



TECHNICIANS DIAGNOSTIC GUIDE BMW, AUDI, PORSCHE

ZF SHP-24 VALVE BODY SPRING SPECIFICATIONS

UPPER VALVE BODY

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| 21. Clutch Valve "F" (KV-F)
Free Length = 1.400" <i>35.56</i>
Wire Diameter = .031"
Outside Diameter = .365" | 24. Pressure Reducing Valve (DR-V2)
Free Length = 1.942" <i>49.3868</i>
Wire Diameter = .045"
Outside Diameter = .370" | 27. A Clutch Swit Valve (ABSCH.V-A)
Free Length = 1.455" <i>36.957</i>
Wire Diameter = .028"
Outside Diameter = .365" |
| 22. Clutch Valve "E" (KV-E)
Free Length = 1.551" <i>39.3974</i>
Wire Diameter = .031"
Outside Diameter = .365" | 25. Clutch Valve "B" (KV-B)
Free Length = 1.710" <i>43.434</i>
Wire Diameter = .042"
Outside Diameter = .420" | 28. Clutch Valve "A" (KV-A)
Free Length = 1.830" <i>46.482</i>
Wire Diameter = .028"
Outside Diameter = .316" |
| 23. Pressure Reducing Valve (DR-V1)
Free Length = 1.685" <i>42.799</i>
Wire Diameter = .042"
Outside Diameter = .370" | 26. Holding Valve "E" (KV-E)
Free Length = 1.685" <i>42.799</i>
Wire Diameter = .042"
Outside Diameter = .372" | |

*These spring locations
shown on Page 121.*

LOWER "FRONT" VALVE BODY

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| 10. TCC Apply Control Valve (WK-V)
Free Length = 1.952" <i>49.5608</i>
Wire Diameter = .042"
Outside Diameter = .370" | 14. Modulating Valve (MOD-V)
Free Length = 1.493" <i>37.922</i>
Wire Diameter = .031"
Outside Diameter = .365" | 18. EDS 4, Accumulator Valve (D-4)
Free Length = 1.560" <i>39.624</i>
Wire Diameter = .042"
Outside Diameter = .322" |
| 11. TCC Release Control Valve (WD-V)
Free Length = 2.052" <i>52.1208</i>
Wire Diameter = .034"
Outside Diameter = .438" | 15. Holding Valve, "B" Clutch (HV-B)
Free Length = 1.414" <i>35.9156</i>
Wire Diameter = .031"
Outside Diameter = .365" | 19. EDS 3, Accumulator Valve (D-3)
Free Length = 1.560" <i>39.624</i>
Wire Diameter = .042"
Outside Diameter = .322" |
| 12. Pressure Regulator Valve (HD-V)
Free Length = 3.780" <i>96.012</i>
Wire Diameter = .087"
Outside Diameter = .686" | 16. EDS 2, Accumulator Valve (D-2)
Free Length = 1.565" <i>39.751</i>
Wire Diameter = .042"
Outside Diameter = .322" | |
| 13. Lubrication Valve (SCHM.-V)
Free Length = 1.710" <i>43.434</i>
Wire Diameter = .048"
Outside Diameter = .485" | 17. Holding Valve, "D" Clutch (HV-B)
Free Length = 1.681" <i>42.6974</i>
Wire Diameter = .042"
Outside Diameter = .375" | |

*These spring locations
shown on Page 122.*

LOWER REAR VALVE BODY

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|---|--|---|
| 1. "A" Clutch Accumulator (D-A)
Free Length = 3.067" <i>77.9088</i>
Wire Diameter = .066"
Outside Diameter = .595" | 4. Shift Valve Number 3 (SV-3)
Free Length = 1.640" <i>41.656</i>
Wire Diameter = .031"
Outside Diameter = .366" | 7. Reverse Gear Valve (RG-V)
Free Length = 1.800" <i>45.72</i>
Wire Diameter = .038"
Outside Diameter = .435" |
| 2. Shift Valve Number 1 (SV-1)
Free Length = 1.755" <i>44.577</i>
Wire Diameter = .031"
Outside Diameter = .367" | 5. Switch Valve "D" Clutch (ABSCH.V-D)
Free Length = 1.396" <i>35.4674</i>
Wire Diameter = .039"
Outside Diameter = .300" | 8. "C" Clutch Accumulator (D-C)
Free Length = 3.067" <i>77.9088</i>
Wire Diameter = .066"
Outside Diameter = .595" |
| 3. Shift Valve Number 2 (SV-2)
Free Length = 1.770" <i>44.958</i>
Wire Diameter = .031"
Outside Diameter = .367" | 6. Clutch Valve "D" Line-Up (KV-D)
Free Length = 1.800" <i>45.72</i>
Wire Diameter = .031"
Outside Diameter = .360" | |

*These spring locations
shown on Page 123.*