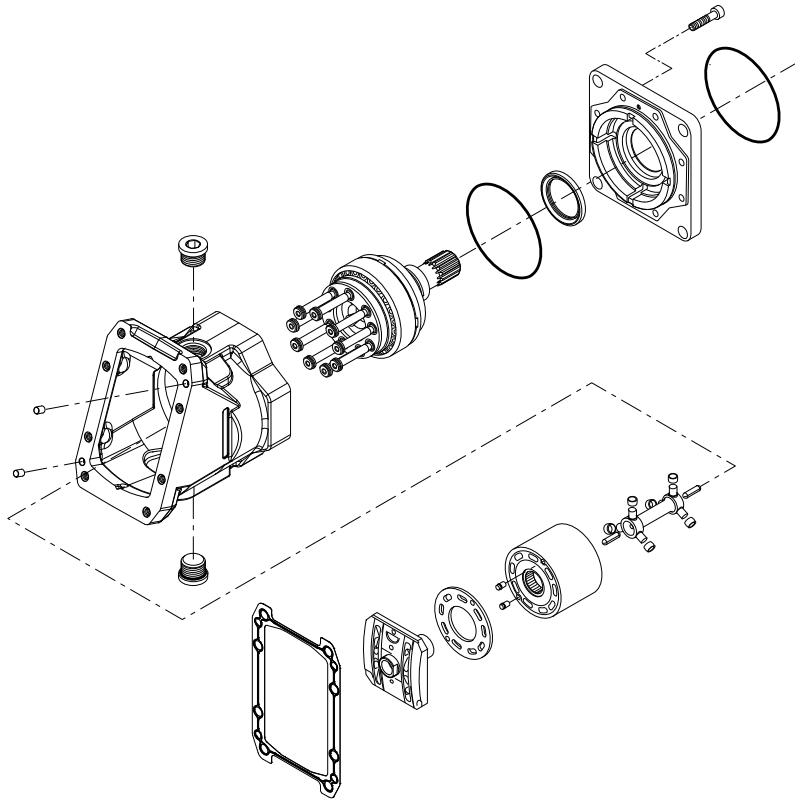


Parts Manual

# Variable Displacement Motors

## Series 51: 160cc



**Revision history**

*Table of revisions*

<b>Date</b>	<b>Changed</b>	<b>Rev</b>
July 2025	Updated parts numbers	0203
June 2024	Corrected document title to parts manual	0202
July 2022	Updated to Engineering Tomorrow Design	0201
July 022	First edition	0101

## Contents

### General information

Service parts identification.....	5
Date code.....	6
About service bulletins.....	6
Procedure to identify a part.....	6
Nameplate.....	6
Adobe Acrobat 2-page viewing.....	8
Order code.....	9

### Special hardware

S51 160cc Cartridge Flange Special Hardware ABA-ACR.....	10
S51 160cc Cartridge Flange Special Hardware AKB-NNN.....	13
S51 160cc DIN Flange Special Hardware ABA-ANE.....	15
S51 160cc DIN Flange Special Hardware AVA-NNN.....	18
S51 160cc SAE Flange Special Hardware AAA-ADA.....	20
S51 160cc SAE Flange Special Hardware ADD-ADL.....	23
S51 160cc SAE Flange Special Hardware ADM-AHA.....	26
S51 160cc SAE Flange Special Hardware AKB-AMD.....	28
S51 160cc SAE Flange Special Hardware ANA-AVB.....	31
S51 160cc SAE Flange Special Hardware AVC-DDA.....	34
S51 160cc SAE Flange Special Hardware DDC-NNN.....	37

### Maximum displacement

S51 160cc Maximum Displacement A-W.....	40
---	----

### Endcap

S51 160cc End Cap Axial Ports A.....	43
S51 160cc End Cap Side Ports R.....	45
S51 160cc End Cap Axial Ports U.....	47
S51 160cc End Cap Side Ports V.....	49
S51 160cc End Cap Axial Ports Z.....	51

### Threshold/range

S51 160cc Threshold/Range Common Parts A-W.....	53
---	----

### Charge relief

S51 160cc Charge Pressure Relief 00-G0.....	56
S51 160cc Charge Pressure Relief G3-NN.....	59

### Output shaft

S51 160cc Output Shaft C8-F2.....	61
-----------------------------------	----

### Control

S51 160cc Control Electric Proportional A7.....	63
S51 60/160cc Control Electric Proportional D7-D8.....	65
S51 160cc Control Electric Proportional DA-DC.....	67
S51 60/160cc Control Electric 2-Position E1-E2.....	69
S51 160cc Control Electric 2-Position E8.....	71
S51 160cc Control Electric Proportional ED & EE.....	73
S51 160cc Control Electric Proportional With Protective Cover EF.....	75
S51 60/160cc Control Electric Proportional EP-ES.....	77
S51 60/160cc Control Electric 2-Position F1-F2.....	79
S51 60/160cc Control Hydraulic Proportional with Electric Override H1-H2.....	81
S51 60/160cc Control Electric Proportional w/Pressure Reducing H3-H4.....	83
S51 60/160cc Control Hydraulic Proportional HA-HP.....	85
S51 160cc Control Hydraulic Proportional HB-HE.....	87
S51 60/160cc Control Hydraulic Proportional HS-HZ.....	89
S51 160cc Control Hydraulic Proportional with Electric Override J3-J4.....	91
S51 160cc Control Hydraulic Proportional JA.....	93
S51 160cc Control Hydraulic Proportional JS.....	95
S51 60/160cc Control Hydraulic Proportional with Electric Override K1-K2.....	97
S51 160cc Control Electric Proportional L1-L8.....	99

**Contents**

S51 160cc Control Hydraulic 2-Position N2..... 102  
 S51 160cc Control Pressure Compensator PC..... 104  
 S51 160cc Control Pressure Compensator PD..... 106  
 S51 160cc Control Electric 2-Position T1-T2..... 108  
 S51 160cc Control Electric 2-Position T3-T4..... 110  
 S51 160cc Control Pressure Compensator TA-TM..... 112  
 S51 160cc Control Electric 2-Position TP-U4..... 115  
 S51 160cc Control Electric 2-Position Y3-YB..... 118

**Servo supply**

S51 60/160cc Servo Pressure Supply A1-A4..... 121  
 S51 160cc Servo Pressure Supply A5-A7..... 123  
 S51 160cc Servo Pressure Supply C0-E8..... 125  
 S51 160cc Servo Pressure Supply EL-K1..... 128  
 S51 160cc Servo Pressure Supply K3-M1..... 131  
 S51 160cc Servo Pressure Supply M4-R4..... 134

**Loop flushing**

S-51 160cc Loop Flushing AA-DD..... 137

**Control ramp**

S51 160cc Control Ramp A-Z..... 139

**Orifice**

S51 60/160cc Orifice A0-B6..... 142  
 S51 60/160cc Orifice B9-C7..... 145  
 S51 60/160cc Orifice C8-E1..... 148  
 S51 60/160cc Orifice E2-E6..... 151  
 S51 60/160cc Orifice E8-G1..... 154  
 S51 160cc Orifice G2-H7..... 157  
 S51 160cc Orifice H9-K1..... 160  
 S51 160cc Orifice K3-L5..... 163  
 S51 160cc Orifice M1-M6..... 165  
 S51 160cc Orifice M7-P1..... 167  
 S51 160cc Orifice P2-W4..... 170

**Minimum displacement**

S51 160cc Minimum Displacement 032-N92..... 172

**PCOR adjuster**

S51 160cc PCOR Adjuster 00-37..... 175

**Overhaul seal kit**

S51 160cc Overhaul Seal Kit..... 177

**Service bulletin**

Service Bulletin: SB-1993-006..... 179  
 Service Bulletin: SB-1995-013..... 179  
 Service Bulletin: SB-1996-005..... 182  
 Service Bulletin: SB-1997-009..... 184  
 Service Bulletin: SB-1997-030..... 186  
 Service Bulletin: SB-1998-035A..... 188  
 Service Bulletin: SB-1999-059..... 190  
 Service Bulletin: SB-2000-044..... 192  
 Service Bulletin: SB-2001-015..... 194  
 Service Bulletin: SB-2002-001..... 196  
 Service Bulletin: SB-2012-010..... 198  
 Service Bulletin: SB-2004-004..... 201  
 Service Bulletin: SB-2004-013..... 203

## **General information**

### **Service parts identification**

The following information and procedure is used to identify the module group, item number, manufacture date, part number, and part name of the parts included in the .

The parts listed include all parts which may be used when performing either "Minor Repairs", "Major Repairs" or "Conversions" on the Variable Displacement Motor.

## General information

### Date code

The date code is defined as the year and week of manufacture. The same item number may list more than one part number. This indicates that there is more than one configuration for that item number. You will see that there are different date codes for the different part numbers. Find the date code of your unit from the nameplate to determine which service part number you need to order.

*Example: The service part desired is item G30*

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
80	G30	89-17		8000243	End cap gasket	1
	G30		89-16	8000151	End cap gasket (SB-1995-006)	1

All units using this order code with a date code prior to 89-17 must use part number "8000151." All units with a date code of 89-17 and newer must use part number "8000243."

### About service bulletins

A Service Bulletin Number (SB-\_\_\_\_ - \_\_\_\_ ) may follow the "Part Name" of the part you desire. You must read that Service Bulletin prior to ordering that part. The information contained in these Service Bulletins, as of the print date of this bulletin, are included at the end of this manual. Service Bulletins contain more detailed information such as interchangeability, what additional parts are involved, etc. It is suggested that you add additional Service Bulletins to this manual as you receive them.

### Procedure to identify a part

The modular design of this product results in a simplified service parts list and part number identification procedure.

The same item numbers are used for same part names on all units within a product type. A part number that has another number following it in parentheses is done to make this a world wide manual.

#### Nameplate

Each unit will have a nameplate affixed to the housing. The nameplate of the Variable Displacement Motor will include the following information:

#### **Model code**

The Danfoss model code completely defines the specific unit and must be used when ordering parts to service this product.

#### **Model/material number**

The Danfoss model number (also known as material number) is used by the factory in manufacturing. On repeat orders, a complete unit can be ordered by the model number.

#### **Serial number**

The Danfoss serial number is used to identify the manufacture date and the unit sequence in the build. The serial number is also used to identify the units warranty time period.

The letter code indicates the location of original manufacture (assembly).

The first number (2 digits) indicates the year of manufacture. The second number (2 digits) indicates the calendar week of manufacture.

The third number (5 digits) is a sequential number used to identify a specific unit.

### General information

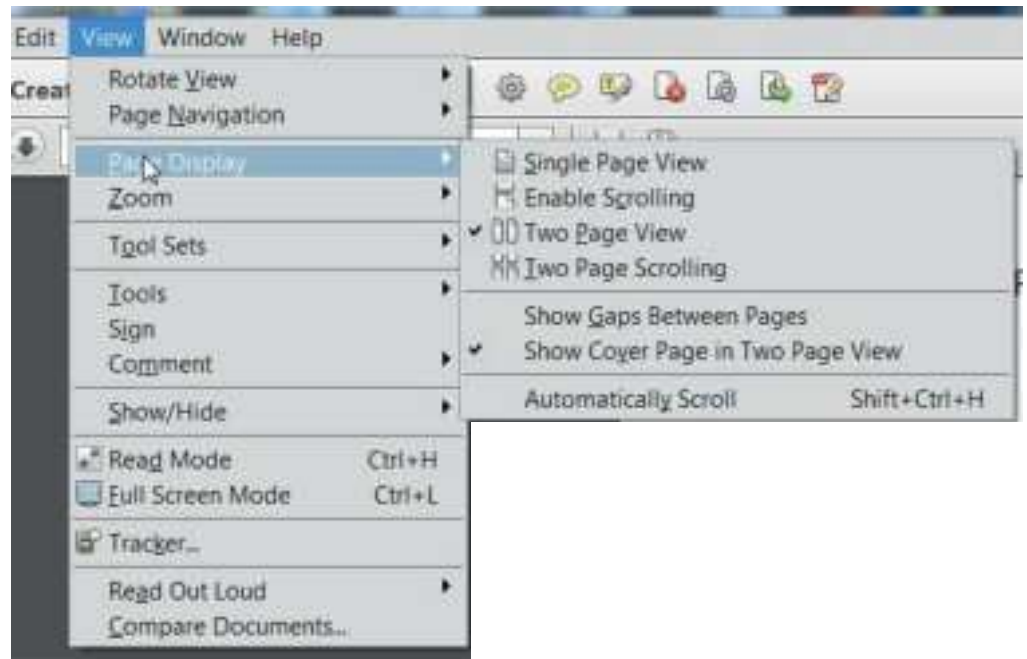


## General information

### Adobe Acrobat 2-page viewing

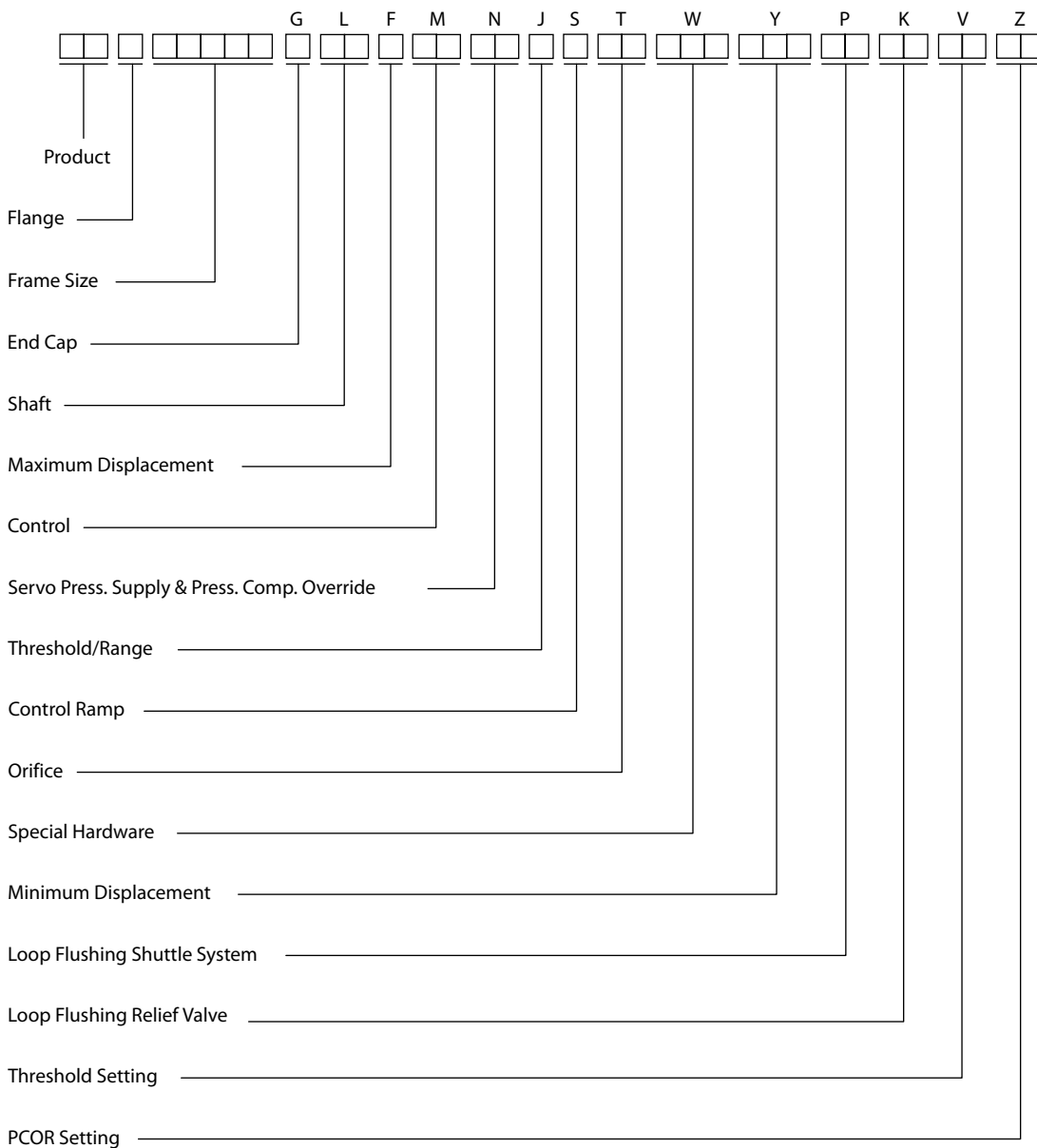
While viewing manual in Adobe Acrobat, the following settings need to be applied to ensure proper page display.

1. Select "View" → "Page Display" → "Two Page View"
2. Select "View" → "Page Display" → "Show Cover Page in Two Page View"



## General information

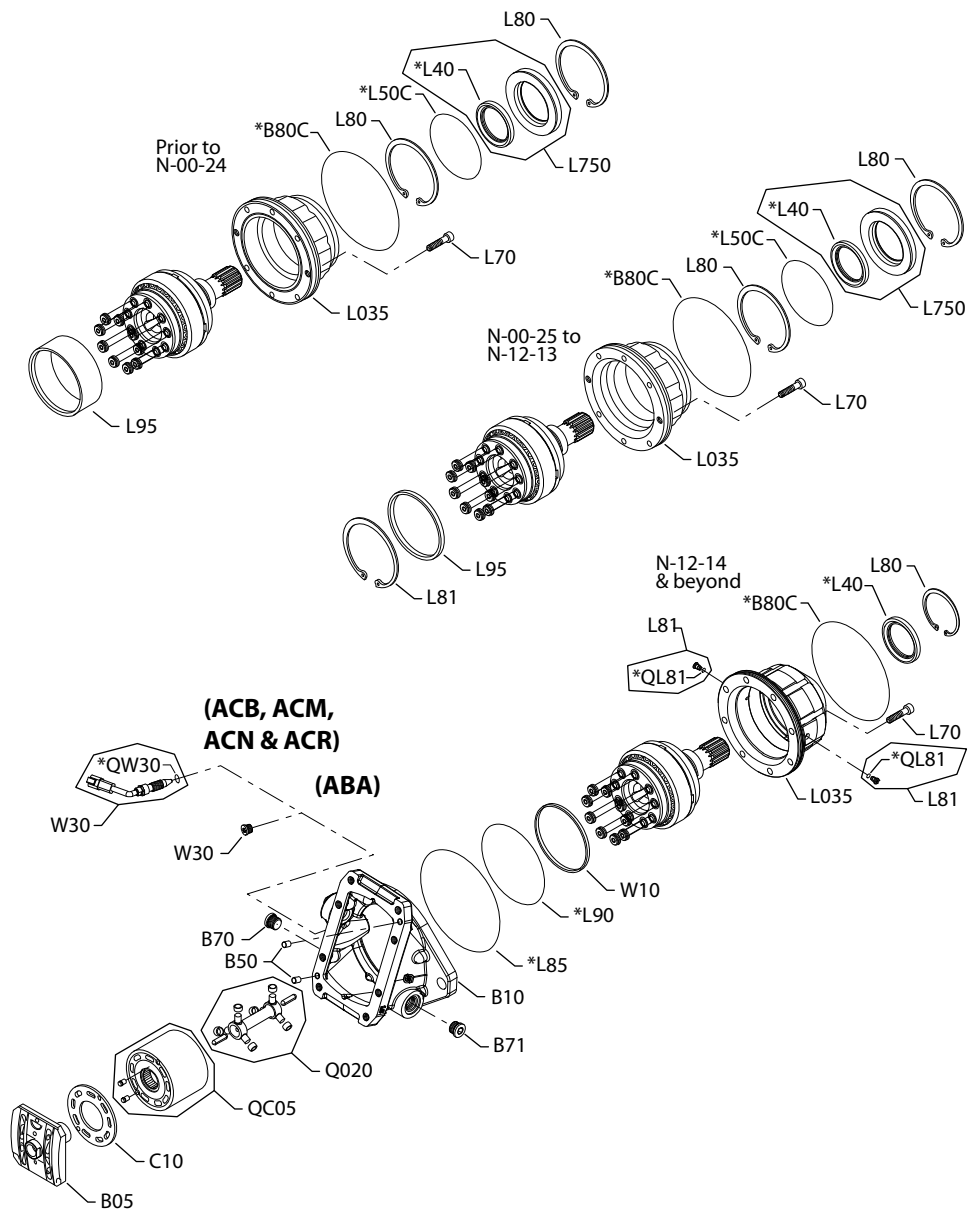
### Order code



**Special hardware**

**S51 160cc Cartridge Flange Special Hardware ABA-ACR**

*Parts Configuration*



\* included in base motor seal kit Q210

## Special hardware

### Common parts

Order code: C

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B05	92-33		11070148	Valve segment ( <a href="#">SB-1996-005</a> & <a href="#">SB-1997-030</a> )	1
B50	92-33		9004800-3708	Pin	2
B70	92-33		320002 (9005110-9200)	Plug assembly	1
B71	92-33		320002 (9005110-9200)	Plug assembly	1
B80C	92-33		083659	O-ring	1
C10	92-33		515369	Bearing plate	1
L035	12-14		11038815	Bearing housing ( <a href="#">SB-2012-010</a> )	1
L035	00-25	12-13	11009384	Bearing housing (SB-2000-049)	1
L40	05-41		519022	Lip seal (SB-2000-049)	1
L40	92-33	05-40	341735	Lip seal	1
L50C	92-33		056739 (9004104-1580)	O-ring	1
L70	92-33		290502	Screw	8
L80	12-14		518116	Retaining ring ( <a href="#">SB-2012-010</a> )	1
L80	92-33	12-13	518116	Retaining ring	2
L81	12-14		11056747	Bearing log ( <a href="#">SB-2012-010</a> )	2
L81	00-25	12-13	297655	Retaining ring (SB-2000-049)	1
L85	92-33		083659	O-ring	1
L90	00-25		515751	O-ring	1
L90	92-33	00-24	502208	O-ring (SB-2000-049)	1
L95	00-25	12-13	515753	Distance ring	1
L95	92-33	00-24	743898	Distance ring (SB-2000-049)	1
L750	92-33	12-13	510485	Seal carrier assembly ( <a href="#">SB-2012-010</a> )	1
Q020	92-33		517310	Synch shaft kit ( <a href="#">SB-2001-015</a> )	1
QC05	92-33		356113	Cylinder block assembly	1
QL81	12-14		039297 (9004201-1200)	O-ring ( <a href="#">SB-2012-010</a> )	2

### Special hardware

Order code: ABA

B10	99-42		515749	Housing with speed sensor port	1
W10	99-42		11132982	Speed ring	1
W30	99-42		140644	Plug assembly	1

Order code: ACB

B10	07-23		515749	Housing with speed sensor port	1
QW30	07-23		085043 (9004201-3700)	O-ring	1
W10	07-23		11132982	Speed ring	1
W30	07-23		KPPG26408	Speed sensor assembly	1

Order code: ACM

B10	06-26		515749	Housing with speed sensor port	1
QW30	06-26		085043 (9004201-3700)	O-ring	1

**Special hardware**

*Order code: ACM (continued)*

W10	06-26		11132982	Speed ring	1
W30	06-26		KPPG29408	Speed sensor assembly	1

*Order code: ACN*

B10	06-34		515749	Housing with speed sensor port	1
QW30	06-34		085043 (9004201-3700)	O-ring	1
W10	06-34		11132982	Speed ring	1
W30	06-34		KPPG29408	Speed sensor assembly	1

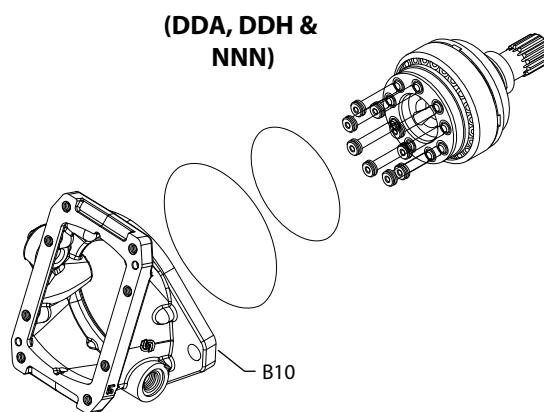
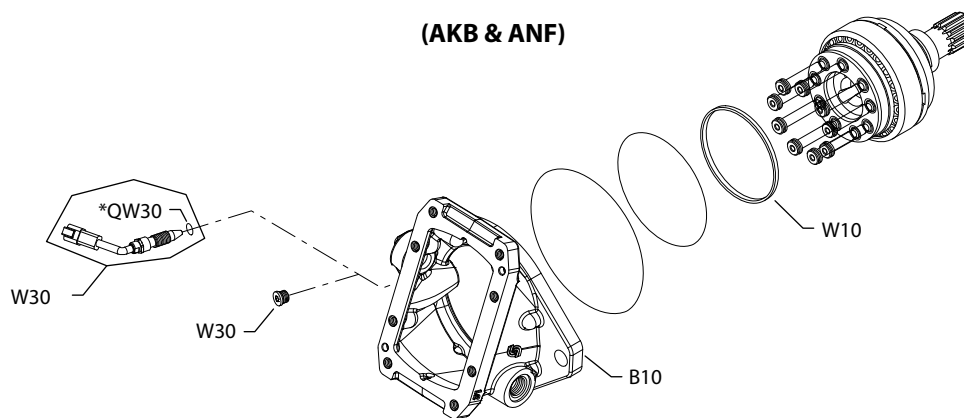
*Order code: ACR*

B10	10-46		515749	Housing with speed sensor port	1
QW30	10-46		085043 (9004201-3700)	O-ring	1
W10	10-46		11132982	Speed ring	1
W30	10-46		KPPG26408	Speed sensor assembly	1

### Special hardware

#### S51 160cc Cartridge Flange Special Hardware AKB-NNN

Parts Configuration



\* included in base motor seal kit Q210

### Special hardware

Order code: AKB

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B10	02-38		515749	Housing with speed sensor port	1
W10	02-38		11132982	Speed ring	1
W30	02-38		140644	Plug assembly	1

Order code: ANF

B10	08-35		515749	Housing with speed sensor port	1
QW30	08-35		085043 (9004201-3700)	O-ring	1
W10	08-35		11132982	Speed ring	1
W30	08-35		KPPG26708	Speed sensor assembly	1

Order code: DDA

B10	08-35		516256	Housing without speed sensor port	1
-----	-------	--	--------	-----------------------------------	---

Order code: DDH

B10	08-35		516256	Housing without speed sensor port	1
-----	-------	--	--------	-----------------------------------	---

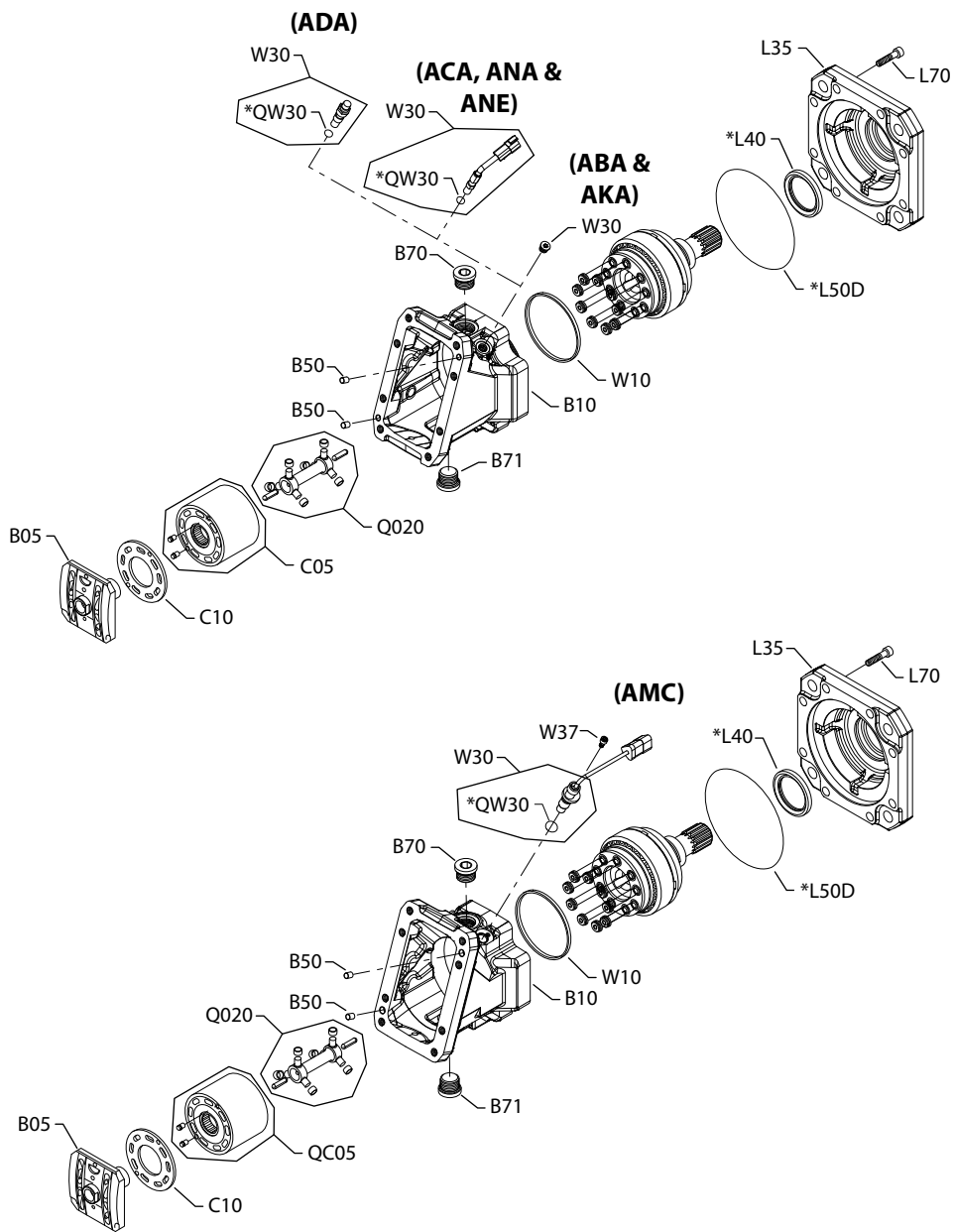
Order code: NNN

B10	92-33		516256	Housing without speed sensor port	1
-----	-------	--	--------	-----------------------------------	---

**Special hardware**

**S51 160cc DIN Flange Special Hardware ABA-ANE**

*Parts Configuration*



\* included in base motor seal kit Q210

## Special hardware

### DIN flange common parts

Order code: D

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B05	92-01		11070148	Valve segment ( <a href="#">SB-1996-005</a> & <a href="#">SB-1997-030</a> )	1
B50	92-01		9004800-3708	Pin	2
B70	92-01		320002 (9005110-9200)	Plug assembly	1
B71	92-01		320002 (9005110-9200)	Plug assembly	1
C10	92-01		515369	Bearing plate	1
L35	05-45		520317	Flange, DIN ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	92-01	05-44	341735	Lip seal	1
L50D	92-01		729319	O-ring	1
L70	92-01		290502	Screw	8
Q020	92-01		517310	Synch shaft kit ( <a href="#">SB-2001-015</a> )	1
QC05	92-01		356113	Cylinder block assembly	1

### Special hardware

Order code: ABA

B10	92-01		505089	Housing with speed sensor port	1
QW30	92-01		085043 (9004201-3700)	O-ring	1
W10	92-01		11132982	Speed ring	1
W30	92-01		140644	Plug assembly	1

Order code: ACA

B10	07-19		505089	Housing with speed sensor port	1
QW30	07-19		085043 (9004201-3700)	O-ring	1
W10	07-19		11132982	Speed ring	1
W30	07-19		KPPG13408	Speed sensor assembly	1

Order code: ADA

B10	92-01		505089	Housing with speed sensor port	1
QW30	92-01		085043 (9004201-3700)	O-ring	1
W10	92-01		11132982	Speed ring	1
W30	92-01		KPPG156	Speed sensor assembly	1

Order code: AKA

B10	96-38		505089	Housing with speed sensor port	1
QW30	96-38		085043 (9004201-3700)	O-ring	1
W10	96-38		11132982	Speed ring	1
W30	96-38		140644	Plug assembly	1

Order code: AMC

B10	09-49		11004764	Housing with speed sensor port	1
QW30	09-49		085043 (9004201-3700)	O-ring	1

### Special hardware

*Order code: AMC (continued)*

W10	09-49		11132982	Speed ring	1
W30	09-49		11051045	Speed sensor assembly	1
W37	09-49		395822 (9007315-0603)	Screw	1

*Order code: ANA*

B10	09-39		505089	Housing with speed sensor port	1
QW30	09-39		085043 (9004201-3700)	O-ring	1
W10	09-39		11132982	Speed ring	1
W30	09-39		KPPG13703	Speed sensor assembly	1

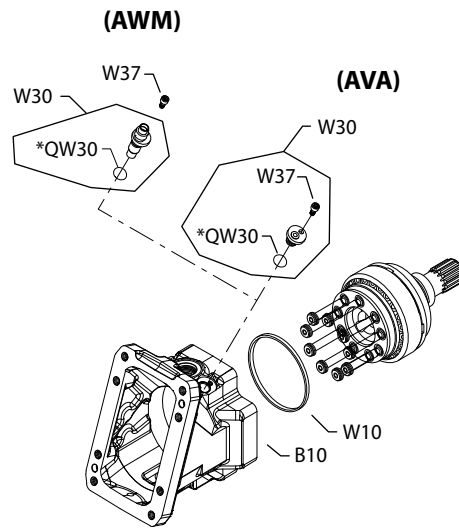
*Order code: ANE*

B10	07-22		505089	Housing with speed sensor port	1
QW30	07-22		085043 (9004201-3700)	O-ring	1
W10	07-22		11132982	Speed ring	1
W30	07-22		KPPG12704A	Speed sensor assembly	1

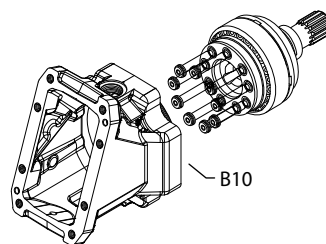
### Special hardware

#### S51 160cc DIN Flange Special Hardware AVA-NNN

Parts Configuration



#### (CCA & NNN)



\* included in base motor seal kit Q210

### Special hardware

Order code: AVA

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B10	03-07		520355	Housing with speed sensor port	1
QW30	03-07		085043 (9004201-3700)	O-ring	1
W10	03-07		11132982	Speed ring	1
W30	03-07		520997/P	Speed sensor plug assembly	1
W37	03-07		395822 (9007315-0603)	Screw	1

Order code: AWM

B10	05-39		520355	Housing with speed sensor port	1
QW30	05-39		085043 (9004201-3700)	O-ring	1
W10	05-39		11132982	Speed ring	1
W30	05-39		KPPG456	Speed sensor assembly	1
W37	05-39		395822 (9007315-0603)	Screw	1

Order code: CCA

B10	04-50		776138	Housing without speed sensor port	1
-----	-------	--	--------	-----------------------------------	---

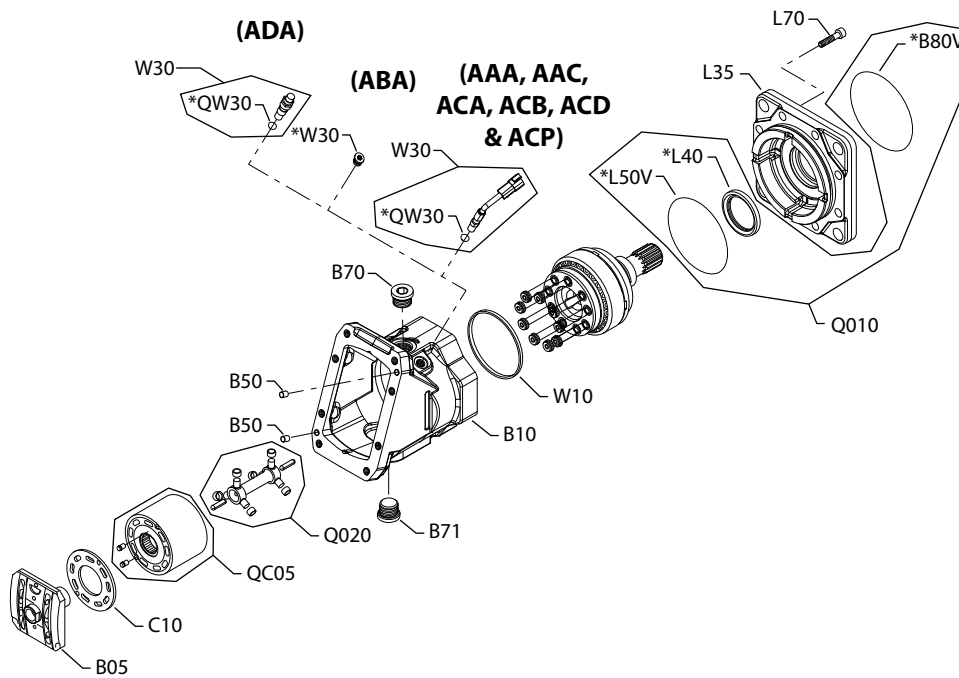
Order code: NNN

B10	92-01		776138	Housing without speed sensor port	1
-----	-------	--	--------	-----------------------------------	---

**Special hardware**

**S51 160cc SAE Flange Special Hardware AAA-ADA**

*Parts Configuration*



\* included in base motor seal kit Q210

## Special hardware

Order code: V

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B05	92-33		11070148	Valve segment ( <a href="#">SB-1996-005</a> & <a href="#">SB-1997-030</a> )	1
B50	92-33		9004800-3708	Pin	2
B70	92-33		320002 (9005110-9200)	Plug assembly	1
B71	92-33		320002 (9005110-9200)	Plug assembly	1
B80V	92-33		729285	O-ring	1
C10	92-33		515369	Bearing plate	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	92-33	05-44	341735	Lip seal	1
L50V	92-33		726927	O-ring	1
L70	92-33		085183	Screw	8
Q010	92-33		776864	Shaft seal kit	1
Q020	92-33		517310	Synch shaft kit ( <a href="#">SB-2001-015</a> )	1
QC05	92-33		356113	Cylinder block assembly	1

Order code: AAA & AAC

B10	95-42		505087	Housing with speed sensor port	1
QW30	92-33		085043 (9004201-3700)	O-ring	1
W10	92-33		11132982	Speed ring	1
W30	92-33		KPPG12508	Speed sensor assembly	1

Order code: ABA

B10	95-42		505087	Housing with speed sensor port	1
W10	93-35		11132982	Speed ring	1
W30	93-35		140644	Plug assembly	1

Order code: ACA

B10	95-42		505087	Housing with speed sensor port	1
QW30	94-04		085043 (9004201-3700)	O-ring	1
W10	94-04		11132982	Speed ring	1
W30	94-04		KPPG13408	Speed sensor assembly	1

Order code: ACB

B10	03-23		505087	Housing with speed sensor port	1
QW30	03-23		085043 (9004201-3700)	O-ring	1
W10	03-23		11132982	Speed ring	1
W30	03-23		KPPG16408	Speed sensor assembly	1

Order code: ACD

B10	00-10		505087	Housing with speed sensor port	1
QW30	00-10		085043 (9004201-3700)	O-ring	1
W10	00-10		11132982	Speed ring	1
W30	00-10		KPPG17408	Speed sensor assembly	1

### Special hardware

*Order code: ACP*

B10	06-51		505087	Housing with speed sensor port	1
QW30	06-51		085043 (9004201-3700)	O-ring	1
W10	06-51		11132982	Speed ring	1
W30	06-51		KPPG14408	Speed sensor assembly	1

*Order code: ADA*

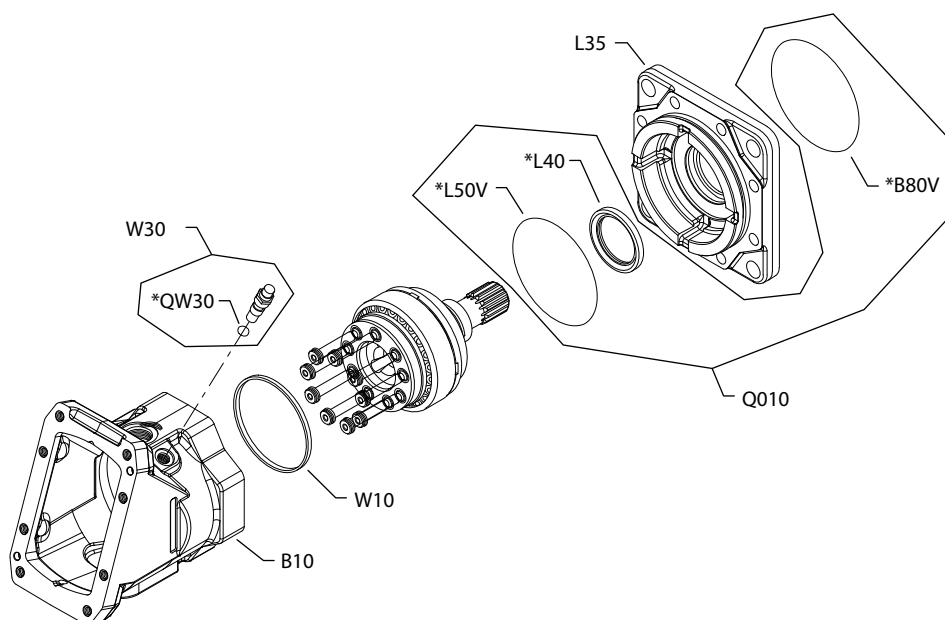
B10	95-42		505087	Housing with speed sensor port	1
QW30	94-12		085043 (9004201-3700)	O-ring	1
W10	94-12		11132982	Speed ring	1
W30	94-12		KPPG156	Speed sensor assembly	1

**Special hardware**

**S51 160cc SAE Flange Special Hardware ADD-ADL**

*Parts Configuration*

**(ADD, ADE, ADK & ADL)**



\* included in base motor seal kit Q210

### Special hardware

Order code: ADD

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B10	99-42		505087	Housing with speed sensor port	1
B80V	99-42		729285	O-ring	1
L35	05-45		519417	Flange, SAE <a href="#">(SB-2004-013)</a>	1
L40	05-45		519022	Lip seal <a href="#">(SB-2004-013)</a>	1
L40	99-42	05-44	341735	Lip seal	1
L50V	99-42		726927	O-ring	1
Q010	99-42		776864	Shaft seal kit	1
QW30	99-42		085043 (9004201-3700)	O-ring	1
W10	99-42		11132982	Speed ring	1
W30	99-42		KPPG156	Speed sensor assembly	1

Order code: ADE

B10	00-34		505087	Housing with speed sensor port	1
B80V	00-34		729285	O-ring	1
L35	05-45		519417	Flange, SAE <a href="#">(SB-2004-013)</a>	1
L40	05-45		519022	Lip seal <a href="#">(SB-2004-013)</a>	1
L40	00-34	05-44	341735	Lip seal	1
L50V	00-34		726927	O-ring	1
Q010	00-34		776864	Shaft seal kit	1
QW30	00-34		085043 (9004201-3700)	O-ring	1
W10	00-34		11132982	Speed ring	1
W30	00-34		KPPG156	Speed sensor assembly	1

Order code: ADK

B10	05-45		505087	Housing with speed sensor port	1
B80V	05-45		729285	O-ring	1
L35	05-45		519417	Flange, SAE <a href="#">(SB-2004-013)</a>	1
L40	05-45		519022	Lip seal <a href="#">(SB-2004-013)</a>	1
L50V	05-45		726927	O-ring	1
Q010	05-45		776864	Shaft seal kit	1
QW30	05-45		085043 (9004201-3700)	O-ring	1
W10	05-45		11132982	Speed ring	1
W30	05-45		KPPG156	Speed sensor assembly	1

Order code: ADL

B10	07-39		505087	Housing with speed sensor port	1
B80V	07-39		729285	O-ring	1
L35	07-39		519417	Flange, SAE	1
L40	07-39		519022	Lip seal	1
L50V	07-39		726927	O-ring	1
Q010	07-39		776864	Shaft seal kit	1
QW30	07-39		085043 (9004201-3700)	O-ring	1

### Special hardware

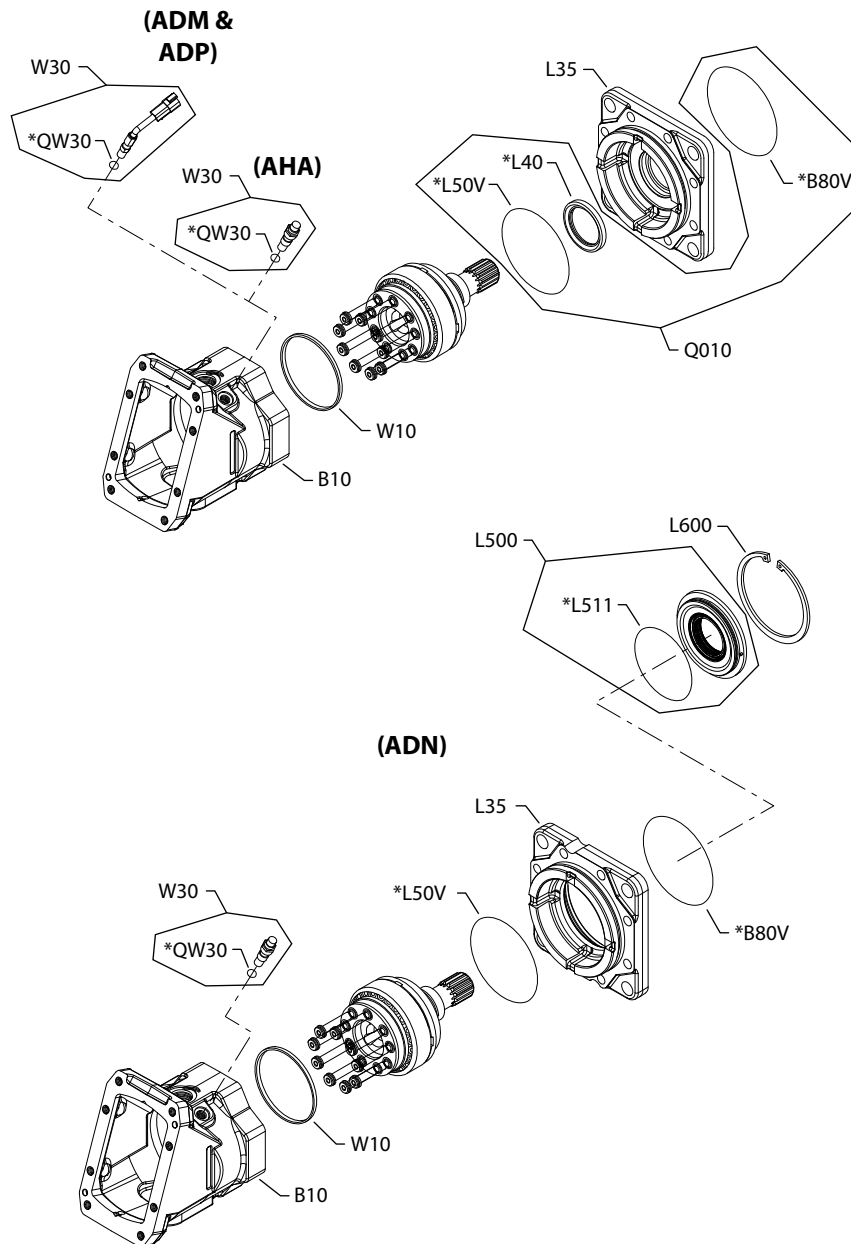
*Order code: ADL (continued)*

W10	07-39		11132982	Speed ring	1
W30	07-39		KPPG156	Speed sensor assembly	1

**Special hardware**

**S51 160cc SAE Flange Special Hardware ADM-AHA**

*Parts Configuration*



\* included in base motor seal kit Q210

## Special hardware

Order code: ADM

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B10	08-45		505087	Housing with speed sensor port	1
B80V	08-45		729285	O-ring	1
L35	08-45		519417	Flange, SAE <a href="#">(SB-2004-013)</a>	1
L40	08-45		519022	Lip seal <a href="#">(SB-2004-013)</a>	1
L50V	08-45		726927	O-ring	1
Q010	08-45		776864	Shaft seal kit	1
QW30	08-45		085043 (9004201-3700)	O-ring	1
W10	08-45		11132982	Speed ring	1
W30	08-45		KPPG13703	Speed sensor assembly	1

Order code: ADN

B10	07-29		505087	Housing with speed sensor port	1
B80V	07-29		729285	O-ring	1
L35	07-29		11070161	Flange, SAE	1
L50V	07-29		726927	O-ring	1
L500	07-29		11070155	Seal carrier assembly	1
L511	07-29		11070158	O-ring	1
L600	07-29		11070170	Retaining ring	1
QW30	07-29		085043 (9004201-3700)	O-ring	1
W10	07-29		11132982	Speed ring	1
W30	07-29		KPPG156	Speed sensor assembly	1

Order code: ADP

B10	09-39		505087	Housing with speed sensor port	1
B80V	09-39		729285	O-ring	1
L35	09-39		519417	Flange, SAE	1
L40	09-39		519022	Lip seal <a href="#">(SB-2004-013)</a>	1
L50V	09-39		726927	O-ring	1
Q010	09-39		776864	Shaft seal kit	1
QW30	09-39		085043 (9004201-3700)	O-ring	1
W10	09-39		11132982	Speed ring	1
W30	09-39		KPPG12508	Speed sensor assembly	1

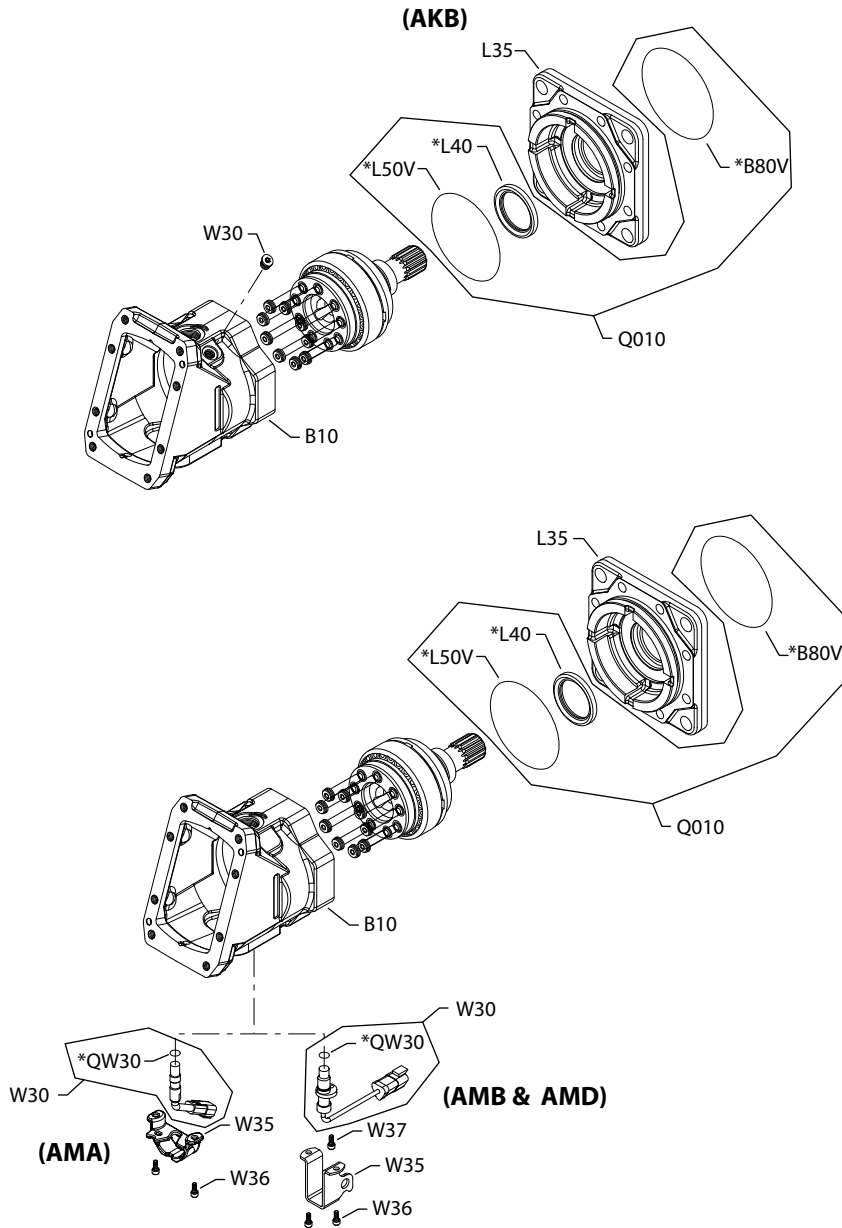
Order code: AHA

B10	02-13		505087	Housing with speed sensor port	1
B80V	02-13		729285	O-ring	1
L35	05-45		519417	Flange, SAE <a href="#">(SB-2004-013)</a>	1
L40	05-45		519022	Lip seal <a href="#">(SB-2004-013)</a>	1
L40	02-13	05-44	341735	Lip seal	1
L50V	02-13		726927	O-ring	1
Q010	02-13		776864	Shaft seal kit	1
QW30	02-13		085043 (9004201-3700)	O-ring	1
W30	02-13		KPPG166	Speed sensor assembly	1

**Special hardware**

**S51 160cc SAE Flange Special Hardware AKB-AMD**

*Parts Configuration*



\* included in base motor seal kit Q210

## Special hardware

Order code: AKB

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B10	00-04		505087	Housing with speed sensor port	1
B80V	00-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-04		726927	O-ring	1
Q010	00-04		776864	Shaft seal kit	1
W10	00-04		11132982	Speed ring	1
W30	00-04		140644	Plug assembly	1

Order code: AMA

B10	00-33		515847	Housing	1
B80V	00-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-04		726927	O-ring	1
Q010	00-04		776864	Shaft seal kit	1
QW30	00-33		085043 (9004201-3700)	O-ring	1
W10	00-33		11132982	Speed ring	1
W30	00-33		11046858	Speed sensor assembly	1
W35	00-33		8801261	Speed sensor cover	1
W36	00-33		395822 (9007315-0603)	Screw	2

Order code: AMB

B10	00-33		519419	Housing	1
B80V	00-33		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-33		726927	O-ring	1
Q010	00-33		776864	Shaft seal kit	1
QW30	00-33		085043 (9004201-3700)	O-ring	1
W10	00-33		11132982	Speed ring	1
W30	00-33		11046847	Speed sensor assembly	1
W35	00-33		520021	Speed sensor cover	1
W36	00-33		395822 (9007315-0603)	Screw	2
W37	00-33		395822 (9007315-0603)	Screw	1

Order code: AMD

B10	00-33		11098757	Housing	1
B80V	00-33		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1

### Special hardware

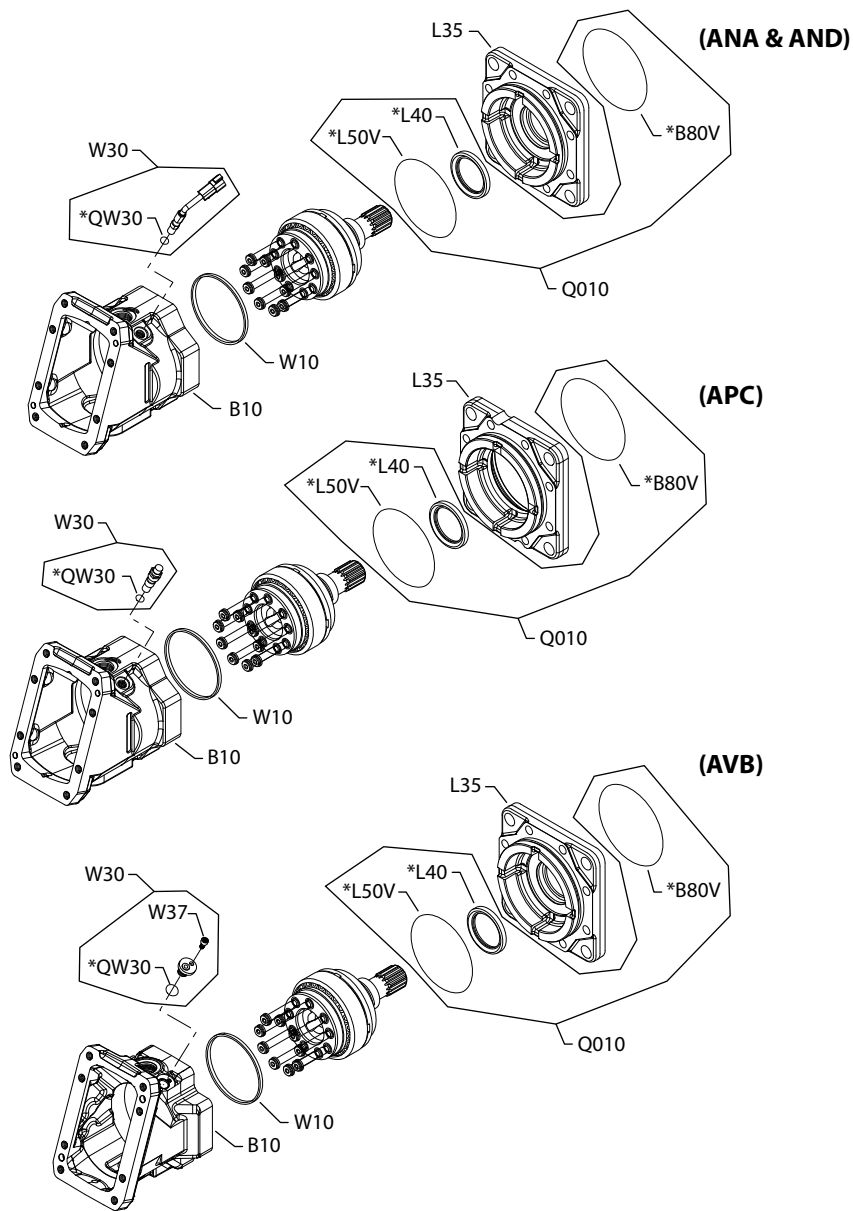
Order code: AMD (continued)

L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-33		726927	O-ring	1
Q010	00-33		776864	Shaft seal kit	1
QW30	00-33		085043 (9004201-3700)	O-ring	1
W10	00-33		11132982	Speed ring	1
W30	00-33		11100159	Speed sensor assembly	1
W35	00-33		520021	Speed sensor cover	1
W36	00-33		395822 (9007315-0603)	Screw	2
W37	00-33		395822 (9007315-0603)	Screw	1

**Special hardware**

**S51 160cc SAE Flange Special Hardware ANA-AVB**

*Parts Configuration*



\* included in base motor seal kit Q210

### Special hardware

Order code: ANA

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B10	01-04		505087	Housing with speed sensor port	1
B80V	01-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	01-04	05-44	341735	Lip seal	1
L50V	01-04		726927	O-ring	1
L70	01-04		085183	Screw	8
Q010	01-04		776864	Shaft seal kit	1
QW30	01-04		085043 (9004201-3700)	O-ring	1
W10	01-04		11132982	Speed ring	1
W30	01-04		KPPG13703	Speed sensor	1

Order code: ANB

B10	01-04		505087	Housing with speed sensor port	1
B80V	01-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	01-04	05-44	341735	Lip seal	1
L50V	01-04		726927	O-ring	1
L70	01-04		085183	Screw	8
Q010	01-04		776864	Shaft seal kit	1
QW30	01-04		085043 (9004201-3700)	O-ring	1
W10	01-04		11132982	Speed ring	1
W30	01-04		KPPG16719	Speed sensor assembly	1

Order code: APC

B10	08-39		505087	Housing with speed sensor port	1
B80V	08-39		729285	O-ring	1
L35	08-39		11051663	Flange, SAE	1
L40	08-39		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L50V	08-39		726927	O-ring	1
L70	08-39		085183	Screw	8
Q010	08-39		776864	Shaft seal kit	1
QW30	08-39		085043 (9004201-3700)	O-ring	1
W10	08-39		11132982	Speed ring	1
W30	08-39		KPPG156	Speed sensor assembly	1

Order code: AVB

B10	08-35		520358	Housing with speed sensor port	1
B80V	08-35		729285	O-ring	1
L35	08-35		519417	Flange, SAE	1
L40	08-35		519022	Lip seal	1
L50V	08-35		726927	O-ring	1

**Special hardware**

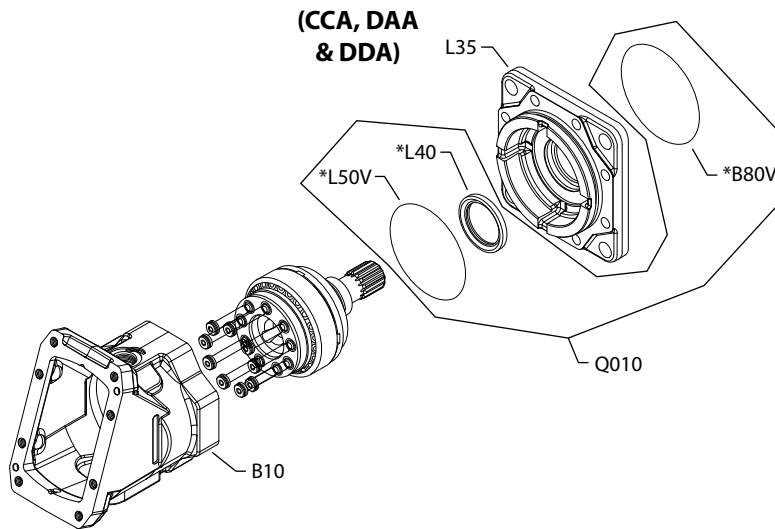
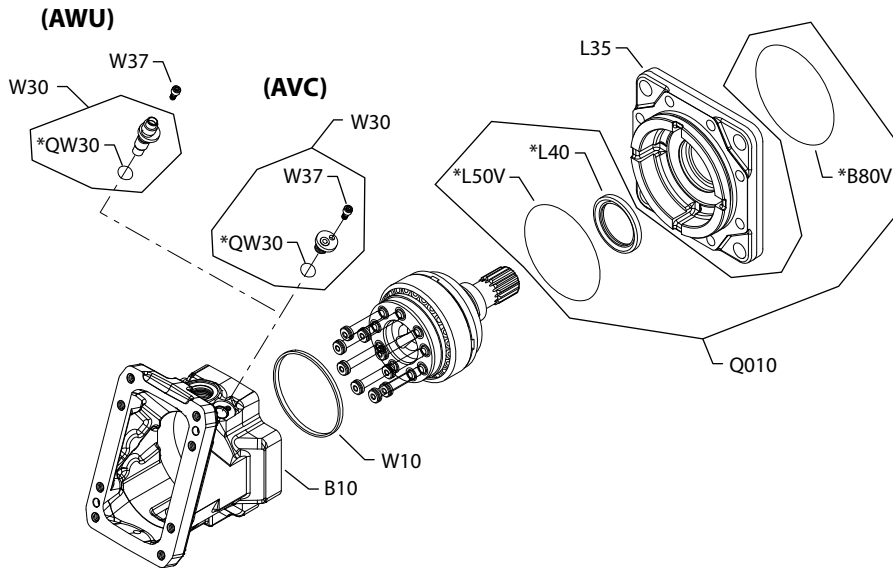
*Order code: AVB (continued)*

L70	08-35		085183	Screw	8
Q010	08-35		776864	Shaft seal kit	1
QW30	08-35		085043 (9004201-3700)	O-ring	1
W10	08-35		11132982	Speed ring	1
W30	08-35		520997/P	Speed sensor plug assembly	1
W37	08-35		395822 (9007315-0603)	Screw	1

**Special hardware**

**S51 160cc SAE Flange Special Hardware AVC-DDA**

*Parts Configuration*



\* included in base motor seal kit Q210

## Special hardware

Order code: AVC

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B10	10-07		520358	Housing with speed sensor port	1
B80V	10-07		729285	O-ring	1
L35	10-07		519417	Flange, SAE	1
L40	10-07		519022	Lip seal	1
L50V	10-07		726927	O-ring	1
L70	10-07		085183	Screw	8
Q010	10-07		776864	Shaft seal kit	1
QW30	10-07		085043 (9004201-3700)	O-ring	1
W10	10-07		11132982	Speed ring	1
W30	10-07		520997/P	Speed sensor plug assembly	1
W37	10-07		395822 (9007315-0603)	Screw	1

Order code: AWU

B10	07-34		520358	Housing with speed sensor port	1
B80V	07-34		729285	O-ring	1
L35	07-34		519417	Flange, SAE	1
L40	07-34		519022	Lip seal	1
L50V	07-34		726927	O-ring	1
Q010	07-34		776864	Shaft seal kit	1
QW30	07-34		085043 (9004201-3700)	O-ring	1
W10	07-34		11132982	Speed ring	1
W30	07-34		11034658	Speed sensor assembly	1
W37	07-34		395822 (9007315-0603)	Screw	1

Order code: CCA

B10	95-42		356071	Housing without speed sensor port	1
B80V	95-42		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	95-42	05-44	341735	Lip seal	1
L50V	95-42		726927	O-ring	1
Q010	95-42		776864	Shaft seal kit	1

Order code: DAA

B10	93-02		356071	Housing without speed sensor port	1
B80V	93-02		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	93-02	05-44	341735	Lip seal	1
L50V	93-02		726927	O-ring	1
Q010	93-02		776864	Shaft seal kit	1

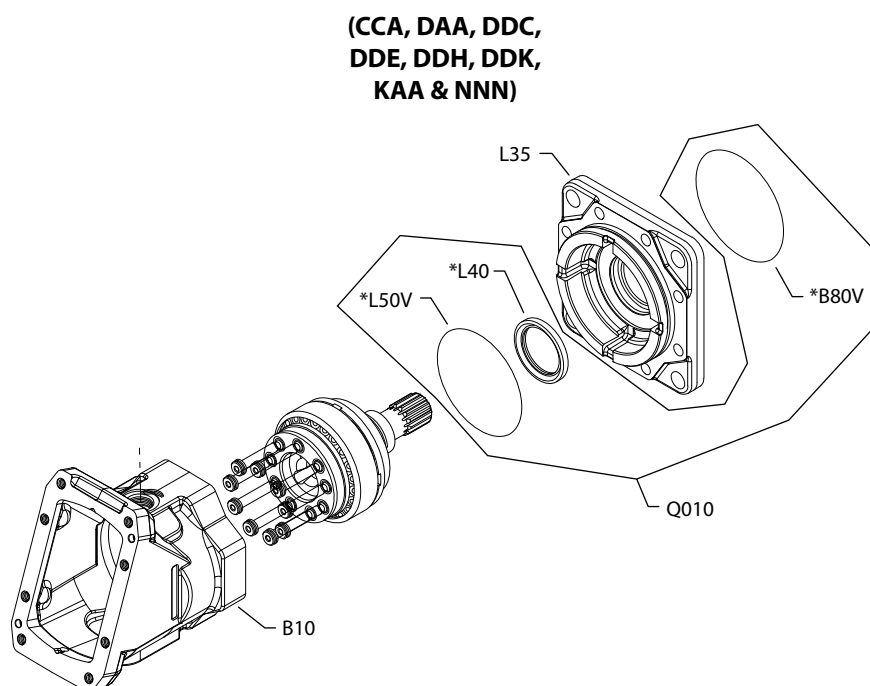
**Special hardware***Order code: DDA*

B10	00-04		356071	Housing without speed sensor port	1
B80V	00-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-04		726927	O-ring	1
Q010	00-04		776864	Shaft seal kit	1

### Special hardware

#### S51 160cc SAE Flange Special Hardware DDC-NNN

Parts Configuration



\* included in base motor seal kit Q210

### Special hardware

Order code: DDC

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
B10	00-04		356071	Housing without speed sensor port	1
B80V	00-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-04		726927	O-ring	1
Q010	00-04		776864	Shaft seal kit	1

Order code: DDE

B10	00-04		356071	Housing without speed sensor port	1
B80V	00-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-04		726927	O-ring	1
Q010	00-04		776864	Shaft seal kit	1

Order code: DDH

B10	00-04		356071	Housing without speed sensor port	1
B80V	00-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-04		726927	O-ring	1
Q010	00-04		776864	Shaft seal kit	1

Order code: DDK

B10	00-04		356071	Housing without speed sensor port	1
B80V	00-04		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	00-04	05-44	341735	Lip seal	1
L50V	00-04		726927	O-ring	1
Q010	00-04		776864	Shaft seal kit	1

Order code: KAA

B10	98-03		511387	Housing without speed sensor port	1
B80V	98-03		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	98-03	05-44	341735	Lip seal	1
L50V	98-03		726927	O-ring	1
Q010	98-03		776864	Shaft seal kit	1

### Special hardware

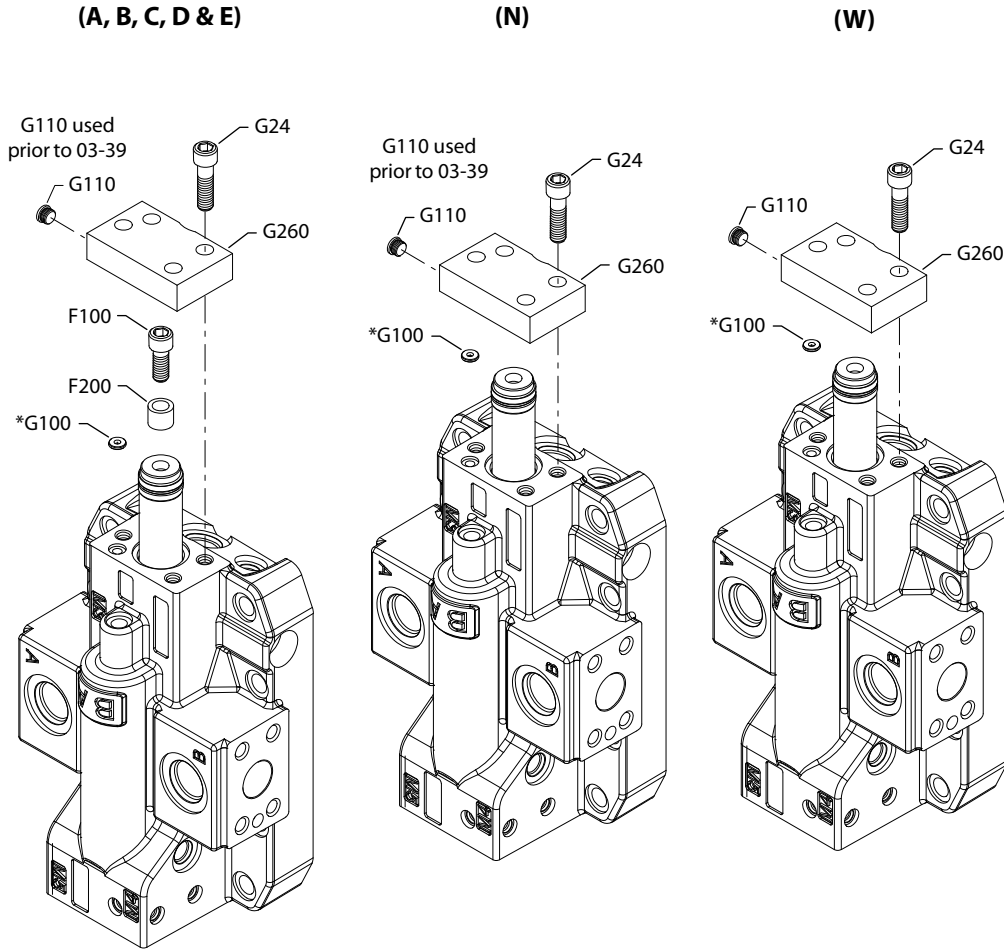
Order code: NNN

B10	92-33		356071	Housing without speed sensor port	1
B80V	92-33		729285	O-ring	1
L35	05-45		519417	Flange, SAE ( <a href="#">SB-2004-013</a> )	1
L40	05-45		519022	Lip seal ( <a href="#">SB-2004-013</a> )	1
L40	98-03	05-44	341735	Lip seal	1
L50V	92-33		726927	O-ring	1
Q010	92-33		776864	Shaft seal kit	1

**Maximum displacement**

**S51 160cc Maximum Displacement A-W**

*Parts Configuration*



\* included in base motor seal kit Q210

## Maximum displacement

### Order code: A

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F100	95-35		393694	Screw, M10 x 25 mm	1
F200	95-35		672071	Spacer, 4.5 mm	1
G24	95-35		727586 (9007314-1008)	Screw	4
G100	95-35		792739	O-ring, rectangular	1
G110	95-35	03-38	11040532	Plug assembly	1
G260	95-35		11000595	Cover	1

### Order code: B

F100	92-33		393702	Screw, M10 x 30 mm	1
F200	92-33		318683	Spacer, 9.0 mm	1
G24	92-33		727586 (9007314-1008)	Screw	4
G100	92-33		792739	O-ring, rectangular	1
G110	92-33	03-38	11040532	Plug assembly	1
G260	92-33		11000595	Cover	1

### Order code: C

F100	92-33		727586	Screw, M10 x 35 mm	1
F200	92-33		347088	Spacer, 13.0 mm	1
G24	92-33		727586 (9007314-1008)	Screw	4
G100	92-33		792739	O-ring, rectangular	1
G110	92-33	03-38	11040532	Plug assembly	1
G260	92-33		11000595	Cover	1

### Order code: D

F100	98-03		732982	Screw, M10 x 40 mm	1
F200	98-03		306993	Spacer, 17.0 mm	1
G24	98-03		727586 (9007314-1008)	Screw	4
G100	98-03		792739	O-ring, rectangular	1
G110	98-03	03-38	11040532	Plug assembly	1
G260	98-03		11000595	Cover	1

### Order code: E

F100	92-33		732982	Screw, M10 x 40 mm	1
F200	92-33		682084	Spacer, 21.0 mm	1
G24	92-33		727586 (9007314-1008)	Screw	4
G100	92-33		792739	O-ring, rectangular	1
G110	92-33	03-38	11040532	Plug assembly	1
G260	92-33		11000595	Cover	1

### Order code: N

G24	92-33		727586 (9007314-1008)	Screw	4
G100	92-33		792739	O-ring, rectangular	1

**Maximum displacement**

*Order code: N (continued)*

G110	92-33	03-38	11040532	Plug assembly	1
G260	92-33		11000595	Cover	1

*Order code: W*

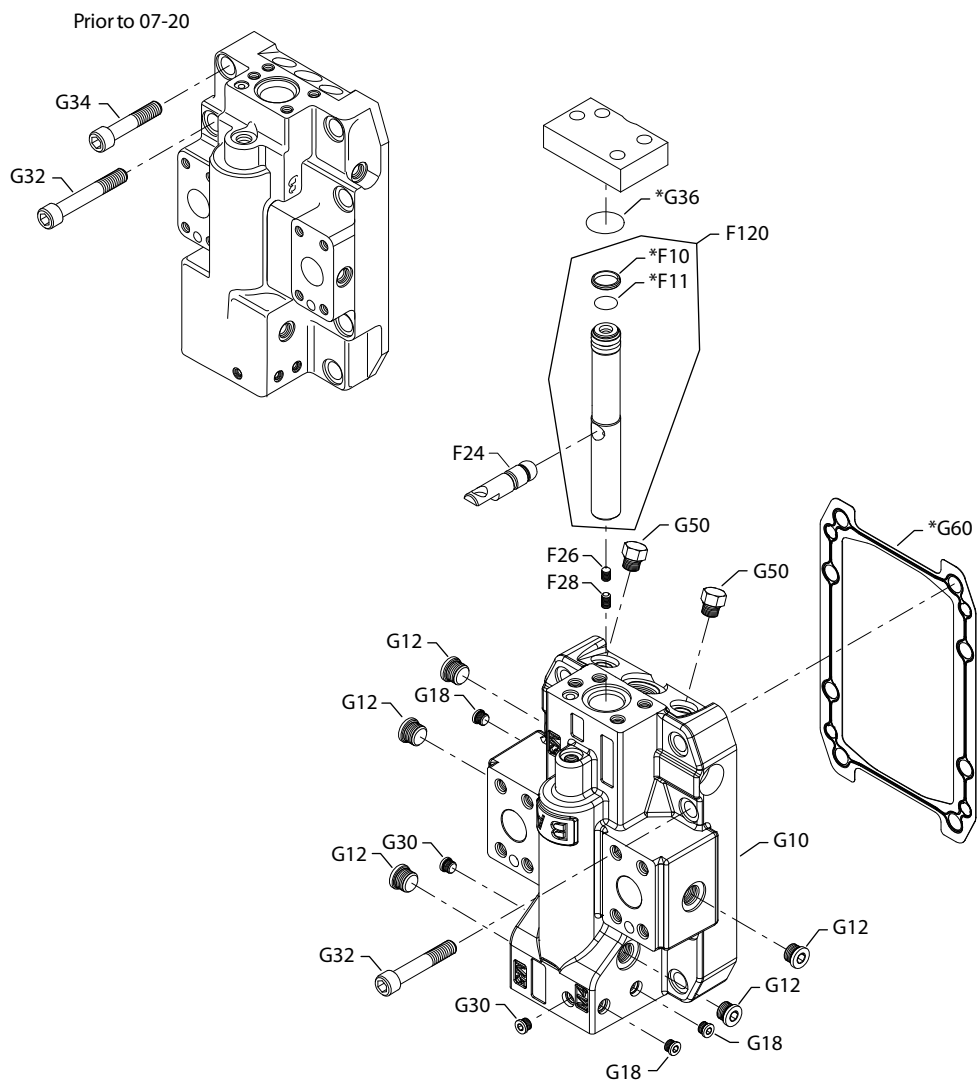
G24	03-40		727586 (9007314-1008)	Screw	4
G100	03-40		792739	O-ring, rectangular	1
G110	03-40		11040532	Plug assembly	1
G260	03-40		520017	Cover	1

**Endcap**

**S51 160cc End Cap Axial Ports A**

*Parts Configuration*

**(A, U, Z)**



\* included in base motor seal kit Q210

## Endcap

Order code: A

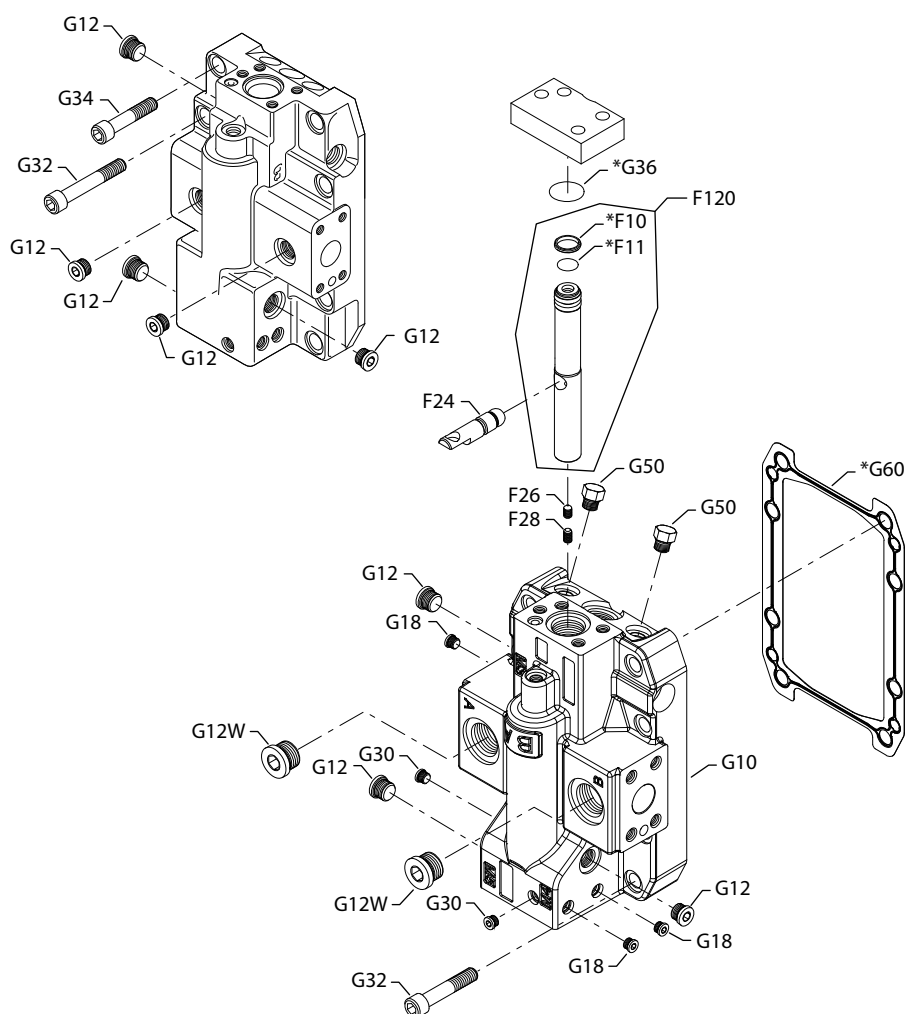
Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F10	92-01		508134	Servo piston seal ring (SB-1997-009)	1
F11	92-01		504207	O-ring	1
F24	92-01		500999	Feedback lever	1
F26	92-01		396879	Set screw	1
F28	92-01		042465	Set screw	1
F120	92-01		510077	Servo piston assembly	1
G10	07-20		521046	End cap, axial ports (SB-1996-005, SB-2002-001)	1
G12	95-07		140644	Plug assembly	5
G12	92-01	95-06	140644	Plug assembly	7
G18	10-31		11040532	Plug assembly	3
G18	95-07	10-30	11040532	Plug assembly	2
G18	92-01	95-06	092114 (9007712-0604)	Set screw	2
G30	92-01		11040532	Plug assembly	2
G32	07-20		914127 (9007314-1213)	Screw, M12 x 60	8
G32	92-01	07-19	914143 (9007314-1214)	Screw, M12 x 65	4
G34	92-01	07-19	283325 (9007314-1211)	Screw, M12 x 50	4
G36	92-01		364976	O-ring	1
G50	92-01		001511 (9005100-4400)	Plug assembly	2
G60	92-01		519806	End cap gasket (SB-1993-006, SB-2004-004)	1

**Endcap**

**S51 160cc End Cap Side Ports R**

*Parts Configuration*

**(R, V)**



\* included in base motor seal kit Q210

## Endcap

Order code: R

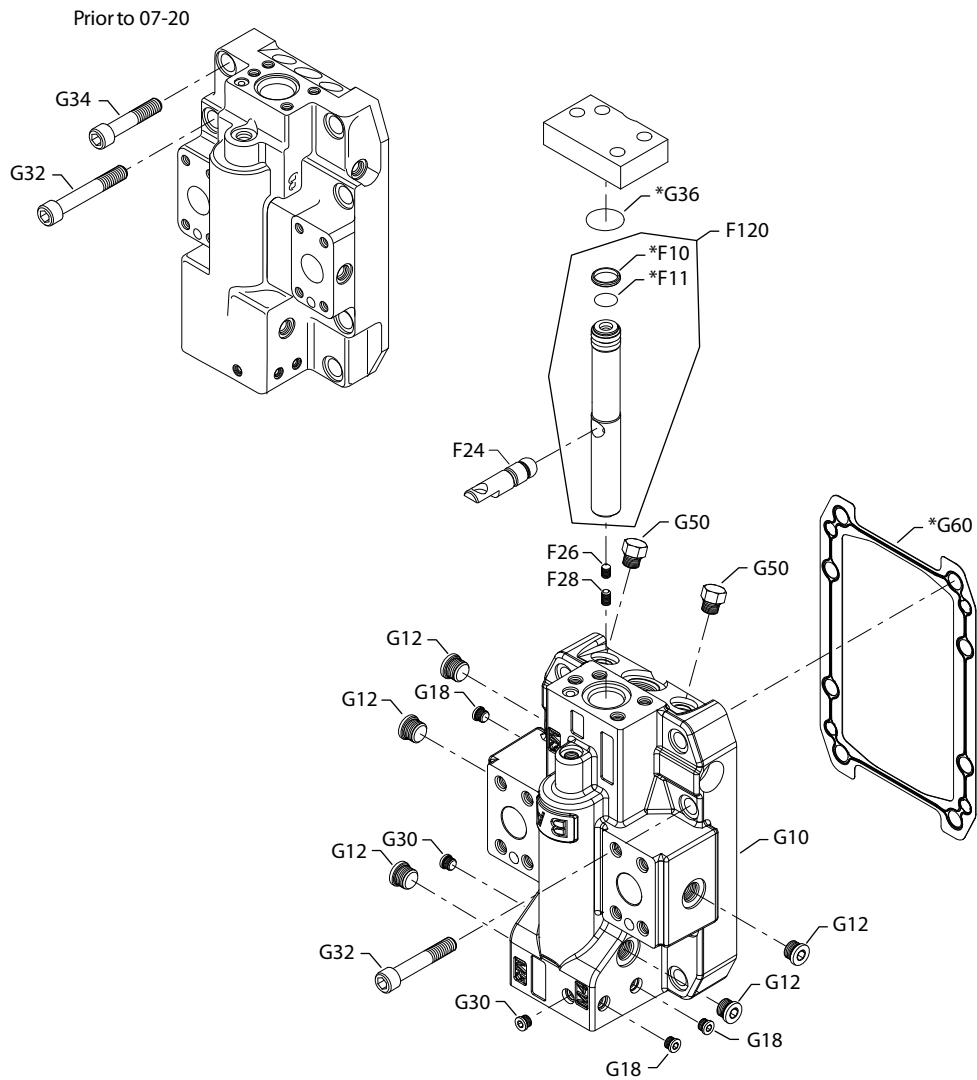
Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F10	92-01		508134	Servo piston seal ring (SB-1997-009)	1
F11	92-01		504207	O-ring	1
F24	92-01		500999	Feedback lever	1
F26	92-01		396879	Set screw	1
F28	92-01		042465	Set screw	1
F120	92-01		510077	Servo piston assembly	1
G10	07-18		521048	End cap, side ports (SB-1996-005, SB-2002-001)	1
G12	07-18		140644	Plug assembly	3
G12	95-07	07-17	140644	Plug assembly	5
G12	92-01	95-06	140644	Plug assembly	7
G12W	07-18		664524 (9005110-9000)	Plug assembly	2
G18	10-31		11040532	Plug assembly	3
G18	95-07	10-30	11040532	Plug assembly	2
G18	92-01	95-06	092114 (9007712-0604)	Set screw	2
G30	92-01		11040532	Plug assembly	2
G32	07-18		914127 (9007314-1213)	Screw, M12 x 60	8
G32	92-01	07-17	914143 (9007314-1214)	Screw, M12 x 65	4
G34	92-01	07-17	283325 (9007314-1211)	Screw, M12 x 50	4
G36	92-01		364976	O-ring	1
G50	92-01		001511 (9005100-4400)	Plug assembly	2
G60	92-01		519806	End cap gasket (SB-1993-006, SB-2004-004)	1

**Endcap**

**S51 160cc End Cap Axial Ports U**

*Parts Configuration*

**(A, U, Z)**



\* included in base motor seal kit Q210

## Endcap

Order code: U

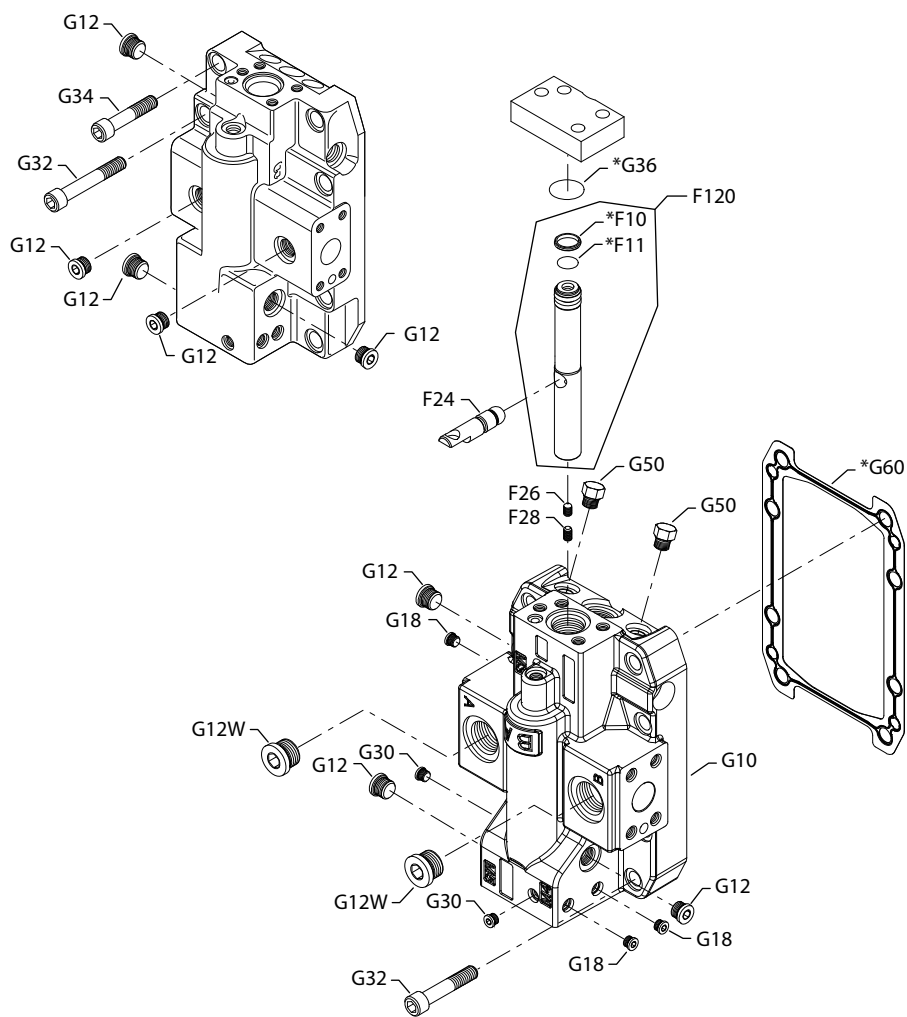
Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F10	05-18		508134	Servo piston seal ring	1
F11	05-18		504207	O-ring	1
F24	05-18		500999	Feedback lever	1
F26	05-18		396879	Set screw	1
F28	05-18		042465	Set screw	1
F120	05-18		510077	Servo piston assembly	1
G10	07-20		11001131	End cap, axial ports	1
G12	05-18		140644	Plug assembly	5
G18	10-31		11040532	Plug assembly	3
G18	05-18	10-30	11040532	Plug assembly	2
G30	05-18		11040532	Plug assembly	2
G32	07-20		914127 (9007314-1213)	Screw, M12 x 60	8
G32	05-18	07-19	914143 (9007314-1214)	Screw, M12 x 65	4
G34	05-18	07-19	283325 (9007314-1211)	Screw, M12 x 50	4
G36	05-18		364976	O-ring	1
G50	05-18		001511 (9005100-4400)	Plug assembly	2
G60	05-18		519806	End cap gasket	1

**Endcap**

**S51 160cc End Cap Side Ports V**

*Parts Configuration*

**(R, V)**



\* included in base motor seal kit Q210

## Endcap

Order code: V

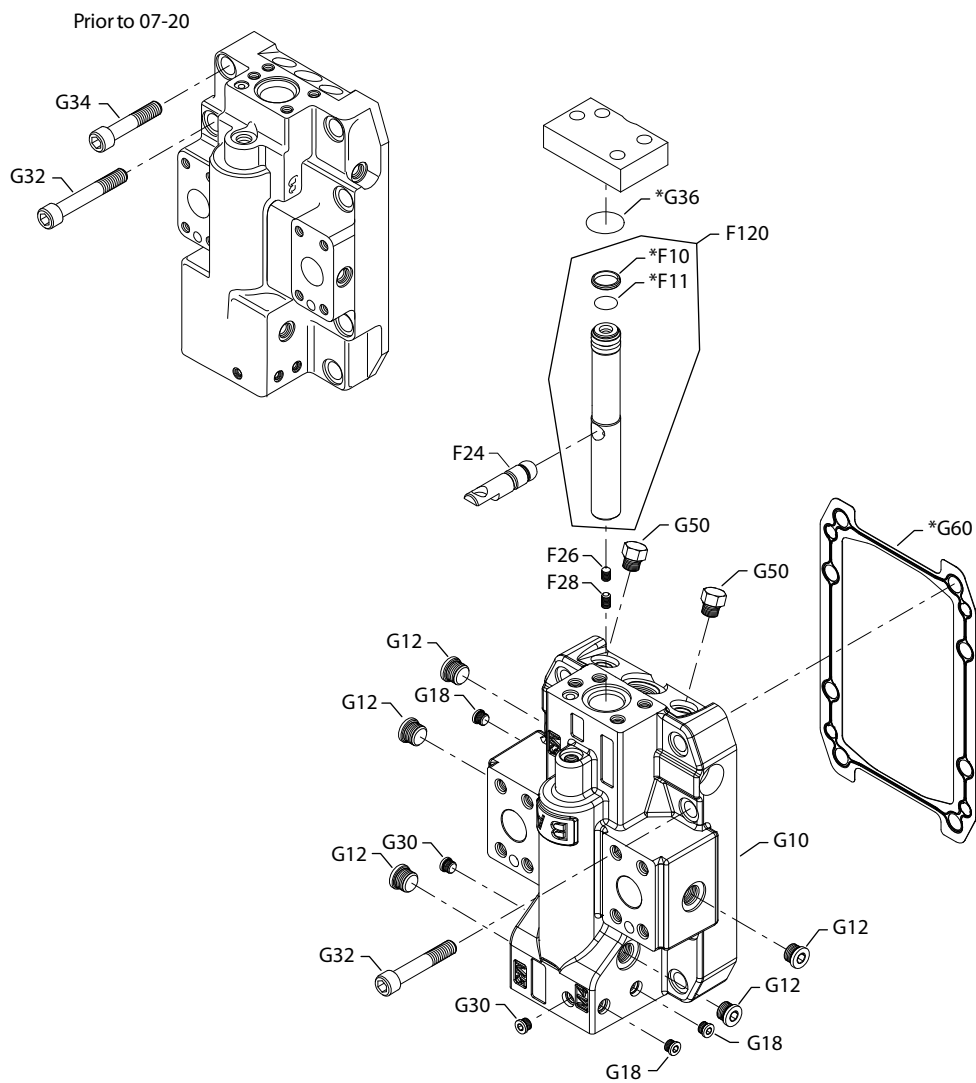
Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F10	07-27		508134	Servo piston seal ring	1
F11	07-27		504207	O-ring	1
F24	07-27		500999	Feedback lever	1
F26	07-27		396879	Set screw	1
F28	07-27		042465	Set screw	1
F120	07-27		510077	Servo piston assembly	1
G10	07-45		11029620	End cap, side ports	1
G12	07-45		140644	Plug assembly	3
G12	07-27	07-44	140644	Plug assembly	5
G12W	07-45		664524	Plug assembly	2
G18	10-31		11040532	Plug assembly	3
G18	07-27	10-30	11040532	Plug assembly	2
G30	07-27		11040532	Plug assembly	2
G32	07-45		914127 (9007314-1213)	Screw, M12 x 60	8
G32	07-27	07-44	914143 (9007314-1214)	Screw, M12 x 65	4
G34	07-27	07-44	283325 (9007314-1211)	Screw, M12 x 50	4
G36	07-27		364976	O-ring	1
G50	07-27		001511 (9005100-4400)	Plug assembly	2
G60	07-27		519806	End cap gasket	1

## Endcap

### S51 160cc End Cap Axial Ports Z

Parts Configuration

(A, U, Z)



\* included in base motor seal kit Q210

## Endcap

Order code: Z

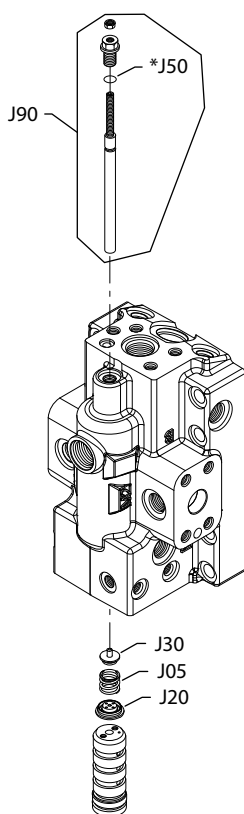
Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F10	04-07		508134	Servo piston seal ring	1
F11	04-07		504207	O-ring	1
F24	04-07		500999	Feedback lever	1
F26	04-07		396879	Set screw	1
F28	04-07		042465	Set screw	1
F120	04-07		510077	Servo piston assembly	1
G10	07-20		521046	End cap, axial ports ( <a href="#">SB-1996-005</a> , <a href="#">SB-2002-001</a> )	1
G12	04-07		140644	Plug assembly	5
G18	10-31		11040532	Plug assembly	3
G18	04-07	10-30	11040532	Plug assembly	2
G30	04-07		11040532	Plug assembly	2
G32	07-20		914127 (9007314-1213)	Screw, M12 x 60	8
G32	04-07	07-19	914143 (9007314-1214)	Screw, M12 x 65	4
G34	04-07	07-19	283325 (9007314-1211)	Screw, M12 x 50	4
G36	04-07		364976	O-ring	1
G50	04-07		001511 (9005100-4400)	Plug assembly	2
G60	04-07		519806	End cap gasket ( <a href="#">SB-1993-006</a> , <a href="#">SB-2004-004</a> )	1

**Threshold/range**

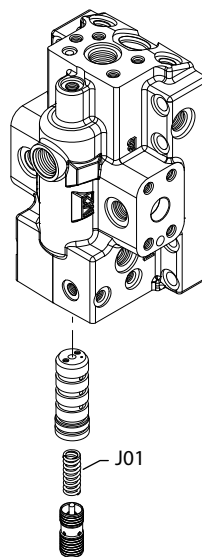
**S51 160cc Threshold/Range Common Parts A-W**

*Parts Configuration*

**(A, B, C, D, G, H, J, K, L,  
P, R, S, T, V & W)**



**(E & M)**



\* included in base motor seal kit Q210

### Threshold/range

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
J20	93-34		11138206	Spring seat	1
J30	96-07		507670	Spring seat <a href="#">(SB-1995-013)</a>	1
J50	92-33		732479 (9004105-0100)	O-ring	1
J90	96-07		507683	Threshold adjustment screw assembly <a href="#">(SB-1995-013)</a>	1

*Order code: A (2-5 bar)*

J05	92-33		507638	Spring	1
-----	-------	--	--------	--------	---

*Order code: B (6-12 bar)*

J05	92-33		722215	Spring	1
-----	-------	--	--------	--------	---

*Order code: C (13-30 bar)*

J05	92-33		722207	Spring	1
-----	-------	--	--------	--------	---

*Order code: D (20-30 bar)*

J05	92-33		722207	Spring	1
-----	-------	--	--------	--------	---

*Order code: E*

J01	92-07		729442	Spring	1
-----	-------	--	--------	--------	---

*Order code: G (3-5 bar)*

J05	92-33		722207	Spring	1
-----	-------	--	--------	--------	---

*Order code: H (6-8 bar)*

J05	92-33		722207	Spring	1
-----	-------	--	--------	--------	---

*Order code: J (15-50 mA)*

J05	92-33		722215	Spring	1
-----	-------	--	--------	--------	---

*Order code: K (51-85 mA)*

J05	92-33		722207	Spring	1
-----	-------	--	--------	--------	---

*Order code: L (110-370 mA)*

J05	92-33		722215	Spring	1
-----	-------	--	--------	--------	---

*Order code: M (45-70 mA)*

J01	92-07		729442	Spring	1
-----	-------	--	--------	--------	---

*Order code: N (no adjustment)*

			No parts		
--	--	--	----------	--	--

### Threshold/range

*Order code: P (no adjustment)*

J05	11-08		722215	Spring	1
-----	-------	--	--------	--------	---

*Order code: R (320 mA)*

J05	99-35		507638	Spring	1
-----	-------	--	--------	--------	---

*Order code: S (640 mA)*

J05	99-35		507638	Spring	1
-----	-------	--	--------	--------	---

*Order code: T (220 mA)*

J05	99-35		507638	Spring	1
-----	-------	--	--------	--------	---

*Order code: V (220 mA)*

J05	95-35		507638	Spring	1
-----	-------	--	--------	--------	---

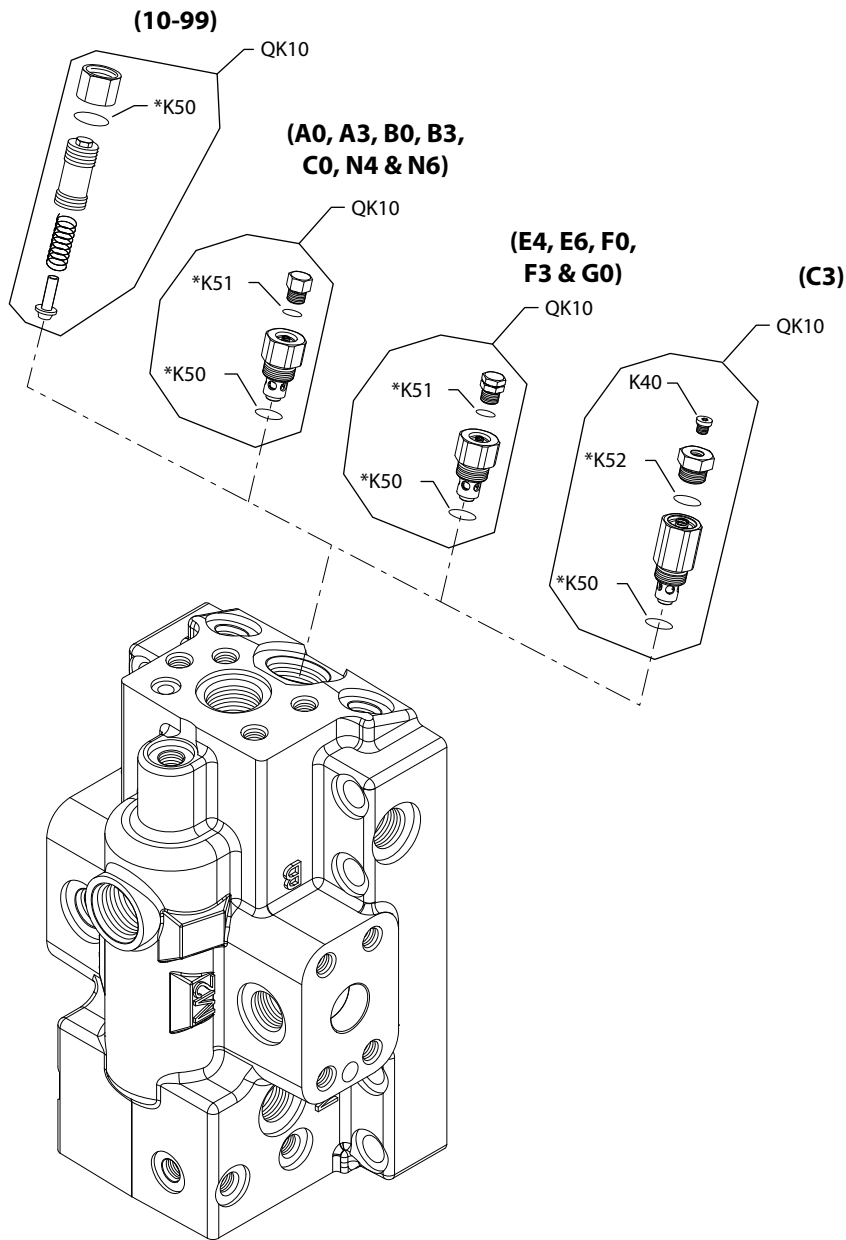
*Order code: W (440 mA)*

J05	97-41		507638	Spring	1
-----	-------	--	--------	--------	---

**Charge relief**

**S51 160cc Charge Pressure Relief 00-G0**

*Parts Configuration*



\* included in base motor seal kit Q210

## Charge relief

Order code: 00

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
	92-01	01-18	None		

Order code: 10-19

K50	92-01	01-17	001149 (9004201-6200)	O-ring	1
QK10	92-01	01-17	8510012	Charge relief valve kit	1

Order code: A0

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510253	Cartridge kit, 13 bar, 11 l/min	1

Order code: A3

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510256	Cartridge kit, 13 bar, 16 l/min	1

Order code: B0

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		11020552	Cartridge kit, 13 bar, 22 l/min	1

Order code: B3

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510243	Cartridge kit, 13 bar, 27 l/min	1

Order code: C0

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		11097062	Cartridge kit, 13 bar, 35 l/min	1

Order code: C3

K40	97-25		11040532	Plug assembly	1
K50	97-25		001149 (9004201-6200)	O-ring	1
K52	97-25		001131 (9004201-5000)	O-ring	1
QK10	97-25		11097063	Cartridge kit, 13 bar, 45 l/min	1

Order code: E4

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510261	Cartridge kit, 16 bar, 4 l/min	1

**Charge relief**

*Order code: E6*

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510252	Cartridge kit, 16 bar, 7 l/min	1

*Order code: F0*

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510259	Cartridge kit, 16 bar, 11 l/min	1

*Order code: F3*

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510262	Cartridge kit, 16 bar, 16 l/min	1

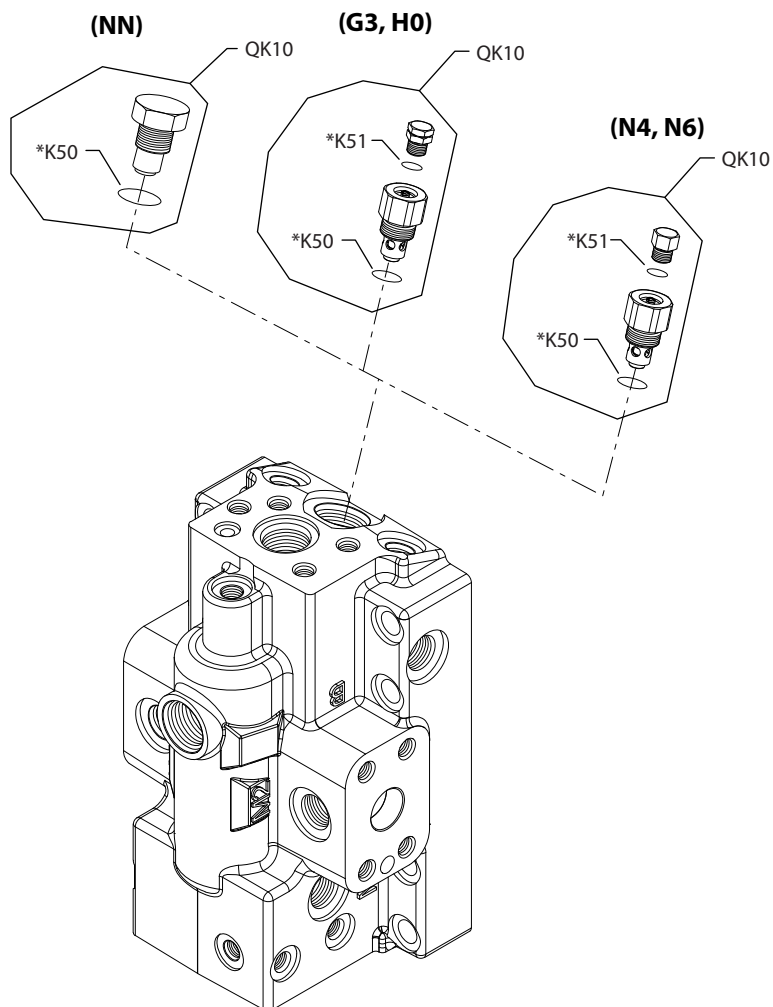
*Order code: G0*

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510260	Cartridge kit, 16 bar, 22 l/min	1

**Charge relief**

**S51 160cc Charge Pressure Relief G3-NN**

*Parts Configuration*



\* included in base motor seal kit Q210

### Charge relief

*Order code: G3*

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510263	Cartridge kit, 16 bar, 2 l/min	1

*Order code: H0*

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510258	Cartridge kit, 16 bar, 35 l/min	1

*Order code: N4*

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		8510255	Cartridge kit, 13 bar, 4 l/min	1

*Order code: N6*

K50	97-25		001149 (9004201-6200)	O-ring	1
K51	97-25		085043 (9004201-3700)	O-ring	1
QK10	97-25		11097072	Cartridge kit, 13 bar, 7 l/min	1

*Order code: NN*

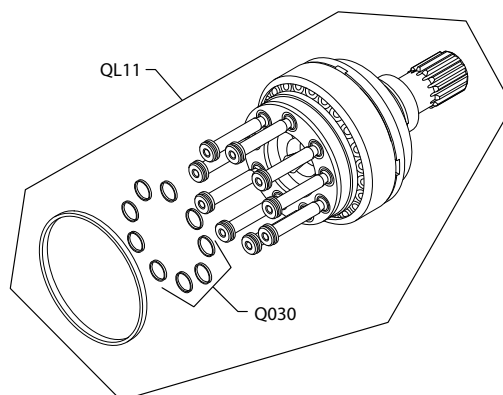
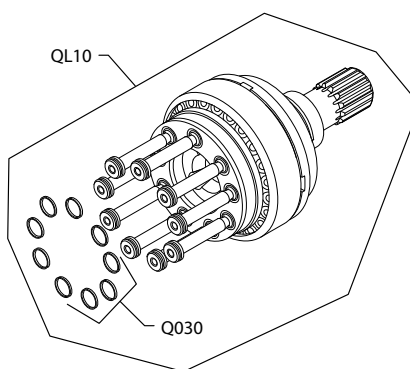
K50	97-25		001149 (9004201-6200)	O-ring	1
QK10	97-25		11097045	Loop flushing defeated kit	1

### Output shaft

#### S51 160cc Output Shaft C8-F2

*Parts configuration*

**(C8, D4, D5, F1 & F2)**



### Output shaft

*Order code: C8*

QL10	92-33		11100431	Shaft, 27 tooth spline without speed ring	1
QL11	92-33		11100432	Shaft, 27 tooth spline with speed ring	1
Q030	92-33		11100638	Piston ring kit	1

*Order code: D4*

QL10	92-33		11100457	Shaft, 21 t. spline without speed ring <i>(SB-1999-059)</i>	1
QL11	92-33		11100458	Shaft, 21 tooth spline with speed ring <i>(SB-1999-059)</i>	1
Q030	92-33		11100638	Piston ring kit	1

*Order code: D5*

QL10	92-33		11100459	Shaft, 24 t. spline without speed ring <i>(SB-1999-059)</i>	1
QL11	92-33		11100460	Shaft, 24 tooth spline with speed ring <i>(SB-1999-059)</i>	1
Q030	92-33		11100638	Piston ring kit	1

*Order code: F1*

QL10	92-33		11100437	Shaft, 13 tooth spline without speed ring	1
QL11	92-33		11100438	Shaft, 13 tooth spline with speed ring	1
Q030	92-33		11100638	Piston ring kit	1

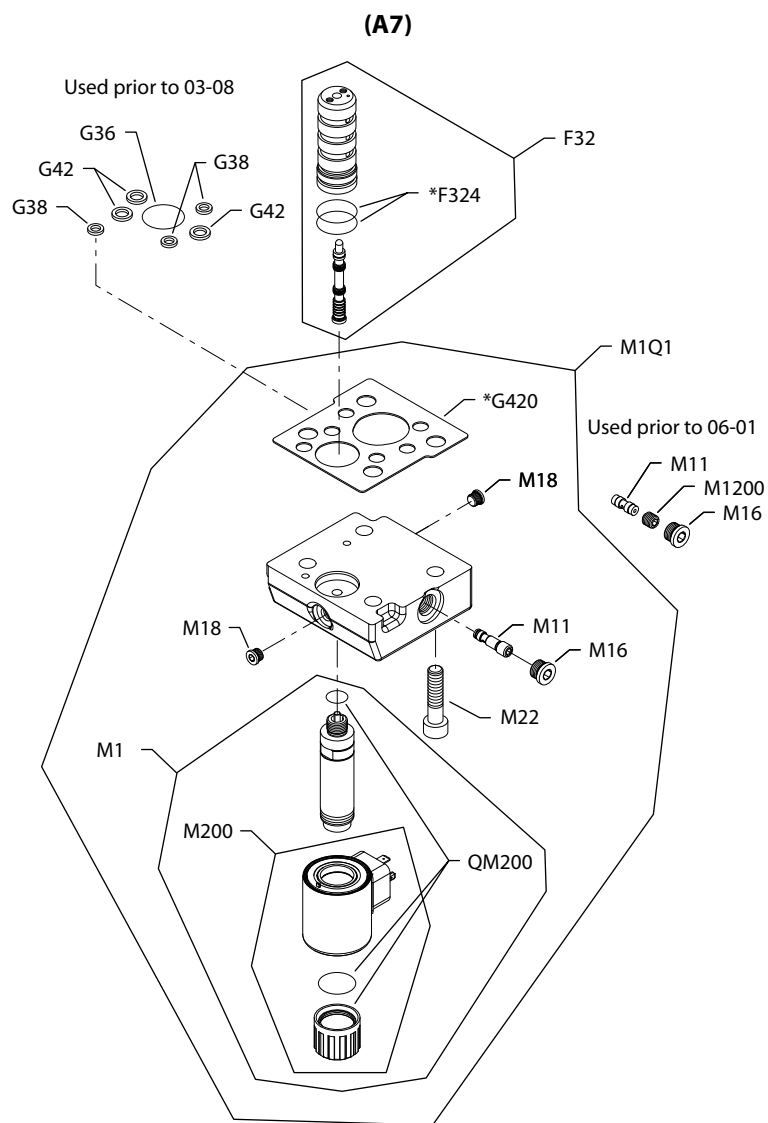
*Order code: F2*

QL10	92-33		11100439	Shaft, 15 tooth spline without speed ring	1
QL11	92-33		11100440	Shaft, 15 tooth spline with speed ring	1
Q030	92-33		11100638	Piston ring kit	1

**Control**

**S51 160cc Control Electric Proportional A7**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

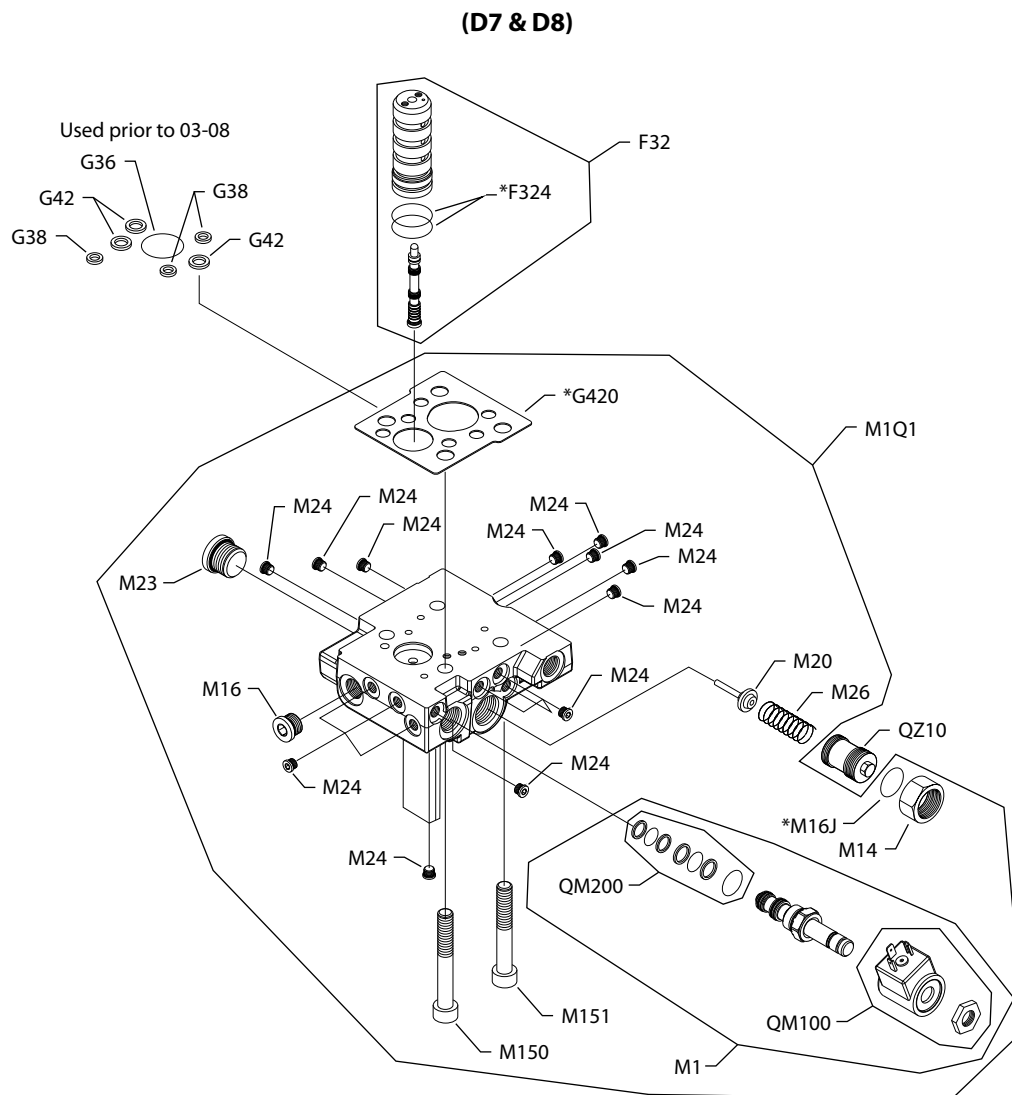
Order code: A7

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	98-03		509845	4-way valve assembly	1
F324	98-03		730036	O-ring	2
G36	98-03	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	98-03	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	98-03	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	98-03		11026438	Solenoid valve, 12 volt, JET connector	1
M1Q1	98-03		518244	Control kit, 12 volt, JET connector	1
M11	06-02		11000893	Shuttle valve	1
M11	98-03	06-01	759415	Shuttle valve	1
M16	98-03		140644	Plug assembly	1
M18	98-03		11040532	Plug assembly	2
M22	98-03		085183	Screw	4
M200	98-03		11026450	Coil kit, 12 volt, JET connector	1
M1200	98-03	06-01	759423	Orifice plug	1
QM200	98-03		11121251	Coil nut kit	1

**Control**

**S51 60/160cc Control Electric Proportional D7-D8**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: D7

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	99-35		727115	4-way valve assembly	1
F324	99-35		730036	O-ring	2
G36	99-35	03-07	364968	O-ring <a href="#">(SB-2002-001)</a>	1
G38	99-35	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	99-35	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511810	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	99-35		518080	Solenoid valve, 12 volt, Jet connector	1
M1Q1	99-35		518257	Control kit, 12 volt, Jet connector	1
M14	99-35		342709	Nut	1
M15	99-35		067694	Screw	2
M16	99-35		140644	Plug assembly	2
M16J	99-35		001149 (9004201-6200)	O-ring	1
M20	99-35		501876	PCOR spool	1
M23	99-35		315325	Plug assembly	1
M24	99-35		11040532	Plug	15
M26	99-35		509152	Spring	1
M150	99-35		739664	Screw	2
M151	99-35		680686	Screw	2
QM034	99-35		11099849	Solenoid valve seal kit	1

Order code: D8

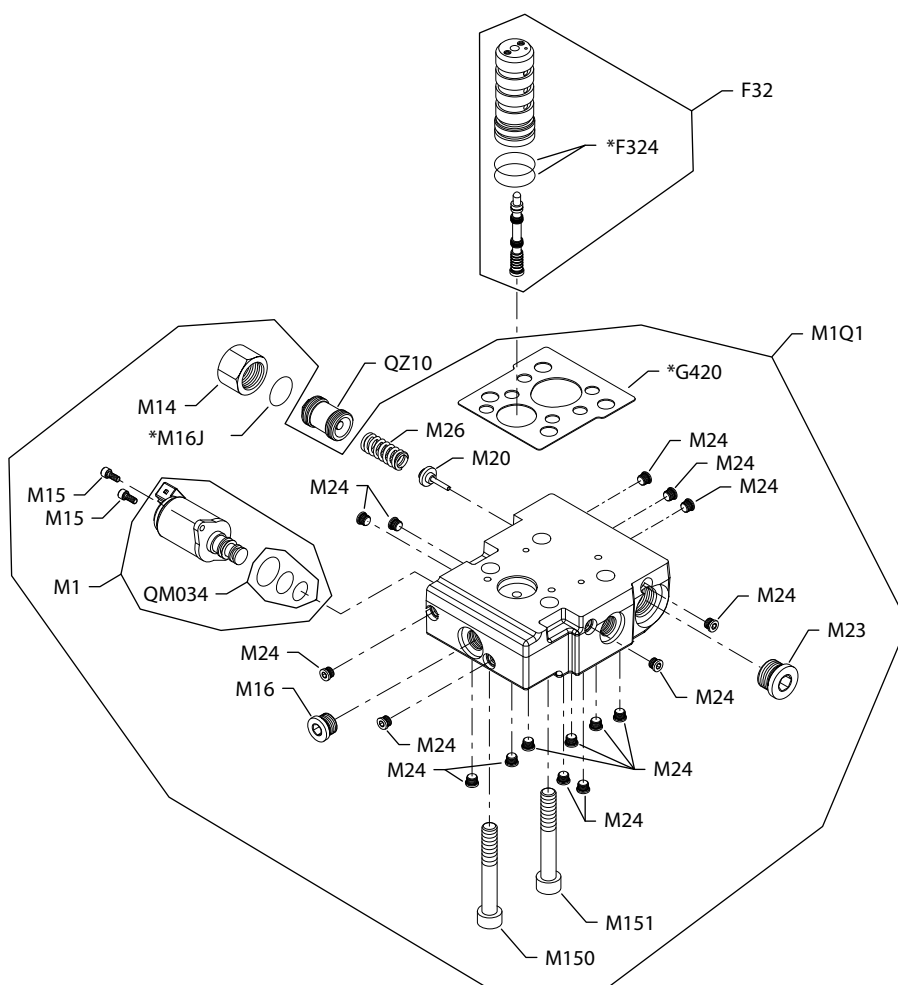
F32	99-35		727115	4-way valve assembly	1
F324	99-35		730036	O-ring	2
G36	99-35	03-07	364968	O-ring <a href="#">(SB-2002-001)</a>	1
G38	99-35	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	99-35	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511810	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	99-35		518081	Solenoid valve, 24 volt, Jet connector	1
M1Q1	99-35		518256	Control kit, 24 volt, Jet connector	1
M14	99-35		342709	Nut	1
M15	99-35		067694	Screw	2
M16	99-35		140644	Plug assembly	2
M16J	99-35		001149 (9004201-6200)	O-ring	1
M20	99-35		501876	PCOR spool	1
M23	99-35		315325	Plug assembly	1
M24	99-35		11040532	Plug	15
M26	99-35		509152	Spring	1
M150	99-35		739664	Screw	2
M151	99-35		680686	Screw	2
QM034	99-35		11099849	Solenoid valve seal kit	1

**Control**

**S51 160cc Control Electric Proportional DA-DC**

*Parts Configuration*

**(D7 & D8)**



\* included in base motor seal kit Q210

## Control

Order code: DA

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	06-25		727115	4-way valve assembly	1
F324	06-25		730036	O-ring	2
G420	06-25		511851	Gasket/O-ring seal	1
M1	06-25		518081	Solenoid valve, 24 volt	1
M1Q1	06-25		11004050	Control kit, 24 volt	1
M14	06-25		342709	Nut	1
M15	06-25		067694	Screw	2
M16	06-25		140644	Plug assembly	1
M16J	06-25		001149 (9004201-6200)	O-ring	1
M20	06-25		501876	PCOR spool	1
M23	06-25		315325	Plug assembly	1
M24	06-25		11040532	Plug assembly	17
M26	06-25		509152	Spring	1
M150	06-25		914143	Screw	2
M151	06-25		914143	Screw	2
QM034	06-25		11099849	Solenoid valve seal kit	1

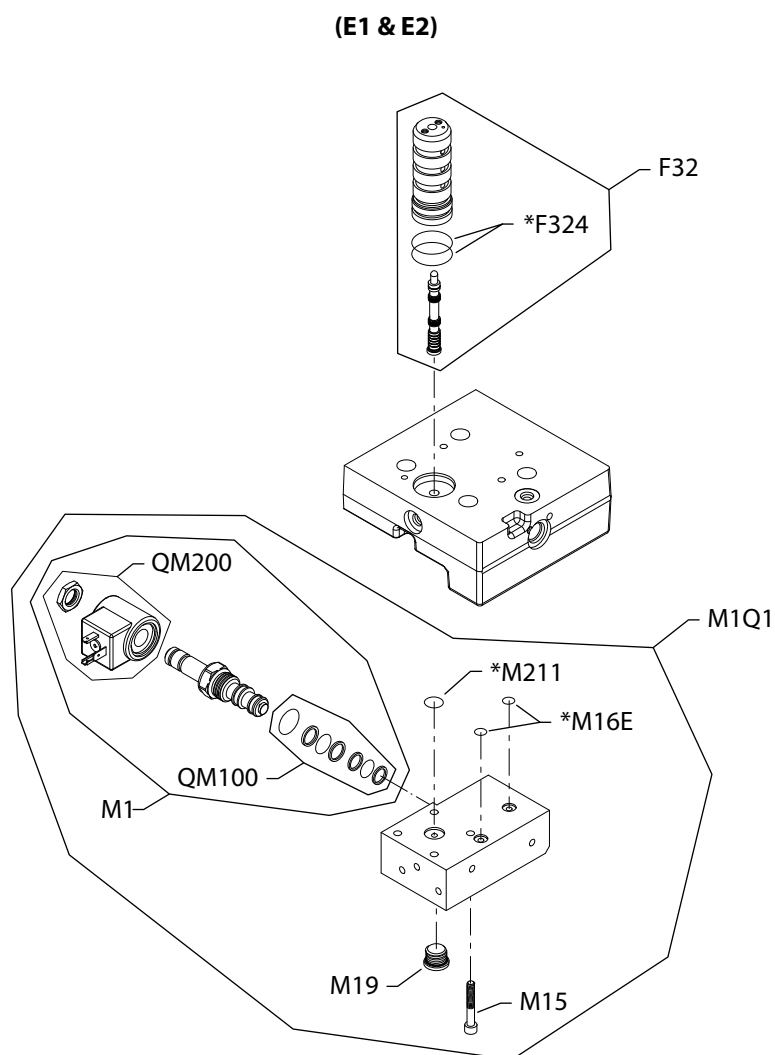
Order code: DC

F32	06-25		727115	4-way valve assembly	1
F324	06-25		730036	O-ring	2
G420	06-25		511851	Gasket/O-ring seal ( <a href="#">SB-2002-001</a> )	1
M1	06-25		518080	Solenoid valve, 12 volt	1
M1Q1	06-25		11012181	Control kit, 12 volt	1
M14	06-25		342709	Nut	1
M15	06-25		067694	Screw	2
M16	06-25		140644	Plug assembly	1
M16J	06-25		001149 (9004201-6200)	O-ring	1
M20	06-25		501876	PCOR spool	1
M23	06-25		315325	Plug assembly	1
M24	06-25		11040532	Plug	17
M26	06-25		509152	Spring	1
M150	06-25		914143	Screw	2
M151	06-25		914143	Screw	2
QM034	06-25		11099849	Solenoid valve seal kit	1

**Control**

**S51 60/160cc Control Electric 2-Position E1-E2**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: E1

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	92-07		727115	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M1	92-07		784942	Solenoid valve, 12 volt, DIN connector	1
M1Q1	92-07		503618	Control kit, 12 volt, DIN connector	1
M15	92-07		329599	Screw	4
M16	92-07		140644	Plug assembly	1
M16E	92-07		732479 (9004105-0100)	O-ring	2
M19	92-07		140644	Plug assembly	1
M211	92-07		365015	O-ring	1
QM100	92-07		11146862	Solenoid valve seal kit	1
QM200	92-07		11146863	Coil kit, 12 volt, DIN connector	1

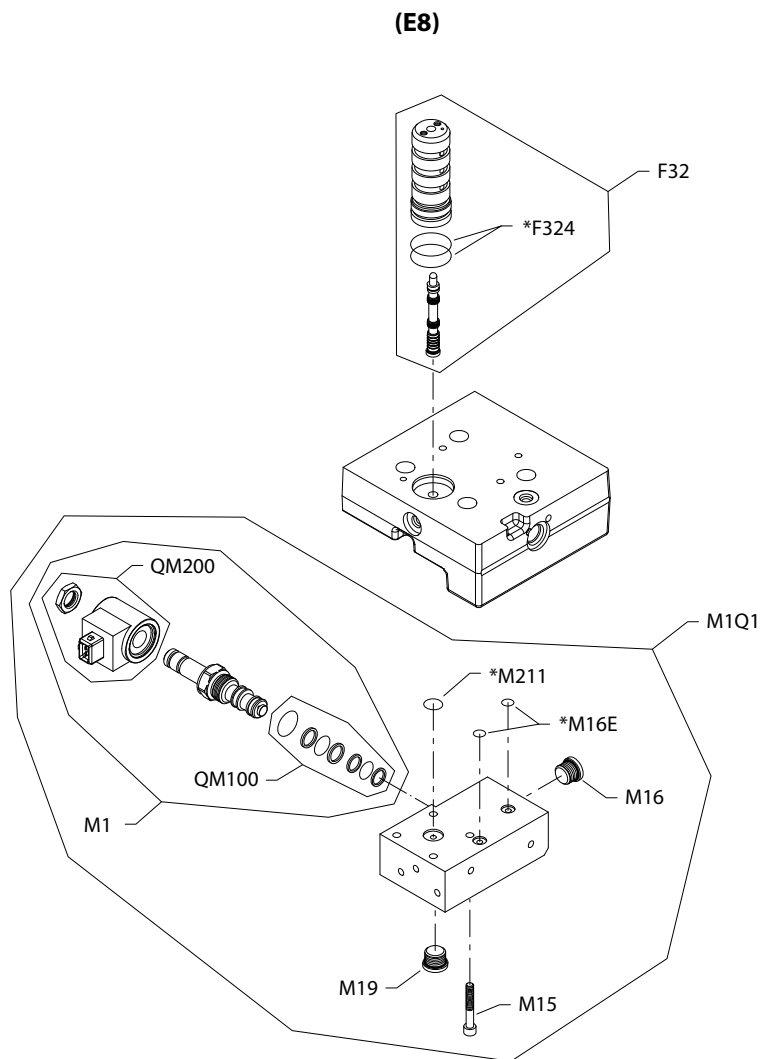
Order code: E2

F32	92-07		727115	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M1	92-07		784934	Solenoid valve, 24, volt, DIN connector	1
M1Q1	92-07		503617	Control kit, 24 volt, DIN connector	1
M15	92-07		329599	Screw	4
M16	92-07		140644	Plug assembly	1
M16E	92-07		732479 (9004105-0100)	O-ring	2
M19	92-07		140644	Plug assembly	1
M211	92-07		365015	O-ring	1
QM100	92-07		11146862	Solenoid valve seal kit	1
QM200	92-07		11146864	Coil kit, 24 volt, DIN connector	1

**Control**

**S51 160cc Control Electric 2-Position E8**

*Parts configuration*



\* Included in base model kit Q210

## Control

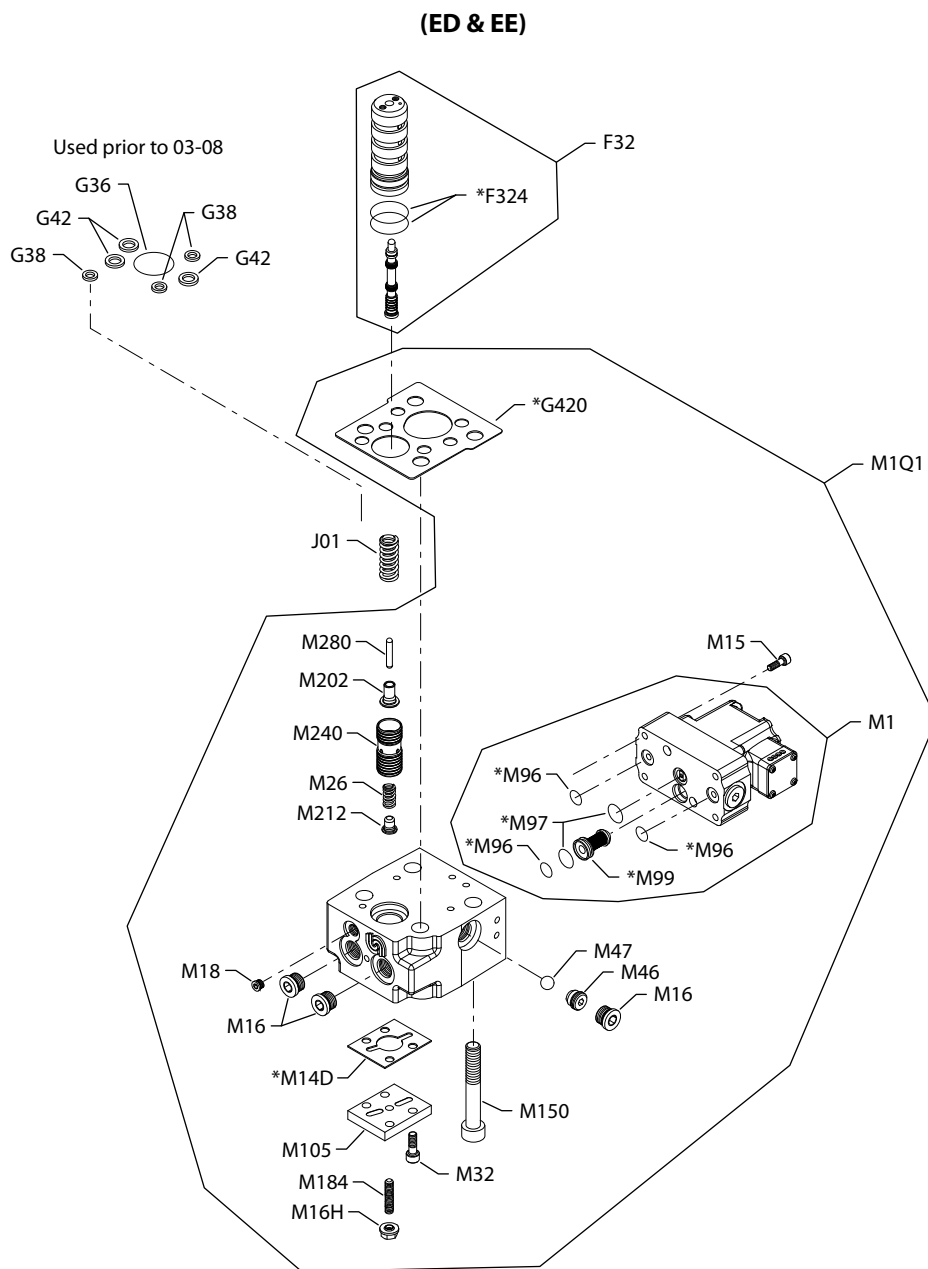
Order code: E8

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F32	03-03		727115	4-way valve assembly	1
F324	03-03		730036	O-ring	2
M1	03-03		519956	Solenoid valve, 24, volt	1
M1Q1	03-03		520459	Control kit, 24 volt	1
M15	03-03		329599	Screw	4
M16	03-03		140644	Plug assembly	1
M16E	03-03		732479 (9004105-0100)	O-ring	2
M19	03-03		140644	Plug assembly	1
M211	03-03		365015	O-ring	1
QM100	03-03		11146862	Solenoid valve seal kit	1
QM200	03-03		11146865	Coil kit, 24 volt	1

**Control**

**S51 160cc Control Electric Proportional ED & EE**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	95-10		501055	4-way valve assembly	1
F324	95-10		730036	O-ring	2
G36	95-10	03-07	364976	O-ring <i>(SB-2002-001)</i>	1
G38	95-10	03-07	792739	O-ring <i>(SB-2002-001)</i>	3
G42	95-10	03-07	754580	O-ring <i>(SB-2002-001)</i>	3
G420	03-08		511851	Gasket/O-ring seal	1
M14D	95-10		509940	Gasket	1
M15	95-10		716860	Screw	4
M16	95-10		140644	Plug assembly	3
M16H	95-10		517862	Seal nut	1
M18	95-10		11040532	Plug assembly	1
M26	95-10		729434	Spring	1
M32	95-10		704395	Screw	4
M46	95-10		625210	Check ball seat	1
M47	95-10		916007	Ball	1
M96	95-10		9004105-0120	O-ring	3
M97	95-10		9004105-0130	O-ring	2
M99	95-10		K08572	Filter assembly	1
M105	95-10		717199	Cover	1
M150	95-10		914143	Screw	4
M184	95-10		043240	Set screw	1
M202	95-10		728980	Spring seat	1
M212	95-10		719377	Spring guide	1
M240	95-10		728998	Piston	1
M280	95-10		736983	Pin	1

### Electric proportional

Order code: ED

M1	95-10		MCV116A4204	PCP, weather-pack connector	1
M1Q1	95-10		518229	Control kit, weather-pack connector	1

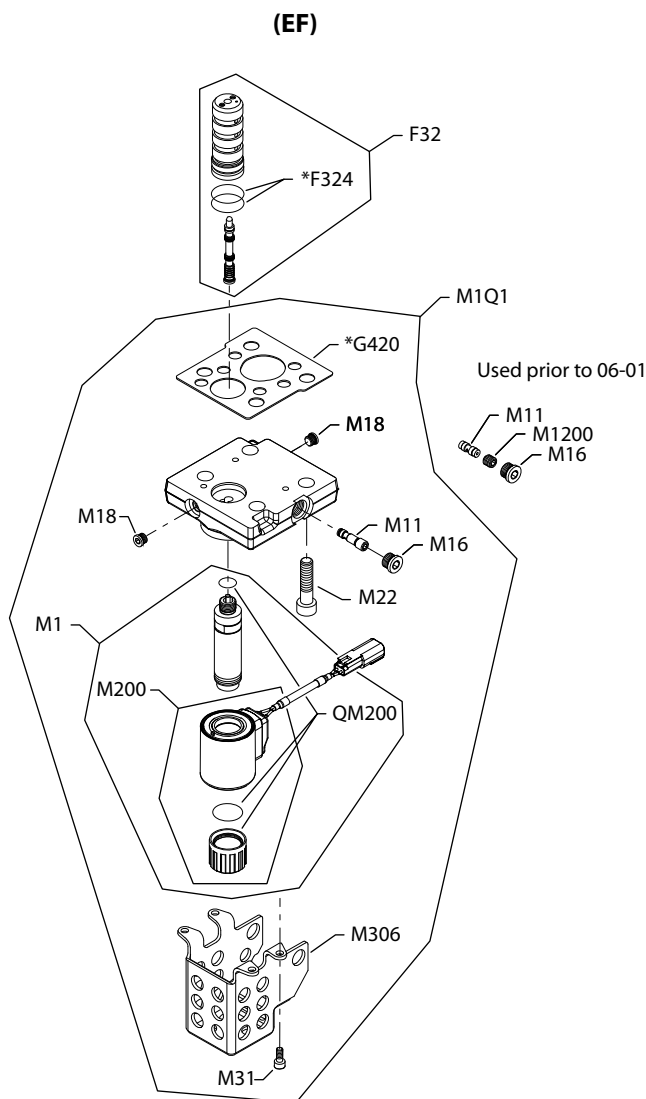
Order code: EE

M1	95-10		MCV116G4213	PCP, Packard connector	1
M1Q1	95-10		518253	Control kit, Packard connector	1

**Control**

**S51 160cc Control Electric Proportional With Protective Cover EF**

*Parts Configuration*



## Control

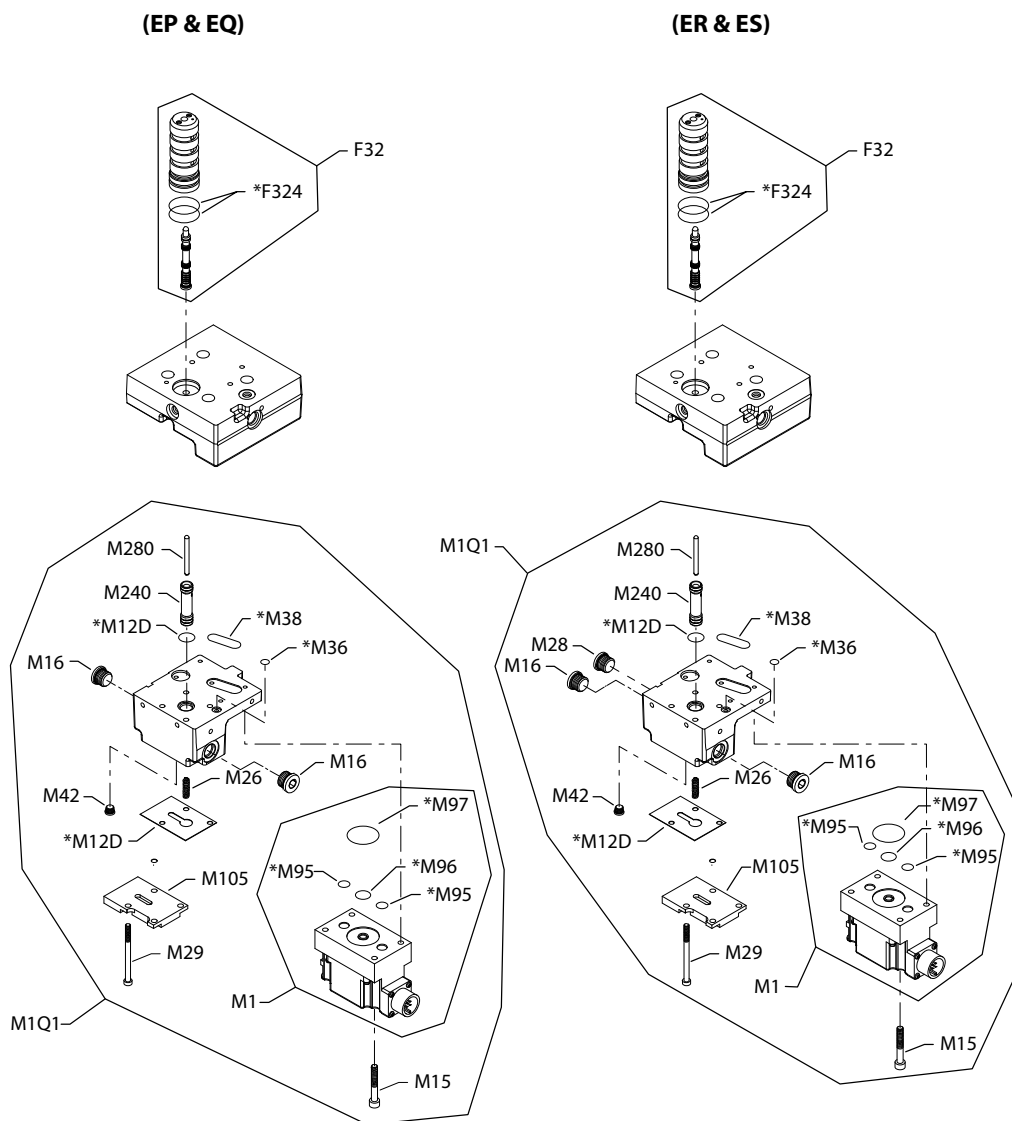
Order code: EF

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	03-14		509845	4-way valve assembly	1
F324	03-14		730036	O-ring	2
M1Q1	03-14		519434	Control kit, 24 volt, Deutsch connector	1
M1	03-14		519435	Solenoid valve, 24 volt, Deutsch connector	1
M11	06-01		11000893	Shuttle valve	1
M11	03-14	05-52	759415	Shuttle valve	1
M16	03-14		140644	Plug assembly	1
M18	03-14		11040532	Plug assembly	2
M22	03-14		085183	Screw	4
M31	03-14		395822 (9007315-0603)	Screw	4
M200	03-14		519436	Coil kit, 24 volt, Deutsch connector	1
M306	03-14		11000809	Protective cover	1
M1200	03-14	05-52	759423	Orifice plug	1
QM200	03-14		11000337	Coil nut kit	1

**Control**

**S51 60/160cc Control Electric Proportional EP-ES**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	92-07		753186	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M12D	92-07		504358	Gasket	1
M15	92-07		067678 (9007315-0504)	Screw	4
M16	92-07		140644	Plug assembly	2
M26	92-07		717454	Spring	1
M29	92-07		771832	Screw	4
M30	92-07		056770 (9004105-0150)	O-ring	1
M36	92-07		732479 (9004105-0100)	O-ring	1
M38	92-07		011395 (9004104-0230)	O-ring	1
M42	92-07		11040532	Plug assembly	1
M95	92-07		9004104-0120	O-ring	2
M96	92-07		9004104-0140	O-ring	1
M97	92-07		9004104-0240	O-ring	1
M105	92-07		751883	Cover	1
M240	92-07		741942	Piston	1
M280	92-07		742320	Pin	1

### Order code: EP

M1	92-07		MCV110A1058	PCP, Packard connector	1
M16	92-07		140644	Plug assembly	2
M1Q1	92-07		503791	Control kit, Packard connector	1

### Order code: EQ

M1	92-07		MCV110A1017	PCP, MS connector	1
M16	92-07		140644	Plug assembly	2
M1Q1	92-07		503790	Control kit, MS connector	1

### Order code: ER

M1	95-17		MCV110A1058	PCP, Packard connector	1
M16	92-07		140644	Plug assembly	3
M1Q1	95-17		507391	Control kit, Packard connector	1

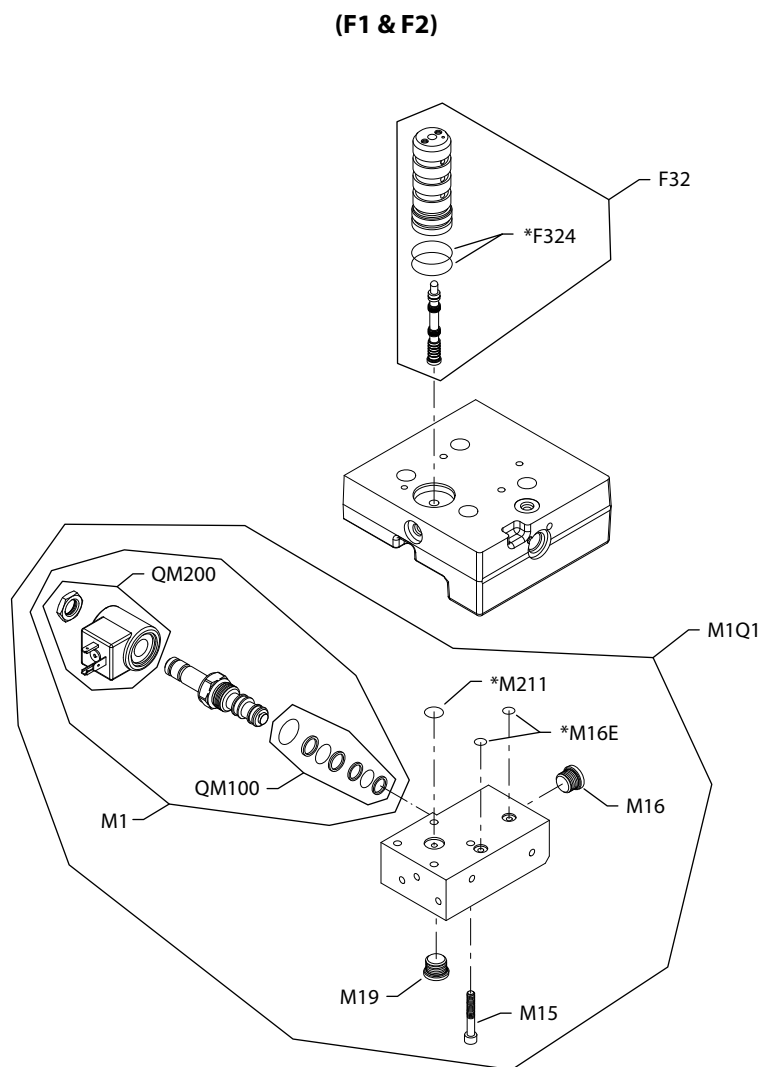
### Order code: ES

M1	95-17		MCV110A1017	PCP, MS connector	1
M16	92-07		140644	Plug assembly	3
M1Q1	95-17		507393	Control kit, MS connector	1

**Control**

**S51 60/160cc Control Electric 2-Position F1-F2**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: F1

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	92-07		500820	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M1	92-07		784942	Solenoid valve, 12 volt, DIN connector	1
M1Q1	92-07		503618	Control kit, 12 volt, DIN connector	1
M15	92-07		329599	Screw	4
M16	92-07		140644	Plug assembly	1
M16E	92-07		732479 (9004105-0100)	O-ring	2
M19	92-07		140644	Plug assembly	1
M211	92-07		365015	O-ring	1
QM100	92-07		11146862	Solenoid valve seal kit	1
QM200	92-07		11146863	Coil kit, 12 volt, DIN connector	1

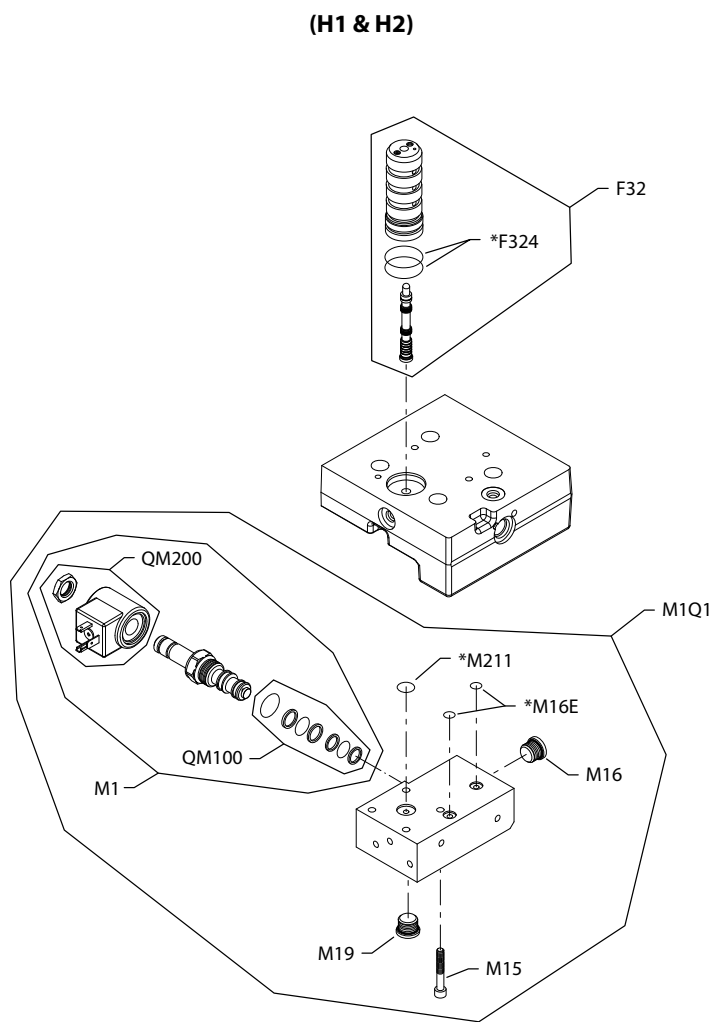
Order code: F2

F32	92-07		500820	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M1	92-07		784934	Solenoid valve, 24, volt, DIN connector	1
M1Q1	92-07		503617	Control kit, 24 volt, DIN connector	1
M15	92-07		329599	Screw	4
M16	92-07		140644	Plug assembly	1
M16E	92-07		732479 (9004105-0100)	O-ring	2
M19	92-07		140644	Plug assembly	1
M211	92-07		365015	O-ring	1
QM100	92-07		11146862	Solenoid valve seal kit	1
QM200	92-07		11146864	Coil kit, 24 volt, DIN connector	1

**Control**

**S51 60/160cc Control Hydraulic Proportional with Electric Override H1-H2**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: H1

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	92-07		727115	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M1	92-07		784942	Solenoid valve, 12 volt, DIN connector	1
M1Q1	92-07		503613	Control kit, 12 volt, DIN connector	1
M15	92-07		329599	Screw	4
M16E	92-07		732479 (9004105-0100)	O-ring	2
M19	92-07		140644	Plug assembly	1
M211	92-07		365015	O-ring	1
QM100	92-07		11146862	Solenoid valve seal kit	1
QM200	92-07		11146863	Coil kit, 12 volt, DIN connector	1

Order code: H2

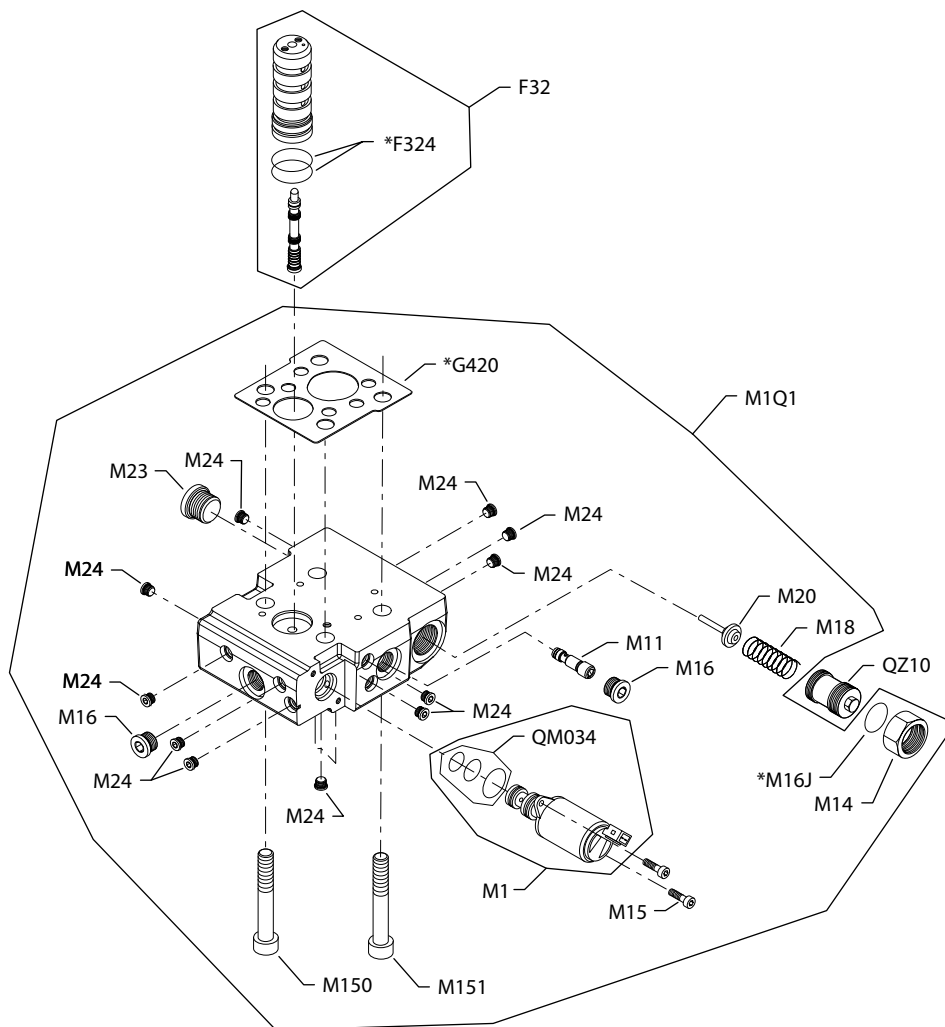
F32	92-07		727115	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M1	92-07		784934	Solenoid valve, 24, volt, DIN connector	1
M1Q1	92-07		503614/P	Control kit, 24 volt, DIN connector	1
M15	92-07		329599	Screw	4
M16E	92-07		732479 (9004105-0100)	O-ring	2
M19	92-07		140644	Plug assembly	1
M211	92-07		365015	O-ring	1
QM100	92-07		11146862	Solenoid valve seal kit	1
QM200	92-07		11146864	Coil kit, 24 volt, DIN connector	1

**Control**

**S51 60/160cc Control Electric Proportional w/Pressure Reducing H3-H4**

*Parts Configuration*

**(H3 & H4)**



\* included in base motor seal kit Q210

## Control

Order code: H3

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	07-21		727115	4-way valve assembly	1
F324	07-21		730036	O-ring	2
G420	07-21		511810	Gasket/O-ring seal	1
M1	07-21		518080	Solenoid valve, 12 volt, 25 bar, Jet connector	1
M1Q1	07-21		11097916	Control kit, 12 volt, 25 bar, Jet connector	1
M11	07-21		11000893	Shuttle valve	1
M14	07-21		342709 (9003575-0101)	Nut	1
M15	07-21		067694	Screw	2
M16	07-21		140644	Plug assembly	2
M16J	07-21		001149 (9004201-6200)	O-ring	1
M20	07-21		501876	PCOR spool	1
M23	07-21		315325 (9005110-8700)	Plug assembly	1
M24	07-21		11040532	Plug	15
M26	07-21		509152	Spring	1
M150	07-21		739664	Screw	2
M151	07-21		739664	Screw	2
QM034	07-21		11099849	Solenoid valve seal kit	1

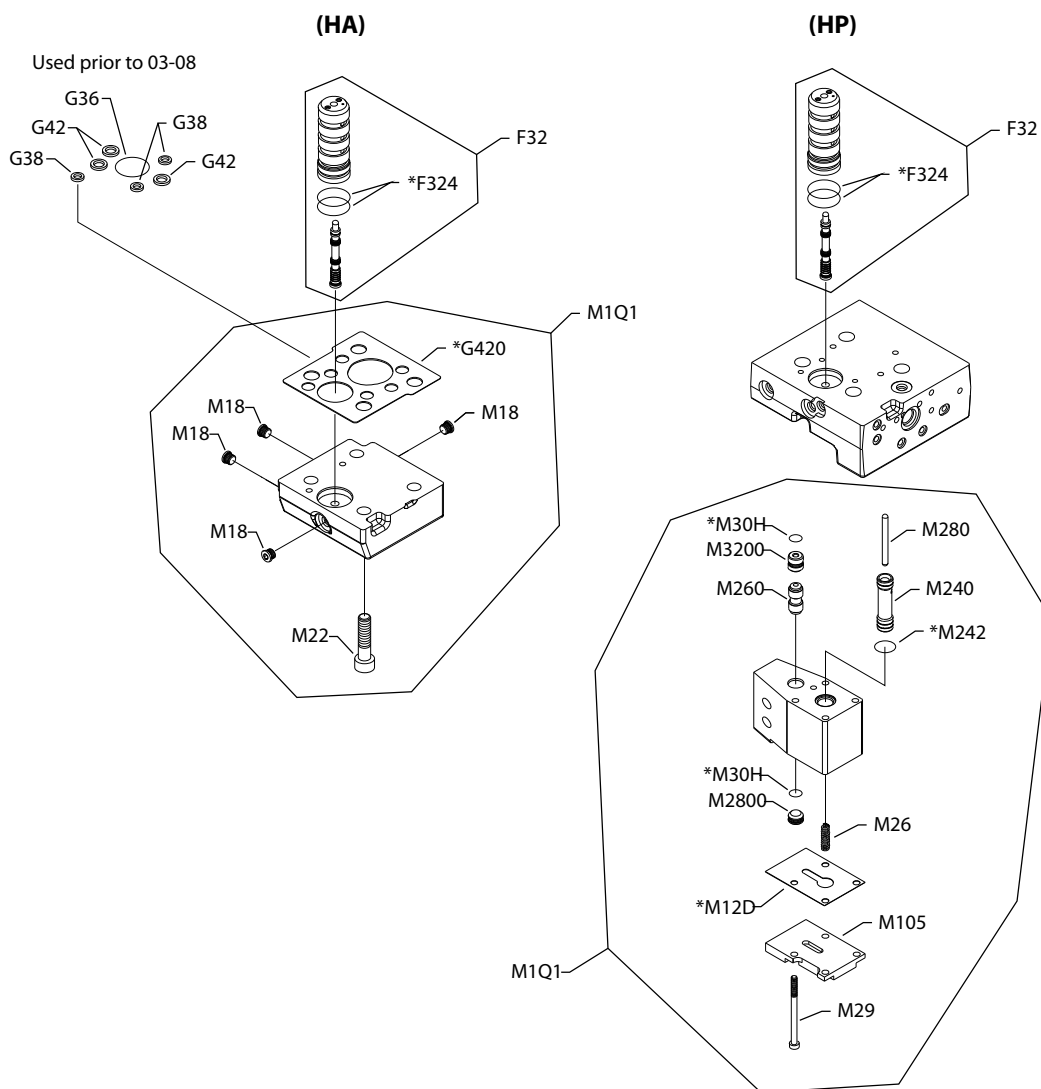
Order code: H4

F32	07-21		727115	4-way valve assembly	1
F324	07-21		730036	O-ring	2
G420	07-21		511810	Gasket/O-ring seal	1
M1	07-21		518081	Solenoid valve, 24 volt, 25 bar, Jet connector	1
M1Q1	07-21		11013385	Control kit, 24 volt, 25 bar, Jet connector	1
M11	07-21		11000893	Shuttle valve	1
M14	07-21		342709 (9003575-0101)	Nut	1
M15	07-21		067694	Screw	2
M16	07-21		140644	Plug assembly	2
M16J	07-21		001149 (9004201-6200)	O-ring	1
M20	07-21		501876	PCOR spool	1
M23	07-21		315325 (9005110-8700)	Plug assembly	1
M24	07-21		11040532	Plug	15
M26	07-21		509152	Spring	1
M150	07-21		739664	Screw	2
M151	07-21		739664	Screw	2
QM034	07-21		11099849	Solenoid valve seal kit	1

**Control**

**S51 60/160cc Control Hydraulic Proportional HA-HP**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: HA

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	94-12		727115	4-way valve assembly	1
F324	94-12		730036	O-ring	2
G36	94-12	03-07	364968	O-ring <a href="#">(SB-2002-001)</a>	1
G38	94-12	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	94-12	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511810	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1Q1	94-12		518237	Control kit	1
M18	94-12		11040532	Plug assembly	4
M22	94-12		732982 (9007314-1009)	Screw	4

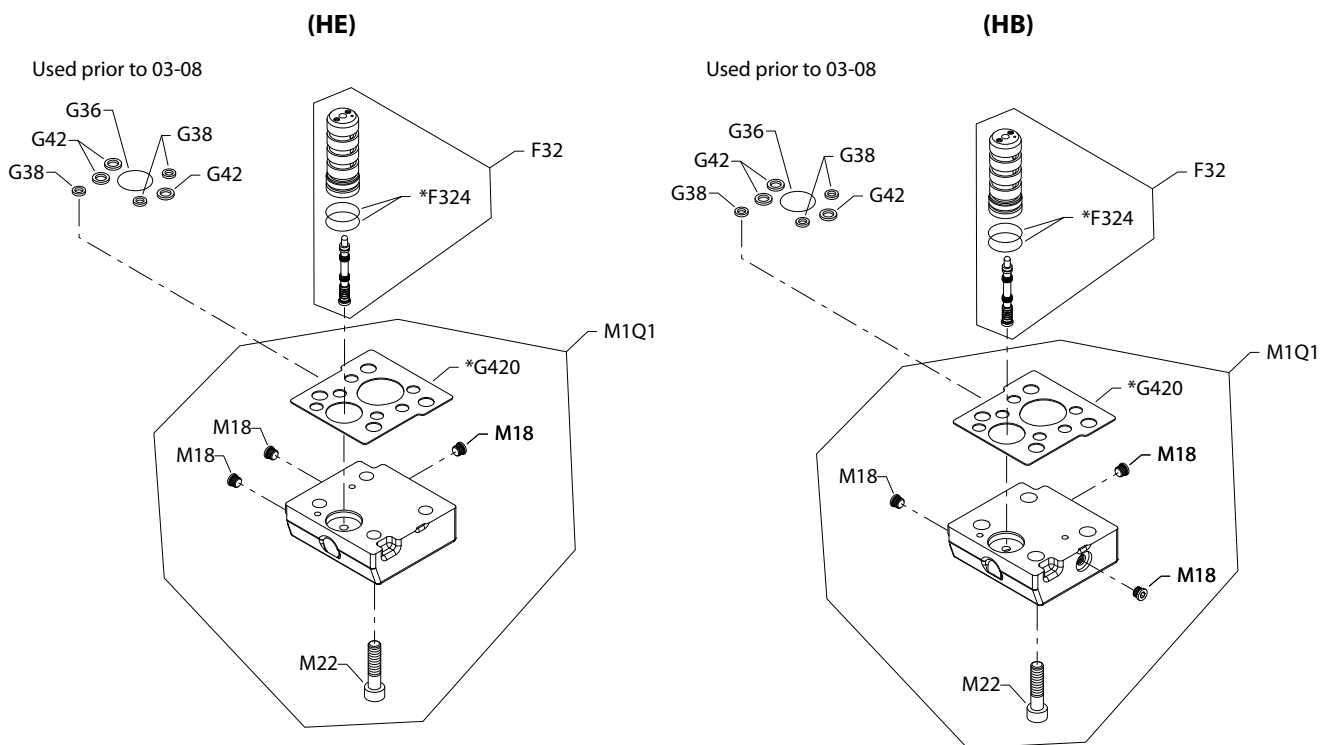
Order code: HP

F32	92-07		753186	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M1Q1	92-07		796482	Control kit	1
M12D	92-07		504358	Gasket	1
M26	92-07		717454	Spring	1
M29	92-07		771832	Screw	4
M30H	92-07		011296 (9004105-0120)	O-ring	2
M105	92-07		751883	Cover	1
M240	92-07		741942	Shuttle piston	1
M242	92-07		056770	O-ring	1
M260	92-07		751644	Shuttle valve	1
M280	92-07		742320	Pin	1
M2800	92-07		342246	Sealing plug	1
M3200	92-07		353615	Sealing plug	1

**Control**

**S51 160cc Control Hydraulic Proportional HB-HE**

*Parts Configuration*



\* Included in base model kit Q210

## Control

Order code: HB

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F32	95-10		727115	4-way valve assembly	1
F324	95-10		730036	O-ring	2
G36	95-10	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	95-10	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	95-10	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1Q1	95-10		518234	Control kit	1
M18	95-10		11040532	Plug assembly	3
M22	95-10		290502	Screw	4

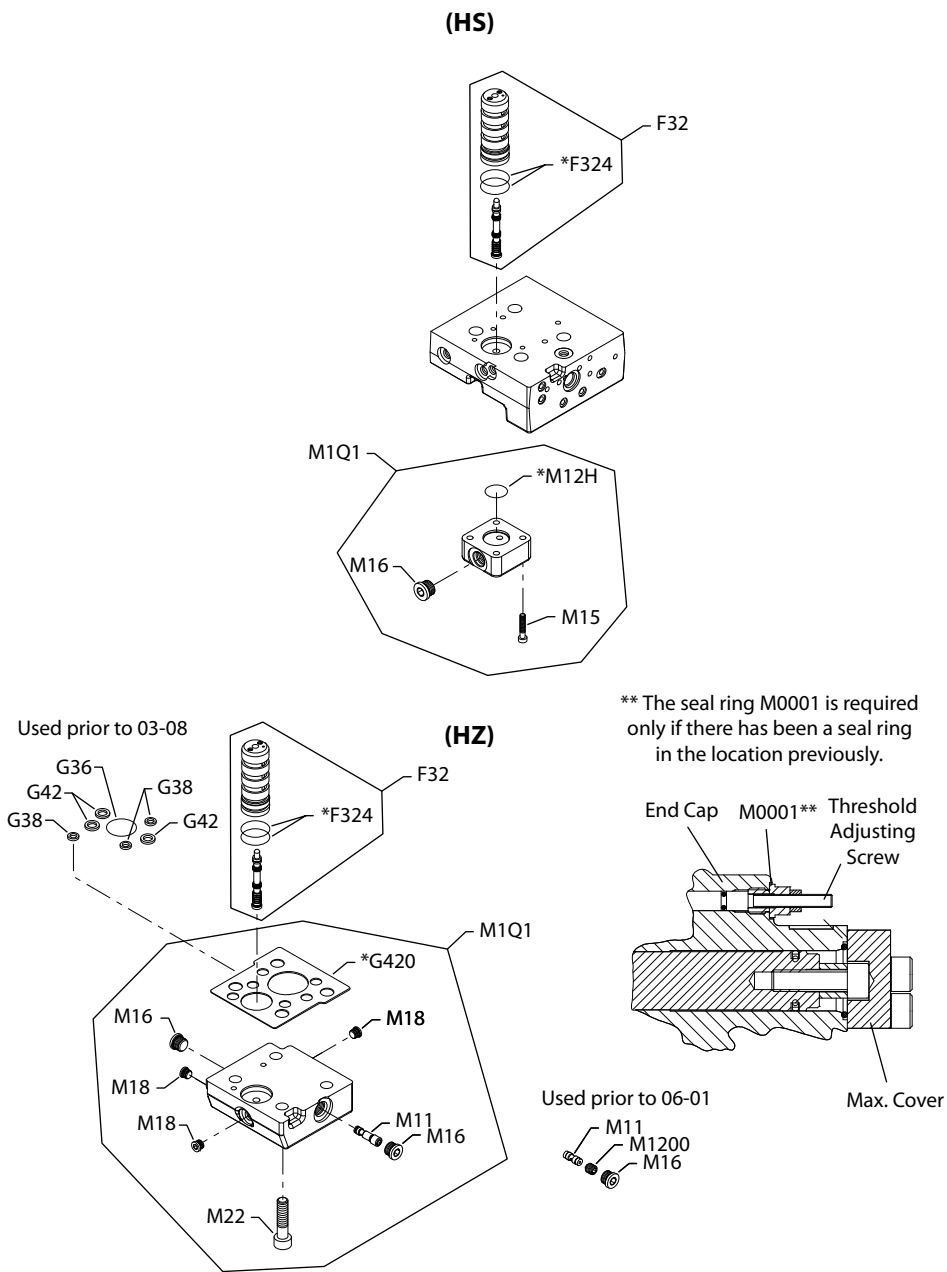
Order code: HE

F32	94-12		727115	4-way valve assembly	1
F324	94-12		730036	O-ring	2
G36	94-12	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	94-12	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	94-12	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1Q1	94-12		518236	Control kit	1
M18	94-12		11040532	Plug assembly	3
M22	94-12		290502	Screw	4

**Control**

**S51 60/160cc Control Hydraulic Proportional HS-HZ**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: HS

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	92-07		727115	4-way valve assembly	1
F324	92-07		730036	O-ring	2
M1Q1	92-07		503804	Control kit	1
M12H	92-07		364984	O-ring	1
M15	92-07		124115	Screw	4
M16	92-07		140644	Plug assembly	1

Order code: HZ

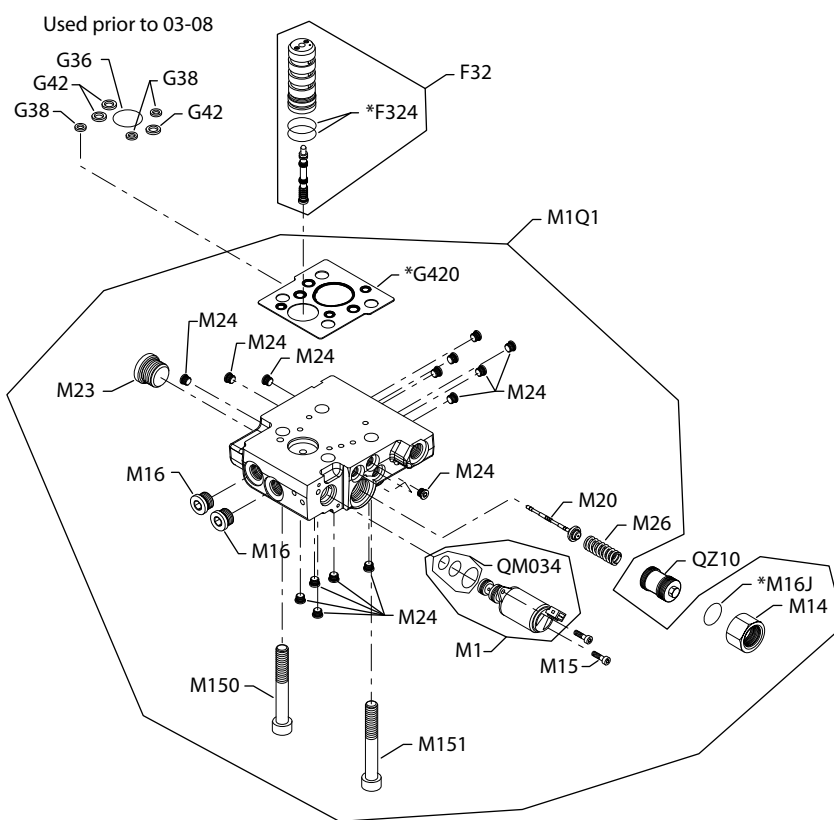
F32	92-07		727115	4-way valve assembly	1
F324	92-07		730036	O-ring	2
G36	92-07	03-07	364968	O-ring <a href="#">(SB-2002-001)</a>	1
G38	92-07	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	92-07	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511810	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1Q1	92-07		518221	Control kit <a href="#">(SB-2002-001)</a>	1
M001	07-16		084673	Seal ring	1
M11	06-01		11000893	Shuttle valve	1
M11	92-07	05-52	759415	Shuttle valve	1
M16	92-07		140644	Plug assembly	2
M18	92-07		11040532	Plug	3
M22	92-07		732982	Screw	4
M1200	92-07	05-52	759423	Orifice plug	1

**Control**

**S51 160cc Control Hydraulic Proportional with Electric Override J3-J4**

*Parts Configuration*

**(J3 & J4)**



\* included in base motor seal kit Q210

## Control

Order code: J3

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	95-11		727115	4-way valve assembly	1
F324	95-11		730036	O-ring	2
G36	95-11	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	95-11	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	95-11	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	95-11		518079	Solenoid valve, 12 volt	1
M1Q1	95-11		518239	Control kit, 12 volt	1
M14	95-11		342709 (9003575-0101)	Nut	1
M15	95-11		067694	Screw	2
M16	95-11		140644	Plug assembly	2
M16J	95-11		001149 (9004201-6200)	O-ring	1
M20	95-11		746016	PCOR spool assembly	1
M23	95-11		315325 (9005110-8700)	Plug assembly	1
M24	95-11		11040532	Plug assembly	17
M26	95-11		509152	Spring	1
M150	95-11		914143	Screw	2
M151	95-11		914143	Screw	2
QM034	95-11		11099849	Solenoid seal kit	1

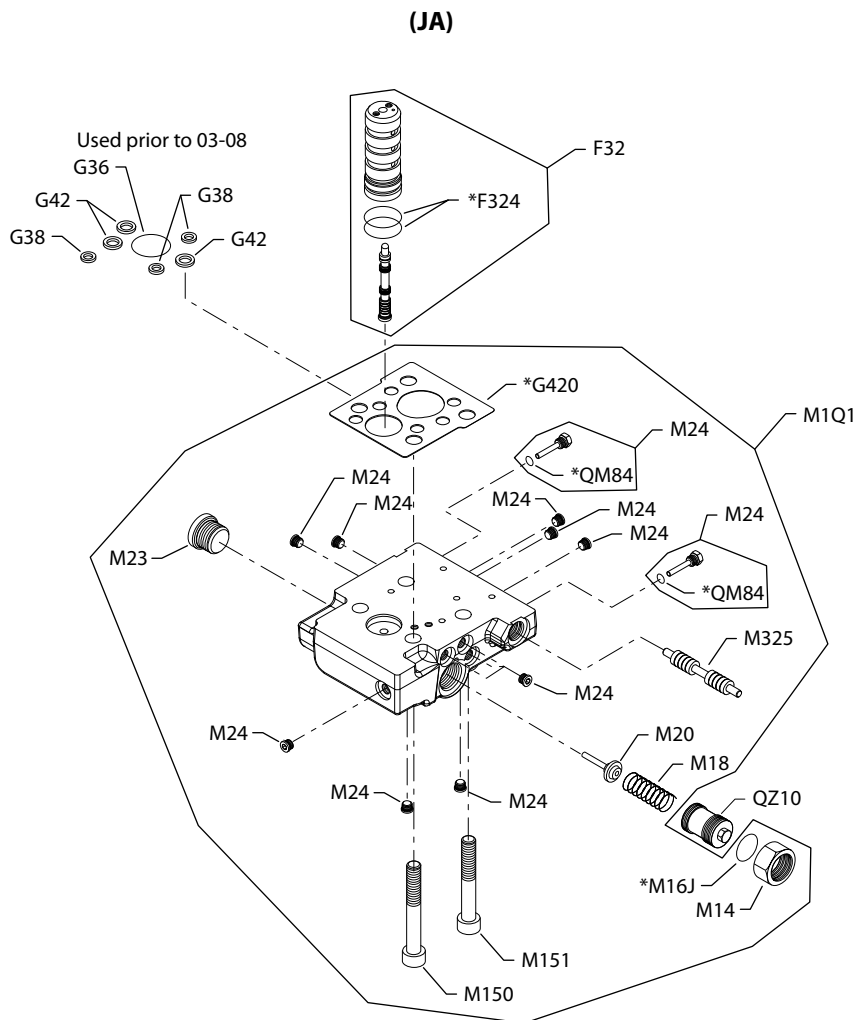
Order code: J4

F32	98-46		727115	4-way valve assembly	1
F324	98-46		730036	O-ring	2
G36	98-46	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	98-46	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	98-46	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	98-46		517214	Solenoid valve, 24 volt	1
M1Q1	98-46		518251	Control kit, 24 volt	1
M14	98-46		342709 (9003575-0101)	Nut	1
M15	98-46		067694	Screw	2
M16	98-46		140644	Plug assembly	2
M16J	98-46		001149 (9004201-6200)	O-ring	1
M20	98-46		746016	PCOR spool assembly	1
M23	98-46		315325 (9005110-8700)	Plug assembly	1
M24	98-46		11040532	Plug assembly	17
M26	98-46		509152	Spring	1
M150	98-46		914143	Screw	2
M151	98-46		914143	Screw	2
QM034	98-46		11099849	Solenoid seal kit	1

**Control**

**S51 160cc Control Hydraulic Proportional JA**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: JA

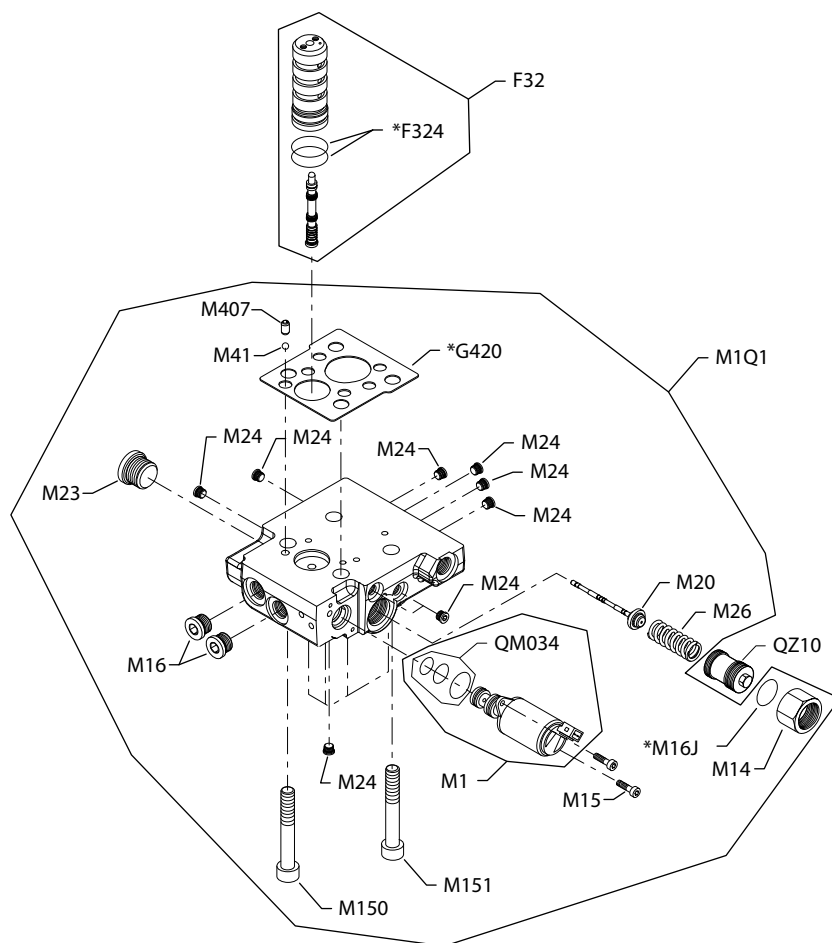
Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	96-04		727115	4-way valve assembly	1
F324	96-04		730036	O-ring	2
G36	96-04	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	96-04	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	96-04	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1Q1	96-04		518242	Control kit	1
M14	96-04		342709 (9003575-0101)	Nut	1
M16J	96-04		001149 (9004201-6200)	O-ring	1
M20	96-04		501876	PCOR spool assembly	1
M23	96-04		315325 (9005110-8700)	Plug assembly	1
M24	96-04		11040532	Plug assembly	11
M26	96-04		509152	Spring	1
M84	96-04		735266	Plug assembly	2
M150	96-04		914143	Screw	2
M151	96-04		914143	Screw	2
M325	96-04		346080	Spool	1
QM84	96-04		039297 (9004201-1200)	O-ring	1

**Control**

**S51 160cc Control Hydraulic Proportional JS**

*Parts Configuration*

**(JS)**



\* included in base motor seal kit Q210

## Control

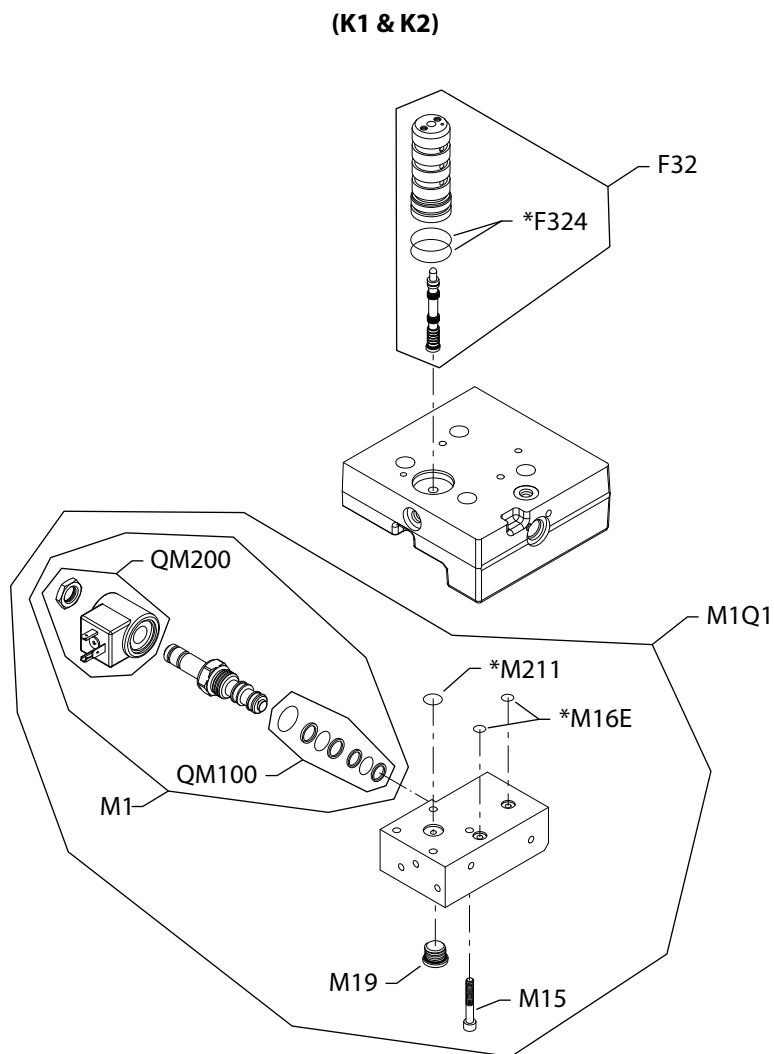
Order code: JS

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	04-31		727115	4-way valve assembly	1
F324	04-31		730036	O-ring	2
M1	04-31		517214	Solenoid valve, 24 volt	1
M1Q1	04-31		521459	Control kit	1
M14	04-31		342709 (9003575-0101)	Nut	1
M15	04-31		067694	Screw	2
M16	04-31		140644	Plug assembly	2
M16J	04-31		001149 (9004201-6200)	O-ring	1
M20	04-31		746016	Piston	1
M23	04-31		315325 (9005110-8700)	Plug assembly	1
M24	04-31		11040532	Plug assembly	13
M26	04-31		509152	Spring	1
M41	04-31		915967	Ball	1
M150	04-31		914143	Screw	2
M151	04-31		914143	Screw	2
M407	04-31		505522	Slotted pin	1
QM034	04-31		11099849	Solenoid valve seal kit	1

**Control**

**S51 60/160cc Control Hydraulic Proportional with Electric Override K1-K2**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: K1

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	91-35		727115	4-way valve assembly	1
F324	91-35		730036	O-ring	2
M1	91-35		784942	Solenoid valve, 12 volt, DIN connector	1
M1Q1	91-35		503620	Control kit, 12 volt, DIN connector	1
M15	91-35		329599	Screw	4
M16E	91-35		732479 (9004105-0100)	O-ring	2
M19	91-35		140644	Plug assembly	1
M211	91-35		365015	O-ring	1

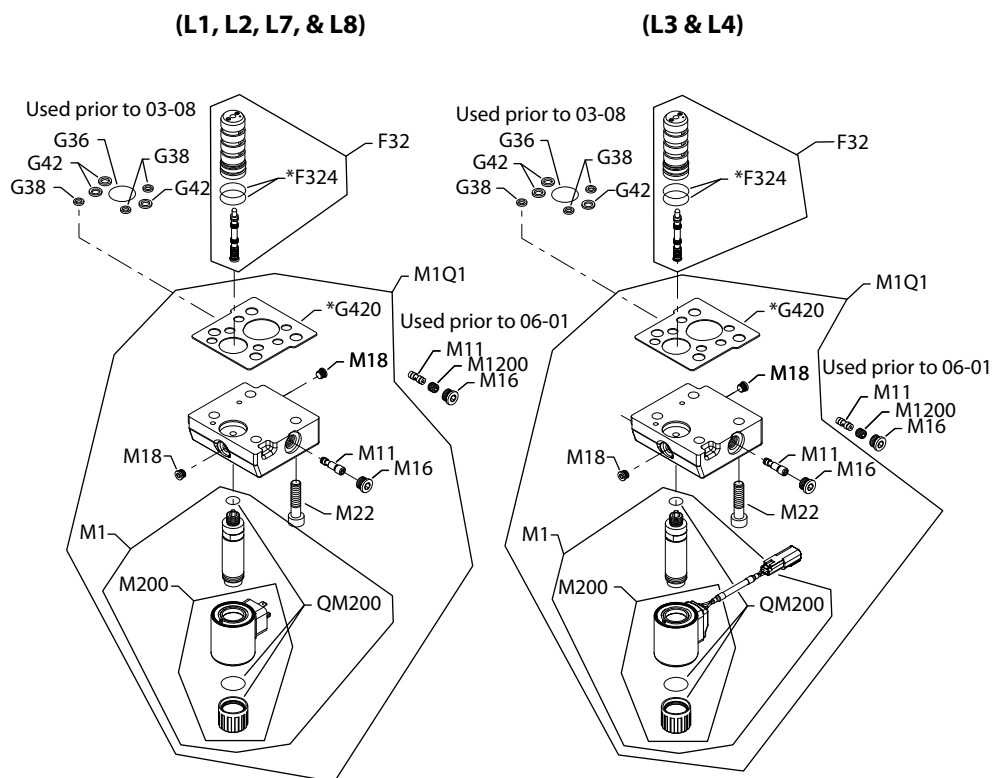
Order code: K2

F32	91-35		727115	4-way valve assembly	1
F324	91-35		730036	O-ring	2
M1	91-35		784934	Solenoid valve, 24 volt, DIN connector	1
M1Q1	91-35		503806	Control kit, 24 volt, DIN connector	1
M15	91-35		329599	Screw	4
M16E	91-35		732479 (9004105-0100)	O-ring	2
M19	91-35		140644	Plug assembly	1
M211	91-35		365015	O-ring	1

**Control**

**S51 160cc Control Electric Proportional L1-L8**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	95-35		509845	4-way valve assembly	1
F324	95-35		730036	O-ring	2
G36	95-35	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	95-35	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	95-35	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M11	06-01		11000893	Shuttle valve	1
M11	92-33	05-52	759415	Shuttle valve	1
M16	92-33		140644	Plug assembly	1
M18	92-33		11040532	Plug assembly	2
M22	92-33		085183	Screw	4
M1200	92-33	05-52	759423	Orifice plug	1

### Order code: L1

M1	95-35		11026442	Solenoid valve, 12 volt, DIN connector	1
M1Q1	95-35		518248	Control kit, 12 volt, DIN connector	1
M200	95-35		11026452	Coil kit, 12 volt, DIN connector	
QM200	95-35		11121251	Coil nut kit	1

### Order code: L2

M1	95-35		11026443	Solenoid valve, 24 volt, DIN connector	1
M1Q1	95-35		518245	Control kit, 24 volt, DIN connector	1
M200	95-35		11026453	Coil kit, 24 volt, DIN connector	
QM200	95-35		11121251	Coil nut kit	1

### Order code: L3

M1	01-19		11026447	Solenoid, 12 volt, Deutsch connector	1
M1Q1	01-19		519529/P	Control kit, 12 volt, Deutsch connector	1
M200	01-19		11026454	Coil kit, 12 volt, Deutsch connector	1
QM200	01-19		11121272	Coil nut kit	1

### Order code: L4

M1	96-24		11048359	Solenoid, 24 volt	1
M1Q1	96-24		11048357	Control kit, 24 volt	1
M200	96-24		11048358	Coil kit, 24 volt	1
QM200	96-24		11121272	Coil nut kit	1

### Order code: L7

M1	96-38		11026438	Solenoid, 12 volt	1
M1Q1	96-38		518244	Control kit, 12 volt	1
M200	96-38		11026450	Coil kit, 12 volt	1
QM200	96-38		11121251	Coil nut kit	1

## Control

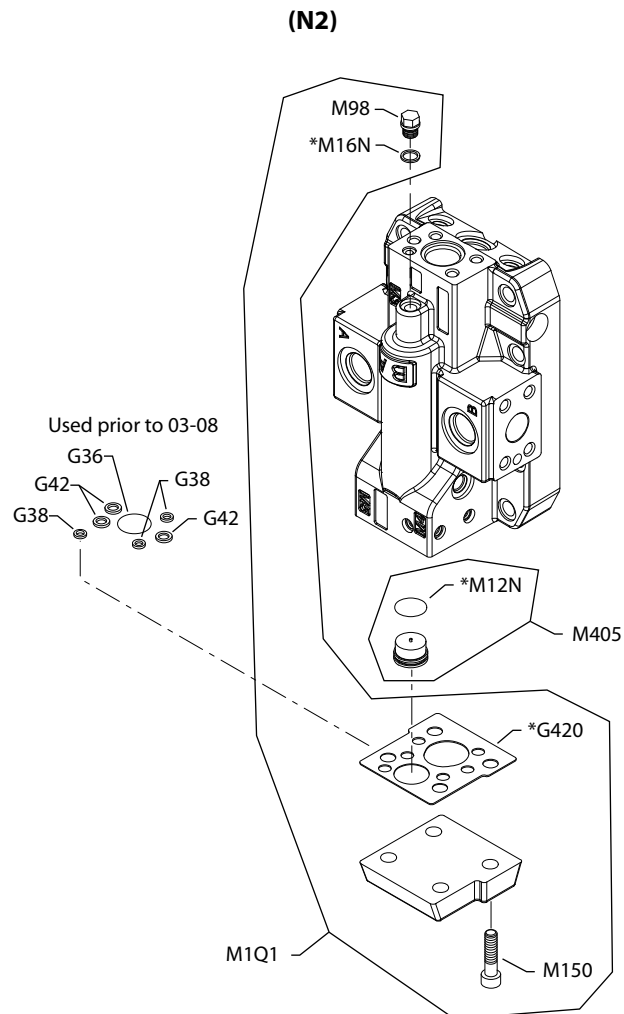
Order code: L8

M1	10-50		11026440	Solenoid, 24 volt	1
M1Q1	10-50		11092297	Control kit, 24 volt	1
M200	10-50		11026451	Coil kit, 24 volt	1
QM200	10-50		11121251	Coil nut kit	1

Control

S51 160cc Control Hydraulic 2-Position N2

Parts Configuration



\* included in base motor seal kit Q210

## Control

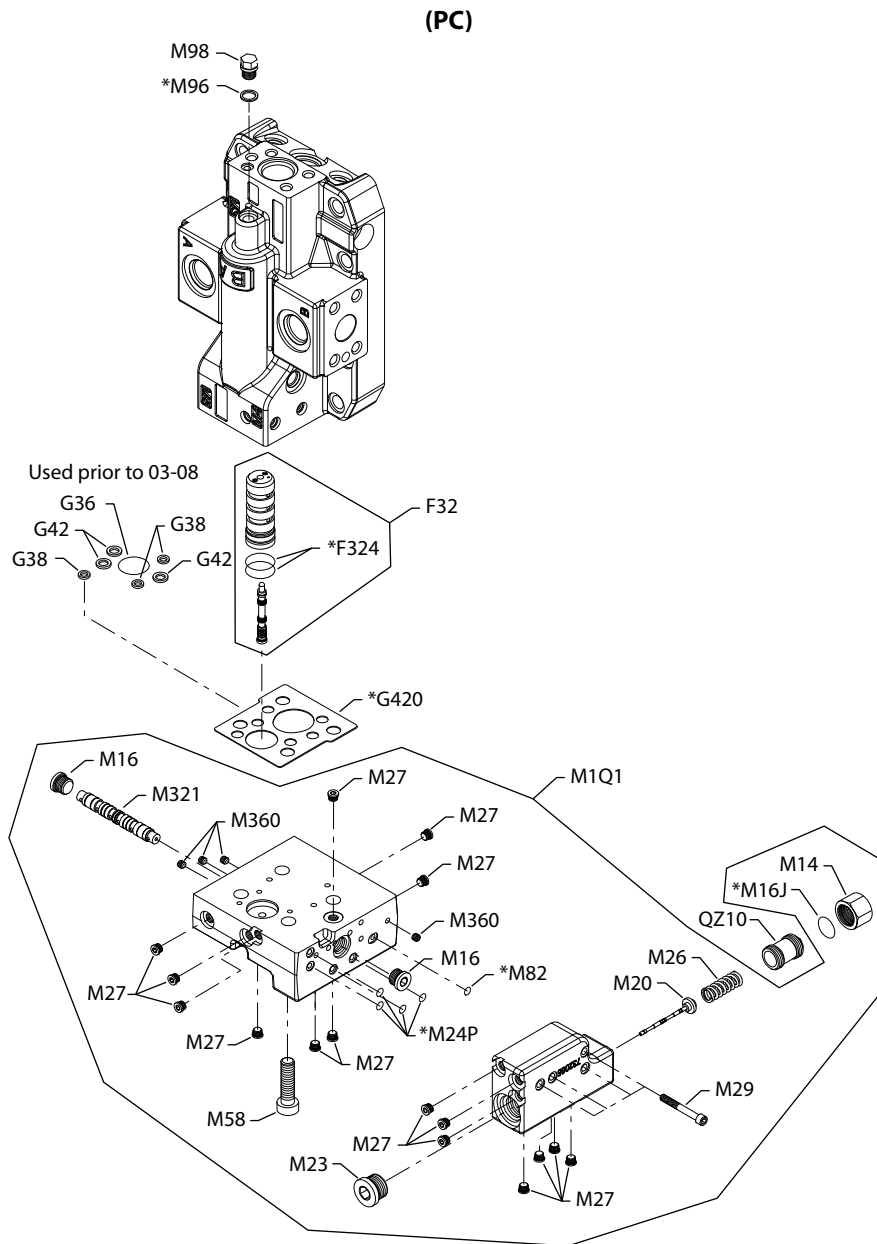
Order code: N2

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
G36	92-33	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	92-33	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	92-33	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1Q1	92-33		518227	Control kit	1
M12N	92-33		730036	O-ring	1
M16N	92-33		084673	Sealing ring	2
M98	92-33		745331	Plug assembly	1
M150	92-33		085183	Screw	4
M405	92-33		510415	Sleeve assembly	1

**Control**

**S51 160cc Control Pressure Compensator PC**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: PC

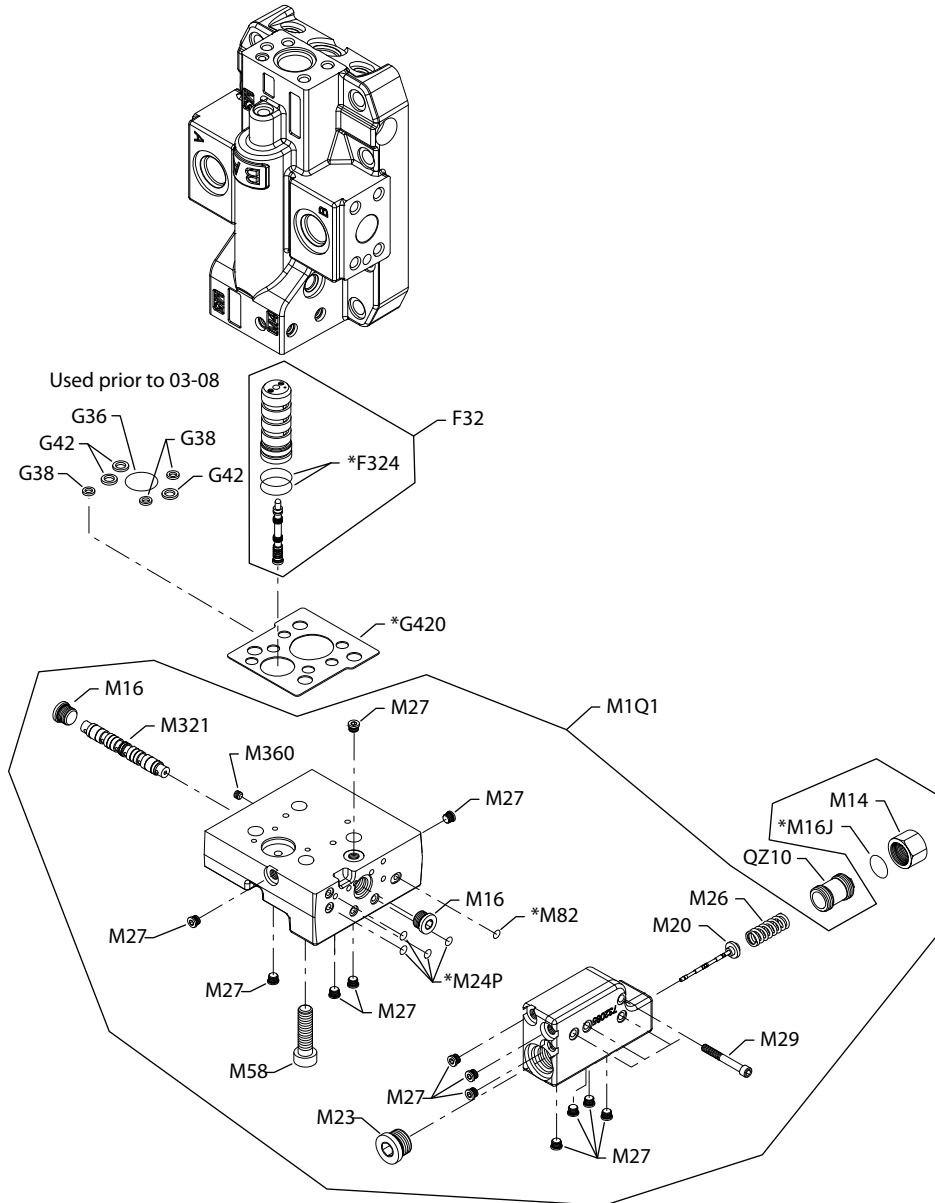
Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	92-33	13-24	510416	4-way valve assembly	1
F324	92-33	13-24	730036	O-ring	2
G36	92-33	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	92-33	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	92-33	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08	13-24	511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1Q1	92-33	13-24	518224	Control kit, PC	1
M14	92-33	13-24	342709 (9003575-0101)	Nut	1
M16	92-33	13-24	140644	Plug assembly	2
M16J	92-33	13-24	001149 (9004201-6200)	O-ring	1
M20	92-33	13-24	746016	Piston valve	1
M23	92-33	13-24	315325 (9005110-8700)	Plug assembly	1
M24P	92-33	13-24	732479 (9004105-0100)	O-ring	4
M26	92-33	13-24	509152	Spring	1
M27	92-33	13-24	11040532	Plug assembly	16
M29	92-33	13-24	713719 (9007314-0610)	Screw	4
M58	92-33	13-24	503499	Screw	4
M82	92-33	13-24	144725 (9004105-0110)	O-ring	1
M96	92-33	13-24	084673	Sealing ring	1
M98	92-33	13-24	745331	Plug	1
M321	92-33	13-24	519114	Shuttle valve assembly	1
M360	92-33	13-24	092114 (9007712-0604)	Set screw	4

**Control**

**S51 160cc Control Pressure Compensator PD**

*Parts Configuration*

**(PD)**



\* included in base motor seal kit QZ10

## Control

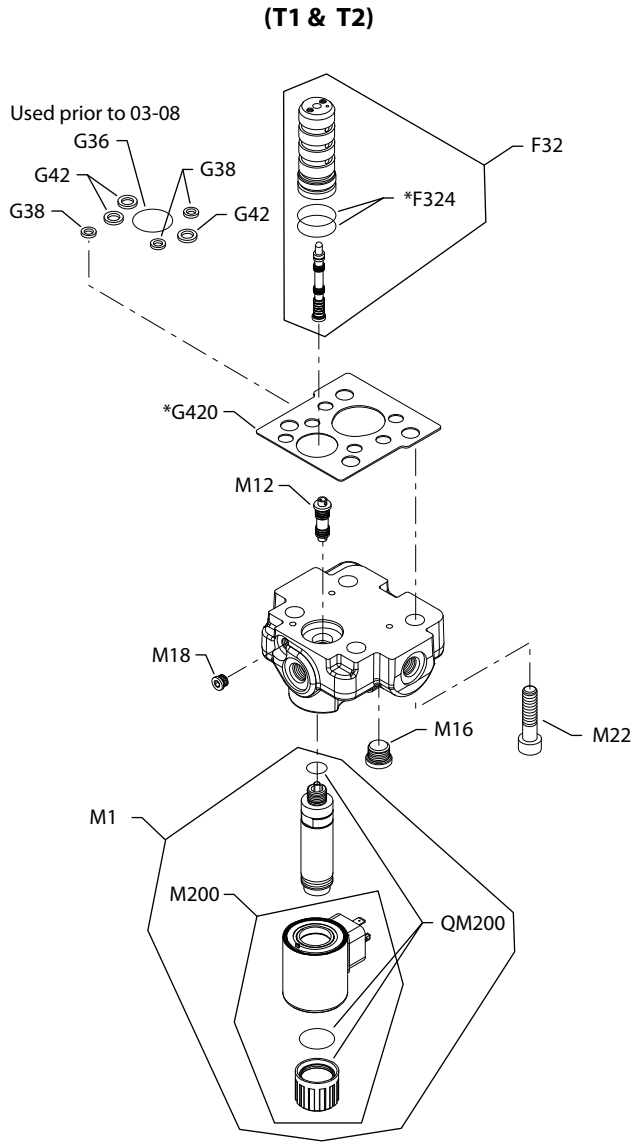
Order code: PD

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	92-40	13-24	500820	4-way valve assembly	1
F324	92-40	13-24	730036	O-ring	2
G36	92-40	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	92-40	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	92-40	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08	13-24	511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1Q1	92-40	13-24	518232	Control kit, PD	1
M14	92-40	13-24	342709 (9003575-0101)	Nut	1
M16	92-40	13-24	140644	Plug assembly	2
M16J	92-40	13-24	001149 (9004201-6200)	O-ring	1
M20	92-40	13-24	501876	Spool assembly	1
M23	92-40	13-24	315325 (9005110-8700)	Plug assembly	1
M24P	92-40	13-24	732479 (9004105-0100)	O-ring	4
M26	92-40	13-24	509152	Spring	1
M27	92-40	13-24	11040532	Plug assembly	13
M29	92-40	13-24	713719 (9007314-0610)	Screw	4
M58	92-40	13-24	714436	Screw	4
M82	92-40	13-24	144725 (9004105-0110)	O-ring	1
M321	92-40	13-24	519114	Shuttle valve assembly	1
M360	92-40	13-24	092114 (9007712-0604)	Set screw	4

**Control**

**S51 160cc Control Electric 2-Position T1-T2**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: T1

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	96-31		503380	4-way valve assembly	1
F324	96-31		730036	O-ring	2
G36	96-31	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	96-31	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	96-31	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	96-31		11026435	Solenoid valve, 12 volt, DIN connector	1
M12	96-31		11082448	Sensing piston	1
M16	96-31		140644	Plug assembly	1
M18	96-31		11040532	Plug assembly	1
M22	96-31		503499	Screw	4
M200	96-31		11026448	Coil kit, 12 volt, Din connector	1
QM200	96-31		11121273	Coil nut kit	1

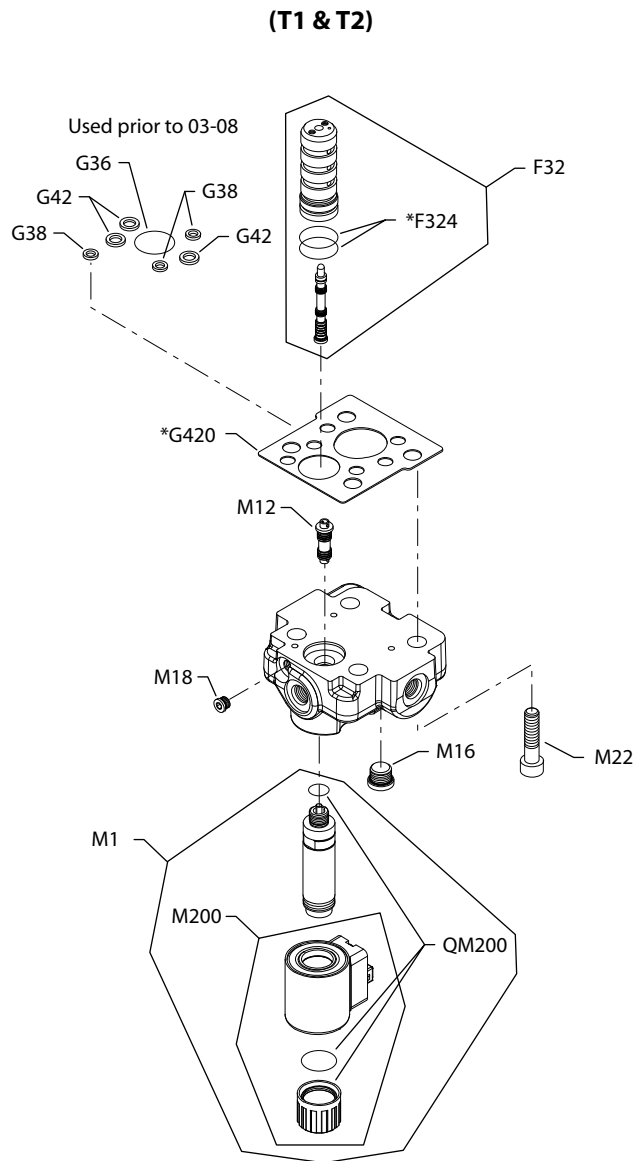
Order code: T2

F32	96-31		503380	4-way valve assembly	1
F324	96-31		730036	O-ring	2
G36	96-31	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	96-31	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	96-31	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	96-31		11026436	Solenoid valve, 24 volt, DIN connector	1
M12	96-31		11082448	Sensing piston	1
M16	96-31		140644	Plug assembly	1
M18	96-31		11040532	Plug assembly	1
M22	96-31		503499	Screw	4
M200	96-31		11026449	Coil kit, 24 volt, Din connector	1
QM200	96-31		11121273	Coil nut kit	1

**Control**

**S51 160cc Control Electric 2-Position T3-T4**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: T3

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	96-31		503380	4-way valve assembly	1
F324	96-31		730036	O-ring	2
G36	96-31	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	96-31	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	96-31	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	96-31		519468	Solenoid valve, 12 volt	1
M12	96-31		11082448	Piston	1
M16	96-31		140644	Plug assembly	1
M18	96-31		11040532	Plug assembly	1
M22	96-31		503499	Screw	4
M200	96-31		519467	Coil kit, 12 volt	1
QM200	96-31		11121272	Coil nut kit	1

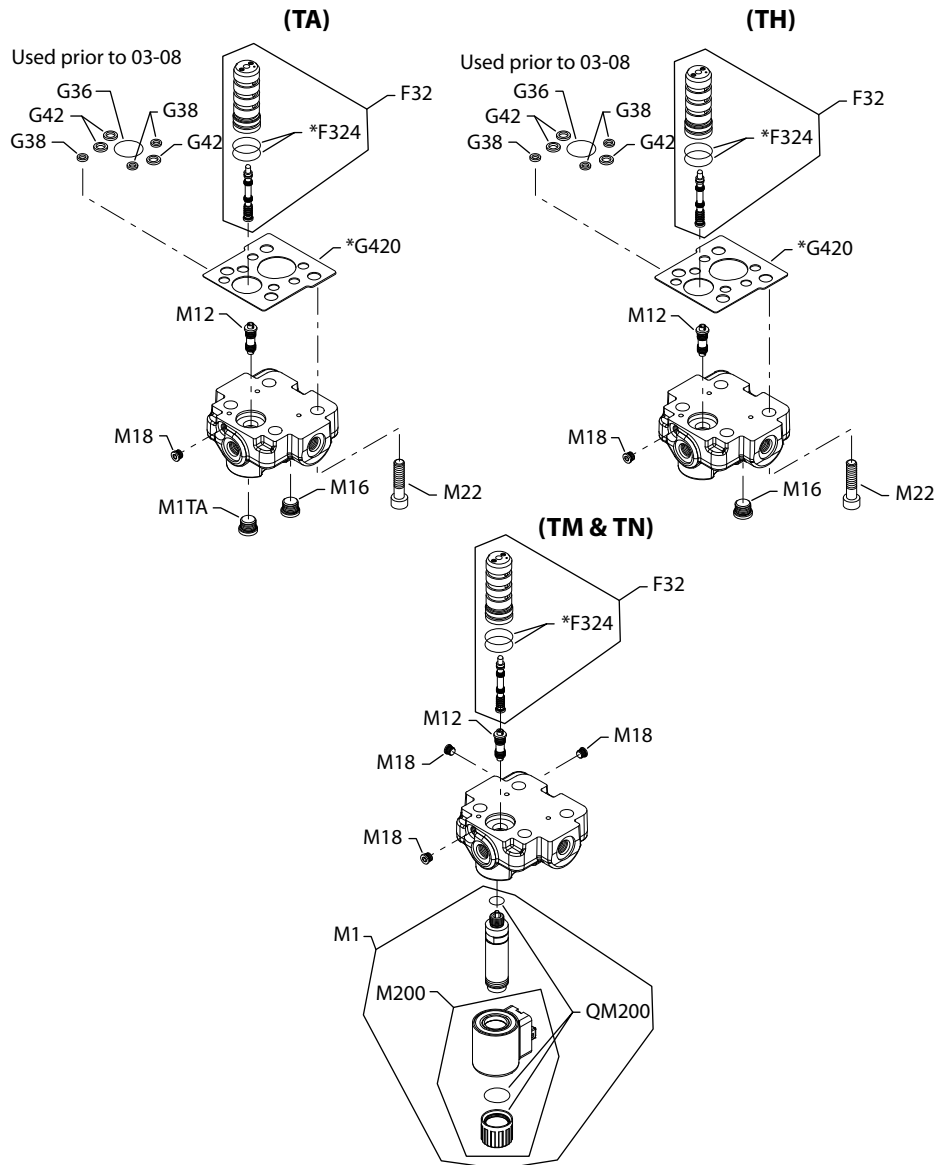
Order code: T4

F32	00-39		503380	4-way valve assembly	1
F324	00-39		730036	O-ring	2
G36	00-39	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	00-39	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	00-39	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1	00-39		11003624	Solenoid valve, 24 volt	1
M12	00-39		11082448	Piston	1
M16	00-39		140644	Plug assembly	1
M18	00-39		11040532	Plug assembly	1
M22	00-39		503499	Screw	4
M200	00-39		11003626	Coil kit, 24 volt	1
QM200	00-39		11121272	Coil nut kit	1

**Control**

**S51 160cc Control Pressure Compensator TA-TM**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: TA

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	97-02		503380	4-way valve assembly	1
F324	97-02		730036	O-ring	2
G36	97-02	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	97-02	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	97-02	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M1TA	97-02		140644	Plug assembly	1
M12	97-02		11082448	Sensing piston	1
M16	97-02		140644	Plug assembly	1
M18	97-02		11040532	Plug assembly	1
M22	97-02		503499	Screw	4

### Hydraulic 2-position

Order code: TH

F32	97-02		503380	4-way valve assembly	1
F324	97-02		730036	O-ring	2
G36	97-02	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	97-02	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	97-02	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
M12	97-02		11083129	Sensing piston	1
M16	97-02		140644	Plug assembly	1
M18	97-02		11040532	Plug assembly	1
M22	97-02		503499	Screw	4

### Electric 2-position

Order code: TM

F32	99-30		11001792	4-way valve assembly	1
F324	99-30		730036	O-ring	2
M1	99-30		11026438	Solenoid valve, 12 volt, Jet connector	1
M12	99-30		11082448	Piston	1
M18	99-30		11040532	Plug assembly	3
M200	99-30		11026450	Coil kit, 12 volt, Jet connector	1
QM200	99-30		11121251	Coil nut kit	1

Order code: TN

F32	99-30		11001792	4-way valve assembly	1
F324	99-30		730036	O-ring	2
M1	99-30		11026440	Solenoid valve, 24 volt, Jet connector	1
M12	99-30		11082448	Piston	1
M18	99-30		11040532	Plug assembly	3

### Control

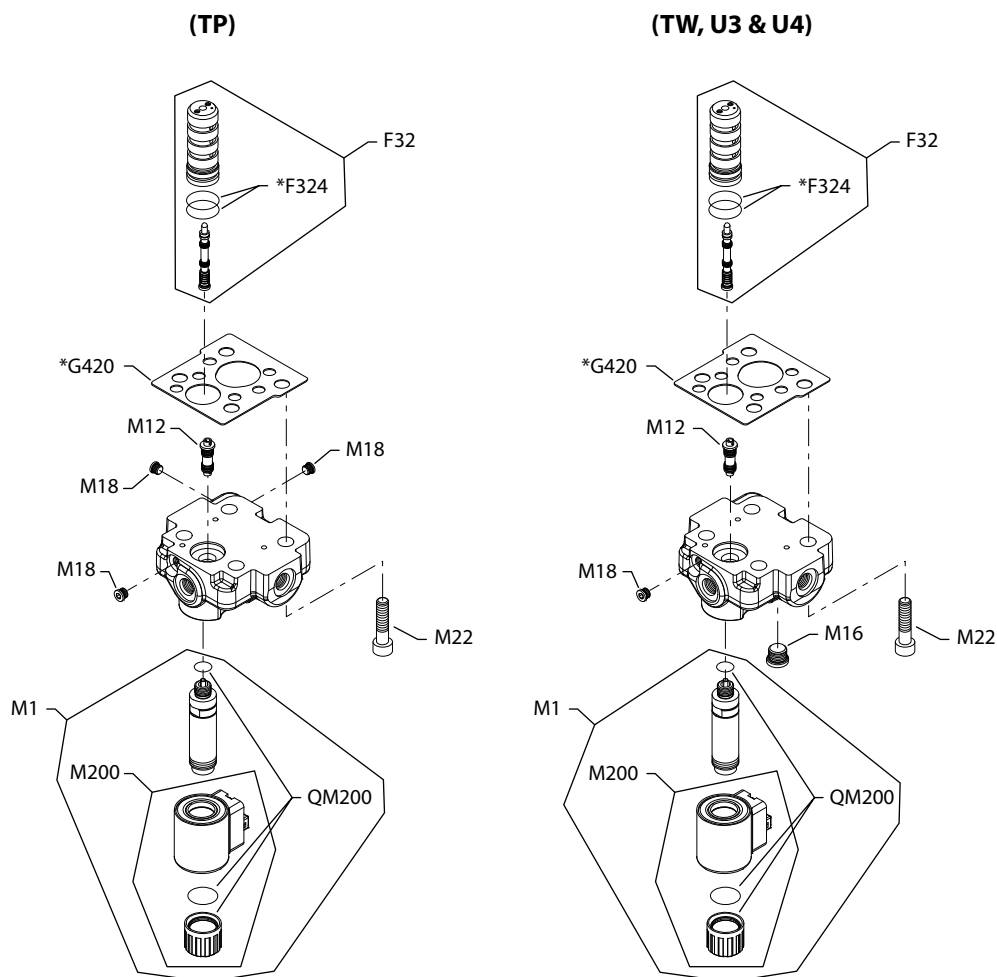
*Order code: TN (continued)*

M200	99-30		11026451	Coil kit, 24 volt, Jet connector	1
QM200	99-30		11121251	Coil nut kit	1

**Control**

**S51 160cc Control Electric 2-Position TP-U4**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: TP

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	04-07		503925	4-way valve assembly	1
F324	04-07		730036	O-ring	2
G420	04-07		511851	Gasket/O-ring seal	1
M1	04-07		519468	Solenoid valve, 12 volt, Jet connector	1
M12	04-07		11082448	Piston	1
M18	04-07		11040532	Plug assembly	3
M22	04-07		503499	Screw	4
M200	04-07		519467	Coil kit, 12 volt, Jet connector	1
QM200	04-07		11121272	Coil nut kit	1

Order code: TW

F32	05-12		11001792	4-way valve assembly	1
F324	05-12		730036	O-ring	2
G420	05-12		511851	Gasket/O-ring seal	1
M1	05-12		519468	Solenoid valve, 12 volt, Jet connector	1
M12	05-12		11082448	Piston	1
M16	05-12		140644	Plug assembly	1
M18	05-12		11040532	Plug assembly	1
M22	05-12		503499	Screw	4
M200	05-12		519467	Coil kit, 12 volt, Jet connector	1
QM200	05-12		11121272	Coil nut kit	1

Order code: U3

F32	11-08		503925	4-way valve assembly	1
F324	11-08		730036	O-ring	2
G420	11-08		511851	Gasket/O-ring seal	1
M1	11-08		519468	Solenoid valve, 12 volt, Jet connector	1
M12	11-08		507292	Piston	1
M16	11-08		140644	Plug assembly	1
M18	11-08		11040532	Plug assembly	1
M22	11-08		503499	Screw	4
M200	11-08		519467	Coil kit, 12 volt, Jet connector	1
QM200	11-08		11121272	Coil nut kit	1

Order code: U4

F32	11-08		503925	4-way valve assembly	1
F324	11-08		730036	O-ring	2
G420	11-08		511851	Gasket/O-ring seal	1
M1	11-08		11003624	Solenoid valve, 24 volt, Jet connector	1
M12	11-08		507292	Piston	1
M16	11-08		140644	Plug assembly	1
M18	11-08		11040532	Plug assembly	1
M22	11-08		503499	Screw	4

### Control

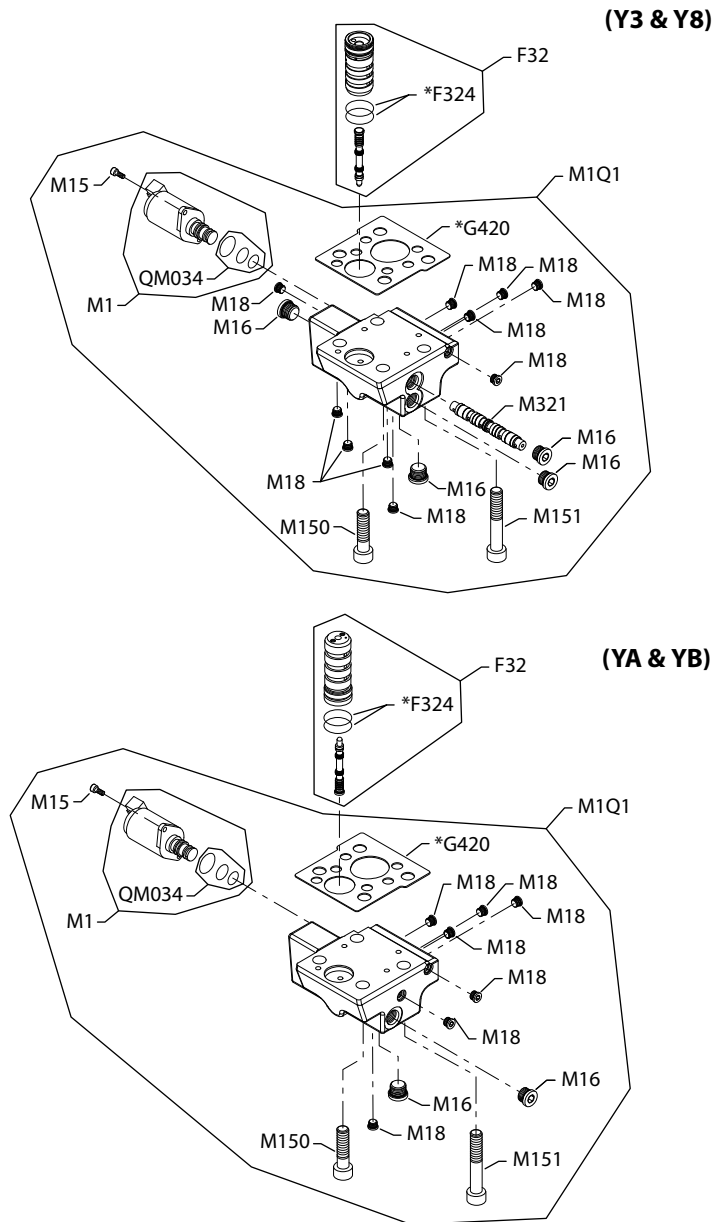
*Order code: U4 (continued)*

M200	11-08		11003626	Coil kit, 24 volt, Jet connector	1
QM200	11-08		11121272	Coil nut kit	1

**Control**

**S51 160cc Control Electric 2-Position Y3-YB**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control

Order code: Y3

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
F32	03-15		727115	4-way valve assembly	1
F324	03-15		730036	O-ring	2
G420	03-15		511851	Gasket/O-ring seal	1
M1	03-15		519448	Solenoid valve, 12 volt, Deutsch connector	1
M1Q1	03-15		519576/P	Control kit	1
M15	03-15		067694	Screw	2
M16	03-15		140644	Plug assembly	4
M18	03-15		11040532	Plug assembly	10
M150	03-15		503499	Screw	2
M151	03-15		348060	Screw	2
M321	03-15		519114	Spool	1
QM034	03-15		11099849	Solenoid valve seal kit	1

Order code: Y8

F32	03-15		727115	4-way valve assembly	1
F324	03-15		730036	O-ring	2
G420	03-15		511851	Gasket/O-ring seal	1
M1	03-15		518081	Solenoid valve, 24 volt, Jet connector	1
M1Q1	03-15		11052890	Control kit	1
M15	03-15		067694	Screw	2
M16	03-15		140644	Plug assembly	4
M18	03-15		11040532	Plug assembly	10
M150	03-15		503499	Screw	2
M151	03-15		348060	Screw	2
M321	03-15		519114	Spool	1
QM034	03-15		11099849	Solenoid valve seal kit	1

Order code: YA

F32	04-27		727115	4-way valve assembly	1
F324	04-27		730036	O-ring	2
G420	04-27		511851	Gasket/O-ring seal	1
M1	04-27		519448	Solenoid valve, 12 volt, Deutsch connector	1
M1Q1	04-27		521262	Control kit	1
M15	04-27		067694	Screw	2
M16	04-27		140644	Plug assembly	2
M18	04-27		11040532	Plug assembly	7
M150	04-27		503499	Screw	2
M151	04-27		348060	Screw	2
QM034	04-27		11099849	Solenoid valve seal kit	1

Order code: YB

F32	04-27		727115	4-way valve assembly	1
F324	04-27		730036	O-ring	2

## Control

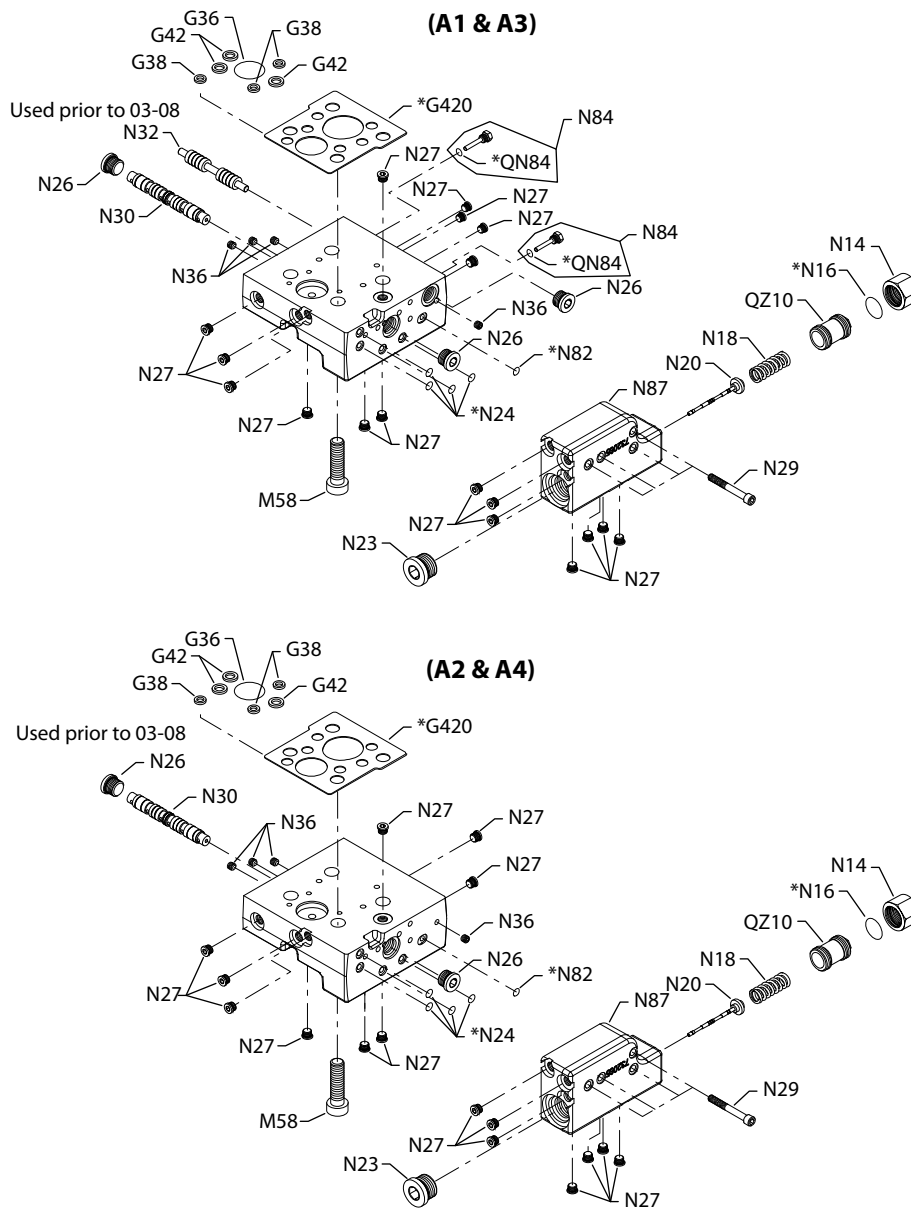
Order code: YB (continued)

G420	04-27		511851	Gasket/O-ring seal	1
M1	04-27		519448	Solenoid valve, 12 volt, Deutsch connector	1
M1Q1	04-27		521263	Control kit	1
M15	04-27		067694	Screw	2
M16	04-27		140644	Plug assembly	2
M18	04-27		11040532	Plug assembly	7
M150	04-27		503499	Screw	2
M151	04-27		348060	Screw	2
QM034	04-27		11099849	Solenoid valve seal kit	1

**Servo supply**

**S51 60/160cc Servo Pressure Supply A1-A4**

*Parts Configuration*



\* included in base motor seal kit Q210

## Servo supply

Order code: A1 & A3

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
G36	92-07	03-07	364968	O-ring <a href="#">(SB-2002-001)</a>	1
G38	92-07	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	92-07	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511810	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
N14	92-07		342709 (9003575-0101)	Nut	1
N16	92-07		001149 (9004201-6200)	O-ring	1
N18	92-07		509152	Spring	1
N20	92-07		746016	Relief valve	1
N23	92-07		315325 (9005110-8700)	Plug assembly	1
N24	92-07		732479 (9004105-0100)	O-ring	4
N26	92-07		140644	Plug assembly	3
N27	92-07		11040532	Plug assembly	18
N29	92-07		713719 (9007314-0610)	Screw	4
N30	92-07		519114	Shuttle valve assembly	1
N32	92-07		346080	Spool	1
N36	92-07		092114 (9007712-0604)	Set screw	4
N58	92-07		732982	Screw	4
N82	92-07		732479 (9004105-0100)	O-ring	1
N84	92-07		735266	Stop assembly	2
QN84	92-07		039297 (9004201-1200)	O-ring	2
N87	92-07		503887	PCOR housing assembly	1

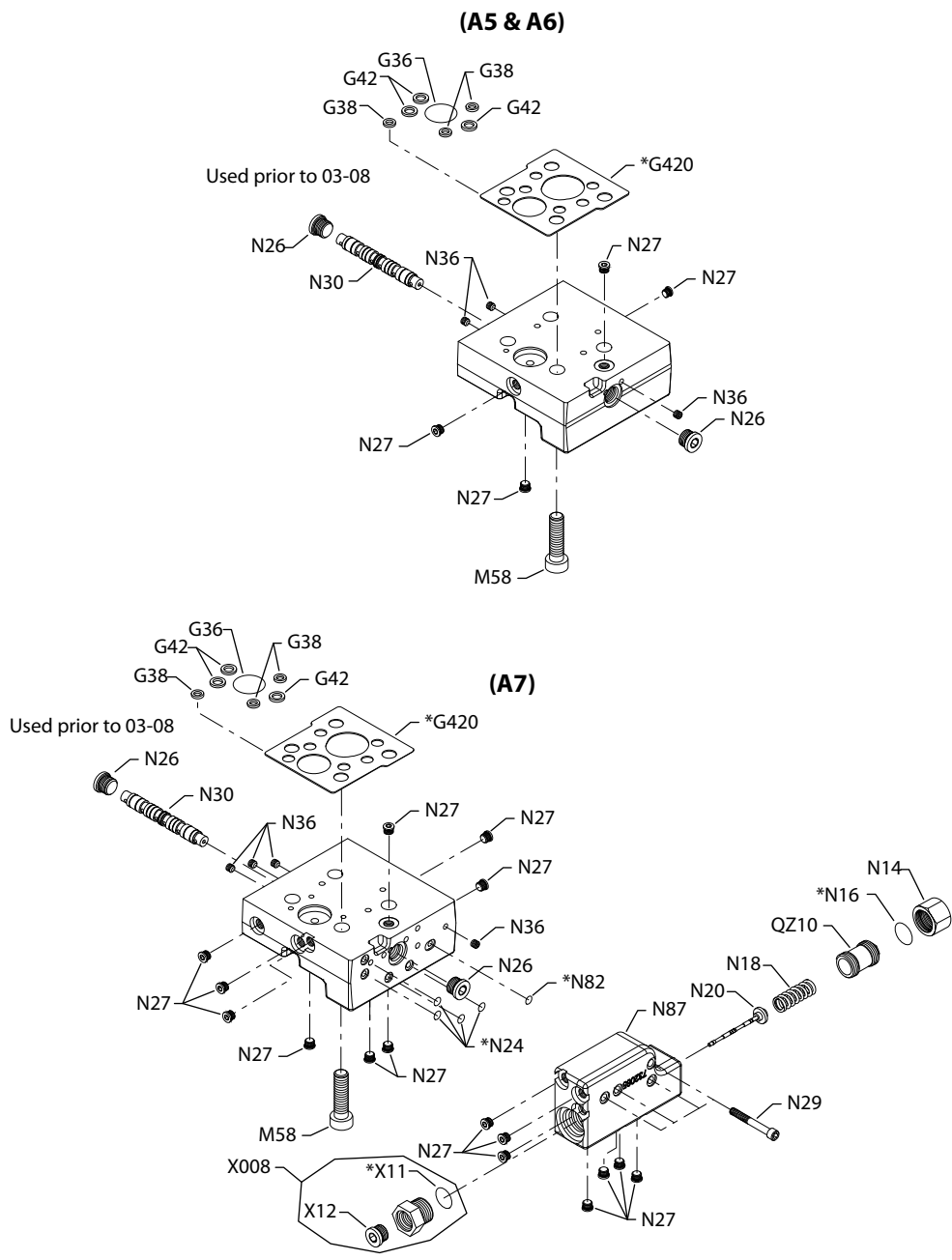
Order code: A2 & A4

G36	92-07	03-07	364968	O-ring <a href="#">(SB-2002-001)</a>	1
G38	92-07	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	92-07	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511810	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
N14	92-07		342709 (9003575-0101)	Nut	1
N16	92-07		001149 (9004201-6200)	O-ring	1
N18	92-07		509152	Spring	1
N20	92-07		746016	Relief valve	1
N23	92-07		315325 (9005110-8700)	Plug assembly	1
N24	92-07		732479 (9004105-0100)	O-ring	4
N26	92-07		140644	Plug assembly	2
N27	92-07		11040532	Plug assembly	16
N29	92-07		713719 (9007314-0610)	Screw	4
N30	92-07		519114	Shuttle valve assembly	1
N36	92-07		092114 (9007712-0604)	Set screw	4
N58	92-07		732982	Screw	4
N82	92-07		732479 (9004105-0100)	O-ring	1
N87	92-07		503887	PCOR housing assembly	1

**Servo supply**

**S51 160cc Servo Pressure Supply A5-A7**

*Parts Configuration*



\* included in base motor seal kit Q210

## Servo supply

### Servo pressure supply

Order code: A5 & A6

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
G36	92-33	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	92-33	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	92-33	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
N26	92-33		140644	Plug assembly	2
N27	92-33		11040532	Plug assembly	4
N30	92-33		519114	Shuttle valve assembly	1
N36	92-33		092114 (9007712-0604)	Set screw	4
N58	92-33		714436	Screw	4

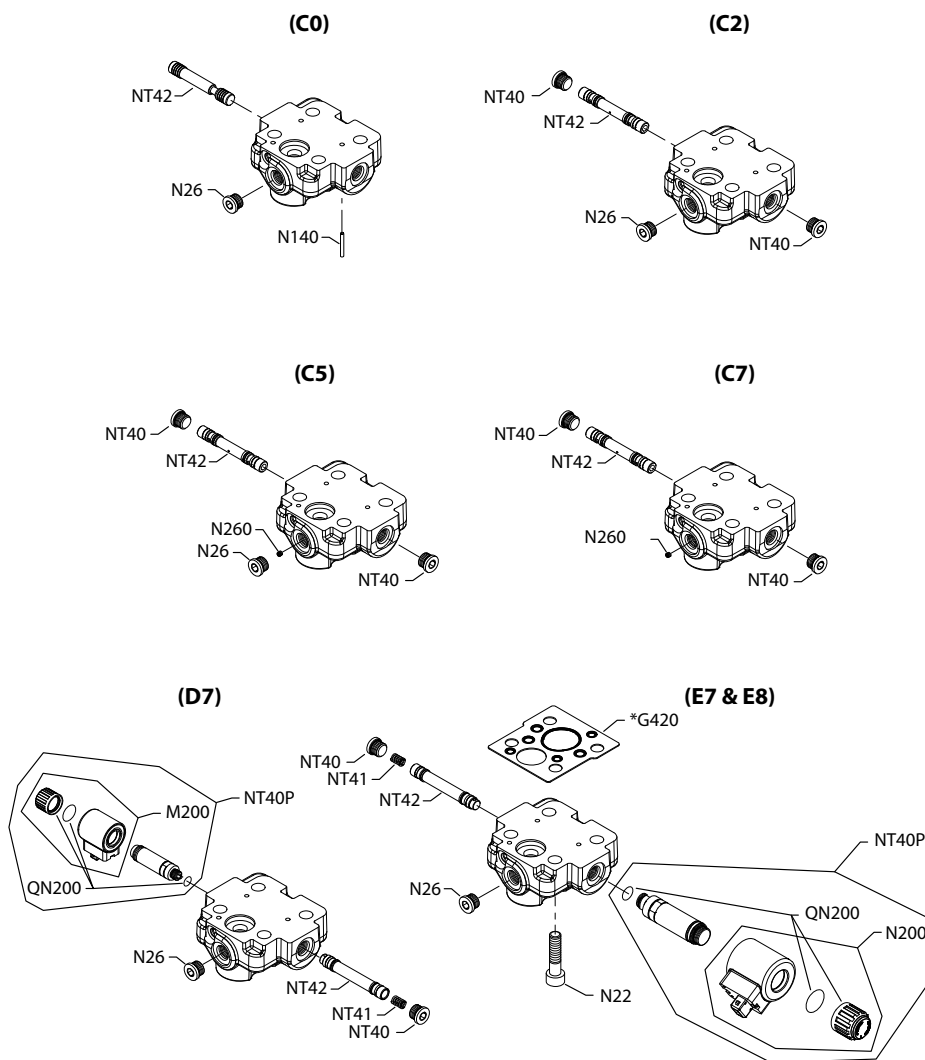
Order code: A7

G36	01-07	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	01-07	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	01-07	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
N14	01-07		342709 (9003575-0101)	Nut	1
N16	01-07		001149 (9004201-6200)	O-ring	1
N18	01-07		509152	Spring	1
N20	01-07		746016	Relief valve	1
N24	01-07		732479 (9004105-0100)	O-ring	4
N26	01-07		140644	Plug assembly	2
N27	01-07		11040532	Plug assembly	16
N29	01-07		713719 (9007314-0610)	Screw	4
N30	01-07		519114	Shuttle valve assembly	1
N36	01-07		092114 (9007712-0604)	Set screw	4
N58	01-07		714436	Screw	4
N82	01-07		144725 (9004105-0110)	O-ring	1
N87	01-07		503887	PCOR housing assembly	1
X008	01-07		779587	Adapter plug assembly	1
X11	01-07		001149 (9004201-6200)	O-ring	1
X12	01-07		140644	Plug assembly	1

**Servo supply**

**S51 160cc Servo Pressure Supply C0-E8**

*Parts Configuration*



\* included in base motor seal kit Q210

## Servo supply

Order code: B1, B2 & B3

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
			No parts		

Order code: C0

N26	96-10		140644	Plug assembly	1
N140	96-10		503503	Pin	1
NT42	96-10		508175	Spool	1

Order code: C2

N26	95-15		140644	Plug assembly	1
NT40	95-15		140644	Plug assembly	2
NT42	95-15		508156	Spool	1

Order code: C5

N26	95-15		140644	Plug assembly	1
N260	96-31		913897 (9007712-0605)	Set screw	1
NT40	95-15		140644	Plug assembly	2
NT42	95-15		508156	Spool	1

Order code: C7

N260	02-45		913897 (9007712-0605)	Set screw	1
NT40	02-45		140644	Plug assembly	2
NT42	02-45		508156	Spool	1

Order code: D7

M200	04-07		519467	Coil kit, 12 volt, Jet connector	1
N26	04-07		140644	Plug assembly	1
NT40	04-07		140644	Plug assembly	1
NT40P	04-07		519468	Solenoid valve, 12 volt, Jet connector	1
NT41	04-07		518382	Spring	1
NT42	04-07		520936	Spool	1
QN200	04-07		11121272	Coil nut kit	1

Order code: E7

G420	06-22		511851	Gasket/O-ring seal ( <a href="#">SB-2002-001</a> )	1
N22	06-22		503499	Screw	4
N26	06-22		140644	Plug assembly	1
N200	06-22		519467	Coil kit, 12 volt, Jet connector	1
NT40	06-22		140644	Plug assembly	1
NT40P	06-22		11086697	Solenoid valve, 12 volt, Jet connector	1
NT41	06-22		518382	Spring	1
NT42	06-22		520936	Spool	1
QN200	06-22		11121272	Coil nut kit	1

### Servo supply

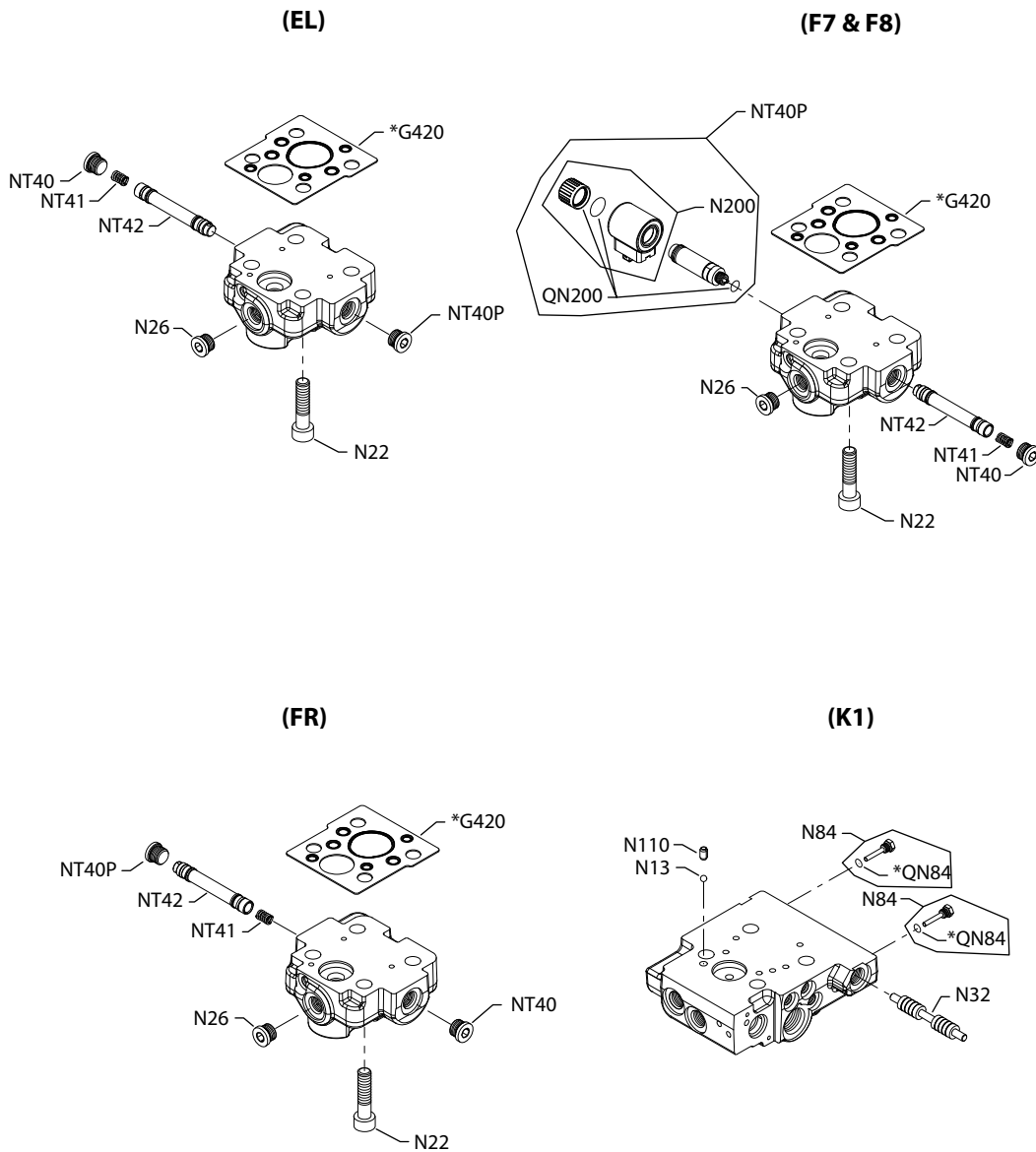
Order code: E8

G420	06-22		511851	Gasket/O-ring seal ( <a href="#">SB-2002-001</a> )	1
N22	06-22		503499	Screw	4
N26	06-22		140644	Plug assembly	1
N200	06-22		11003626	Coil kit, 24 volt, Jet connector	1
NT40	06-22		140644	Plug assembly	1
NT40P	06-22		11086698	Solenoid valve, 24 volt, Jet connector	1
NT41	06-22		518382	Spring	1
NT42	06-22		520936	Spool	1
QN200	06-22		11121272	Coil nut kit	1

**Servo supply**

**S51 160cc Servo Pressure Supply EL-K1**

*Parts Configuration*



\* included in base motor seal kit Q210

## Servo supply

Order code: EL

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
G420	06-22		511851	Gasket/O-ring seal ( <a href="#">SB-2002-001</a> )	1
N22	06-22		503499	Screw	4
N26	06-22		140644	Plug assembly	1
NT40	06-22		140644	Plug assembly	1
NT40P	06-22		140644	Plug assembly	1
NT41	06-22		518382	Spring	1
NT42	06-22		520936	Spool	1

Order code: F7

G420	06-22		511851	Gasket/O-ring seal ( <a href="#">SB-2002-001</a> )	1
N22	06-22		503499	Screw	4
N26	06-22		140644	Plug assembly	1
N200	06-22		519467	Coil kit, 12 volt, Jet connector	1
NT40	06-22		140644	Plug assembly	1
NT40P	06-22		11086697	Solenoid valve, 12 volt, Jet connector	1
NT41	06-22		518382	Spring	1
NT42	06-22		520936	Spool	1
QN200	06-22		11121272	Coil nut kit	1

Order code: F8

G420	06-22		511851	Gasket/O-ring seal ( <a href="#">SB-2002-001</a> )	1
N22	06-22		503499	Screw	4
N26	06-22		140644	Plug assembly	1
N200	06-22		11003626	Coil kit, 24 volt, Jet connector	1
NT40	06-22		140644	Plug assembly	1
NT40P	06-22		11086698	Solenoid valve, 24 volt, Jet connector	1
NT41	06-22		518382	Spring	1
NT42	06-22		520936	Spool	1
QN200	06-22		11121272	Coil nut kit	1

Order code: FR

G420	06-22		511851	Gasket/O-ring seal ( <a href="#">SB-2002-001</a> )	1
N22	06-22		503499	Screw	4
N26	06-22		140644	Plug assembly	1
NT40	06-22		140644	Plug assembly	1
NT40P	06-22		140644	Plug assembly	1
NT41	06-22		518382	Spring	1
NT42	06-22		520936	Spool	1

Order code: K1

N13	95-24		915967	Ball	1
N32	95-24		346080	Piston	1
N84	95-24		735266	Limiter assembly	2

**Servo supply**

*Order code: K1 (continued)*

N110	95-24		505522	Slotted pin	1
QN84	95-24		039297	O-ring	1



## Servo supply

Order code: K3

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
N110	95-24		505522	Slotted pin	1
N13	95-24		915967	Ball	1
N33	95-24		11040532	Plug assembly	2
N34	95-15		140644	Plug assembly	2

Order code: K4

N110	95-24		505522	Slotted pin	1
N13	95-24		915967	Ball	1
N33	95-24		11040532	Plug assembly	2
N34	95-15		140644	Plug assembly	2

Order code: L2 & L4

G36	91-26	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	91-26	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	91-26	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
N14	91-26		342709 (9003575-0101)	Nut	1
N16	91-26		001149 (9004201-6200)	O-ring	1
N18	91-26		509152	Spring	1
N20	91-26		746016	Relief valve	1
N23	91-26		315325 (9005110-8700)	Plug assembly	1
N24	91-26		732479 (9004105-0100)	O-ring	4
N26	91-26		140644	Plug assembly	3
N27	91-26		11040532	Plug assembly	18
N28	91-26		140644	Plug assembly	2
N29	91-26		713719 (9007314-0610)	Screw	4
N30	91-26		519114	Shuttle valve assembly	1
N36	91-26		092114 (9007712-0604)	Set screw	4
N58	91-26		714436	Screw	4
N82	91-26		144725	O-ring	1
N84	91-26		11040532	Plug assembly	2
N87	91-26		503887	PCOR housing assembly	1

Order code: L5

N26	95-24		140644	Plug assembly	1
N140	95-24		503503	Pin	2
NT40	95-24		140644	Plug assembly	2
NT42	95-24		507782	Spool	1

Order code: M1

N32	95-24		346080	Piston	1
N84	95-24		735266	Stop assembly	2
QN84	95-24		039297 (9004201-1200)	O-ring	2

**Servo supply**

Order code: NN

			No parts		
--	--	--	----------	--	--



### Servo supply

Order code: M4

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
M200	06-22		11003626	Coil kit, 24 volt, Jet connector	1
NT40	06-22		140644	Plug assembly	1
NT40P	06-22		11003624	Solenoid valve, 24 volt, Jet connector	1
NT41	06-22		518382	Spring	1
NT42	06-22		520936	Spool	1
QM200	06-22		11121272	Coil nut kit	1

Order code: M6

M200	06-22		519467	Coil kit, 12 volt, Jet connector	1
NT40	06-22		140644	Plug assembly	1
NT40P	06-22		519468	Solenoid valve, 12 volt, Jet connector	1
NT41	06-22		518382	Spring	1
NT42	06-22		520936	Spool	1
QM200	06-22		11121272	Coil nut kit	1

Order code: NN

			No parts		
--	--	--	----------	--	--

Order code: R2 & R4

G36	91-26	03-07	364976	O-ring <a href="#">(SB-2002-001)</a>	1
G38	91-26	03-07	792739	O-ring <a href="#">(SB-2002-001)</a>	3
G42	91-26	03-07	754580	O-ring <a href="#">(SB-2002-001)</a>	3
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
N14	91-26		342709 (9003575-0101)	Nut	1
N16	91-26		001149 (9004201-6200)	O-ring	1
N18	91-26		509152	Spring	1
N20	91-26		746016	Relief valve	1
N23	91-26		315325 (9005110-8700)	Plug assembly	1
N24	91-26		732479 (9004105-0100)	O-ring	4
N26	91-26		140644	Plug assembly	3
N27	91-26		11040532	Plug assembly	18
N28	91-26		140644	Plug assembly	2
N29	91-26		713719 (9007314-0610)	Screw	4
N30	91-26		519114	Shuttle valve assembly	1
N36	91-26		092114 (9007712-0604)	Set screw	4
N58	91-26		714436	Screw	4
N82	91-26		144725 (9004105-0110)	O-ring	1
N84	91-26		11040532	Plug assembly	2
N87	91-26		503887	PCOR housing assembly	1

Order code: R5

N26	95-24		140644	Plug assembly	1
N140	95-24		503503	Pin	2

**Servo supply**

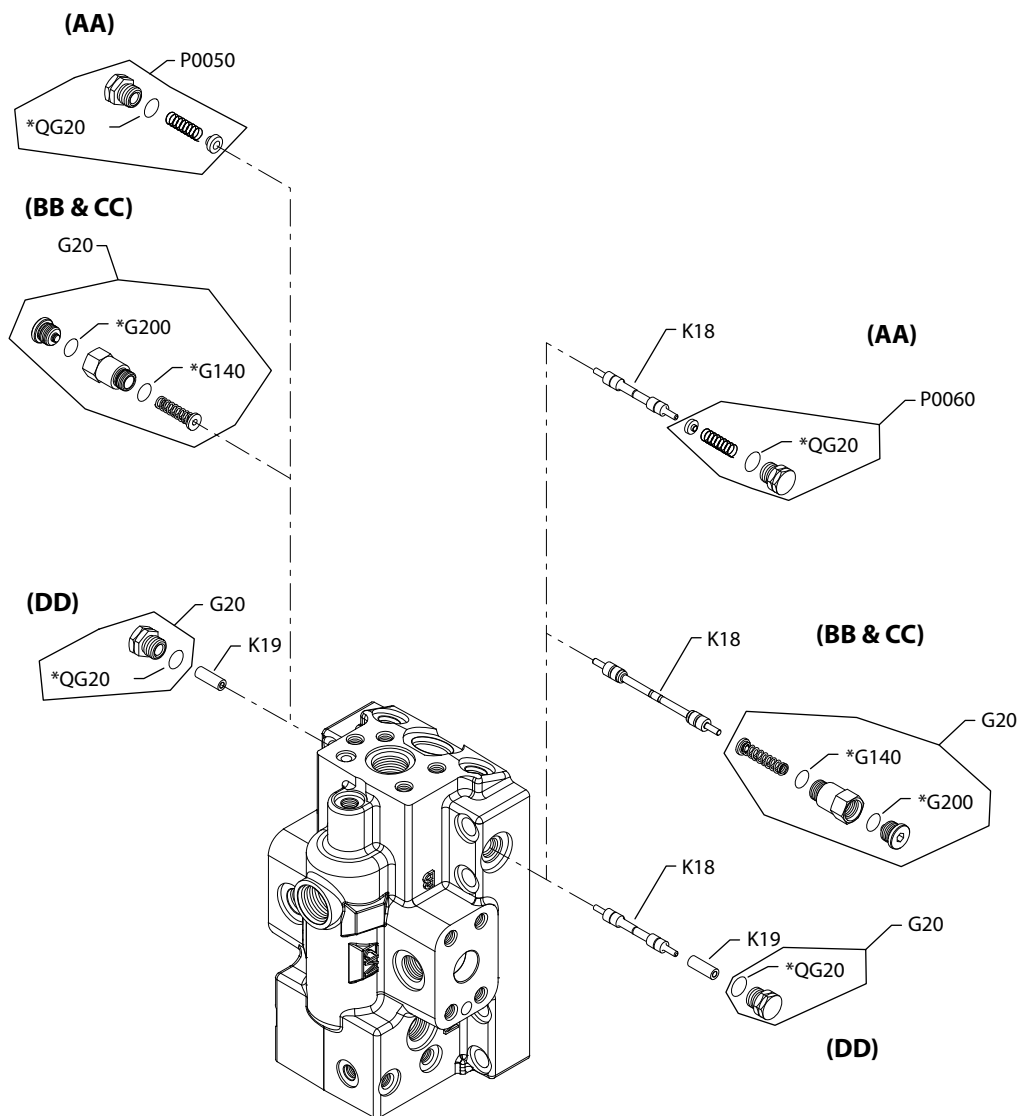
*Order code: R5 (continued)*

NT40	95-24		140644	Plug assembly	2
NT42	95-24		507782	Spool	1

**Loop flushing**

**S-51 160cc Loop Flushing AA-DD**

Parts Configuration



\* included in base motor seal kit Q210

## Loop flushing

Order code: AA

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
K18	92-33		707745	Loop flushing spool	1
P0050	17-37		11160971	Plug/Spring seat Assembly	1
P0060	17-37		11160971	Plug/Spring seat Assembly	1
QG20	92-33		085043 (9004201-3700)	O-ring	2

Order code: BB

G20	11-15		521692	Spring housing assembly	2
G140	11-15		085043 (9004201-3700)	O-ring	2
G200	11-15		085043 (9004201-3700)	O-ring	2
K18	11-15		521673	Loop flushing spool	1

Order code: CC

G20	11-15		521692	Spring housing assembly	2
G140	11-15		085043 (9004201-3700)	O-ring	2
G200	11-15		085043 (9004201-3700)	O-ring	2
K18	11-15		11002600	Loop flushing spool	1

Order code: DD

G20	11-15		518016	Plug assembly	2
K18	11-15		707745	Loop flushing spool	1
K19	11-15		11020889	Spacer	2
QG20	11-15		085043 (9004201-3700)	O-ring	2

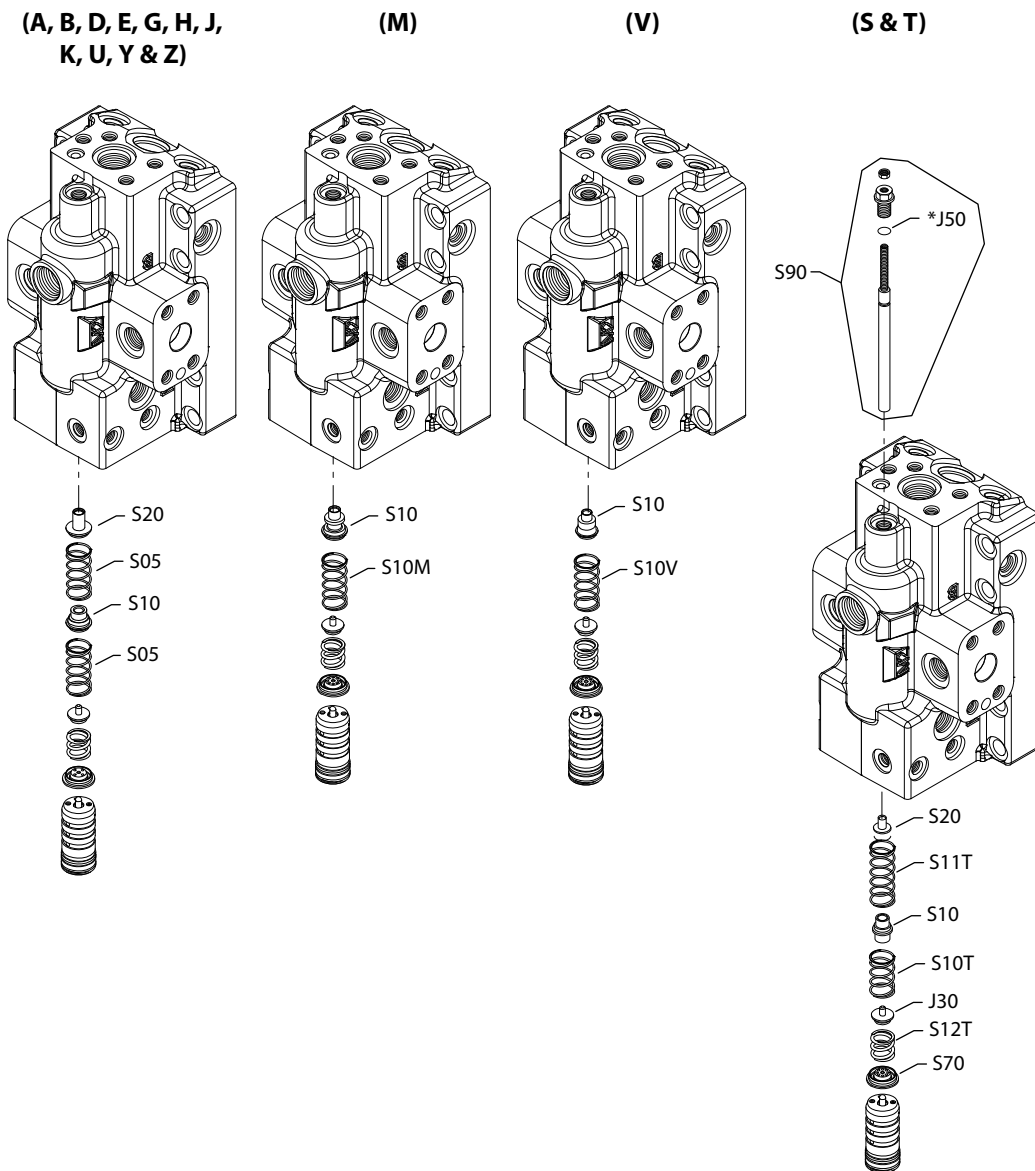
Order code: NN

			No parts		
--	--	--	----------	--	--

**Control ramp**

**S51 160cc Control Ramp A-Z**

*Parts Configuration*



\* included in base motor seal kit Q210

## Control ramp

### Order code: A & B

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
S05	95-36		721472	Spring	2
S10	95-36		724526	Spring guide	1
S20	95-36		11014064	Spring guide	1

### Order code: D

S05	92-33		721498	Spring	2
S10	92-33		724526	Spring guide	1
S20	92-33		11014064	Spring guide	1

### Order code: E

S05	92-33		721472	Spring	2
S10	92-33		724526	Spring guide	1
S20	92-33		11014064	Spring guide	1

### Order code: G

S05	92-33		721480	Spring	2
S10	92-33		724526	Spring guide	1
S20	92-33		11014064	Spring guide	1

### Order code: H, J & K

S05	92-33		721514	Spring	2
S10	92-33		724526	Spring guide	1
S20	92-33		11014064	Spring guide	1

### Order code: M

S10	03-46		519774	Spring guide	1
S10M	03-46		519692	Spring	1

### Order code: N

			No parts		
--	--	--	----------	--	--

### Order code: S & T

J30	95-12		507670	Spring guide	1
J50	95-12		732479 (9004105-0100)	O-ring	1
J90	95-12		509231	Threshold adjust screw assembly	1
S10	95-12		735936	Spring guide	1
S10T	95-12		735837	Spring	1
S11T	95-12		735829	Spring	1
S12T	95-12		509180	Spring	1
S20	95-12		735910	Spring guide	1
S70	95-12		505281	Spring seat	1

### Control ramp

*Order code: U*

S05	92-33		721506	Spring	2
S10	92-33		724526	Spring guide	1
S20	92-33		11014064	Spring guide	1

*Order code: V*

S10	02-34		518487	Spring guide	1
S10V	02-34		721456	Spring	1

*Order code: Y*

S05	92-33		721514	Spring	2
S10	99-35		724526	Spring guide	1
S20	99-35		11014064	Spring guide	1

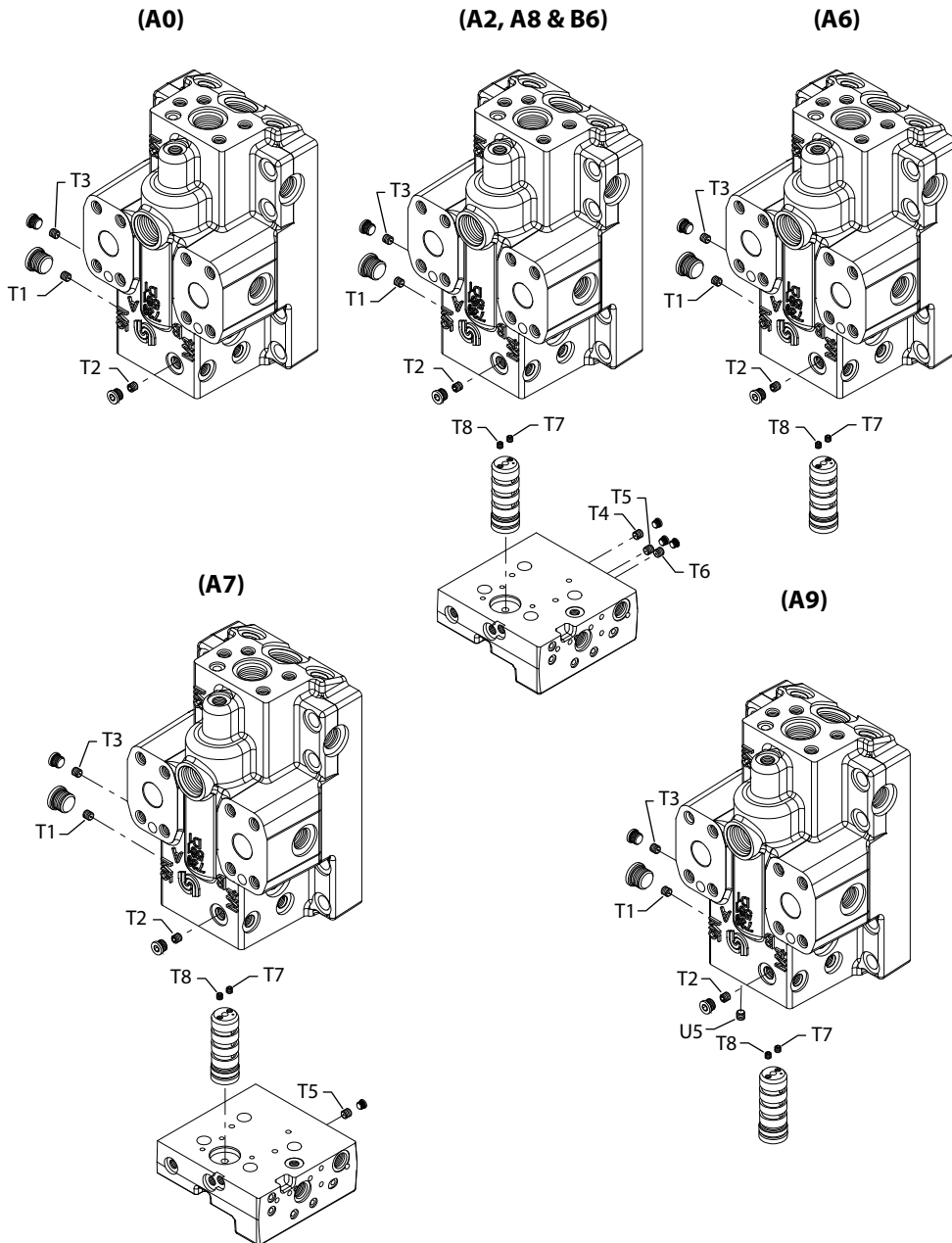
*Order code: Z*

S05	99-35		721522	Spring	2
S10	99-35		724526	Spring guide	1
S20	99-35		11014064	Spring guide	1

**Orifice**

**S51 60/160cc Orifice A0-B6**

*Parts Configuration*



## Orifice

Order code: A0

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T1	92.38		913897 (9007712-0605)	Set screw	1
T2	92.38		913897 (9007712-0605)	Set screw	1
T3	92.38		913897 (9007712-0605)	Set screw	1

Order code: A2

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1

Order code: A6

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1

Order code: A7

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1

Order code: A8

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		913897 (9007712-0605)	Set screw	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1

Order code: A9

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1

## Orifice

Order code: A9 (continued)

T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1

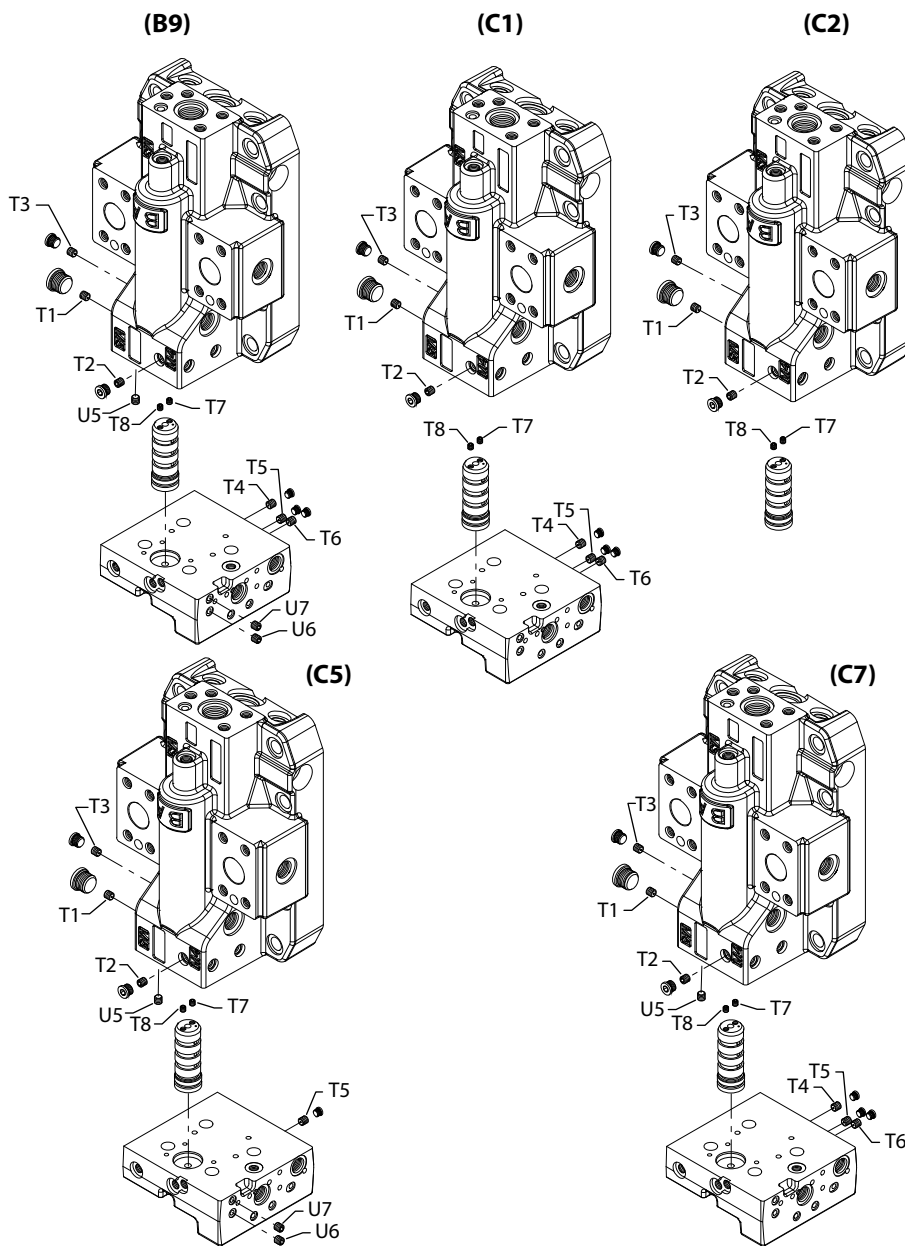
Order code: B6

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		913897 (9007712-0605)	Set screw	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1

**Orifice**

**S51 60/160cc Orifice B9-C7**

*Parts Configuration*



## Orifice

Order code: B9

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		679316	Orifice. 0.5, M6 x 8	1
T3	92-07		679316	Orifice. 0.5, M6 x 8	1
T4	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1
U6	92-07		511825	Orifice. 0.6, M6 x 8	1
U7	92-07		511825	Orifice. 0.6, M6 x 8	1

Order code: C0

			No parts		
--	--	--	----------	--	--

Order code: C1

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		913897 (9007712-0605)	Set screw	1
T5	92-07		578542	Orifice, 0.8, M6 x 8	1
T6	92-07		913897 (9007712-0605)	Set screw	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1

Order code: C2

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1

Order code: C5

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1
U6	92-07		511825	Orifice. 0.6, M6 x 8	1
U7	92-07		511825	Orifice. 0.6, M6 x 8	1

## Orifice

Order code: C7

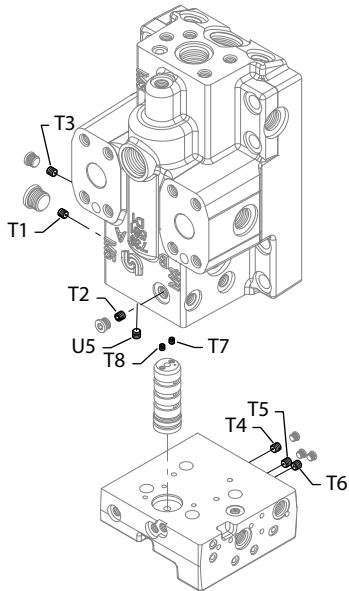
T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		913897 (9007712-0605)	Set screw	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1

**Orifice**

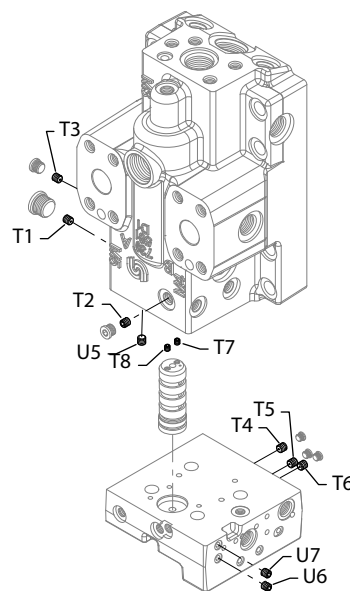
**S51 60/160cc Orifice C8-E1**

*Parts Configuration*

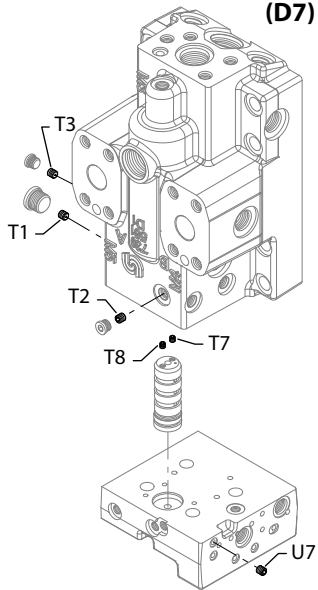
**(C8)**



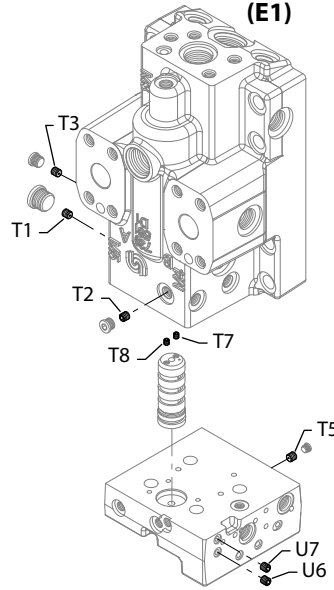
**(D3 & D5)**



**(D7)**



**(E1)**



## Orifice

Order code: C8

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice. 0.8, M6 x 8	1
T3	92-07		578542	Orifice. 0.8, M6 x 8	1
T4	92-07		913897 (9007712-0605)	Set screw	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice. 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1

Order code: D3

T1	92-07		578542	Orifice. 0.8, M6 x 8	1
T2	92-07		511825	Orifice. 0.6, M6 x 8	1
T3	92-07		511825	Orifice. 0.6, M6 x 8	1
T4	92-07		913897 (9007712-0605)	Set screw	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice. 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1
U6	92-07		511825	Orifice. 0.6, M6 x 8	1
U7	92-07		511825	Orifice. 0.6, M6 x 8	1

Order code: D5

T1	92-07		578542	Orifice. 0.8, M6 x 8	1
T2	92-07		511825	Orifice. 0.6, M6 x 8	1
T3	92-07		511825	Orifice. 0.6, M6 x 8	1
T4	92-07		578542	Orifice. 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		913897 (9007712-0605)	Set screw	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1
U6	92-07		511825	Orifice. 0.6, M6 x 8	1
U7	92-07		511825	Orifice. 0.6, M6 x 8	1

Order code: D7

T1	92-07		578542	Orifice. 0.8, M6 x 8	1
T2	92-07		578542	Orifice. 0.8, M6 x 8	1
T3	92-07		578542	Orifice. 0.8, M6 x 8	1
T7	92-07		511825	Orifice. 0.6, M6 x 8	1
T8	92-07		511825	Orifice. 0.6, M6 x 8	1
U7	92-07		044081	Orifice. 0.7, M6 x 8	1

## Orifice

Order code: E1

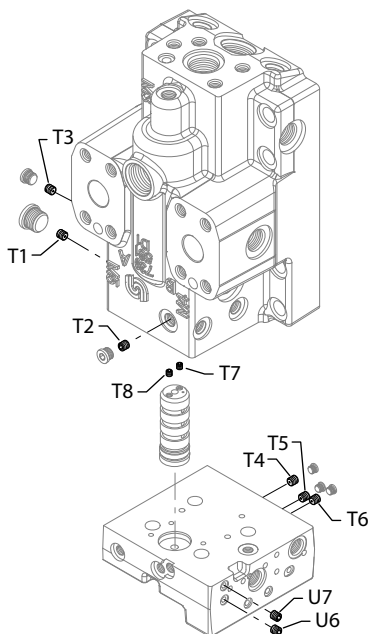
T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U6	92-07		044081	Orifice. 0.7, M6 x 8	1
U7	92-07		044081	Orifice. 0.7, M6 x 8	1

**Orifice**

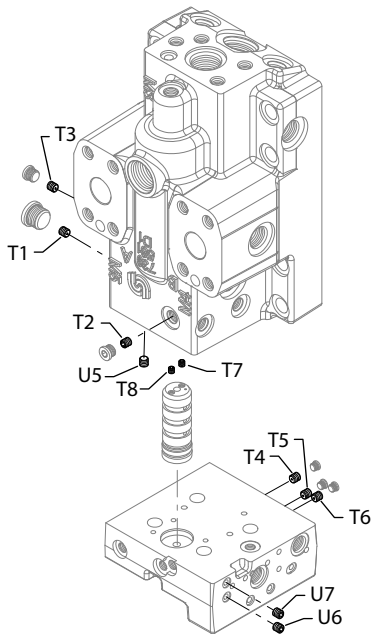
**S51 60/160cc Orifice E2-E6**

*Parts Configuration*

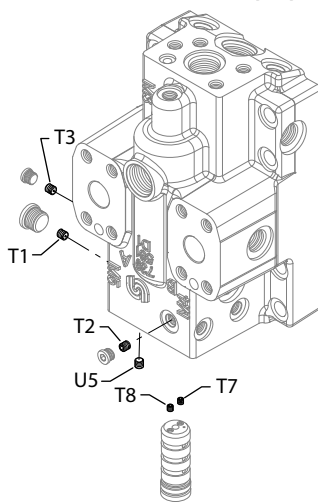
**(E2, E3 & E4)**



**(E5)**



**(E6)**



## Orifice

Order code: E2

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U6	92-07		044081	Orifice. 0.7, M6 x 8	1
U7	92-07		044081	Orifice. 0.7, M6 x 8	1

Order code: E3

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		913897 (9007712-0605)	Set screw	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U6	92-07		044081	Orifice. 0.7, M6 x 8	1
U7	92-07		044081	Orifice. 0.7, M6 x 8	1

Order code: E4

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		913897 (9007712-0605)	Set screw	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U6	92-07		044081	Orifice. 0.7, M6 x 8	1
U7	92-07		044081	Orifice. 0.7, M6 x 8	1

Order code: E5

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T4	92-07		578542	Orifice, 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1

## Orifice

Order code: E5 (continued)

T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1
U6	92-07		511825	Orifice. 0.6, M6 x 8	1
U7	92-07		511825	Orifice. 0.6, M6 x 8	1

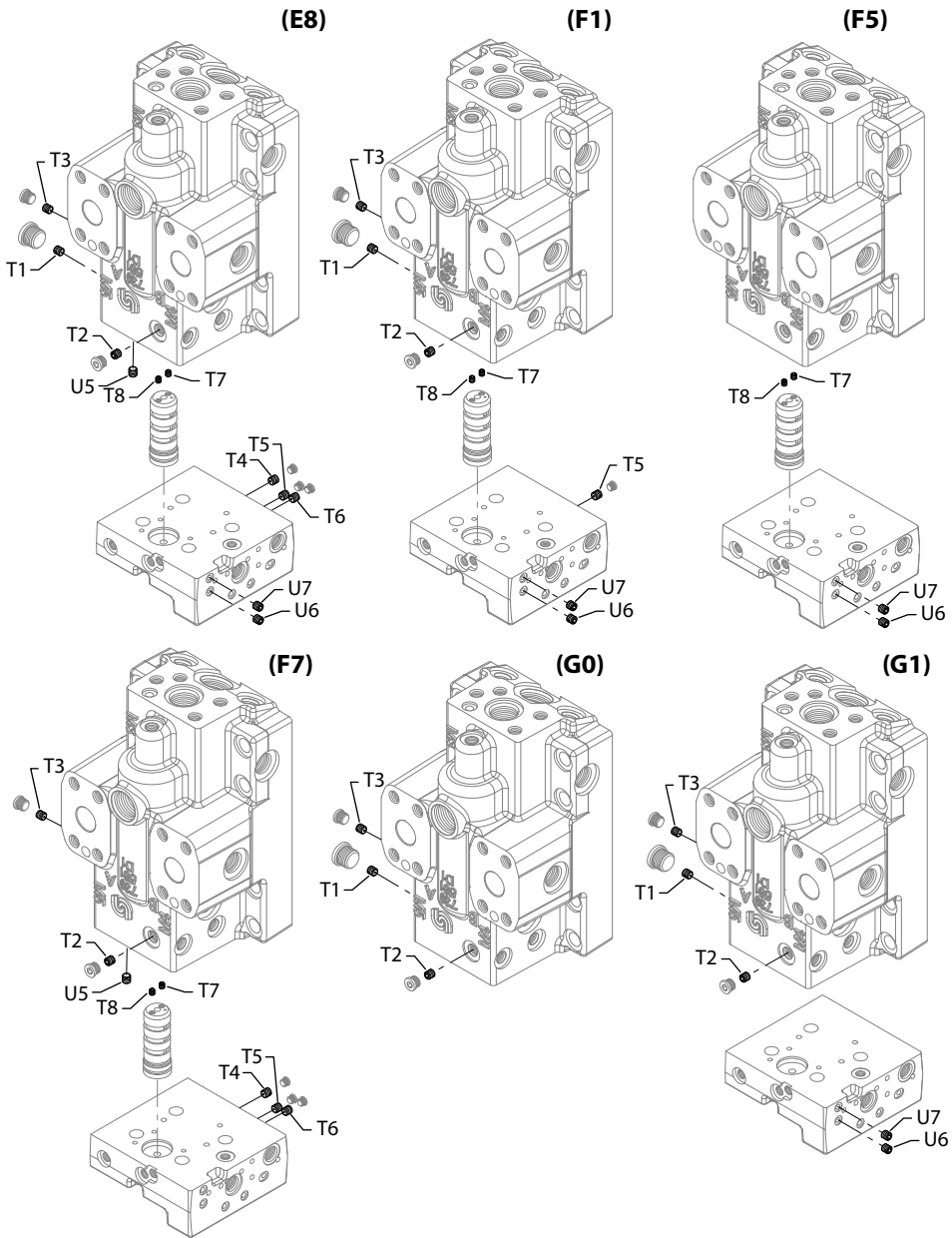
Order code: E6

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice, 0.8, M6 x 8	1
T3	92-07		578542	Orifice, 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1

**Orifice**

**S51 60/160cc Orifice E8-G1**

*Parts Configuration*



## Orifice

Order code: E8

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice. 0.8, M6 x 8	1
T3	92-07		578542	Orifice. 0.8, M6 x 8	1
T4	92-07		913897 (9007712-0605)	Set screw	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice. 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1
U6	92-07		511825	Orifice. 0.6, M6 x 8	1
U7	92-07		511825	Orifice. 0.6, M6 x 8	1

Order code: F1

T1	92-07		679316	Orifice. 0.5, M6 x 8	1
T2	92-07		578542	Orifice. 0.8, M6 x 8	1
T3	92-07		578542	Orifice. 0.8, M6 x 8	1
T5	92-07		578542	Orifice. 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U6	92-07		578542	Orifice. 0.8, M6 x 8	1
U7	92-07		578542	Orifice. 0.8, M6 x 8	1

Order code: F5

T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U6	92-07		913897 (9007712-0605)	Set screw	1
U7	92-07		044081	Orifice. 0.7, M6 x 8	1

Order code: E2

T2	92-07		578542	Orifice. 0.8, M6 x 8	1
T3	92-07		578542	Orifice. 0.8, M6 x 8	1
T4	92-07		578542	Orifice. 0.8, M6 x 8	1
T5	92-07		913897 (9007712-0605)	Set screw	1
T6	92-07		578542	Orifice. 0.8, M6 x 8	1
T7	92-07		639096	Orifice. 0.6, M5 x 6	1
T8	92-07		639096	Orifice. 0.6, M5 x 6	1
U5	92-07		913897 (9007712-0605)	Set screw	1

Order code: G0

T1	92-07		578542	Orifice. 0.8, M6 x 8	1
T2	92-07		679316	Orifice. 0.5, M6 x 8	1
T3	92-07		679316	Orifice. 0.5, M6 x 8	1

## Orifice

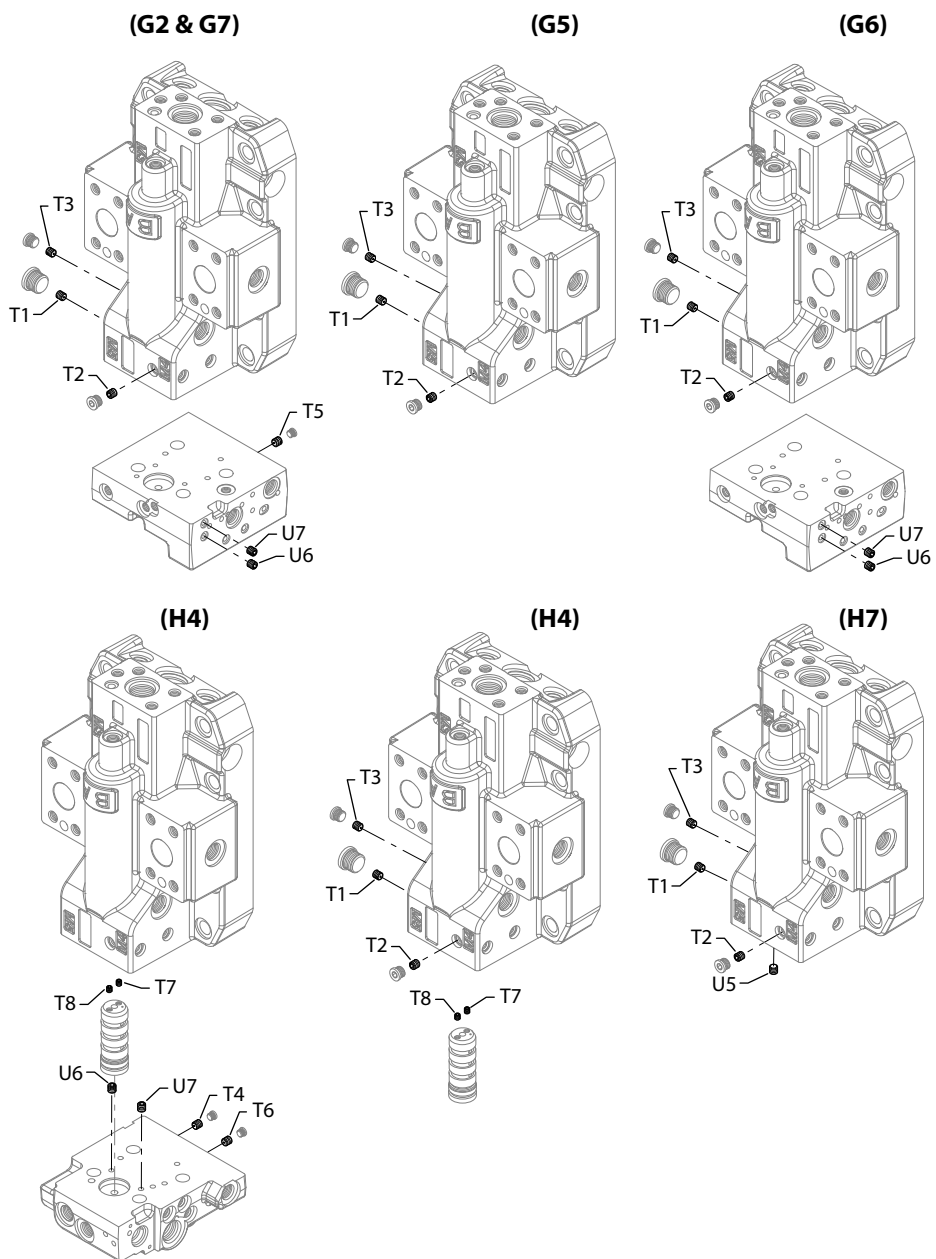
Order code: G1

T1	92-07		578542	Orifice, 0.8, M6 x 8	1
T2	92-07		679316	Orifice. 0.5, M6 x 8	1
T3	92-07		679316	Orifice. 0.5, M6 x 8	1
U6	92-07		578542	Orifice, 0.8, M6 x 8	1
U7	92-07		578542	Orifice, 0.8, M6 x 8	1

**Orifice**

**S51 160cc Orifice G2-H7**

*Parts Configuration*



## Orifice

### Order code: G2

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T2	92-33		679316	Orifice. 0.5, M6 x 8	1
T3	92-33		679316	Orifice. 0.5, M6 x 8	1
T5	92-33		913897 (9007712-0605)	Set screw	1
U6	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		578542	Orifice, 0.8, M6 x 8	1

### Order code: G5

T1	92-33		679316	Orifice. 0.5, M6 x 8	1
T2	92-33		679316	Orifice. 0.5, M6 x 8	1
T3	92-33		679316	Orifice. 0.5, M6 x 8	1

### Order code: G6

T1	92-33		679316	Orifice. 0.5, M6 x 8	1
T2	92-33		679316	Orifice. 0.5, M6 x 8	1
T3	92-33		679316	Orifice. 0.5, M6 x 8	1
U6	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		578542	Orifice, 0.8, M6 x 8	1

### Order code: G7

T1	92-33		679316	Orifice. 0.5, M6 x 8	1
T2	92-33		679316	Orifice. 0.5, M6 x 8	1
T3	92-33		679316	Orifice. 0.5, M6 x 8	1
T5	92-33		913897 (9007712-0605)	Set screw	1
U6	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		578542	Orifice, 0.8, M6 x 8	1

### Order code: H4

T4	92-33		578542	Orifice, 0.8, M6 x 8	1
T6	92-33		578542	Orifice, 0.8, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1
U6	92-33		044081	Orifice. 0.7, M6 x 8	1
U7	92-33		044081	Orifice. 0.7, M6 x 8	1

### Order code: H5

T1	92-33		044081	Orifice, 0.7, M6 x 8	1
T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1

## Orifice

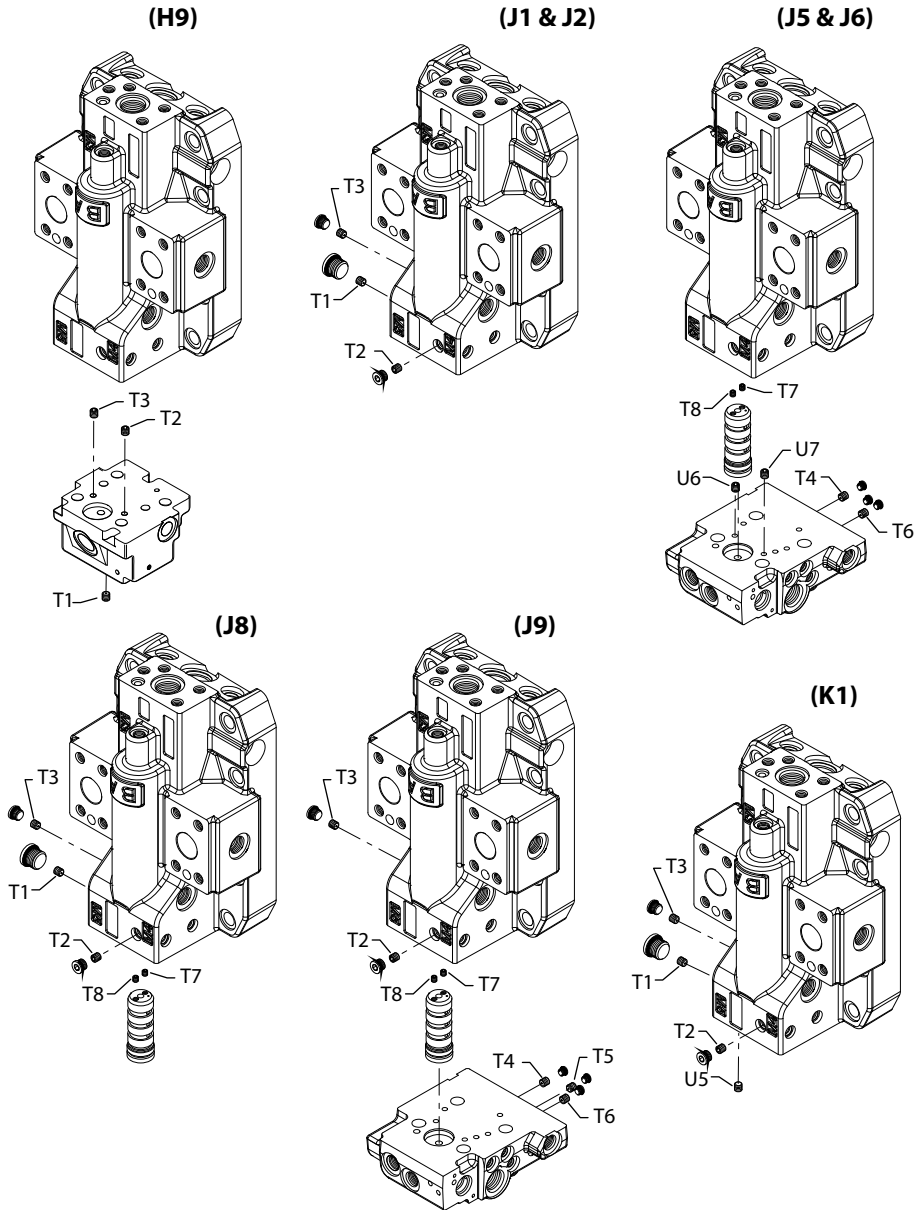
Order code: H7

T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1
U5	92-33		913897 (9007712-0605)	Set screw	1

**Orifice**

**S51 160cc Orifice H9-K1**

*Parts Configuration*



## Orifice

Order code: H9

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1

Order code: J1

T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1

Order code: J2

T1	92-33		511825	Orifice, 0.6, M6 x 8	1
T2	92-33		511825	Orifice, 0.6, M6 x 8	1
T3	92-33		511825	Orifice, 0.6, M6 x 8	1

Order code: J5

T4	92-33		578542	Orifice, 0.8, M6 x 8	1
T6	92-33		913897	Set screw	1
T7	92-33		639096	Orifice, 0.6, M5 x 6	1
T8	92-33		639096	Orifice, 0.6, M5 x 6	1
U6	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		578542	Orifice, 0.8, M6 x 8	1

Order code: J6

T4	92-33		913897	Set screw	1
T6	92-33		578542	Orifice, 0.8, M6 x 8	1
T7	92-33		639096	Orifice, 0.6, M5 x 6	1
T8	92-33		639096	Orifice, 0.6, M5 x 6	1
U6	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		578542	Orifice, 0.8, M6 x 8	1

Order code: J8

T1	92-33		679316	Orifice, 0.5, M6 x 8	1
T2	92-33		679316	Orifice, 0.5, M6 x 8	1
T3	92-33		679316	Orifice, 0.5, M6 x 8	1
T7	92-33		639096	Orifice, 0.6, M5 x 6	1
T8	92-33		639096	Orifice, 0.6, M5 x 6	1

Order code: J9

T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1
T4	92-33		913897	Set screw	1
T5	92-33		578542	Orifice, 0.8, M6 x 8	1

## Orifice

*Order code: J9 (continued)*

T6	92-33		913897	Set screw	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1

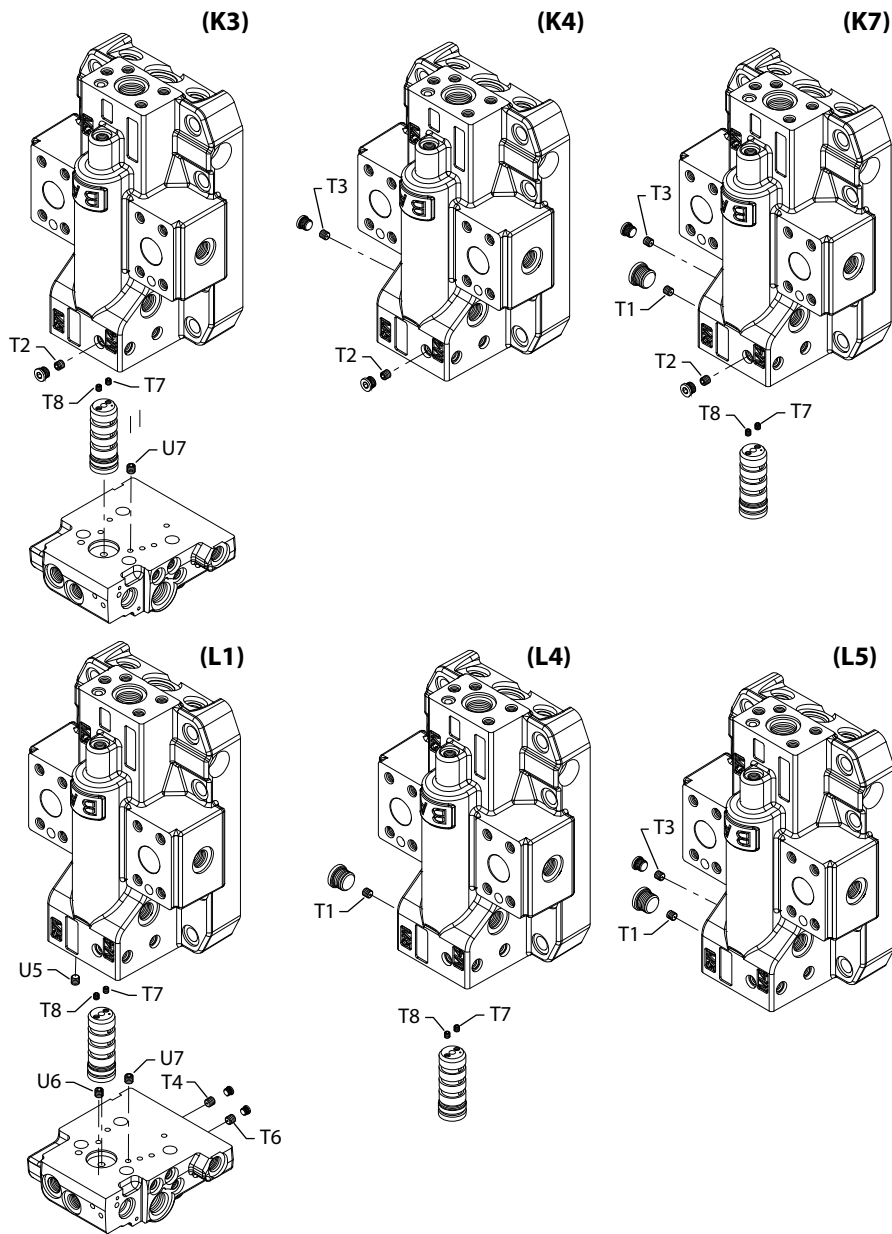
*Order code: K1*

T1	92-33		679316	Orifice. 0.5, M6 x 8	1
T2	92-33		679316	Orifice. 0.5, M6 x 8	1
T3	92-33		679316	Orifice. 0.5, M6 x 8	1
U5	92-33		913897 (9007712-0605)	Set screw	1

**Orifice**

**S51 160cc Orifice K3-L5**

*Parts Configuration*



## Orifice

### Order code: K3

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T2	92-33		511825	Orifice. 0.6, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1
U7	92-33		511825	Orifice. 0.6, M6 x 8	1

### Order code: K4

T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1

### Order code: K7

T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T2	92-33		679316	Orifice. 0.5, M6 x 8	1
T3	92-33		679316	Orifice. 0.5, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1

### Order code: L1

T4	92-33		578542	Orifice, 0.8, M6 x 8	1
T6	92-33		578542	Orifice, 0.8, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1
U5	92-33		913897 (9007712-0605)	Set screw	1
U6	92-33		044081	Orifice. 0.7, M6 x 8	1
U7	92-33		044081	Orifice. 0.7, M6 x 8	1

### Order code: L4

T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1

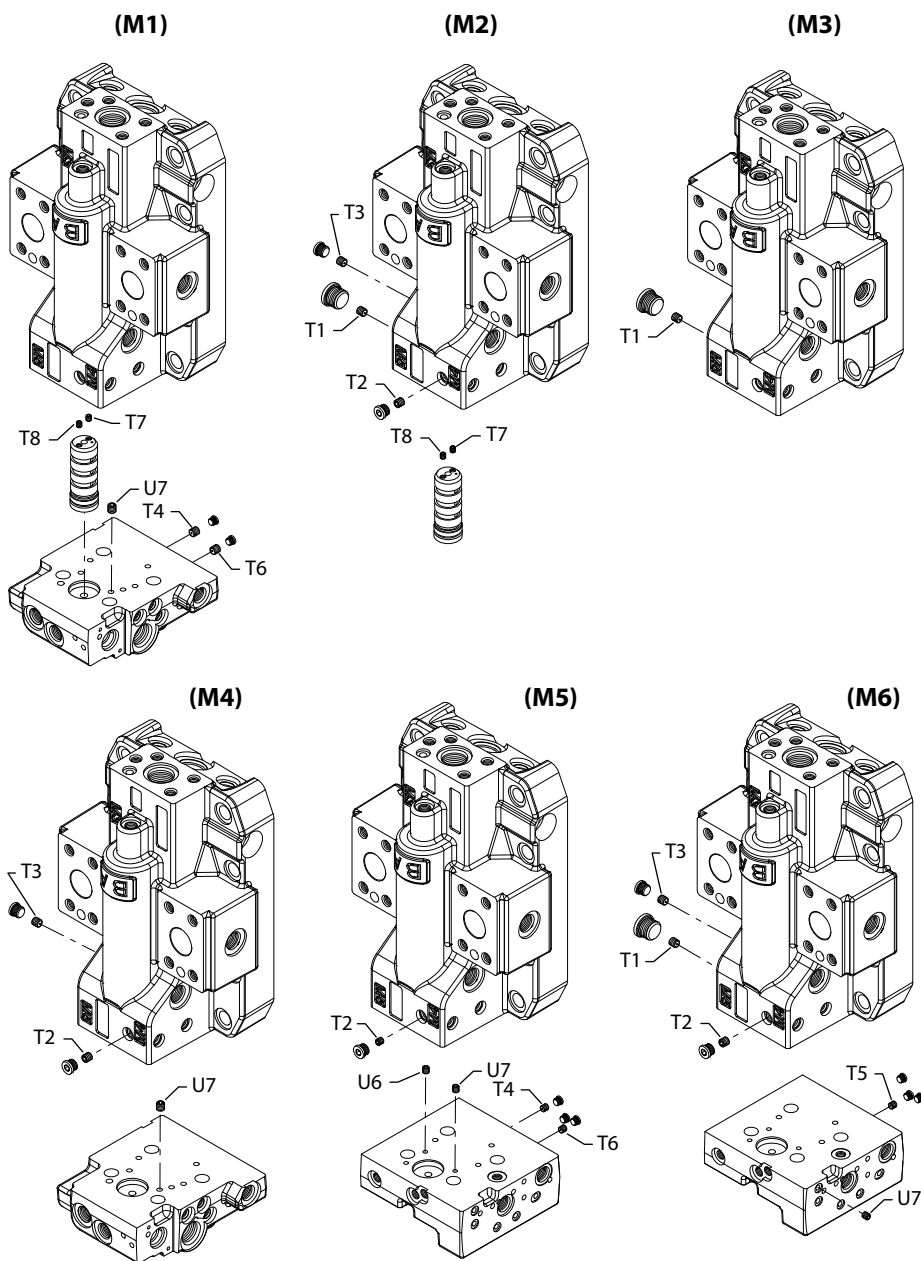
### Order code: L5

T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		679316	Orifice. 0.5, M6 x 8	1

**Orifice**

**S51 160cc Orifice M1-M6**

*Parts Configuration*



## Orifice

### Order code: M1

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1
T4	92-33		578542	Orifice, 0.8, M6 x 8	1
T6	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		044081	Orifice. 0.7, M6 x 8	1

### Order code: M2

T1	92-33		508014	Orifice, 1.0, M6 x 8	1
T2	92-33		508014	Orifice, 1.0, M6 x 8	1
T3	92-33		508014	Orifice, 1.0, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1

### Order code: M3

T1	92-33		578542	Orifice, 0.8, M6 x 8	1
----	-------	--	--------	----------------------	---

### Order code: M4

T2	92-33		578542	Orifice. 0.8, M6 x 8	1
T3	92-33		578542	Orifice. 0.8, M6 x 8	1
U7	92-33		511825	Orifice, 0.6, M6 x 8	1

### Order code: M5

T2	92-33		511825	Orifice, 0.6, M6 x 8	1
T4	92-33		578542	Orifice. 0.8, M6 x 8	1
T6	92-33		578542	Orifice. 0.8, M6 x 8	1
U6	92-33		044081	Orifice. 0.7, M6 x 8	1
U7	92-33		044081	Orifice. 0.7, M6 x 8	1

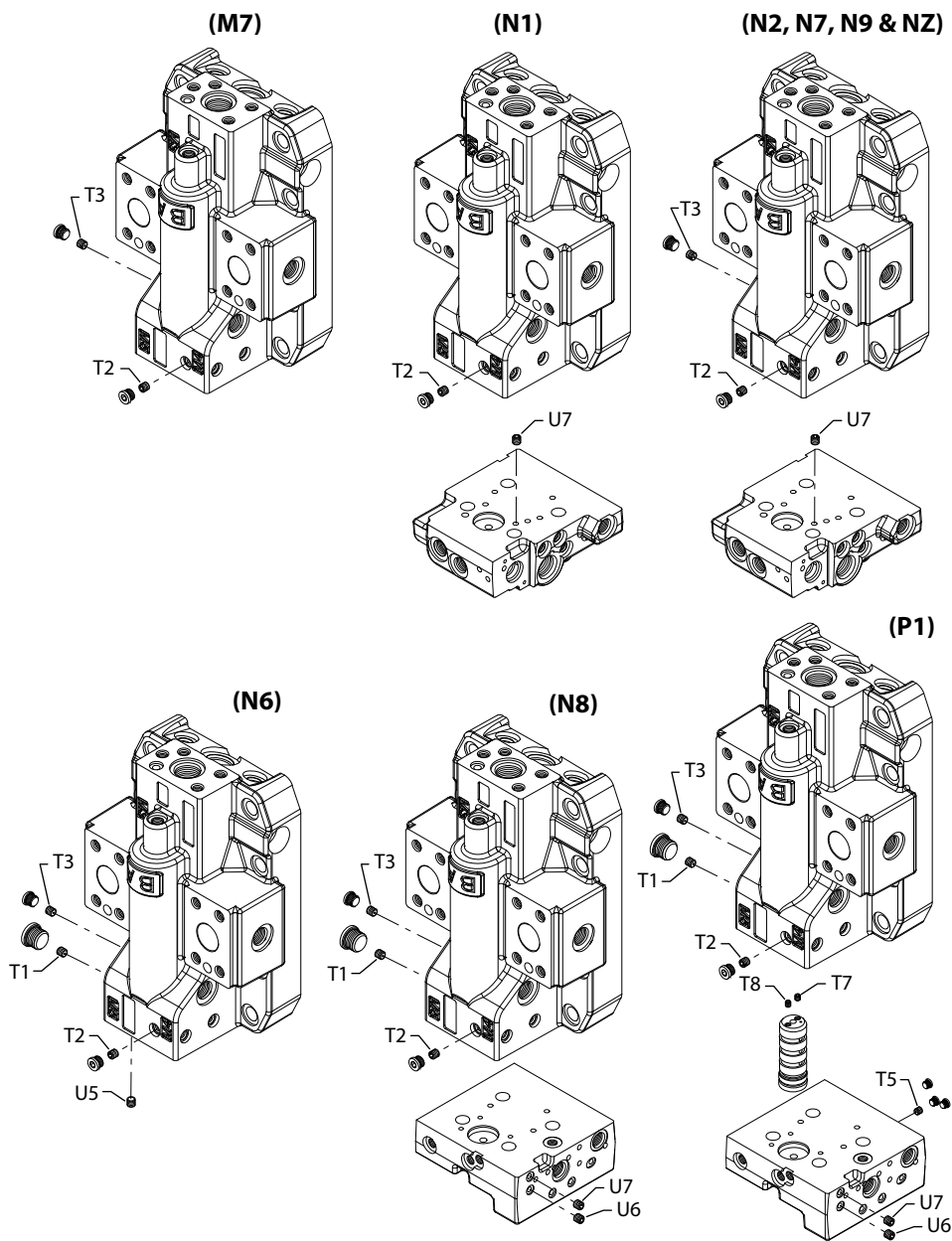
### Order code: M6

T1	92-33		578542	Orifice. 0.8, M6 x 8	1
T2	92-33		578542	Orifice. 0.8, M6 x 8	1
T3	92-33		578542	Orifice. 0.8, M6 x 8	1
T5	92-33		913897 (9007712-0605)	Set screw	1
U7	92-33		578542	Orifice. 0.8, M6 x 8	1

**Orifice**

**S51 160cc Orifice M7-P1**

*Parts Configuration*



## Orifice

### Order code: M7

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T2	92-33		578542	Orifice. 0.8, M6 x 8	1
T3	92-33		578542	Orifice. 0.8, M6 x 8	1

### Order code: N1

T2	92-33		516598	Orifice. 1.2, M6 x 8	1
U7	92-33		508014	Orifice, 1.0, M6 x 8	1

### Order code: N2

T2	92-33		511825	Orifice, 0.6, M6 x 8	1
T3	92-33		511825	Orifice, 0.6, M6 x 8	1
U7	92-33		511825	Orifice, 0.6, M6 x 8	1

### Order code: N6

T1	92-33		511825	Orifice, 0.6, M6 x 8	1
T2	92-33		511825	Orifice, 0.6, M6 x 8	1
T3	92-33		511825	Orifice, 0.6, M6 x 8	1
U5	92-33		913897 (9007712-0605)	Set screw	1

### Order code: N7

T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		578542	Orifice, 0.8, M6 x 8	1

### Order code: N8

T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T2	92-33		679316	Orifice, 0.5, M6 x 8	1
T3	92-33		578542	Orifice. 0.8, M6 x 8	1
U6	92-33		578542	Orifice. 0.8, M6 x 8	1
U7	92-33		578542	Orifice. 0.8, M6 x 8	1

### Order code: N9

T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		578542	Orifice, 0.8, M6 x 8	1

### Order code: NZ

T2	92-33		578542	Orifice, 0.8, M6 x 8	1
T3	92-33		578542	Orifice, 0.8, M6 x 8	1
U7	92-33		578542	Orifice, 0.8, M6 x 8	1

## Orifice

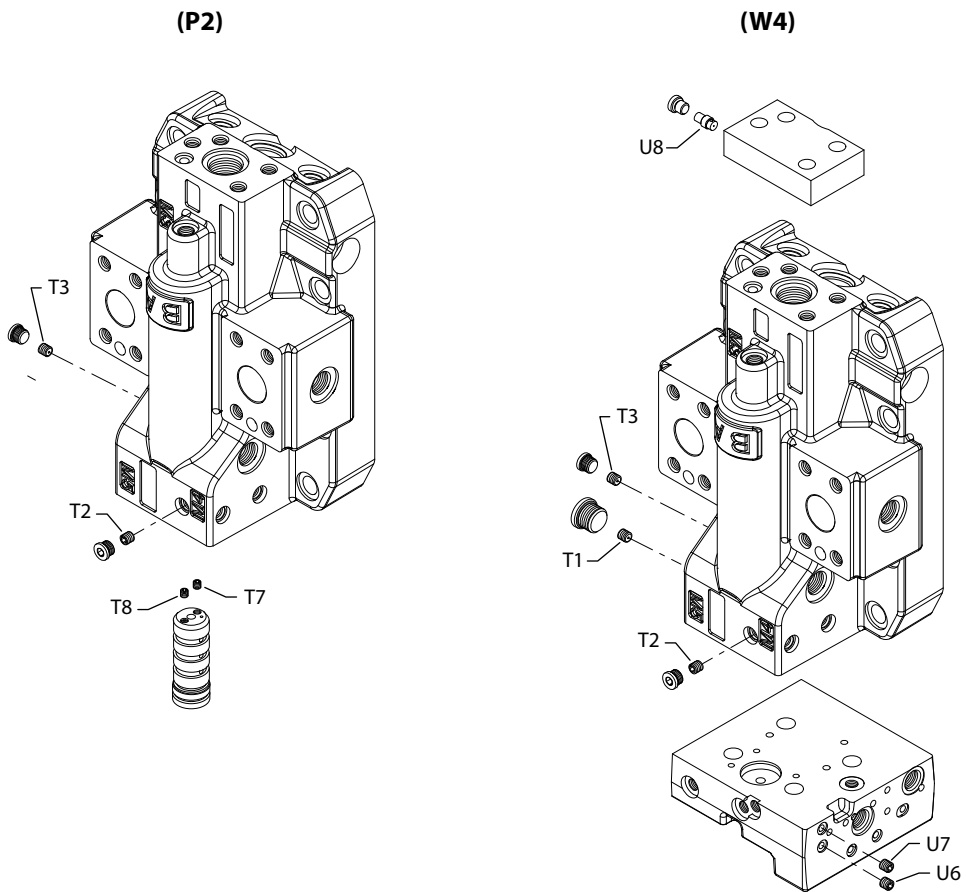
Order code: P1

T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T2	92-33		578542	Orifice. 0.8, M6 x 8	1
T3	92-33		578542	Orifice. 0.8, M6 x 8	1
T5	92-33		578542	Orifice. 0.8, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1
U6	92-33		044081	Orifice. 0.7, M6 x 8	1
U7	92-33		044081	Orifice. 0.7, M6 x 8	1

**Orifice**

**S51 160cc Orifice P2-W4**

*Parts Configuration*



## Orifice

Order code: P2

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
T2	92-33		578542	Orifice. 0.8, M6 x 8	1
T3	92-33		578542	Orifice. 0.8, M6 x 8	1
T7	92-33		639096	Orifice. 0.6, M5 x 6	1
T8	92-33		639096	Orifice. 0.6, M5 x 6	1

Order code: W4

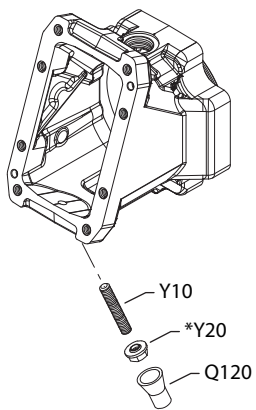
T1	92-33		578542	Orifice, 0.8, M6 x 8	1
T2	92-33		679316	Orifice, 0.5, M6 x 8	1
T3	92-33		578542	Orifice. 0.8, M6 x 8	1
U6	92-33		578542	Orifice. 0.8, M6 x 8	1
U7	92-33		578542	Orifice. 0.8, M6 x 8	1
U8	92-33		512329	Orificed check valve assembly	1

**Minimum displacement**

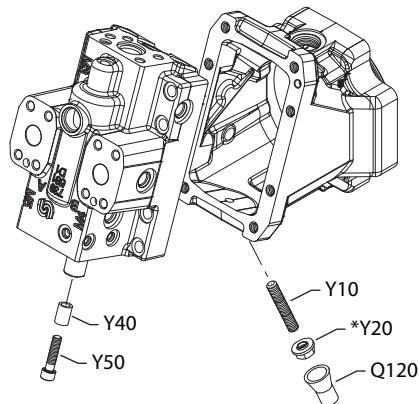
**S51 160cc Minimum Displacement 032-N92**

*Parts configuration*

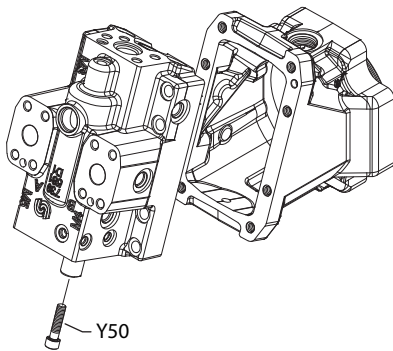
**(032-125, M32)**



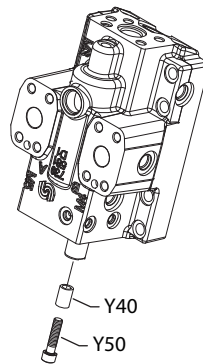
**(N11)**



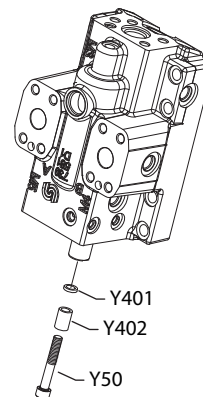
**(N50)**



**(N57)**



**(N92)**



\* Included in base motor seal kit Q210

## Minimum displacement

Order code: 032-072

Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
Q120	92-33		770842	Safety cap	1
Y10	92-33		750646	Set screw, M12 x 75	1
Y20	92-33		076042 (9003509-0012)	Seal nut, M12	1

Order code: 073-110

Q120	92-33		770842	Safety cap	1
Y10	92-33		749564	Set screw, M12 x 90	1
Y20	92-33		076042 (9003509-0012)	Seal nut, M12	1

Order code: 115

Q120	92-33		770842	Safety cap	1
Y10	92-33		750653	Set screw, M12 x 100	1
Y20	92-33		076042 (9003509-0012)	Seal nut, M12	1

Order code: 125

Q120	92-33		770842	Safety cap	1
Y10	92-33		11106517	Set screw, M12 x 40	1
Y20	92-33		076042 (9003509-0012)	Seal nut, M12	1
Y40	92-33		329136	Spacer, 35 mm	1
Y50	92-33		393793	Screw, M10 x 90	1

Order code: M32

Q120	92-33		770842	Safety cap	1
Y10	92-33		11106517	Set screw, M12 x 40	1
Y20	92-33		076042 (9003509-0012)	Seal nut, M12	1

Order code: N11

Q120	92-33		770842	Safety cap	1
Y10	92-33		11106517	Set screw, M12 x 40	1
Y20	92-33		076042 (9003509-0012)	Seal nut, M12	1
Y40	92-33		335620	Spacer, 27 mm	1
Y50	92-33		393793	Screw, M10 x 90	1

Order code: N50

Y50	92-33		516029	Screw, M10 x 57.5	1
-----	-------	--	--------	-------------------	---

Order code: N57

Y40	92-33		914440	Washer	1
Y50	92-33		393728	Screw, M10 x 50	1

### Minimum displacement

*Order code: N80*

Q120	92-33		770842	Safety cap	1
Y10	92-33		11106517	Set screw, M12 x 40	1
Y20	92-33		076042 (9003509-0012)	Seal nut, M12	1
Y40	92-33		347088	Spacer, 13.0 mm	1
Y50	92-33		502580	Screw, M10 x 70	1

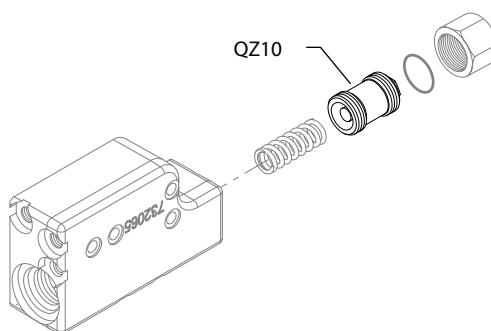
*Order code: N92*

Y50	92-33		399758	Screw, M10 x 75	1
Y401	92-33		672071	Spacer, 4.5 mm	1
Y402	92-33		643098	Spacer, 14.0 mm	1

**PCOR adjuster**

**S51 160cc PCOR Adjuster 00-37**

*Parts Configuration*



*Order code: 00*

No parts

**PCOR adjuster**

*Order code: 11-26*

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
QZ10	92-33		11112452	Adjuster, 70-260 bar	1

*Order code: 27-37*

QZ10	92-33		11112453	Adjuster, 270-420 bar	1
------	-------	--	----------	-----------------------	---

## Overhaul seal kit

### S51 160cc Overhaul Seal Kit

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
Q210	92-33		11122324	Overhaul seal kit, S51 160cc	1
B80C	92-33		083659	O-ring	1
B80V	92-33		729285	O-ring	1
F10	92-33		508134	Seal ring	1
F11	92-33		504207	O-ring	1
L511	92-33		11070158	O-ring	1
F324	92-33		730036	O-ring	2
G36	92-33		364976	O-ring	1
G100	92-33		792739	O-ring	1
G140	92-33		085043 (9004201-3700)	O-ring	1
G200	92-33		085043 (9004201-3700)	O-ring	2
G420	03-08		511851	Gasket/O-ring seal <a href="#">(SB-2002-001)</a>	1
G60	92-33		519806	End cap gasket	1
J50	92-33		732479 (9004105-0100)	O-ring	1
K50	92-33		001149 (9004201-6200)	O-ring	1
K51	92-33		085043 (9004201-3700)	O-ring	1
K52	92-33		001131 (9004201-5000)	O-ring	1
L40	92-33		519022	Lip seal	1
L40	92-33		341735	Lip seal	1
L50C	92-33		056739 (9004104-1580)	O-ring	1
L50D	92-33		729319	O-ring	1
L50V	92-33		726927	O-ring	1
L85	92-33		083659	O-ring	1
L90	92-33		515751	O-ring	1
M12D	92-33		504358	Gasket	1
M12H	92-33		364984	O-ring	1
M12N	92-33		730036	O-ring	1
M14D	92-33		509940	Gasket	1
M16E	92-33		732479 (9004105-0100)	O-ring	2
M16H	92-33		517862	Seal ring	1
M16J	92-33		001149 (9004201-6200)	O-ring	1
M16N	92-33		084673	Seal ring	1
M211	92-33		365015	O-ring	1
M242	92-33		056770	O-ring	1
M24P	92-33		732479 (9004105-0100)	O-ring	4
M30	92-33		056770	O-ring	1
M30H	92-33		011296 (9004105-0120)	O-ring	2
M36	92-33		732479 (9004105-0100)	O-ring	1
M38	92-33		011395 (9004104-0230)	O-ring	1
M82	92-33		144725 (9004105-0110)	O-ring	1
M95	92-33		9004104-0120	O-ring	2
M96	92-33		9004104-0140	O-ring	1
M97	92-33		9004105-0130	O-ring	1
M97	92-33		9004104-0240	O-ring	1

### Overhaul seal kit

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
M99	92-33		K08572	Filter assembly	1
N16	92-33		001149 (9004201-6200)	O-ring	1
N24	92-33		732479 (9004105-0100)	O-ring	4
N82	92-33		144725 (9004105-0110)	O-ring	1
QG20	92-33		085043 (9004201-3700)	O-ring	2
QL81	92-33		039297 (9004201-1200)	O-ring	2
QM84	92-33		039297 (9004201-1200)	O-ring	2
QN84	92-33		039297 (9004201-1200)	O-ring	2
QW30	92-33		085043 (9004201-3700)	O-ring	1
X11	92-33		001149 (9004201-6200)	O-ring	1
Y20	92-33		076042 (9003509-0012)	Seal nut, M12	1

## Service bulletin

### Service Bulletin: SB-1993-006

#### Products affected

All Series 51 motors

#### Subject

End cap gasket change.

#### Description

Effective immediately, a new end cap gasket has been incorporated on all Series 51 motors. It is a direct replacement for the current gasket. The visible differences between the two gaskets are:

1. The new gasket is thicker. It measures .040" versus .030".
2. The new gasket has a red tint to the surface.

The new gasket is a stand alone gasket which should not be used with any sealing aid. The current torque values stay the same.

The new gaskets are now available and **MUST** be used in any repair or conversion.

#### Models affected

All series 51 motors

#### Serial numbers

N/A

#### Part numbers affected

Frame size	Old part number	New part number
60cc	729228	501198
80cc	734368	501199
110cc	734376	501200
160cc	734384	501201
250cc	734392	501202

#### Parts disposition

Interchangeable  
 Scrap used parts  
 Order replacement parts  
 Revise existing part orders

### Service Bulletin: SB-1995-013

#### Products affected

Series 51: 60cc-250cc motors

#### Subject

Threshold adjustment screw

## Service bulletin

### Description

To improve the sensitivity of the threshold adjustment on Series 51 motors, the threads on the adjusting screw are being changed from standard pitch thread to fine pitch thread. The adjusting screw nut and lock nut will also change. At the same time, the bore diameter in the end of the adjusting screw and the pin diameter on the end of the spring seat will decrease.

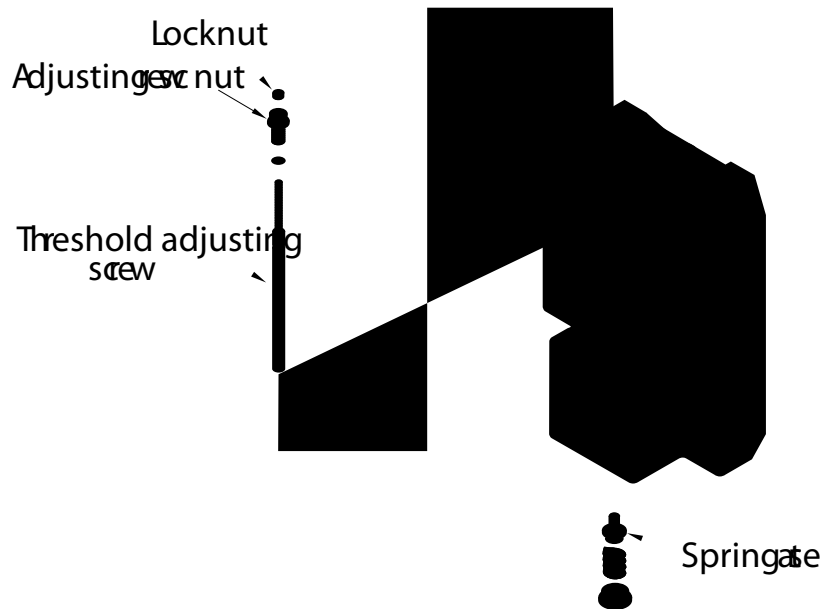
The old style parts will be obsoleted and no longer available as service parts. A service kit containing the adjusting assembly and the spring seat has been created.

Piece parts are not interchangeable.

All noted parts must be replaced.

Service bulletin

SB-1995-013



## Service bulletin

### Models affected

All series51: 60cc - 250cc motors

### Serial numbers

This change became effective at serial number N-96-07-xxxxx.

### Part numbers affected

Frame size	Old hardware				New kits
	Spring seat	Adjusting screw nut	Lock nut	Threshold adjusting screw	Threshold adjusting kit
60cc	722264	732487	69393	729251	507691
80cc	722264	732487	69393	732503	507692
80cc	722264	732487	69393	737353	507672
110cc	722264	732487	69393	732511	507693
110cc	722264	732487	69393	732503	507677
160cc	722264	732487	69393	792051	507694
250cc	722264	732487	69393	792069	507695

### Parts disposition

Interchangeable - Piece part are not interchangeable

## Service Bulletin: SB-1996-005

### Products affected

Series 51: 60cc - 250cc motors

### Subject

Change to balanced areas between end cap and valve segment.

### Description

As part of the continuing Series 51 product improvement program, the balance lands on the end cap and valve segment have been changed. The valve segment now defines the balance. The contact surface of the end cap has been made larger while the contact surface of the valve segment has been reduced. The change was implemented in three steps:

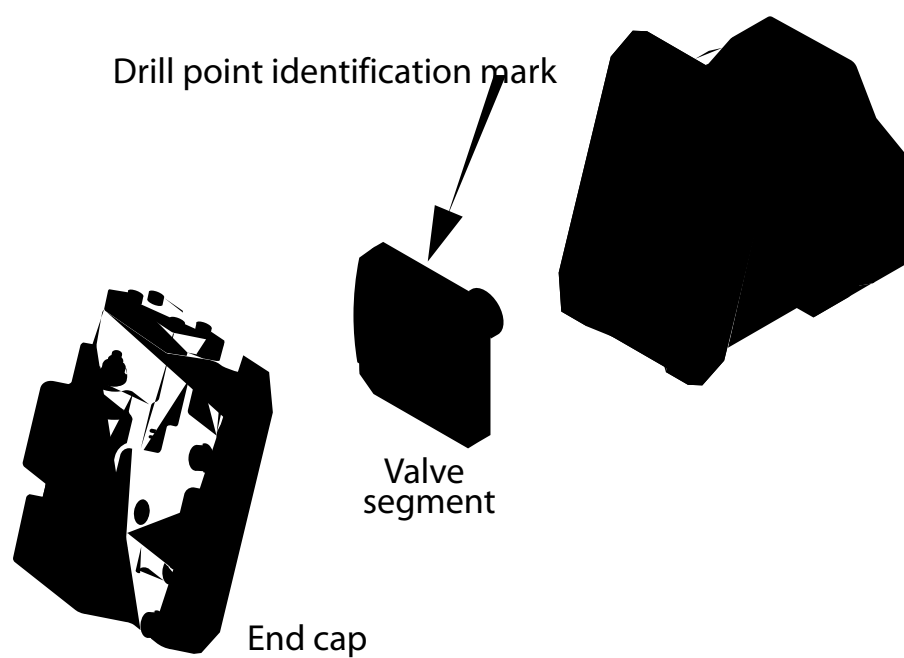
1. Change the valve segment so it defines the balance between the valve segment and the end cap. This change was implemented May 1994.
2. Change the end cap to allow a larger contact surface to keep the load area constant. This change was implemented January 1995
3. Change the valve segment to allow a smaller contact surface and reduce the balance. This change was implemented February 1996.

**Do not** use a new end cap with an old valve segment. However a new valve segment will work with an old end cap. The new valve segment (3rd step) is marked with a drill point on the cylinder block interface side next to the outer drain hole.

The old end cap and valve segment part numbers are obsolete. They are no longer available as genuine service parts.

Service bulletin

SB-1996-005



**Service bulletin**

**Models affected**

All Series 51 motors

**Serial numbers**

N-96-12-xxxxx and later

**Part numbers affected**

End caps	Radial ports		Radial ports		Axial ports		Axial ports	
	w/LF		w/o LF		w/LF		w/o LF	
	Old	New	Old	New	Old	New	Old	New
60cc	729210	504226	779793	504227	-	-	-	-
80cc	731794	504230	731794	504231	739615	504232	739615	504234
110cc	731802	504236	731802	504236	739631	504237	739631	504238
160cc	731810	504239	731810	504240	731828	504242	731828	504243
250cc	731836	504244	783282	504245	731844	504246	731844	504247

Valve segment	Standard spindle		Retained spindle	
	Old	New	Old	New
60cc	732701	504718	-	-
80cc	360354	503939	-	-
110cc	349076	504715	501349	507758
160cc	356139	507242	500341	507759
250cc	367896	508202	502561	508202

**Parts disposition**

Interchangeable - except where noted

**Service Bulletin: SB-1997-009**

**Products affected**

Series 51: 60 thru 250cc variable motors

**Subject**

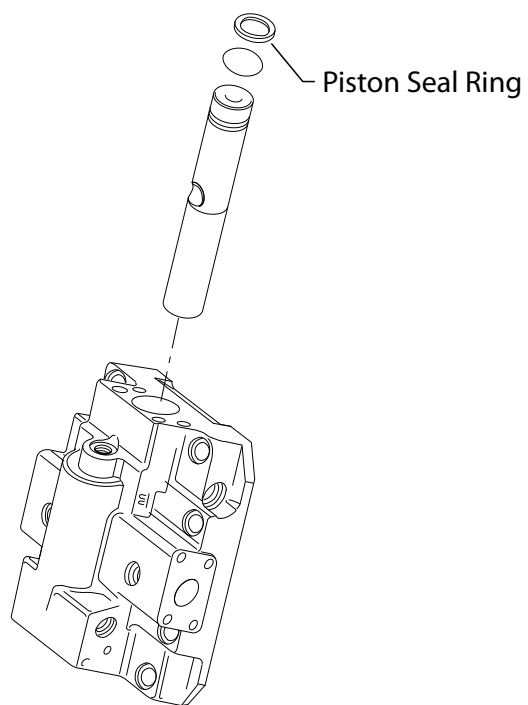
Servo piston seal ring change

**Description**

As a product improvement, Sauer-Danfoss is changing the vender for the servo piston seal ring used in the Series 51 variable motors. As a result, the old piston seal ring will become obsolete and no longer available as a service part.

**Service bulletin**

SB-1997-009



## Service bulletin

### Models affected

All Series 51 motors

### Serial numbers

N-96-08-xxxxx and after

### Part numbers affected

Frame size	Old part number	New part number
60cc	504202	508131
80cc	504203	508132
110cc	504204	508133
160cc	504205	508134
250cc	687277	504136

### Parts disposition

Interchangeable

## Service Bulletin: SB-1997-030

### Products affected

Series 51: 60 thru 250cc variable motors

### Subject

Change to stepped spindle in valve segment

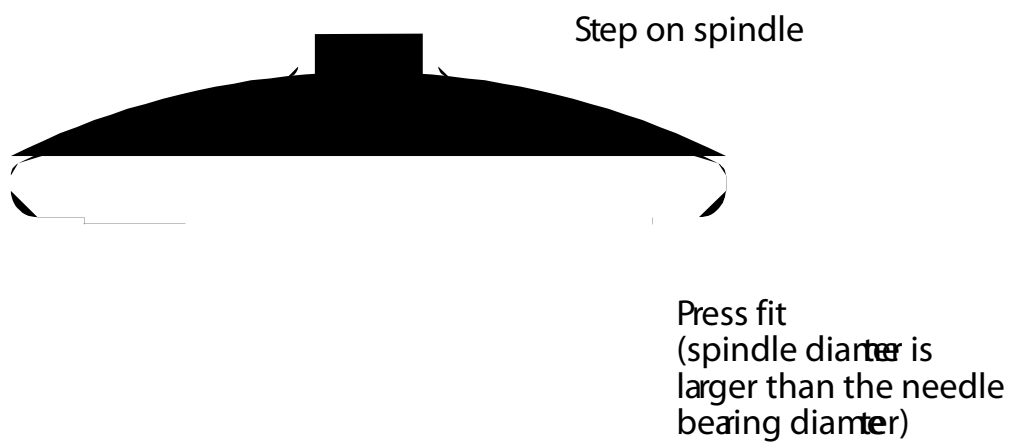
### Description

As part of the continuing Series 51 product improvement, the valve segment spindle design has been changed. The new design spindle has a step that stops against a recess in the valve segment. The new stepped spindle valve segment assembly replaces the valve segment assemblies with the straight spindle and the retained spindle.

The old segment valve assemblies will become obsolete. The stepped spindle valve segment assembly will be the standard for all models.

**Service bulletin**

SB-1997-030



## Service bulletin

### Models affected

All Series 51 motors

### Serial numbers

N-96-08-xxxxx and after

### Part numbers affected

Frame size	Obsolete Straight spindle valve segment	Obsolete Retained spindle valve segment	New Stepped spindle valve segment
60cc	504718	-	508197
80cc	503939	-	508198-S
110cc	504715	507758	508199-S
160cc	507252	507759	508201
250cc	507757	507760	508202

### Parts disposition

Interchangeable - except where noted

## Service Bulletin: SB-1998-035A

### Products affected

Series 51 cartridge motors

### Subject

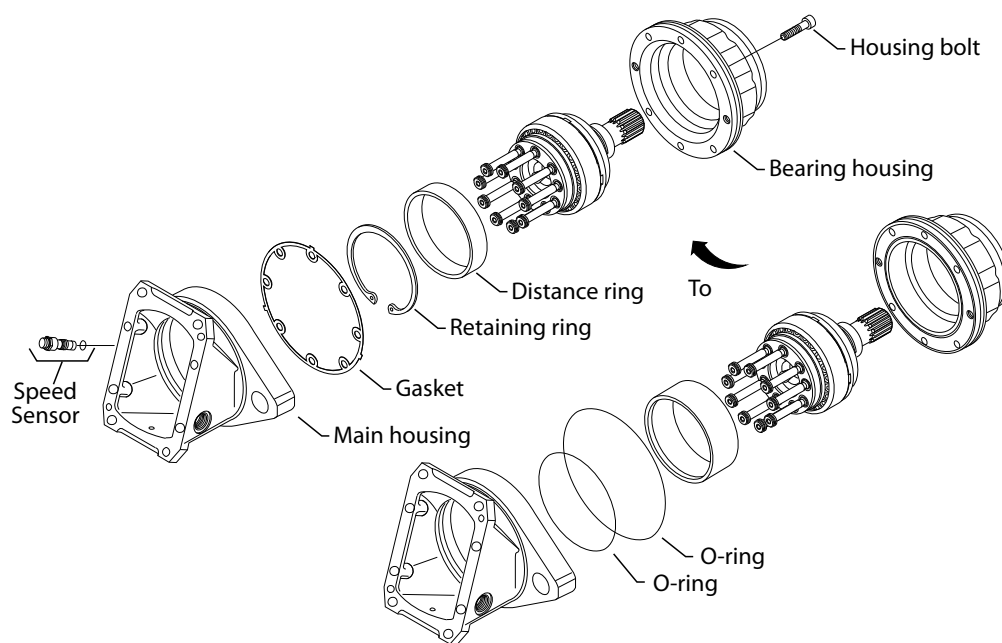
Incorporation of speed sensor into cartridge motors

### Description

In order to incorporate a speed sensor into the Series 51 cartridge motors, some changes have been made to the main housing and bearing housing. These changes included: adding a boss to the side of the main housing for the speed sensor, changing from O-ring seals between housings to a gasket seal, shortening the distance ring to allow clearance for the speed sensor, and adding a retaining ring to locate the distance ring. These parts are non-interchangeable as both housings have changed. The old housings and distance ring are obsolete and no longer available as service parts. Refer to Service Bulletin SB-1998-021 for housing bolt torque and sequence.

Service bulletin

SB-1998-035A



**Service bulletin**

**Models affected**

51C060, 51C080, and 51C110 cartridge motors

**Serial numbers**

51C060 motors = N-94-42-xxxxx and after

51C060 motors = N-94-42-xxxxx and after

51C080 motors = N-94-42-xxxxx thru N-98-32-xxxxx. After N98-32-xxxxx see SB-1998-086

51C110 motors = N-96-24-xxxxx and after

**Part numbers affected**

	From	To	From	To	From	To
Description	60cc	60cc	80cc	80cc	110cc	110cc
Main housing	741652	501103	734855	501104	738997	501105
Bearing housing	763756	501108	734632	501109	738971	501110
Retaining ring	--	501120	--	371625	--	504732
Gasket	--	501019	--	507259	--	501113
O-ring	792319	--	916759	--	502206	--
O-ring	502204	--	279570	--	502207	--
Distance ring	741702	501116	734913	501117	739045	501118

**Parts disposition**

Non-interchangeable

**Service Bulletin: SB-1999-059**

**Products affected**

Series 51: 60cc, 80cc, 110cc, and 160cc motors

**Subject**

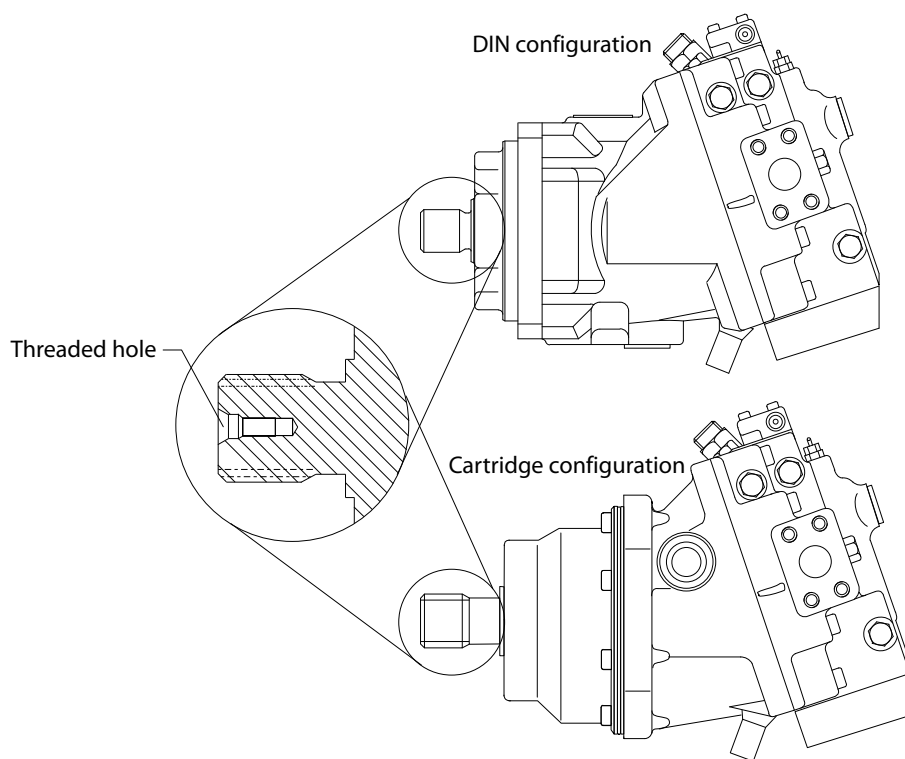
Thread change at customer end of DIN shaft assemblies.

**Description**

As a product improvement, Sauer-Danfoss has changed the threaded hole at the customer end of DIN shaft assemblies to metric threads. Metric shaft assemblies will now have a metric threaded hole. To aid in identifying this change, new shaft assembly part numbers have been released. The new shaft assemblies are interchangeable with the previous shaft assemblies. The previous shaft assembly part numbers will become obsolete.

**Service bulletin**

SB-1999-059



## Service bulletin

### Models affected

All 60, 80, 110, and 160cc motors (Series 51 and 51-1) with DIN shaft assemblies

### Serial numbers

See table below

### Part numbers affected

Frame size	Shaft code	Previous p/n	New p/n	Bolt size FROM	Bolt size TO	Effective after serial number
60cc	D1	747931	513034	7/16 - 14	M10 x 1.5	N-99-17-xxxxx
60cc	D2	787622	513033	7/16 - 14	M10 x 1.5	N-99-52-xxxxx
80cc	D2	742213	513037	7/16 - 14	M10 x 1.5	N-99-13-xxxxx
80cc	D3	783399	513035	7/16 - 14	M10 x 1.5	N-99-12-xxxxx
110cc	D3	787663	513039	5/8 - 11	M12 x 1.75	N-99-16-xxxxx
110cc	D4	749192	513038	5/8 - 11	M12 x 1.75	N-99-17-xxxxx
160cc	D4	787689	513041	5/8 - 11	M12 x 1.75	N-99-16-xxxxx
160cc	D5	749226	513040	5/8 - 11	M12 x 1.75	N-99-39-xxxxx

### Parts disposition

Interchangeable

## Service Bulletin: SB-2000-044

### Products affected

All Series 51 & 51-1 motors

### Subject

Change to spring and spring seat at ends of loop flushing shuttle spool.

### Description

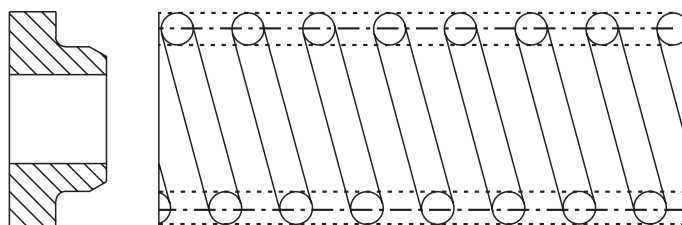
As a product improvement, and to ease assembly, the spring and spring seat at the ends of the loop flushing shuttle spool have been changed. The new spring and spring seat clip together. The old spring and spring seat are interchangeable with the new spring and spring seat as an assembly only.

The old spring seat will become obsolete and no longer available as a service part. The old spring will remain available as a service part.

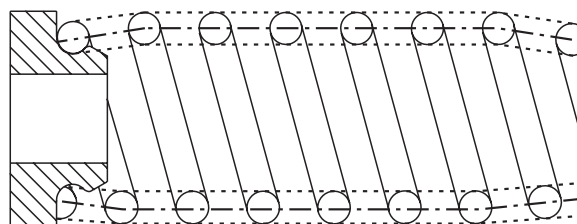
**Service bulletin**

SB-2000-044

From:



To:



## Service bulletin

### Models affected

All Series 51 and 51-1 variable motors

### Serial numbers

This change became effective at serial number N-00-50-xxxxx

### Part numbers affected

From: Spring part number 4350286 and spring seat part number 4800353

To: Spring seat assembly part number 513596

### Parts disposition

Interchangeable - as an assembly only

## Service Bulletin: SB-2001-015

### Products affected

All Series 51 & 51-1 motors

### Subject

Incorporation of symmetrical rollers on the synchronizing shaft

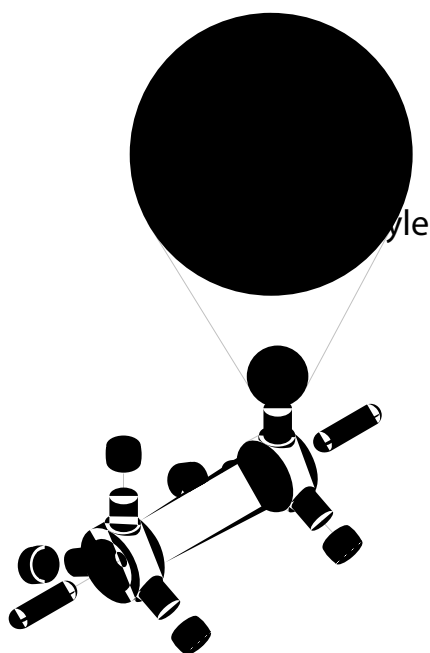
### Description

As a product improvement and to improve ease of assembly, Sauer-Danfoss has changed the design of the rollers used on the synchronizing shaft in Series 51 and 51-1 motors. The new rollers are symmetrical, in that they can be assembled either direction on the synchronizing shaft. The old rollers were asymmetrical and had to be assembled only one way. The synchronizing shaft has also been changed to accept the symmetrical rollers. The legs for the rollers are now longer in length.

A service kit is available to replace the old design synchronizing shaft and rollers, which are obsolete and no longer available as service parts. The pins at each end of the synchronizing shaft are still the same parts.

**Service bulletin**

SB-2001-015



## Service bulletin

### Models affected

All Series 51 and 51-1 motors

### Serial numbers

Effective after N-01-39-xxxxx

### Part numbers affected

Frame size	Old kit part number	New kit part number
60cc	771675	517308
80cc	771121	517309
110cc	773267	516485
160cc	776823	517310
250cc	776831	517311

### Parts disposition

Interchangeable; as an assembly only

Use parts in stock

## Service Bulletin: SB-2002-001

### Products affected

All Series 51 & 51-1 motors

### Subject

Sealing change to end cap/control interface

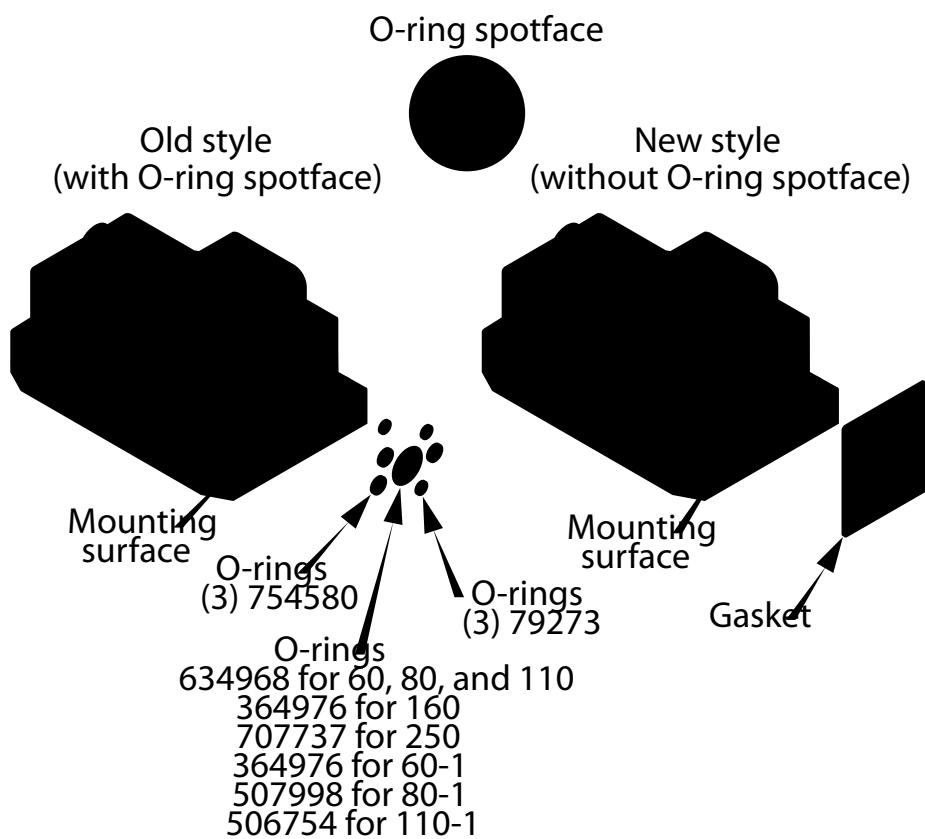
### Description

The sealing is improved between the end cap and controls or multi-function blocks on all Series 51 and 51-1 motors. This change replaces individual O-rings with a gasket that incorporates imbedded rubber seal rings. The O-ring spot faces are removed from the end cap mounting face. There is no change to controls' and multi-function blocks' sealing surface.

New end cap part numbers allow better control of this change. Old end cap part numbers are obsolete. You cannot use the new gasket with old end caps and you cannot use the O-rings with new end caps. Control and multi-function block kit now include the O-rings and the new gasket.

Service bulletin

SB-2002-001



## Service bulletin

### Models affected

All Series 51 and 51-1 motors

### Serial numbers

See table below

### Part numbers affected

End cap code	Frame size	Old part number	New part number	Manufacture date code	Gasket part number
R and T	60	504226	516057	N-03-14-xxxxx	511810
A	60	504228	515695	N-03-12-xxxxx	511810
R	60-1	506563	516902	N-03-39-xxxxx	512411
A	60-1	506564	516905	N-03-28-xxxxx	512411
H	60-1	510643	516920	N-03-28-xxxxx	512411
R and T	80	504230	515056	N-03-14-xxxxx	511810
A	80	504232	515696	N-03-27-xxxxx	511810
R	80-1	507976	516903	N-03-39-xxxxx	512411
A	80-1	507977	516907	N-03-39-xxxxx	512411
H	80-1	507978	516921	N-03-39-xxxxx	512411
R and T	110	504235	516058	N-03-14-xxxxx	511810
A	110	504237	513592	N-03-01-xxxxx	511810
R	110-1	506601	516904	N-03-39-xxxxx	512411
A	110-1	506602	515697	N-03-39-xxxxx	512411
H	110-1	510634	516923	N-03-39-xxxxx	512411
R	160	504239	516059	N-03-07-xxxxx	511851
A	160	504242	513543	N-03-01-xxxxx	511851
R	250	504244	516060	N-03-07-xxxxx	511851
A	250	504246	513544	N-03-08-xxxxx	511851

### Parts disposition

Non-interchangeable;

Order replacement parts

## Service Bulletin: SB-2012-010

### Products affected

Series 51 160cc cartridge motors

### Subject

Redesign of bearing housing

### Description

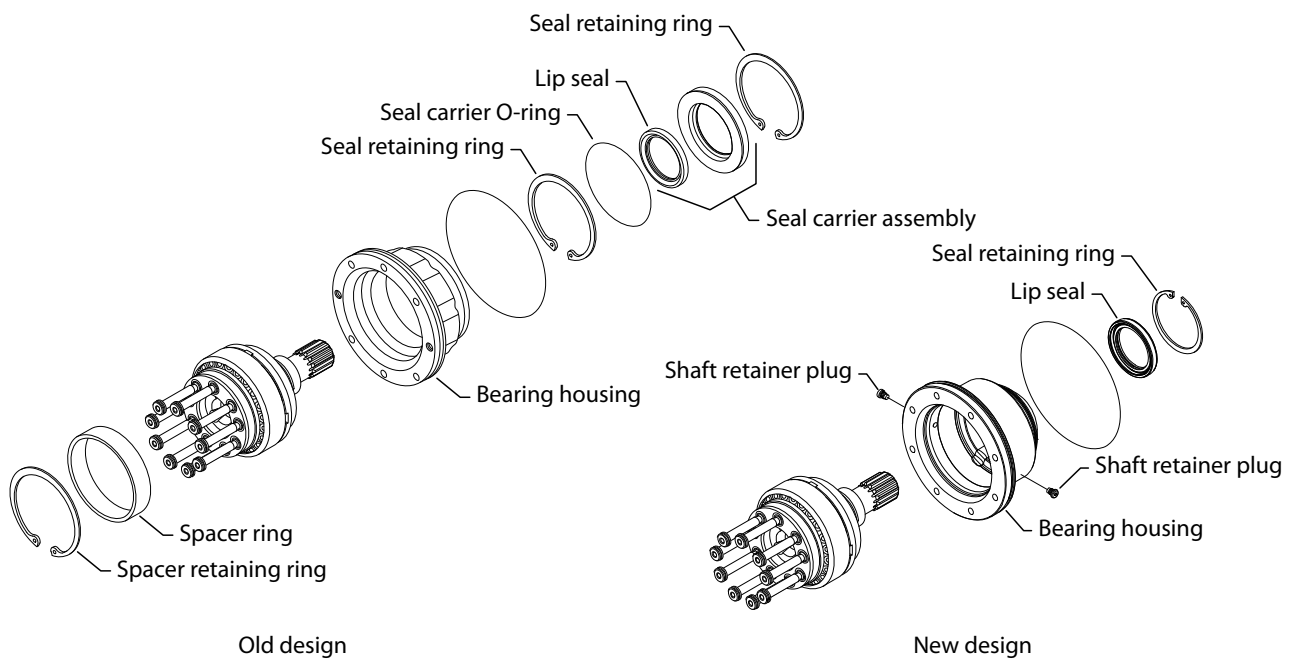
In an effort to standardize the assembly of bent axis motors, the cartridge bearing housing for the series 51 motors has been changed. The new design uses two special plugs to retain the shaft assembly in the housing rather than a spacer ring and retaining ring. The shaft seal hardware has also changed. The new seal design has the lip seal pressed directly into the housing and held in place with a single retaining ring. The old seal design had an O-ring on a seal carrier assembly with two retaining rings holding the seal carrier in place. The lip seal does not change. The new housing will have improved clearances for use in

### **Service bulletin**

different planetary gearboxes. The old and new housings are not interchangeable. The old housing, spacer ring, spacer retaining ring, seal carrier assembly and retaining rings that held the seal carrier in place will remain available for service.

Service bulletin

SB-2012-010



## Service bulletin

### Models affected

All series 51 160cc Cartridge motors.

### Serial numbers

This change became effective at serial number N12-14-XXXXX. (31 March 2012)

### Part numbers affected

Description	Old part number	Replacement part number
Bearing housing	11009384	11038815
Spacer retaining ring	297655	11056747 (retainer plugs)(2)
Seal carrier assembly	510485	No longer used
Lip seal	519022	No Change
Seal retaining ring	518116 (2)	392423 (1)
Spacer ring	515753	No longer used
Seal carrier O-ring	056739	No longer used

### Parts disposition

Non-interchangeable

Use parts in stock for repair of units built before serial number N12-14-xxxxx

Order replacement parts

Revise existing part orders

## Service Bulletin: SB-2004-004

### Products affected

All Series 51 and 51-1 motors

### Subject

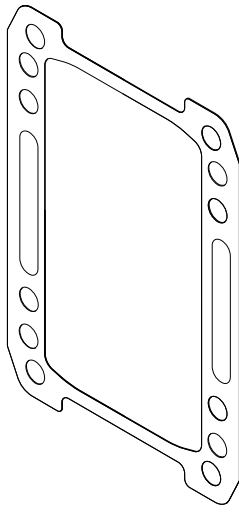
End cap change

### Description

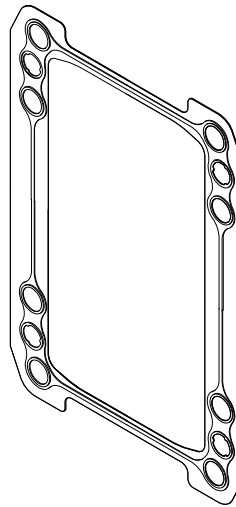
Sauer-Danfoss has made a quality improvement change to the gasket sealing the end cap and housing joint. The gasket changed from paper to a rubber coated metal gasket with a raised bead to aid sealing properties. The new gasket is interchangeable with the old gasket. The old gasket will become obsolete and no longer available for service.

**Service bulletin**

SB-2004-004



Old gasket



New gasket

## Service bulletin

### Models affected

Series 51 and 51-1 motors, all sizes (60, 80, 110, 160, and 250 cc)

### Serial numbers

This change became effective at series numbers:

N-05-48-xxxxx = 60 cc

N-04-19-xxxxx = 80 cc

N-05-48-xxxxx = 110 cc

N-04-21-xxxxx = 160 cc

N-04-36-xxxxx = 250 cc

### Part numbers affected

Frame size	Old part number	New part number
60 cc	501198	515733
80 cc	501199	517237
110 cc	501200	516124
160 cc	501201	519806
250 cc	501202	515735

### Parts disposition

Interchangeable;

Revise exiting part orders

## Service Bulletin: SB-2004-013

### Products affected

Series 51; 110, 160 & 250 cc motors and 51-1; 110 cc motors

### Subject

New shaft lip seal

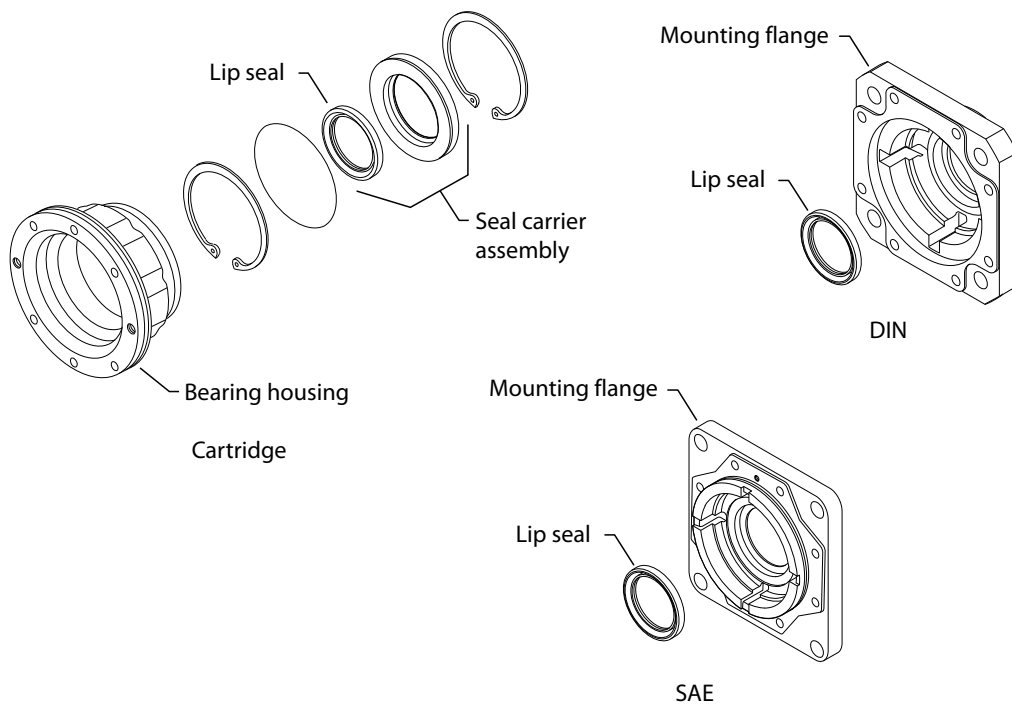
### Description

As a product improvement, Sauer-Danfoss is changing the shaft lip seal in the series 51; 110, 160, & 250 cc motors and in the series 51-1; 110 cc motors. The new seal requires a change to the mounting flange seal bore in SAE & DIN flange options, and the seal carrier used in cartridge motors. The seal carrier assembly part number does not change and is interchangeable with previously built cartridge motors.

The old mounting flange and seal carrier will become obsolete and no longer available. The old lip seal will remain available for service.

Service bulletin

SB-2004-013



## Service bulletin

### Models affected

All series 51 -110, 160, and 250 cc motors and 51-1 -110 cc motors.

### Serial numbers

This change became effective at serial number: N-05-45-xxxxx

### Part numbers affected

Frame size	Old flange	New flange	Old seal	New seal
51D110 (DIN)	774737	520316	341735	519022
51V110 (SAE)	366534	520319	341735	519022
51D160 (DIN)	510543	520317	341735	519022
51D160 (SAE)	356261	519417	341735	519022
51V250 (SAE)	511051	519418	341735	519022

### Parts disposition

Non-interchangeable

Use parts in stock

Order replacement parts

Revise existing part orders

**Products we offer:**

- Cylinders
- Electric converters, machines, and systems
- Electronic controls, HMI, and IoT
- Hoses and fittings
- Hydraulic power units and packaged systems
- Hydraulic valves
- Industrial clutches and brakes
- Motors
- PLUS+1® software
- Pumps
- Steering
- Transmissions

**Danfoss Power Solutions** designs and manufactures a complete range of engineered components and systems. From hydraulics and electrification to fluid conveyance, electronic controls, and software, our solutions are engineered with an uncompromising focus on quality, reliability, and safety.

Our innovative products makes increased productivity and reduced emissions a possibility, but it's our people who turn those possibilities into reality. Leveraging our unsurpassed application know-how, we partner with customers around the world to solve their greatest machine challenges. Our aspiration is to help our customers achieve their vision — and to earn our place as their preferred and trusted partner.

**Go to [www.danfoss.com](http://www.danfoss.com) or scan the QR code for further product information.**

**Hydro-Gear**

[www.hydro-gear.com](http://www.hydro-gear.com)

**Daikin-Sauer-Danfoss**

[www.daikin-sauer-danfoss.com](http://www.daikin-sauer-danfoss.com)

**Danfoss  
Power Solutions (US) Company**  
2800 East 13th Street  
Ames, IA 50010, USA  
Phone: +1 515 239 6000

**Danfoss  
Power Solutions GmbH & Co. OHG**  
Krokamp 35  
D-24539 Neumünster, Germany  
Phone: +49 4321 871 0

**Danfoss  
Power Solutions ApS**  
Nordborgvej 81  
DK-6430 Nordborg, Denmark  
Phone: +45 7488 2222

**Danfoss  
Power Solutions Trading  
(Shanghai) Co., Ltd.**  
Building #22, No. 1000 Jin Hai Rd  
Jin Qiao, Pudong New District  
Shanghai, China 201206  
Phone: +86 21 2080 6201

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.