

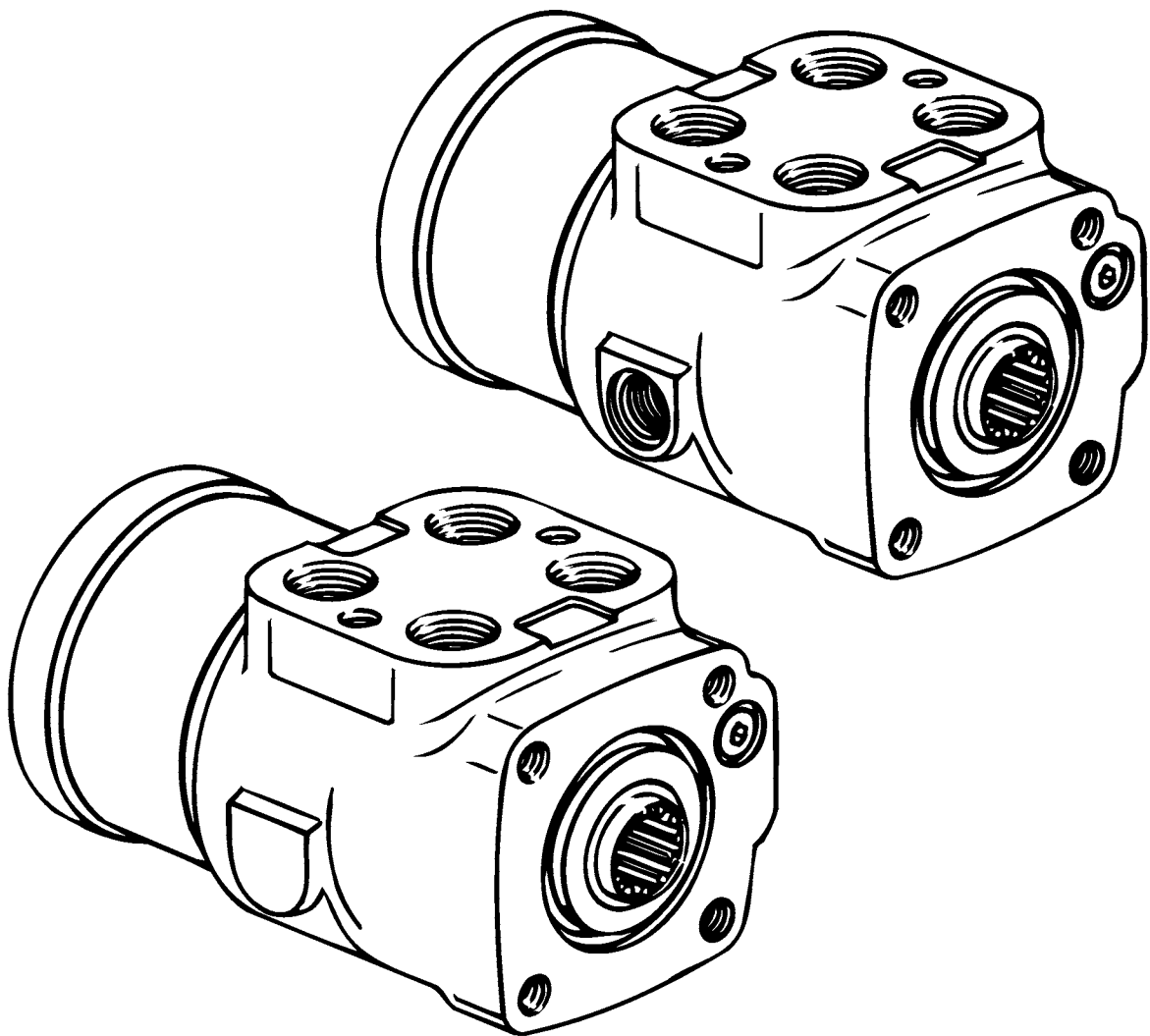


Char-Lynn

Power Steering

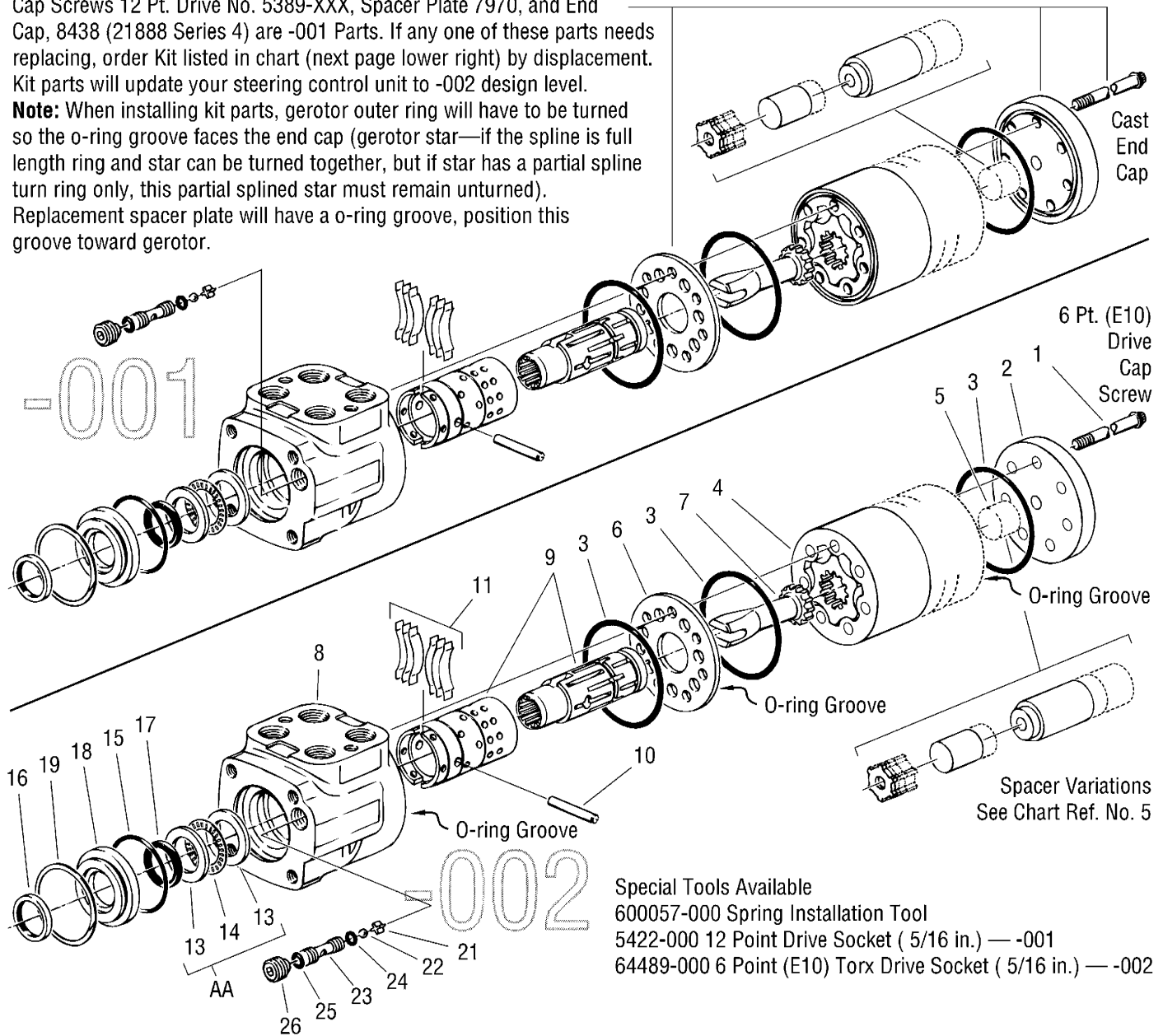
3, 4, 6, and 12 Series
Steering Control Units

001 002



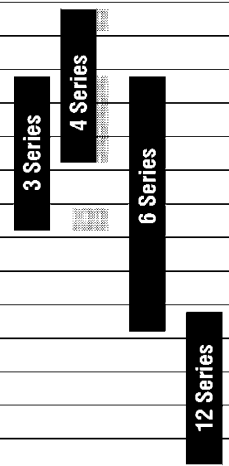
Cap Screws 12 Pt. Drive No. 5389-XXX, Spacer Plate 7970, and End Cap, 8438 (21888 Series 4) are -001 Parts. If any one of these parts needs replacing, order Kit listed in chart (next page lower right) by displacement. Kit parts will update your steering control unit to -002 design level.

Note: When installing kit parts, gerotor outer ring will have to be turned so the o-ring groove faces the end cap (gerotor star—if the spline is full length ring and star can be turned together, but if star has a partial spline turn ring only, this partial splined star must remain unturned). Replacement spacer plate will have a o-ring groove, position this groove toward gerotor.



Special Tools Available
 600057-000 Spring Installation Tool
 5422-000 12 Point Drive Socket (5/16 in.) — -001
 64489-000 6 Point (E10) Torx Drive Socket (5/16 in.) — -002

Actual Displacement cm ³ /r [in ³ /r]	Ref. No. 4 Gerotor		Ref. No. 5 Spacer		Ref. No.1 Cap Screw 6 Pt. (E10) Torx Drive		Kit Including: Cap Screws (Qty. 7) Spacer Plate, and End Cap (Qty. 1 each) Kit No.
	Part No.	Width mm [in.]	Part No.	Length mm [in.]	Part No.	Length mm [in.]	
45 [2.8]	8618-001	6,3 [.25]	None	None	16294-138	35,1 [1.38]	64475-000
60 [3.6]	8618-023	10,2 [.40]	None	None	16294-150	38,1 [1.50]	64476-000
75 [4.5]	8618-024	10,2 [.40]	None	None	16294-150	38,1 [1.50]	64477-000
95 [5.9]	8618-003	13,2 [.52]	6901-009	3,6 [.14]	16294-162	41,1 [1.62]	64478-000
120 [7.3]	8618-009	16,5 [.65]	6901-010	6,1 [.24]	16294-175	44,5 [1.75]	64479-000
145 [8.9]	8618-020	20,1 [.79]	6901-013	10,3 [.40]	16294-188	47,8 [1.88]	64480-000
160 [9.7]	8618-004	21,9 [.86]	6901-003	12,2 [.48]	16294-200	50,8 [2.00]	64481-000
185 [11.3]	8618-005	25,4 [1.00]	6901-014	15,6 [.61]	16294-212	53,8 [2.12]	64482-000
230 [14.1]	8618-031	31,7 [1.25]	6901-011	22,0 [.86]	16294-238	60,5 [2.38]	64483-000
295 [17.9]	8618-035	40,4 [1.59]	22638-000	30,7 [1.21]	16294-262	66,5 [2.62]	64484-000
370 [22.6]	8618-032	50,8 [2.00]	22362-004	41,1 [1.62]	16294-312	79,2 [3.12]	64485-000
460 [28.2]	8618-033	63,5 [2.50]	22362-001	53,6 [2.11]	16294-362	92,0 [3.62]	64486-000
590 [35.9]	8618-036	80,8 [3.18]	22362-005	70,9 [2.79]	16294-425	108,0 [4.25]	64487-000
740 [45.1]	8618-034	101,6 [4.00]	22362-003	91,7 [3.61]	16294-512	130,0 [5.12]	64488-000



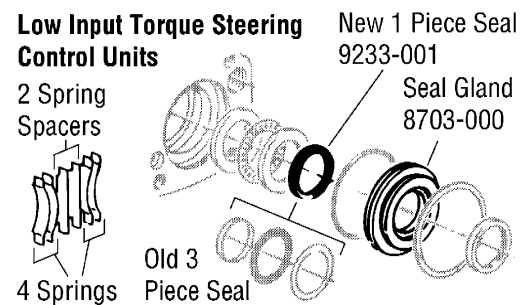
Ref. No.	Part Number	Description	Qty. Per Unit
1	*	Cap Screw, 6 Point (E10) Torx Dive	7
2	23901-000	Cap, End	1
X 3	5776-000	Seal, 73,5 mm [2.89 in.] ID	3
4	*	Gerotor	1
5	*	Spacer	*
6	23092-000	Plate, Spacer	1
7	5126-000	Drive NOT for 45 cm ³ /r [2.8 in ³ /r]	1
	8000-000	Drive for 45 cm ³ /r [2.8 in ³ /r]	1
8	NSS	Housing	1
9	NSS	Sleeve, Control	1
10	NSS	Spool, Control	1
11	15-000	Pin, Centering	1
** 11	NSS	Spring, Centering	6
13	8329-000	Bearing Race	2
14	5544-000	Bearing, Needle Thrust	1
X 15	15074-000	Seal, 47,2 mm [1.86 in.] ID	1
X 16	844-000	Seal, 25 mm [1 in.] ID	1
X 17	20599-000	Seal, Quad Ring, 26,57mm [1.046 in.] ID	1
18	7443-000	Bushing, Seal Gland	1
19	14317-000	Ring, Retaining	1
21	6862-000	Retainer, Check Ball	1
22	18001-000	Ball, Check	1
23	8318-000	Seat, Check Ball	1
X 24	15006-000	Seal, 7,7 mm [.30 in.] ID	1
X 25	15007-000	Seal, 9,3 mm [.36 in.] ID	1
26	14380-000	Screw, Set	1
AA	64009-000	Needle Bearing Kit	
	64466-000	Seal Kit — Contains Parts Indicated by X.	
	64425-000	Viton Seal Kit (for use with synthetic fluids) — Contains Items Indicated by X (Part No.s Differ).	
	64470-000	Seal Kit with Low Input Torque Seal — Contains Items Indicated by X (Item 17 Replaced w/Seal Shown Below).	

** — Item 11 Sold only in Kit form (Centering Spring Kit No. 64431-000), or Special Low Torque Spring Spacer Kit (See Kit No. Listed Above)

* — See Chart bottom this Page, for Information on Specific Models NSS — Not Sold Separately

Centering Spring Installation Kit No. 64431-000 — Includes **6 Centering Springs** and **2 Spring Spacers**. Use 6 springs for standard steering torque unit spring replacement, or use 4 springs, 2 spring spacers for low input torque steering unit spring replacement.

Low Input Torque Seal/Spring Conversion Kit No. 64467-000 — Includes **2 spring spacers** (to be used with 4 of the 6 springs from standard input torque unit), **seal gland 8703-000**, and **8 Seals** (including one piece **low input torque seal 9233-001**).



Gerotor/Spacer Kits — for 22.6 28.2 35.9 45.1 [in³/r] displacement units built before July 1988

Note: Use service kit number from chart when ordering replacement gerotor, spacer is included in kit (spacer from old steering control unit will not work with new gerotor).

Actual Displ. cm ³ /r [in ³ /r]	Gerotor/Spacer Service Kit Kit No.	Parts Included in Gerotor/Spacer Service Kit			
		Ref. No. 4 Gerotor Part No.	Width mm [in.]	Ref. No. 5 Spacer Part No.	Length mm [in.]
370 [22.6]	64441-000	8618-032	50,8 [2.00]	22362-004	41,1 [1.62]
460 [28.2]	64445-000	8618-033	63,5 [2.50]	22362-001	53,6 [2.11]
590 [35.9]	64446-000	8618-036	80,8 [3.18]	22362-005	70,9 [2.79]
740 [45.1]	64447-000	8618-034	101,6 [4.00]	22362-003	91,7 [3.61]

3, 4, 6, and 12 Series

3 Series — Port Size 9/16-18

System	Signal	Load Circuit	Rated* Flow LPM [GPM]	Actual Displacement cm ³ /r [in ³ /r] — Product Number				
				75 [4.5]	95 [5.9]	120 [7.3]	145 [8.9]	160 [9.7]
Open Center	N/A	Non Load Reaction	7.5-15 [2-4]	211-1001	211-1002	211-1003	211-1157	—
Closed Center	N/A	Non Load Reaction	7.5-15 [2-4]	212-1009	212-1010	212-1011	212-1072	212-1012
		Load Reaction	7.5-15 [2-4]	212-1021	212-1022	212-1023	212-1073	212-1024

4 Series-001 — Port Size 9/16-18

System	Signal	Load Circuit	Rated Flow	Displacement cm ³ /r [in ³ /r] — Product Number					
				Original	49 [3.0]	75 [4.5]	102 [6.2]	121 [7.4]	167 [10.2]
				Replacement	45 [2.8]	75 [4.5]	95 [5.9]	120 [7.3]	160 [9.7]
Open Center	N/A	Non Load Reaction	4 GPM [15 LPM]		241-1001	241-1002	241-1003	241-1004	241-1005

4 Series-002 — Port Size 9/16-18

System	Signal	Load Circuit	Rated Flow	Displacement cm ³ /r [in ³ /r] — Product Number				
				45 [2.8]	60 [3.6]	75 [4.5]	95 [5.9]	120 [7.3]
Open Center	N/A	Non Load Reaction	4 GPM [15 LPM]	241-1001	—	241-1002	241-1003	241-1004
Load Sensing	Static	Non Load Reaction	4 GPM [15 LPM]	243-1008	243-1009	243-1010	243-1011	243-1012

4 Series with Power Beyond

Open Center	N/A	Non Load Reaction	4 GPM [15 LPM]	241-5025	241-5026	241-5027	241-5028	241-5029
-------------	-----	-------------------	----------------	----------	----------	----------	----------	----------

6 Series — Port Size 3/4-16

System	Signal	Load Circuit	Rated* Flow LPM [GPM]	Displacement cm ³ /r [in ³ /r] — Product Number							
				75 [4.5]	95 [5.9]	120 [7.3]	145 [8.9]	160 [9.7]	185 [11.3]	230 [14.1]	295 [17.9]
Open Center	N/A	Non Load Reaction	15-30 [4-8]	211-1007	211-1008	211-1009	211-1137	211-1010	211-1011	211-1012	211-1158
		Load Reaction	15-30 [4-8]	211-1047	211-1048	211-1049	211-1159	211-1050	211-1051	211-1052	—
Closed Center	N/A	Non Load Reaction	30 [8]	212-1001	212-1002	212-1003	212-1069	212-1004	212-1005	212-1006	212-1070
Load $\dagger\dagger$ Sensing	Dynamic	Non Load Reaction	30 [8]	213-4001	213-4002	213-4045	213-4042	213-4046	213-4043	213-4047	213-4044

12 Series — Port Size 3/4-16

System	Signal	Load Circuit	Rated* Flow LPM [GPM]	Displacement cm ³ /r [in ³ /r] — Product Number			
				370 [22.6]	460 [28.2]	590 [35.9]	740 [45.1]
Open Center	N/A	Non Load Reaction	30-60 [8-16]	211-1038	211-1178	211-1160	211-1041
Closed Center	N/A	Non Load Reaction	60 [16]	212-1014	212-1015	212-1071	212-1017
Load $\dagger\dagger$ Sensing	Dynamic	Non Load Reaction	60 [16]	213-4051	213-4048	213-4049	213-4050

$\dagger\dagger$ Low Torque Centering Springs

* For closed center unit, rated flow is measured at 70 Bar [1000 PSI] pressure drop at full valve deflection.

For load sensing unit, rated flow is designed for 4.5 Bar [65 PSI] pressure drop between inlet (P) and load sensing (LS) port at full valve deflection.