



CHECKBALL BOOK *Import Volume II*

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AUTOMATIC TRANSMISSION SERVICE GROUP

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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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VOLVO

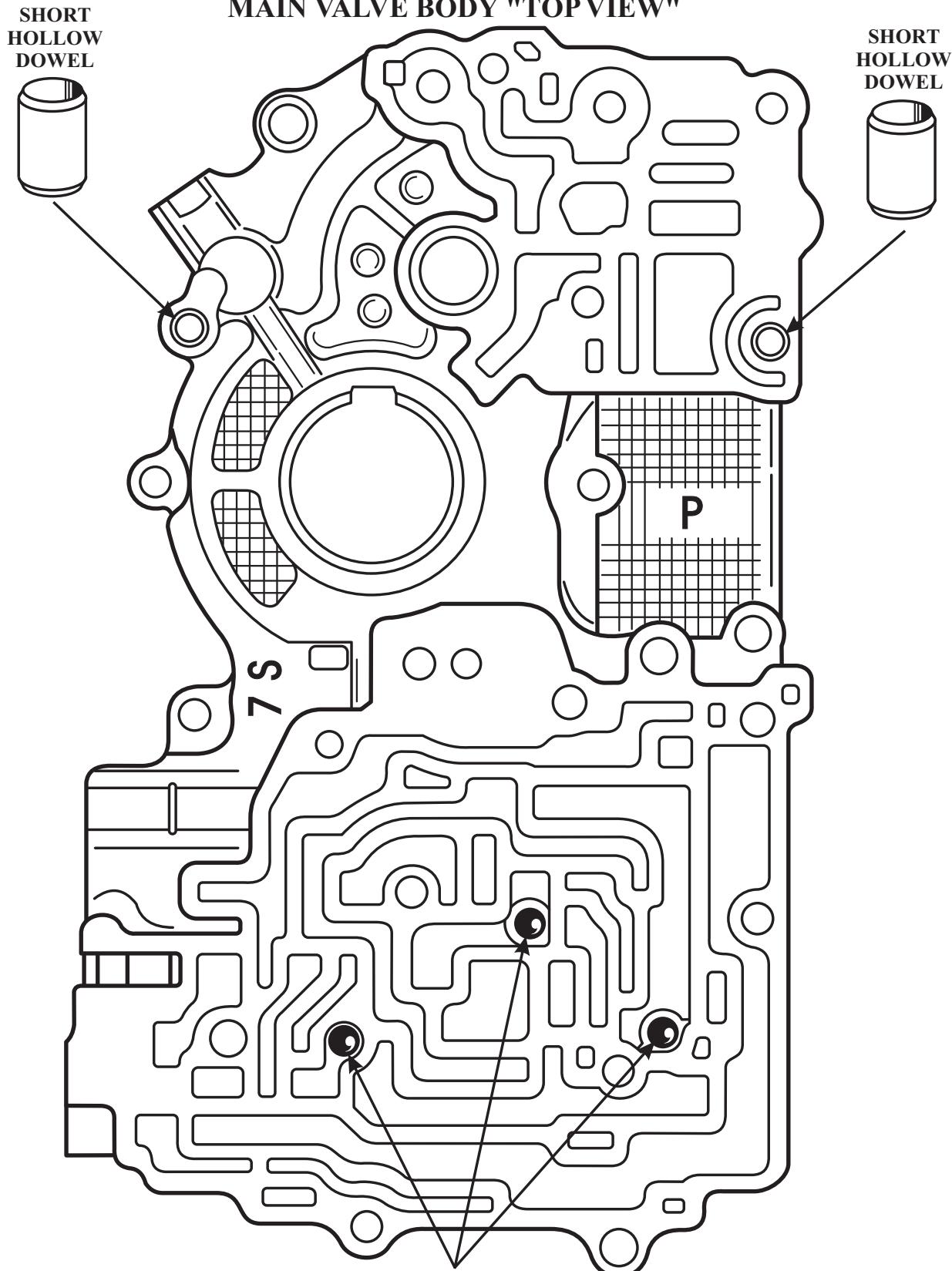
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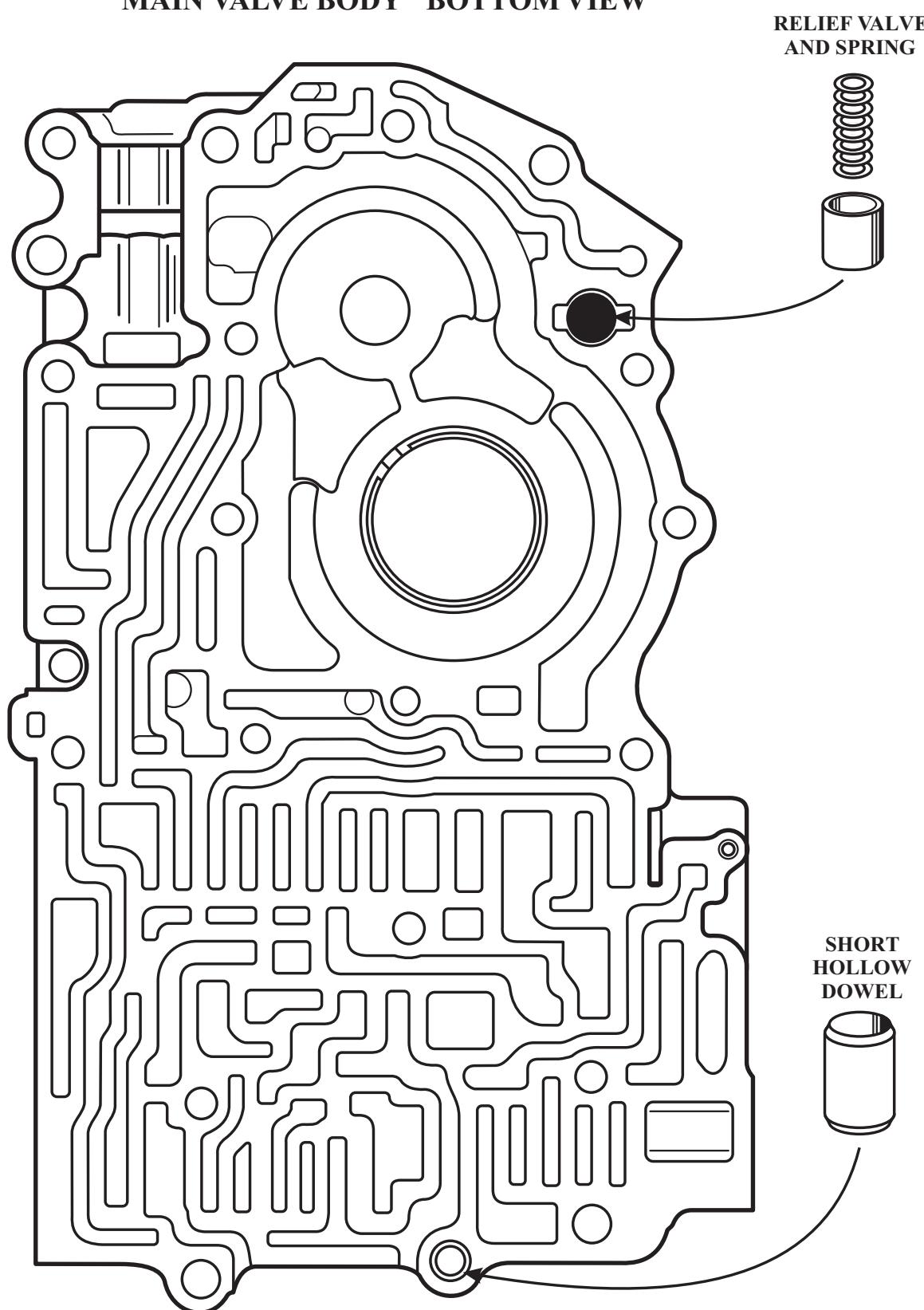
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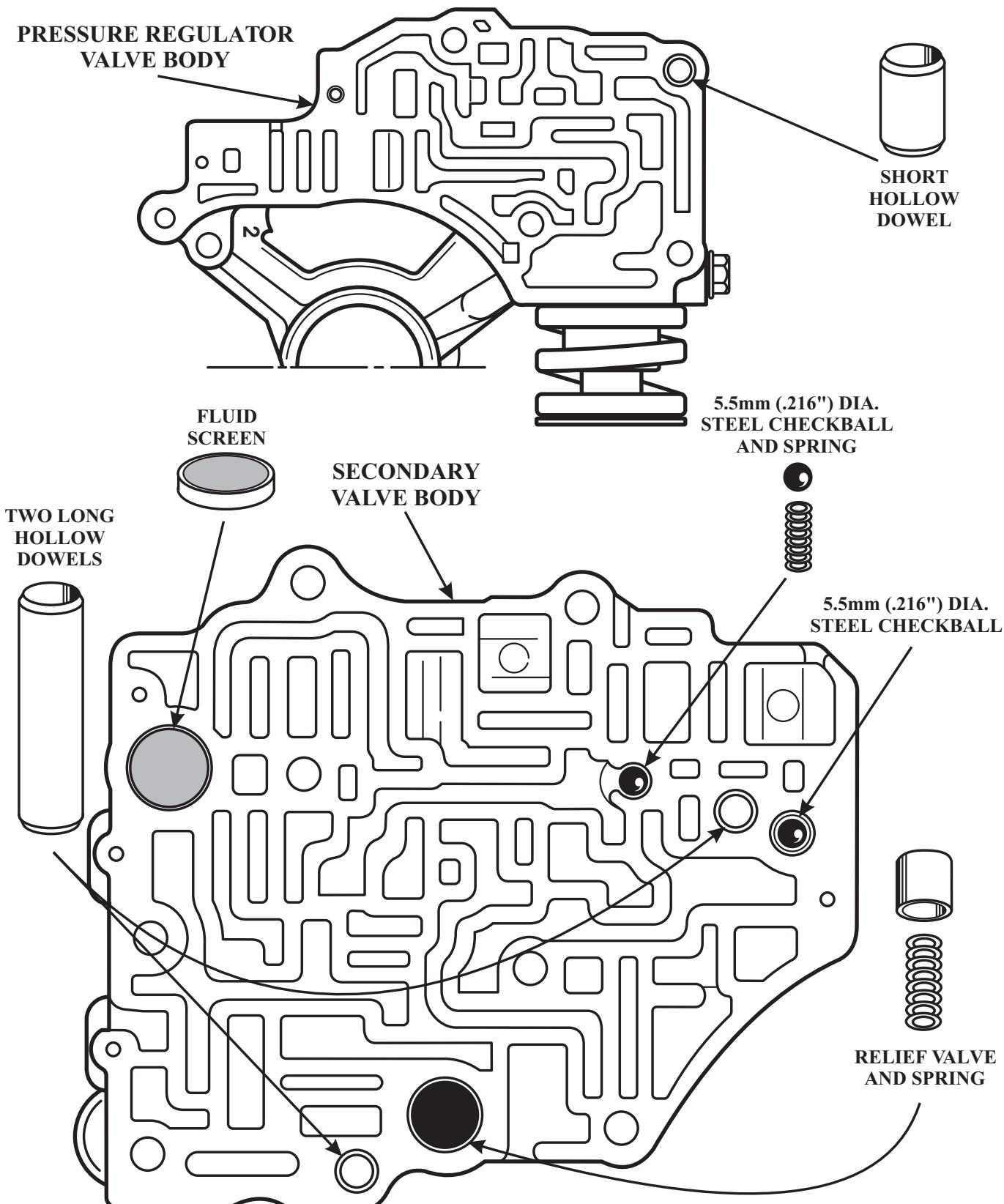
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ACURA INTEGRA MODEL "CA"
MAIN VALVE BODY "TOP VIEW"

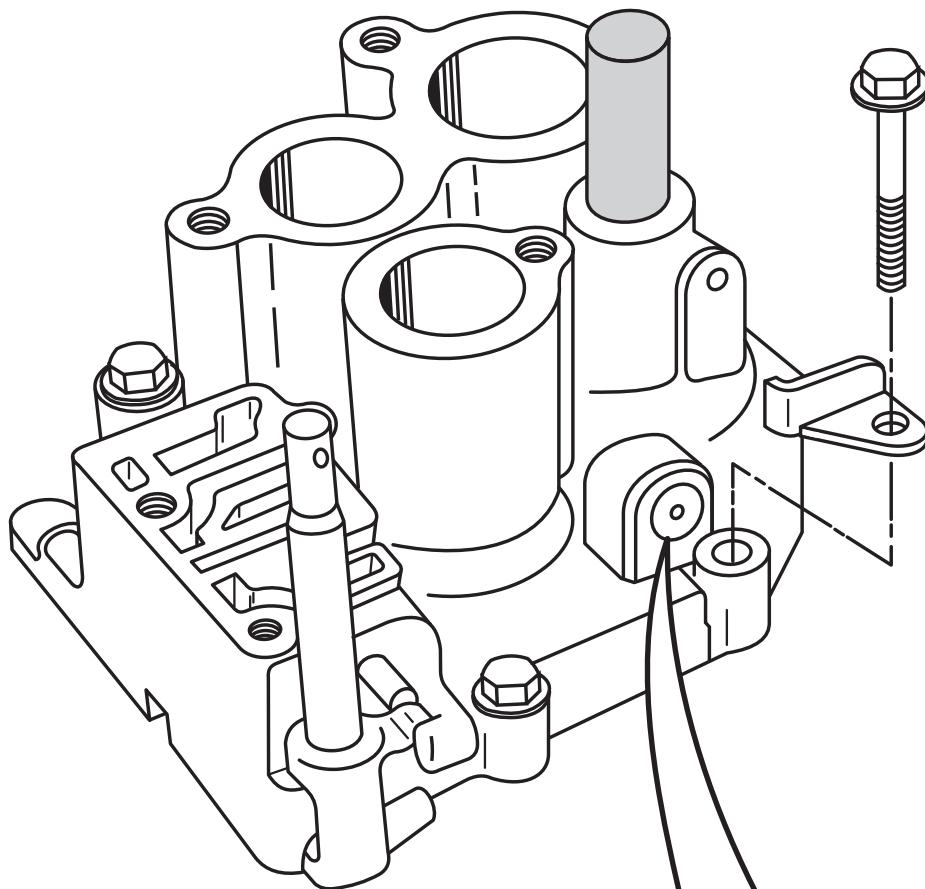
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ACURA INTEGRA MODEL "CA"
MAIN VALVE BODY "BOTTOM VIEW"

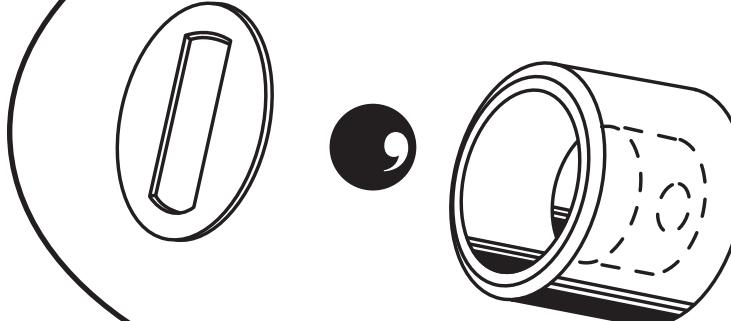
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ACURA INTEGRA MODEL "CA"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY

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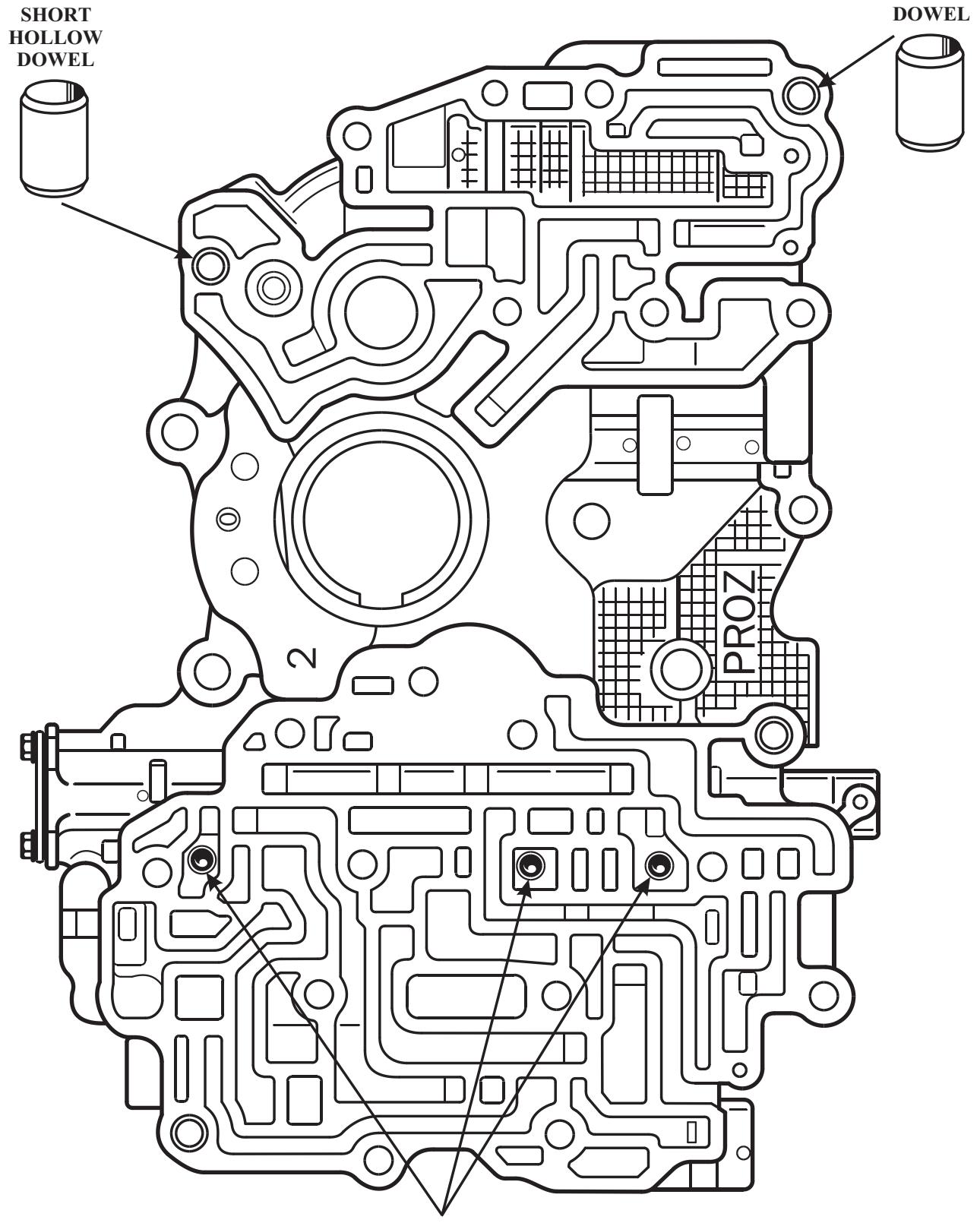
SERVO VALVE BODY**CAUTION:**

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.

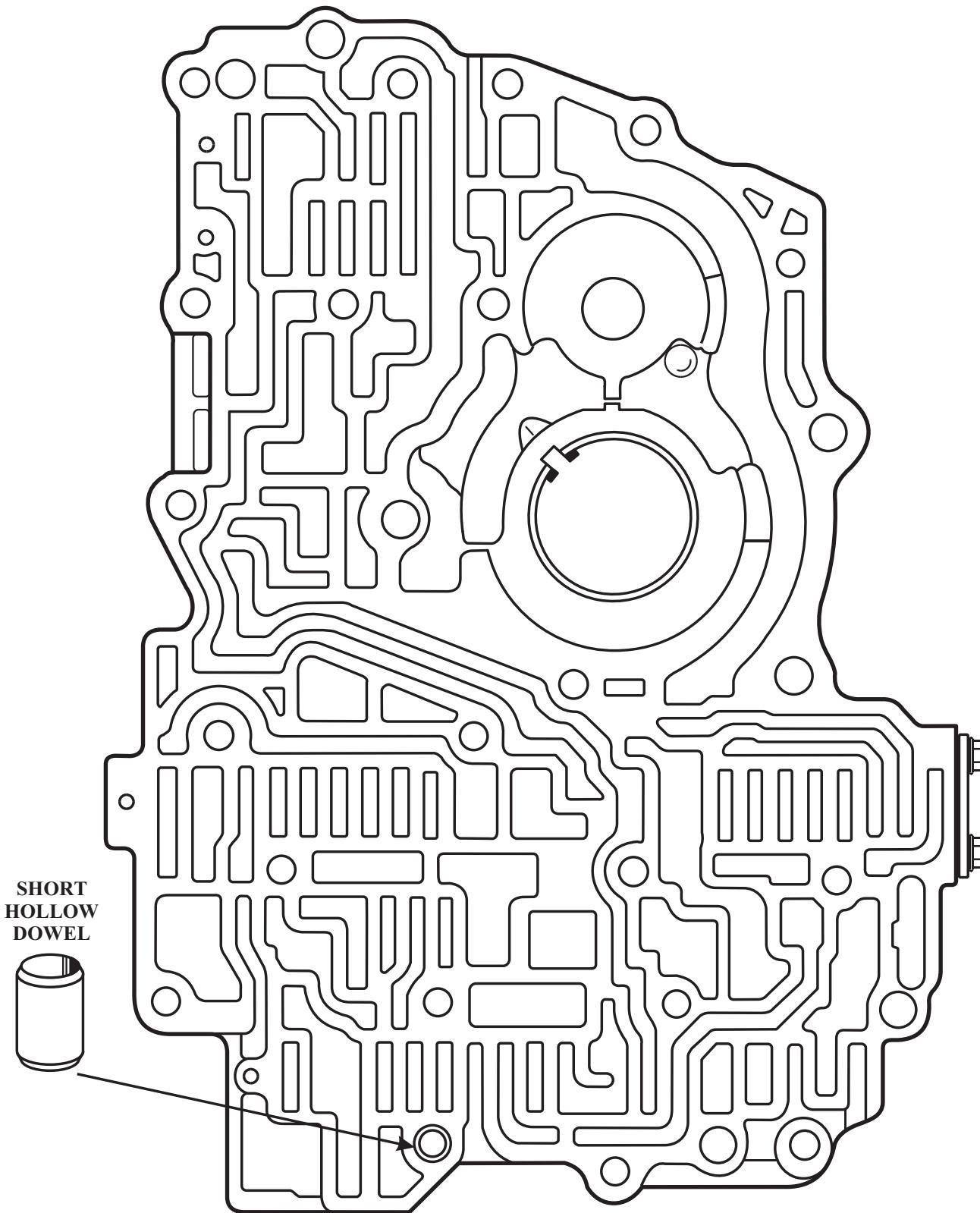
**SERVO RELEASE
CHECK VALVE**

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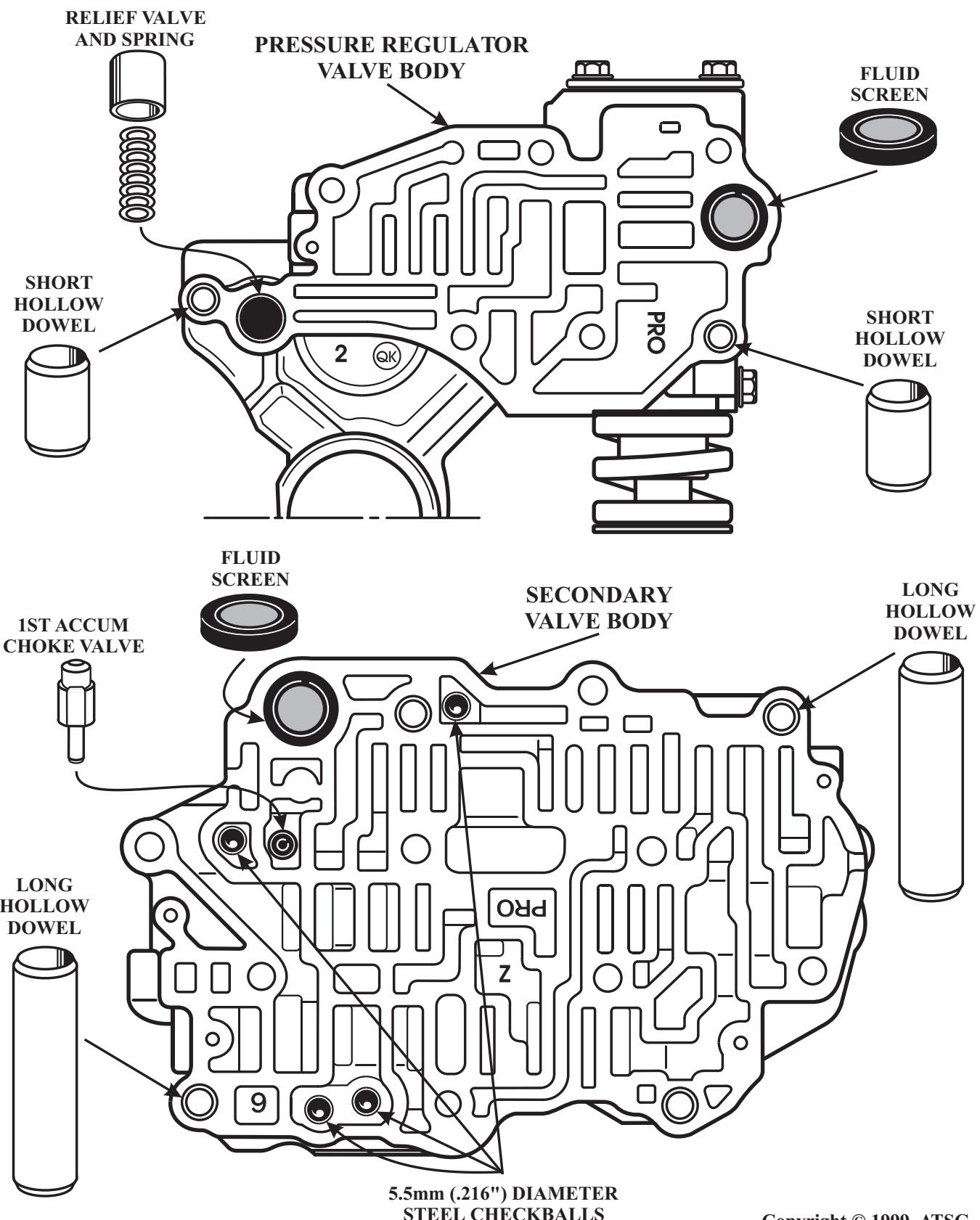
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

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

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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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CHECKBALL BOOK

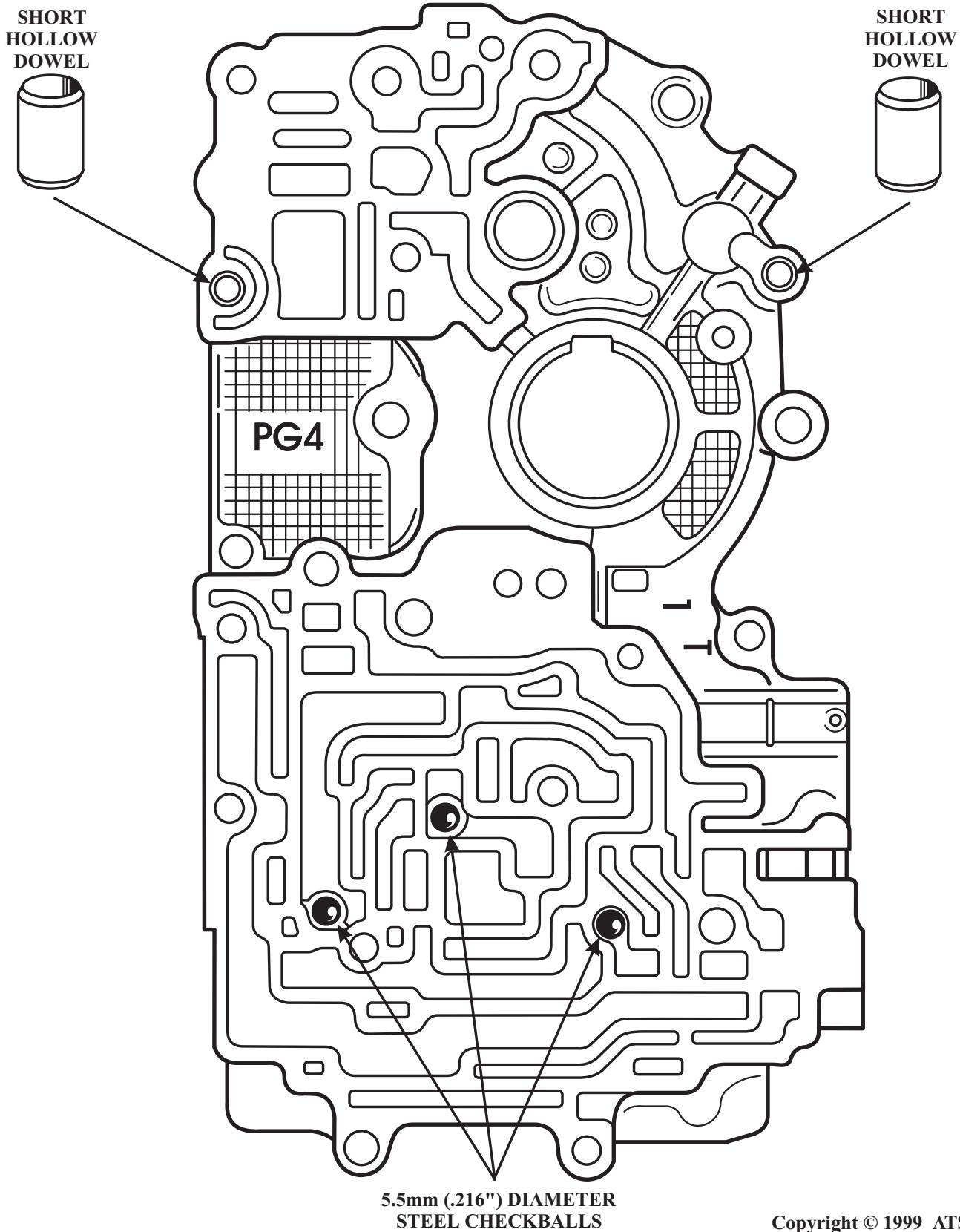
Import Volume II

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

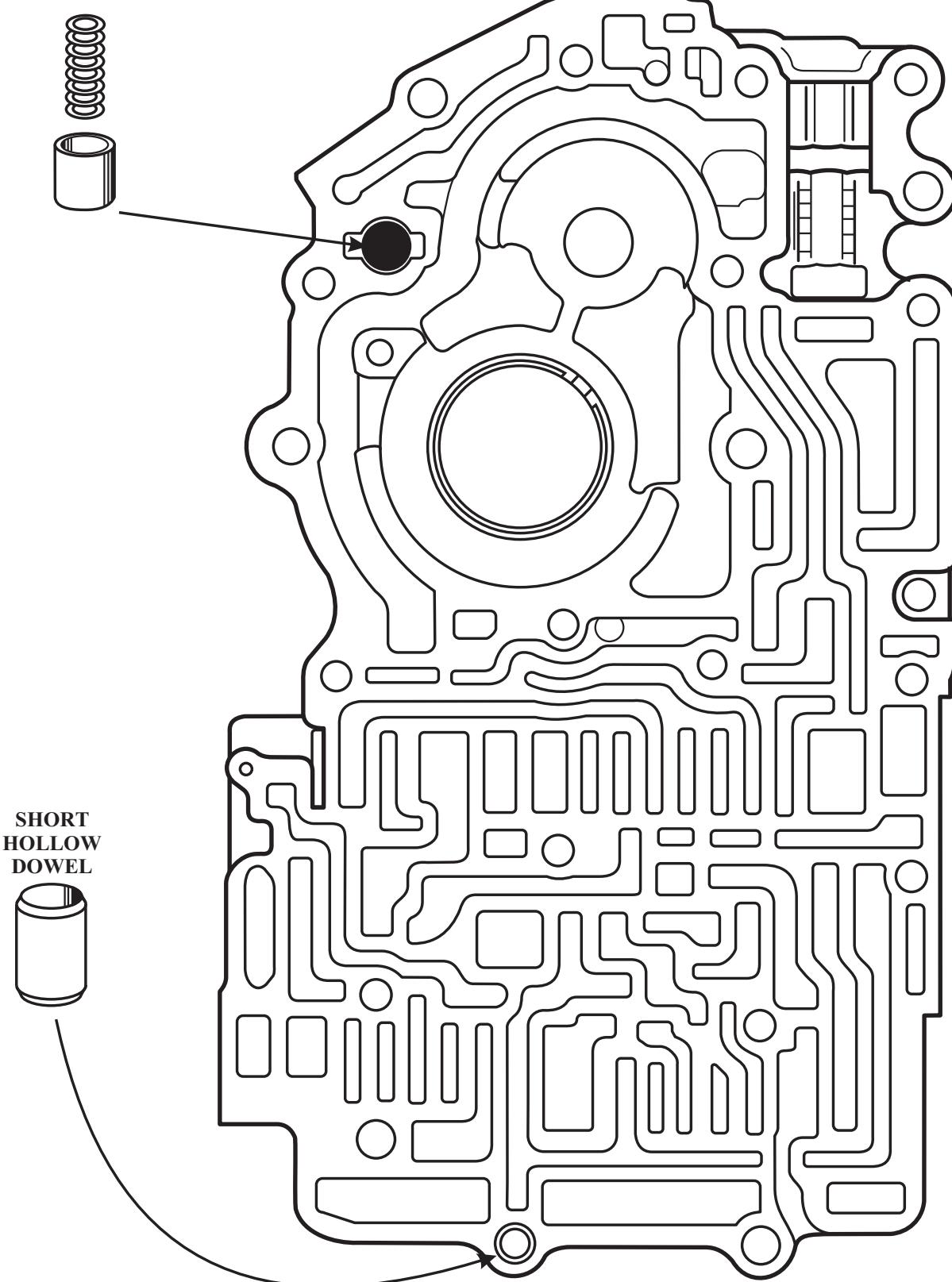


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PARTS**

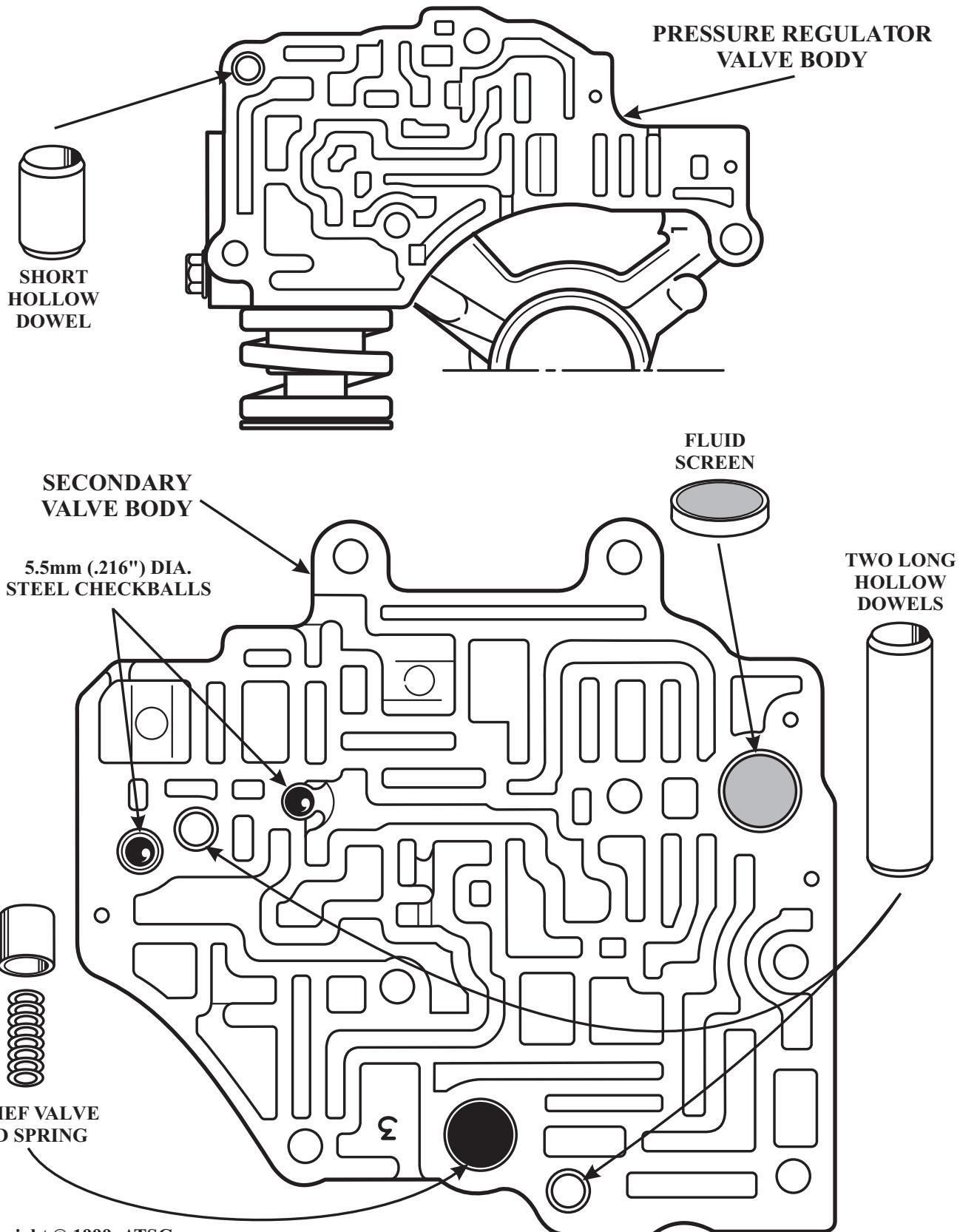
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MIAMI, FLORIDA 33135
TOLL FREE (800) 966-4621
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FAX (305) 541-1444**

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

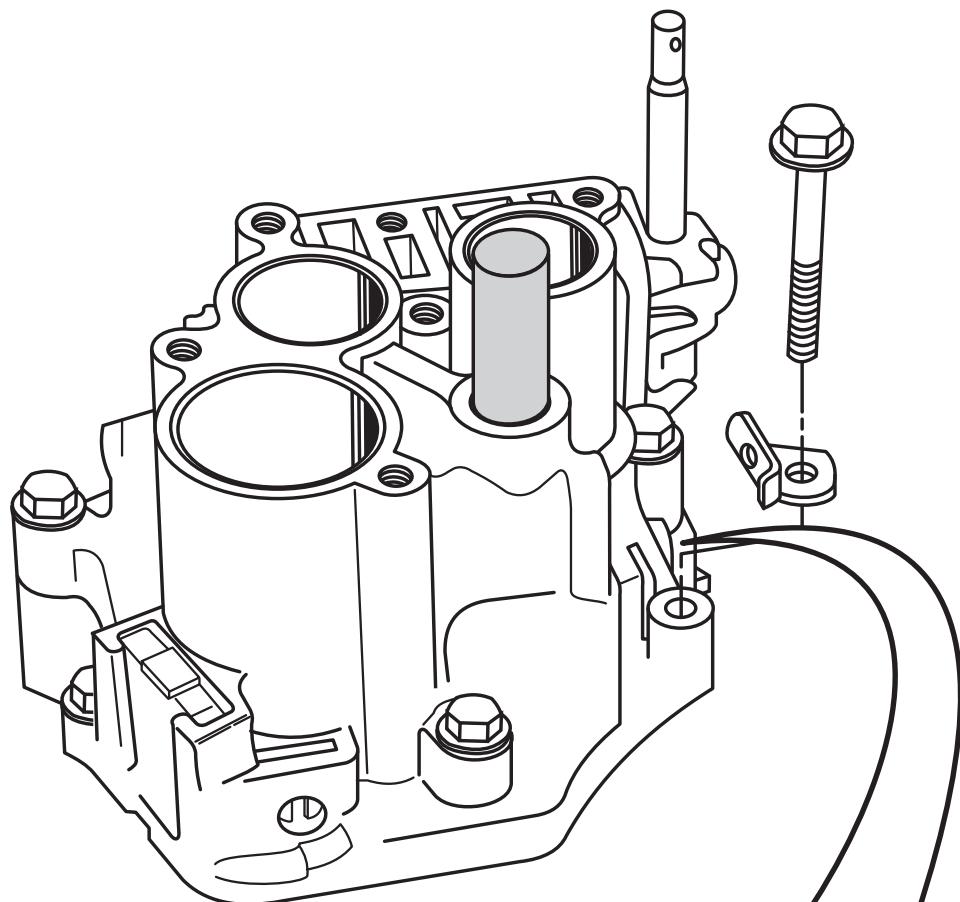
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RELIEF VALVE
AND SPRINGACURA LEGEND MODEL "G4"
MAIN VALVE BODY "BOTTOM VIEW"

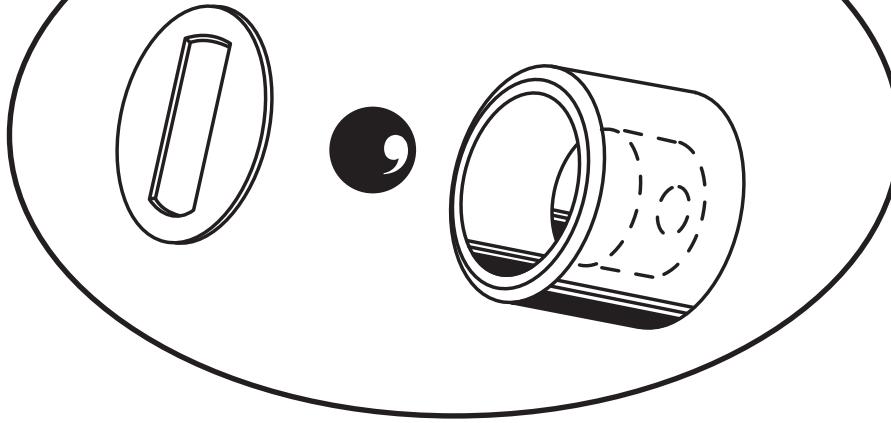
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**ACURA LEGEND MODEL "G4"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

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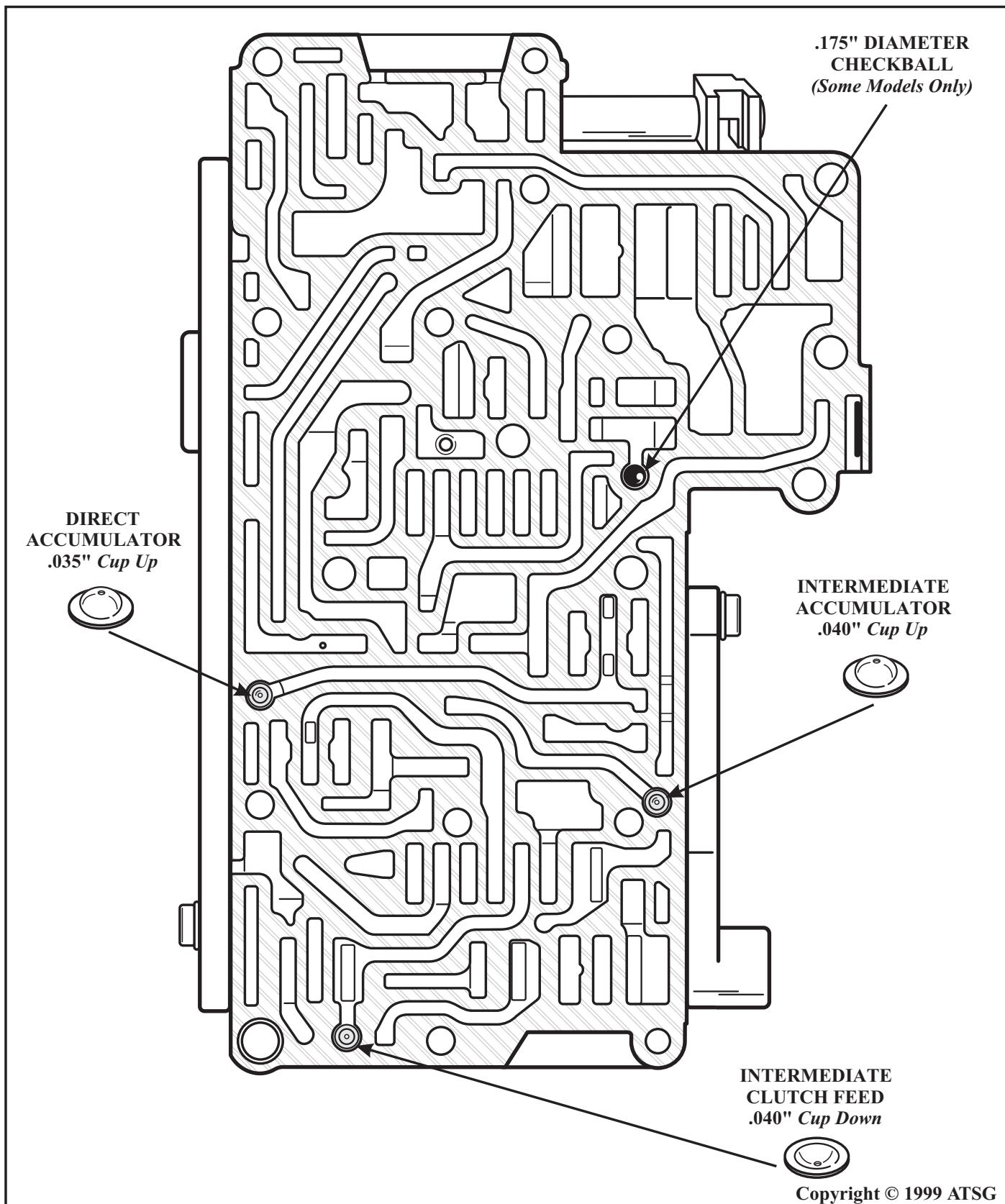
SERVO VALVE BODY**CAUTION:**

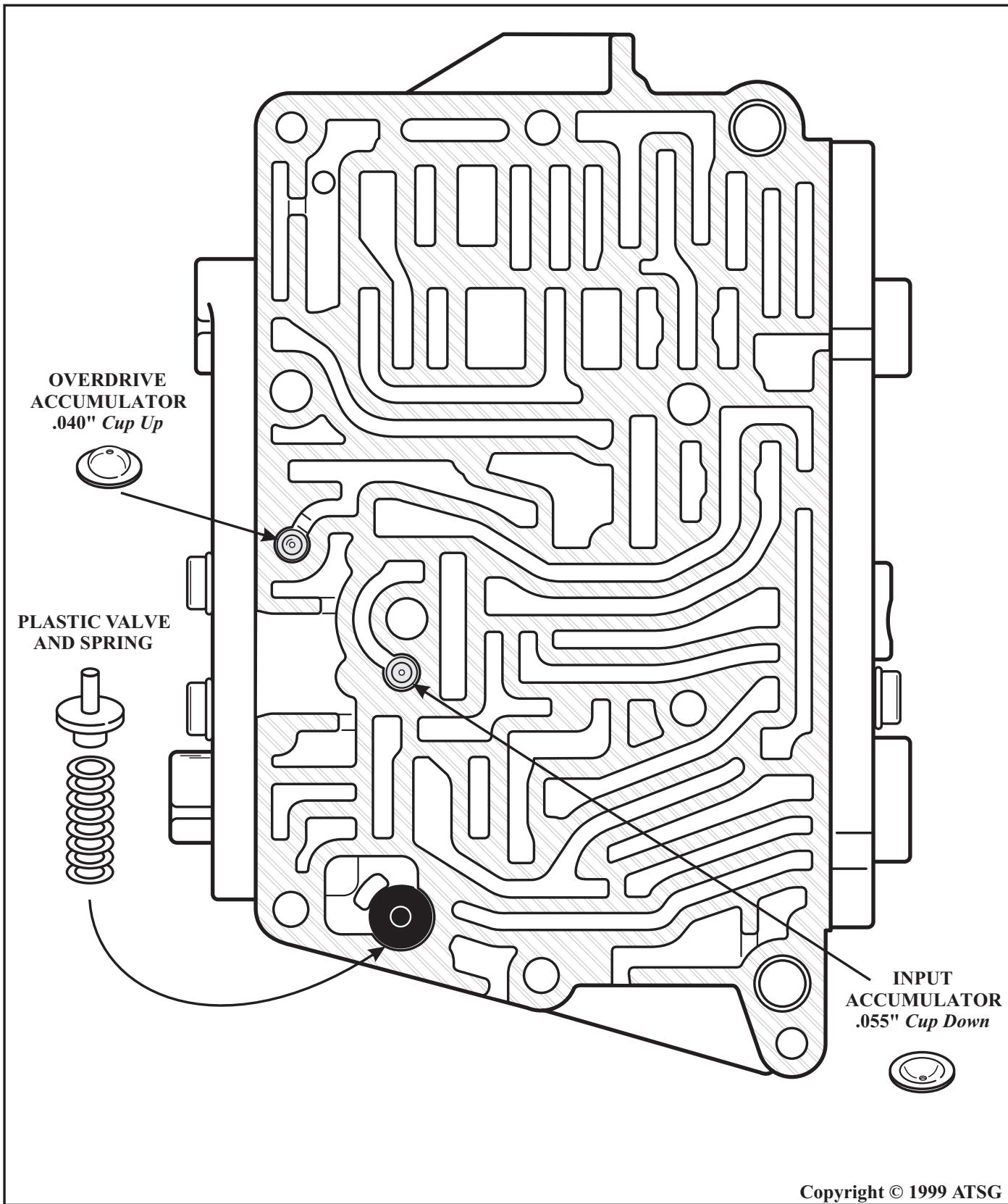
The Servo Release Check Valve is staked into the servo valve body as shown, but it can fall out or can be blown out during cleaning process.

**SERVO RELEASE
CHECK VALVE**

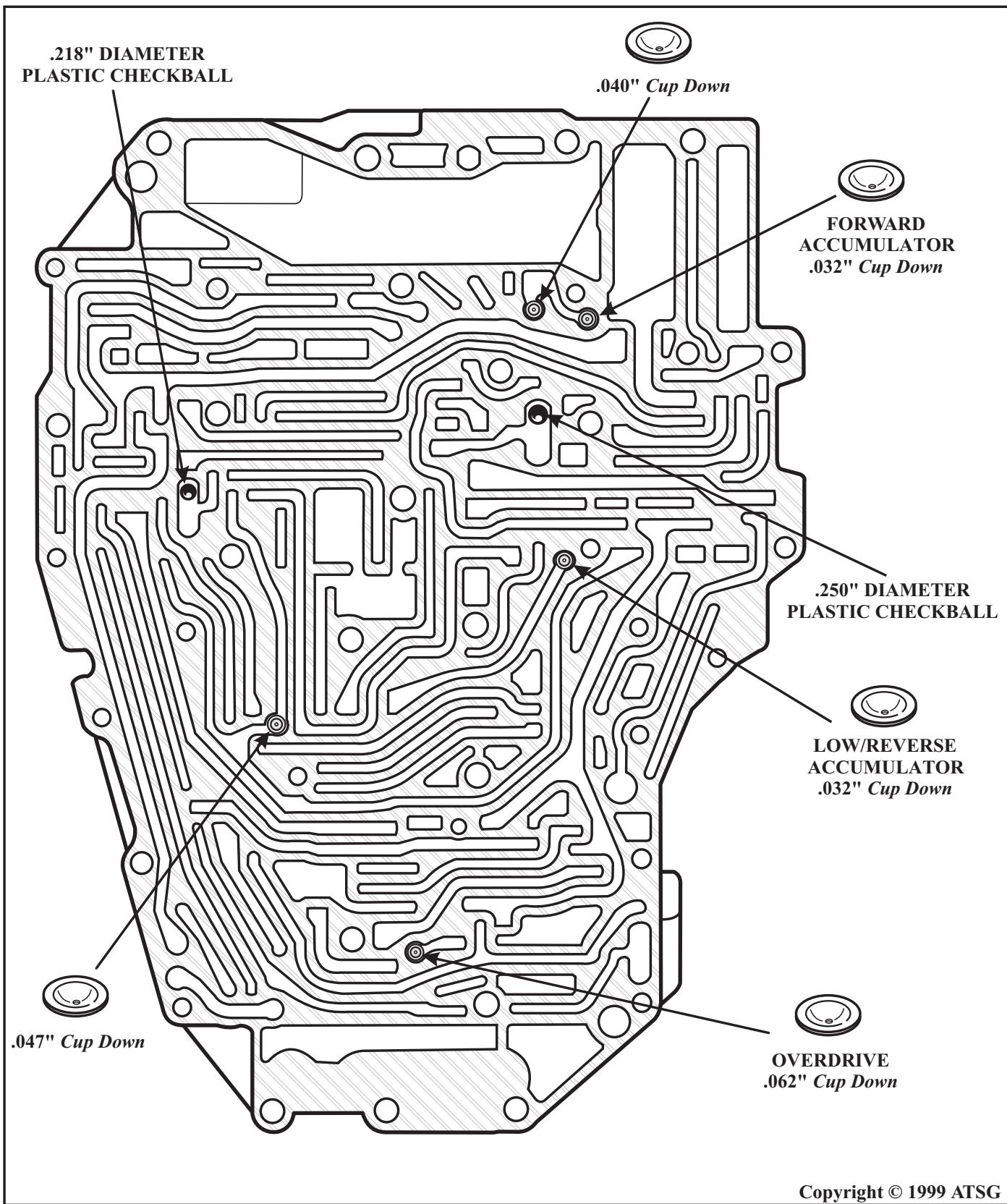
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NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

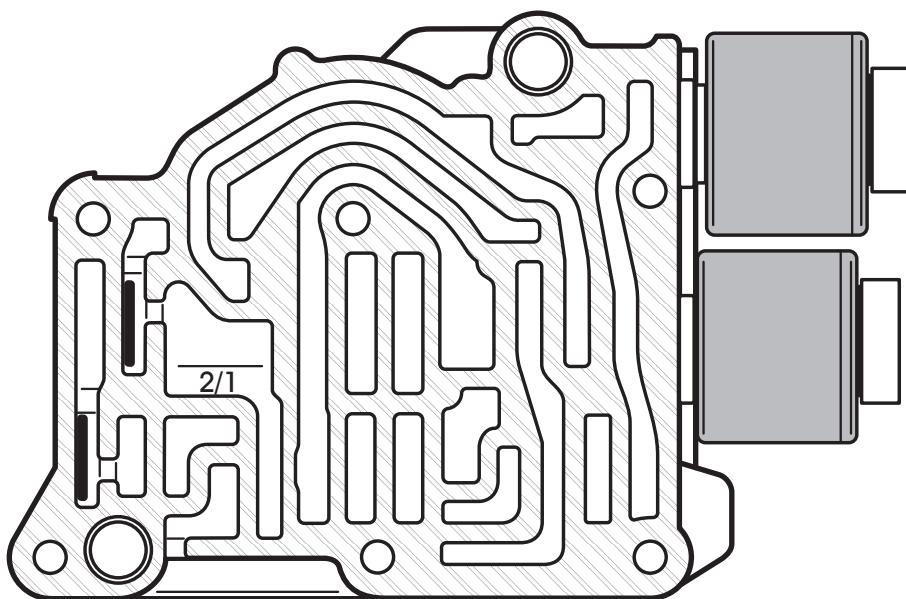
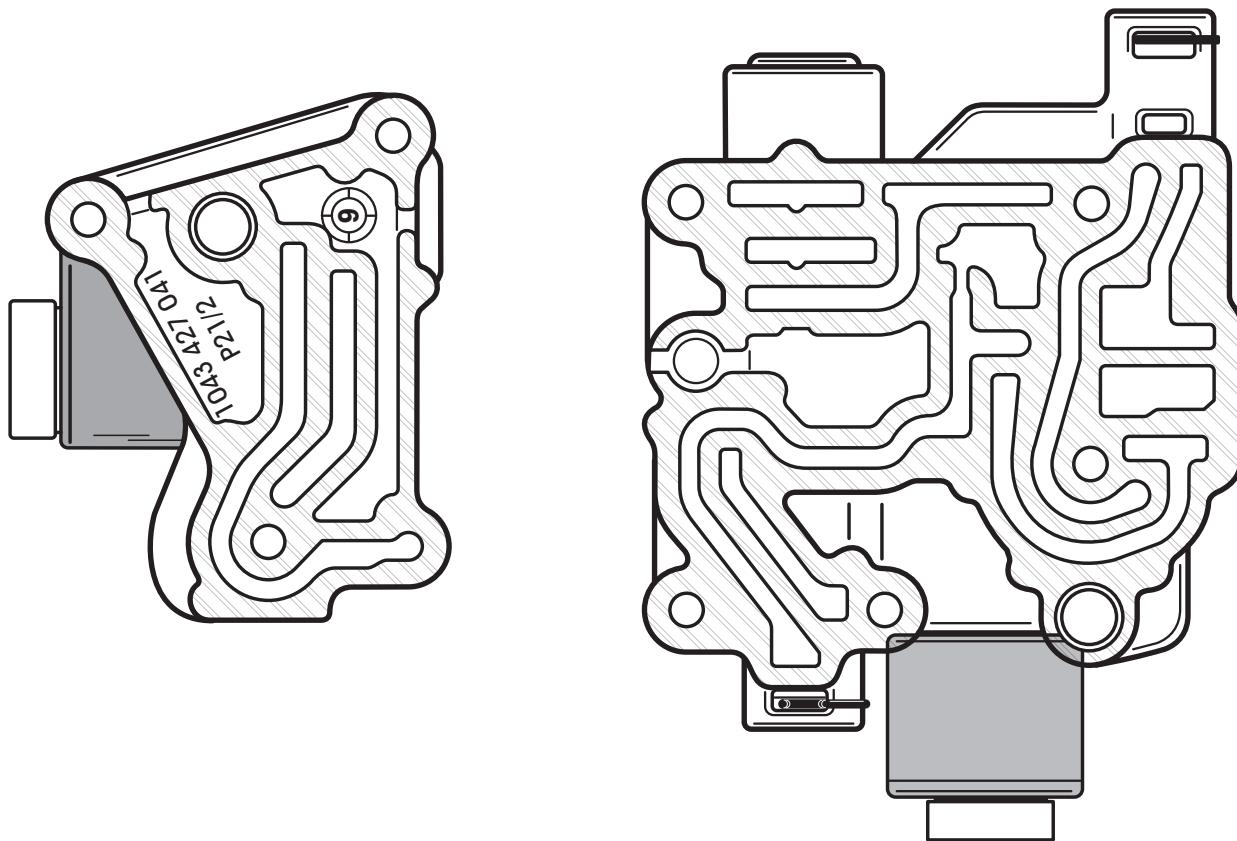
BMW ELECTRONIC ZF4HP-22 (4 SOLENOID ONLY)
"LOWER FRONT" VALVE BODY

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

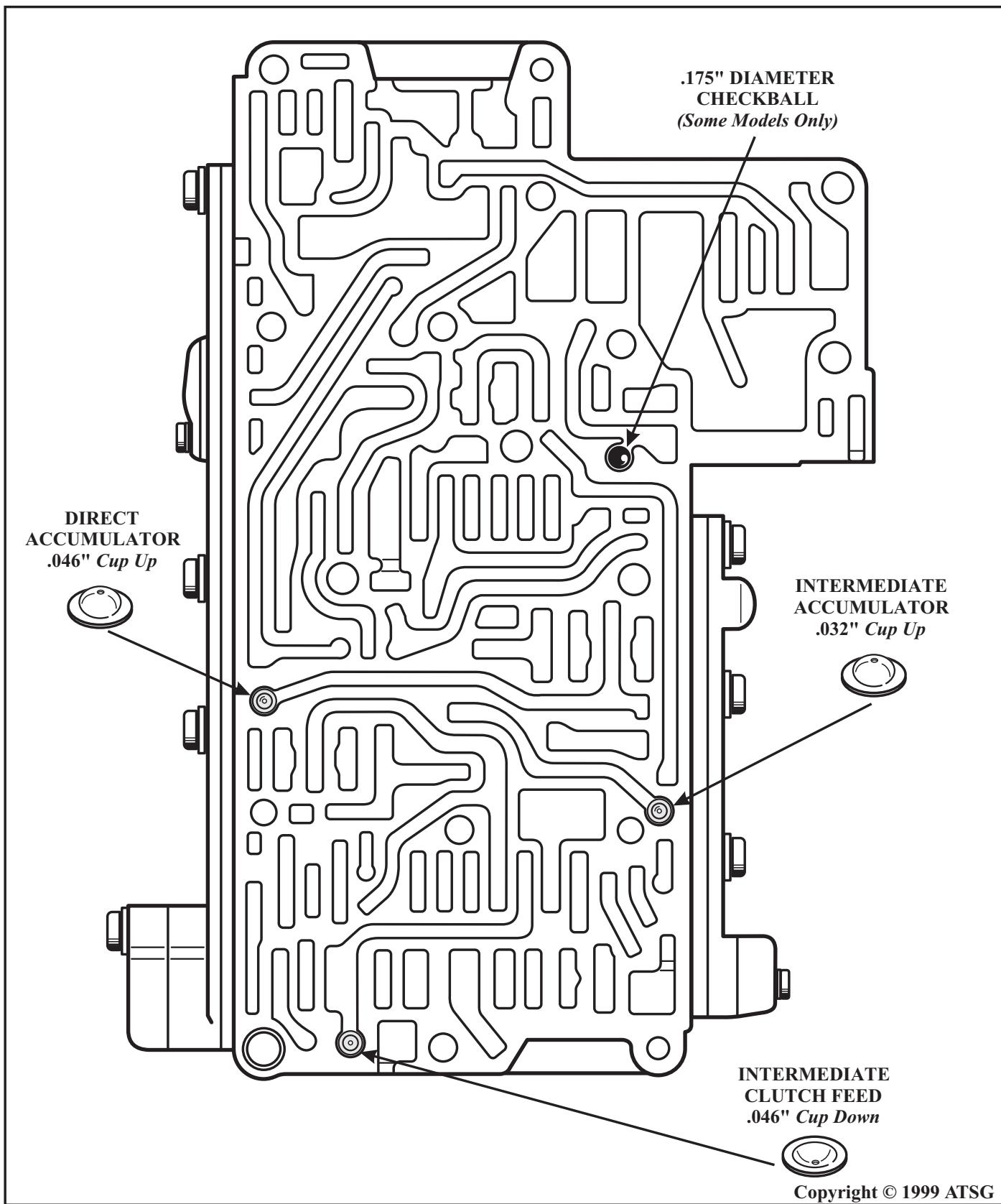
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BMW ELECTRONIC ZF4HP-22 (4 SOLENOID ONLY)
CHANNEL PLATE

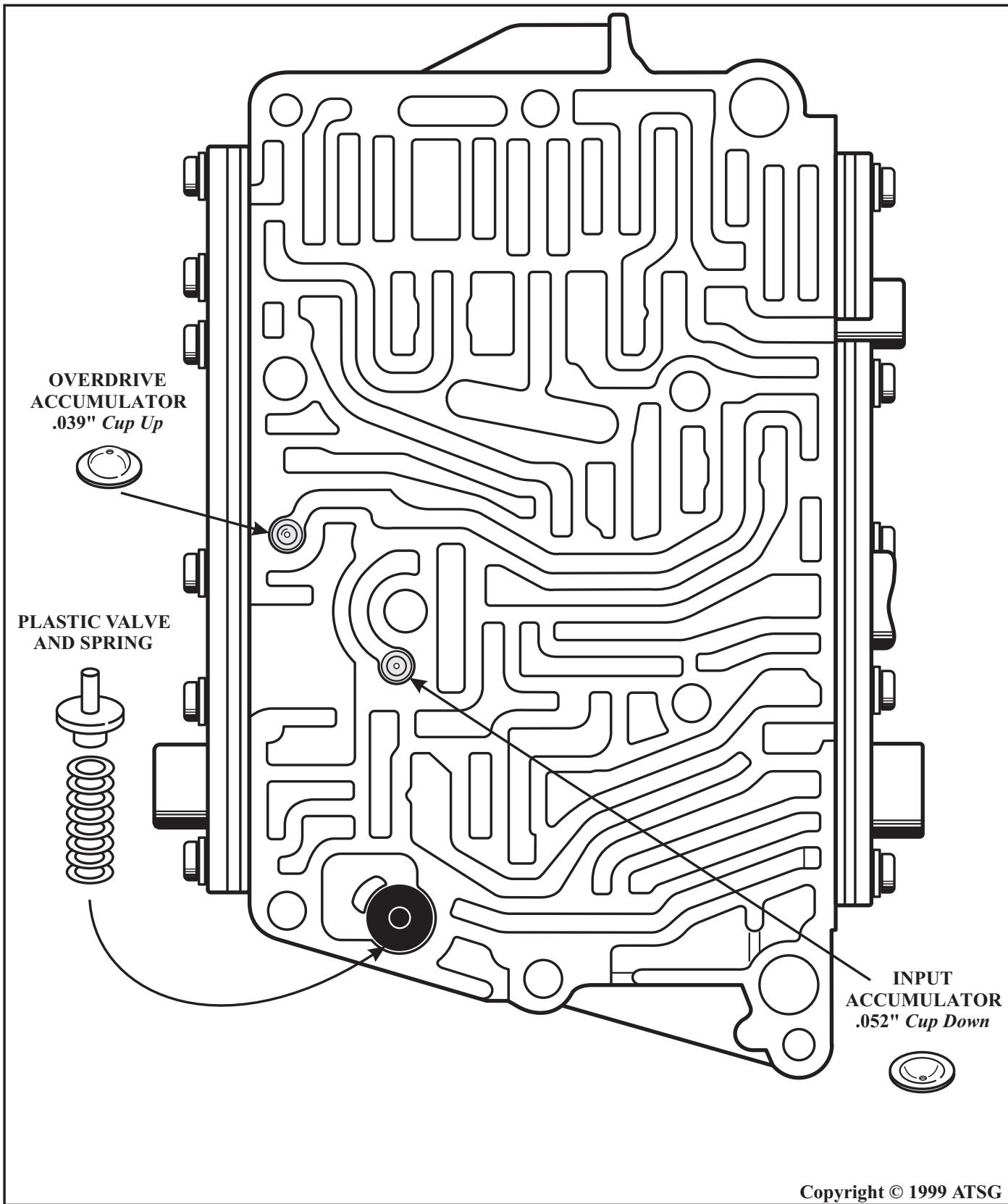
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BMW ELECTRONIC ZF4HP-22 (4 SOLENOID ONLY)
"UPPER RIGHT" AND "UPPER LEFT" VALVE BODY

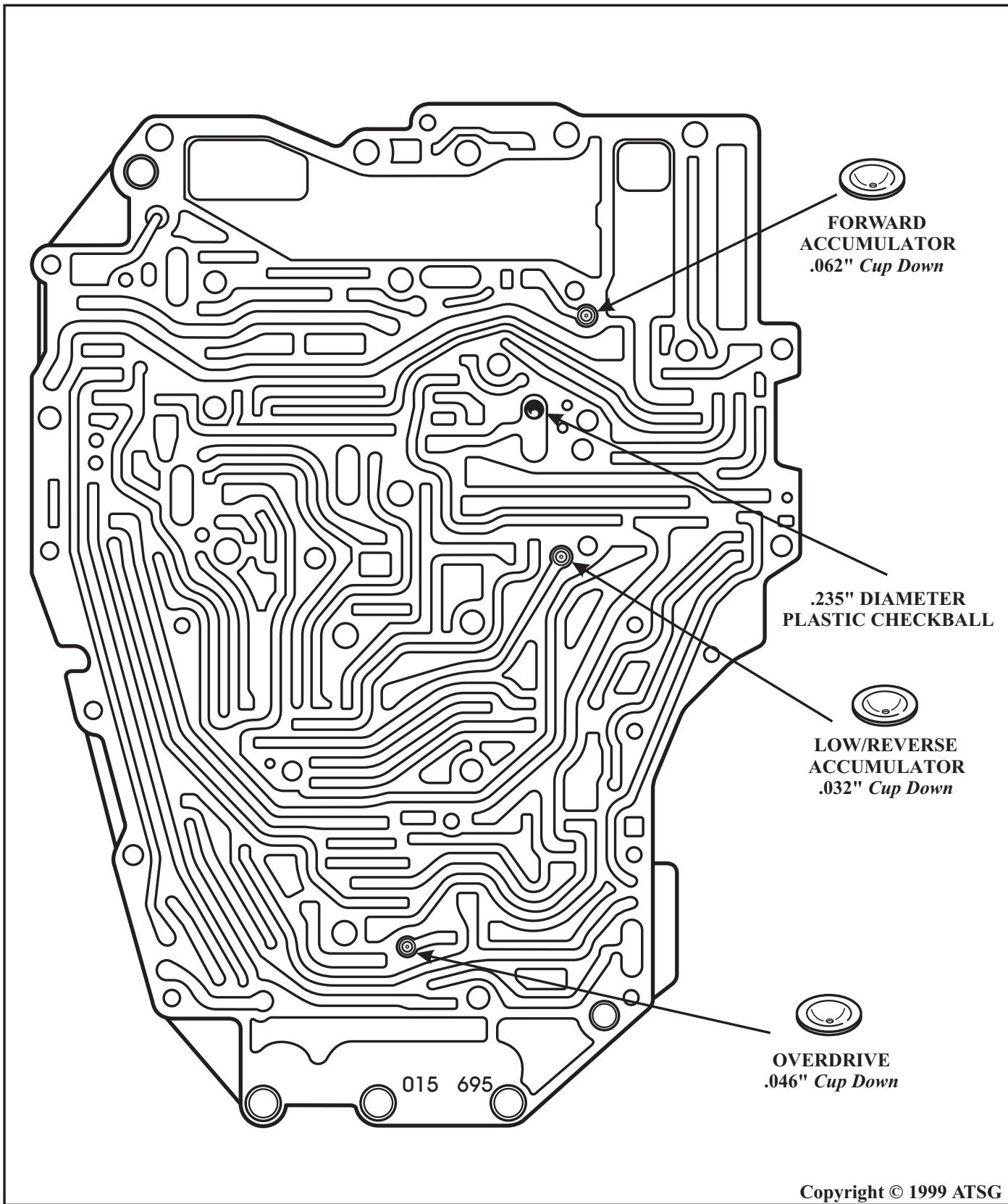
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BMW ELECTRONIC ZF4HP-22 (5 SOLENOID ONLY)
"LOWER FRONT" VALVE BODY

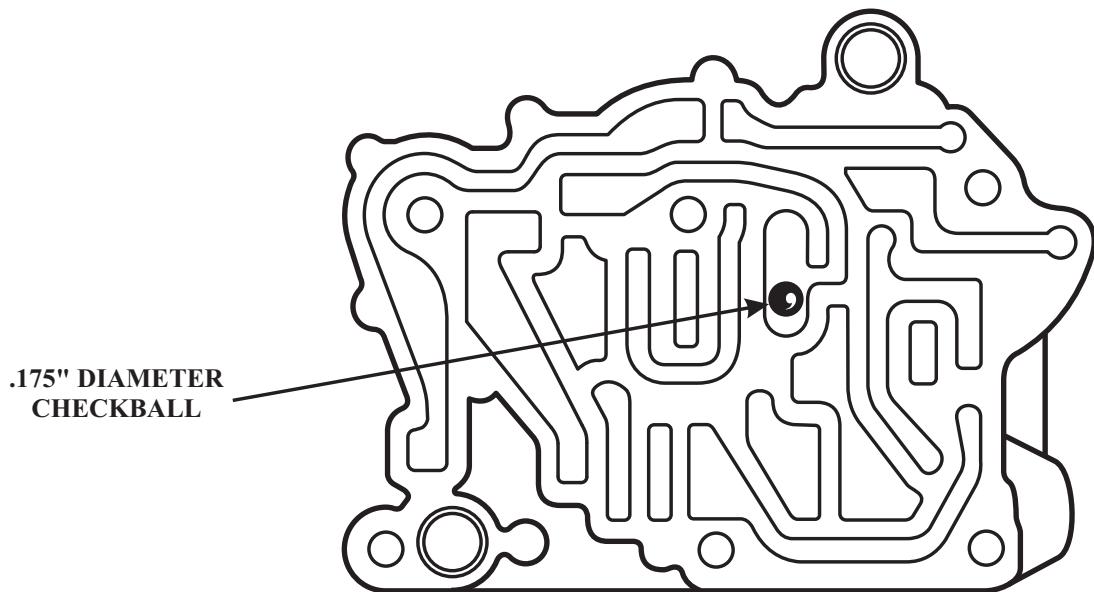
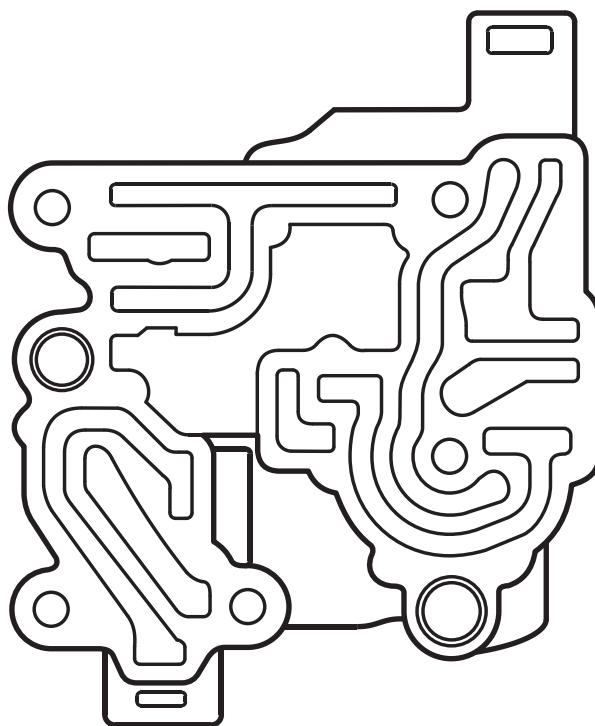
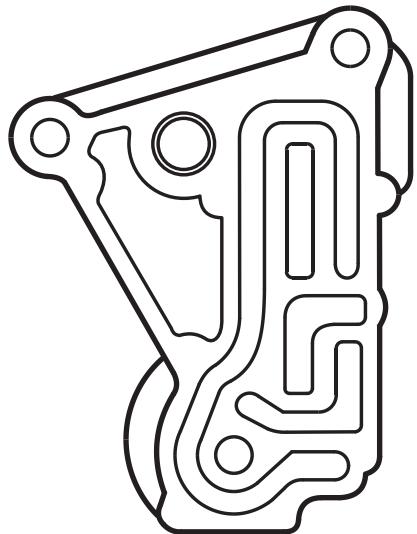
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BMW ELECTRONIC ZF4HP-22 (5 SOLENOID ONLY)
"LOWER REAR" VALVE BODY

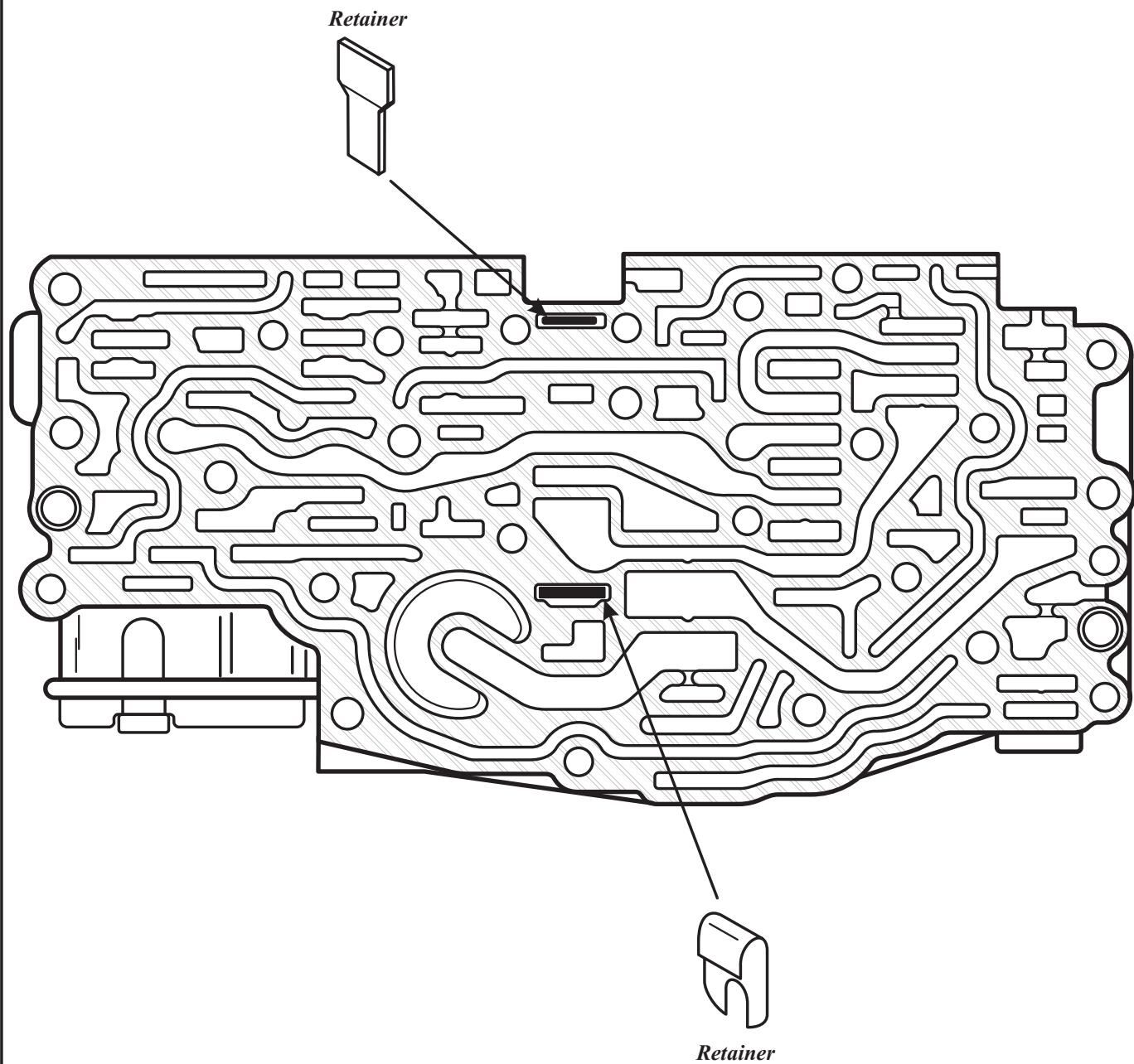
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BMW ELECTRONIC ZF4HP-22 (5 SOLENOID ONLY)
CHANNEL PLATE

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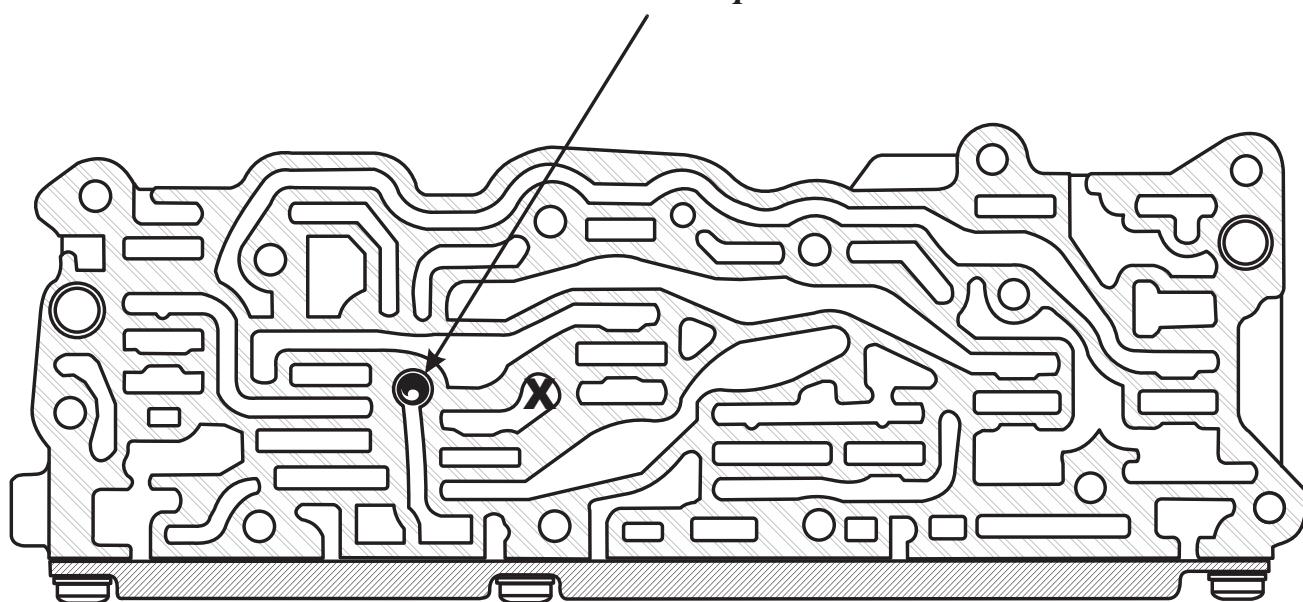
BMW ELECTRONIC ZF4HP-22 (5 SOLENOID ONLY)
"UPPER RIGHT" AND "UPPER LEFT" VALVE BODY

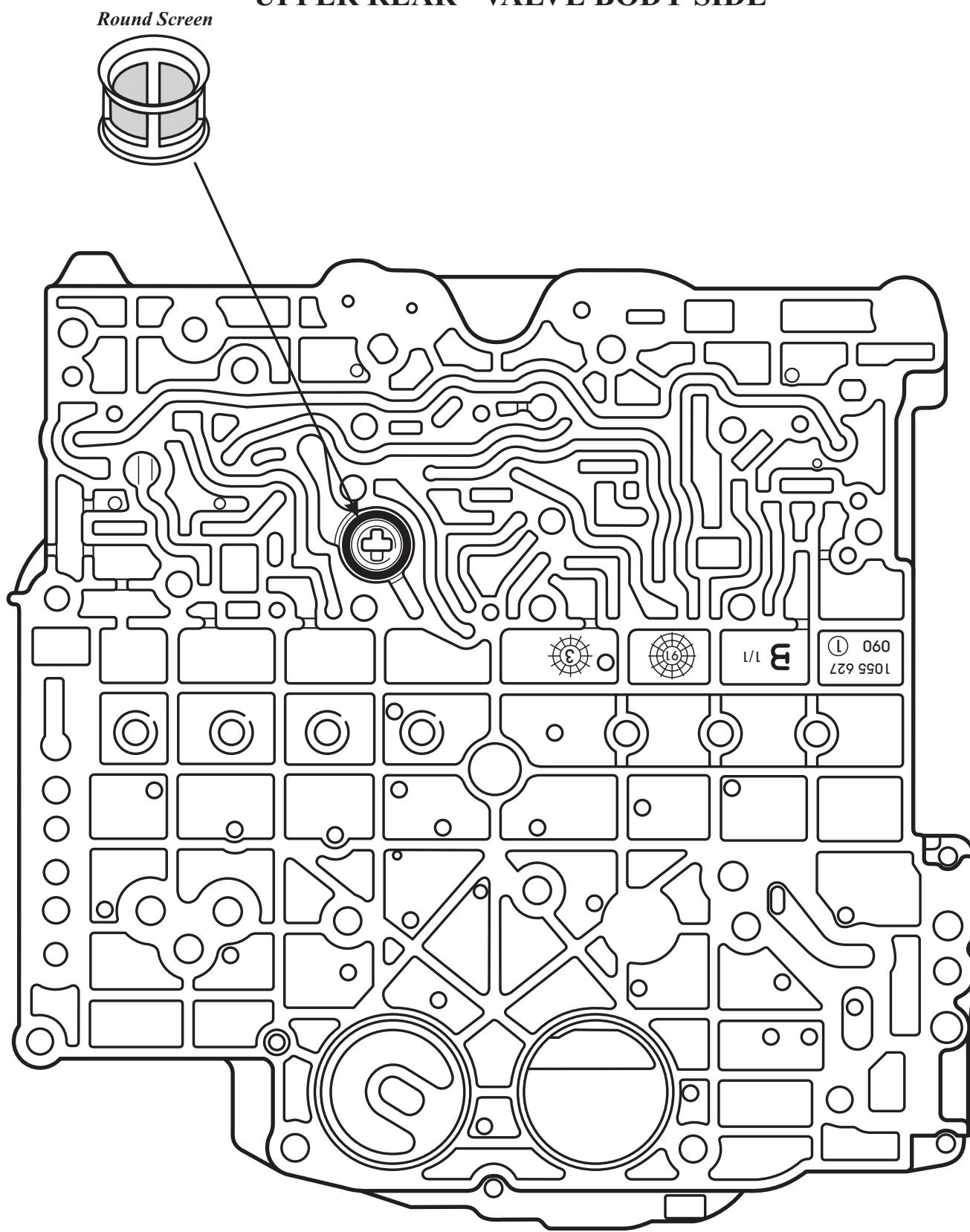
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BMW ELECTRONIC ZF5HP-30
"LOWER FRONT" VALVE BODY

**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.*

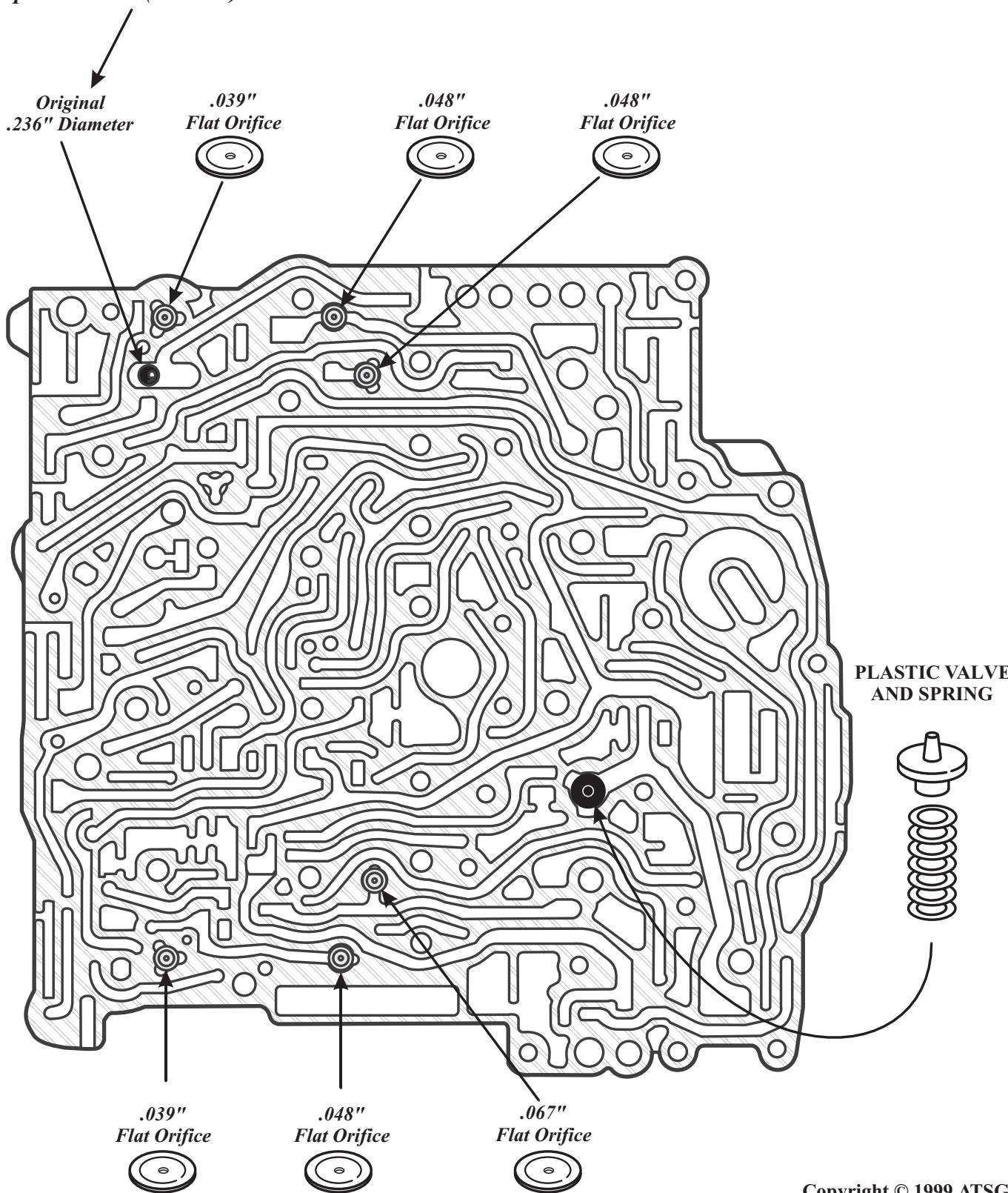


**BMW ZF-5HP-30 CHANNEL PLATE
"UPPER REAR" VALVE BODY SIDE**

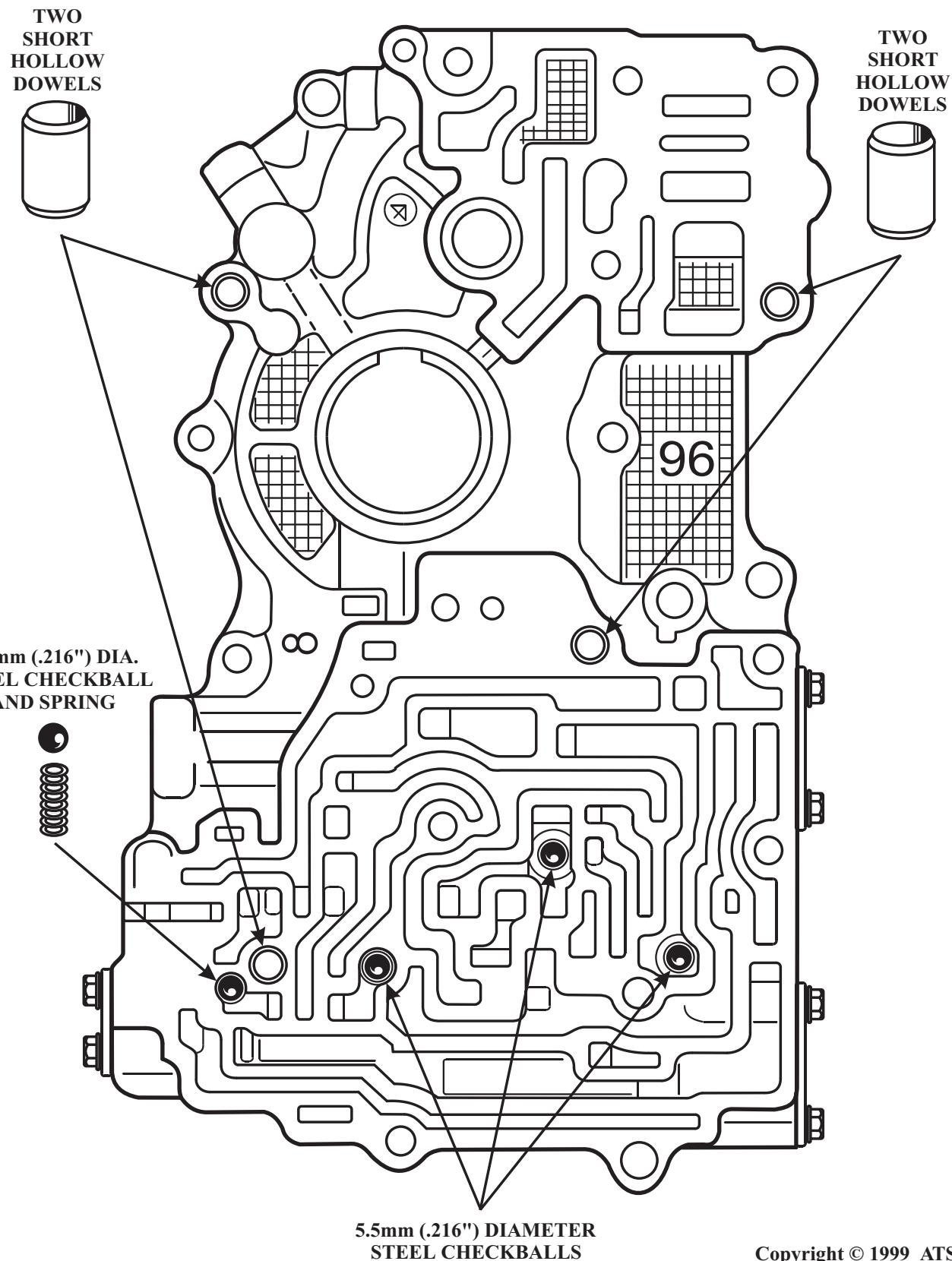
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**BMW ZF-5HP-30 CHANNEL PLATE
"LOWER" VALVE BODY SIDE**

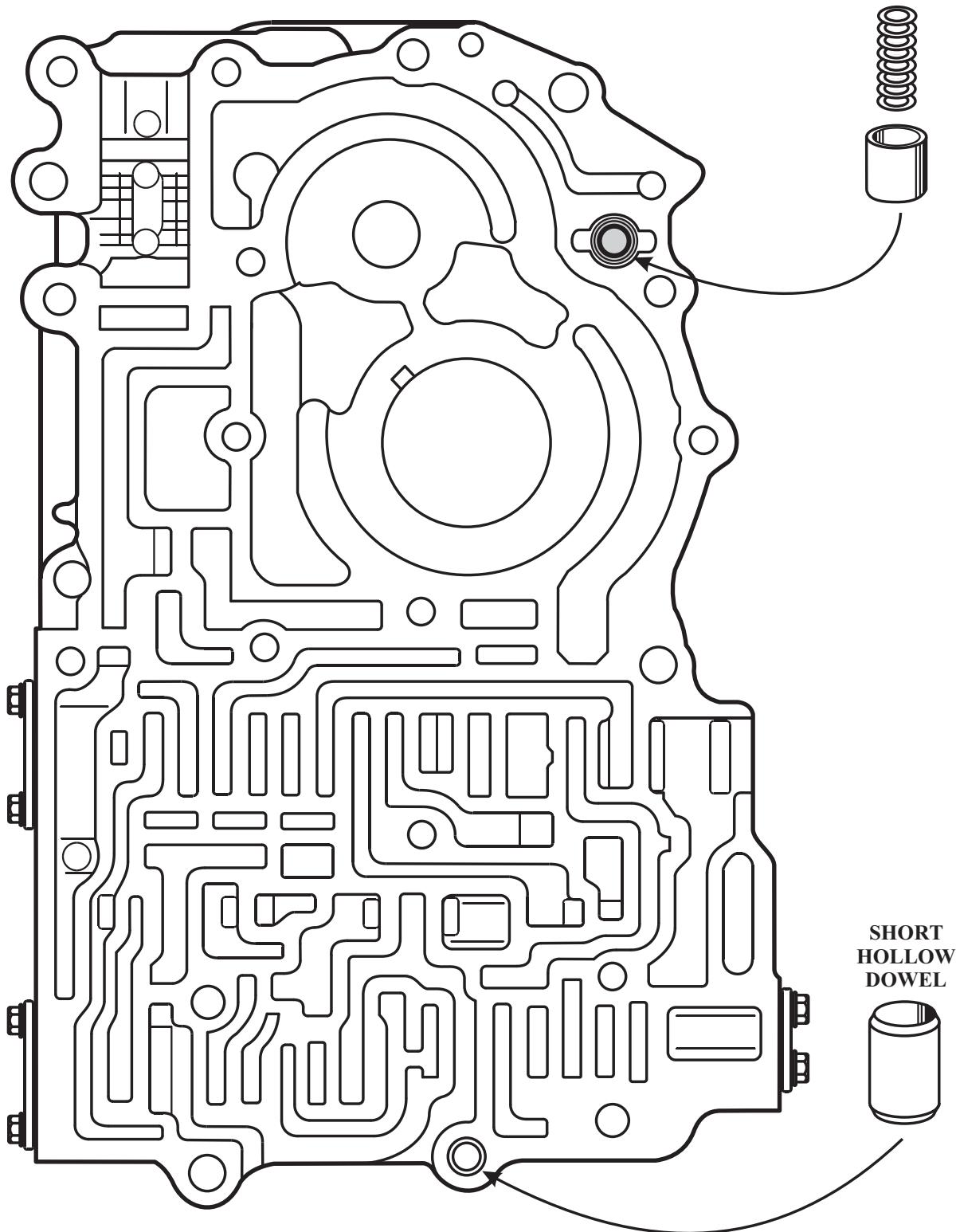
Replace the original ball with
a plastic .250" (6.35mm) ball.

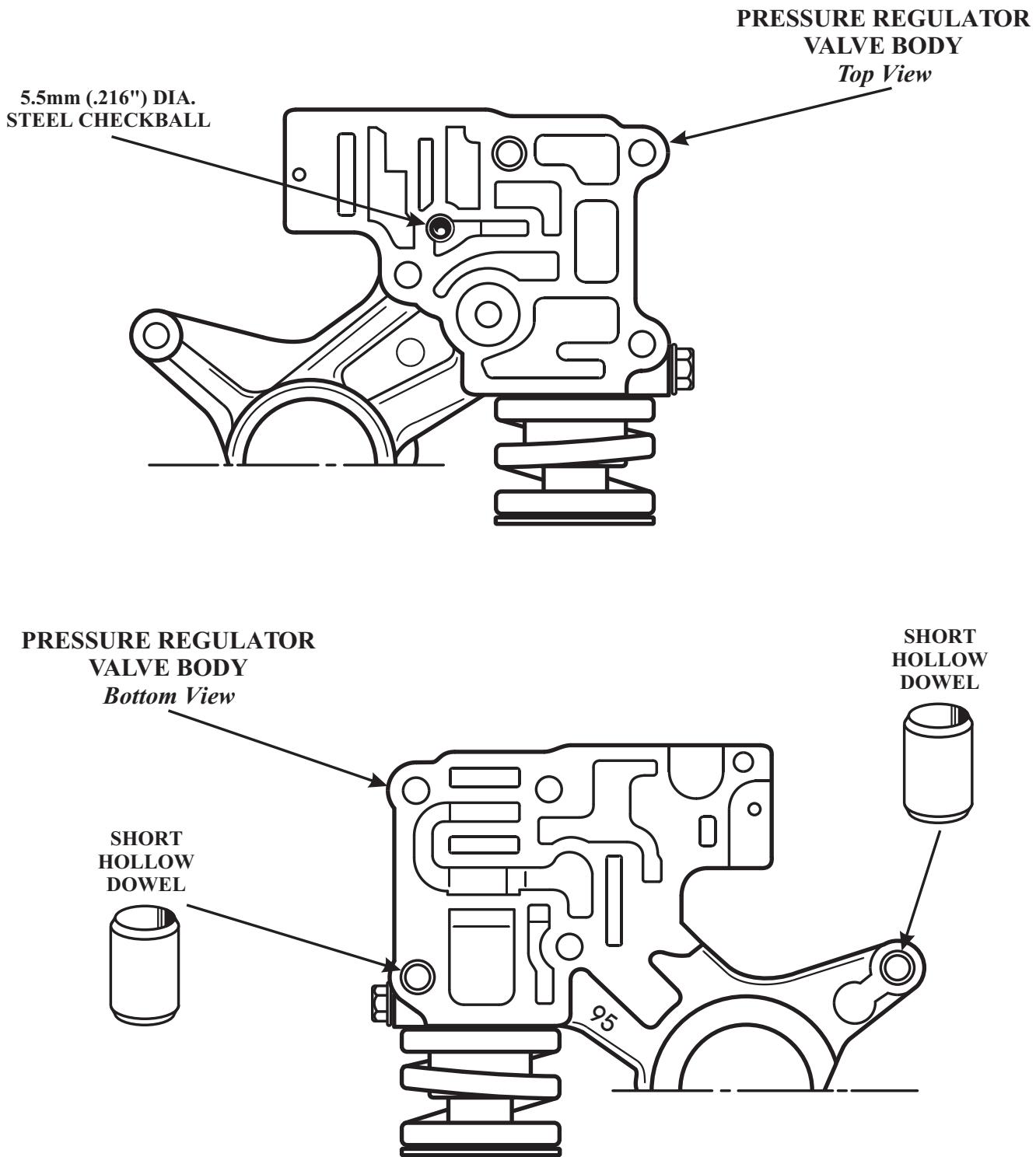


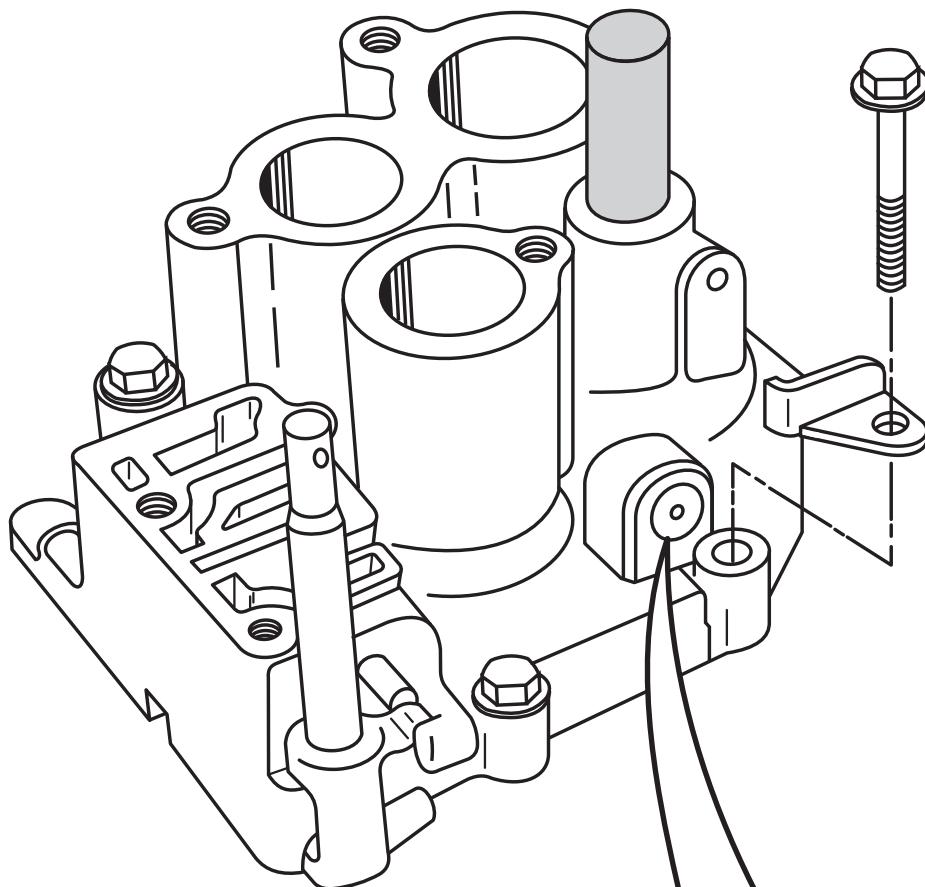
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**HONDA ACCORD MODEL "AS" CARBURETED
MAIN VALVE BODY "TOP VIEW"**

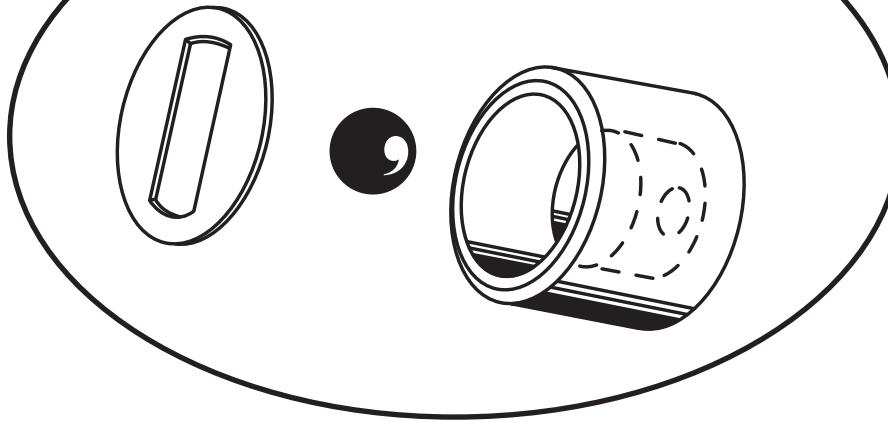
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HONDA ACCORD MODEL "AS" CARBURETED
MAIN VALVE BODY "BOTTOM VIEW"RELIEF VALVE
AND SPRING

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**

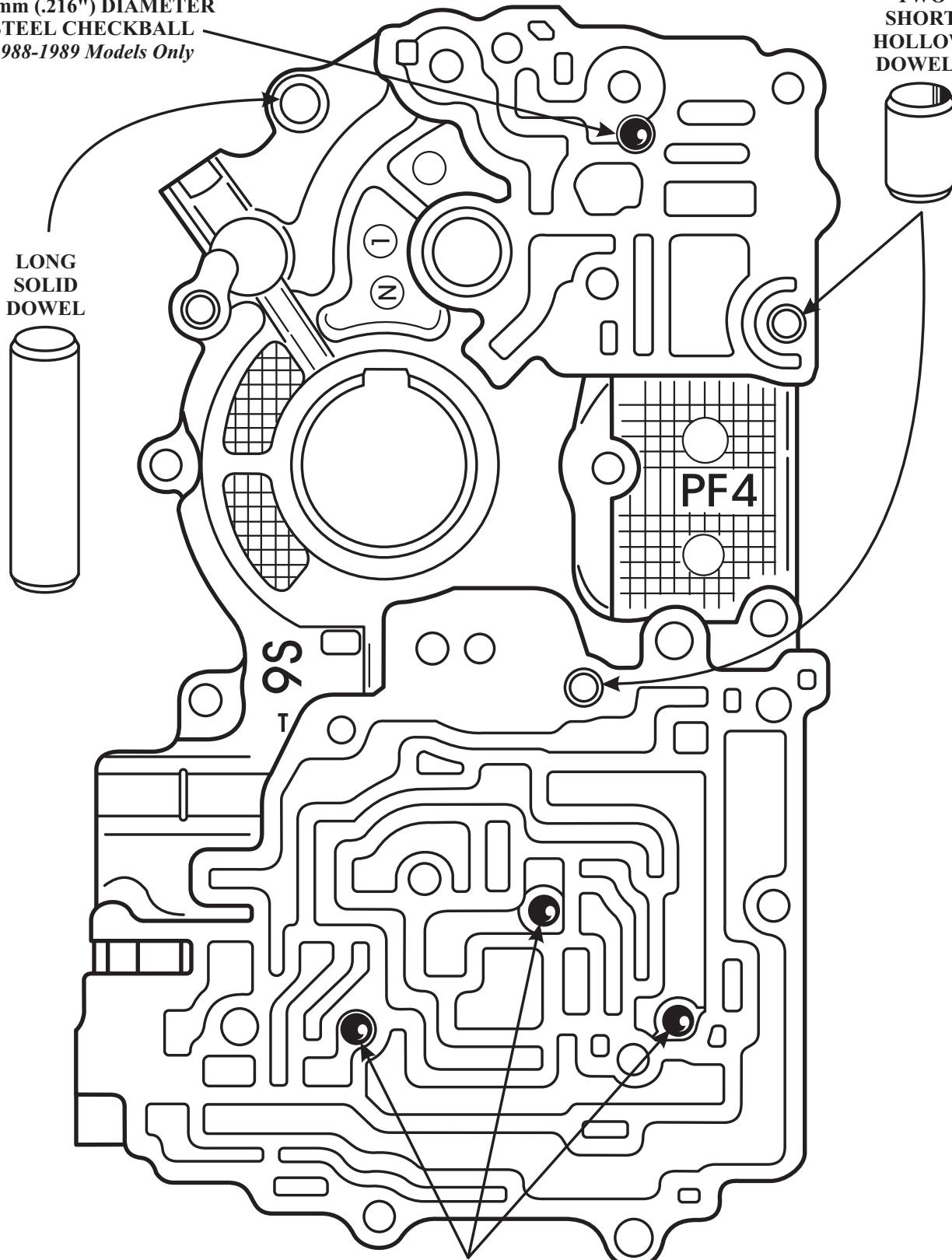
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NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

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

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

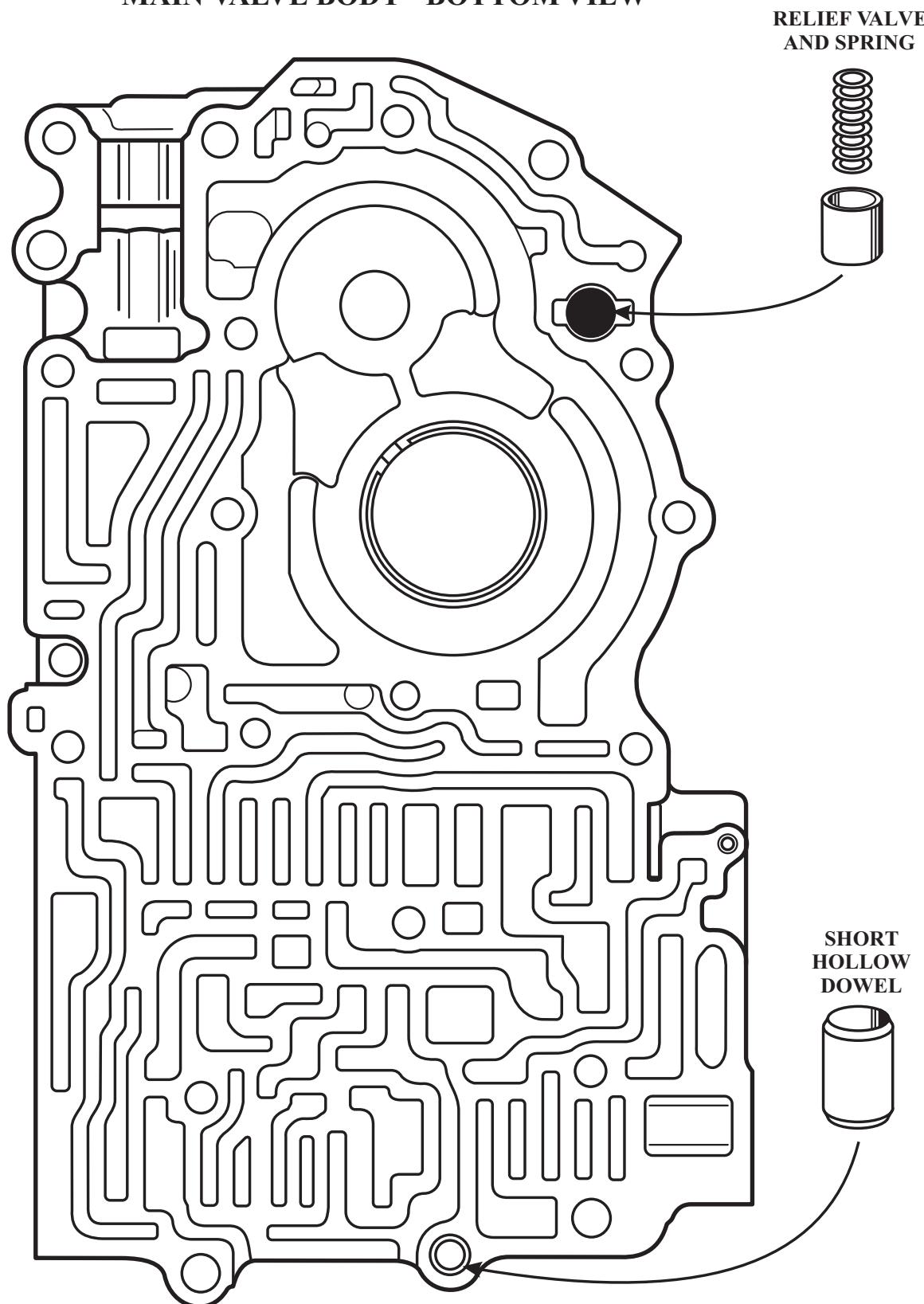
TWO
SHORT
HOLLOW
DOWELS



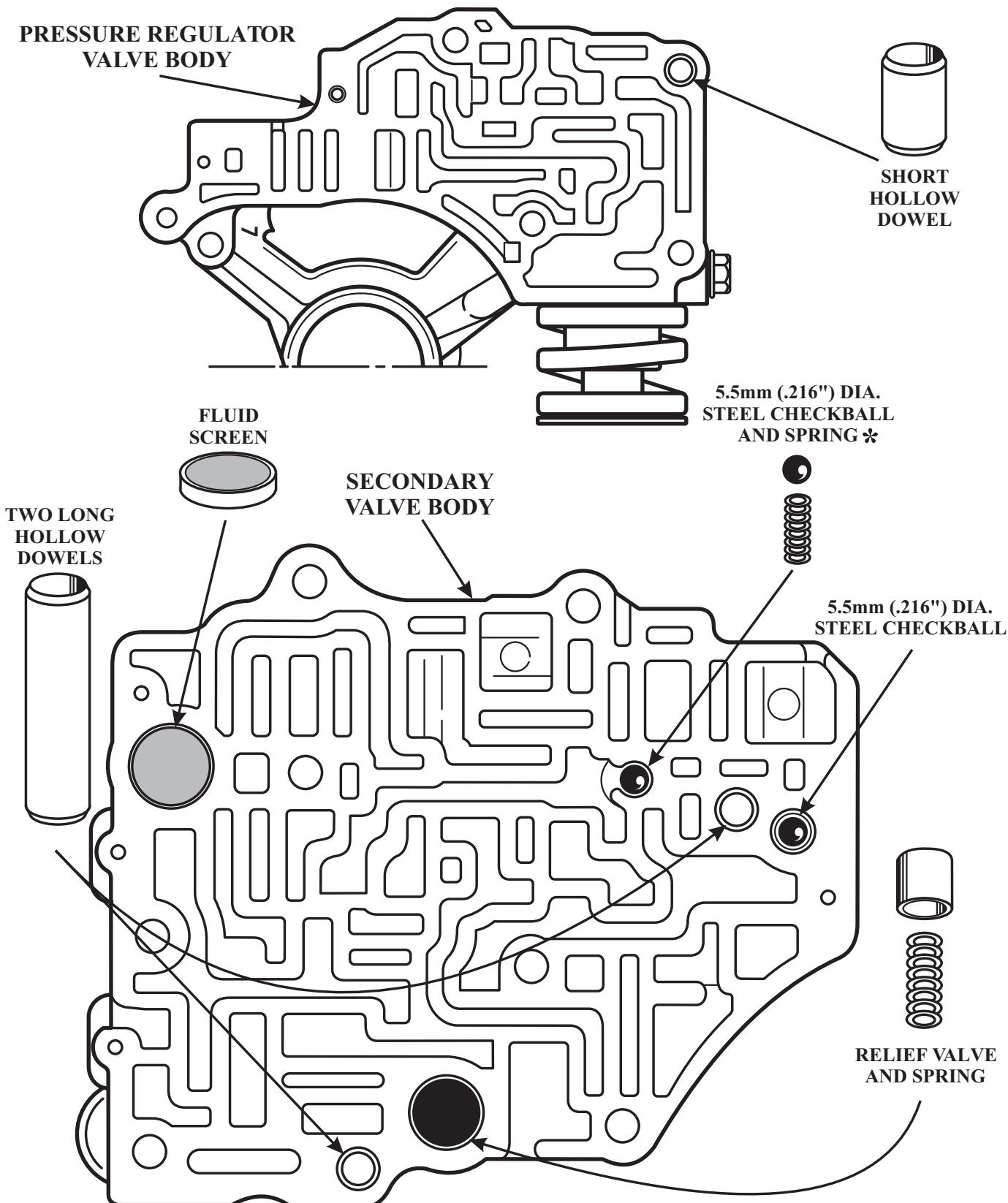
5.5mm (.216") DIAMETER
STEEL CHECKBALLS

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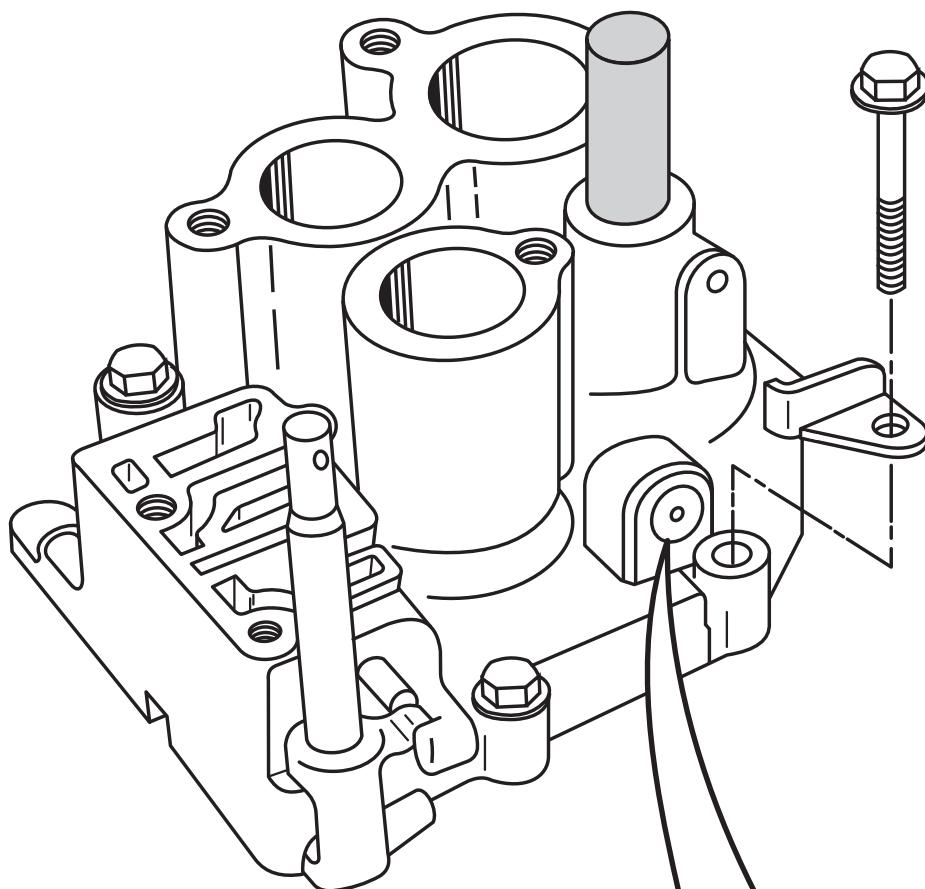
HONDA PRELUDE AND ACCORD MODEL "F4" MAIN VALVE BODY "BOTTOM VIEW"



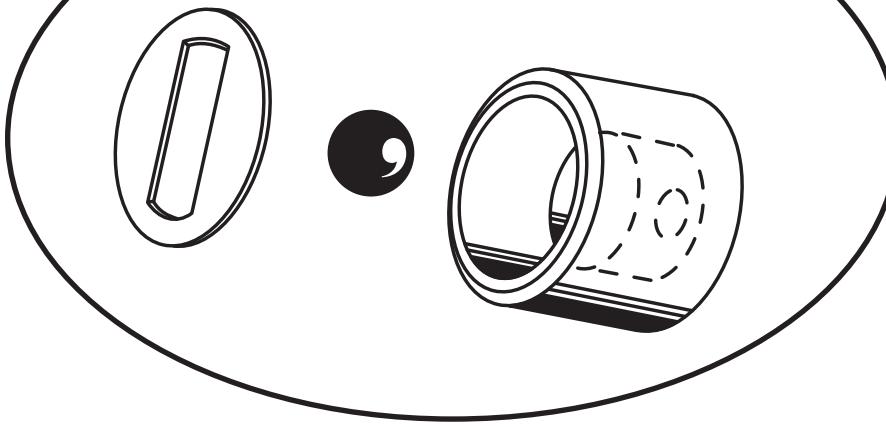
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**HONDA PRELUDE AND ACCORD MODEL "F4"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

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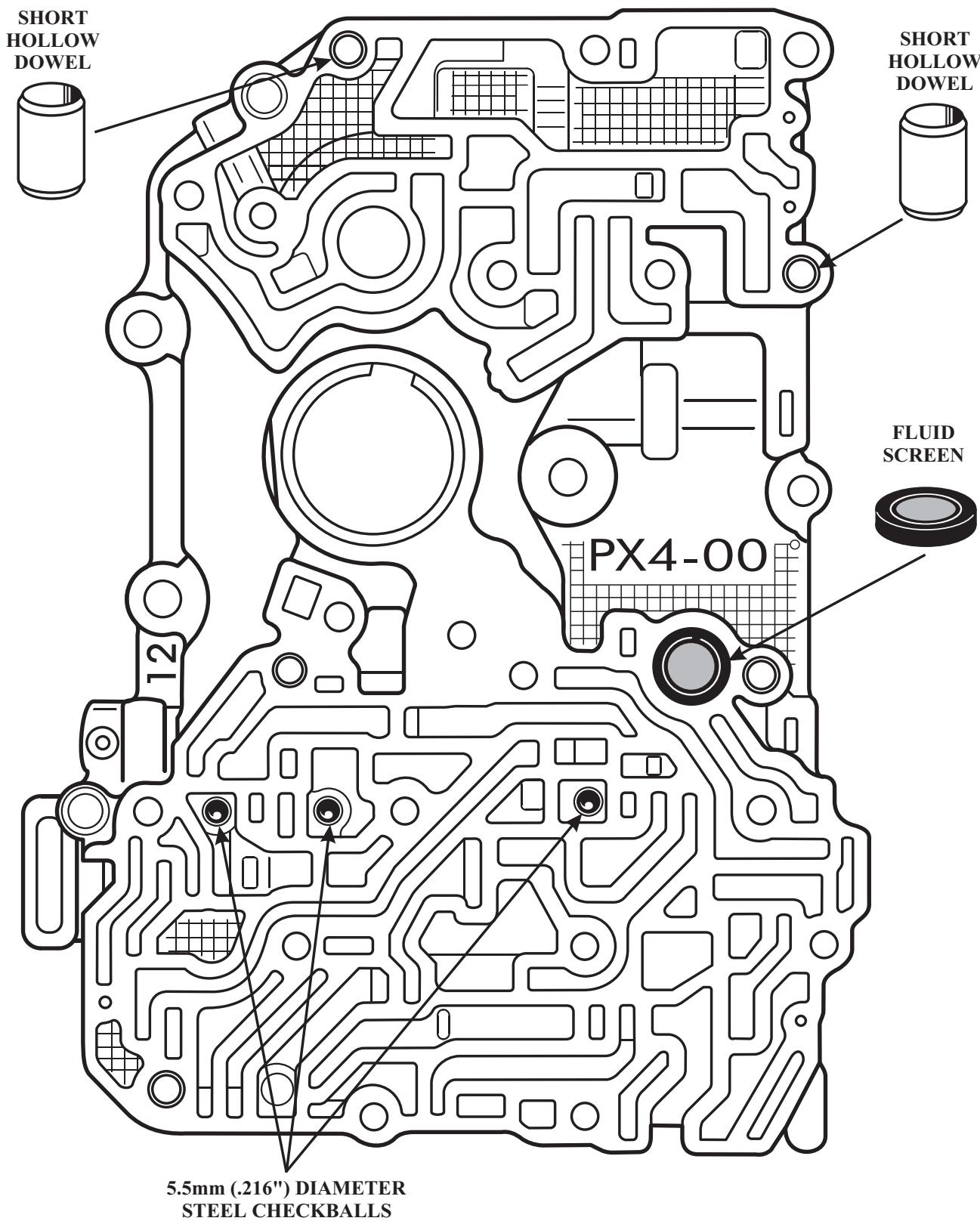
SERVO VALVE BODY**CAUTION:**

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.

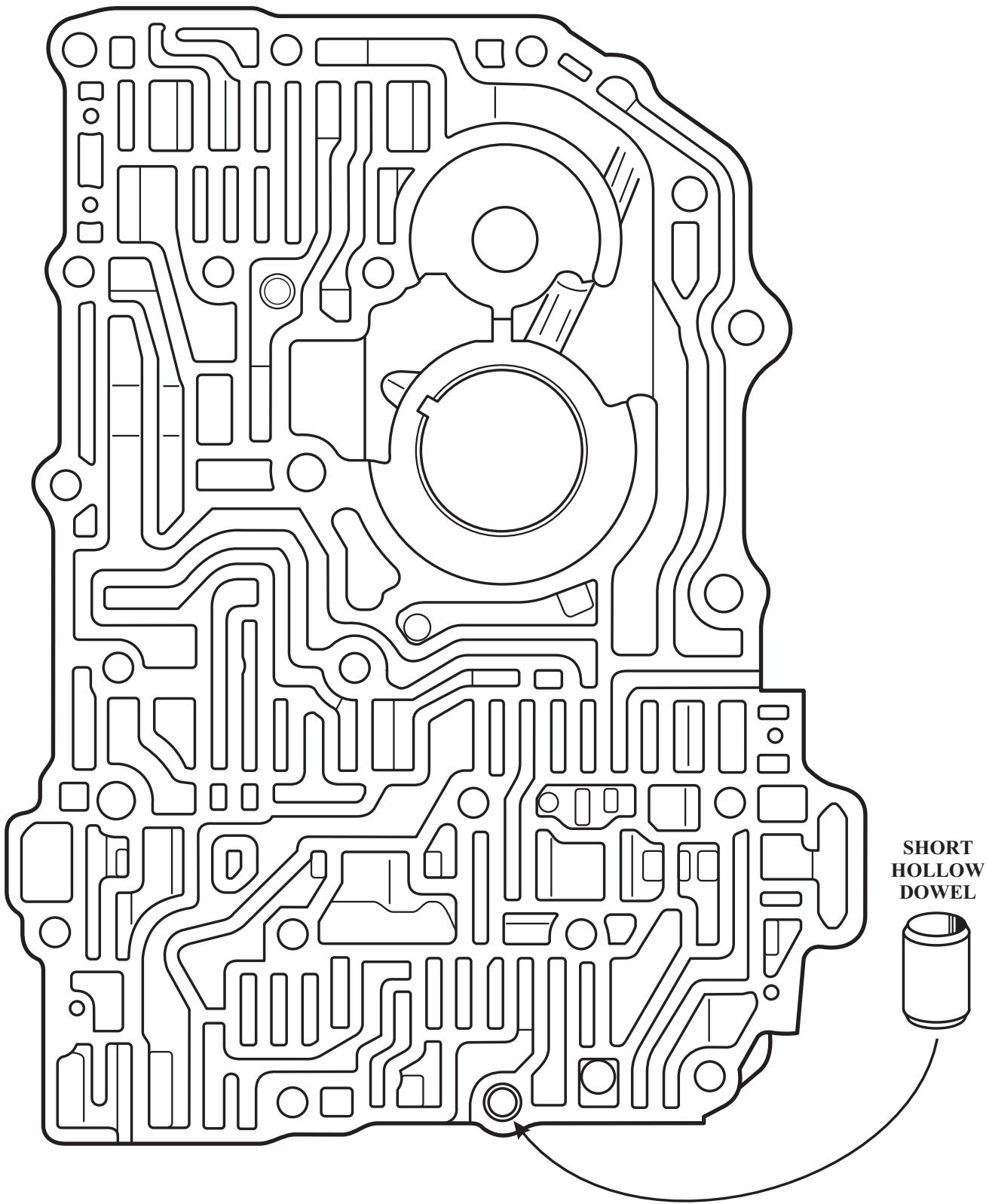
**SERVO RELEASE
CHECK VALVE**

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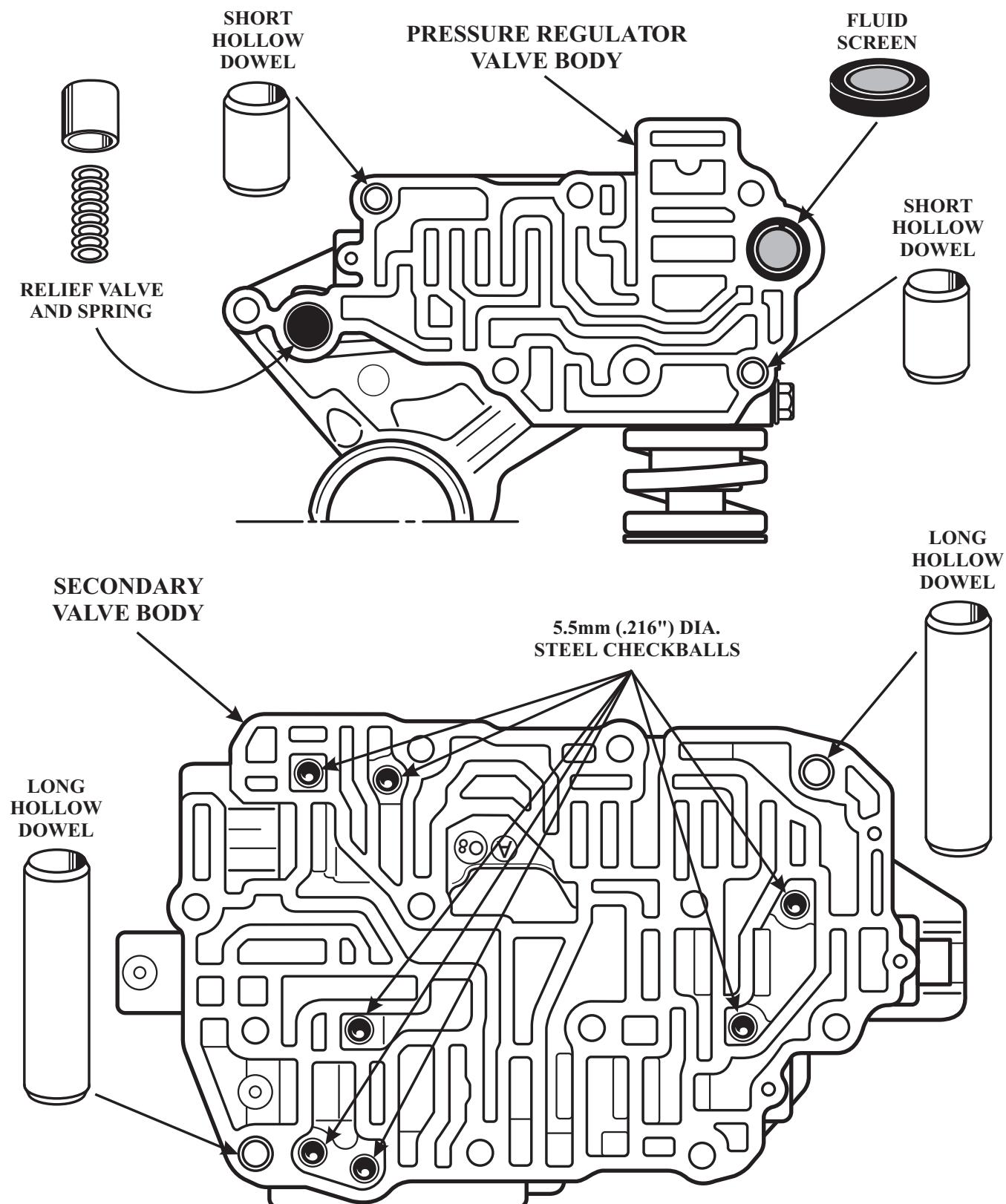
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

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

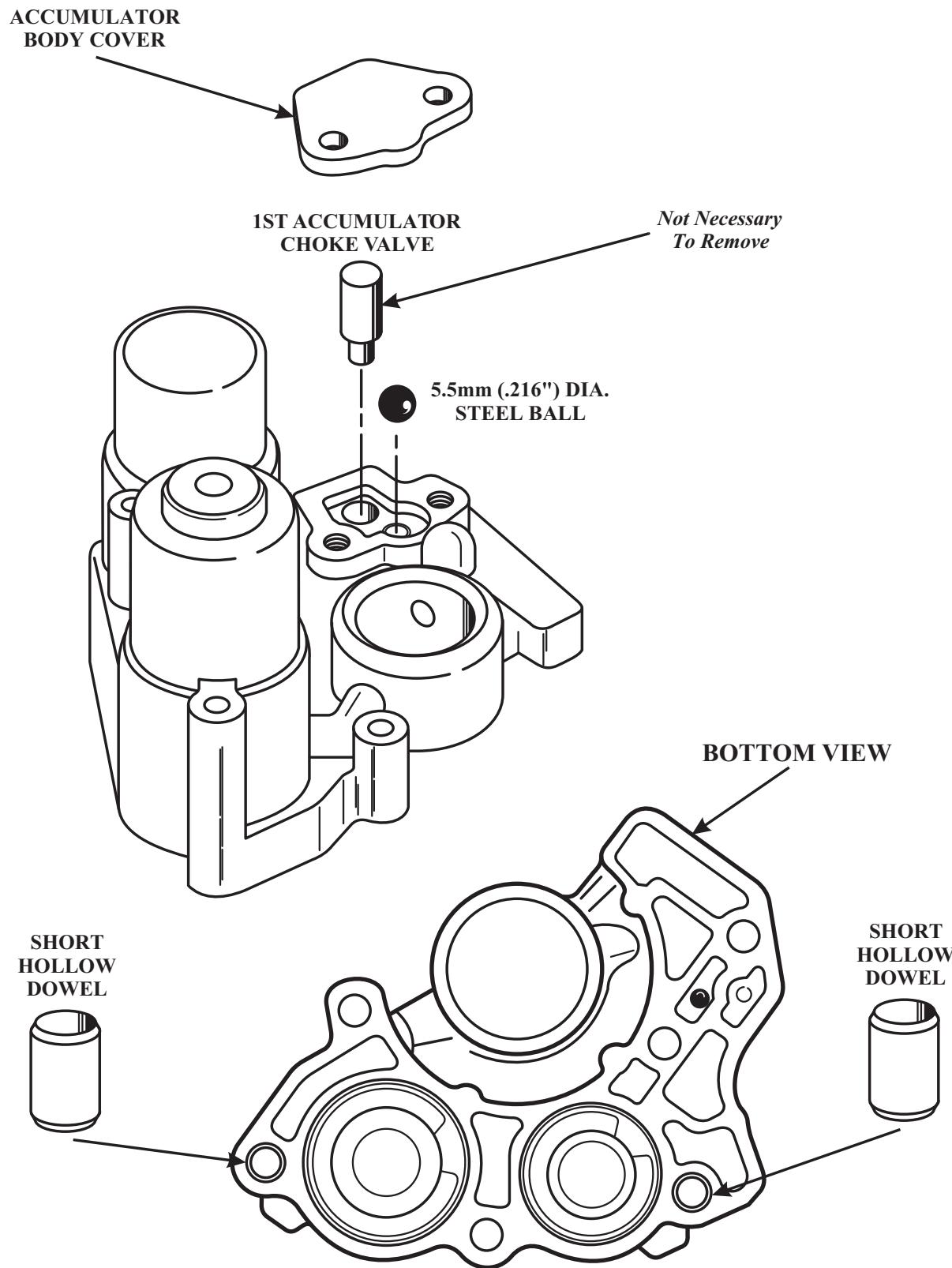
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HONDA ACCORD MODELS "PX4B" "APX4" "MPOA" "AOYA" "BOYA"
MAIN VALVE BODY "BOTTOM VIEW"

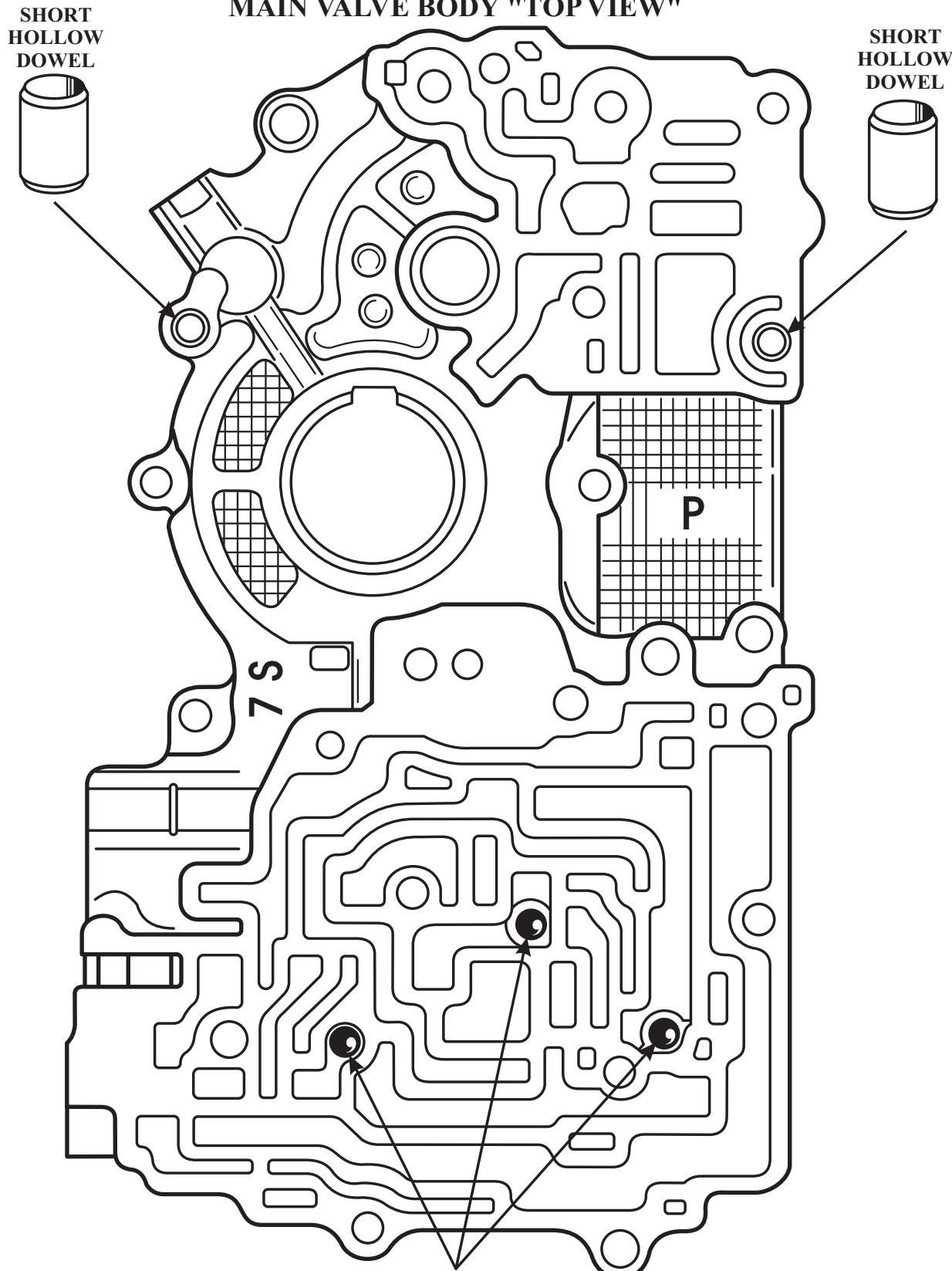
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**HONDA ACCORD MODELS "PX4B" "APX4" "MPOA" "AOYA" "BOYA"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

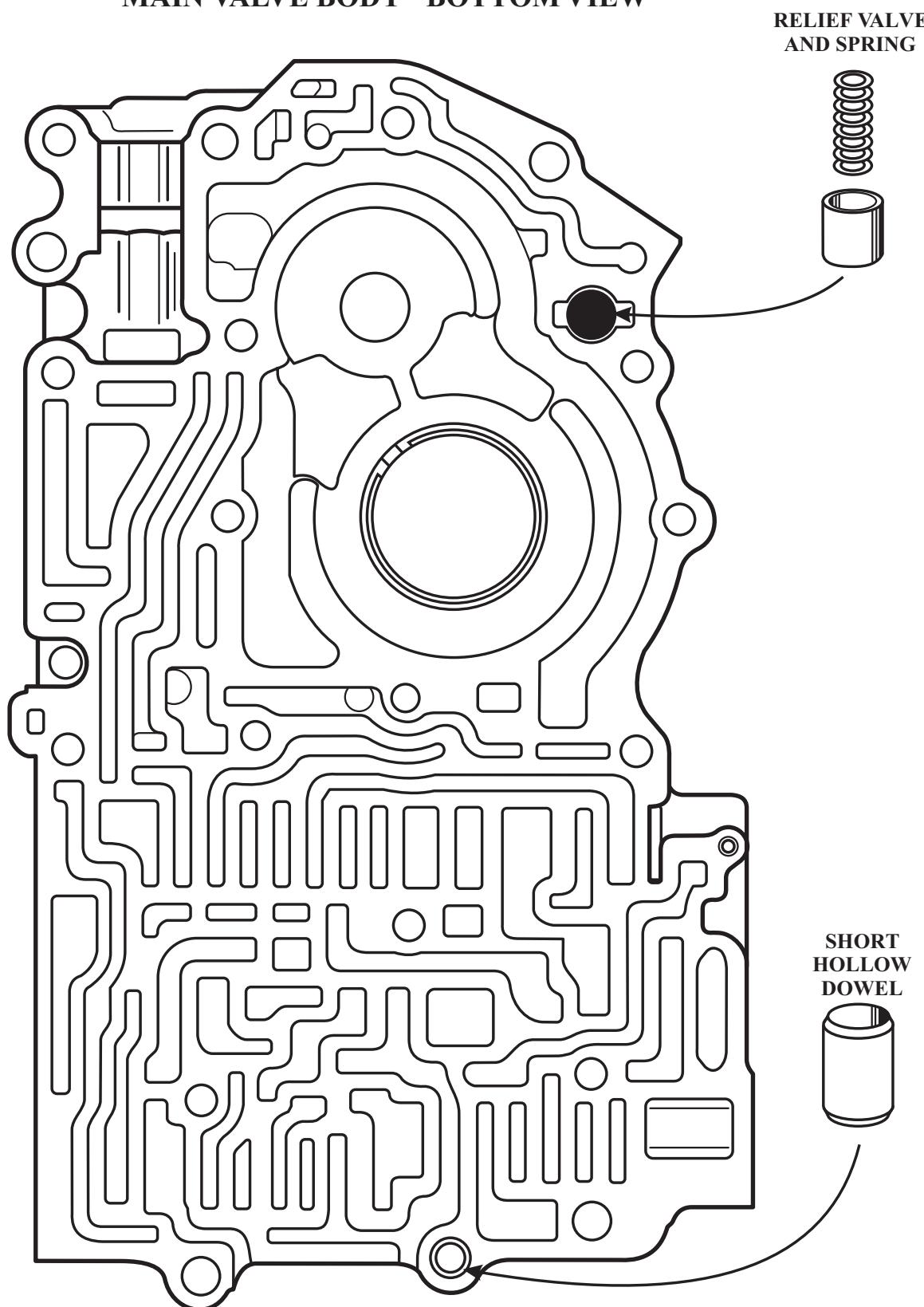
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**HONDA ACCORD MODELS "PX4B" "APX4" "MPOA" "AOYA" "BOYA"
ACCUMULATOR BODY**

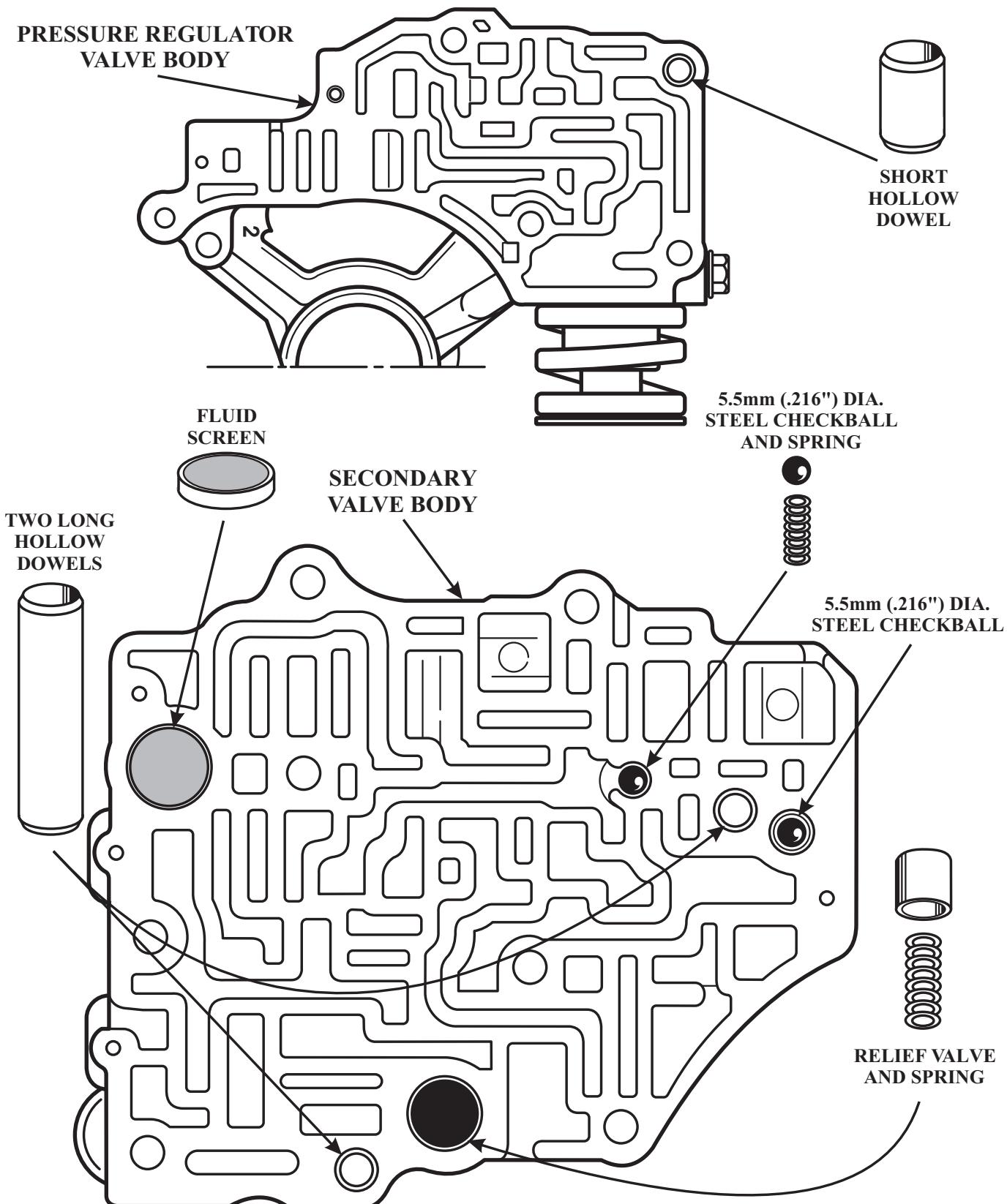
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HONDA CIVIC MODEL "CA"
MAIN VALVE BODY "TOP VIEW"5.5mm (.216") DIAMETER
STEEL CHECKBALLS

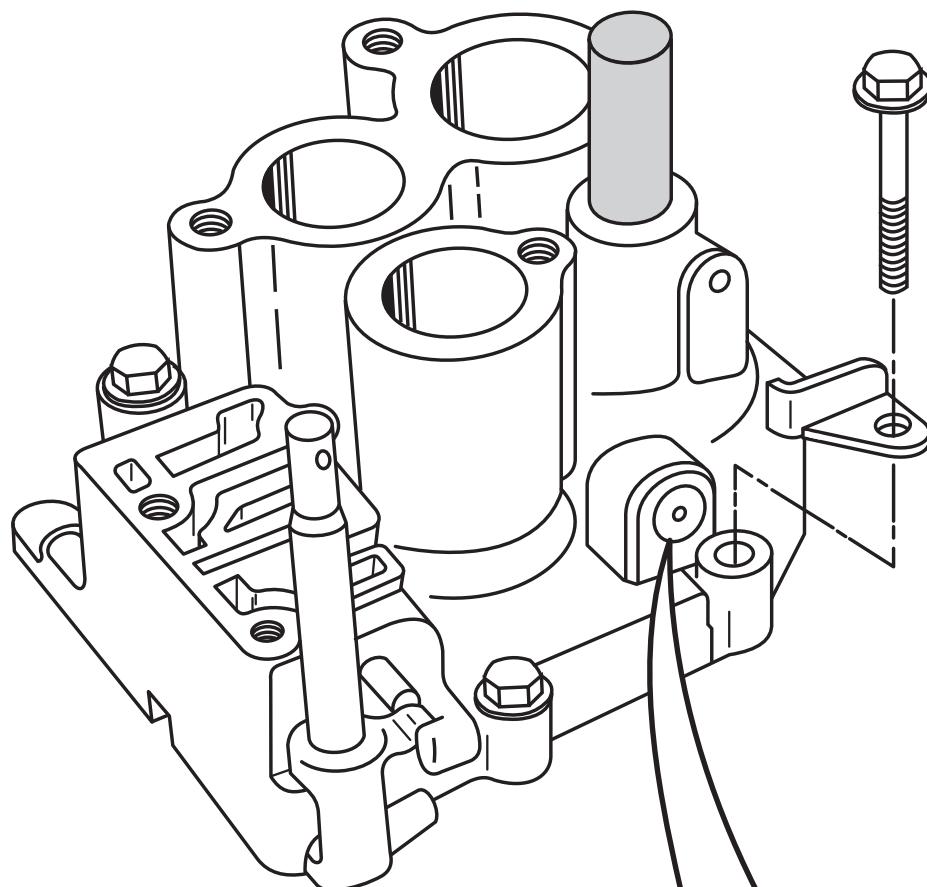
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HONDA CIVIC MODEL "CA"
MAIN VALVE BODY "BOTTOM VIEW"

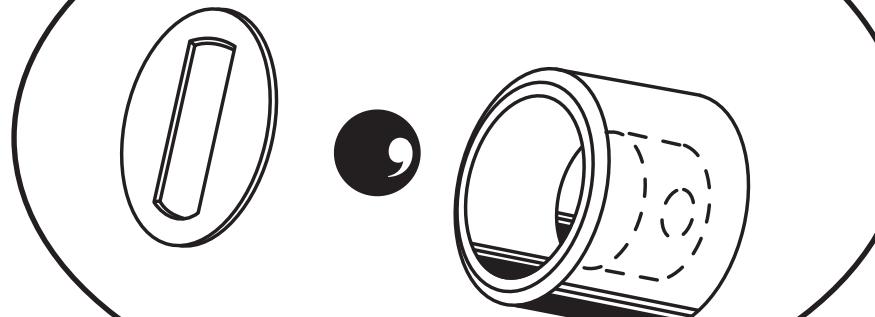
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**HONDA CIVIC MODEL "CA"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

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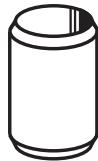
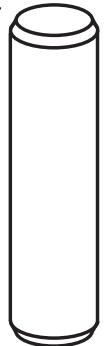
SERVO VALVE BODY**CAUTION:**

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.

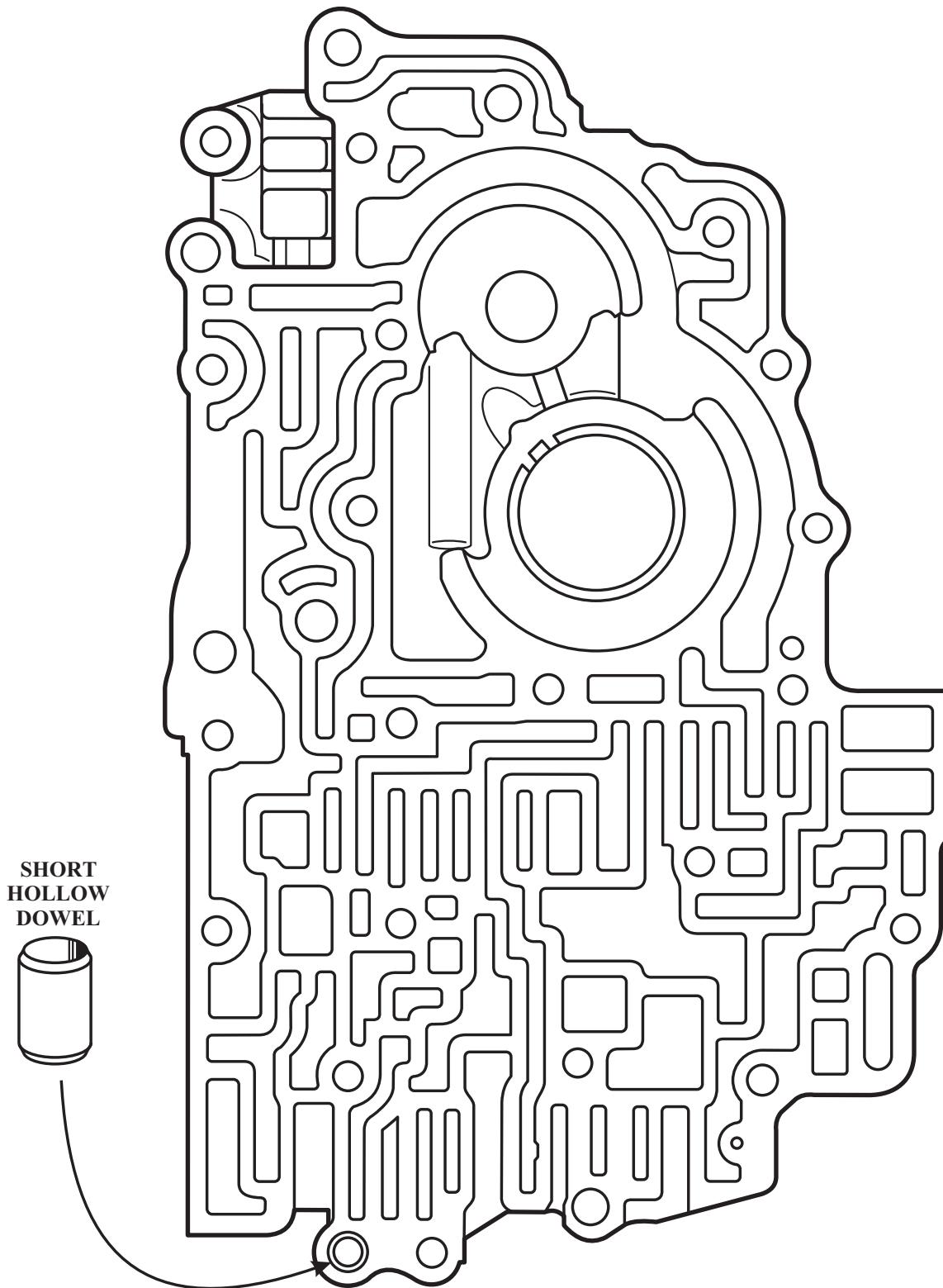
**SERVO RELEASE
CHECK VALVE**

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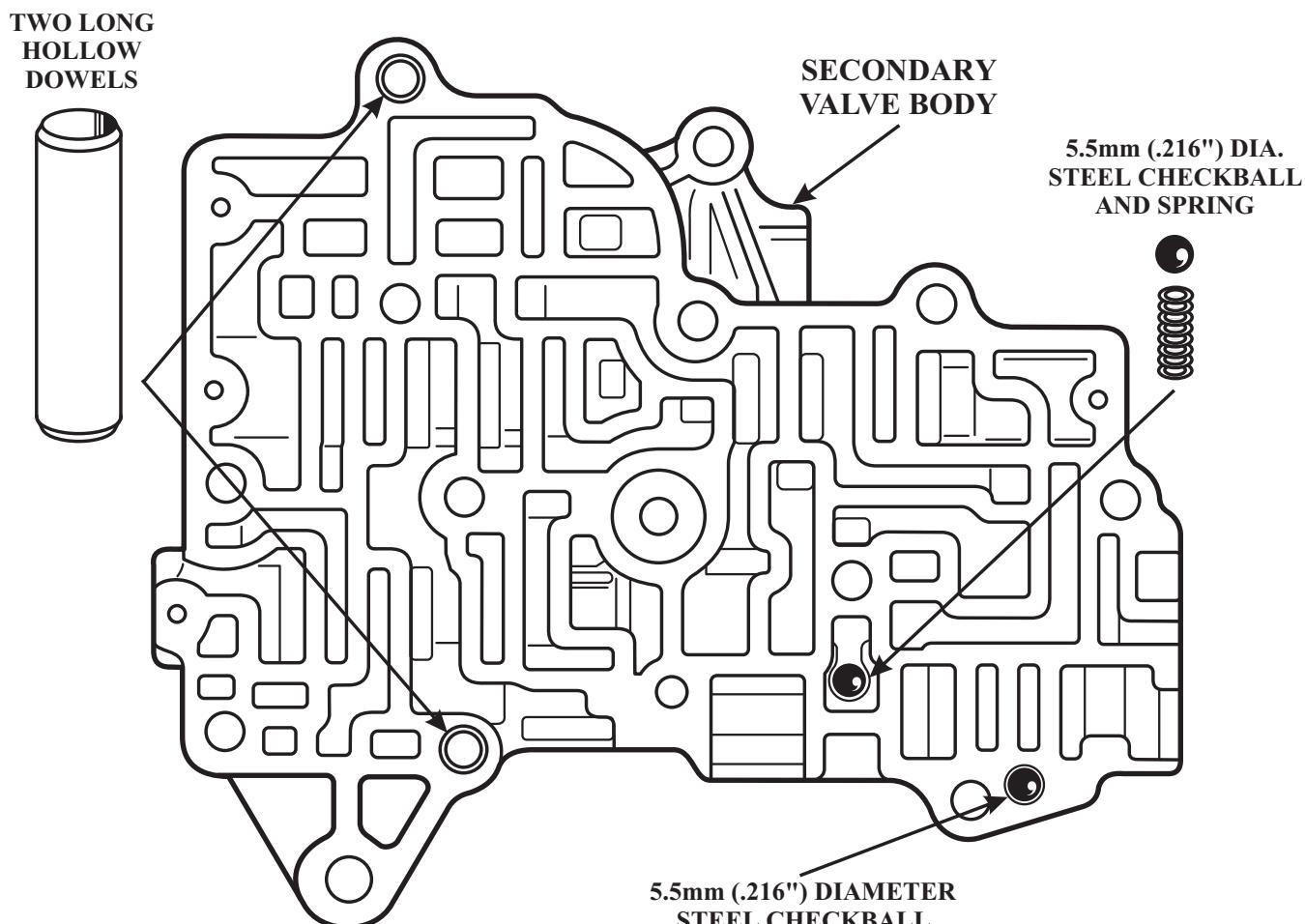
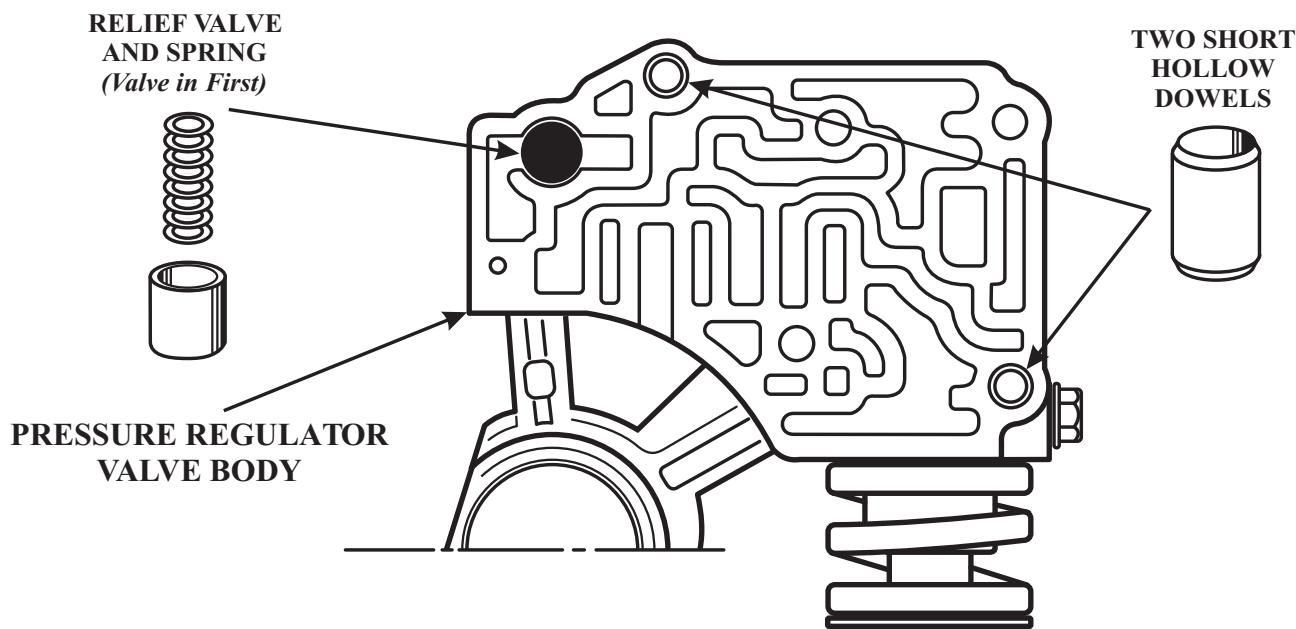
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

1988 HONDA CIVIC MODEL "L4", "ML4A"
MAIN VALVE BODY "TOP VIEW"5.5mm (.216") DIAMETER
STEEL CHECKBALLSSHORT
HOLLOW
DOWELRELIEF VALVE
AND SPRINGSHORT
HOLLOW
DOWELLONG
SOLID
DOWEL5.5mm (.216") DIAMETER
STEEL CHECKBALLSFLUID
SCREEN5.5mm (.216") DIAMETER
STEEL CHECKBALLS

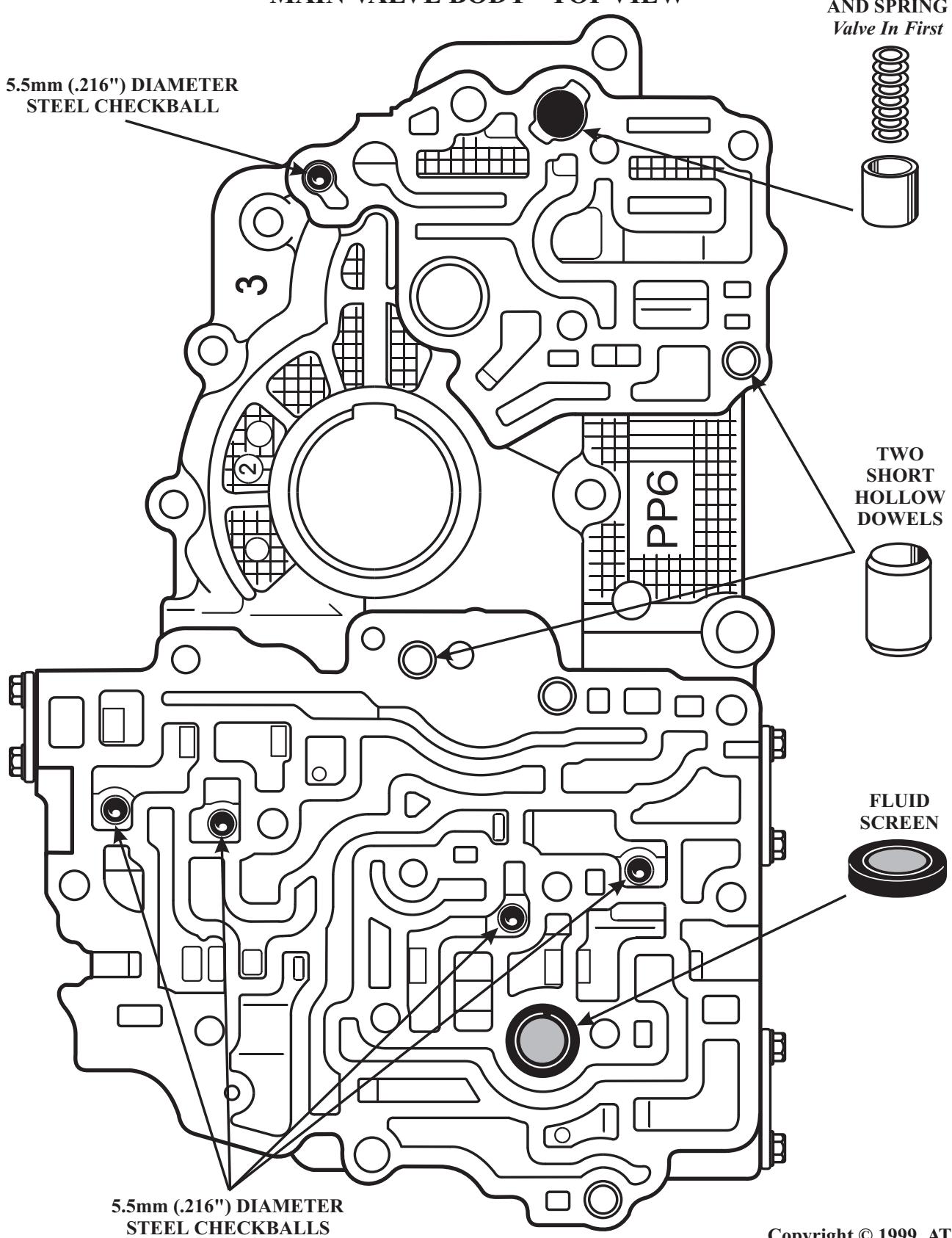
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1988 HONDA CIVIC MODEL "L4", "ML4A"
MAIN VALVE BODY "BOTTOM VIEW"

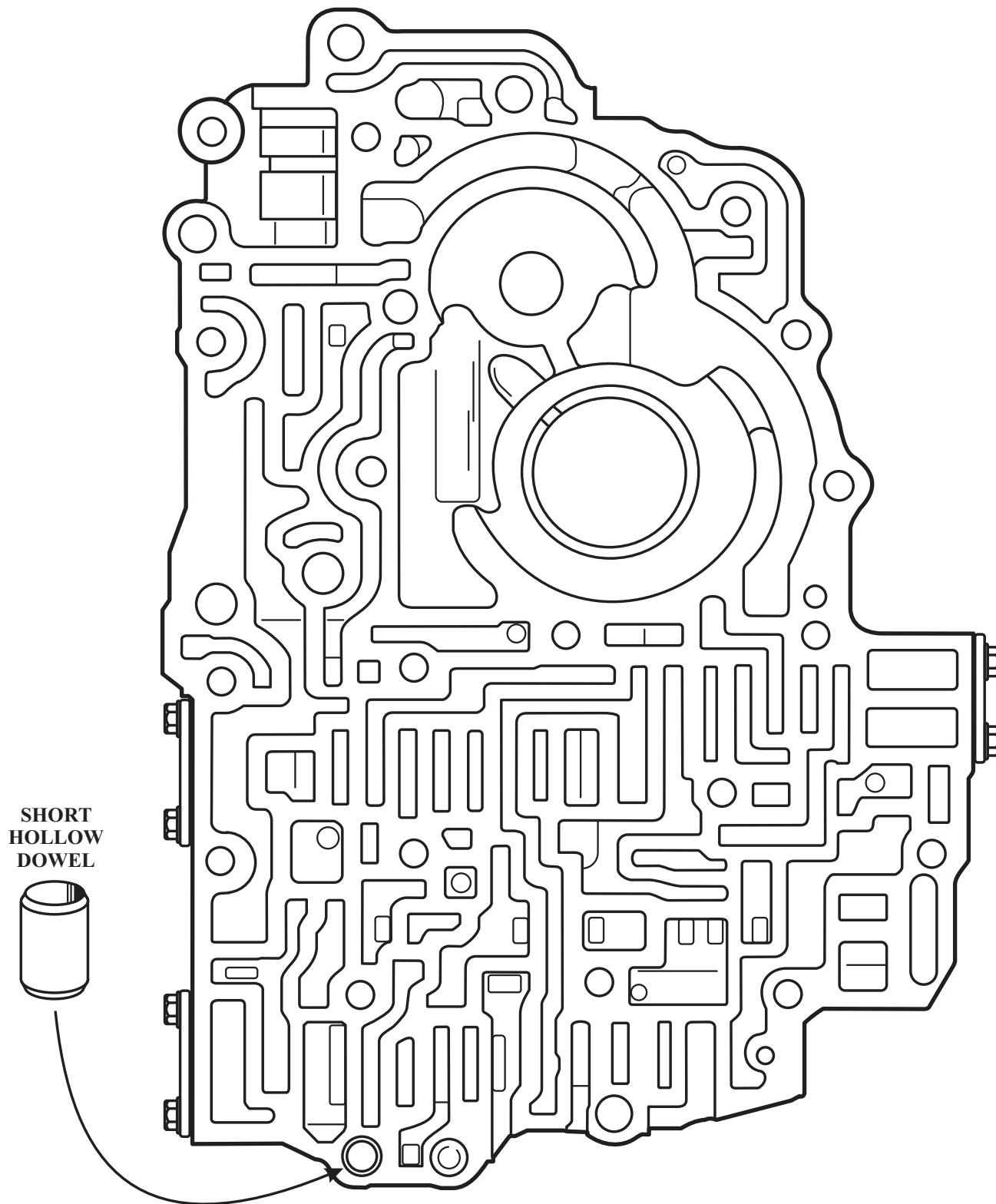
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**1988 HONDA CIVIC MODEL "L4", "ML4A"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

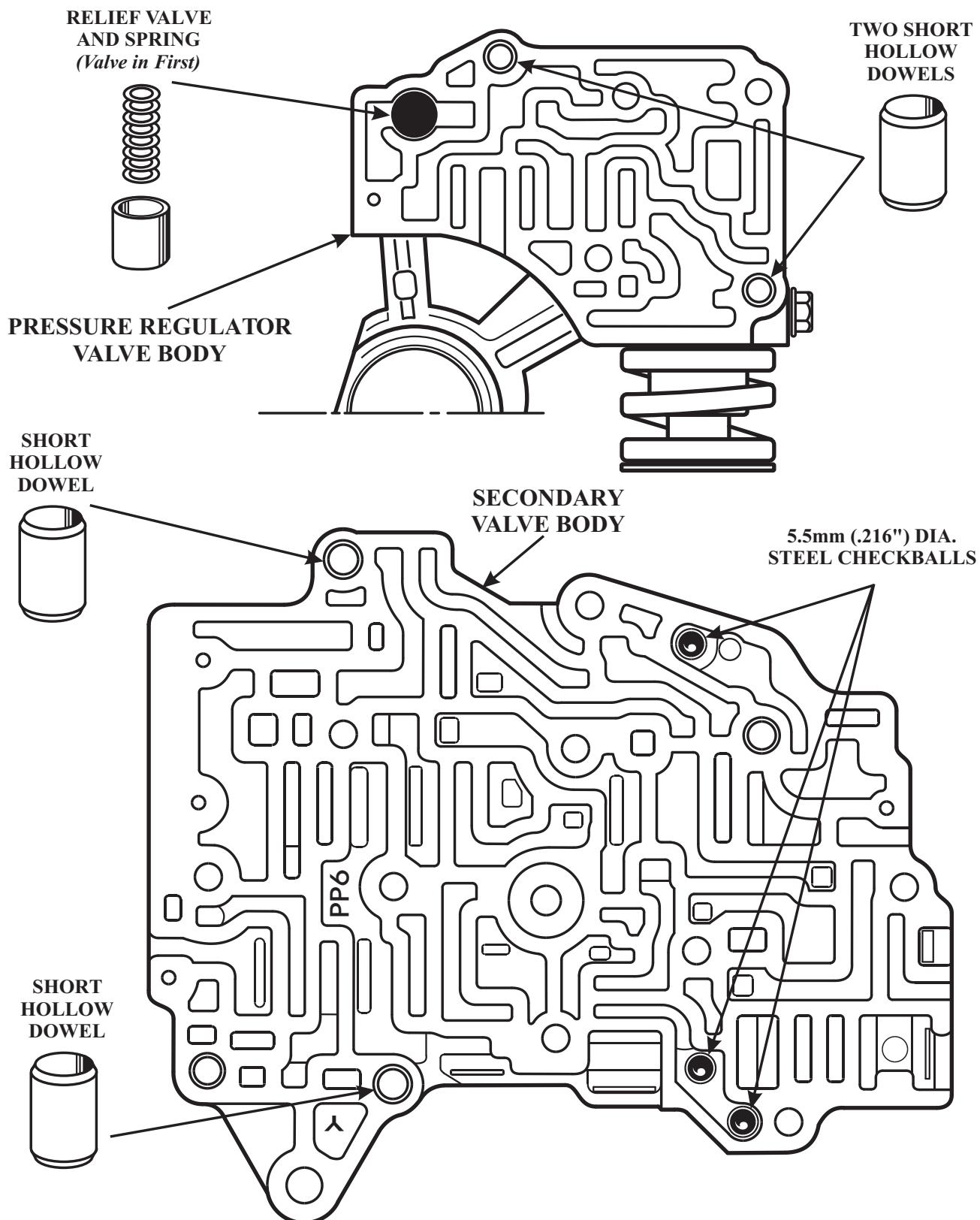
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**1989-1990 HONDA CIVIC MODEL "L4", "ML4A"
MAIN VALVE BODY "TOP VIEW"**

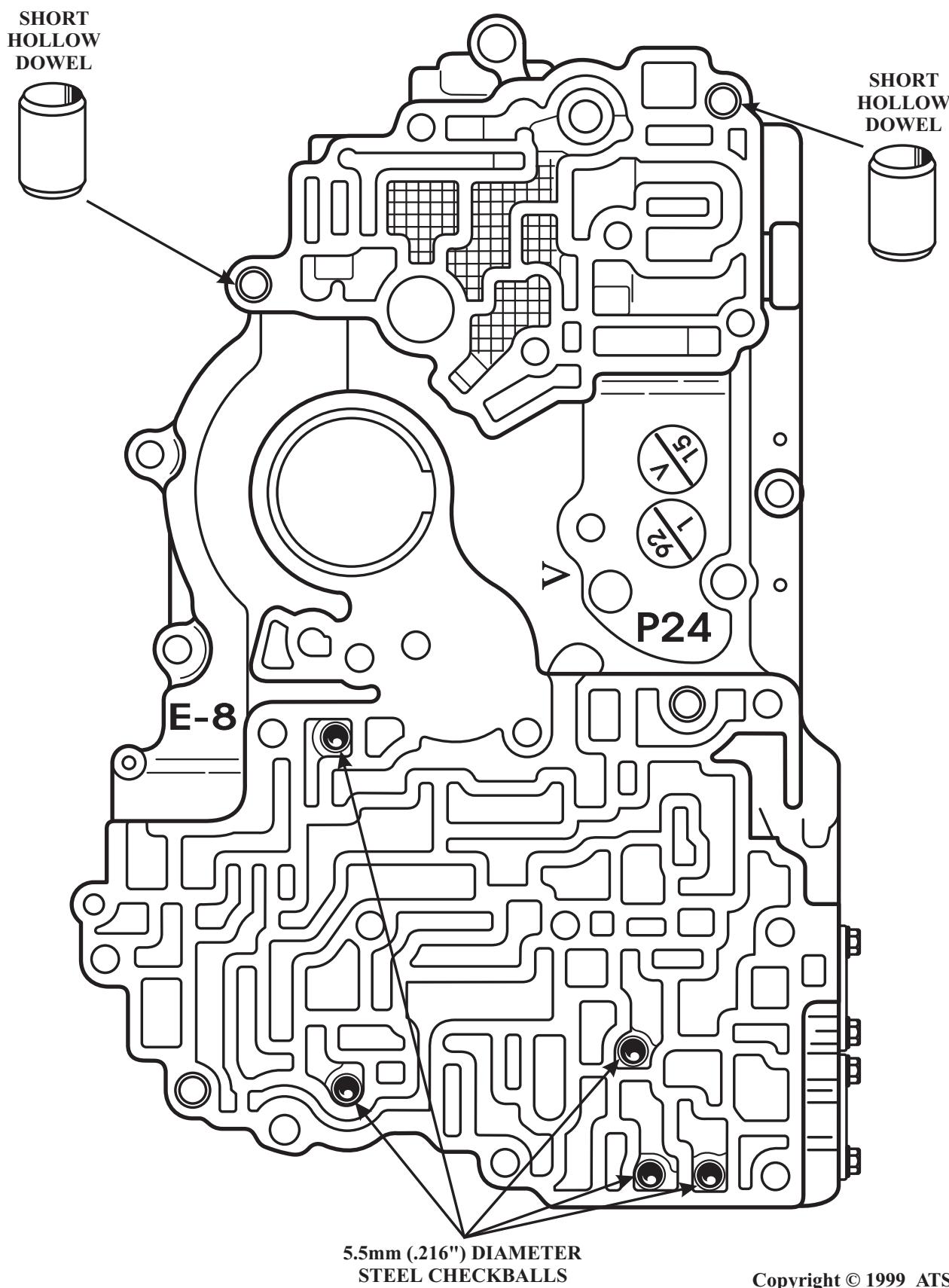
Copyright © 1999 ATSG

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

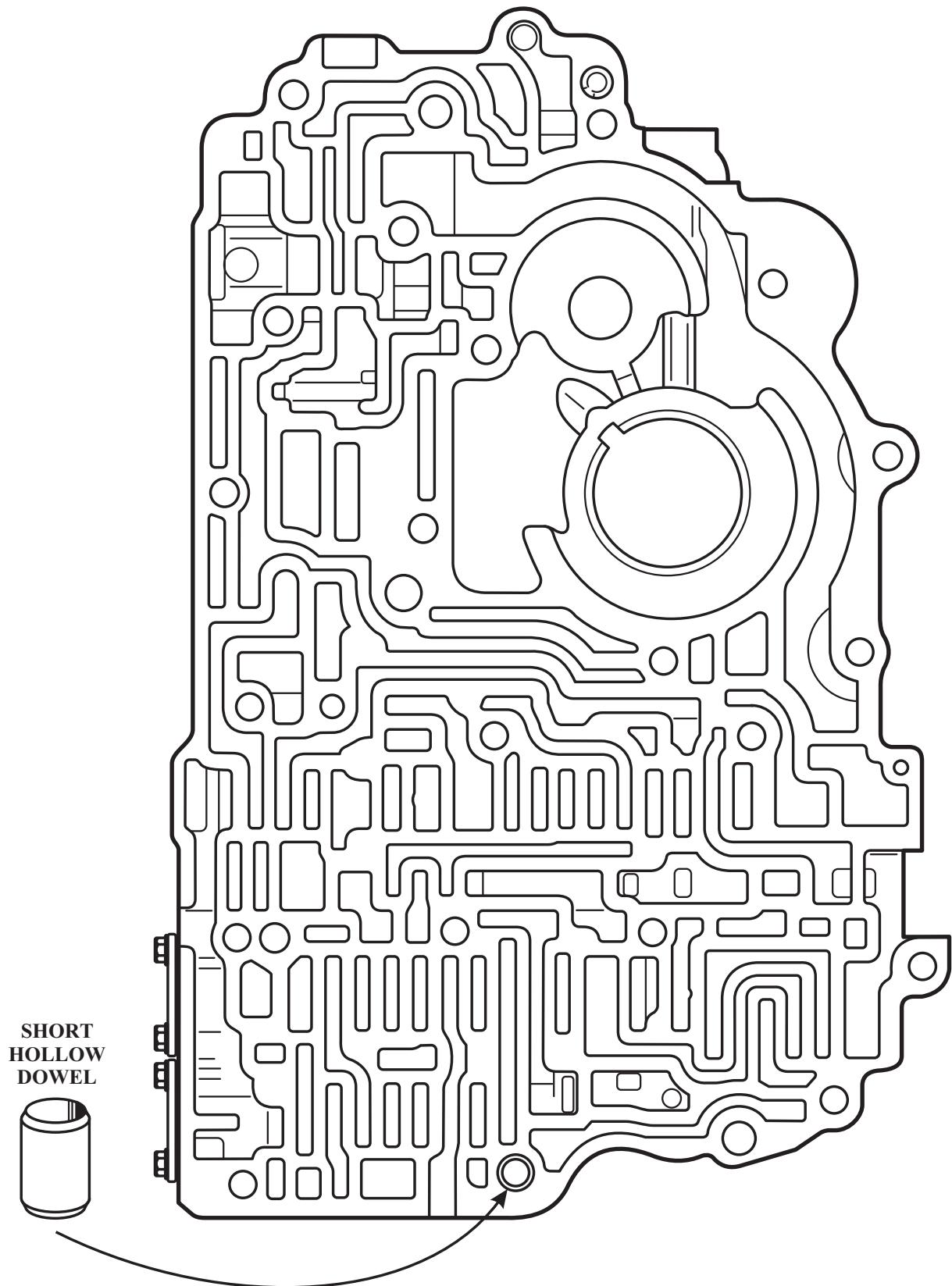
Copyright © 1999 ATSG

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

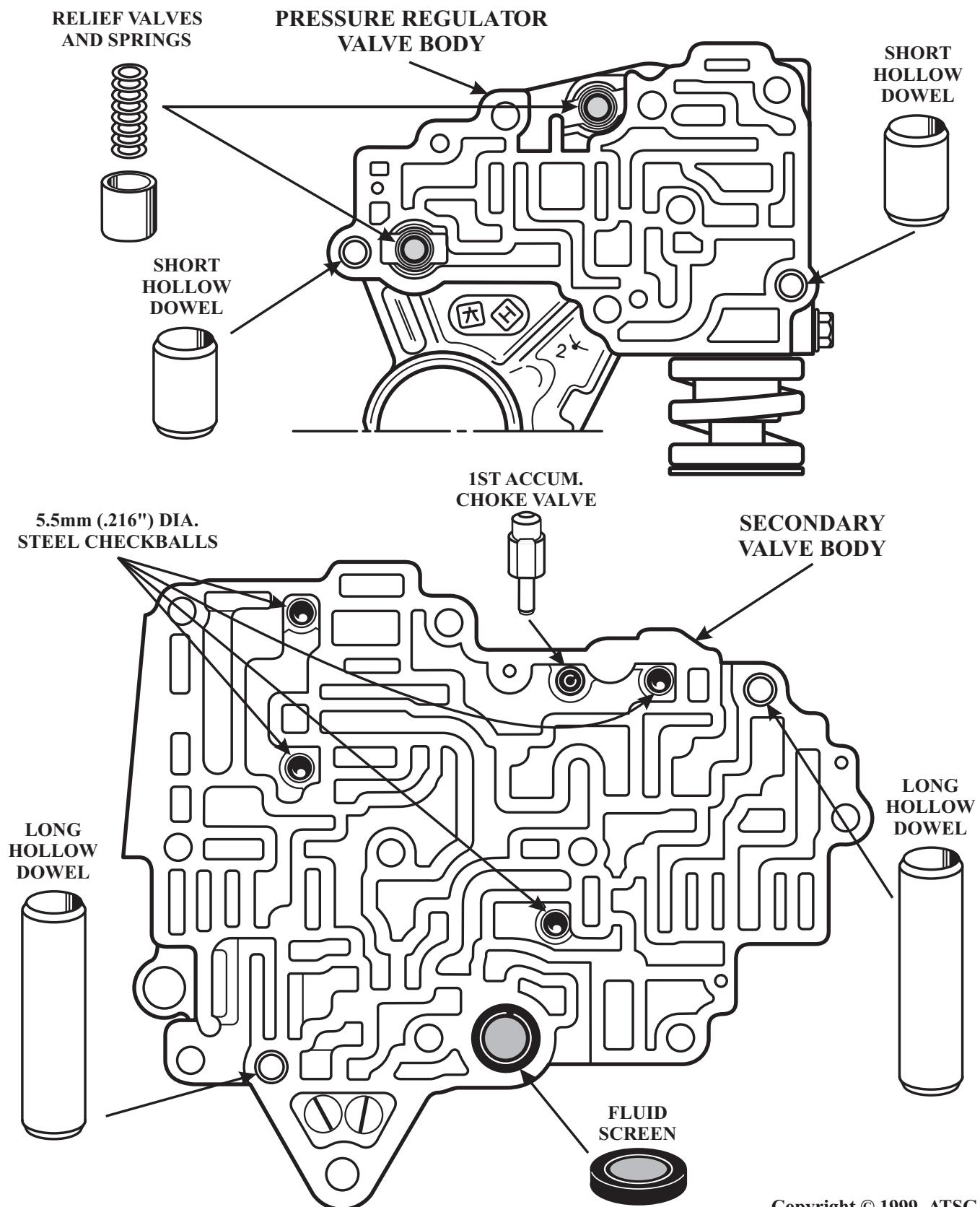
Copyright © 1999 ATSG

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

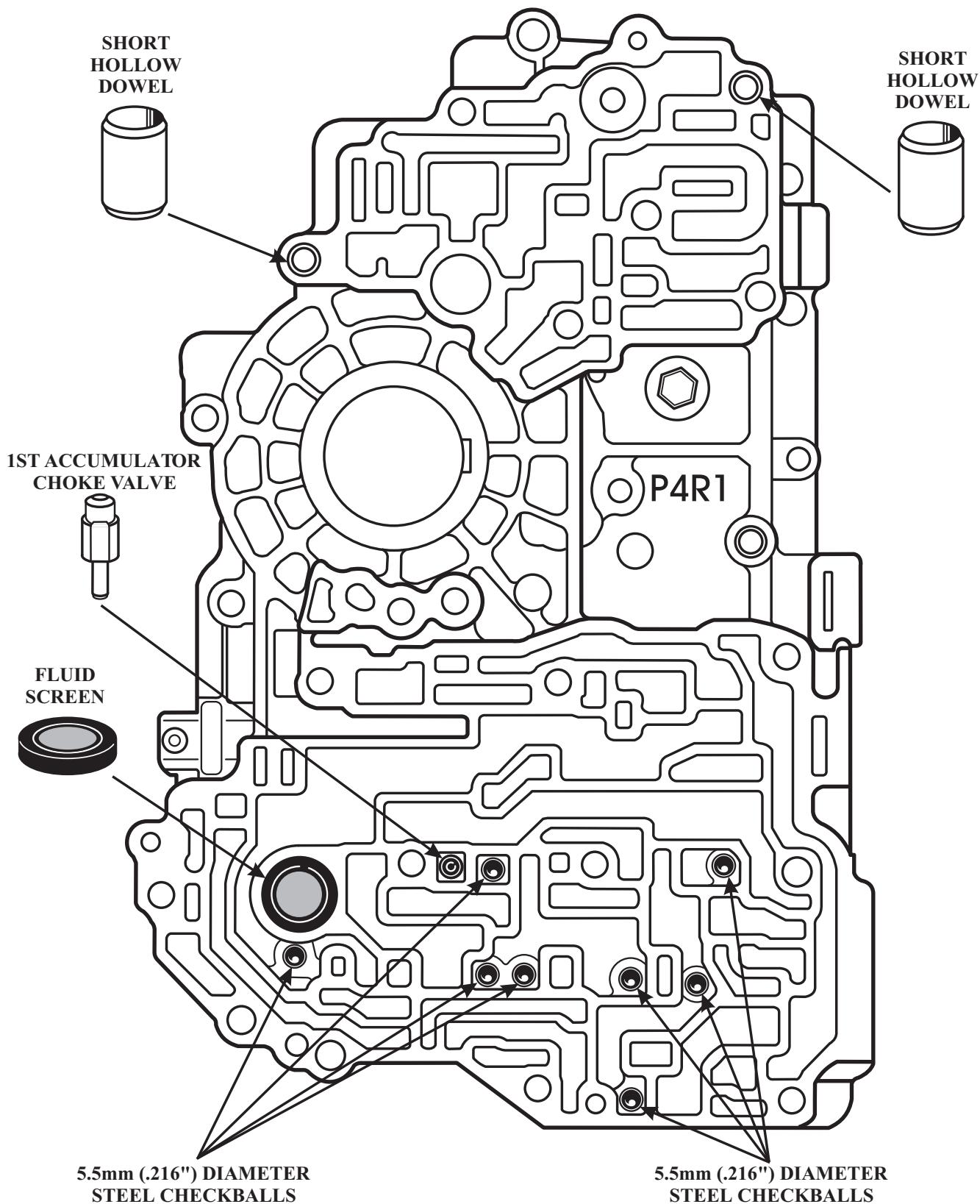
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HONDA CIVIC MODEL "M24A"
MAIN VALVE BODY "BOTTOM VIEW"

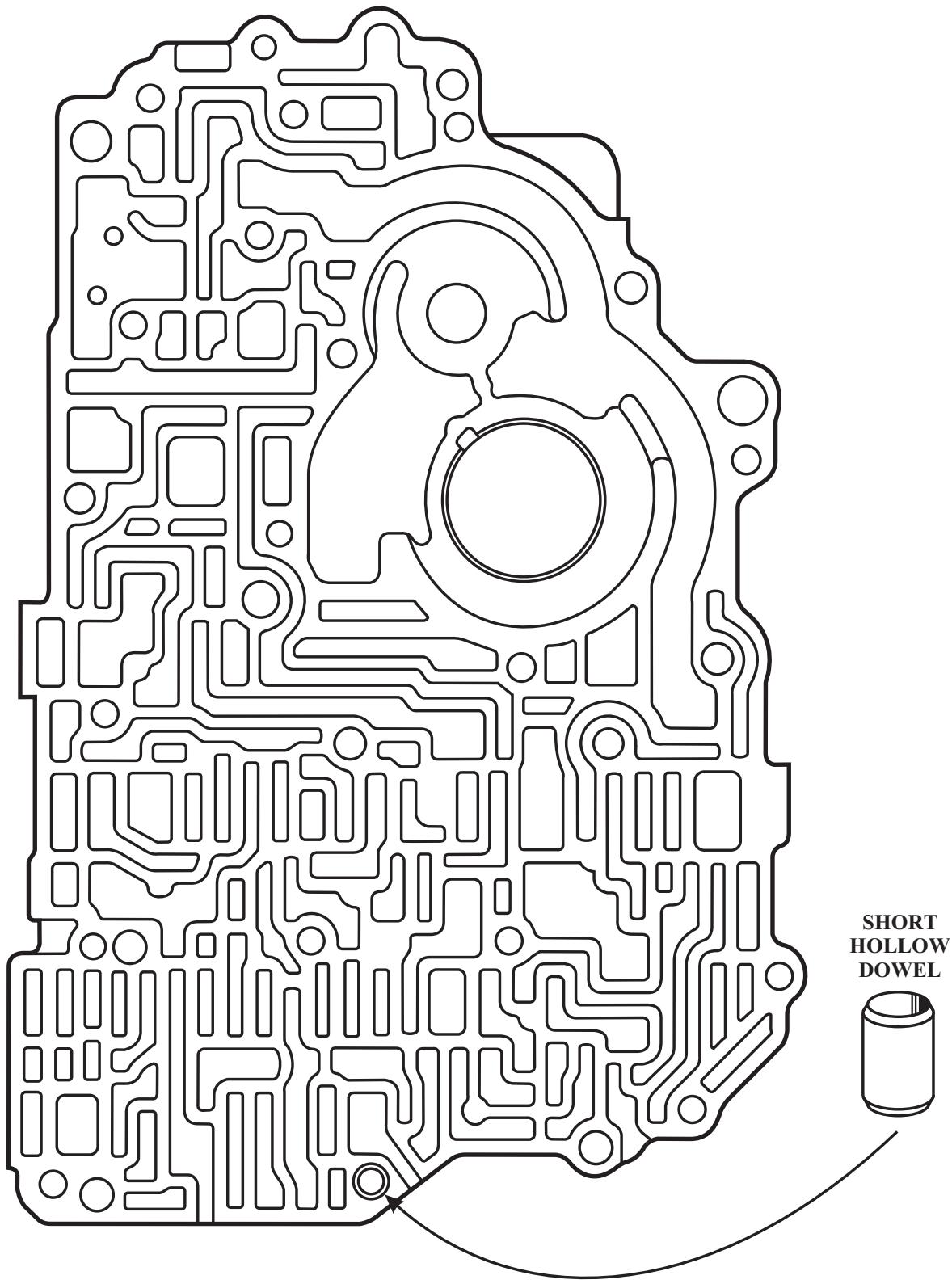
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**HONDA CIVIC MODEL "M24A"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

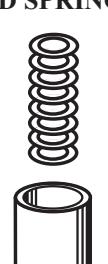
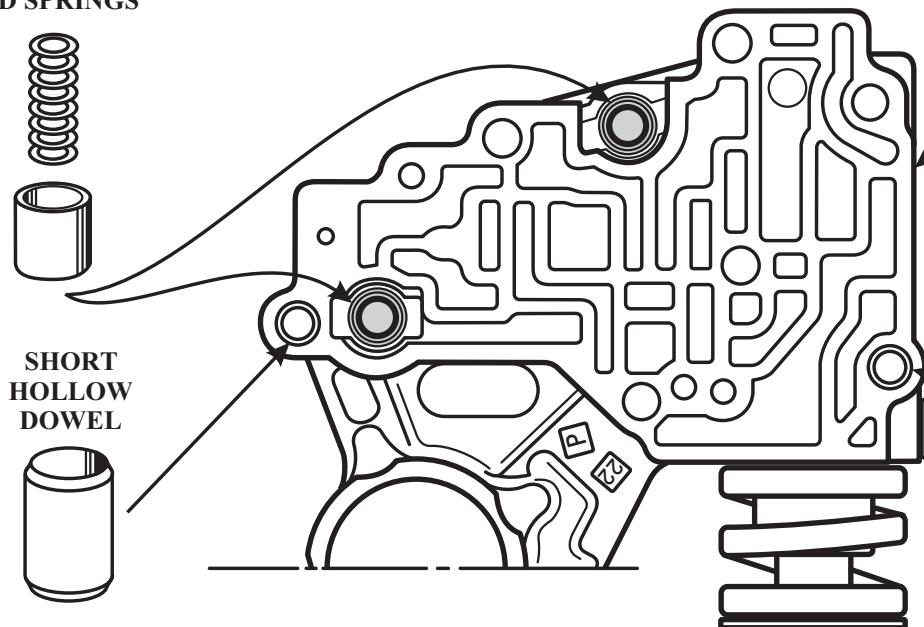
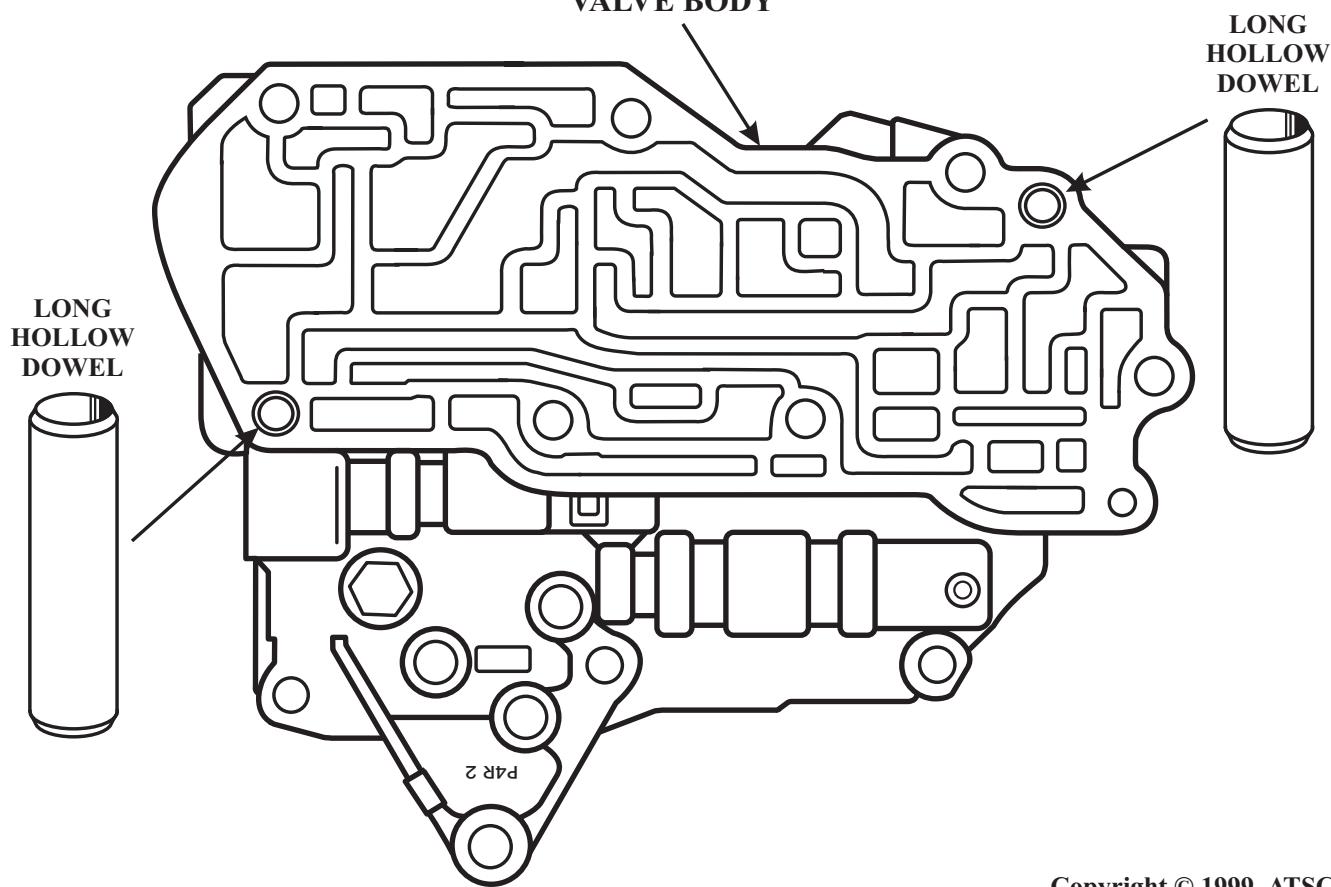
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HONDA CIVIC MODEL "A4RA"
MAIN VALVE BODY "TOP VIEW"

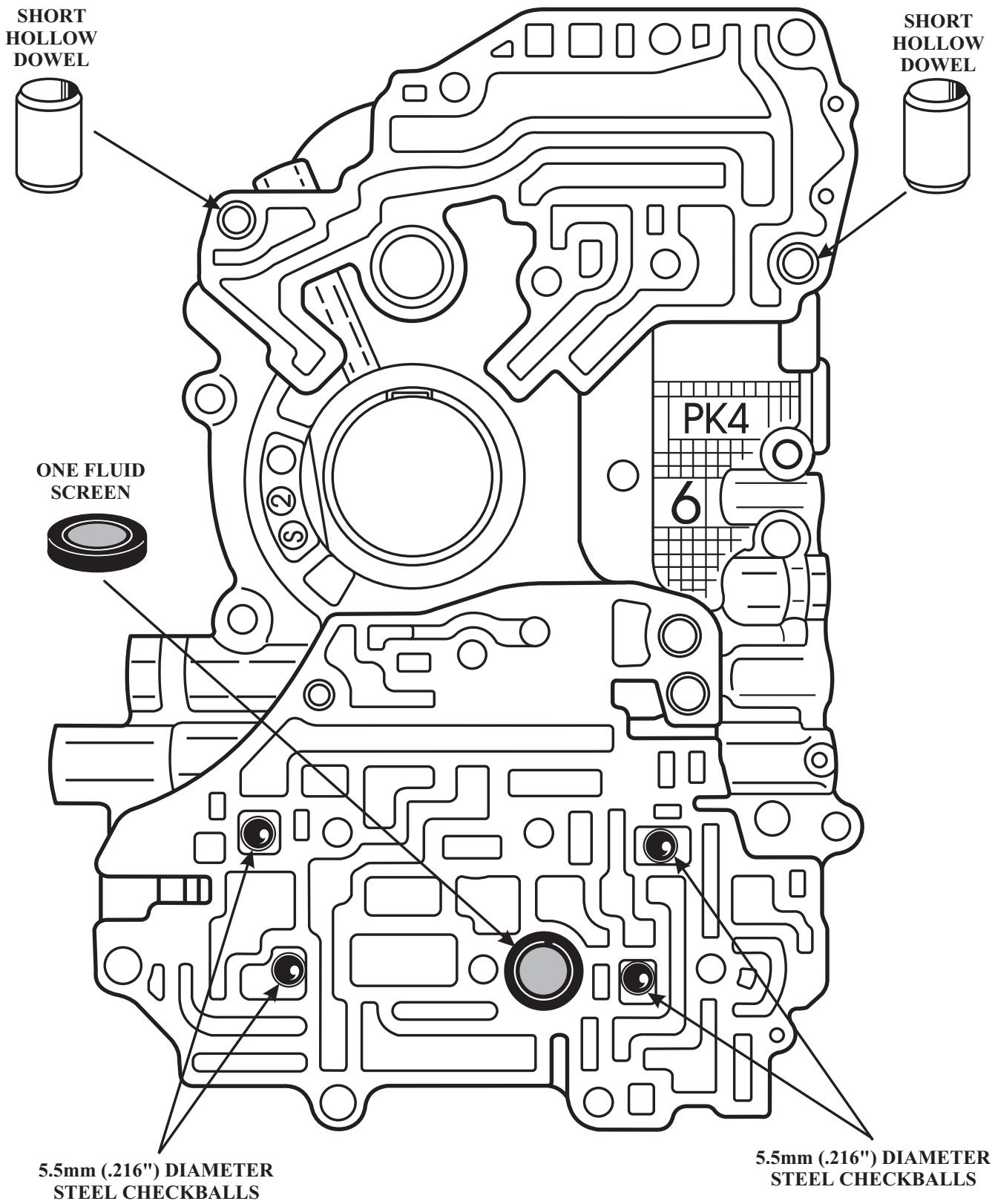
Copyright © 1999 ATSG

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

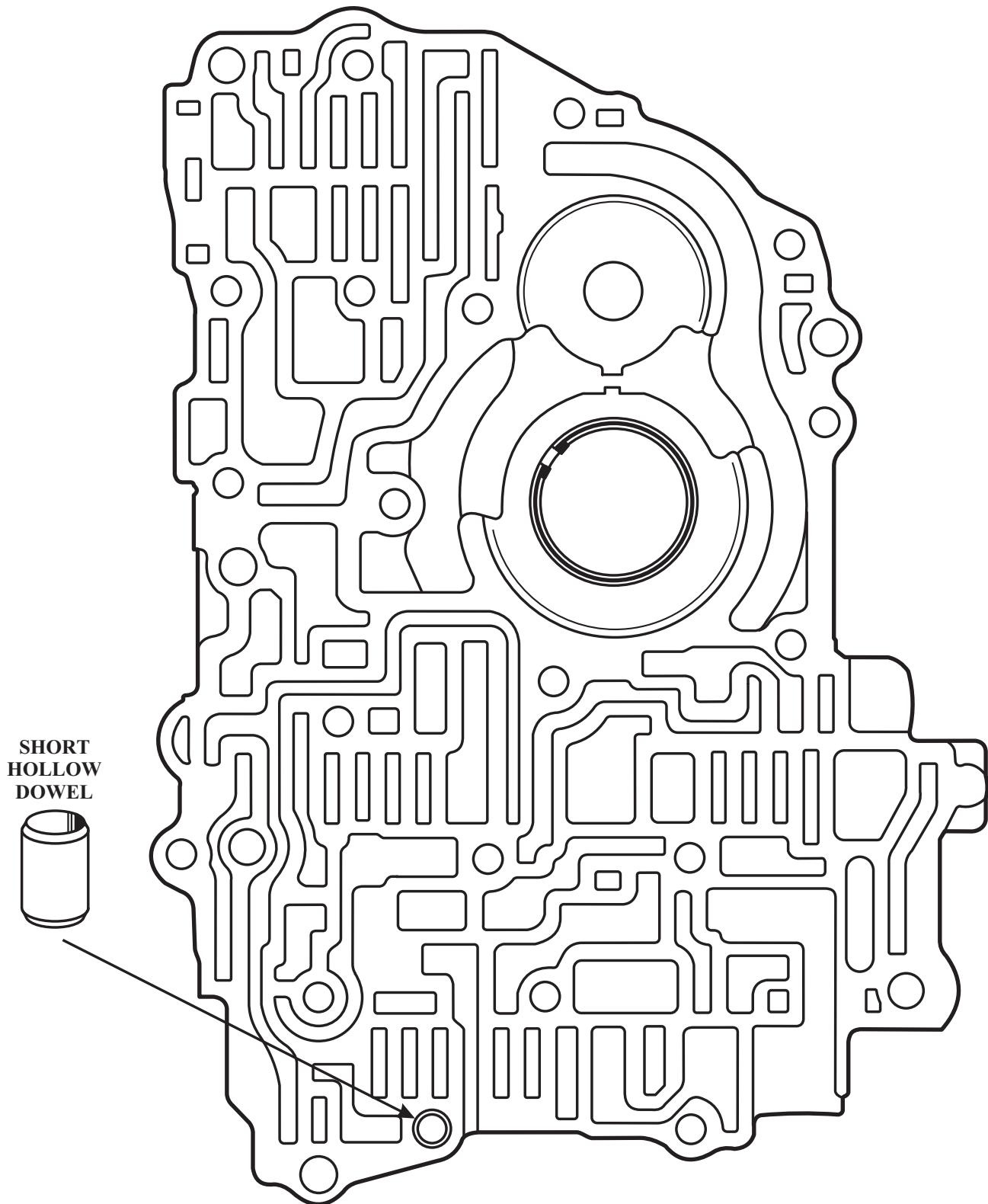
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**HONDA CIVIC MODEL "A4RA"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**RELIEF VALVES
AND SPRINGSPRESSURE REGULATOR
VALVE BODYSECONDARY
VALVE BODY

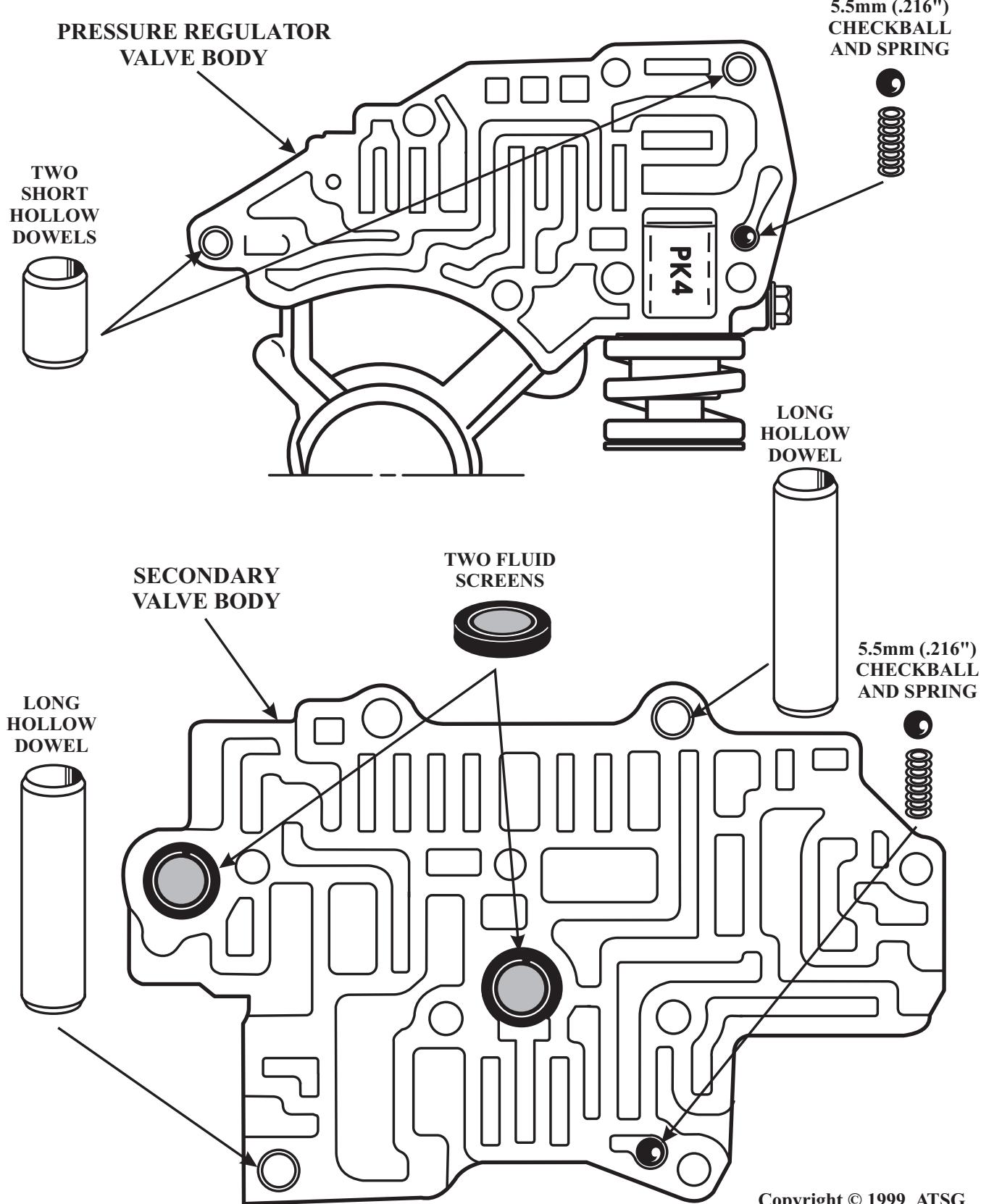
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HONDA PRELUDE "Early" MODEL "K4"
MAIN VALVE BODY "TOP VIEW"

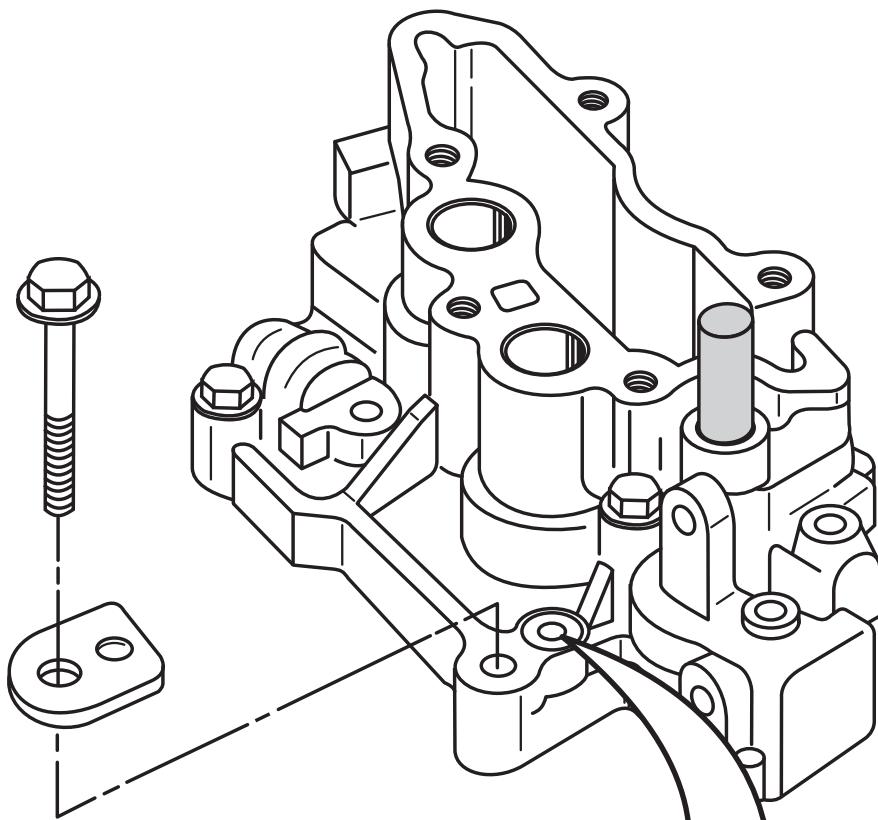
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HONDA PRELUDE "Early" MODEL "K4"
MAIN VALVE BODY "BOTTOM VIEW"

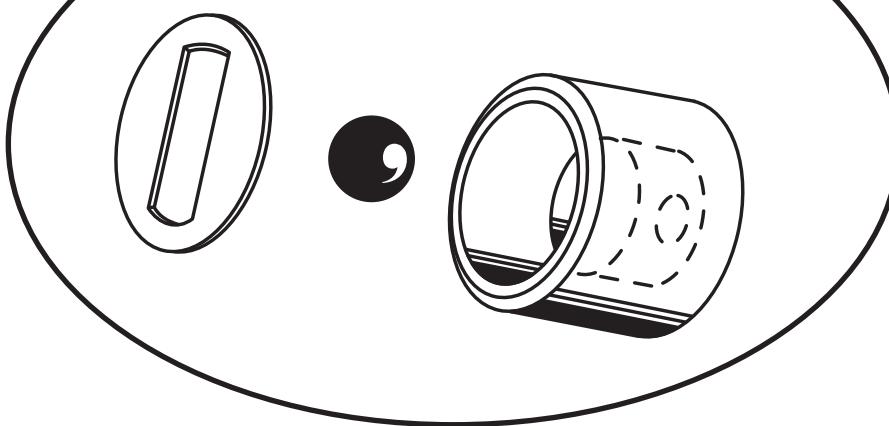
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**HONDA PRELUDE "Early" MODEL "K4"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

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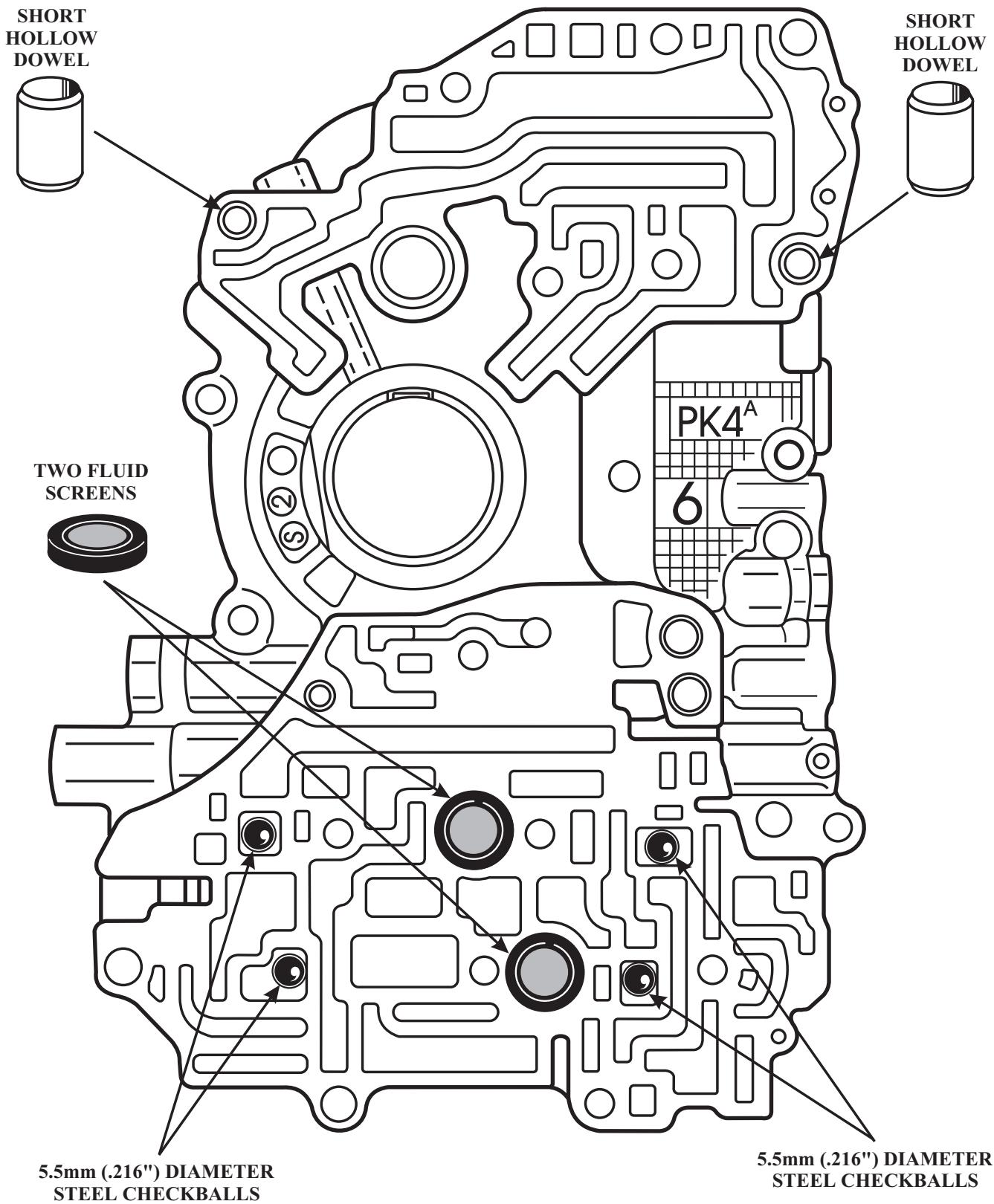
SERVO VALVE BODY**CAUTION:**

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.

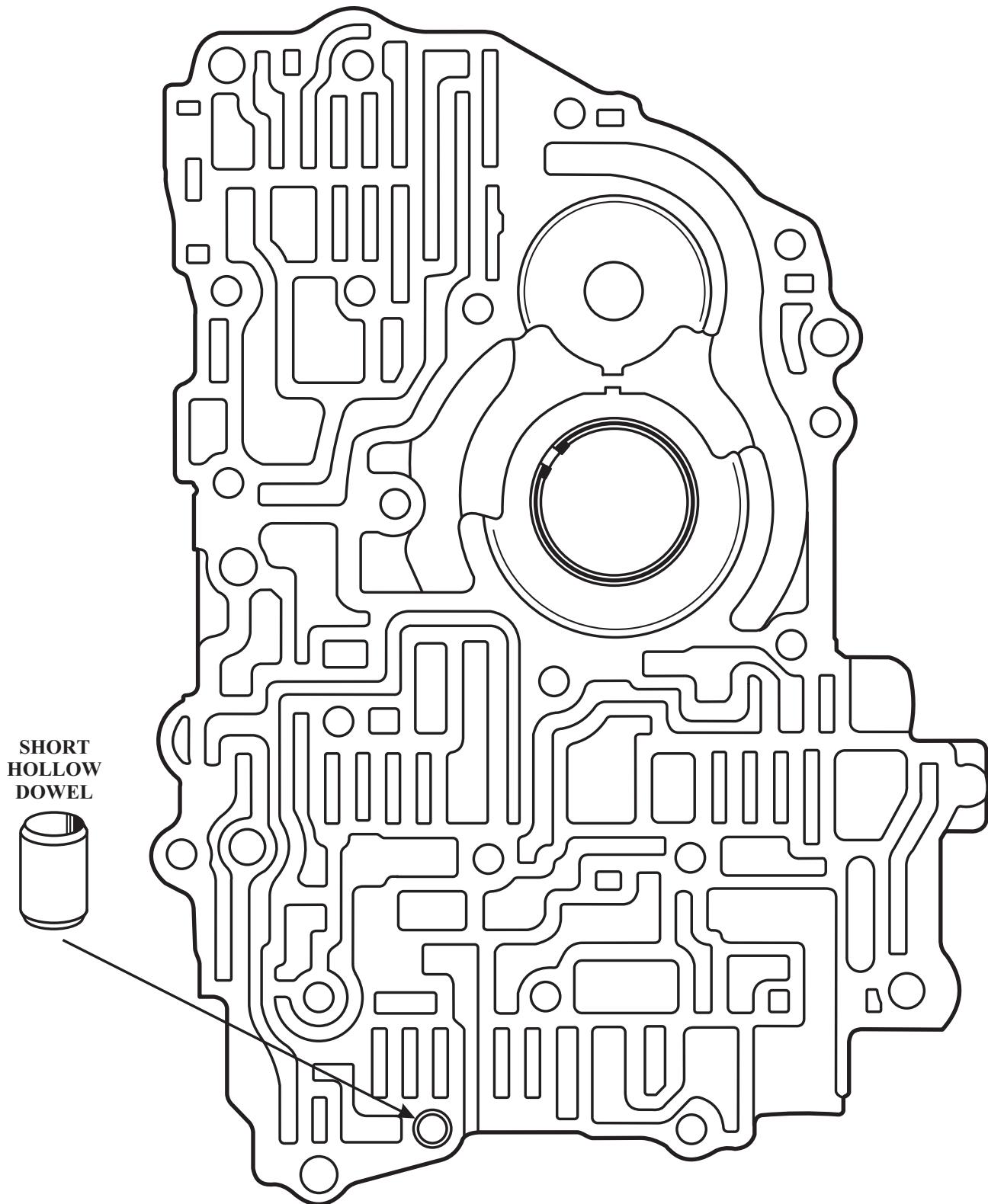
**SERVO RELEASE
CHECK VALVE**

Copyright © 1999 ATSG

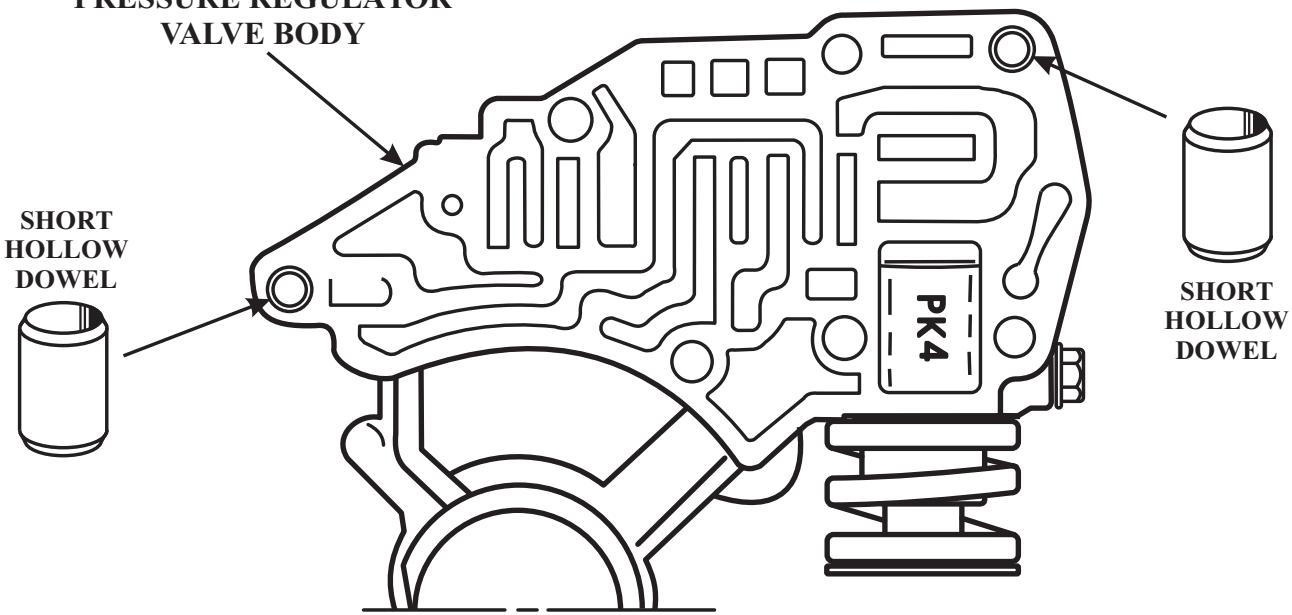
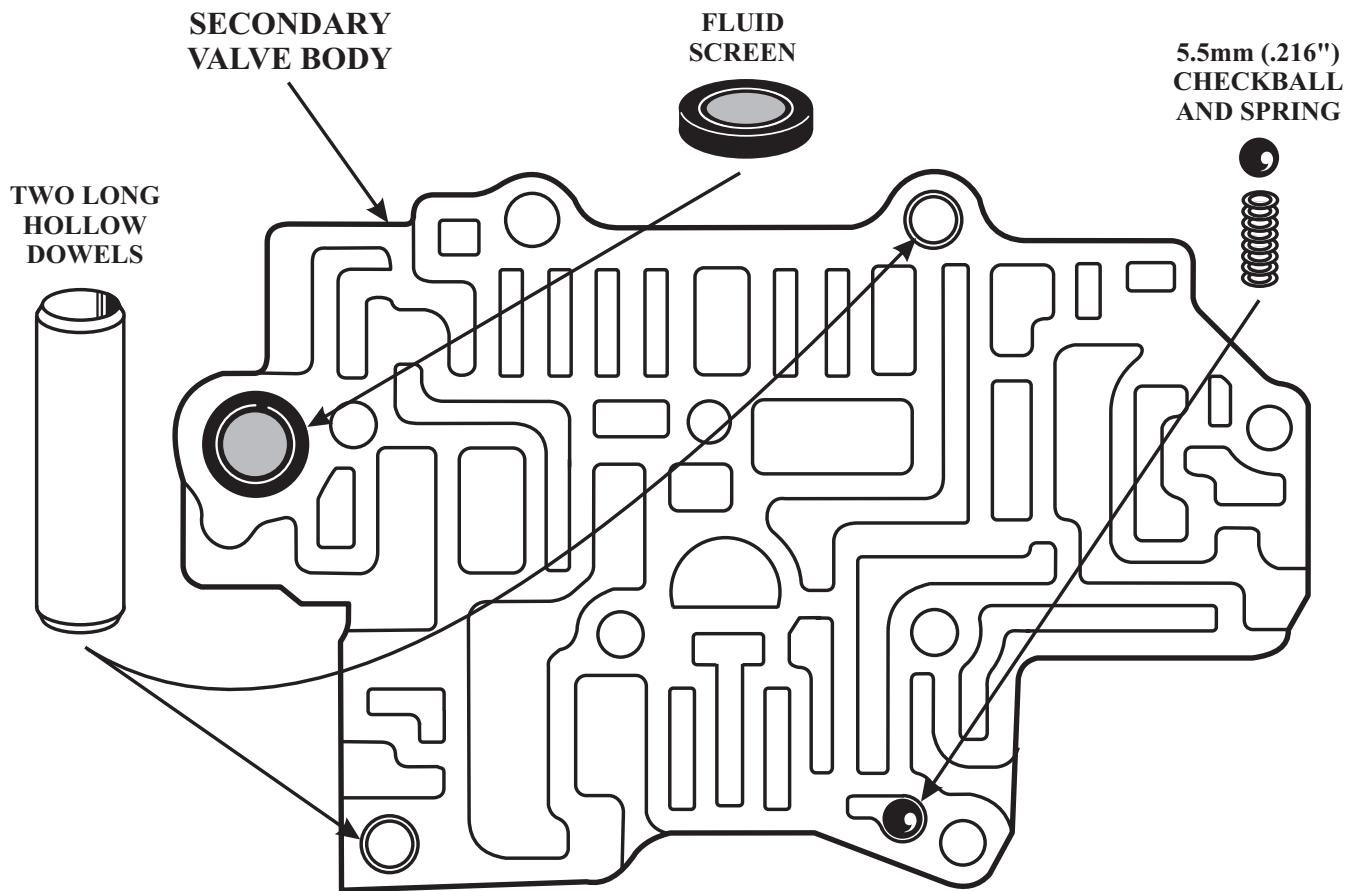
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

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

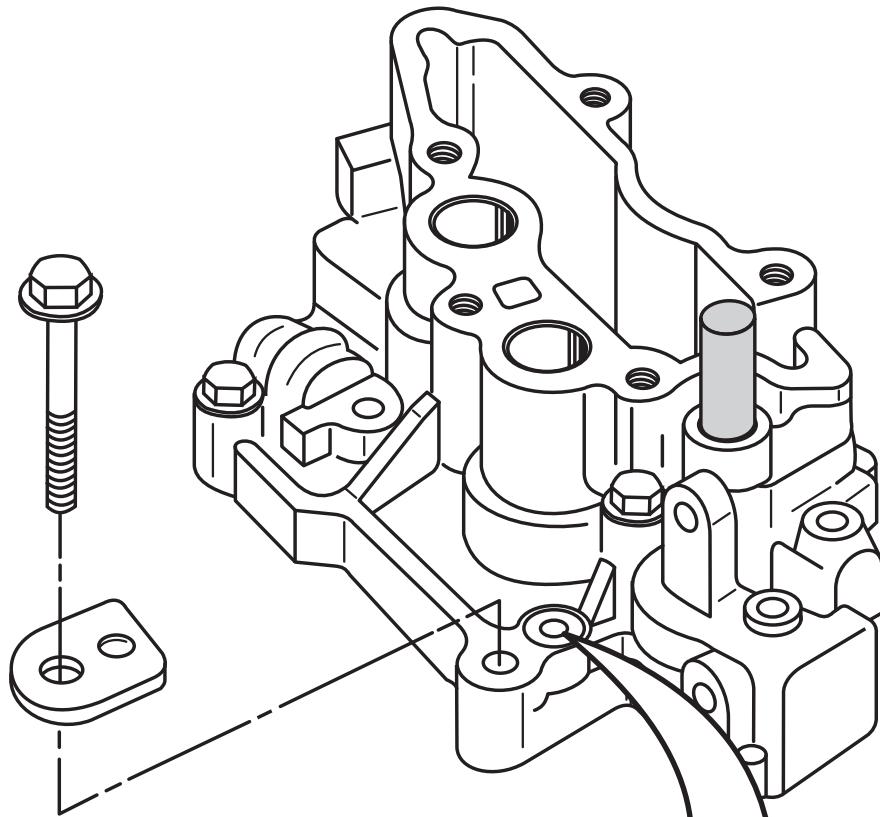
Copyright © 1999 ATSG

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

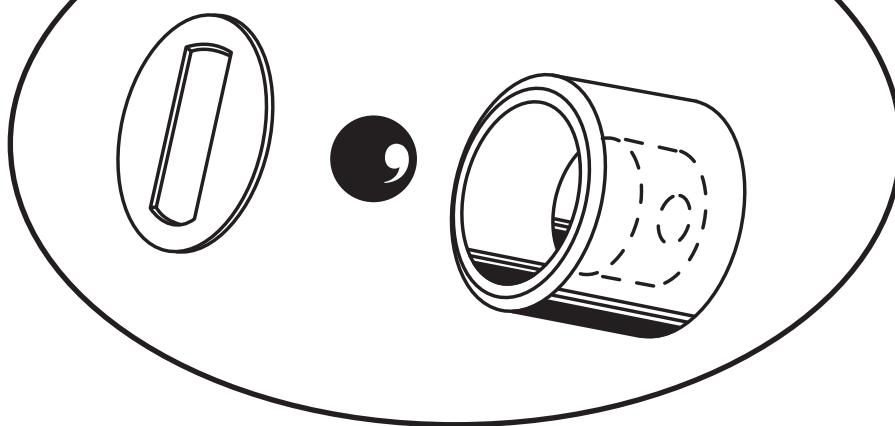
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**HONDA PRELUDE "Late" MODEL "K4"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY****PRESSURE REGULATOR
VALVE BODY****SECONDARY
VALVE BODY**

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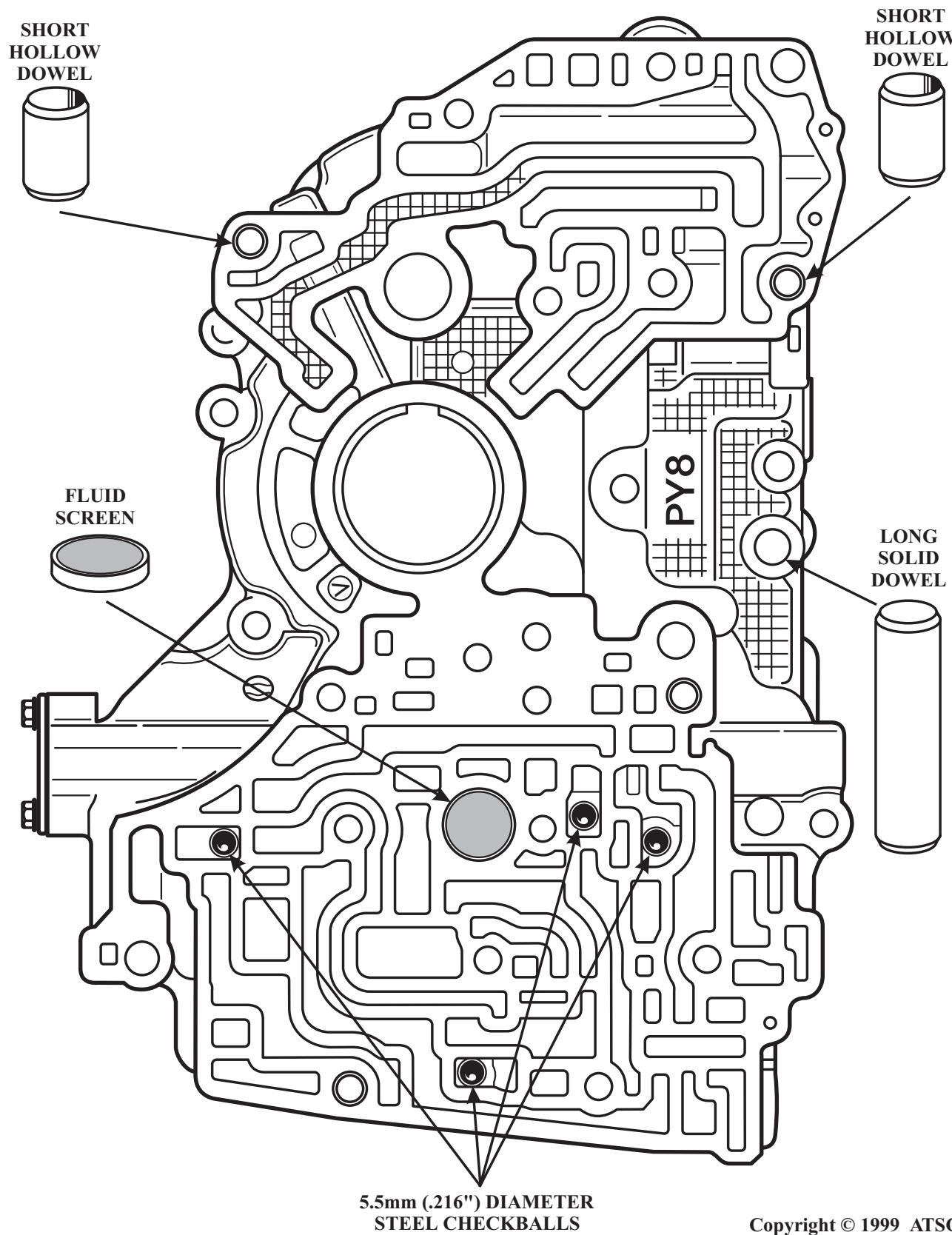
SERVO VALVE BODY**CAUTION:**

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.

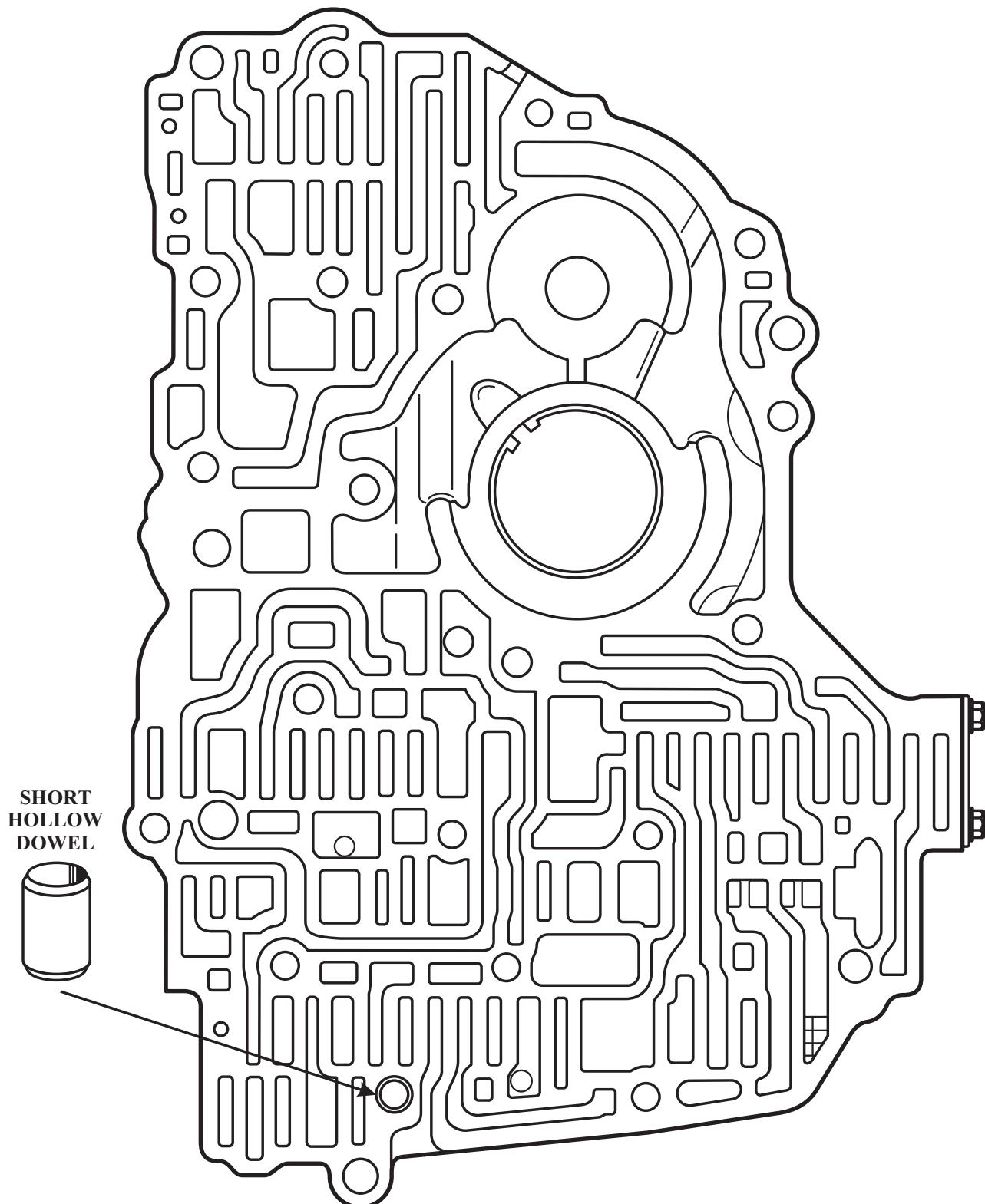
**SERVO RELEASE
CHECK VALVE**

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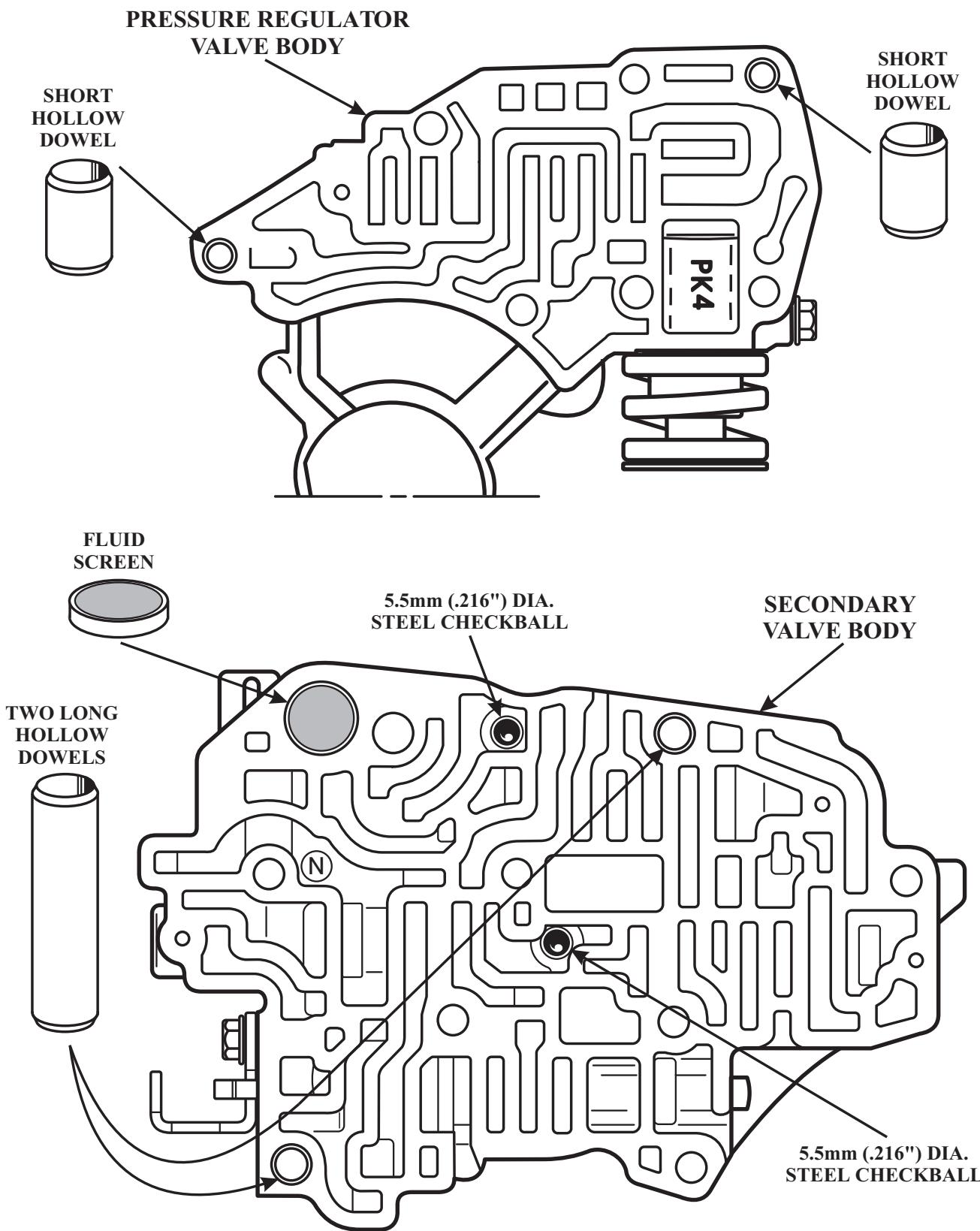
NOTE: MOST SERVO VALVE BODIES WILL HAVE THIS CHECK VALVE.

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

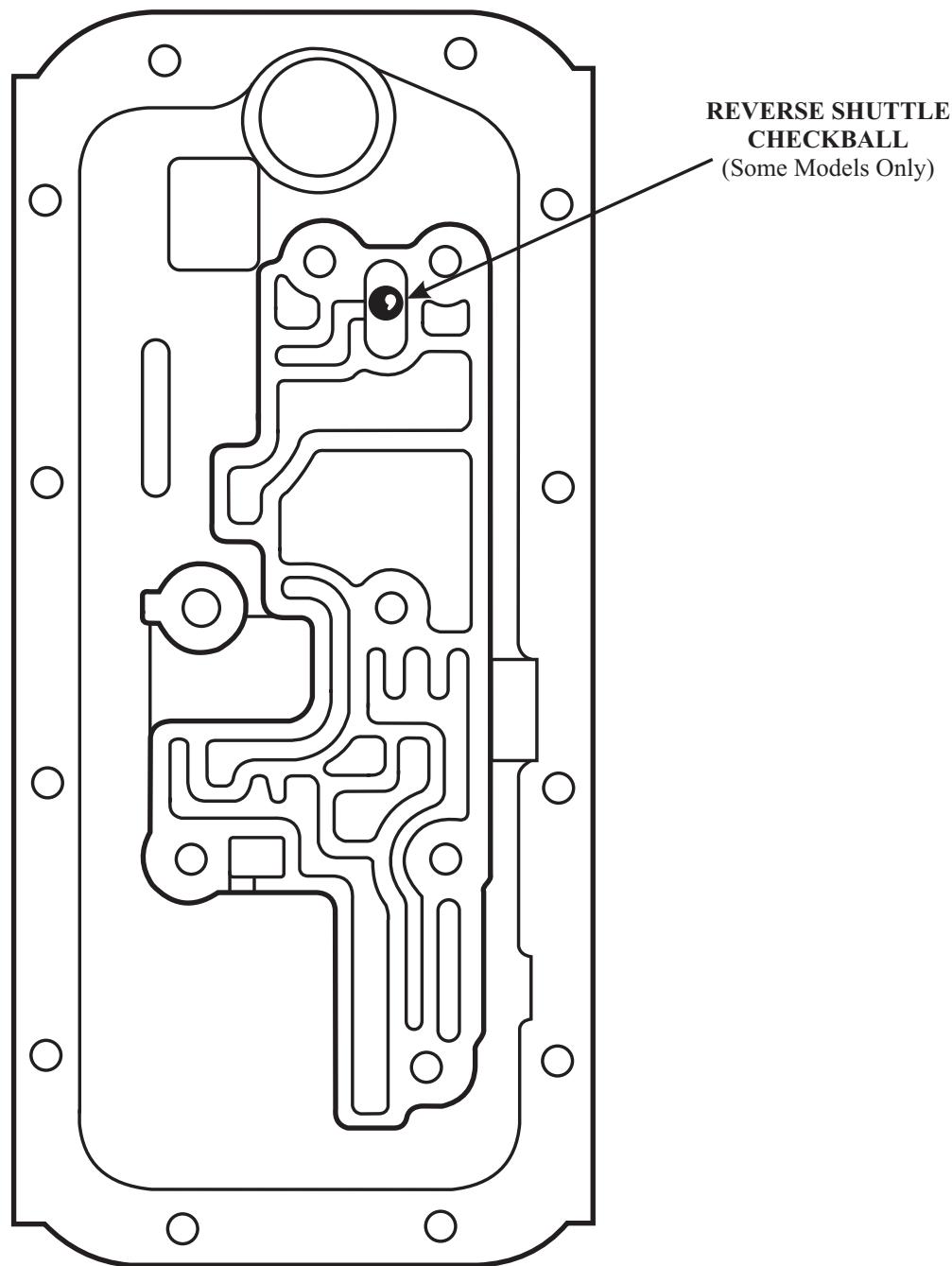
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HONDA PRELUDE MODEL "PY8A"
MAIN VALVE BODY "BOTTOM VIEW"

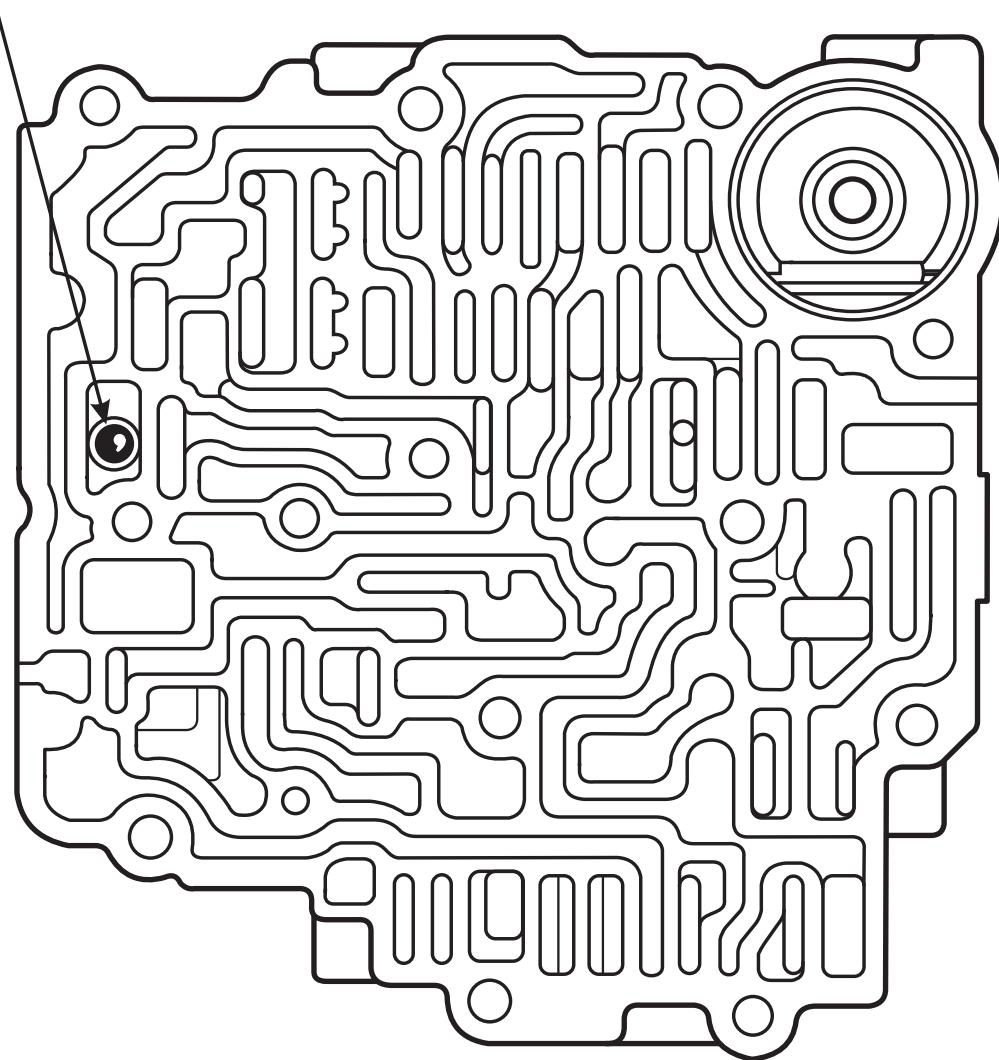
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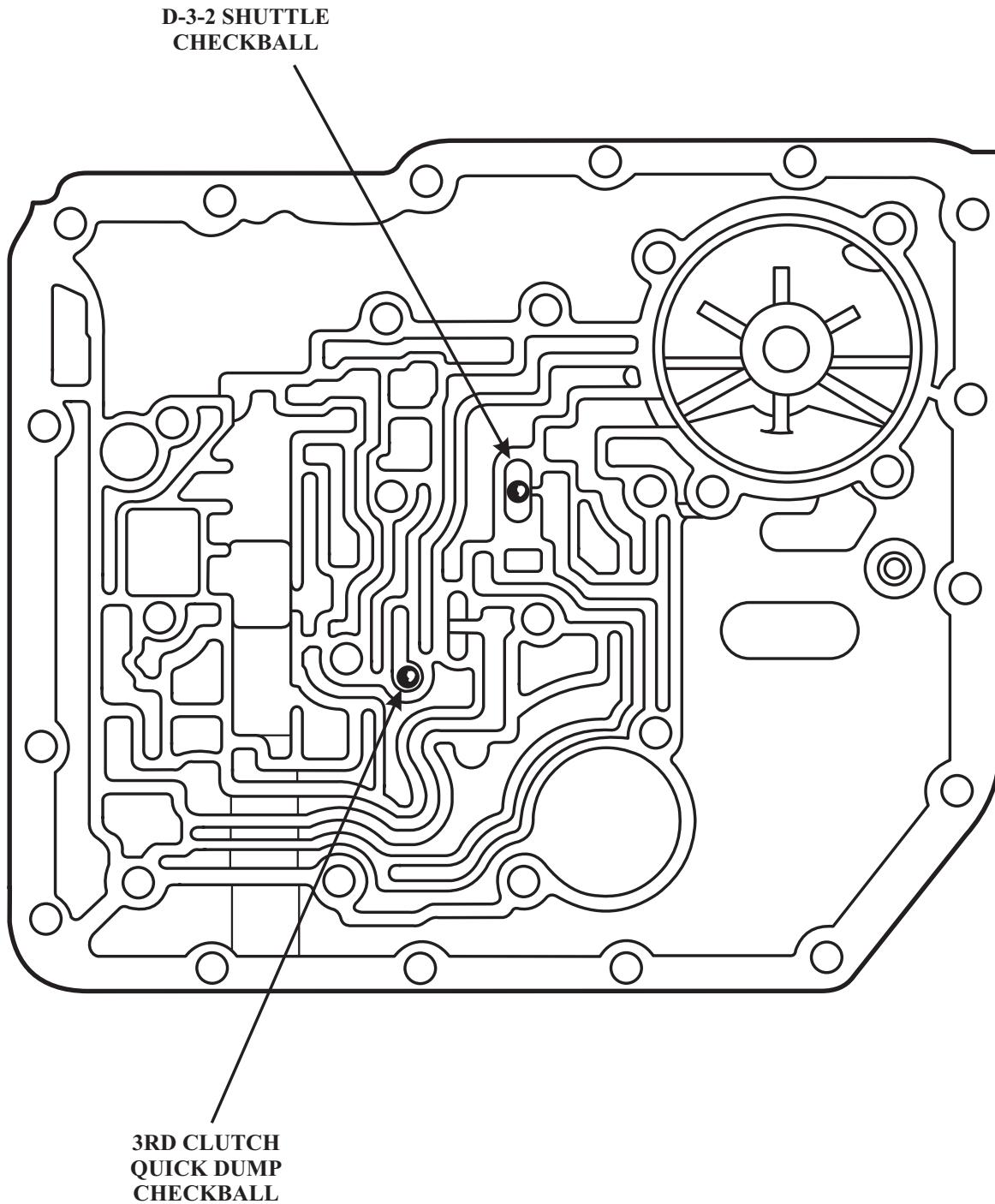
**HONDA PRELUDE MODEL "PY8A"
"PRESSURE REGULATOR" AND "SECONDARY" VALVE BODY**

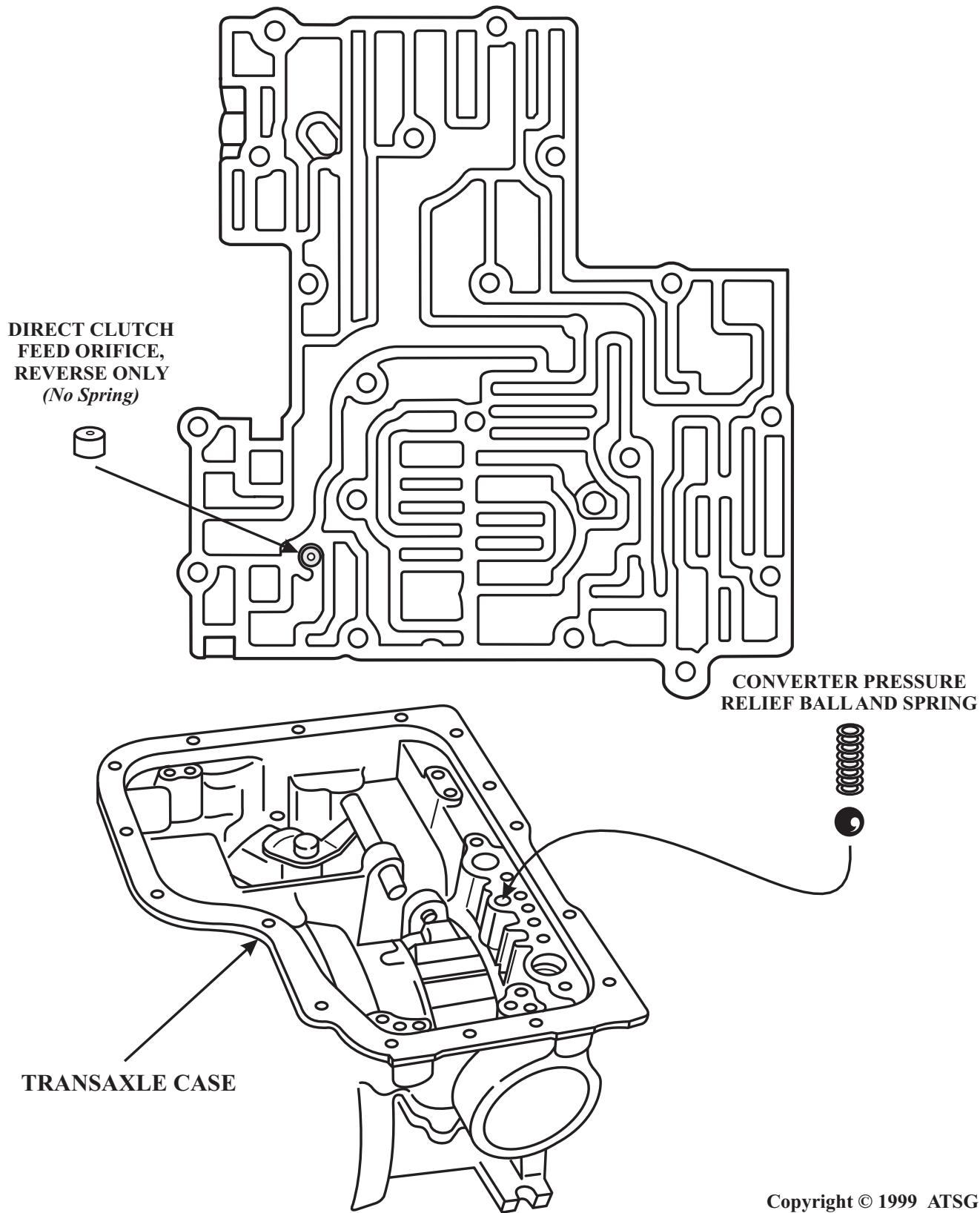
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HONDA PASSPORT CHECKBALL LOCATIONS
4L30-E OVERDRIVE CASE

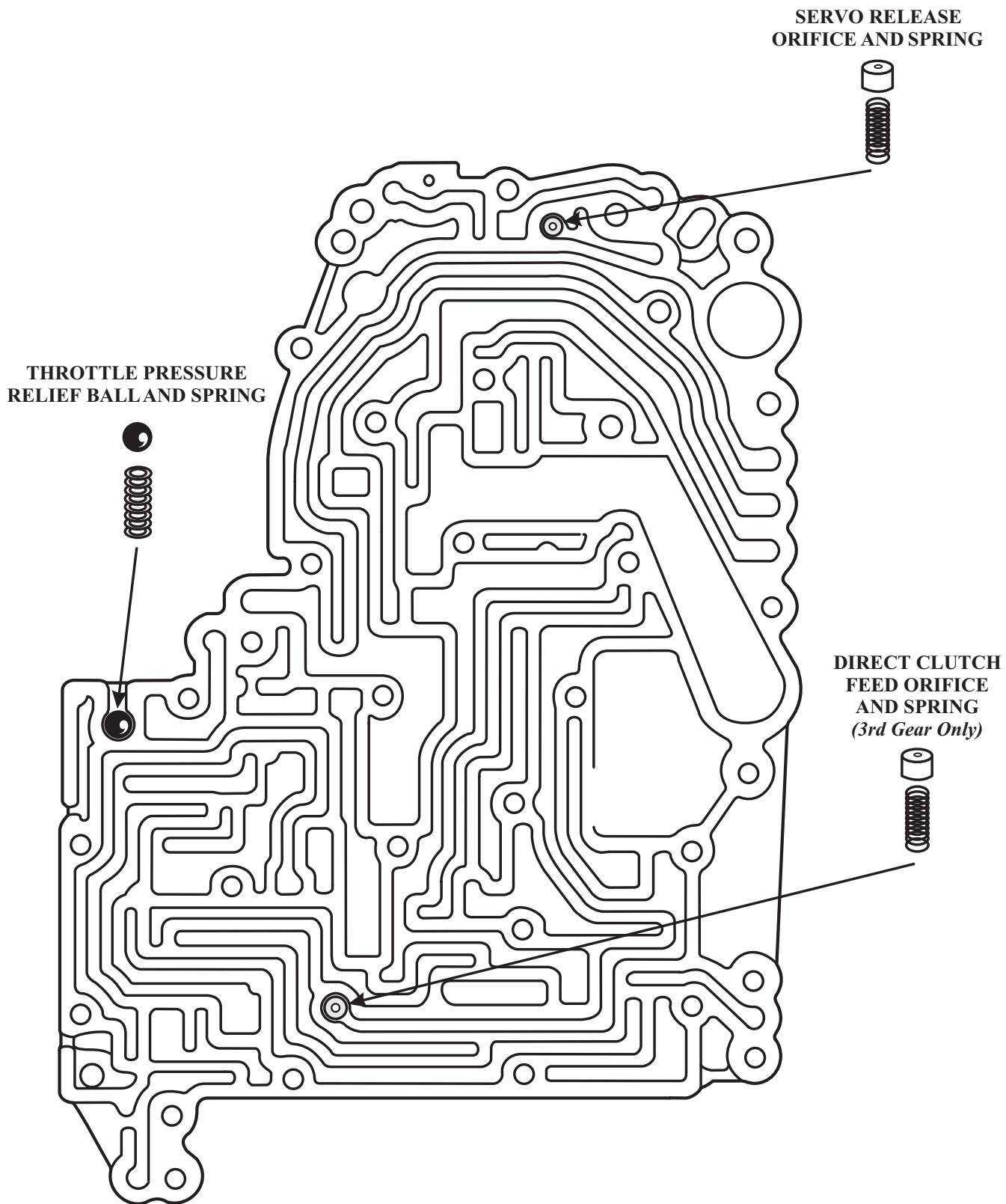
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HONDA PASSPORT CHECKBALL LOCATIONS
4L30-E MAIN VALVE BODY3RD CLUTCH
CHECKBALL

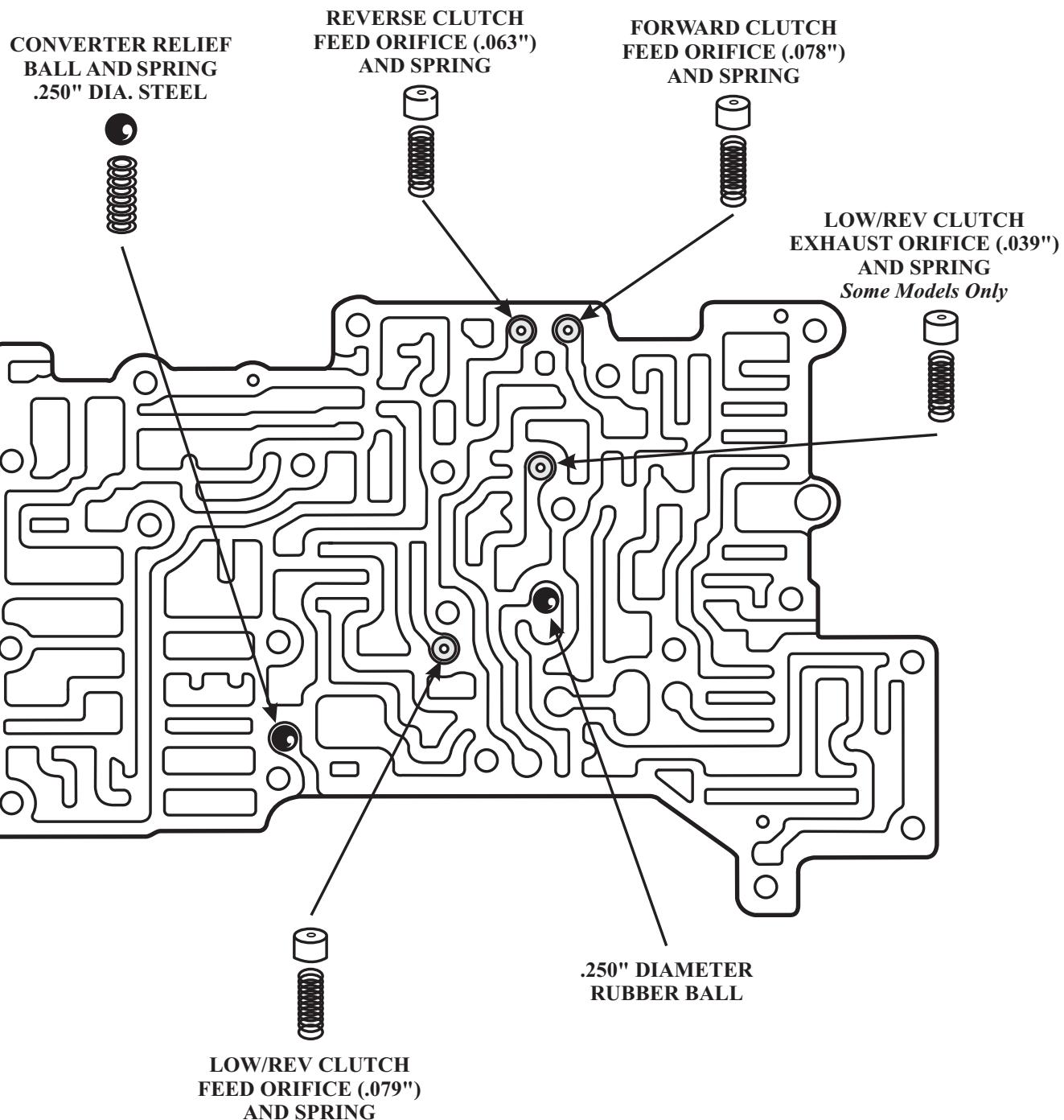
HONDA PASSPORT CHECKBALL LOCATIONS
4L30-E MAIN CASE

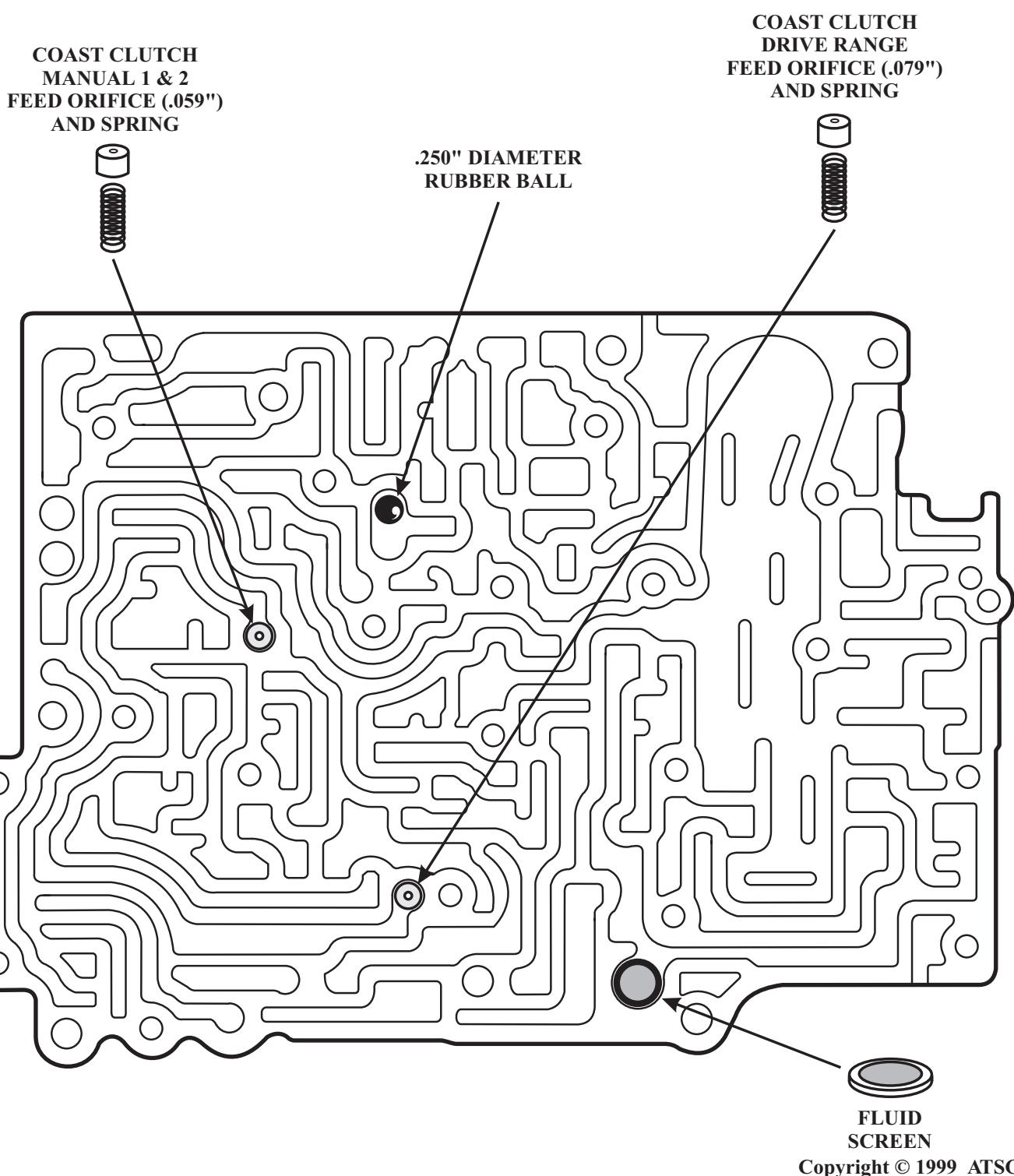
F3A/KF-100 TRANSAKLE
"UPPER" VALVE BODY AND CASE

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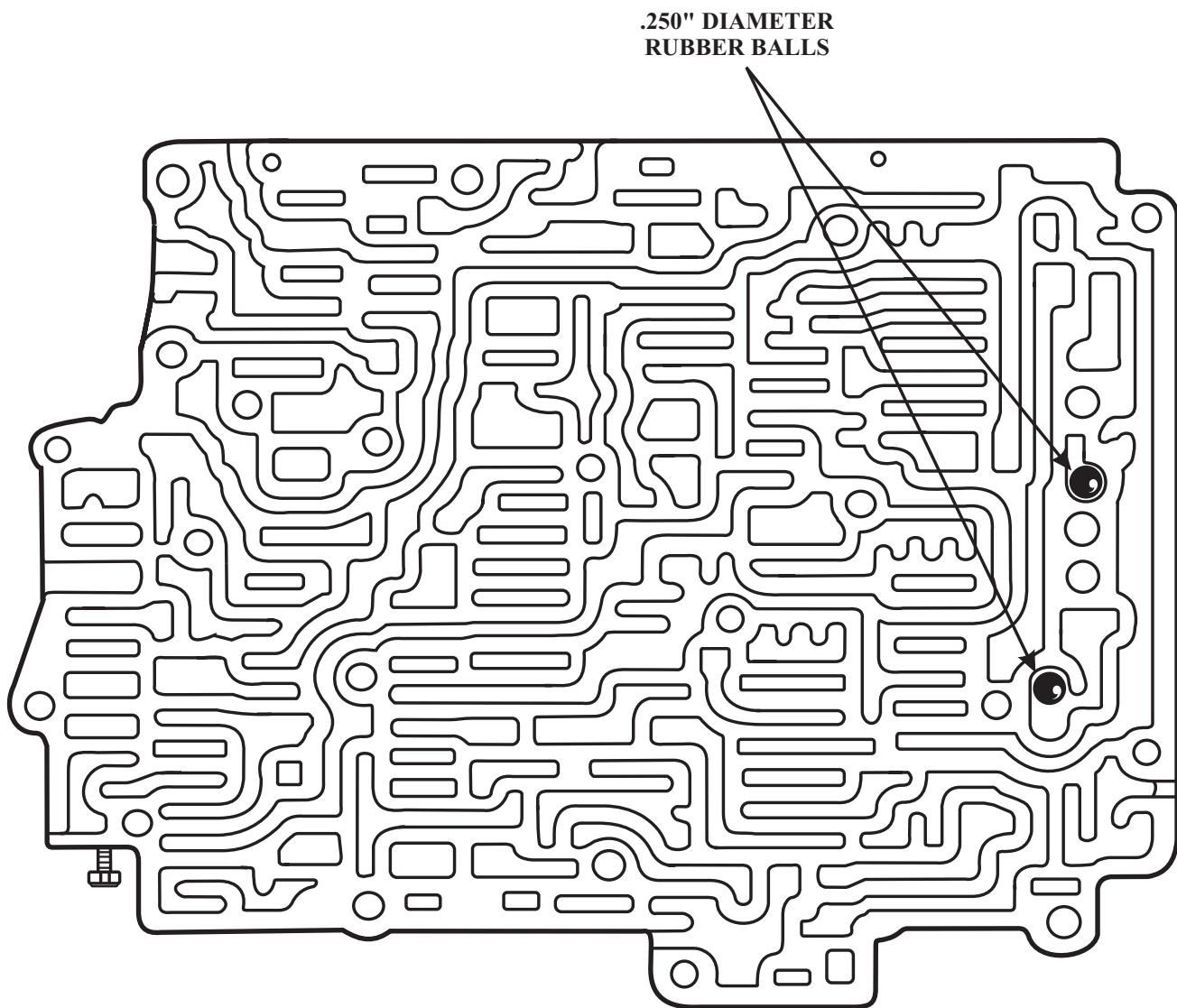
F3A/KF-100 TRANSAXLE
"LOWER" VALVE BODY

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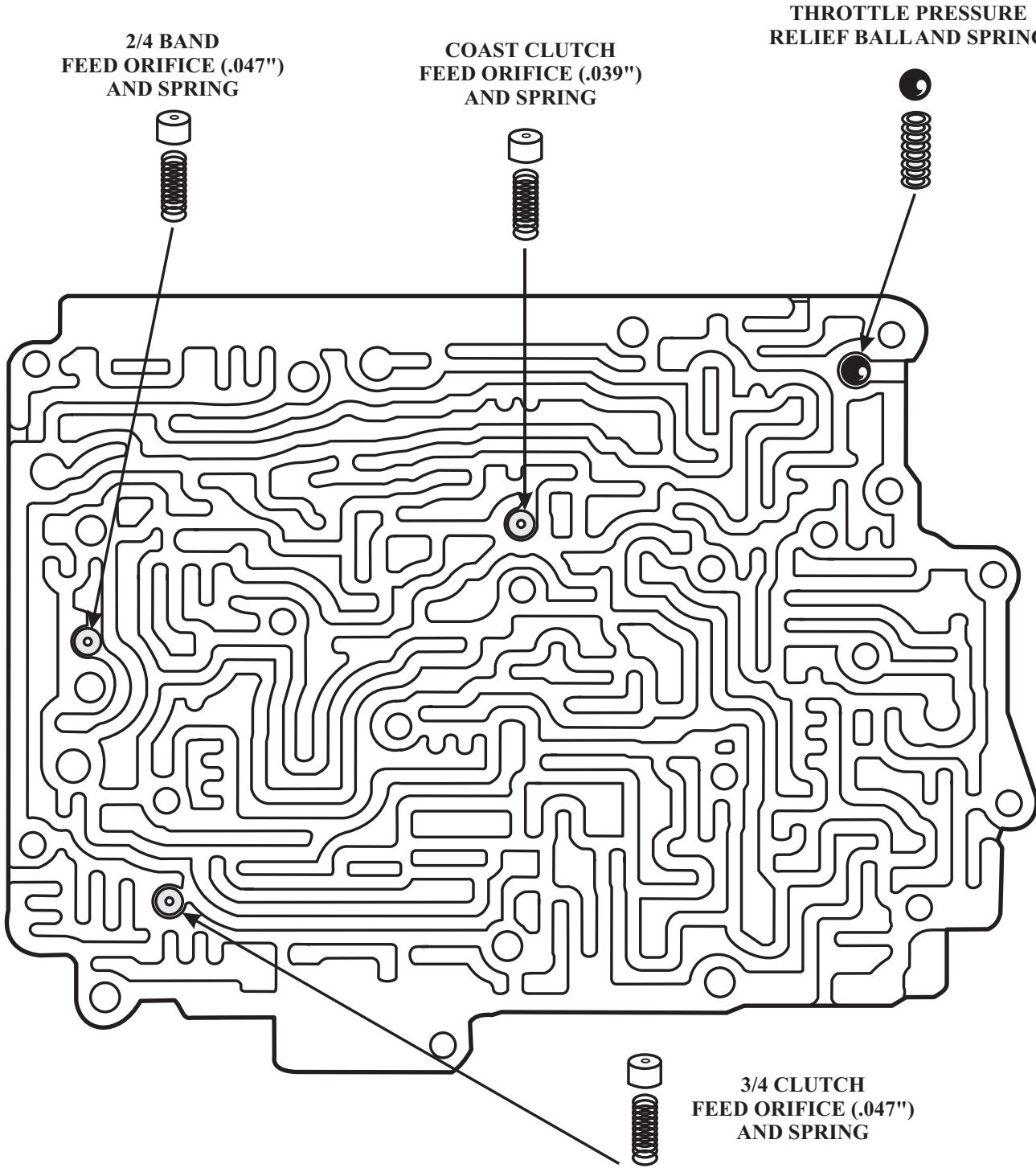
MAZDA G4A-HL
"REAR" CONTROL VALVE BODY
ORIFICE AND CHECKBALL LOCATIONS

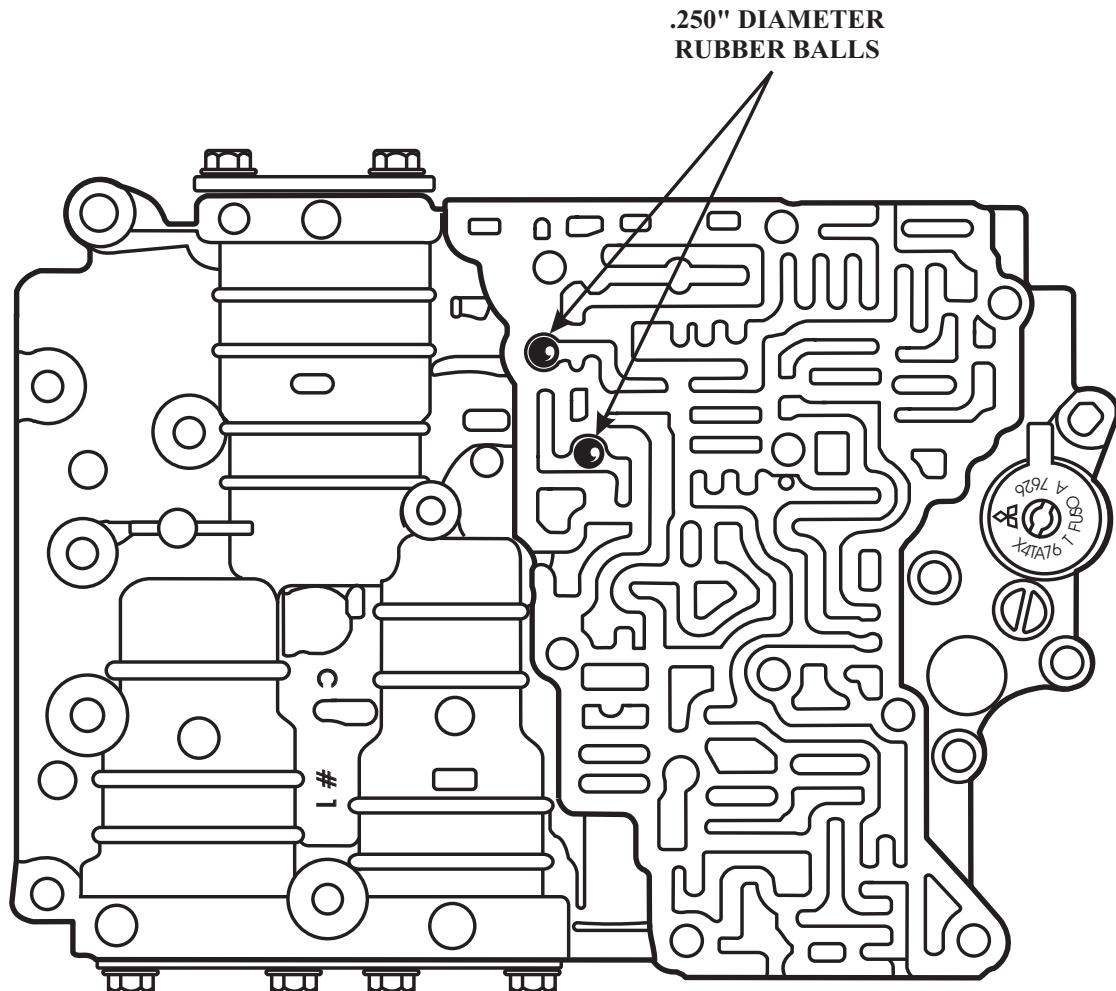
MAZDA G4A-HL
"MAIN" CONTROL VALVE BODY, REAR BODY SIDE
ORIFICE AND CHECKBALL LOCATIONS

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

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

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

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CHECKBALL BOOK

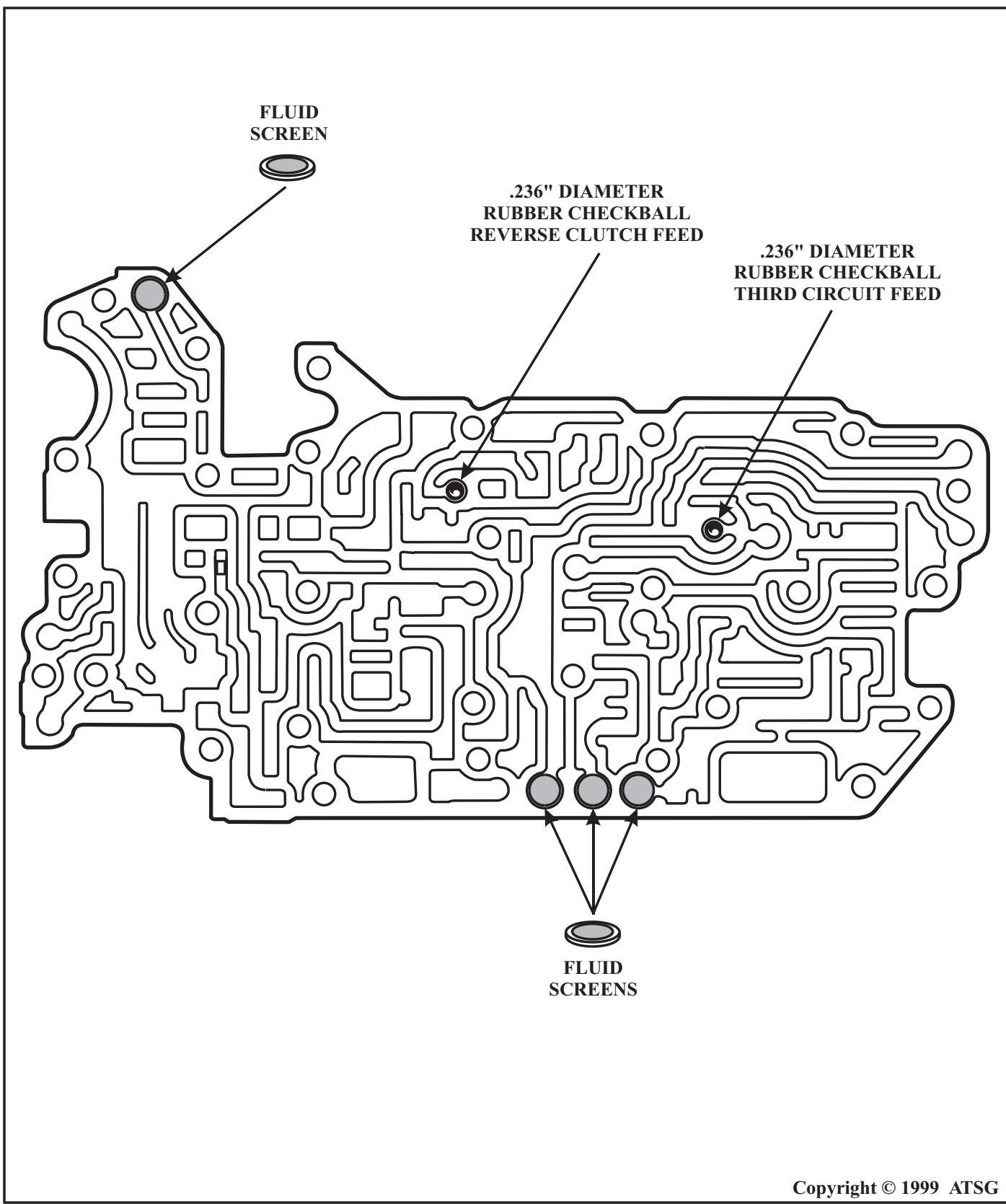
Import Volume II

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

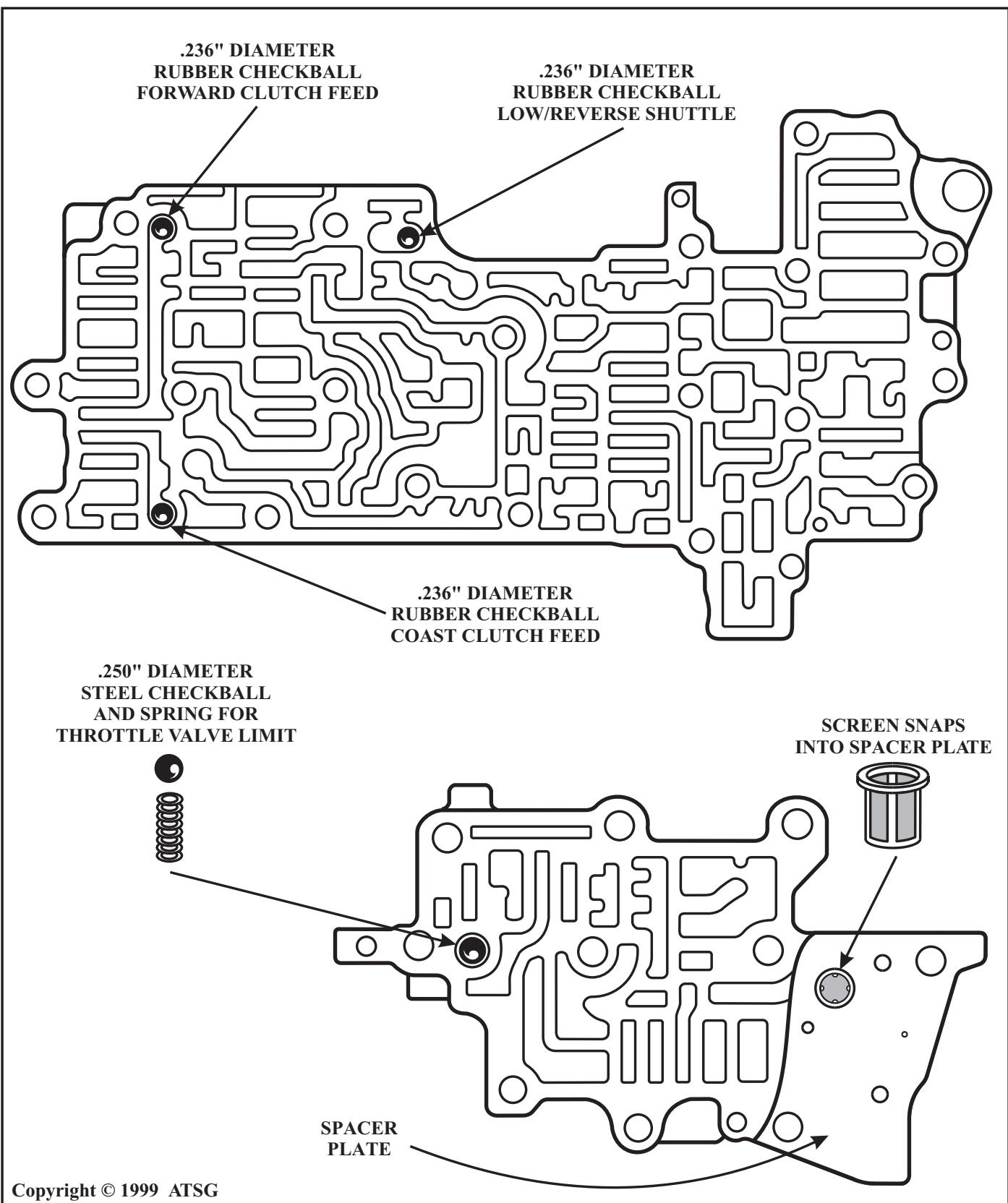


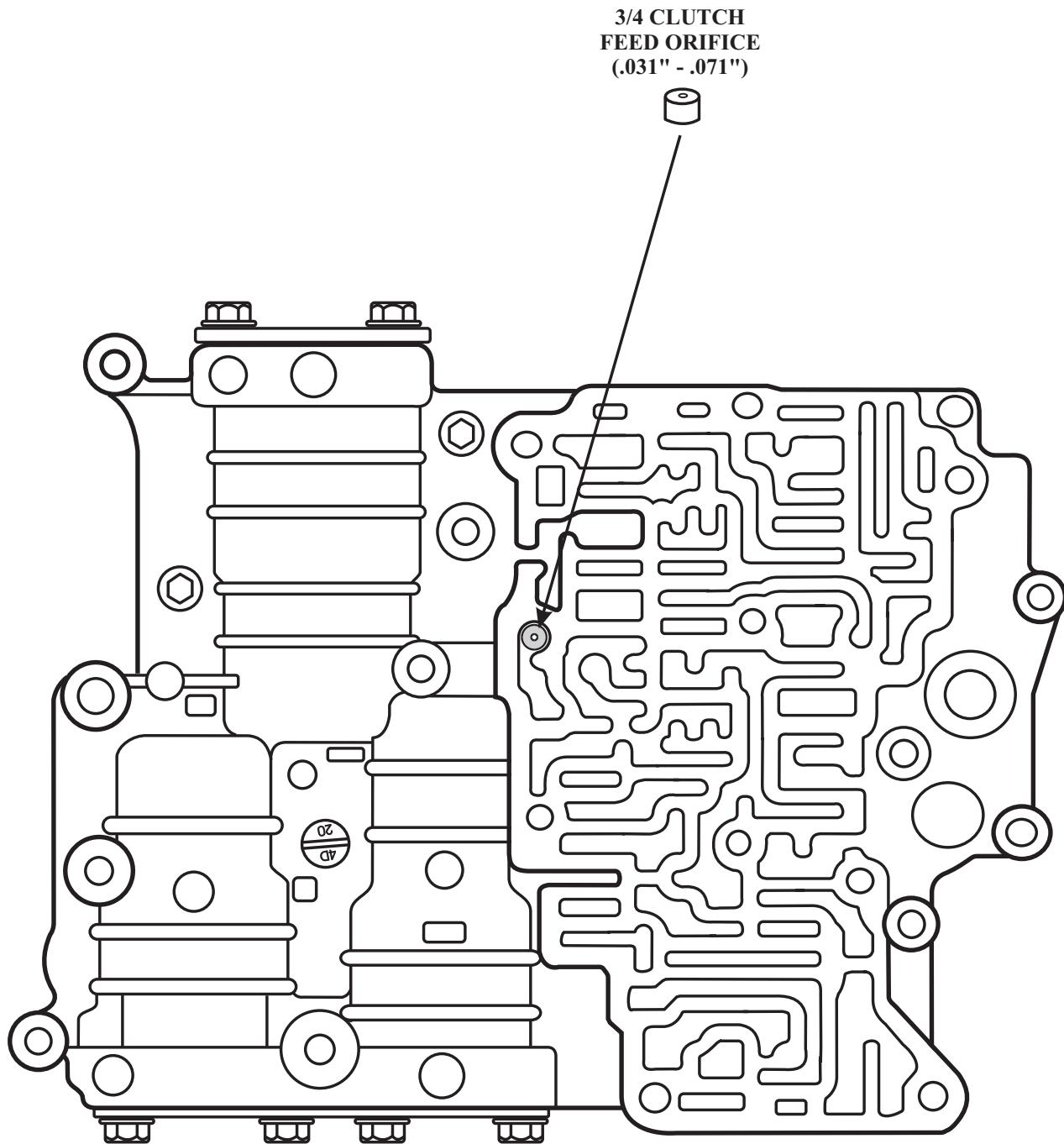
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FAX (305) 541-1444**

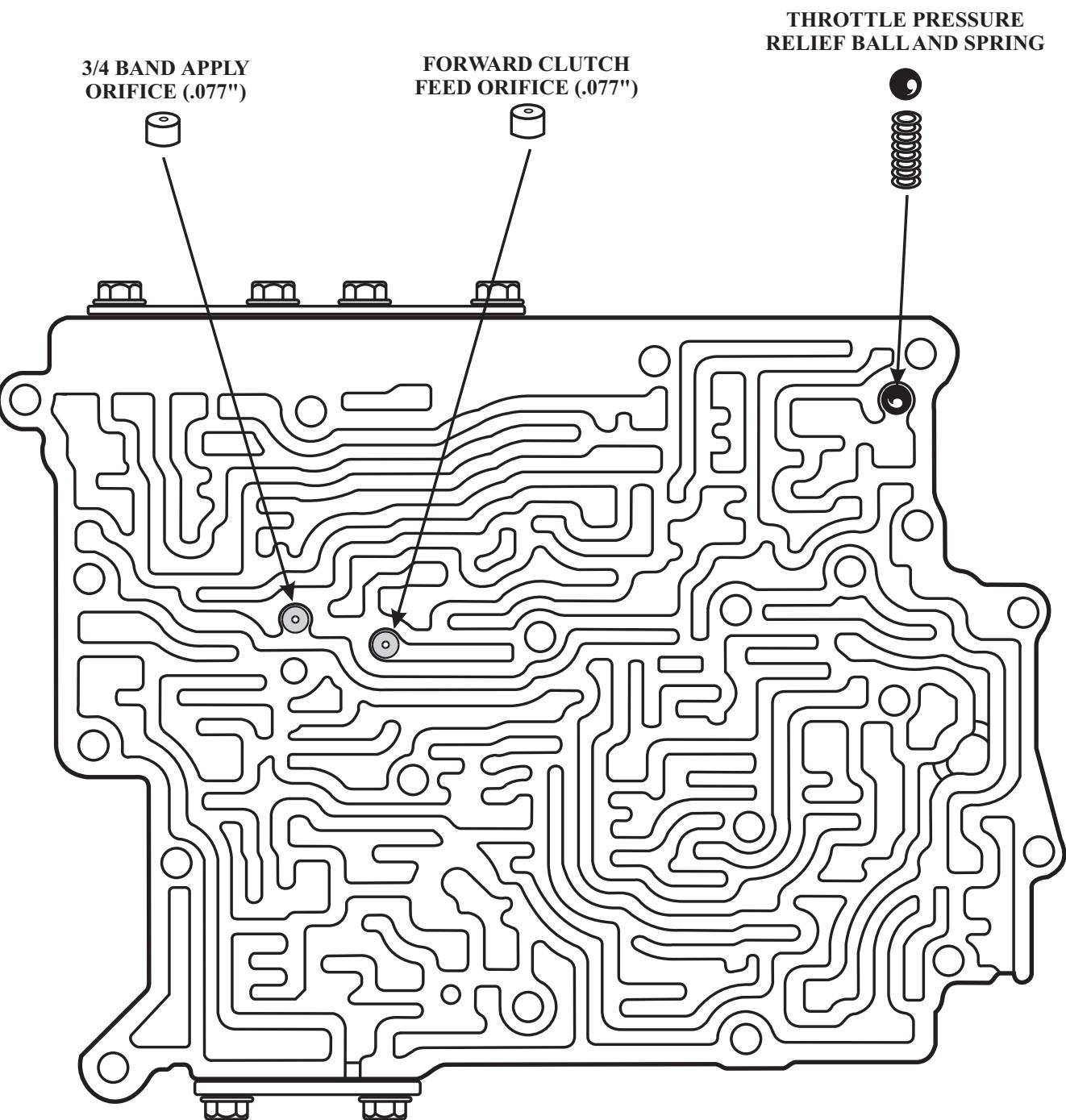
MAZDA F4A-EL
MAIN VALVE BODY

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MAZDA F4A-EL
LOWER VALVE BODY AND THROTTLE VALVE BODY

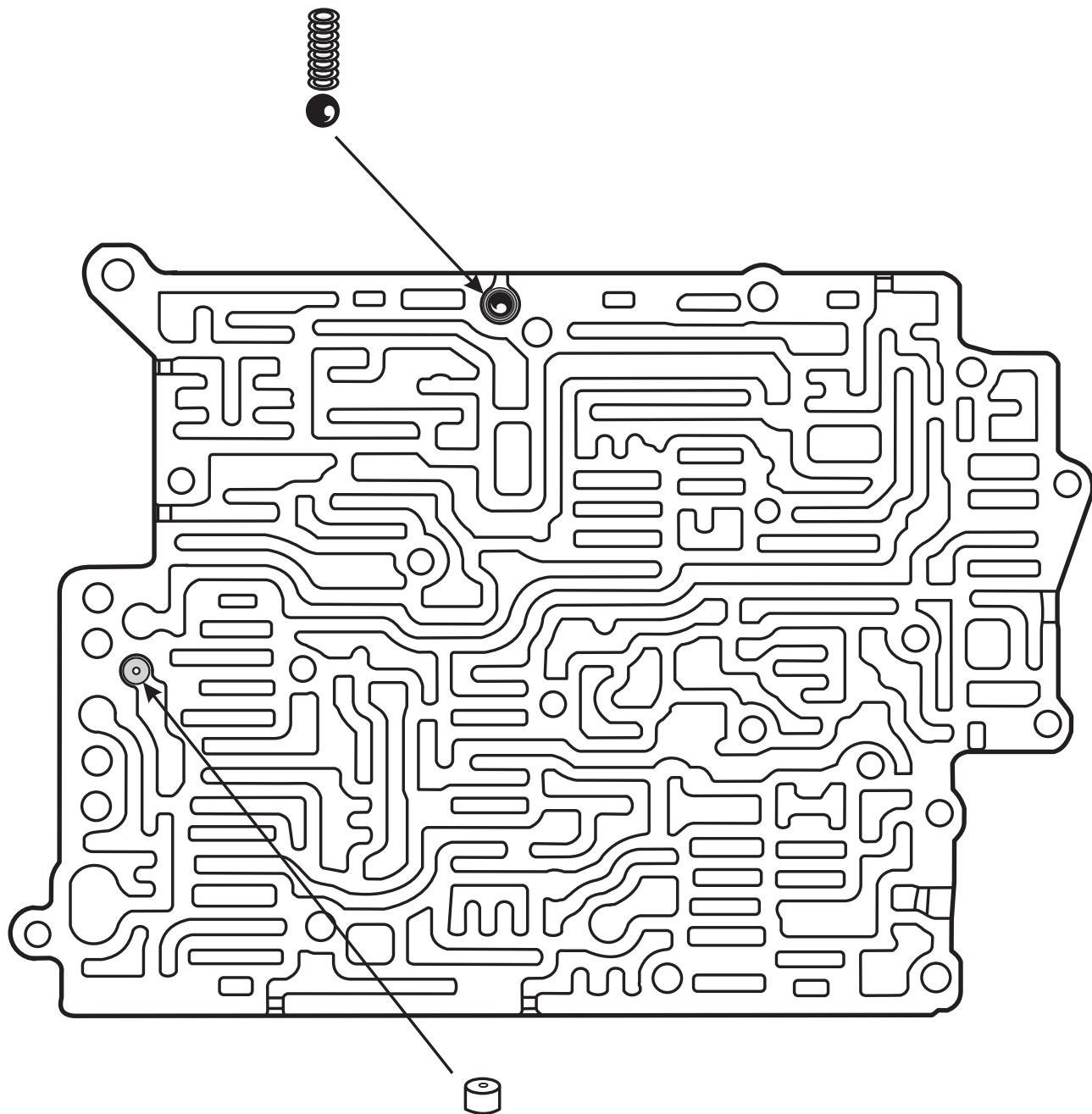
MAZDA G4A-EL
PREMAIN VALVE BODY "COVER SIDE"

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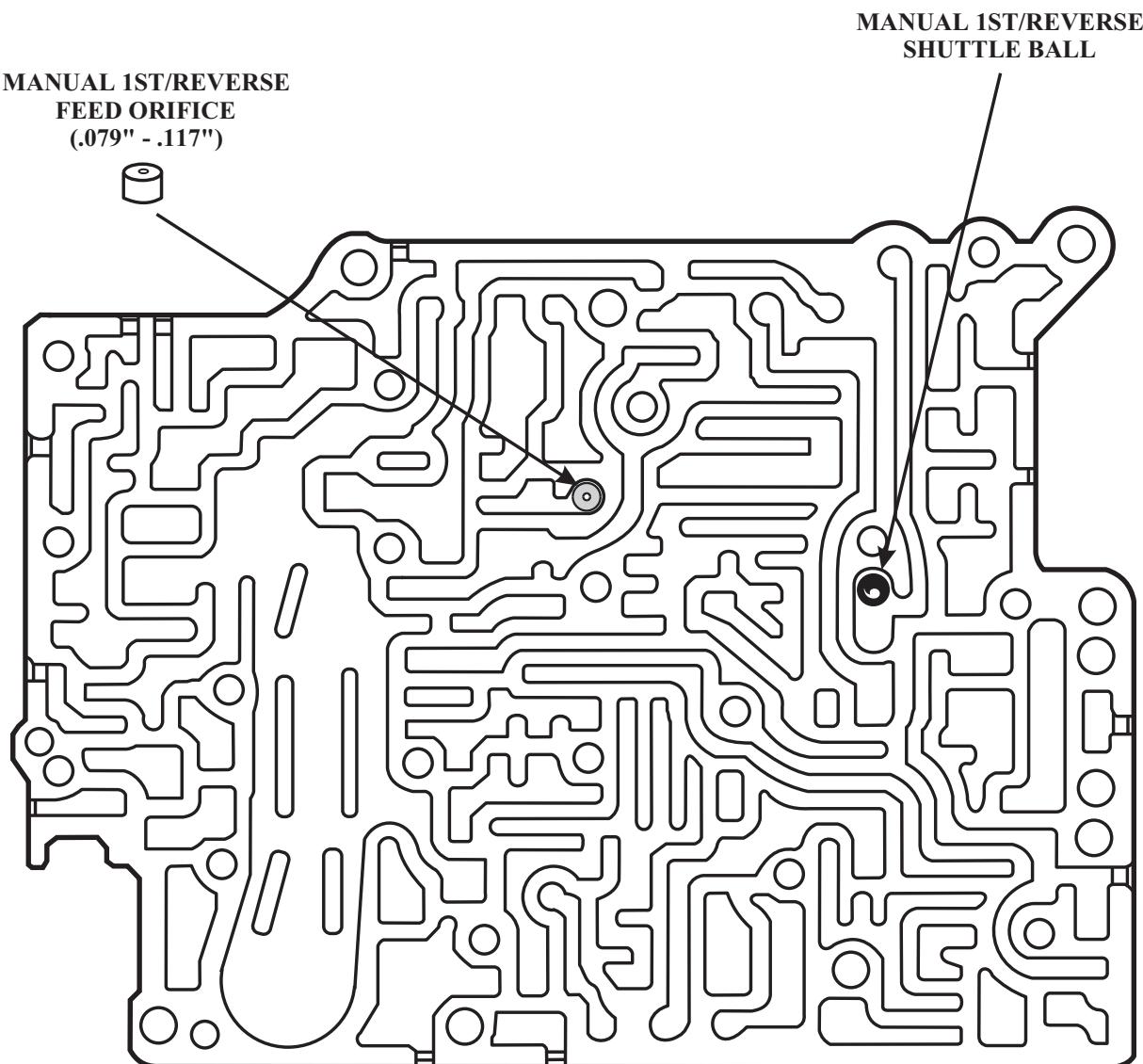
MAZDA G4A-EL
PREMAIN VALVE BODY "MAIN BODY SIDE"

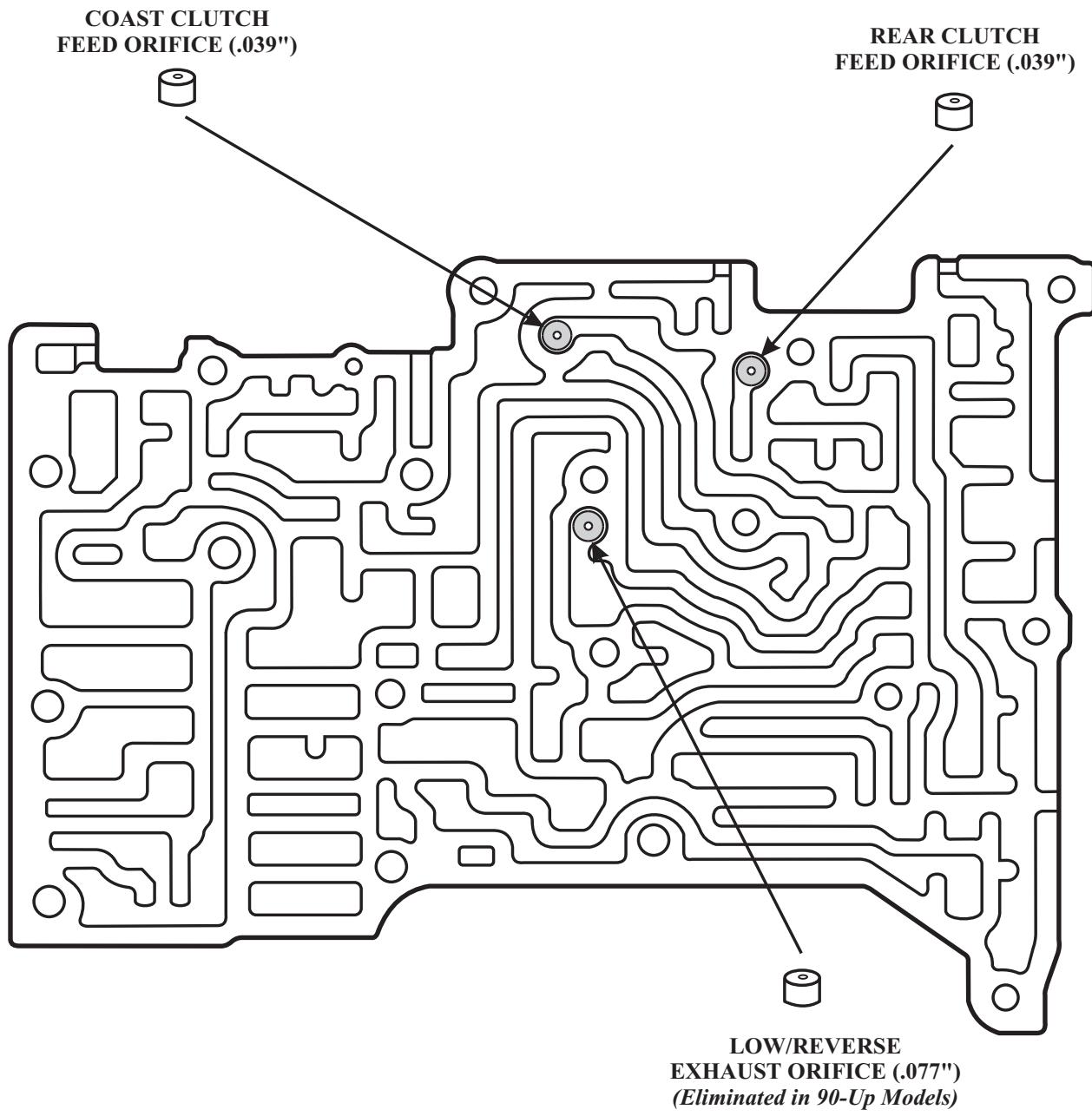
MAZDA G4A-EL
MAIN VALVE BODY "PREMAIN BODY SIDE"

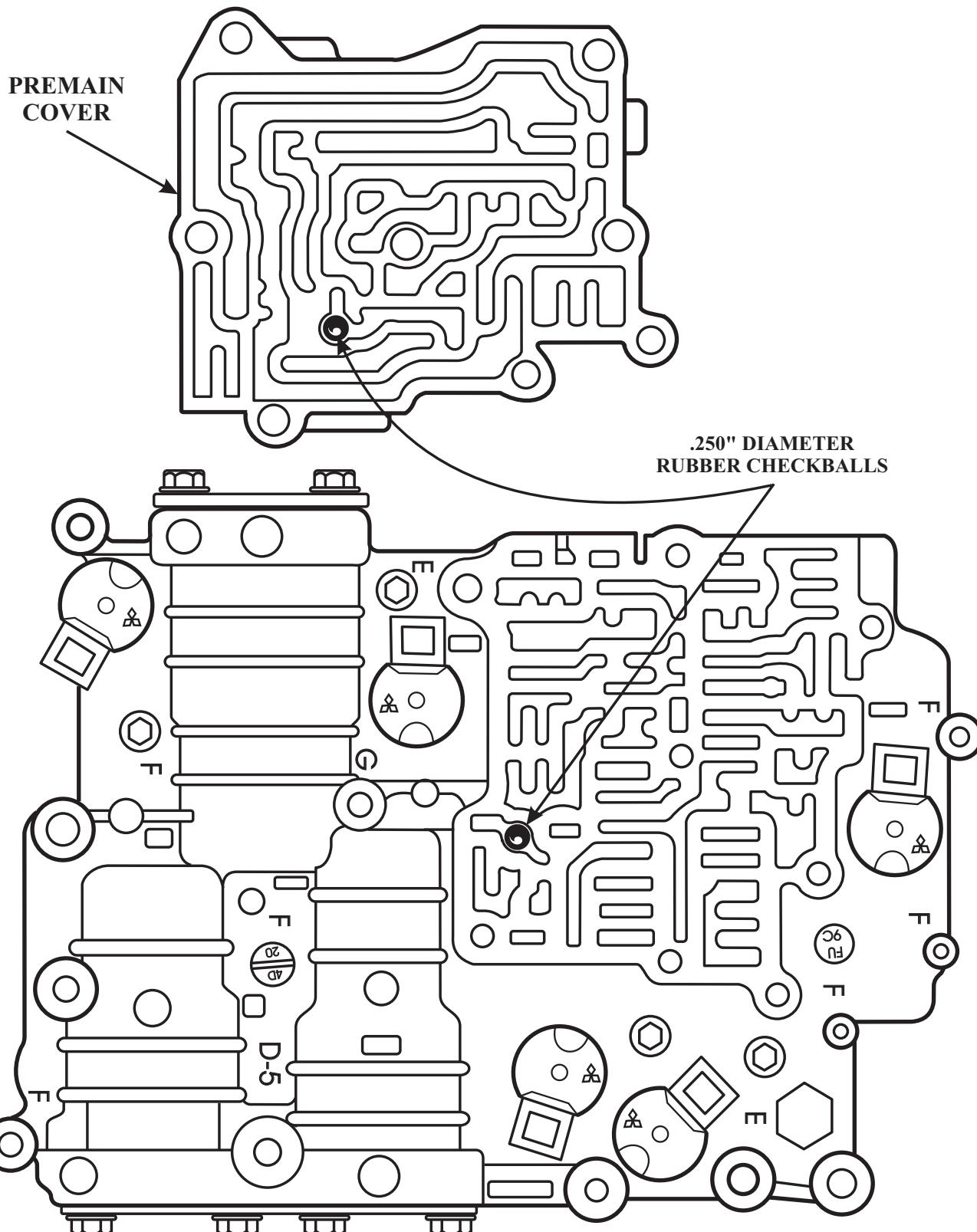
CONVERTER PRESSURE
RELIEF BALL AND SPRING
(Ball Down First)



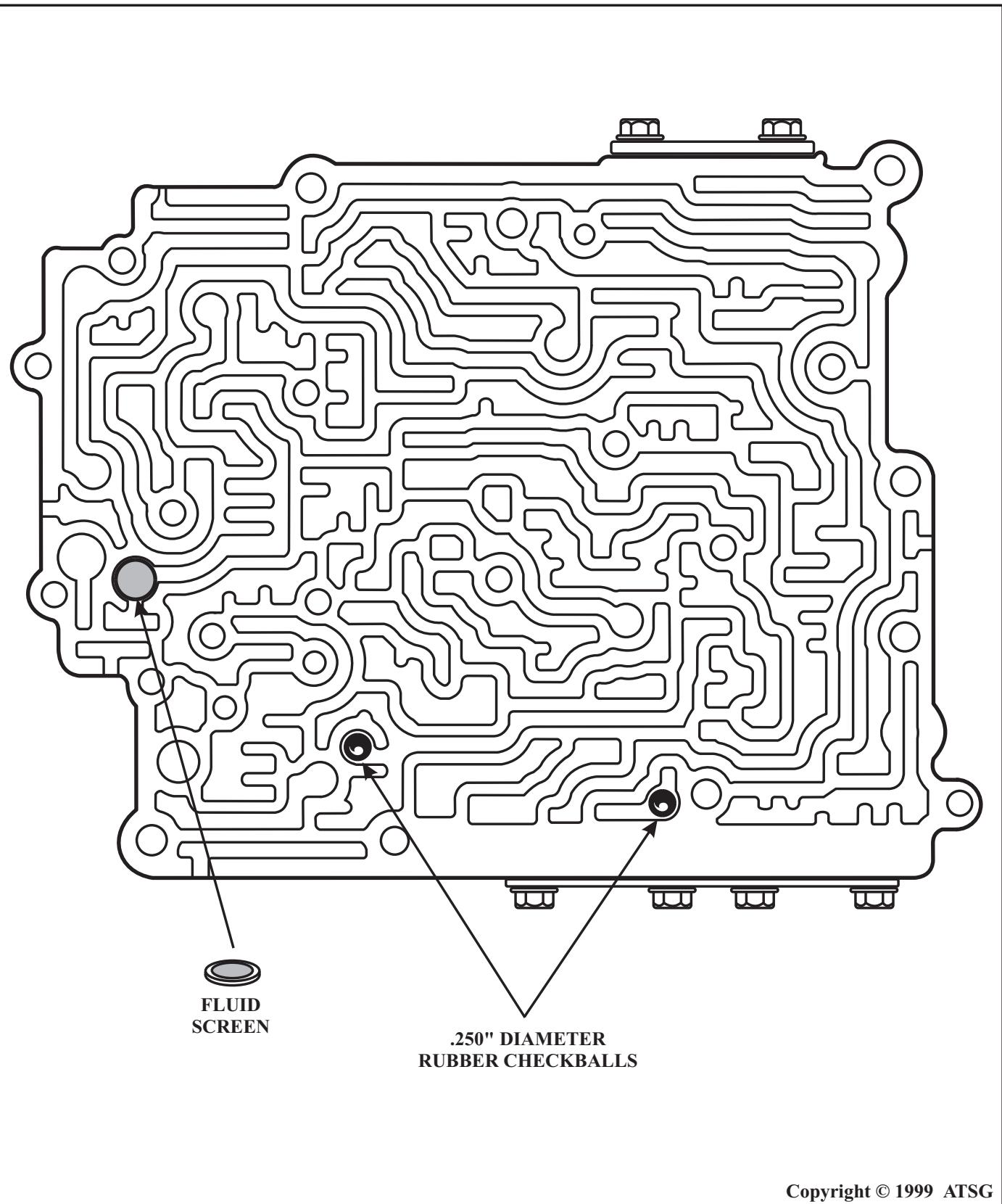
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MAZDA G4A-EL
MAIN VALVE BODY "REAR BODY SIDE"

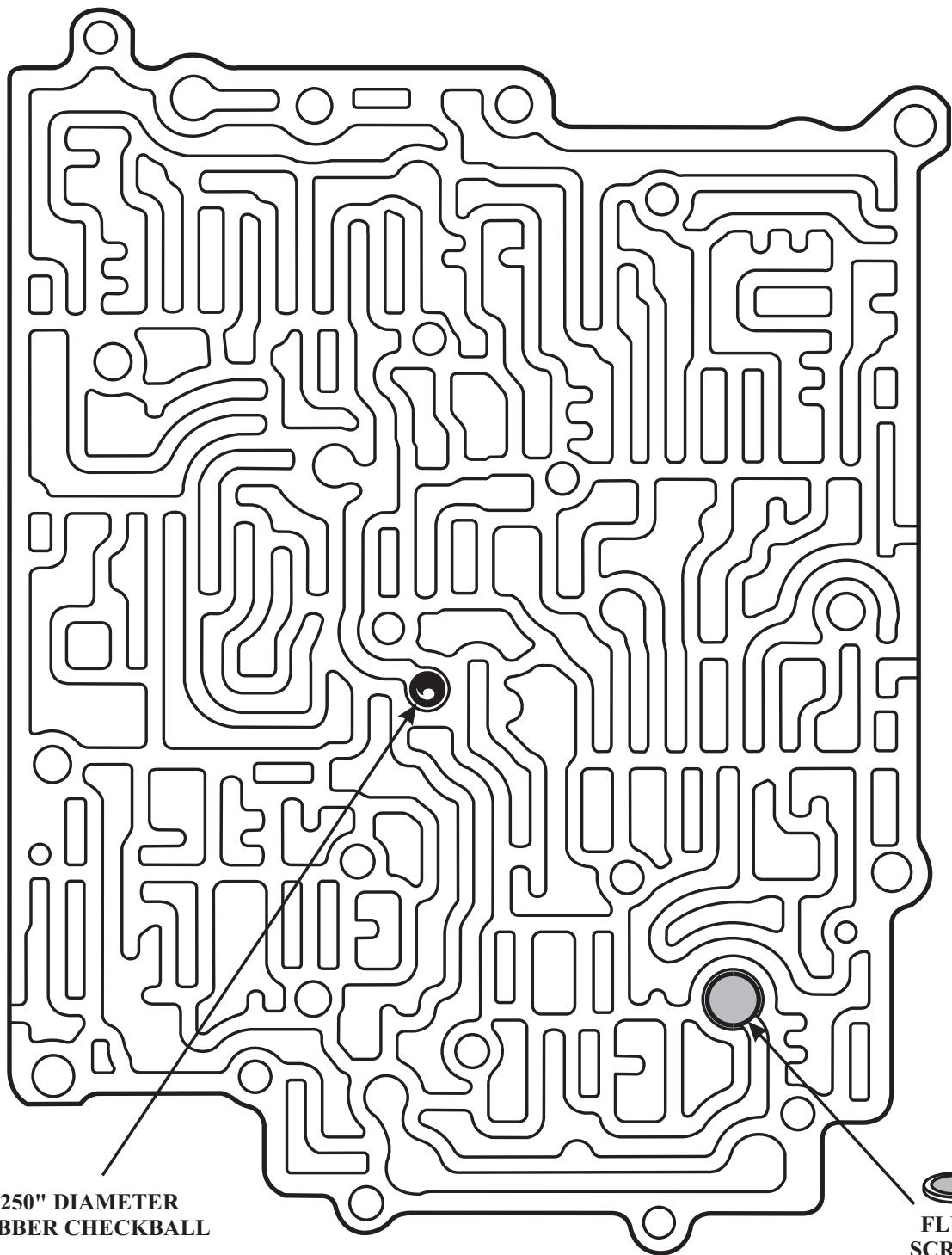
CHECKBALL BOOK
*Import Volume II*MAZDA
G4A-ELMAZDA G4A-EL
REAR VALVE BODY

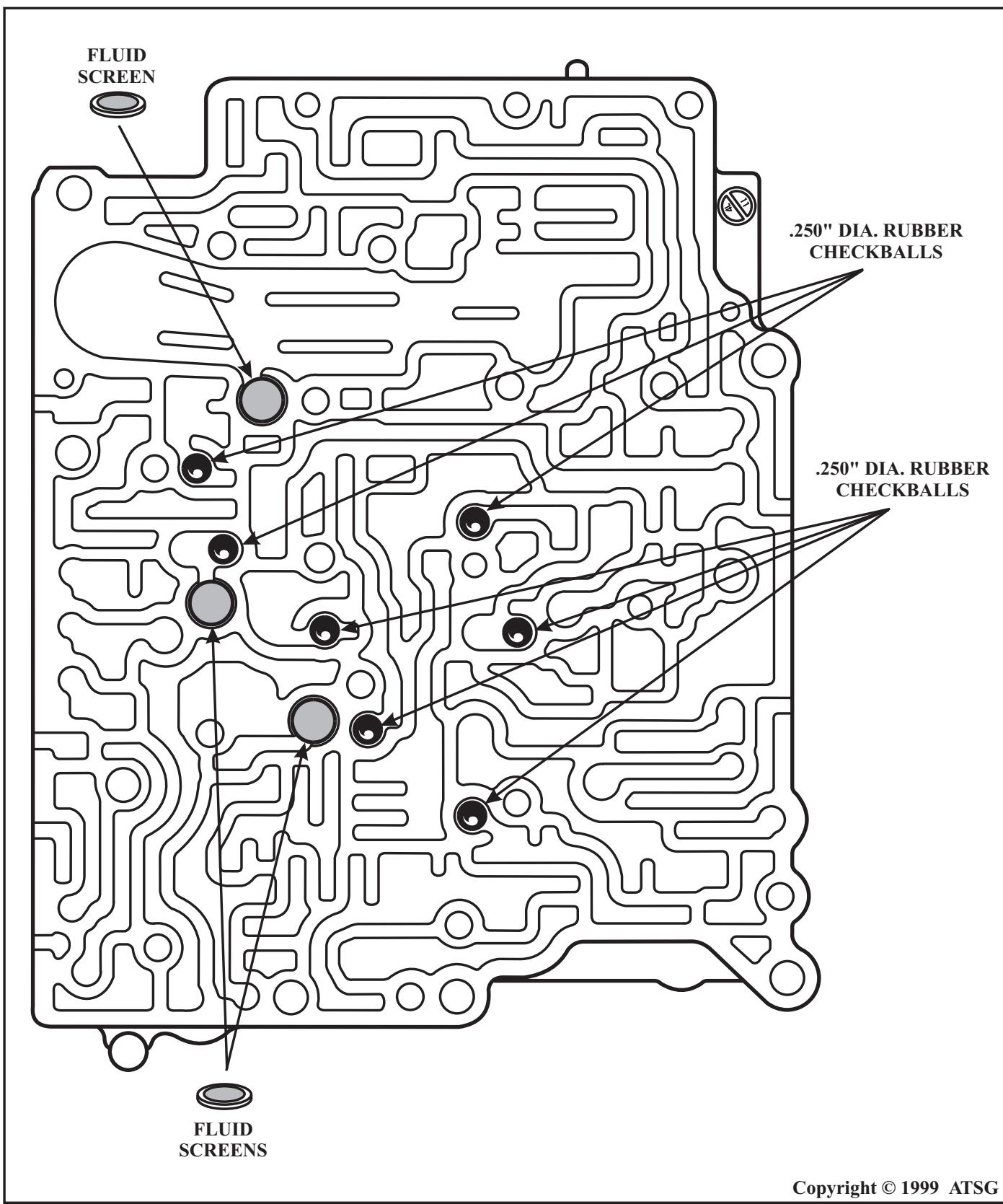
MAZDA GF4A-EL, 7 SOLENOID
PREMAIN VALVE BODY "COVER SIDE", AND COVER

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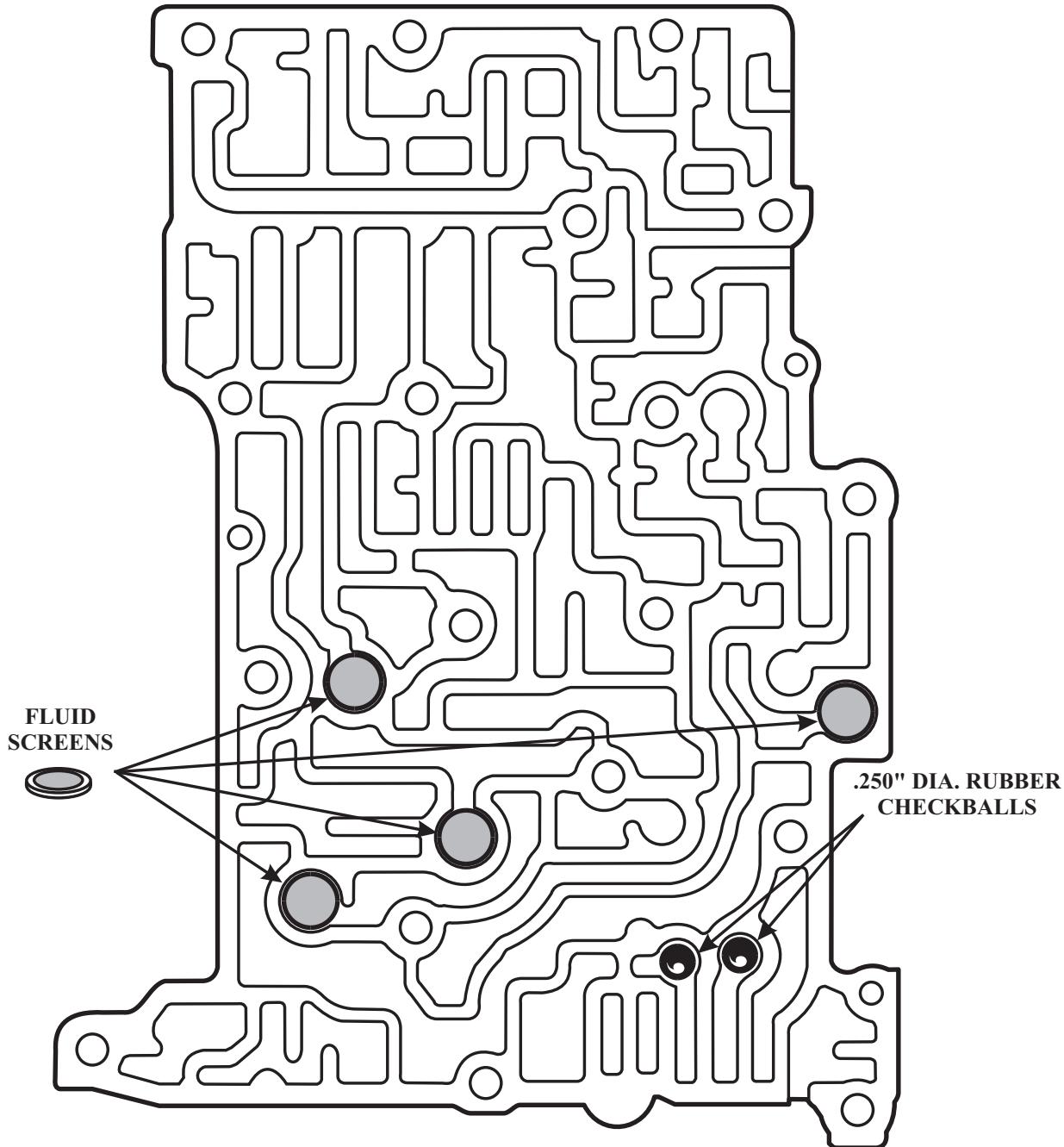
MAZDA GF4A-EL, 7 SOLENOID
PREMAIN VALVE BODY "MAIN BODY SIDE"

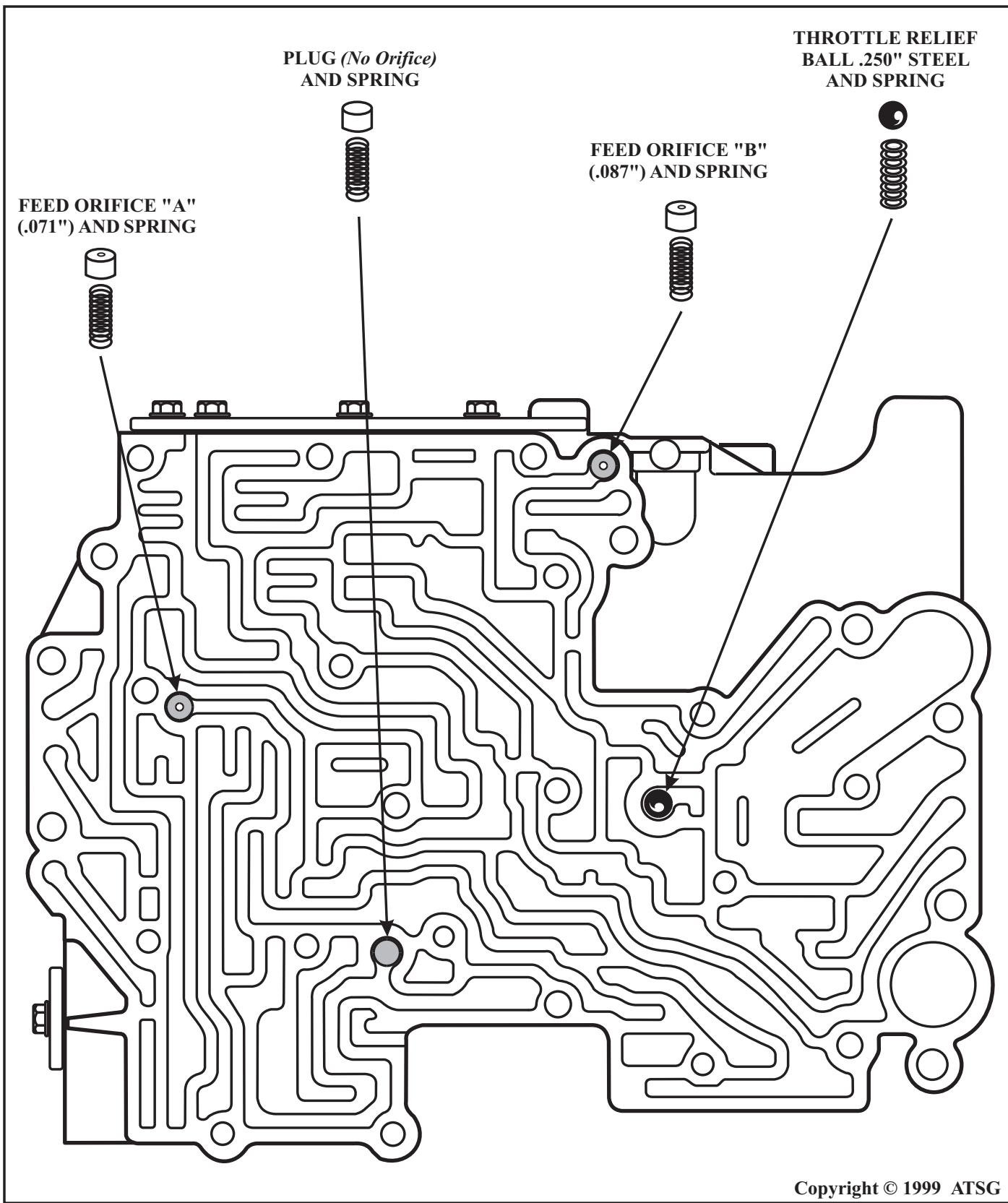
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MAZDA GF4A-EL, 7 SOLENOID
MAIN VALVE BODY "PREMAIN BODY SIDE"

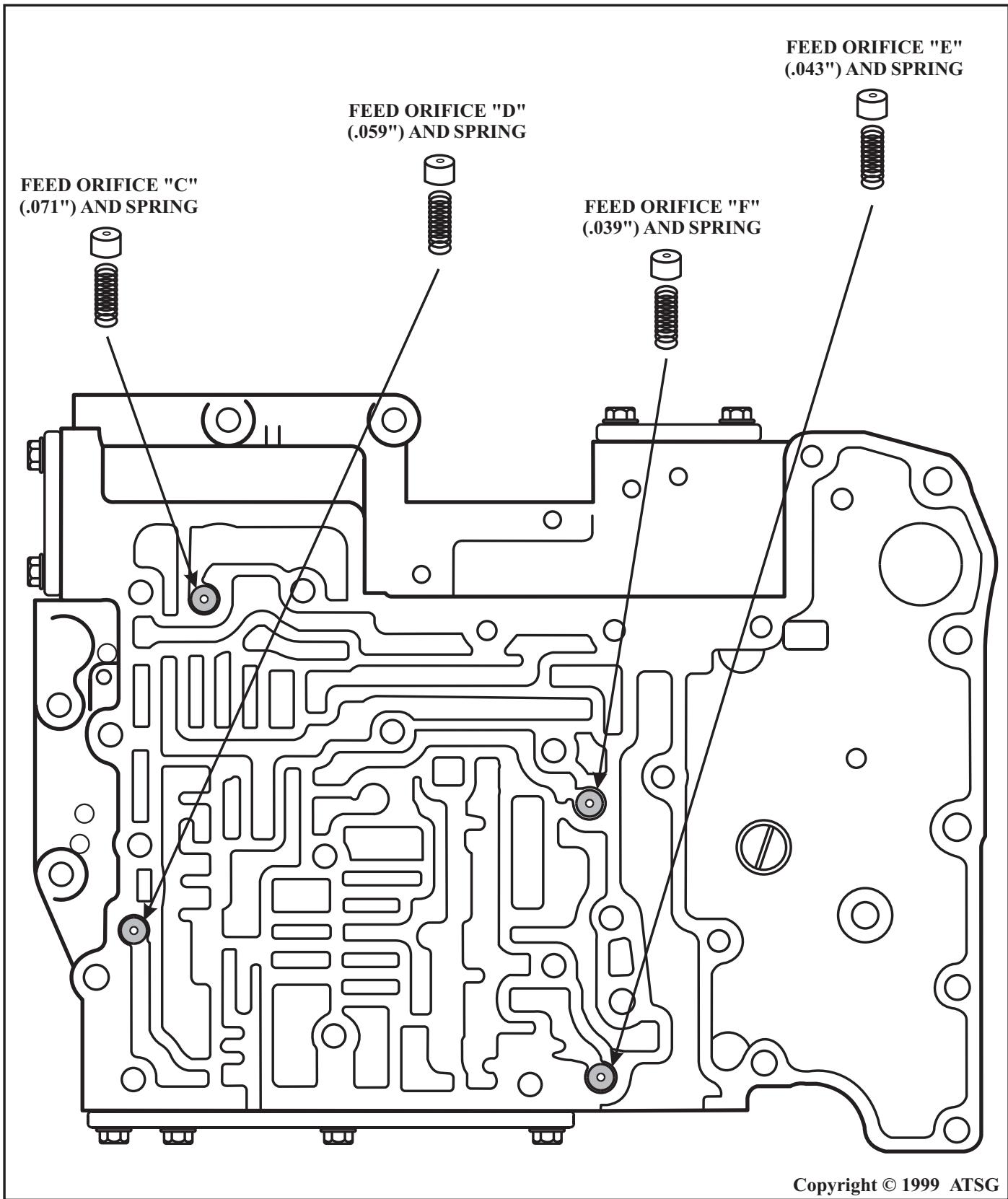
MAZDA GF4A-EL, 7 SOLENOID
MAIN VALVE BODY "REAR BODY SIDE"

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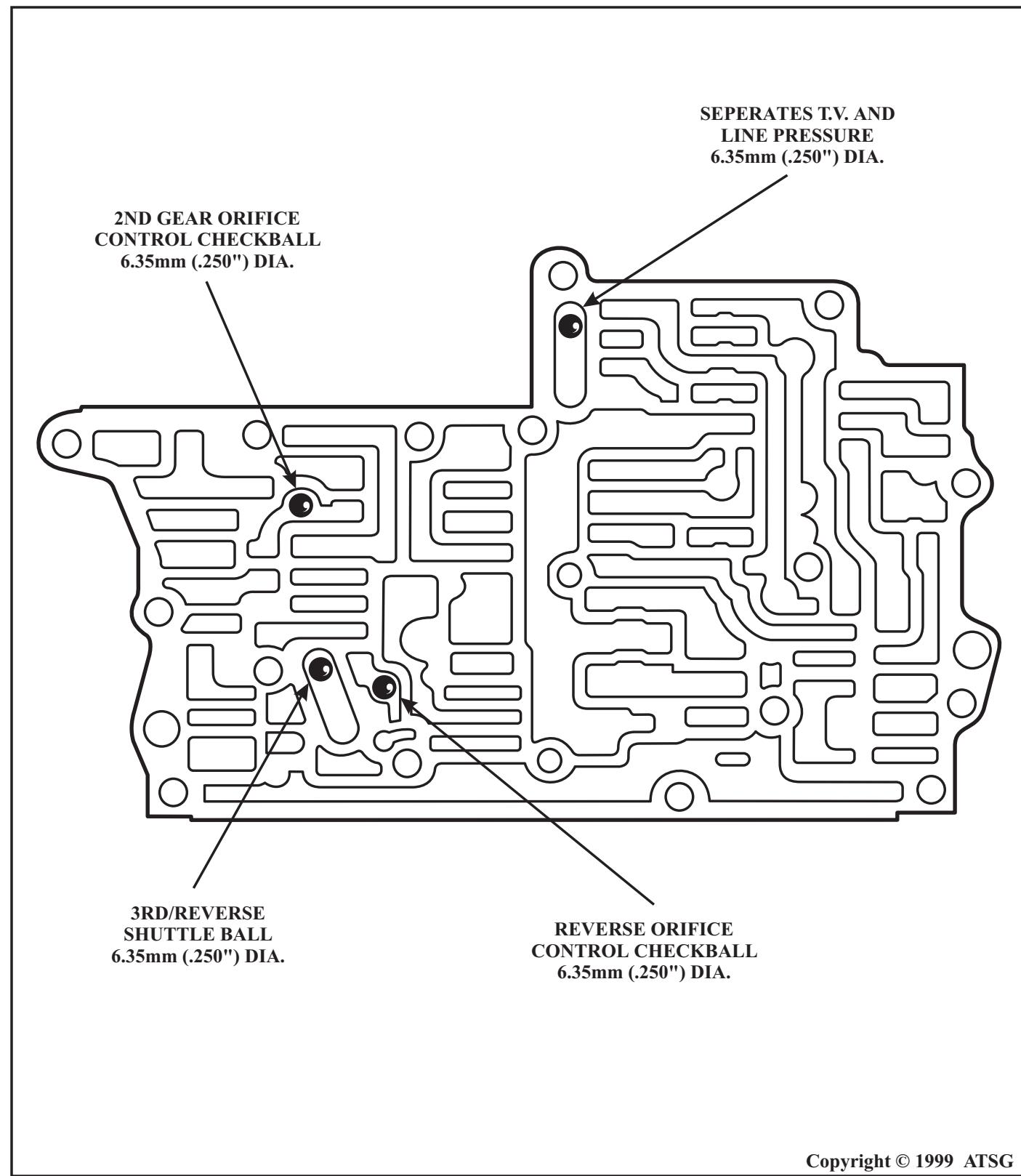
MAZDA GF4A-EL, 7 SOLENOID
REAR VALVE BODY "MAIN BODY SIDE"

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

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MAZDA N4A-EL
LOWER VALVE BODY "COVER SIDE"

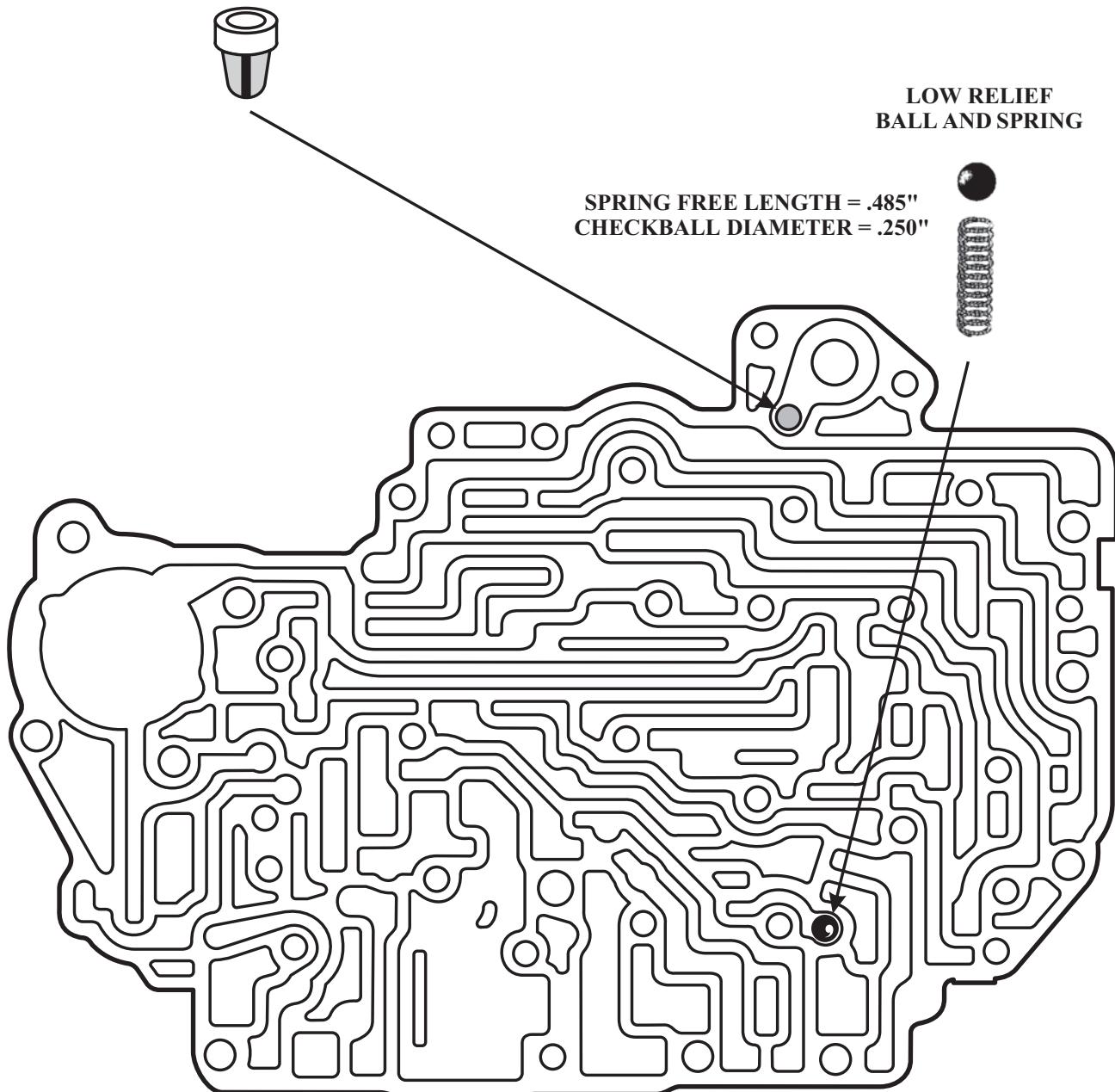
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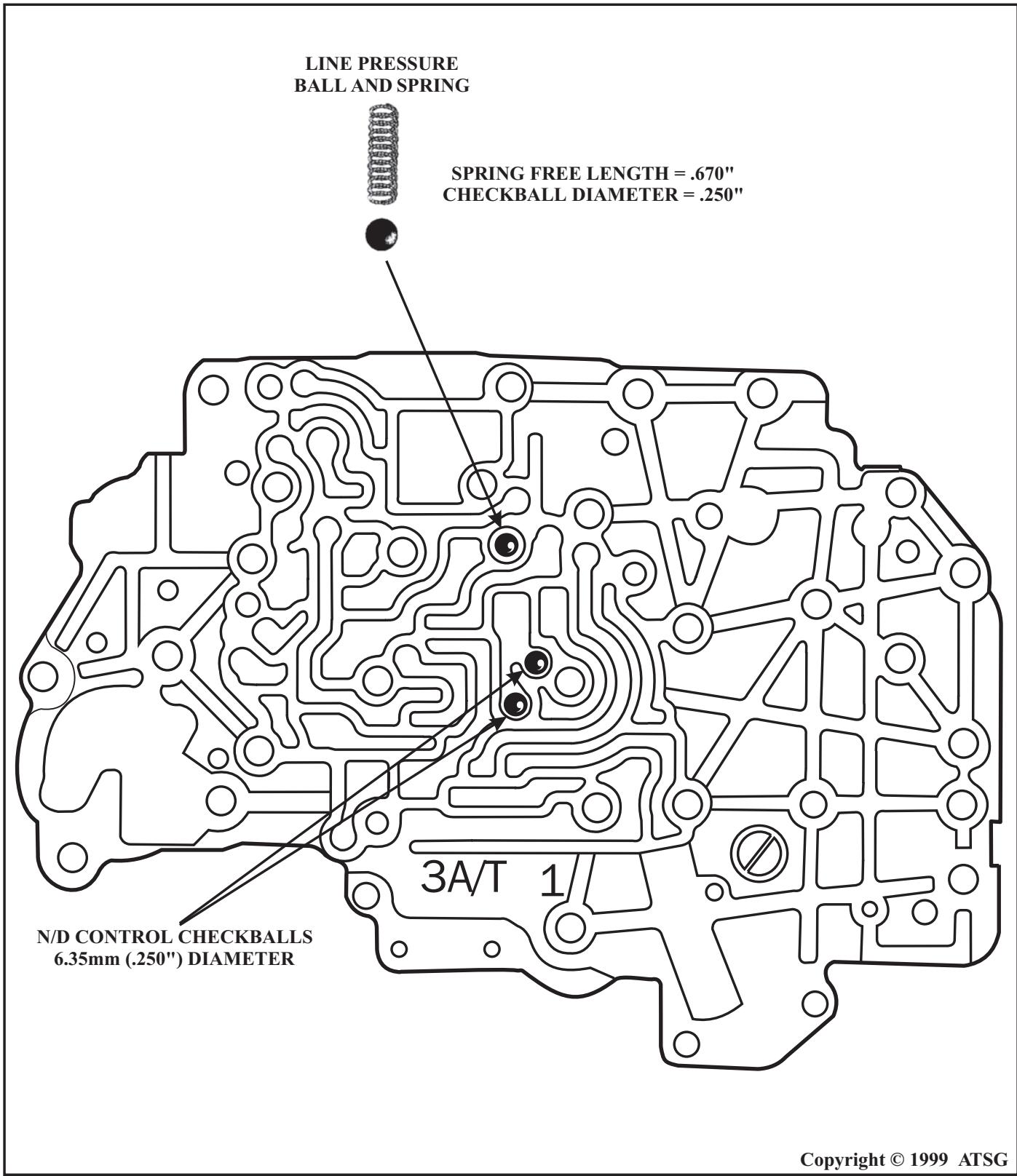
MITSUBISHI KM171
"UPPER" VALVE BODY CHECKBALL LOCATIONS

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MITSUBISHI KM171
INTERMEDIATE PLATE "UPPER" VALVE BODY SIDE
CHECKBALL LOCATIONS

SOLENOID
FILTER
Lock-Up Models Only



MITSUBISHI KM171
INTERMEDIATE PLATE "LOWER" VALVE BODY SIDE
CHECKBALL LOCATIONS

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CHECKBALL BOOK

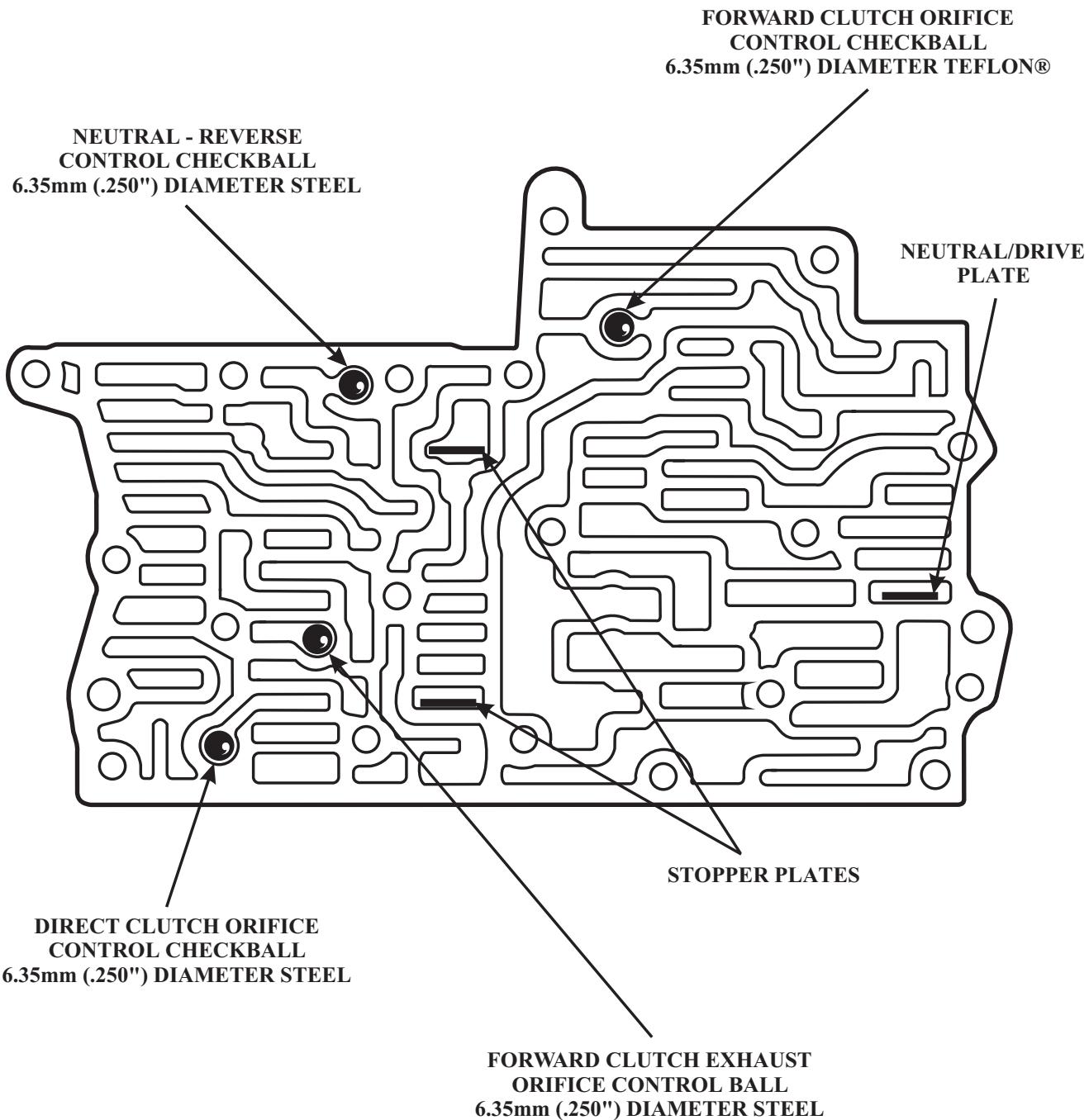
Import Volume II

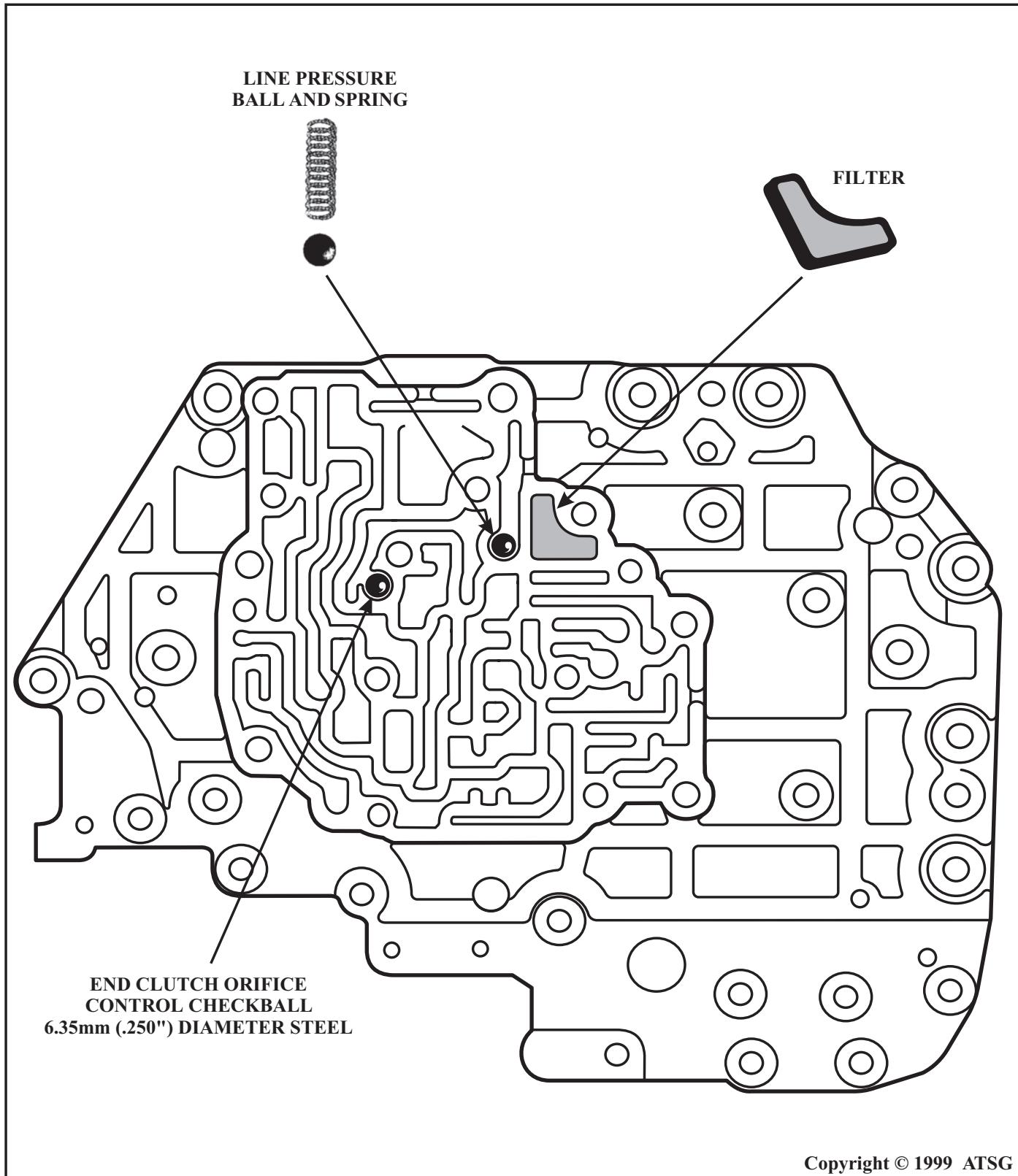
We wish to thank the following for supplying the actual valve bodies that have made these illustrations possible.



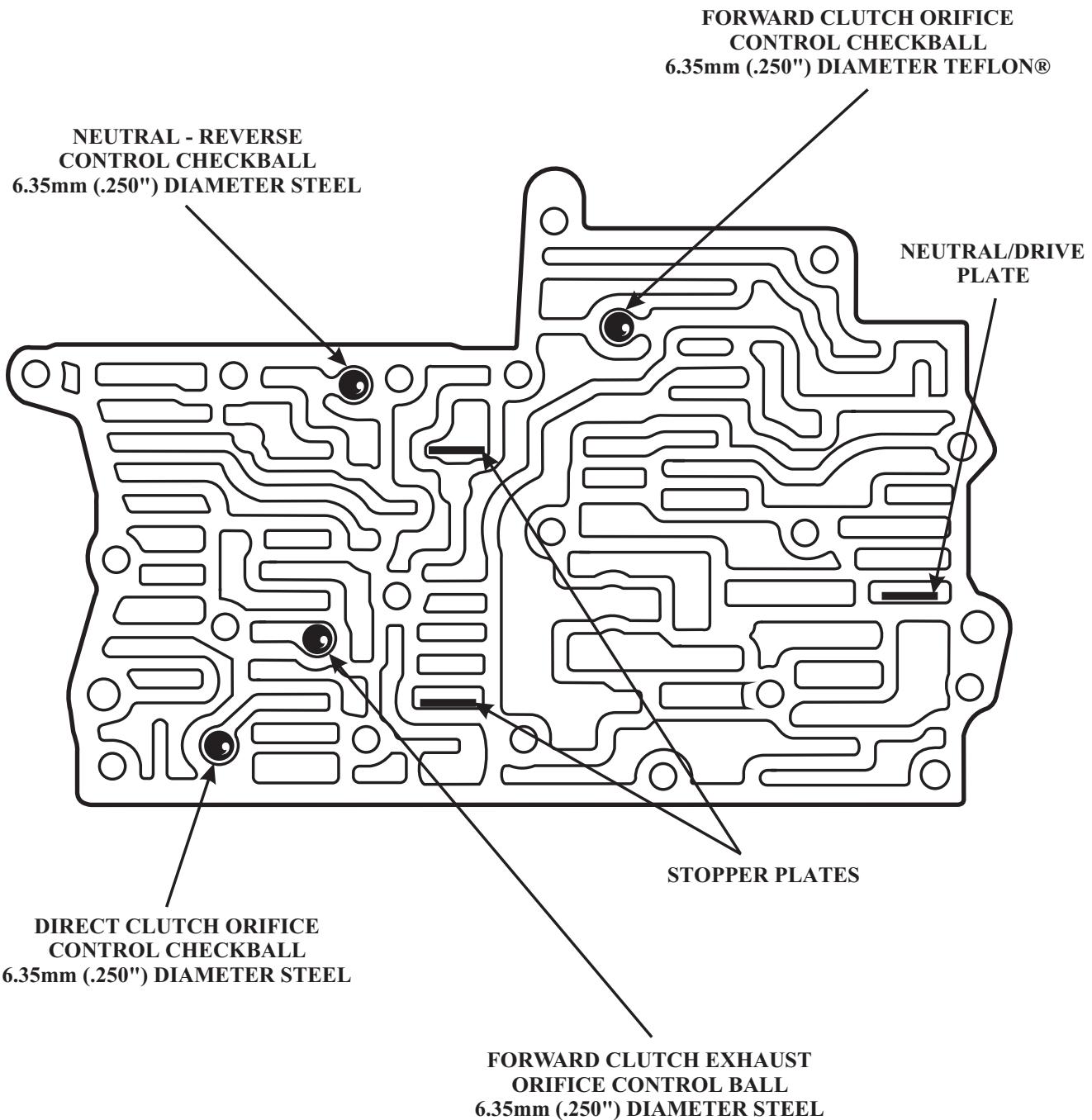
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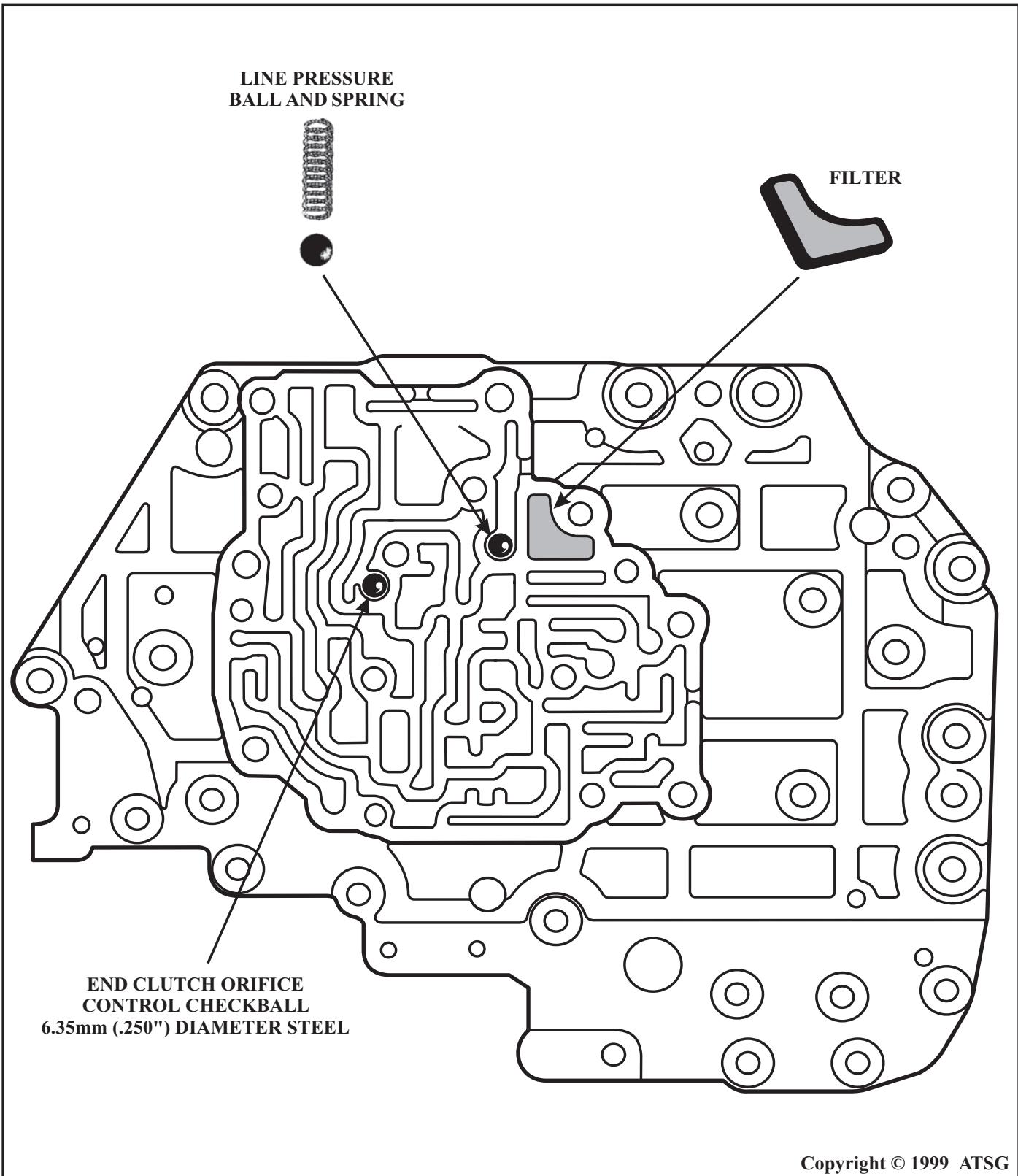
MITSUBISHI KM175, KM176, KM177
"UPPER" VALVE BODY CHECKBALL LOCATIONS

MITSUBISHI KM175, KM176, KM177
INTERMEDIATE PLATE "LOWER" VALVE BODY SIDE
CHECKBALL LOCATIONS

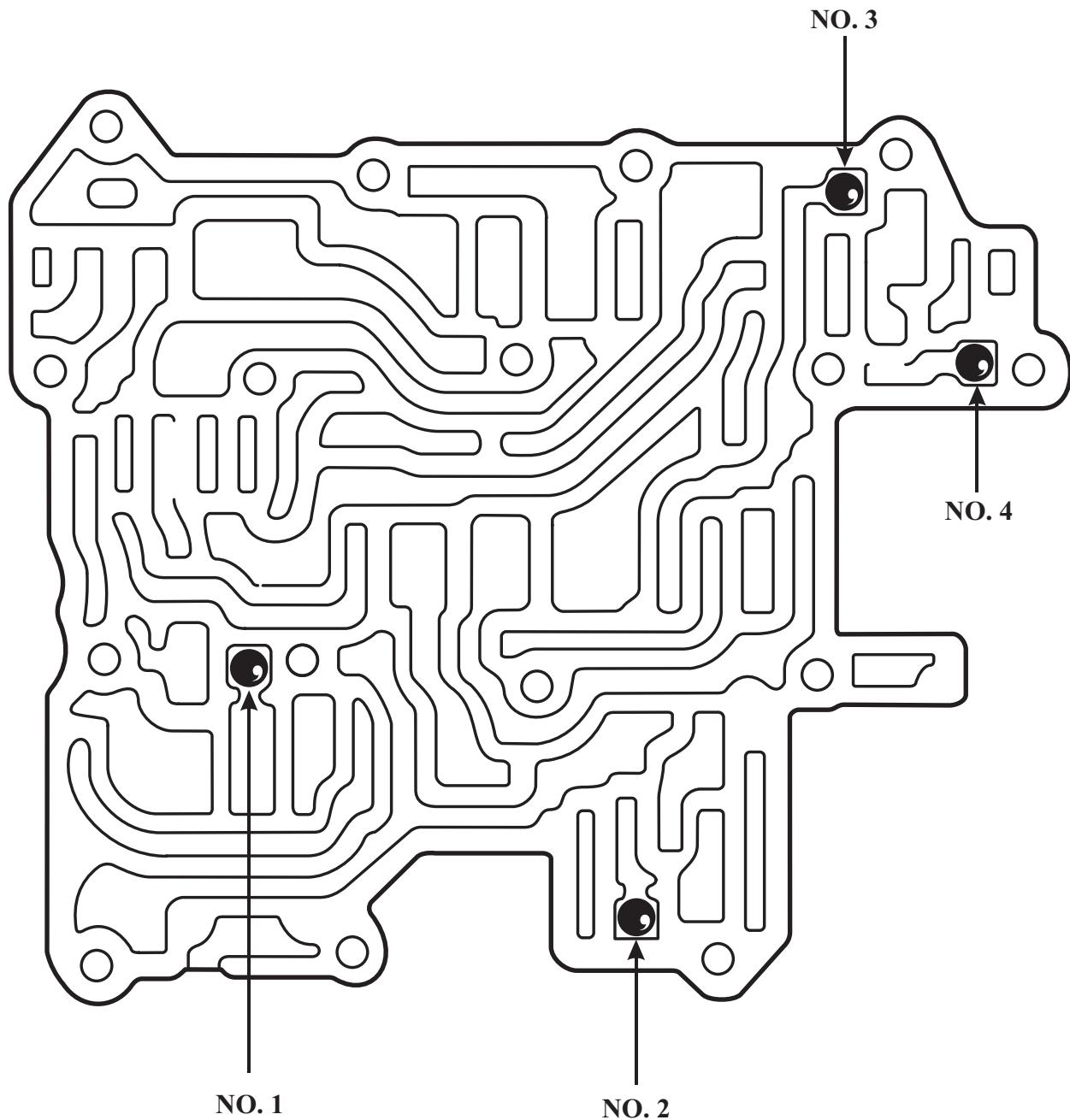
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MITSUBISHI F4A3, W4A3
"UPPER" VALVE BODY CHECKBALL LOCATIONS

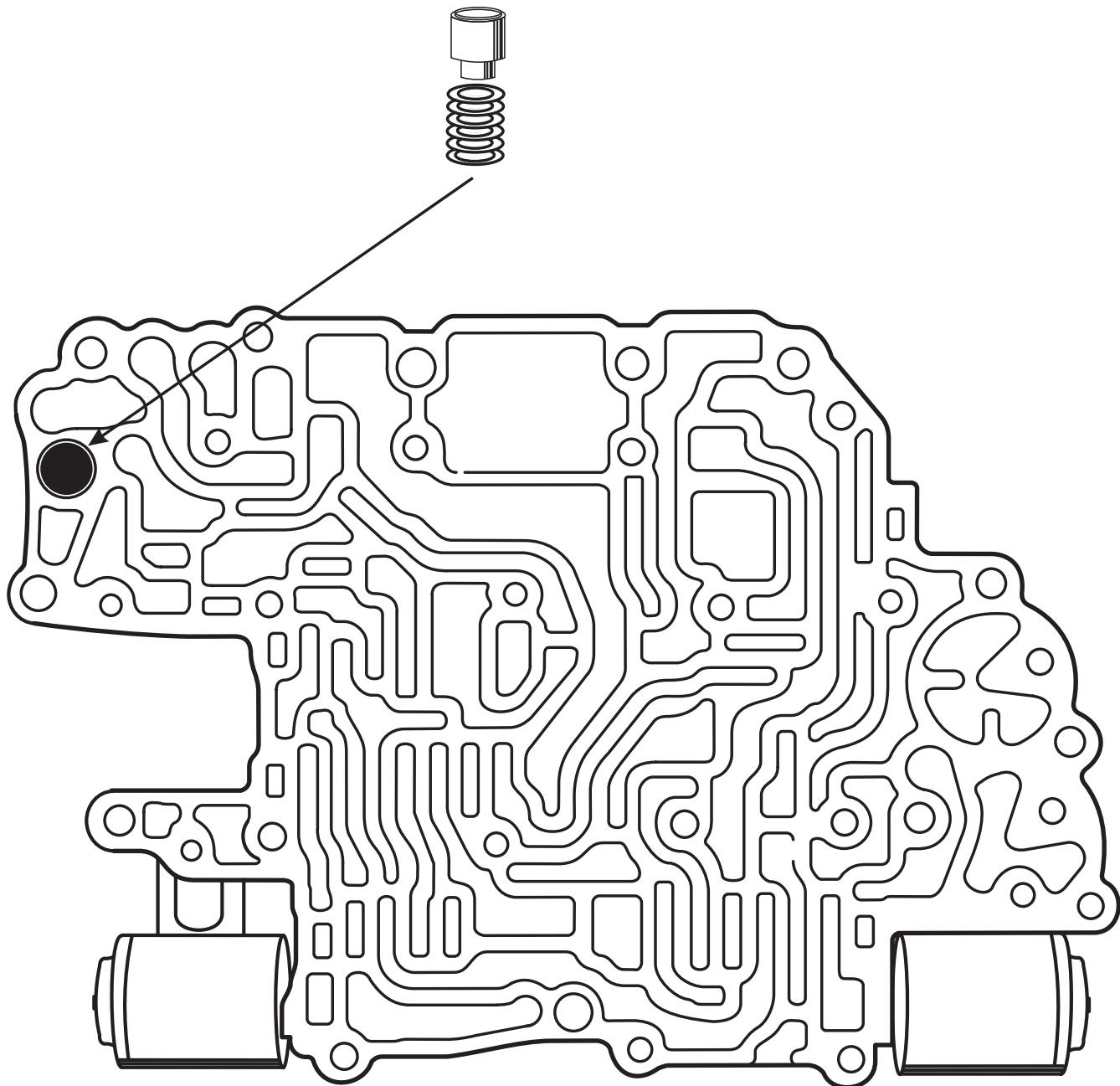
MITSUBISHI F4A3, W4A3
INTERMEDIATE PLATE "LOWER" VALVE BODY SIDE
CHECKBALL LOCATIONS

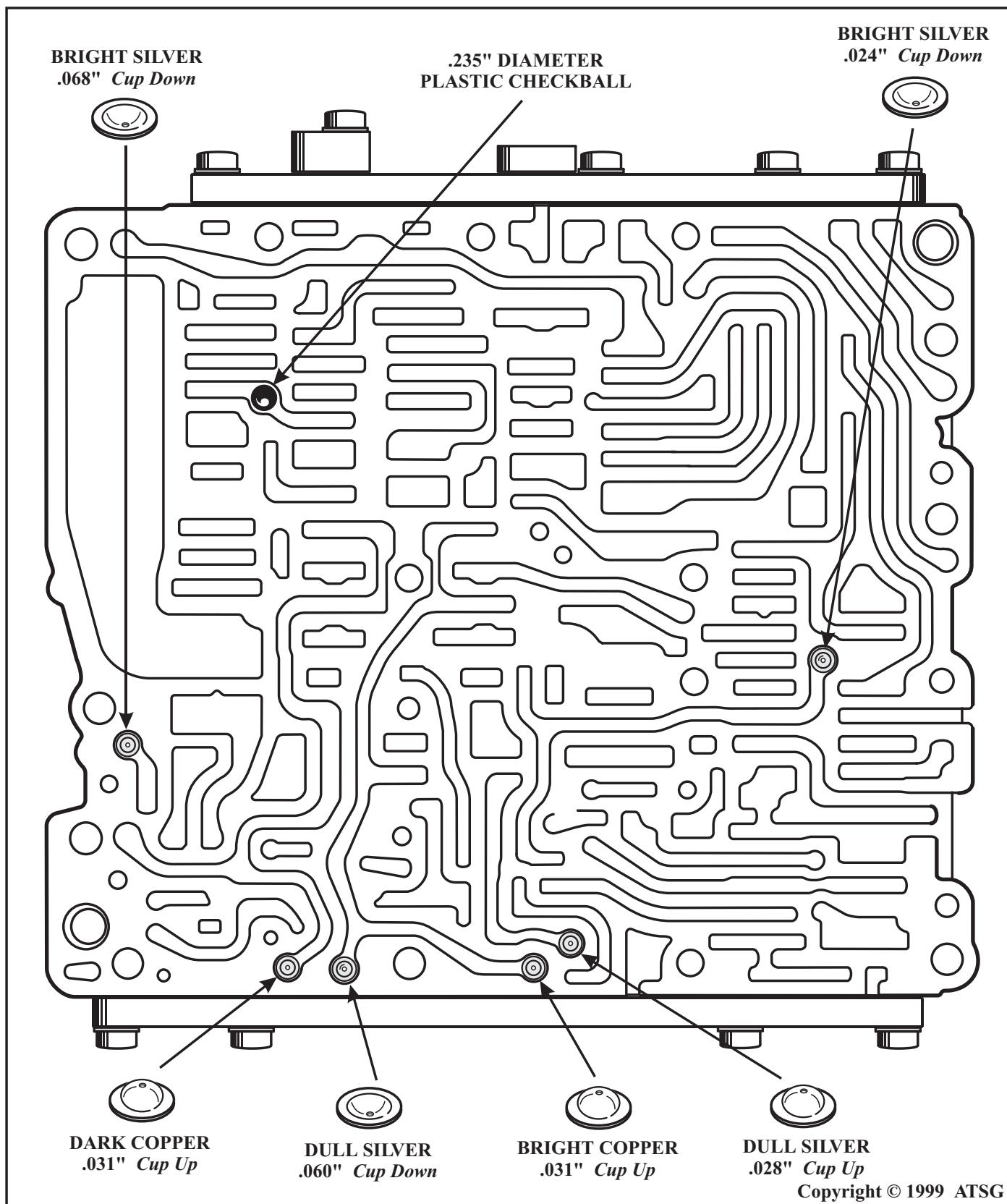


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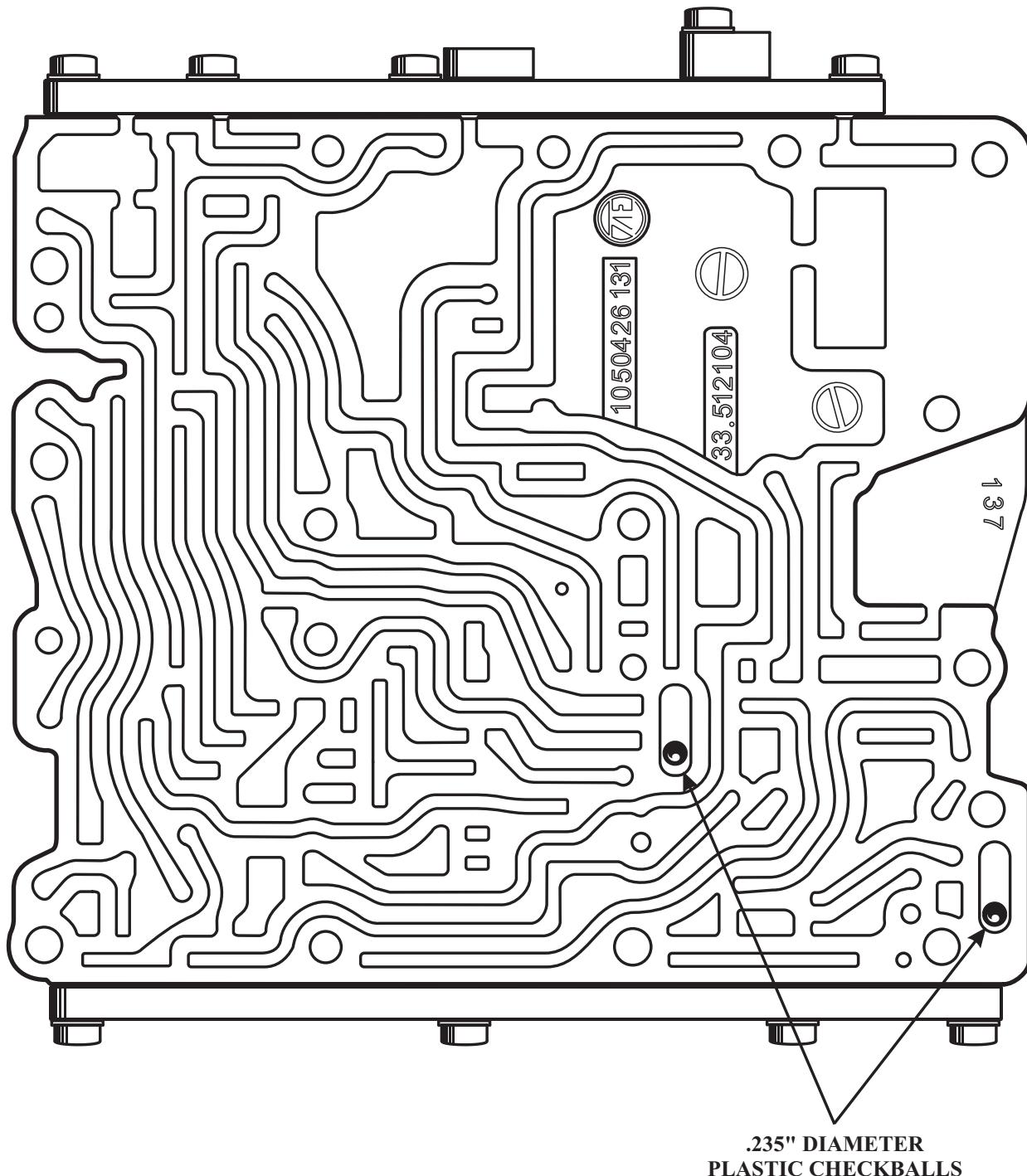
**MX17 SPRINT, SUZUKI & GEO
"UPPER" VALVE BODY
CHECKBALL LOCATIONS**

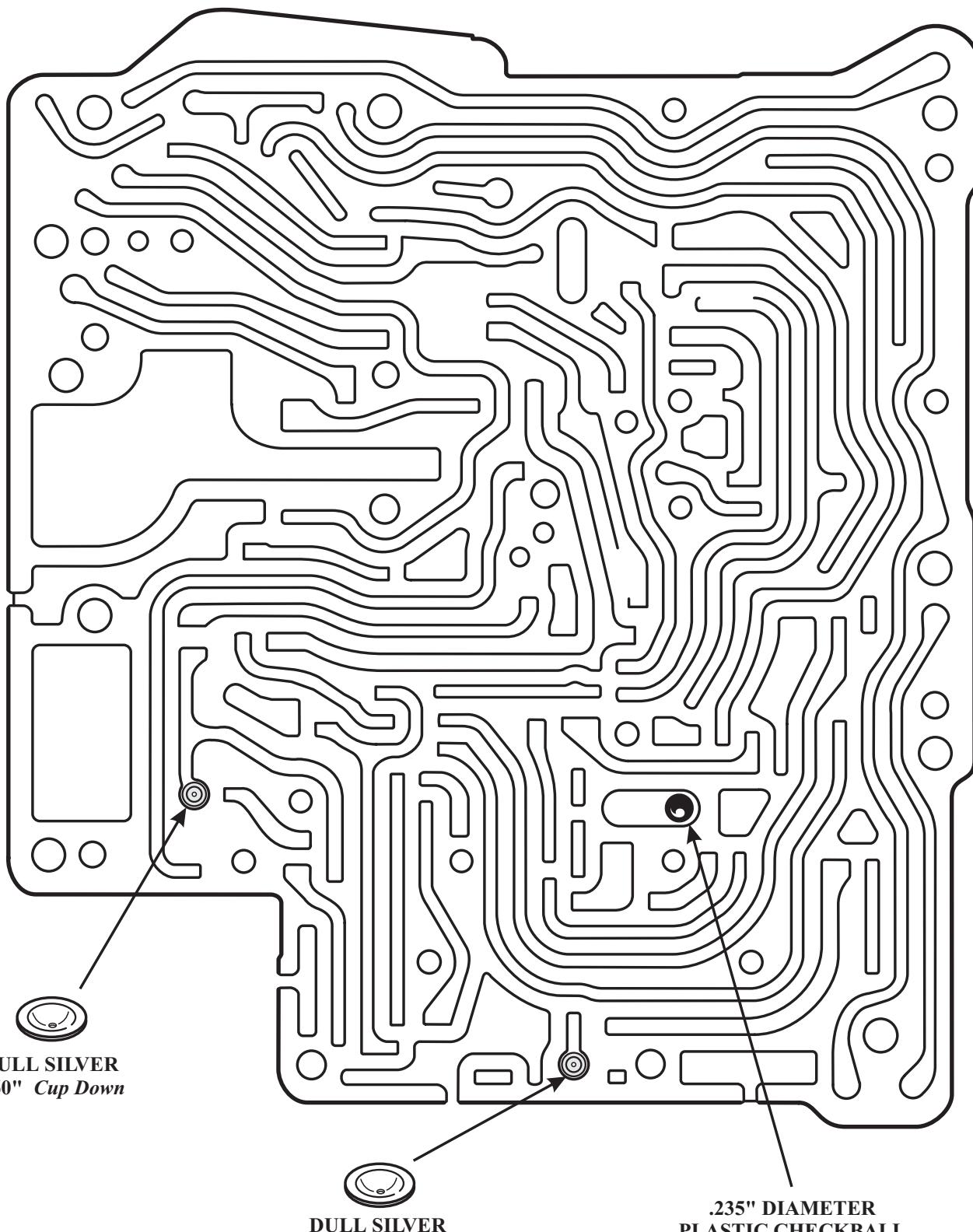
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MX17 SPRINT, SUZUKI & GEO
"LOWER" VALVE BODY
BY-PASS VALVE LOCATIONCOOLER BY-PASS
VALVE AND SPRING

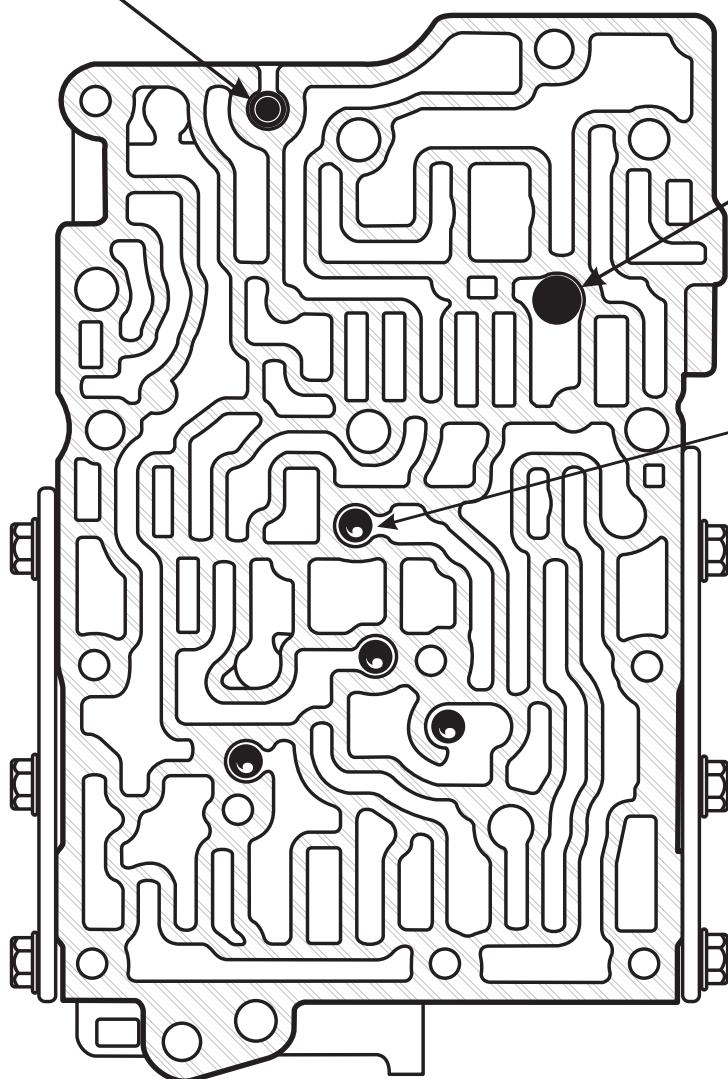
SAAB HYDRAULIC ZF4HP-18
MAIN VALVE BODY "TRANSFER PLATE SIDE"

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

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

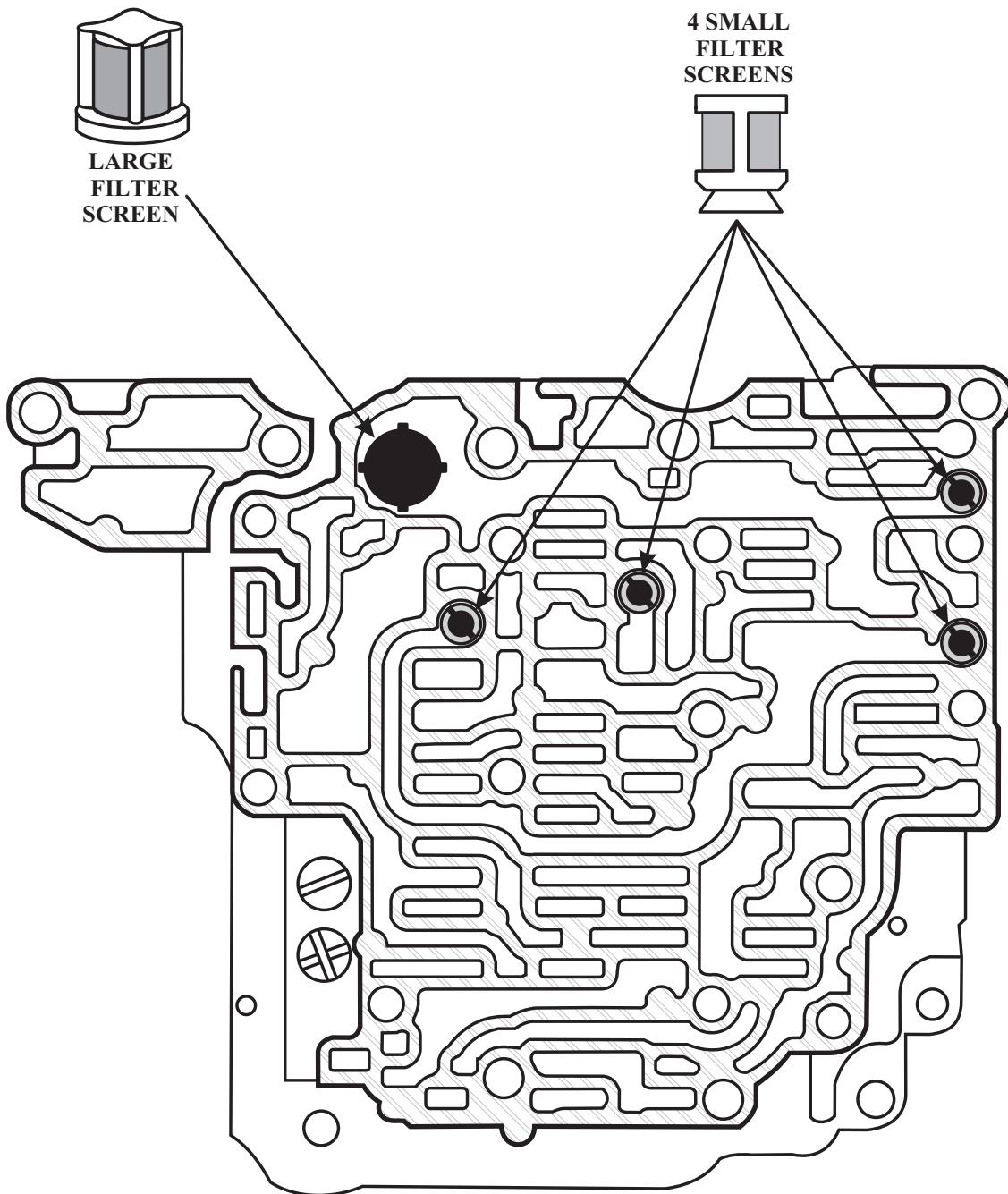
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VOLVO/Saab AW50-42LE
"REAR" VALVE BODYPRESSURE RELIEF
VALVE AND SPRINGCHECK VALVE
AND SPRING

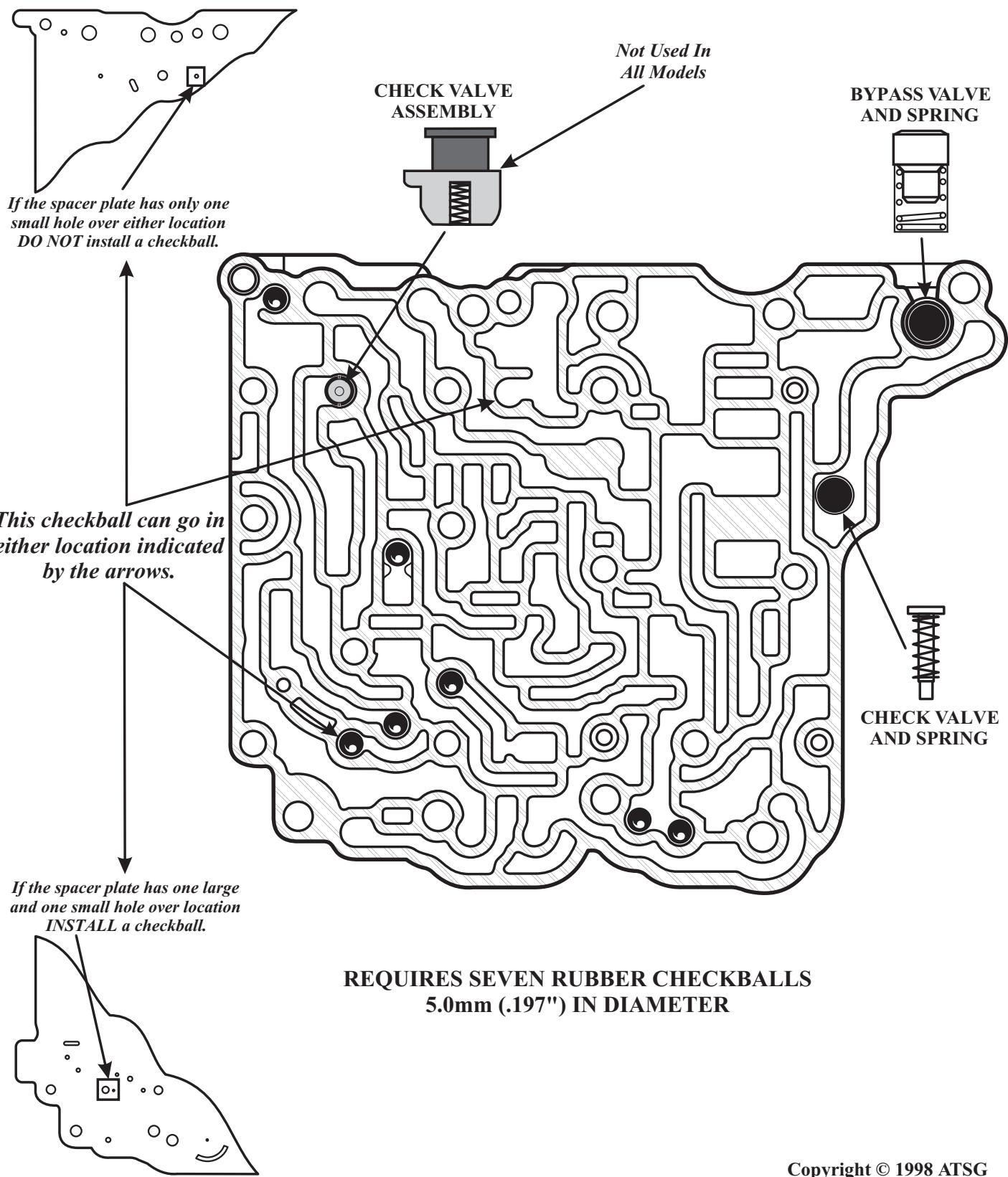
*Not Used In Mid 1995
And Later Models*

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

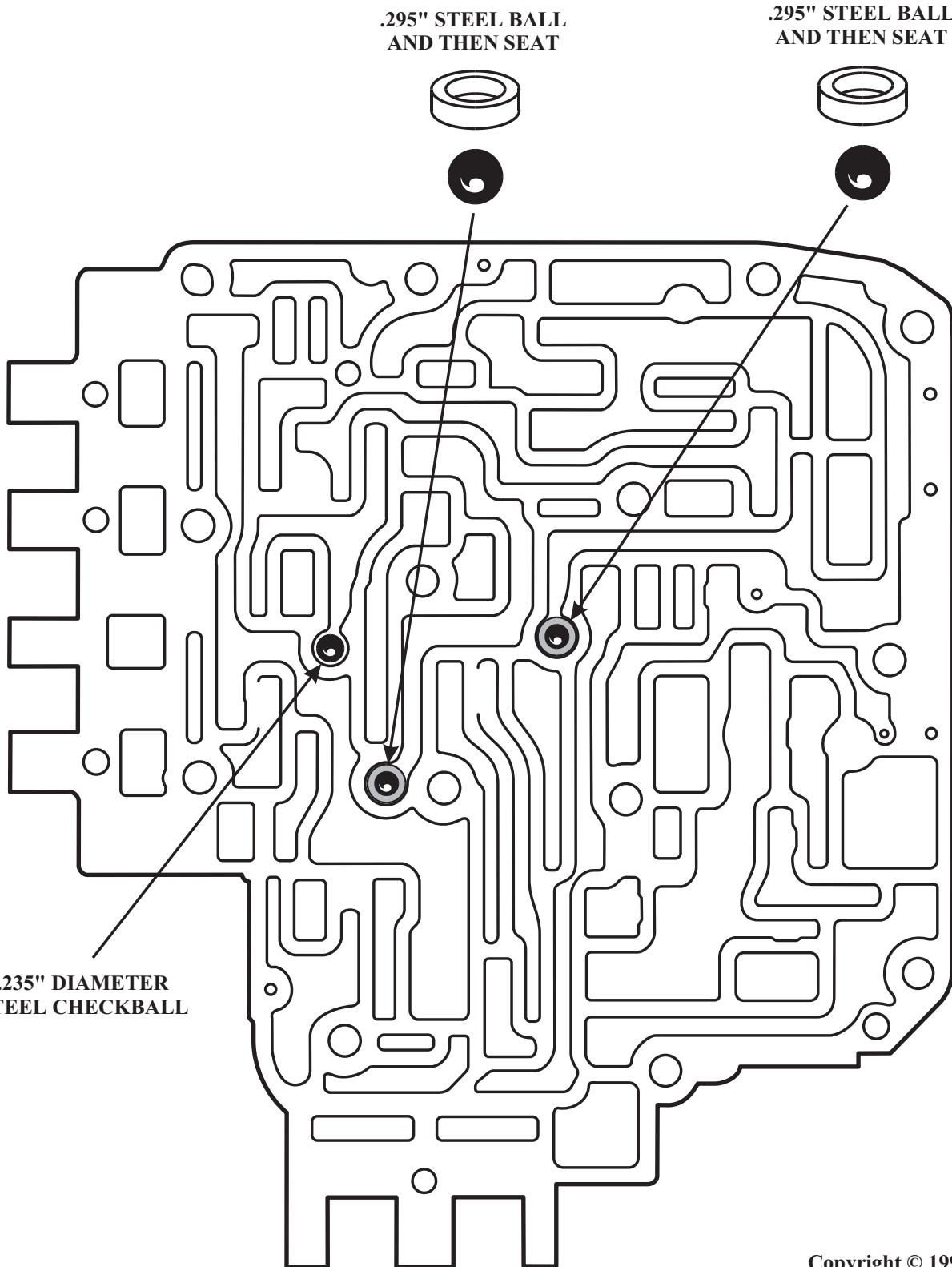
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VOLVO/Saab AW50-42LE
"CENTER" VALVE BODY, "FRONT" SIDE

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

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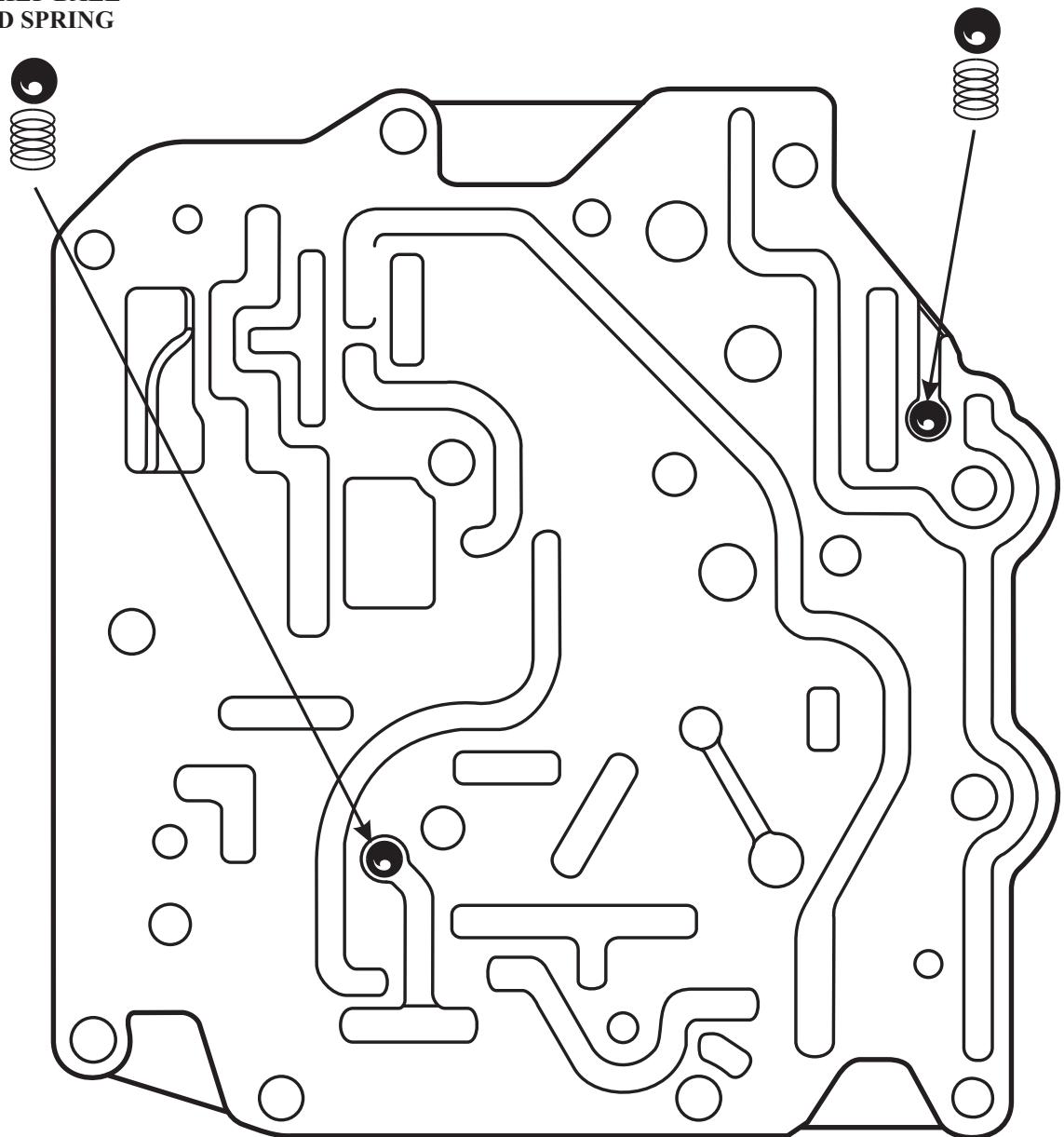
VOLKSWAGON PASSAT 096-097
MAIN VALVE BODY "CASE SIDE"

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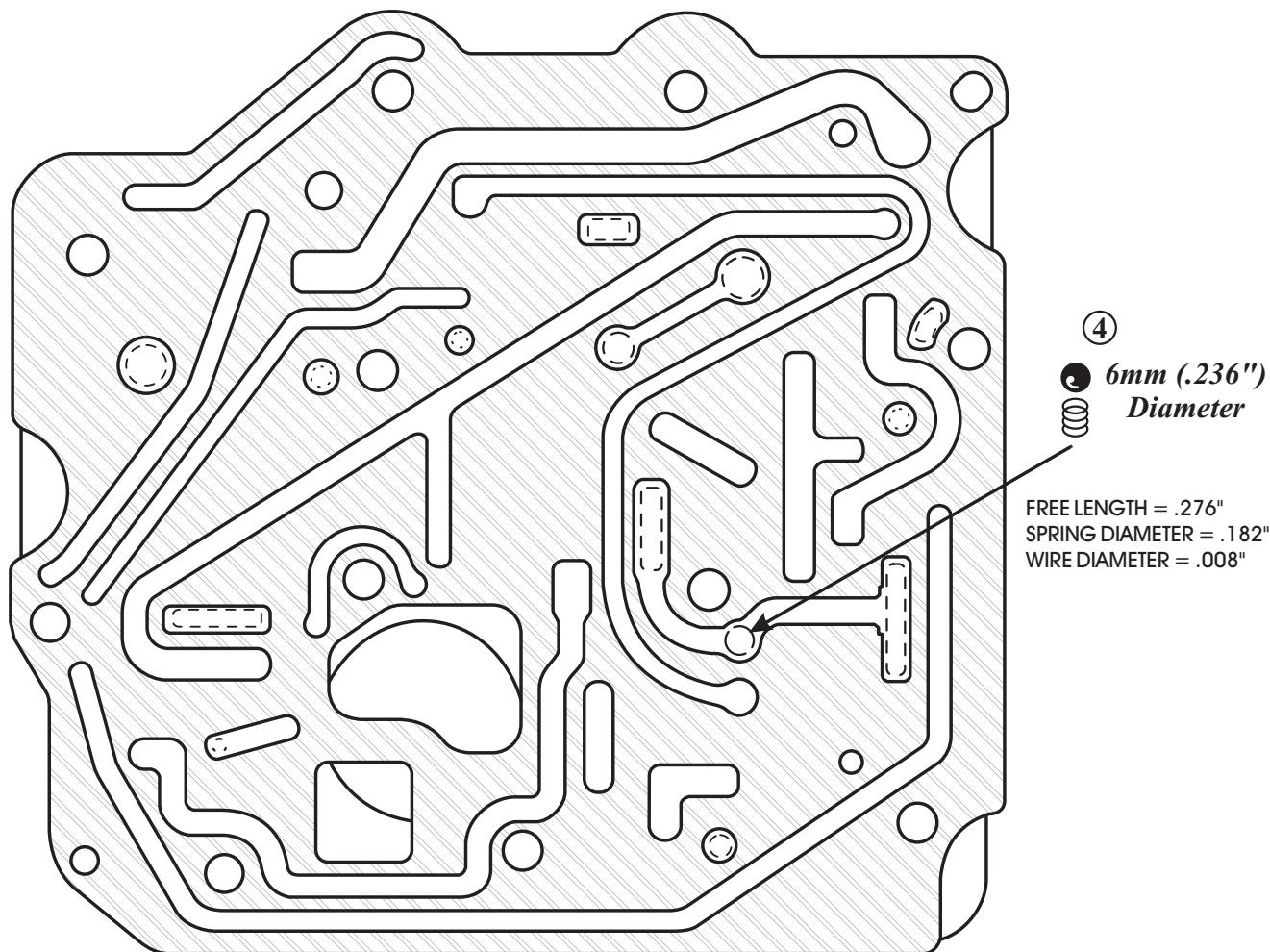
VOLKSWAGON PASSAT 096-097
MAIN VALVE BODY TRANSFER PLATE

.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"

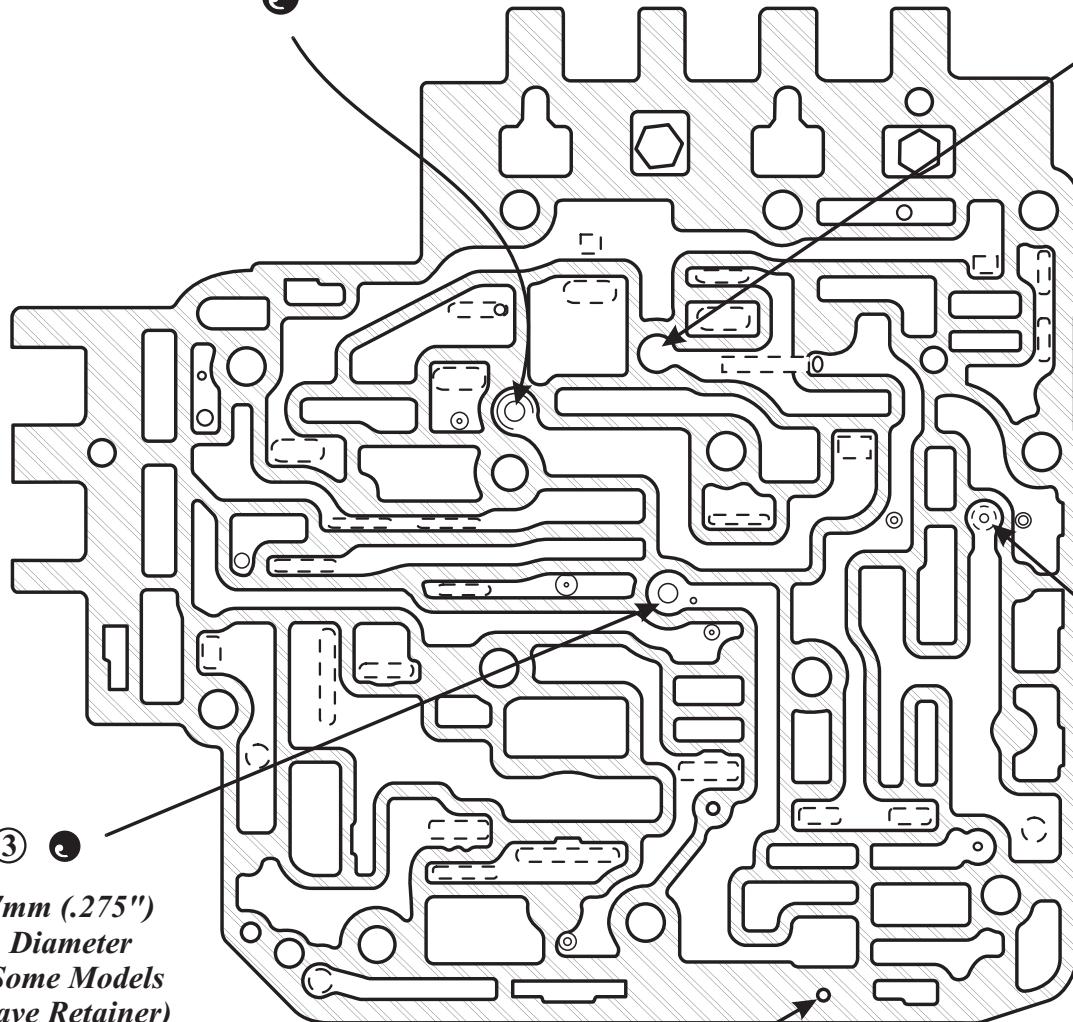
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AUDI/VW "01M"
VALVE BODY
Phase II "Early Only"

7mm (.275")
Diameter
With Retainer

②

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



Retaining Pin
Length = 1.061"
Diameter = .085"

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

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

7mm (.275")
Diameter
With Retainer

②

③

