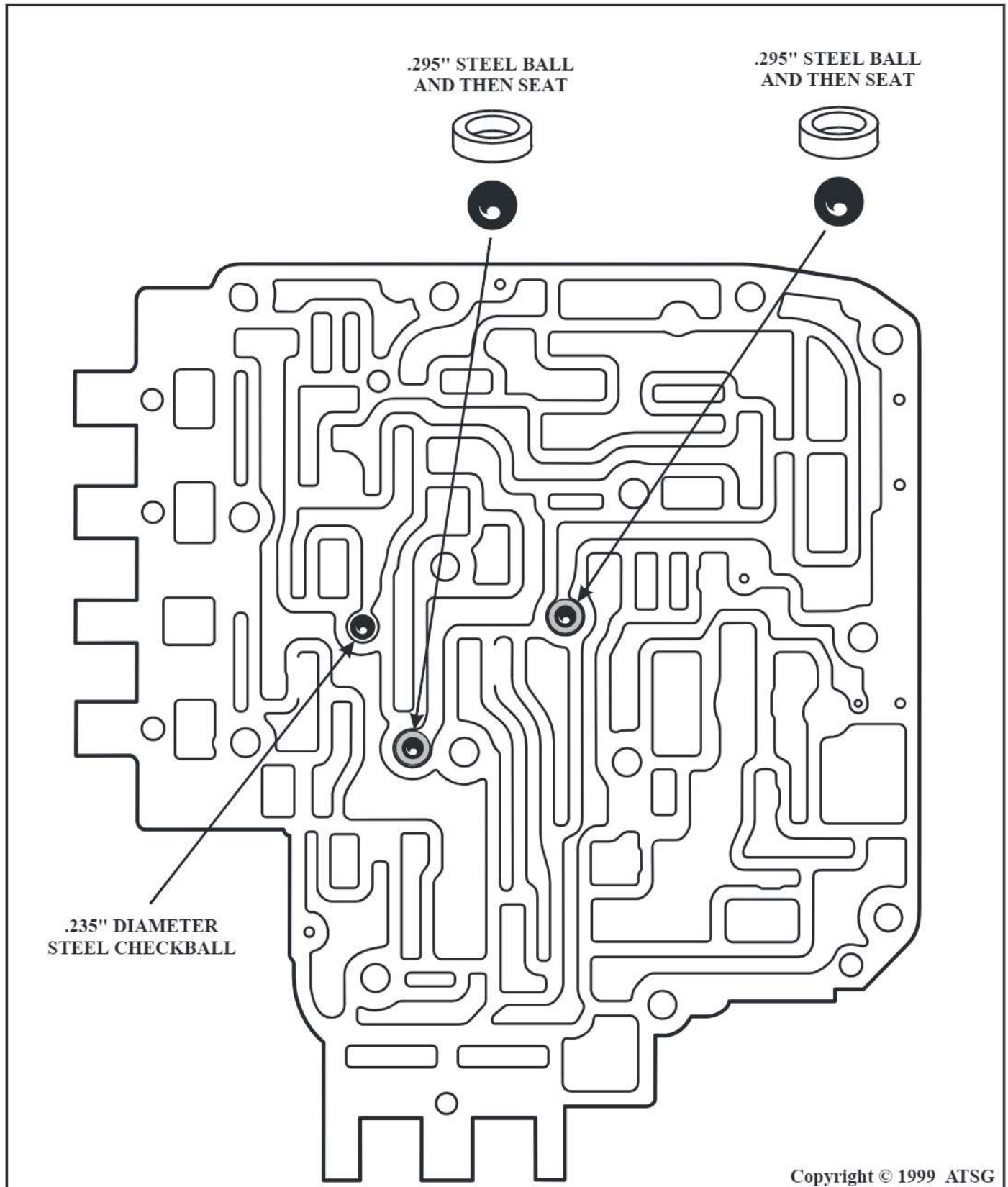
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VOLVO/SAAB AW50-42LE "CENTER" VALVE BODY, "REAR" SIDE



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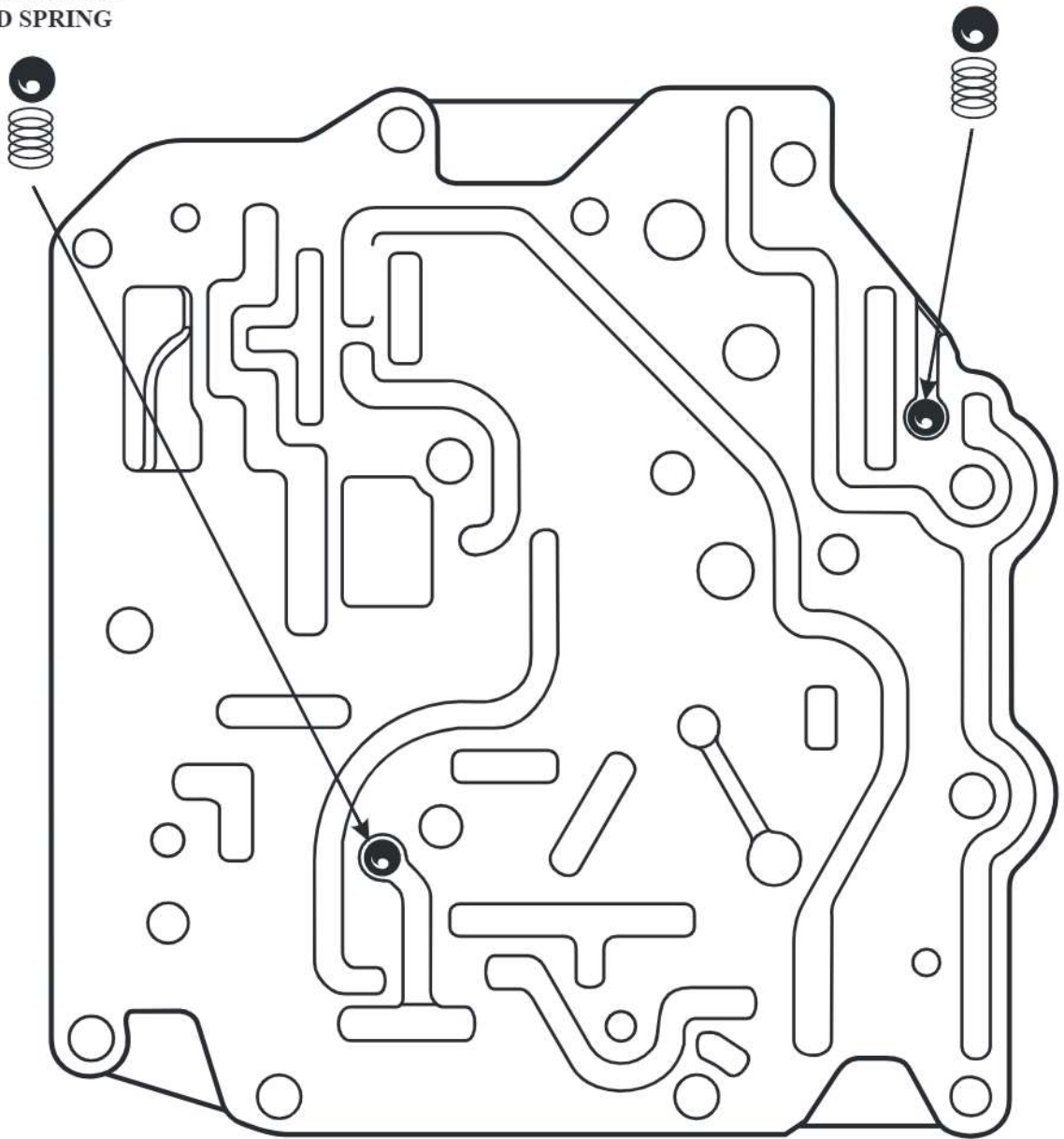
VOLKSWAGON PASSAT 096-097 MAIN VALVE BODY "CASE SIDE"



VOLKSWAGON PASSAT 096-097 MAIN VALVE BODY TRANSFER PLATE

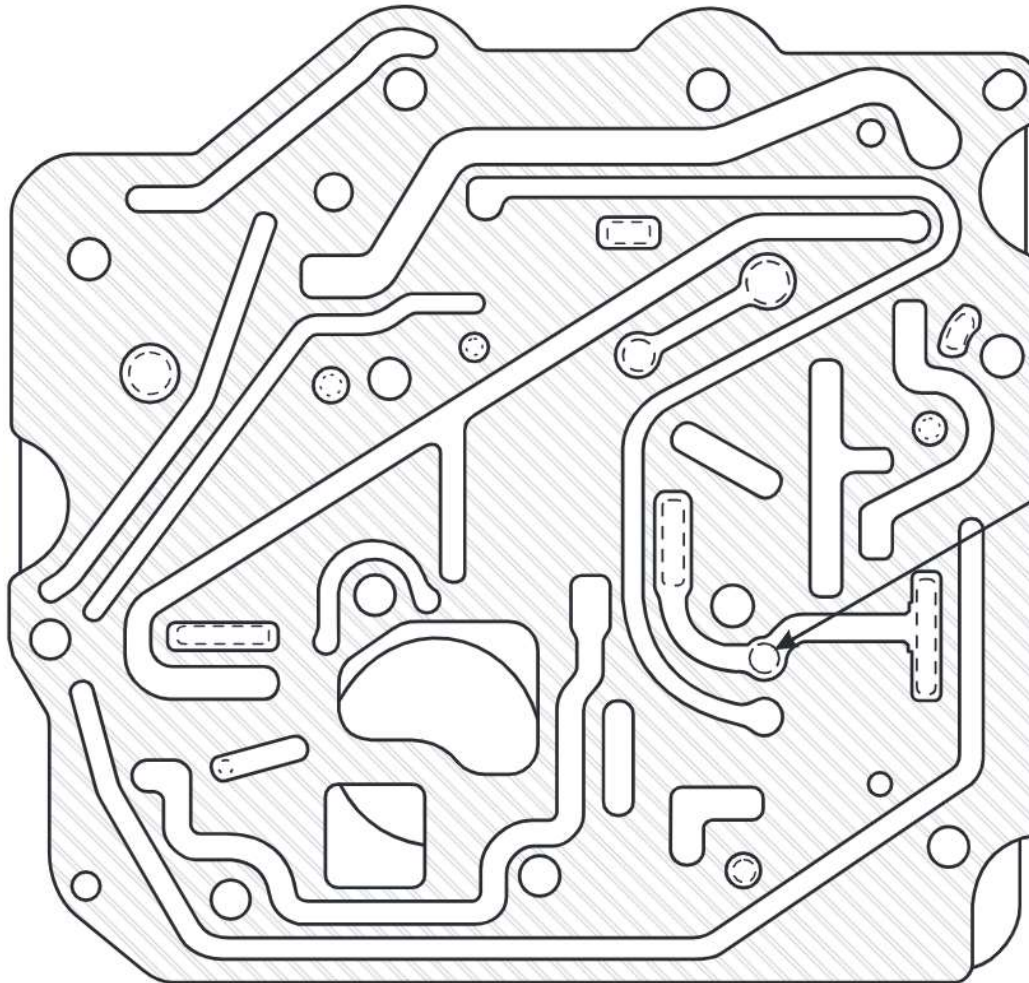
.235" DIAMETER
RELIEF BALL
AND SPRING

.235" DIAMETER
RELIEF BALL
AND SPRING



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AUDI/VW "01M" UPPER CHANNEL PLATE Phase II "All Models"



④
6mm (.236")
Diameter

FREE LENGTH = .276"
SPRING DIAMETER = .182"
WIRE DIAMETER = .008"

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AUDI/VW "01M" VALVE BODY Phase II "Early Only"

7mm (.275")
Diameter
With Retainer



6mm (.236")
Diameter
Not used in
all models



①
6mm (.236")
Diameter
Not used in
all models



③
7mm (.275")
Diameter
(Some Models
Have Retainer)



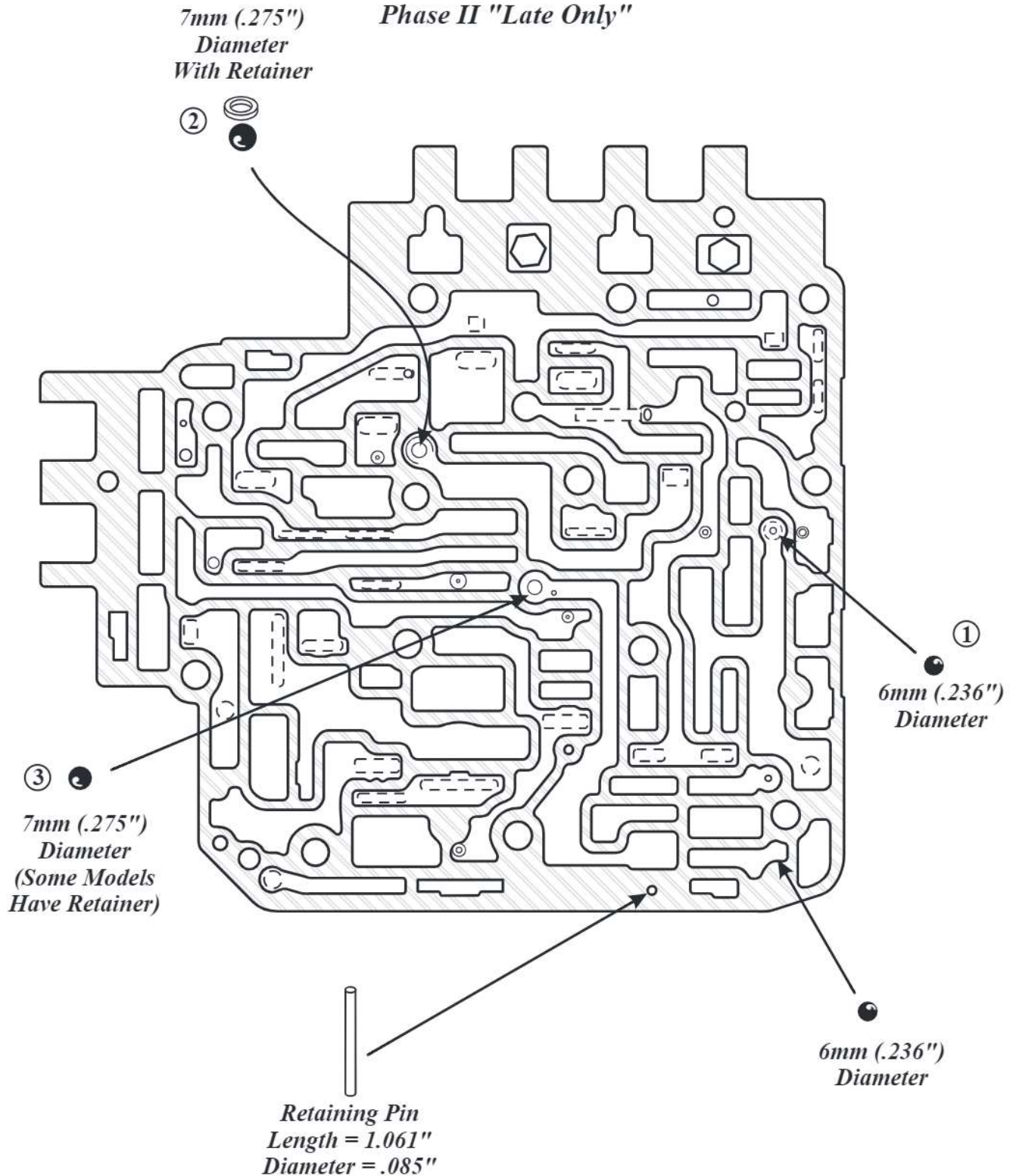
Retaining Pin
Length = 1.061"
Diameter = .085"



NOTE: there should be only One 6mm checkball, in one location or the other.

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AUDI/VW "01M" VALVE BODY Phase II "Late Only"



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