

320

32" Automatic Scrubber

MODEL: AS3200

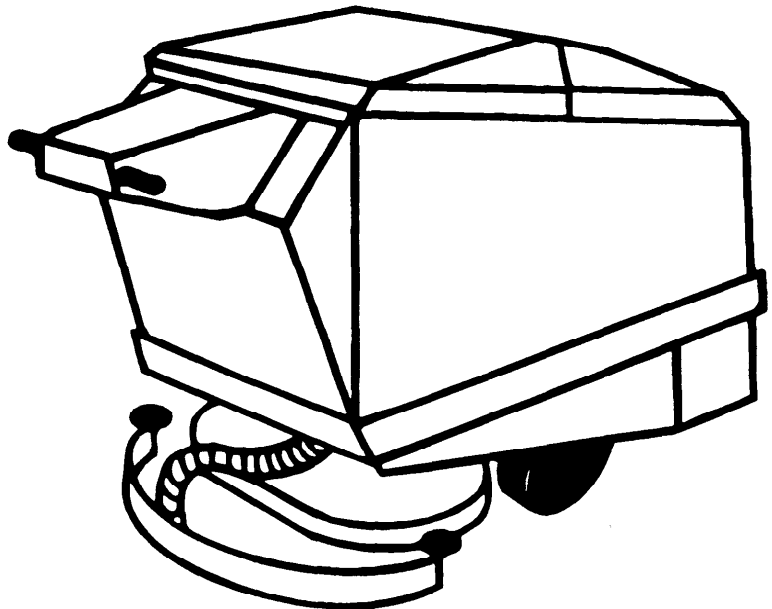
Parts Manual

REV. 02 (11-90)



PDF Version of manual by:
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2011 N. High St.
Lansing, Mich. 48906
(517) 484-9312
<http://www.Michco.com>

Record Machine Serial Number
Here For Future Reference:



NOBLES®

A TENNANT COMPANY

12875 Ransom Street, Holland, MI 49424

1-800-739-9359

616-786-2330

FAX: 1-800-678-4240

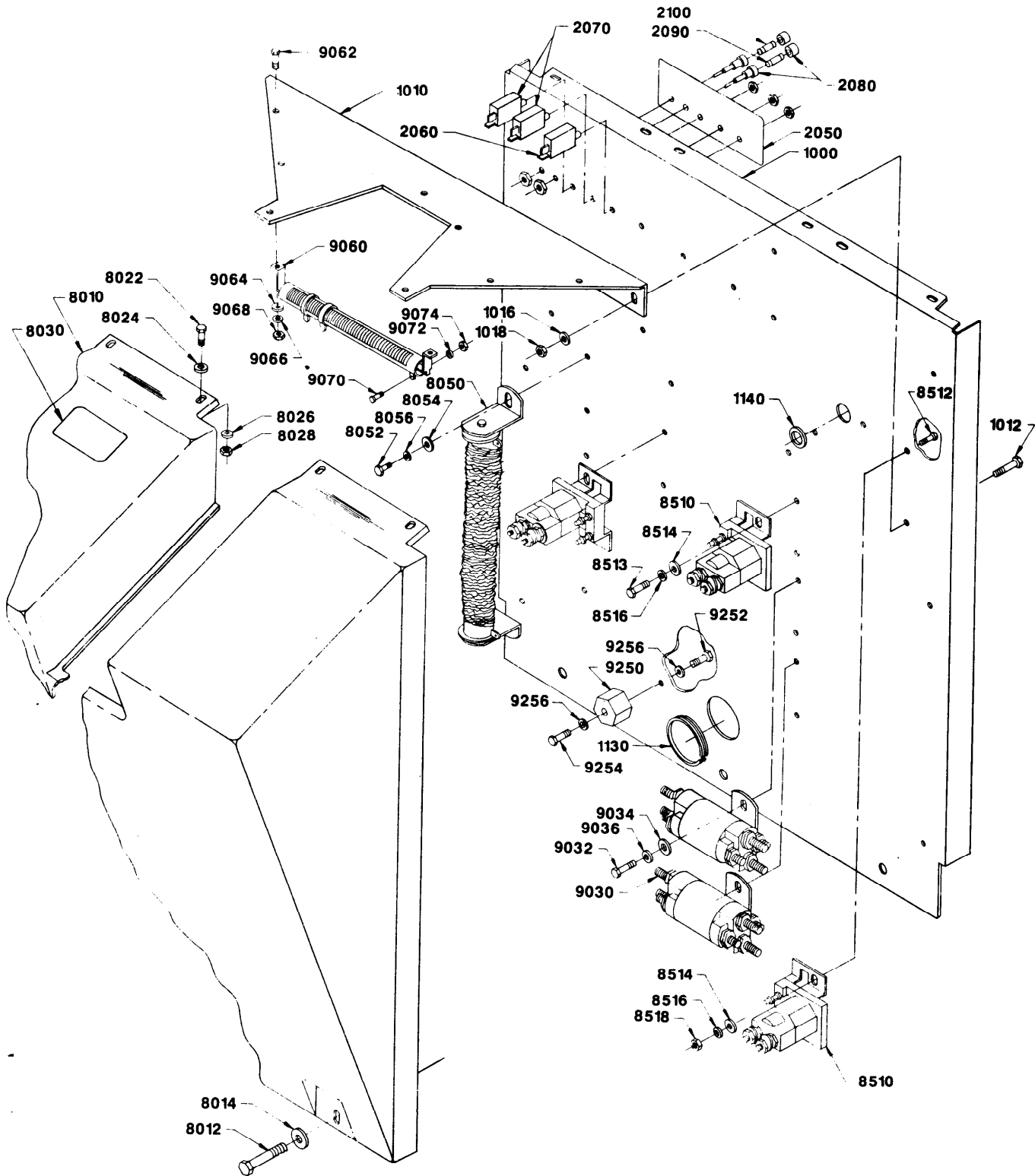
CUSTOMER SERVICE: 1-800-365-6625

320

Parts List

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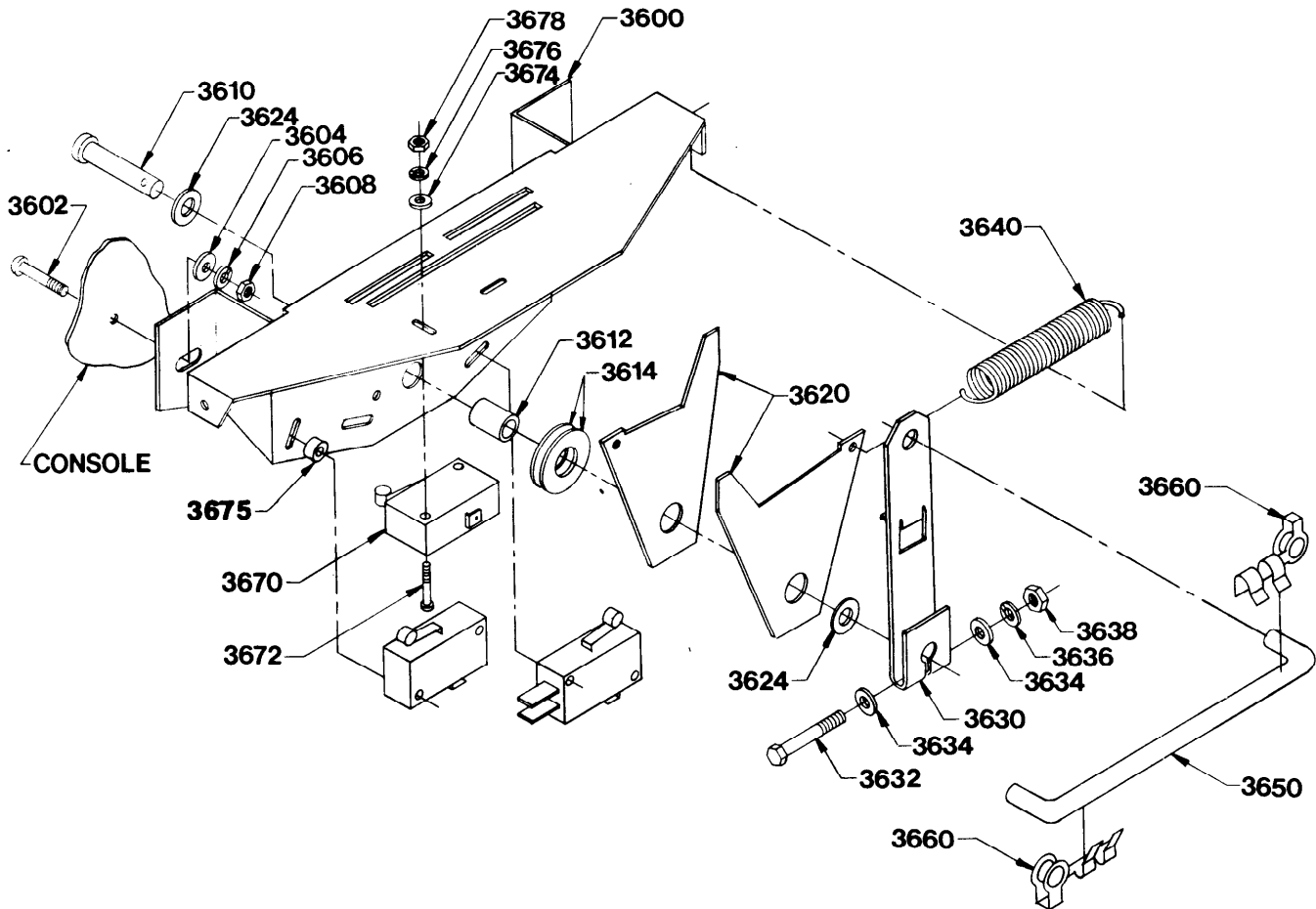


320 Rear Panel Components

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	REAR FRAME	1000	612-066-000	
1	CONSOLE SPPT/REAR FRAME STIFFENER	1010	612-067-000	
5	SCREW, HEX HD., M06 x 16	1012	200-031-436	
5	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	1016	069-760-085	
5	NUT, HEX, STD, M06 x 1.00	1018	200-102-016	
1	GROMMET	1130	069-764-165	
1	GROMMET	1140	611-339-000	
1	LABEL, CIRCUIT BREAKERS	2050	601-096-000	
1	CIRCUIT BREAKER, 10 AMP	2060	611-110-000	
2	CIRCUIT BREAKER, 17A	2070	069-762-242	
2	FUSE HOLDER, BAYONETTE	2080	069-760-059	
2	FUSE, 15A, ACG, 32V	2090	069-760-639	
1	FUSE, 25AMP, 3AG, SLOW-BLOW	2100	601-078-000	
1	SHROUD, REAR	8010	612-017-000	
2	SCREW, HEX HD., M08 x 50	8012	200-031-501	
2	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	8014	069-760-079	
4	SCREW, HEX HD., M06 x 16mm	8022	200-031-436	
4	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	8024	069-760-090	
4	WASHER, LOCK, SPRING, ANSI, .25" ZP, M06	8026	069-760-085	
4	NUT, HEX, STD, M06 x 1.00	8028	200-102-016	
1	LABEL, WARNING, FLAMMABLE AREAS	8030	069-762-438	
1	RESISTOR, POWER, RIBWOUND	8050	069-764-063	
2	SCREW, HEX HD., M06 x 10	8052	200-031-432	
2	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	8054	069-760-090	
2	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	8056	069-760-085	
3	SOLENOID, 36VDC, 100A, SPNO	8510	611-157-000	
2	SCREW, HEX HD., M06 x 16mm	8512	200-031-436	
4	SCREW, HEX HD., M06 x 10	8513	200-031-432	
6	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	8514	069-760-090	
6	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	8516	069-760-085	
2	NUT, HEX, STD, M06 x 1.00	8518	200-102-016	
2	CONTRACTOR, SPDT, 100A	9030	069-760-440	
4	SCREW, HEX HD., M06 x 10	9032	200-031-432	
4	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	9034	069-760-090	
4	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	9036	069-760-085	
1	RESISTOR, 25 OHM, 100 WATT, ADJUST.	9060	069-764-588	
2	SCREW, HEX HD., M04 x 10	9062	200-031-342	
2	WASHER, PLAIN, ANSI-A, #8, ZP, M04	9064	069-760-097	
2	WASHER, LOCK, SPRING, ANSI, #08, ZP	9066	069-760-093	
2	NUT, HEX, STD, M04 x 0.70	9068	200-102-014	
1	SCREW, FILL HD., PHIL., M04 x 08mm	9070	200-070-340	
1	WASHER, LOCK SPRING, ANSI, #08, ZP	9072	069-760-093	
1	NUT, HEX STD, M04 x 0.07	9074	200-102-014	
1	STANDOFF, TERMINAL	9250	069-760-696	
1	SCREW, HEX HD., .25-20 UNC x 0.50"	9252	069-762-115	
1	SCREW, HEX HD., .25-20 UNC x 0.62"	9254	069-762-126	
2	WASHER, LOCK, SPRING, ANSI .25", ZP, M06	9256	069-760-085	

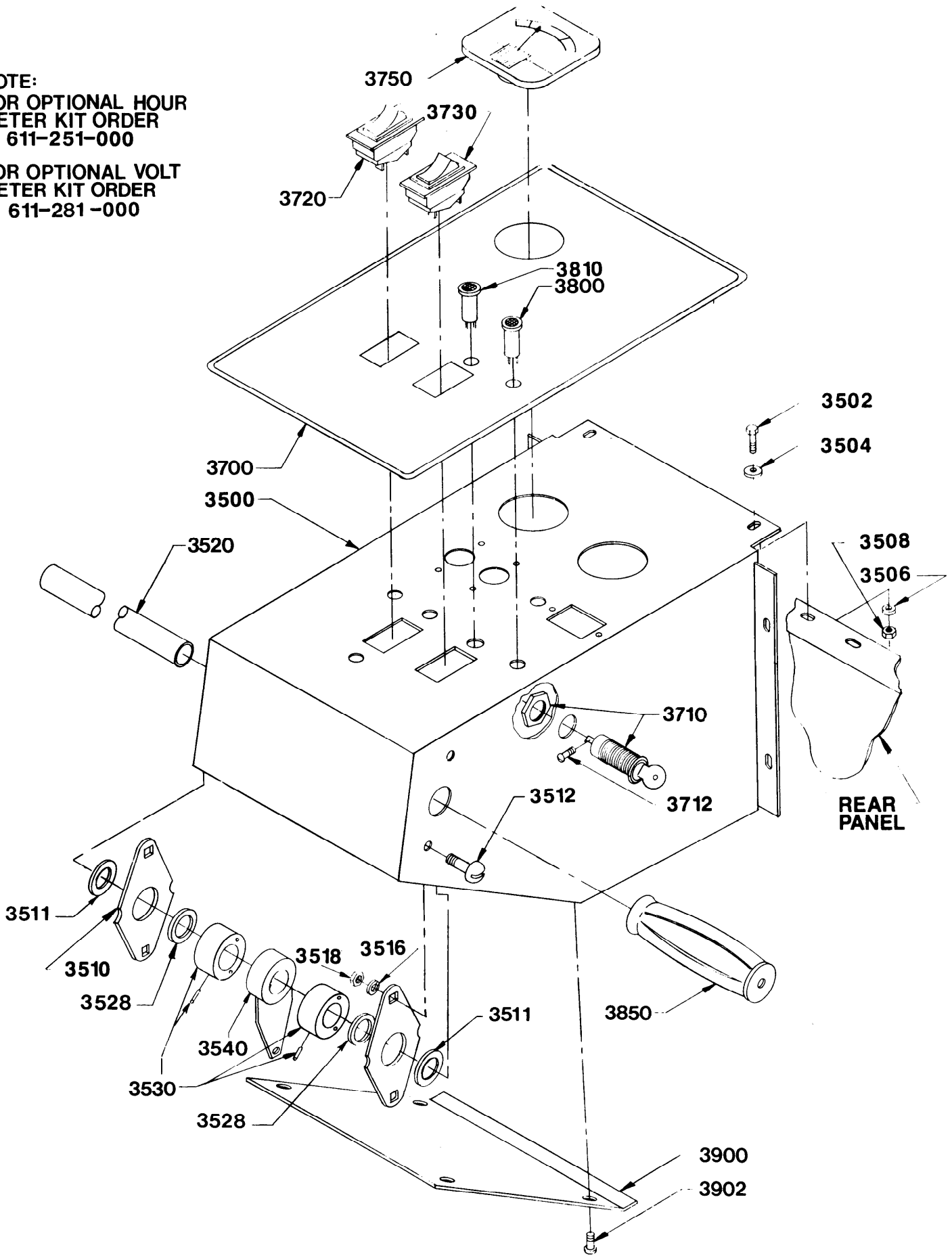
320 Speed Control Assy

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	SPEED CONTROL POT/SWITCH BRKT	3600	611-093-000	
2	SCREW, TRUSS HD., #10-24 UNC x 0.62	3602	069-762-238	
2	WASHER, PLAIN, ANSI-A, #10, ZP, M05	3604	069-762-056	
2	WASHER, LOCK, SPRING, ANSI, #10, ZP	3606	069-762-005	
2	NUT, HEX, STD, #10-24 UNC, ZINC PLATE	3608	069-762-255	
1	PIN, CLEVIS, .25" DIA. x 1.00" LG	3610	611-245-000	
1	SPACER, 0.26" ID, .43" LG, .38" OD, METAL	3612	611-225-000	
2	WASHER, NYLON, 19 I.D. x 100.D. x 3	3614	611-314-000	
2	POTENTIOMETER CENTERING FINGER, 260	3620	611-092-000	
3	WASHER, PLAIN, ANSI-A #12 WIDE, ZP, M06	3624	069-760-090	
1	POTENTIOMETER CLAMP ARM, 260	3630	611-094-000	
1	SCREW, SOC. HP., #06-32 UNC x 1.00"	3632	601-079-000	
2	WASHER, PLAIN, ANSI-A, #06, ZP	3634	069-764-053	
2	WASHER, LOCK, SPRING, ANSI, #06, ZP	3636	069-764-054	
1	NUT, HEX, STD, #06-32 UNC, ZINC PLATE	3638	069-762-159	
2	SPRING, EXT, 0.50" OD, 2.00" LG, .055" WD	3640	069-762-382	
1	ROD, LINK, HANDLEBAR TO POT, 260	3650	611-056-000	
2	CLIP, LINKAGE, .25" DIA. ROD	3660	611-059-000	
3	SWITCH, MIN, SNAP, SPDT	3670	611-266-000	
6	SCREW, RND HD., #04-40 UNC x 1.00	3672	611-270-000	
10	WASHER, FLAT, 03.2 ID, 07, 0.5, D 125, M03	3674	200-301-012	
2	SPACER, NYLON	3675	612-259-000	
6	WASHER, LOCK, SPRING, ANSI, #04, ZP	3676	069-760-113	
6	NUT, HEX, STD, #0440 UNC, ZINC PLATE	3678	069-760-114	



NOTE:
FOR OPTIONAL HOUR
METER KIT ORDER
611-251-000

FOR OPTIONAL VOLT
METER KIT ORDER
611-281-000

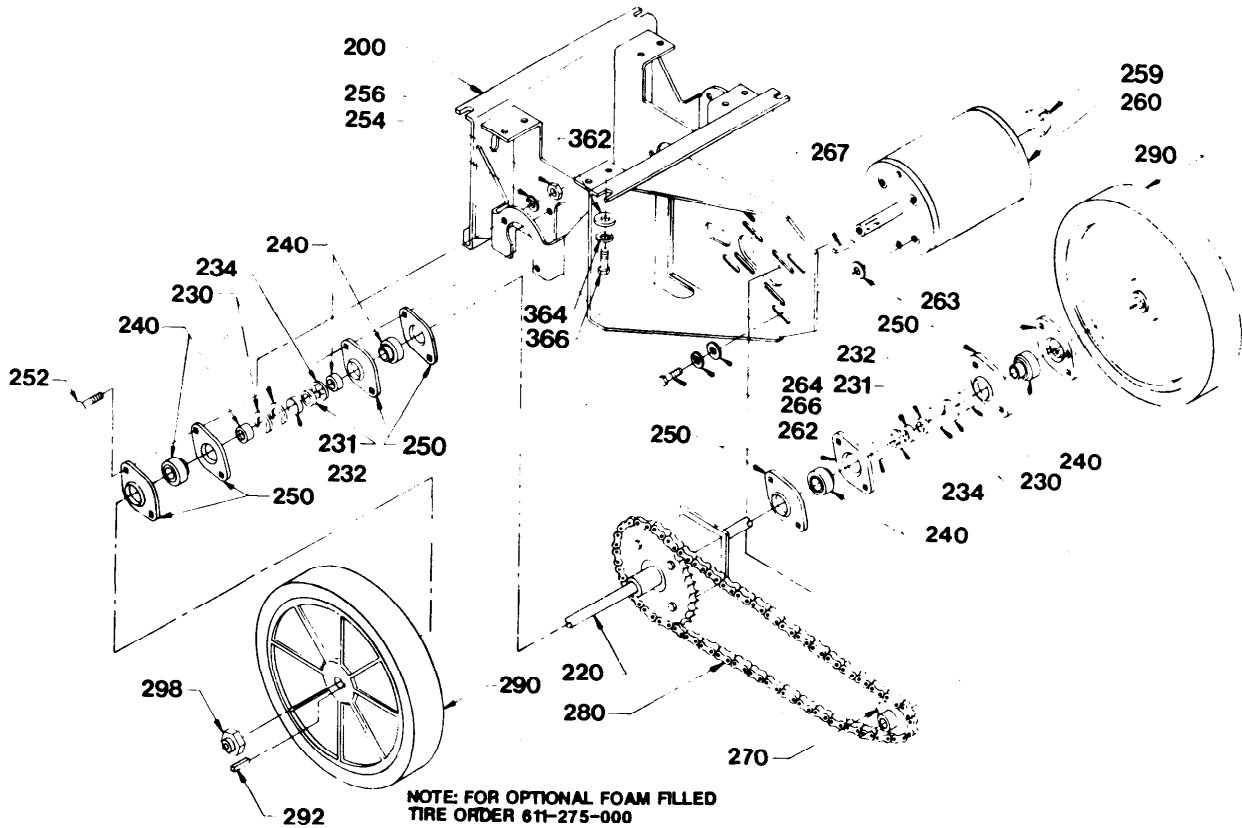


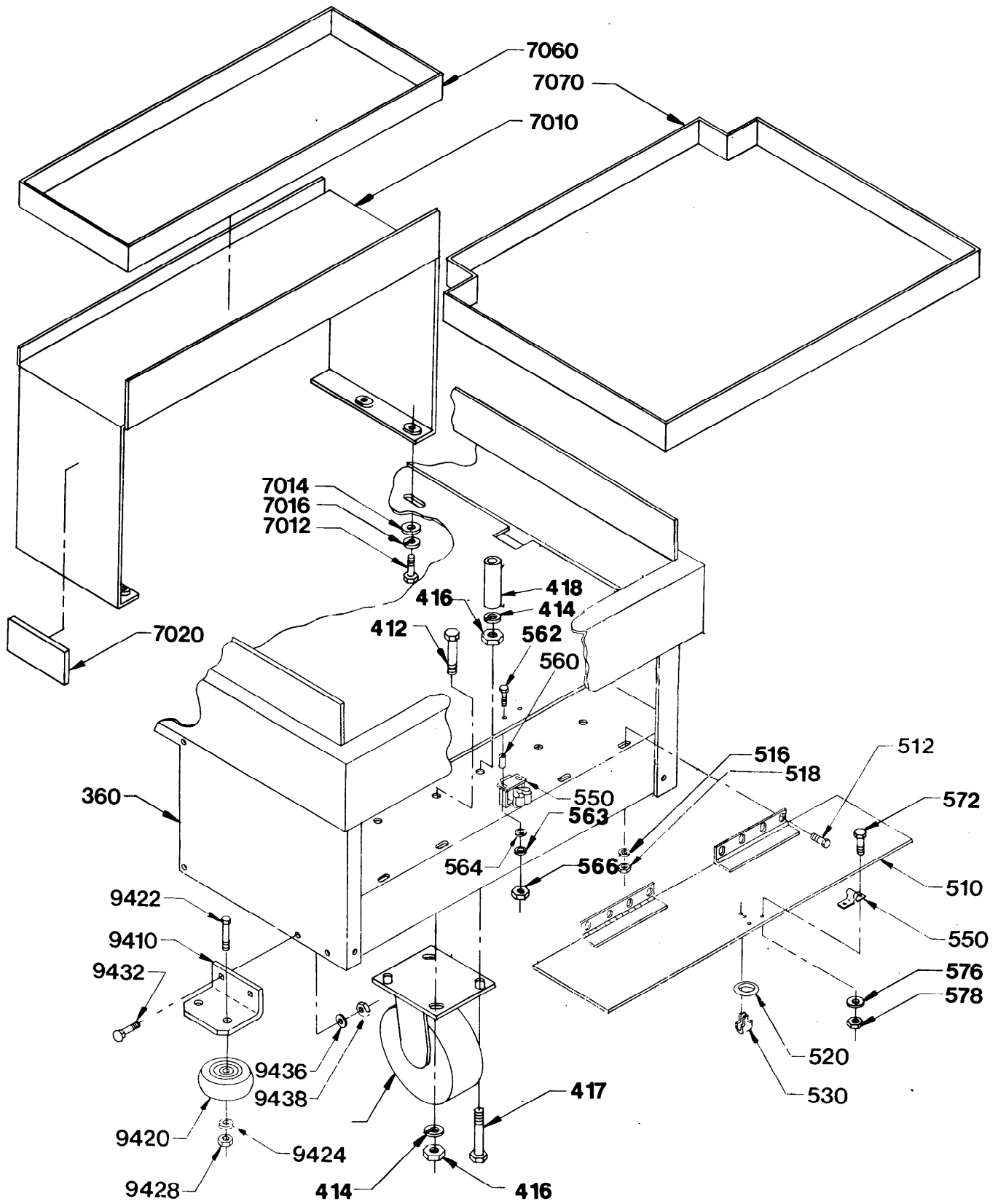
320 Control Console

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	CONSOLE FRAME	3500	612-051-000	
8	SCREWS, HEX HD., M06 x 16mm	3502	200-031-436	
8	WASHER, PLAIN, ANSI-A, #12 WIDE, M06	3504	069-760-090	
8	WASHER, LOCK, SPRING, ANSI, .25", M06	3506	069-760-085	
8	NUT, HEX, STD., M06	3508	200-102-016	
2	BEARING, BLOCK, .875" DIA. x .25	3510	611-377-000	
2	BUSHING, 22.2 I.D. x 06.4 LG.	3511	069-760-540	
4	SCREW, TRUSS HD., .31-18 UNC x 0.75	3512	069-764-060	
4	WASHER, LOCK, SPRING, ANSI, .31", ZP, M08	3516	069-760-078	
4	NUT, HEX, STD., .31"-18 UNC, ZINC PLATE	3518	069-762-010	
1	HANDLEBAR, ERW	3520	069-764-062	
2	WASHER	3528	069-760-582	
2	COLLAR, SHAFT, DIA. 22.3	3530	069-760-705	
1	HANDLEBAR ACTUATOR CLAMP ARM, 260	3540	611-289-000	
1	DECAL, CONSOLE	3700	612-181-000	
1	SWITCH, KEYLOCK, SPST	3710	069-760-637	
1	SCREW, RND. HD, SLOT #06-32 x 0.38	3712	069-760-102	
1	SWITCH, ROCKER, DPDT	3720	069-760-642	
1	SWITCH, ROCKER, DPST, 15A	3730	039-705-081	
1	AMMETER, 19 AMP	3750	069-760-069	
1	LIGHT, PILOT, 32V, GREEN	3800	611-147-000	
1	LIGHT, PILOT, 32V, BLUE	3810	611-149-000	
2	GRIP, HANDLEBAR	3850	069-760-596	
1	CONSOLE LID	3900	612-052-000	
4	SCREW, TRUSS HD., #10-24 UNC x 0.62	3902	069-762-238	

320 Drive Carriage Assy

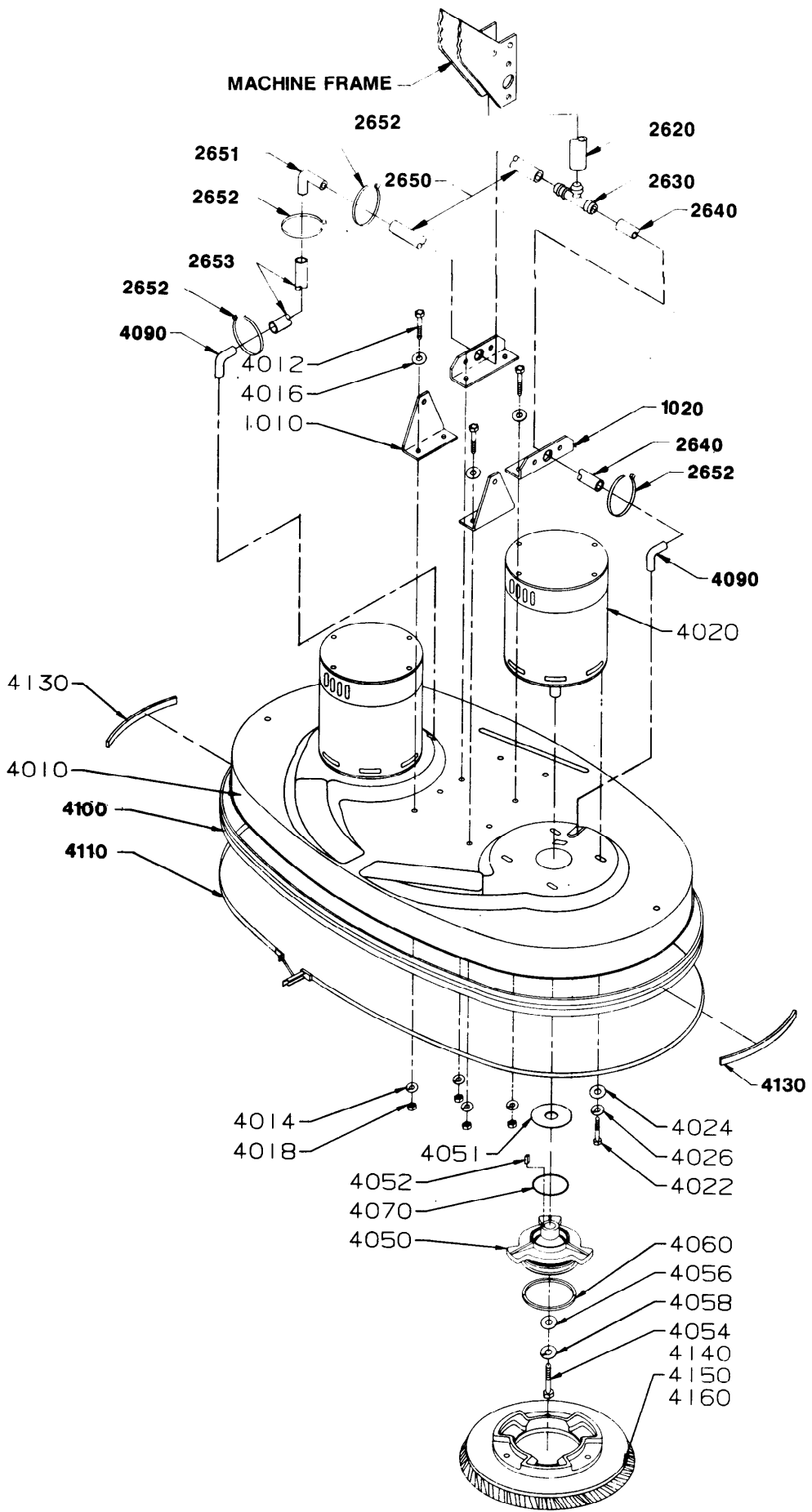
QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	CARRIAGE, DRIVE, 320	200	612-015-000	NOTE: PRIOR TO S.N. 08424 ORDER DIFFERENTIAL 612-001-000
1	DIFFERENTIAL, 320	220	612-245-000	
4	SHIM, 0.75" SHAFT	230	069-760-023	
2	COLLAR, 0.75" I.D., CLAMP	231	069-764-014	
2	SPACER	232	612-233-000	
2	RING, RETAINING	234	069-760-740	
4	BEARING, BALL, 19.05 DIA	240	069-760-007	
4	BEARING, FLANGETTE, 2 HOLE, SET OF 2	250	069-760-006	
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8	SCREW, CARRIAGE, .31-18 UNC x 1.00"	252	069-762-137	
8	WASHER, LOCK, SPRING, ANSI, .31", ZP, M08	254	069-760-078	
8	NUT, HEX, STD., .31" - 18 UNC, ZINC PLATE	256	069-762-010	
1	MOTOR, 36 VDC, 0.20HP, 025RPM	260	069-764-022	
4	SCREW, HEX HD., .31 - 18 UNC, x 1.00	262	069-764-055	
4	WASHER, PLAIN	263	069-764-631	
4	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	264	069-760-079	
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4	WASHER, LOCK, SPRING, ANSI, .31", ZP, M08	266	069-760-078	
1	KEY, WOODRUFF, #606, PLATED	267	069-764-176	
1	SPROCKET, #41, 9 TOOTH, DOUBLE HUB	270	069-764-205	NOTE: PRIOR TO S.N. 8424 ORDER CHAIN 611-054-000
1	CHAIN, #41, 66 LINKS (33" LONG), 260	280	069-760-364	
2	WHEEL, 11" DIA. 2" WIDE	290	611-333-000	
2	KEY, SQUARE, .188" x 1.50" LG	292	612-004-000	
2	NUT, HEX LOCK, .75-10 UNC, NYLON INSERT	298	612-074-000	
4	WASHER, PLAIN, ANSI-A, .38" WIDE, ZP, M10	362	069-760-077	
4	WASHER, LOCK, SPRING, ANSI, .44", ZP, M10	364	069-760-088	
4	SCREW, HEX HD., M10 x 25	366	200-031-541	





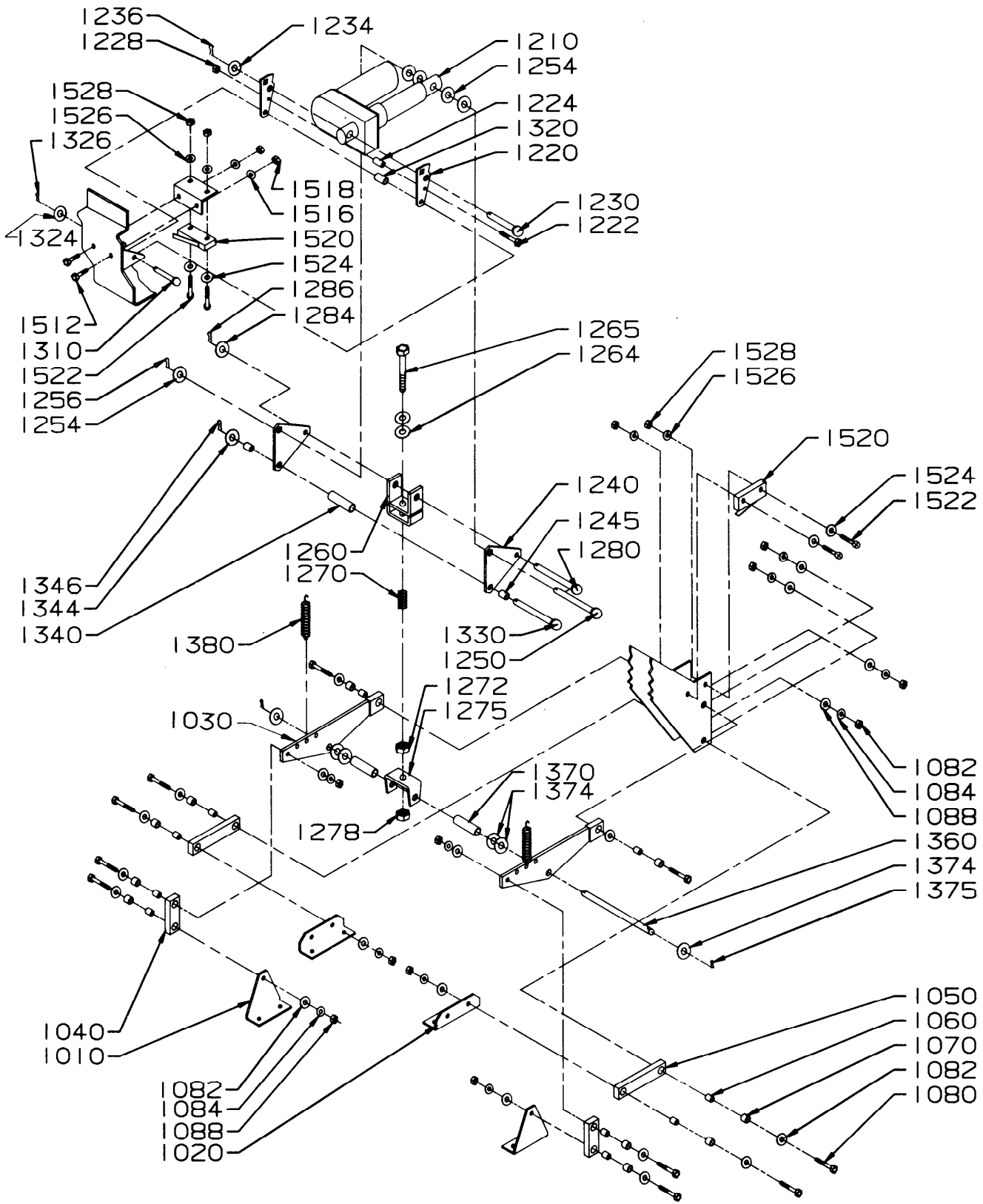
320 Machine Frame (Front)

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	FRAME WELDMENT	360	612-043-000	
1	CASTER, DIA. 127mm x 50mm WIDE	410	069-760-030	
4	SCREW, HEX HD., M10 x 25	412	200-031-541	
4	WASHER, LOCK, SPRING, ANSI, .44", ZP, M10	414	069-760-088	
4	NUT, HEX, STD, M10 x 1.50	416	200-102-018	
1	CLOSURE, VINYL	418	612-261-000	
2	BRACKET	420	069-760-792	
2	SCREW, HEX HD, M06 x 16	422	200-031-436	
2	WASHER, FLAT, 06.4 x 18.0	424	059-650-283	
2	CLOSURE, VINYL	425	612-195-000	
2	WASHER, LOCK	426	069-760-085	
2	NUT, HEX, STD, M06-1.00, DIN 934P	428	200-102-016	
1	DOOR, FRONT	510	612-033-000	
4	SCREW, HEX HD., #10-24 UNC x 0.5"	512	601-092-000	
4	WASHER, LOCK, SPRING, ANSI, #10, ZP	516	069-762-005	
4	NUT, HEX, STD, #10-24 UNC, ZINC PLATE	518	069-762-255	
1	HANDLE, RING	520	611-246-000	
1	HANDLE, RING RETAINER	530	611-247-000	
1	CATCH, DOUBLE ROLLER	550	612-232-000	
2	SPACER, 0.14" ID, 0.38" LG, .38" OD, NYLON	560	611-209-000	
2	SCREW, HEX HD., M03 x 20	562	200-031-268	
2	WASHER, FLAT, #6	563	069-764-053	
2	WASHER, LOCK SPG 3.1 ID, M03 DIN127, ZP	564	200-351-012	
2	NUT, HEX, STD, M03 x 0.50, DIN 934P, ZP	566	200-102-012	
2	SCREW, PAN HD, SLOT, M03 x 6	572	601-093-000	
2	WASHER, LOCK SPG 3.1 ID, M03 DIN 127, ZP	576	200-351-012	
2	NUT, HEX, STD, M03 x 0.50, DIN 934P, ZP	578	200-102-012	
1	BATTERY TRAY .32"	7010	612-097-000	
4	SCREW, HEX HD., M10 x 20	7012	200-031-538	
4	WASHER, PLAIN, ANSI-A, .38" WIDE, ZP, M10	7014	069-760-077	
4	WASHER, LOCK, SPRING, ANSI, .44" ZP, M10	7016	069-760-088	
2	CUSHION, BATTERY TRAY	7020	069-764-098	
1	BATTERY TRAY, UPPER, 32"	7060	069-763-314	
1	BATTERY TRAY, LOWER, 32"	7070	069-763-315	
2	WHEEL, BRKT, FRONT	9410	611-053-000	
2	WHEEL, RUBBER, DIA. 76 x 22 WD	9420	069-760-748	
2	SCREW, HEX HD., .31-18 UNC x 1.75"	9422	069-760-092	
2	WASHER, PLAIN, ANSI-A, .25" WIDE, ZP	9424	069-760-082	
2	NUT, HEX LOCK, .31-18 UNC, NYLON INSERT	9428	069-777-303	
4	SCREW, CARRIAGE, .31-18 UNC x .75" LG, ZP	9432	069-767-077	
4	WASHER, LOCK, SPRING, ANSI, .31", ZP, M08	9436	069-760-078	
4	NUT, HEX, STD, .31-18 UNC, ZINC PLATE	9438	069-762-010	



320 Scrubber Head Assy

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
2	SCRUB HEAD LIFT MOUNTING BRACKET	1010	612-010-000	
2	SCRUB HEAD DRAG LINK MTG. BRACKET	1020	612-012-000	
1	HOSE, CL. VIN.	2620	612-240-000	
1	FTG, TEE, .50", .38", .38"	2630	612-149-000	
1	HOSE, CL. VIN, 0.38" ID x 290	2640	612-241-000	
1	HOSE, CL. VIN, 0.38" ID x 120	2650	612-242-000	
1	ELBOW TUBE	2651	612-239-000	
4	WIRE TIE	2652	282-001-003	
4	WIRE TIE	2652	282-001-003	
1	HOSE, CL. VIN, 0.38" ID x 90	2653	612-243-00	
1	SCRUBBER HEAD, 320	4010	612-108-000	
8	SCREW, HEX HD., M08 x 25mm	4012	200-031-491	
8	WASHER, LOCK, SPRING, ANSI, .31", ZP, M08	4014	069-760-078	
8	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	4016	069-760-079	
8	NUT, HEX, STD, M08 x 1.00	4018	200-102-017	
2	MOTOR, 36VDC, 0.45HP, 400 RPM, IMPERIAL	4020	069-762-427	
8	SCREW, HEX HD., .25-20 UNC x 0.75", SS	4022	069-760-101	
8	WASHER, PLAIN, ANSI-A, .25" WIDE, ZP	4024	069-760-082	
8	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	4026	069-760-085	
2	BRUSH, HUB, MACH, LOW PROFILE, O-RING	4050	612-003-000	
2	SHIM, 2.51 OD x 0.78 ID x 0.045 THK	4051	612-109-000	
2	KEY, 0.25" x 0.25" x 0.75"	4052	069-764-080	
2	SCREW, HEX HD., .31-18 UNC x 1.00" LG SS	4054	069-764-634	
2	WASHER, FLAT, 08.31D, 25, 4.8	4056	069-764-631	
2	WASHER, LOCK, SPRING, ANSI, .31", ZP, M08	4058	069-760-078	
2	O-RING, 3.23" ID, 3.63" OD	4060	611-008-000	
2	RING, WATER CONTAINMENT	4070	069-764-512	
2	TUBE, HOSE TO BRUSH HUB	4090	612-157-000	
1	SCRUBBER EXTRUSION, 320	4100	612-055-000	
1	SCRUBBER BAND ASSY, 320	4110	612-053-000	
2	SKID STRIP	4130	611-277-000	
Set of 2	BRUSH ASSY., 16" GRIT	4140	612-227-000	
Set of 2	BRUSH ASSY., 16" POLY	4150	612-228-000	
Set of 2	PAD DRIVER ASSY.	4160	612-102-000	

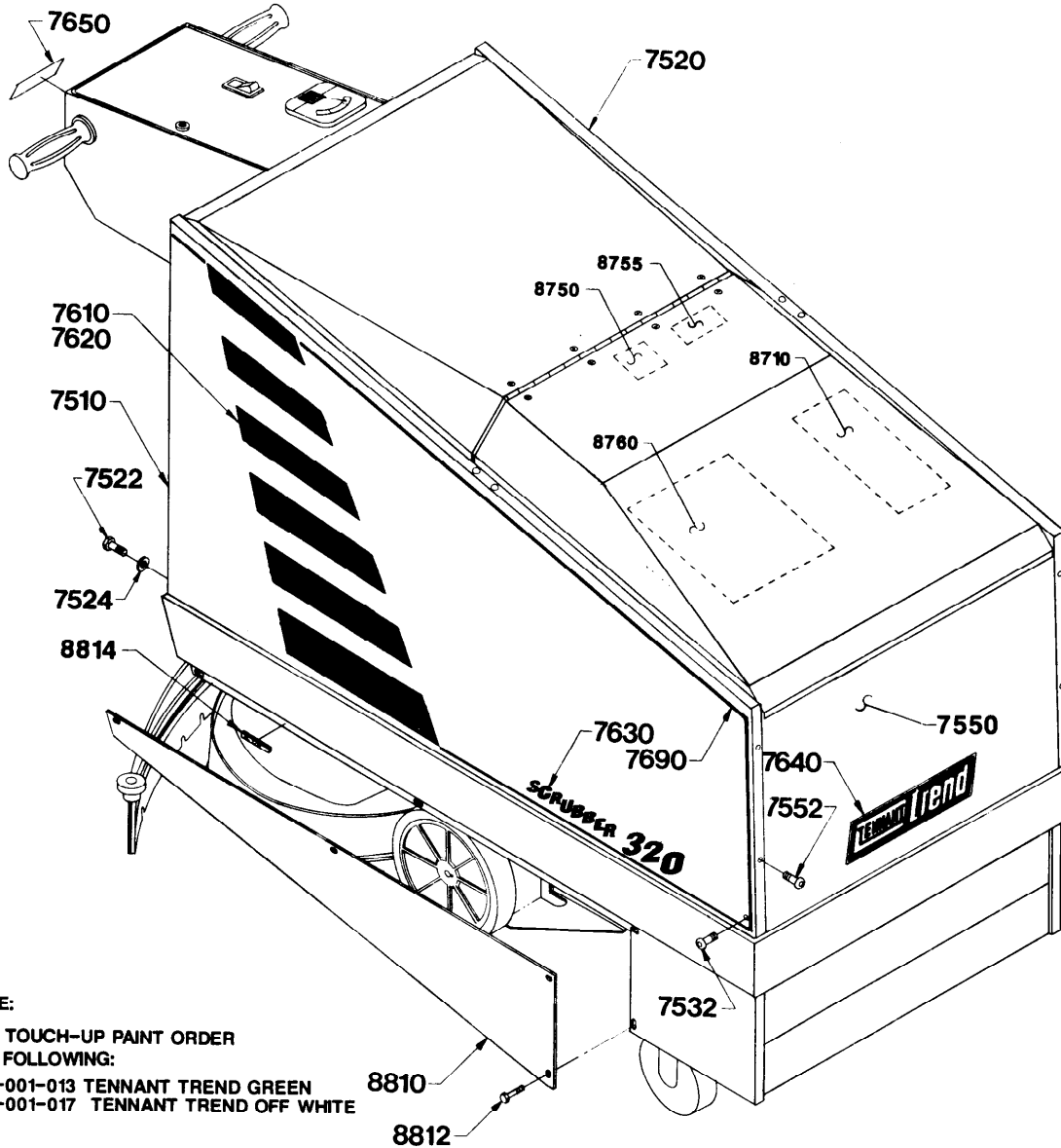


320 Scrubber Head Mounting

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
2	SCRUB HEAD LIFT MOUNTING BRACKET	1010	612-010-000	
2	SCRUB HEAD DRAG LINK MTG BRACKET	1020	612-012-000	
2	SCRUB HEAD RESSURE ARM	1030	612-008-000	
2	SCRUB HEAD KNUCKLE LINK	1040	612-009-000	
2	SCRUB HEAD DRAG LINK	1050	612-011-000	
10	BEARING, JOURNAL, DIA 12.7 x 12.7	1060	069-760-416	
10	SLEEVE, BEARING, DIA 12.7 x DIA 8.4 x 14	1070	069-760-417	
10	SCREW, HEX HD., M08 x 35	1080	200-031-496	
20	WASHER, NYLON, DIA 12.7 x 25.4 x .8	1082	069-761-267	
10	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	1084	069-760-079	
10	NUT, HEX LOCK, M08	1088	200-160-017	
1	ACTUATOR, LINEAR, 36VDC, 102mm, STROKE	1210	069-762-436	
2	ACTUATOR FINGER LINK	1220	612-062-000	
1	SCREW, HEX HD., M06 x 40mm, DIN 933, ZP	1222	921-650-000	
1	SPACER, .37" ID x 1.12" LONG	1224	069-764-179	
1	NUT, HEX LOCK, M06	1228	200-160-016	
1	PIN, CLEVIS, .50" x 1.75" LG	1230	611-098-000	
1	WASHER, PLAIN, ANSI-A, .50" NARROW, ZP	1234	611-500-000	
1	PIN, COTTER, .12" DIA x 1.00" LG	1236	069-760-713	
2	BELLCRANK, 320	1240	612-064-000	
2	BEARING, JOURNAL, DIA 9.5 x 5.3 LG	1245	069-760-458	
1	PIN, CLEVIS, .50" DIA x 2.25" LG	1250	069-764-583	
5	WASHER, PLAIN, ANSI-A, .50" NARROW, ZP	1254	611-500-000	
1	PIN, COTTER, .12" DIA x 1.00" LG	1256	069-760-713	
1	SPRING HOLDER, DOWN PRESSURE	1260	611-271-000	
2	WASHER, FLAT, DIA 13.4 x 21.8	1264	612-161-000	
1	SCREW, HEX HD., .50-20 UNC x 4.5" ZP	1265	611-272-000	
1	SPRING, COMP, 1.00" OD, 0.50" ID, 2.00" LG	1270	069-762-067	
1	NUT, HEX, STD, .50"-20UNF, ZINC PLATE	1272	069-767-162	
1	HEAD LIFT CHANNEL	1275	612-065-000	
1	NUT, HEX, LOCK, .50"-20UNF, ZINC PLATE	1278	612-091-000	
1	PIN, CLEVIS, .38" DIA x 2.25" LG	1280	069-764-081	
1	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M10	1284	069-760-079	
1	PIN, COTTER, .12" DIA x 1.00" LG	1286	069-760-713	
1	PIN, CLEVIS, .38" x 2.12" LG	1310	611-099-000	
1	SPACER, 0.50" ID, 1.00" LG, .06" TK, METAL	1320	069-764-635	
1	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	1324	069-760-079	
1	PIN, COTTER, .12" DIA x 1.00" LG	1326	069-760-713	
1	PIN, CLEVIS, .38" x 2.62" LG	1330	611-105-000	
1	SPACER, 0.50" ID, 1.50" LG, .06" TK, METAL	1340	069-760-443	
1	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M10	1344	069-760-079	
1	PIN, COTTER, .12" DIA x 1.00" LG	1346	069-760-713	
1	PIN, HEADLESS, .50" DIA x 7.0" LG	1360	612-063-000	
2	SPACER, 0.50" ID, 1.50" LG, .06" TK, METAL	1370	069-760-443	
6	WASHER, PLAIN, ANSI-A, .50" WIDE, ZP	1374	611-500-000	
2	PIN, COTTER, .12" DIA x 1.00" LG	1375	069-760-713	
2	SPRING	1380	611-241-000	
1	SWITCH BRKT, ACTUATOR LINKAGE	1510	611-155-000	
2	SCREW, HEX HD., M04 x 10	1512	200-031-342	
2	WASHER, LOCK, SPRING, ANSI, #08, ZP	1516	069-760-093	
2	NUT, HEX, STD, M04 x 0.70,	1518	200-102-014	
2	SWITCH, SNAP, 25A, LEVER, SPNO&C	1520	069-764-009	
4	SCREW, HEX HD., #06-32UNC x 1.00	1522	069-764-002	
4	WASHER, PLAIN, ANSI-A, #06, ZP	1524	069-764-053	
4	WASHER, LOCK SPRING, ANSI, #06, ZP	1526	069-764-054	
4	NUT, HEX, STD, #06-32UNC, ZINC PLATE	1528	069-762-159	

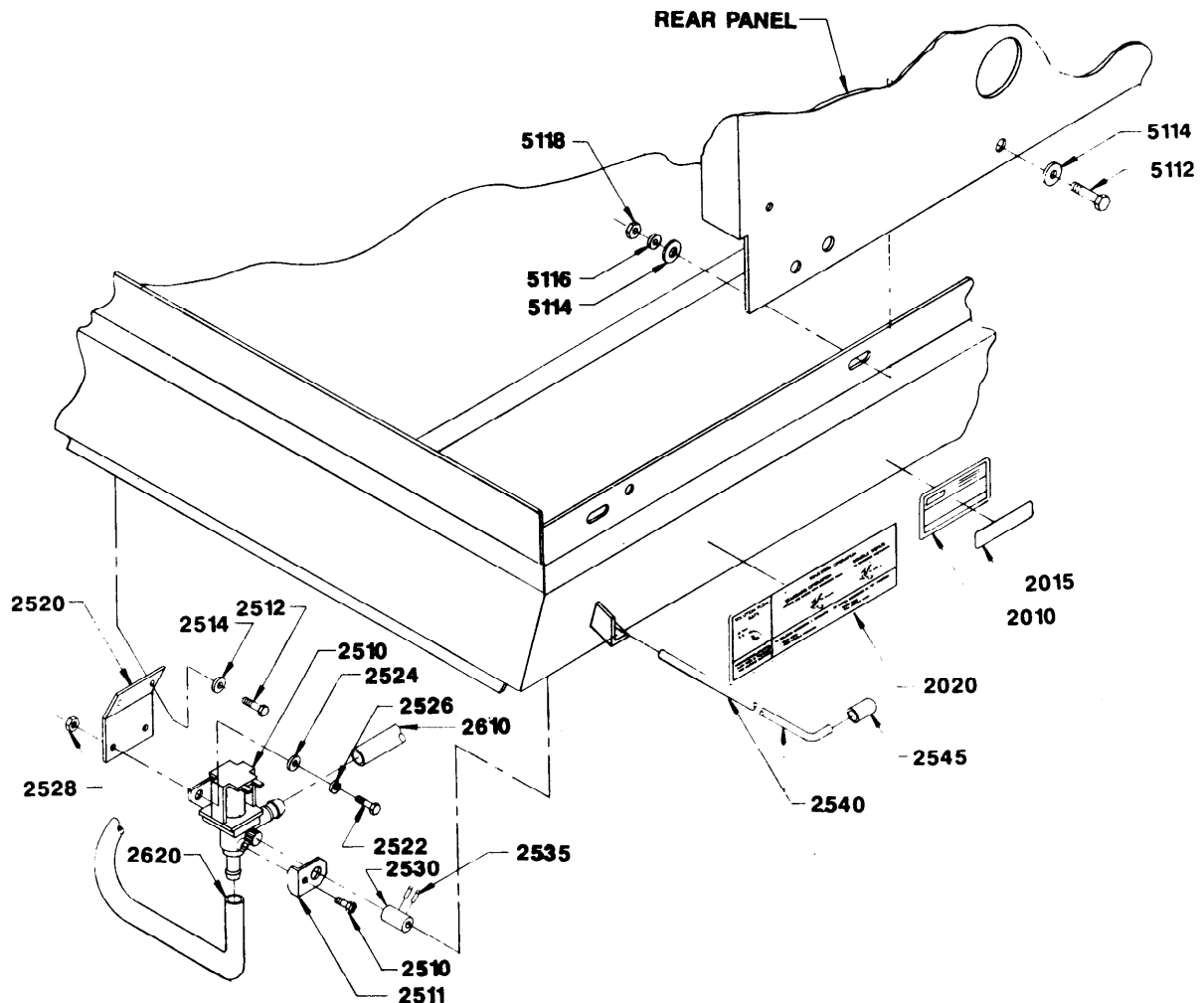
320 Side Panels, Door & Decals

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	PANEL WELDT, RH.	7510	611-077-000	
1	PANEL, WELDT, LH.	7520	611-079-000	
6	SCREW, HEX HD., M06 x 10	7522	200-031-432	
6	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	7524	069-760-090	
2	SCREW, BUTTON HD., M08 x 10mm	7532	069-760-096	
1	PANEL, FRONT	7550	612-082-000	
6	SCREW, BUTTON HD., M06 x 08mm	7552	069-762-346	
1	DECAL, SIDE STRIPES, RH.	7610	611-178-000	
1	DECAL, SIDE STRIPES, LH. (NOT SHOWN)	7620	611-179-000	
2	DECAL, "SCRUBBER 320"	7630	612-180-000	
1	DECAL, TTI LOGO	7640	611-244-000	
1	DECAL, TENNANT TREND	7650	019-686-059	
1	DECAL, PINSTRIPING, GREEN, .125" WIDE	7690	611-279-000	
1	DECAL, MAINTENANCE	8710	611-306-000	
1	DECAL, CAUTION, CHARGING	8750	069-780-017	
1	DECAL, BATTERY CONNECTIONS	8755	601-095-000	
1	DECAL, WIRING	8760	612-183-000	
2	DOOR, SIDE	8810	611-026-000	
8	SCREW, HEX HD., M06 x 12mm	8812	200-031-433	
4	STRIP, FOAM	8814	611-303-000	



320 Machine Frame (Rear) & Water Valve

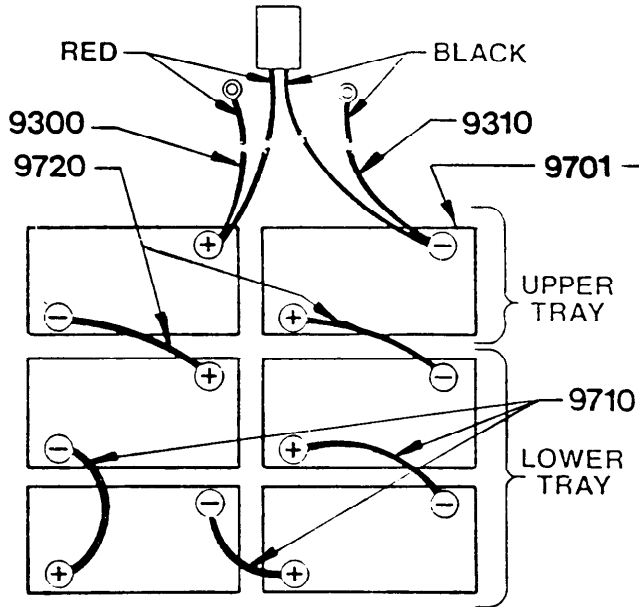
QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	LABEL, DATA PLATE PRESERIALIZED, AUTO	2010	069-762-392	
1	DECAL, MODEL ID, 320	2015	612-013-000	
1	DECAL, SQUEEGEE OPERATION	2020	612-179-000	
2	WATER VALVE, 36VDC	2510	612-022-000	
1	WATER VALVE SHAFT RETAINER	2511	612-128-000	
2	SCREW, HEX HD., M06 x 12mm	2512	200-031-433	
2	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	2514	069-760-085	
1	WATER VALVE BRACKET	2520	612-046-000	
2	SCREW, HEX HD., M06 x 12mm	2522	200-031-433	
2	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	2524	069-760-090	
2	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	2526	069-760-085	
2	NUT, HEX, STD, M06 x 1.00	2528	200-102-016	
1	WATER VALVE COUPLING	2530	612-045-000	
2	SCREW, SET, #10-24 x 0.25", SOC. HD	2535	069-762-095	
1	WATER VALVE ROD	2540	612-044-000	
1	CLOSURE, VINYL	2545	612-136-000	
1	HOSE, CL. VIN, 0.50" ID x 160	2610	612-153-000	
1	HOSE, CL. VIN, 0.50" ID x 35	2620	612-154-000	
3	SCREW, HEX HD., M08 x 20mm	5112	200-031-488	
6	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	5114	069-760-079	
3	WASHER, LOCK, SPRING, ANSI, .31", ZP, M08	5116	069-760-078	
3	NUT, HEX, STD, M08 x 1.00	5118	200-102-017	



320 Battery Trays & Cables

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	BATTERY CABLE, RED, 260 MAIN	9300	611-145-000	
1	BATTERY CABLE, BLACK, 260 MAIN	9310	611-146-000	
6	BATTERY, 6V, 240 AMP	9701	069-764-222	
6	BATTERY, OPTION 305 AMP	9701	069-760-654	
6	BATTERY, OPTION 370 AMP	9701	069-760-655	
3	BATTERY, CABLE, #04GA, 305mm	9710	611-116-000	
2	BATTERY, CABLE, #04GA, 380mm	9720	611-117-000	
6	BATTERY, CABLE TERMINAL BOOT, BLACK	9730	611-221-000	
6	BATTERY, CABLE TERMINAL BOOT, RED	9740	611-222-000	
12	COVER, TERMINAL	9750	611-223-000	

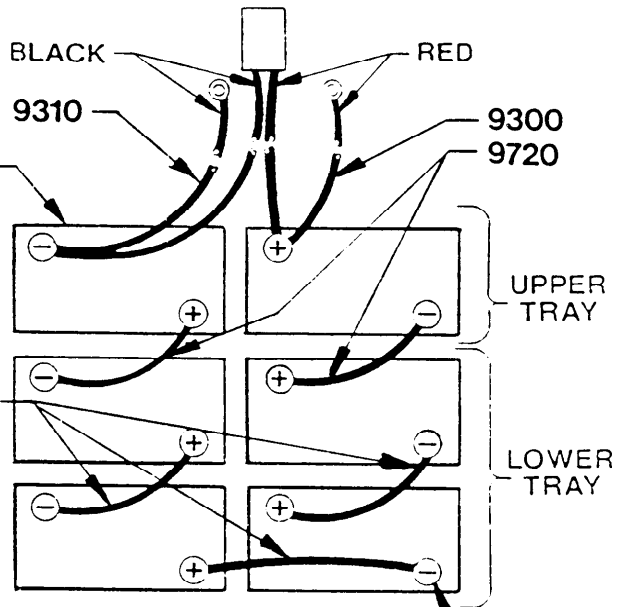
REAR OF MACHINE (OPERATOR'S POSITION)



BATTERY CONNECTIONS

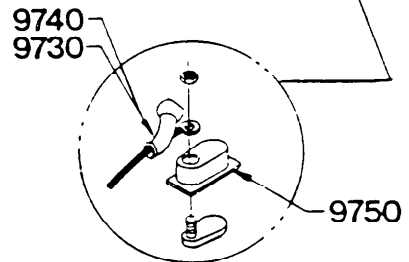
FOR MACHINES WITH TERMINALS

REAR OF MACHINE (OPERATOR'S POSITION)



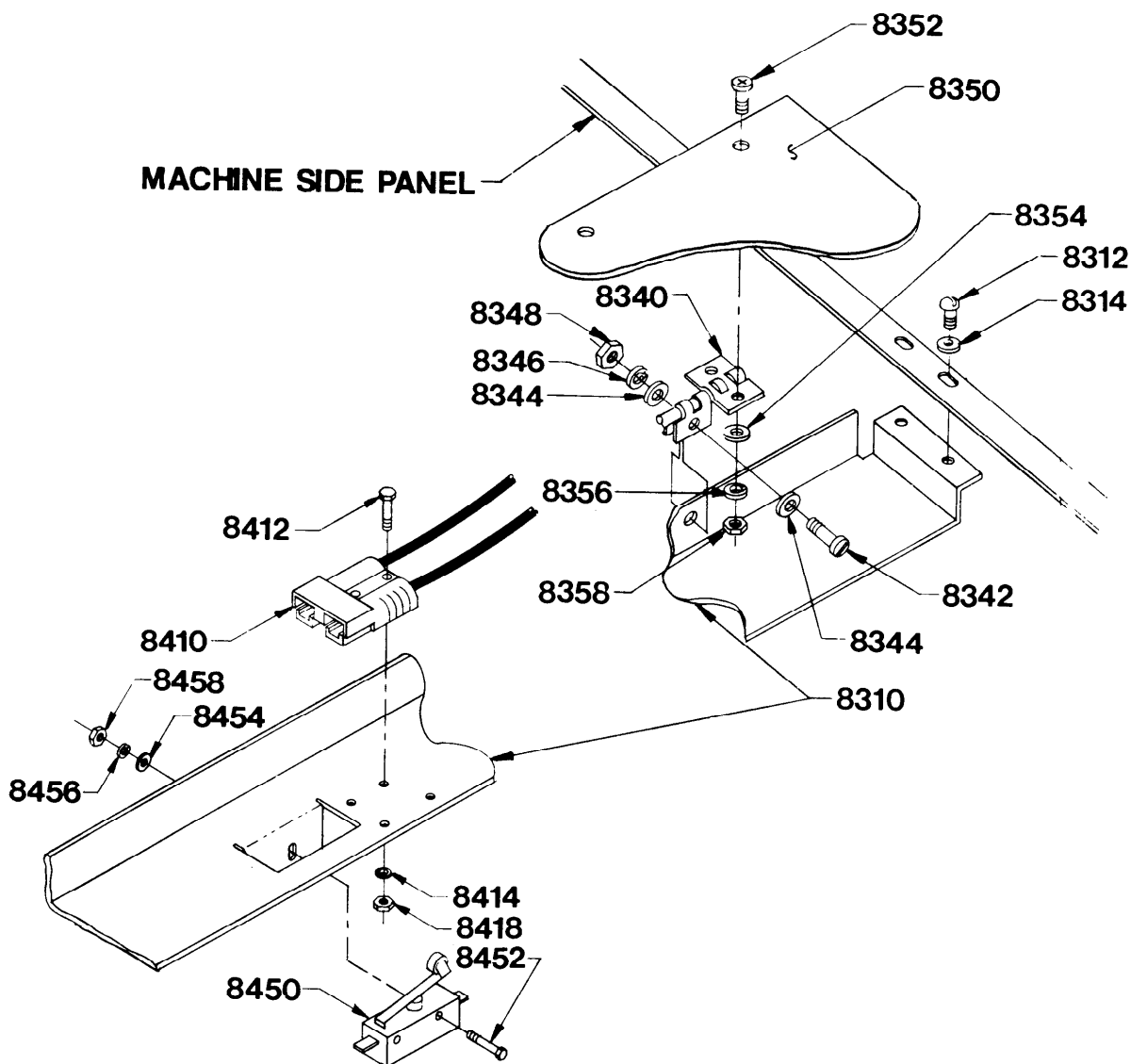
BATTERY CONNECTIONS

FOR MACHINES WITH TERMINALS



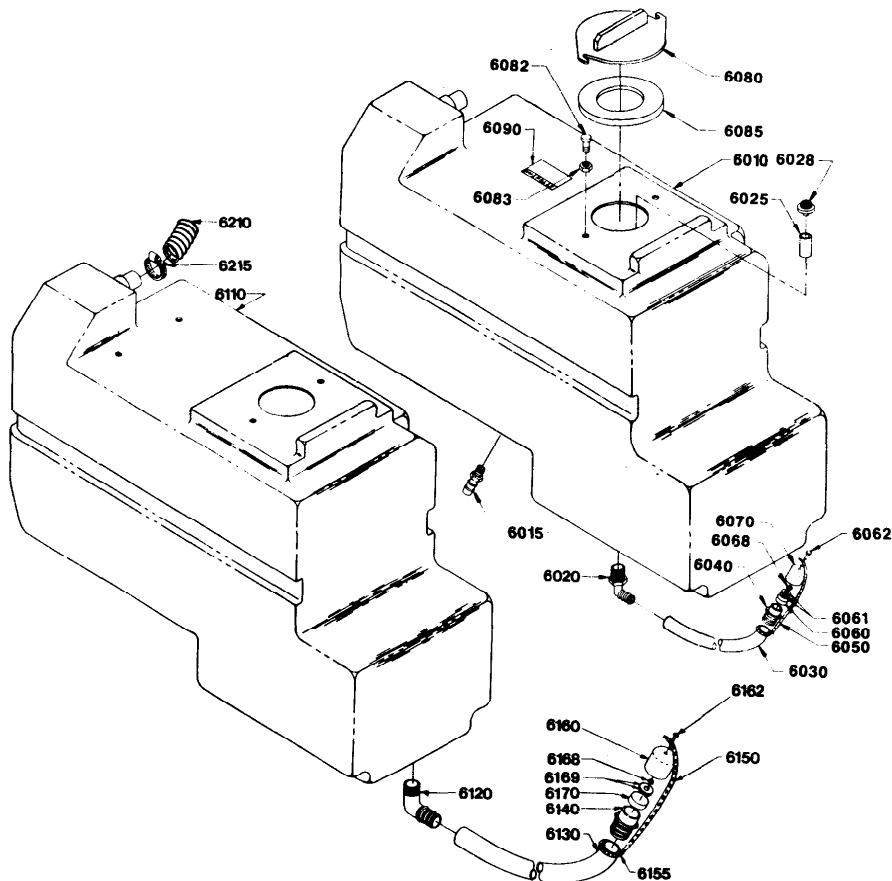
320 Hoods, Hood Support & Charger

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	HOOD SUPPORT BRKT	8310	612-139-000	
4	SCREW, TRUSS HD., #10-24 UNC x 0.62	8312	069-762-238	
4	WASHER, PLAIN, ANSI-A, #08, ZP	8314	069-760-097	
1	HINGE, HOOD	8340	612-099-000	
5	SCREW, PAN HD., SLOT, M05 x 14mm	8342	200-051-384	
10	WASHER, PLAIN, ANSI-A, #10, ZP, M05	8344	069-762-056	
5	WASHER, LOCK SPRING, ANSI, #10, ZP	8346	069-762-005	
5	NUT, HEX, STD, M05 x 0.80	8348	200-102-015	
1	HOOD, FRONT	8350	612-019-000	
1	HOOD, REAR	8351	612-018-000	
12	SCREW, FLAT HD., PHIL, M05 x 16mm, BLACK	8352	069-764-140	
12	WASHER, PLAIN, ANSI-A, #10, ZP, M05	8354	069-762-056	
12	WASHER, LOCK, SPRING, ANSI, #10, ZP	8356	069-762-005	
12	NUT, HEX, STD, M05 x 0.80	8358	200-102-015	
1	BATTERY CABLE & 50A CONNECTOR ASSY	8410	611-119-000	
2	SCREW, SOC. HEAD, #6-32 UNC x 1.00"	8412	601-079-000	
2	NUT, HEX STD, #06-32 UNC	8414	069-762-159	
2	WASHER, LOCK, SPRING, ANSI, #06	8418	069-764-054	
1	SWITCH, SNAP, 25A, ROLLER, SPNO & C	8450	069-764-008	
2	SCREW, HEX HD., #06-32 UNC x 1.00	8452	069-764-002	
2	WASHER, PLAIN, ANSI-A, #06, ZP	8454	069-764-053	
2	WASHER, LOCK, SPRING, ANSI, #06, ZP	8456	069-764-054	
2	NUT, HEX, STD, #06-32 UNC, ZINC PLATE	8458	069-762-159	



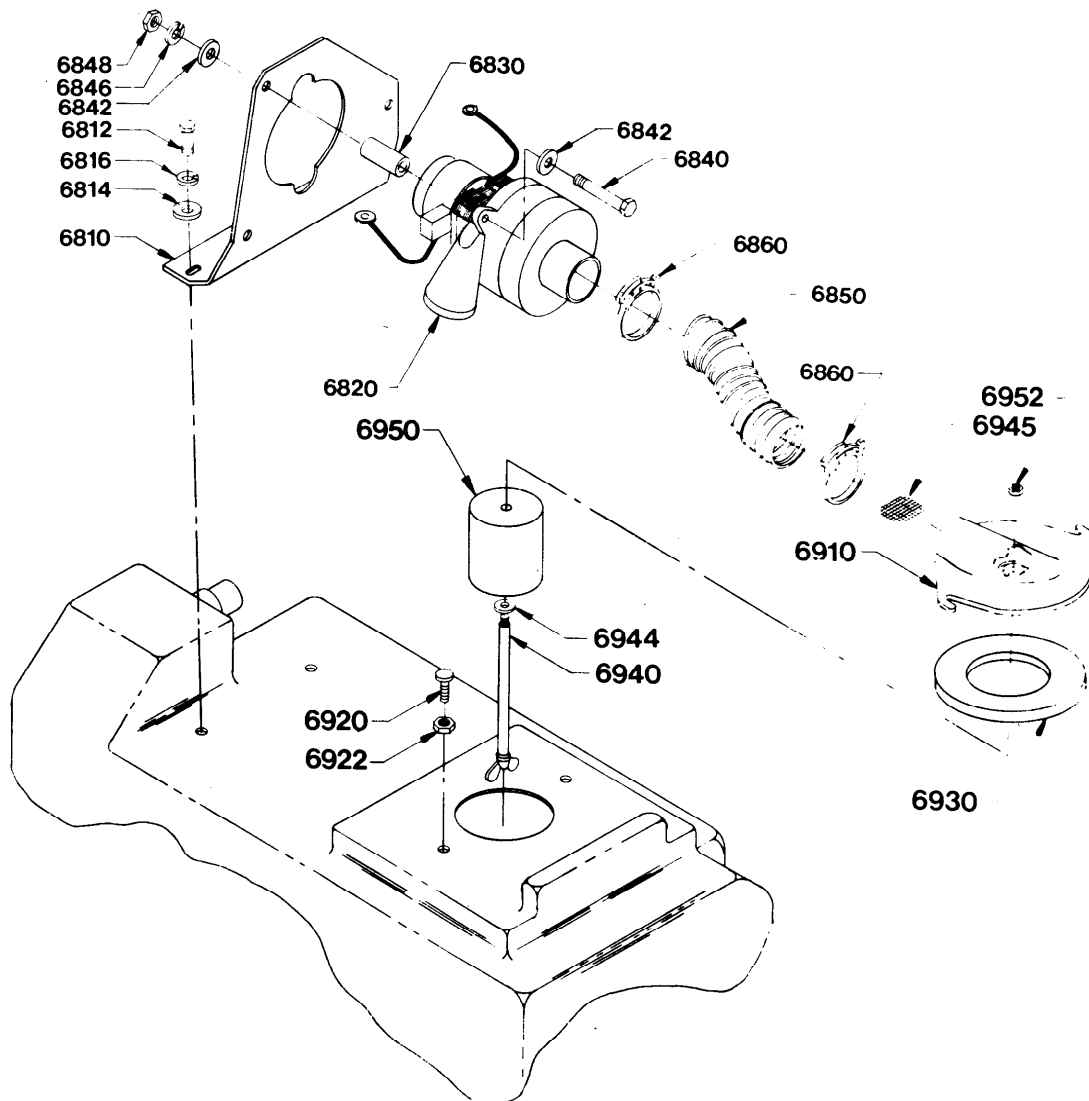
320 Solution & Recovery Tanks

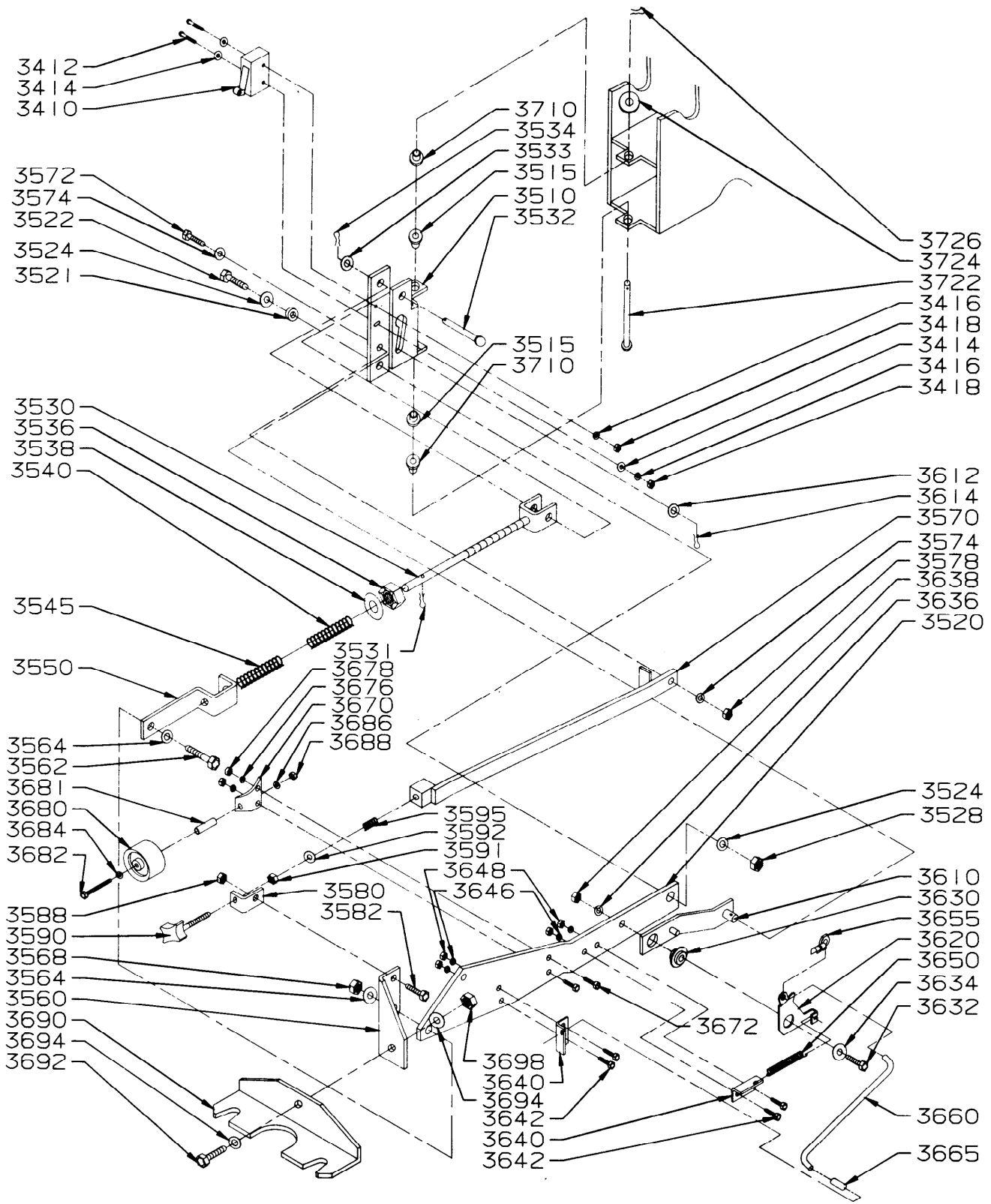
QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	TANK, SOLUTION	6010	612-135-000	
1	FITTING, 0.5" HOSE x 0.50" NPT	6015	069-764-593	
1	FITTING, ELBOW, 0.75" HOSE x 0.75" NPT	6020	612-152-000	
1	SLEEVE, STRAINER	6025	601-105-000	
1	STRAINER, SOLUTION TANK	6028	069-760-038	
1	SOLUTION DRAIN HOSE	6030	612-143-000	
1	FITTING, 0.75" x 0.75" NPT	6040	612-146-000	
1	CHAIN	6050	039-706-113	
1	SOLUTION DRAIN CAP SEAL	6060	612-145-000	
2	WASHER, SPECIAL FLAT, PLASTIC	6061	601-076-000	
1	SCREW, PAN HD., SLOT, M04x 12mm	6062	200-055-343	
1	NUT, HEX LOCK, M04	6068	200-160-014	
1	CAP, 0.75" NPT, PLASTIC W/HOLE	6070	612-158-000	
1	LID WELD'T., SOLUTION TANK	6080	612-140-000	
2	WELD STUD, M08 x 25mm	6082	069-764-156	
2	NUT, HEX, STD, M08 x 1.00	6083	200-102-017	
1	GASKET, FOAM, 152, OD, 102 ID, 9.5 THK	6085	069-760-241	
1	LABEL, INFO, ATTENTION, HOT WATER TEMP	6090	069-762-445	
1	TANK, RECOVERY, 320	6110	612-134-000	
1	FITTING, ELBOW, 1.25" HOSE x 1.25" NPT	6120	069-764-073	
1	HOSE, CLR, VIN, 1.25" ID, .19" THK, 1219mm	6130	069-764-074	
1	FITTING, 1.25" HOSE x 1.25" NPT, PVC	6140	069-764-075	
1	CHAIN	6150	039-706-113	
1	WIRE TIE	6155	282-001-008	
1	CAP, 1.25NPT, PLASTIC, W/HOLE	6160	069-764-657	
1	SCREW, PAN HD., SLOT, M04 x 12mm	6162	200-055-343	
1	NUT, HEX LOCK, M04	6168	200-160-014	
2	WASHER, SPECIAL, PLASTIC	6169	601-062-000	
1	SEAL FOR CAP 069-764-076	6170	069-764-077	
1	HOSE, RECOVERY, 38 ID x 1200 LG	6210	601-073-000	
1	CLAMP, HOSE	6215	190-005-008	



320 Vac Motor & Float Assy

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	VAC FAN BRKT	6810	611-083-000	
2	SCREW, HEX HD., M06 x 12mm	6812	200-031-433	
2	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	6814	069-760-090	
2	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	6816	069-760-085	
1	VAC FAN, .75 HP HIGH PERFORM. TANG	6820	611-248-000	
2	VAC MOTOR BRUSH (ORDER 2)	6820A	611-340-000	
3	SPACER, 0.25" ID, 1.00" LG, OD, NYLON	6830	069-764-007	
3	SCREW, HEX HD., M06 x 50mm, DIN 933, ZP	6840	921-650-000	
6	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	6842	069-760-090	
3	WASHER, LOCK, SPRING, ANSI, .25" M06	6846	069-760-085	
3	NUT, HEX, STD, M06 x 1.00	6848	200-102-016	
1	HOSE, RECOVERY, 50.8 ID x 210 LG	6850	611-164-000	
2	CLAMP, HOSE	6860	611-205-000	
1	FLOAT HOSE ADAPTOR	6910	069-764-125	
2	WELD STUD, M08 x 25mm, GW8025	6920	069-764-156	
2	NUT, HEX, STD, M08 x 1.00	6922	200-102-017	
1	GASKET, FOAM, 152 OD, 102 ID, 9.5 THK	6930	069-760-241	
1	ROD, FLOAT GUIDE	6940	039-044-065	
1	WASHER, SPECIAL FLAT, PLASTIC	6944	601-076-000	
1	SCREEN, FILTER	6945	611-166-000	
1	FLOAT	6950	039-044-064	
1	NUT, HEX LOCK, M06, SS	6952	069-762-303	





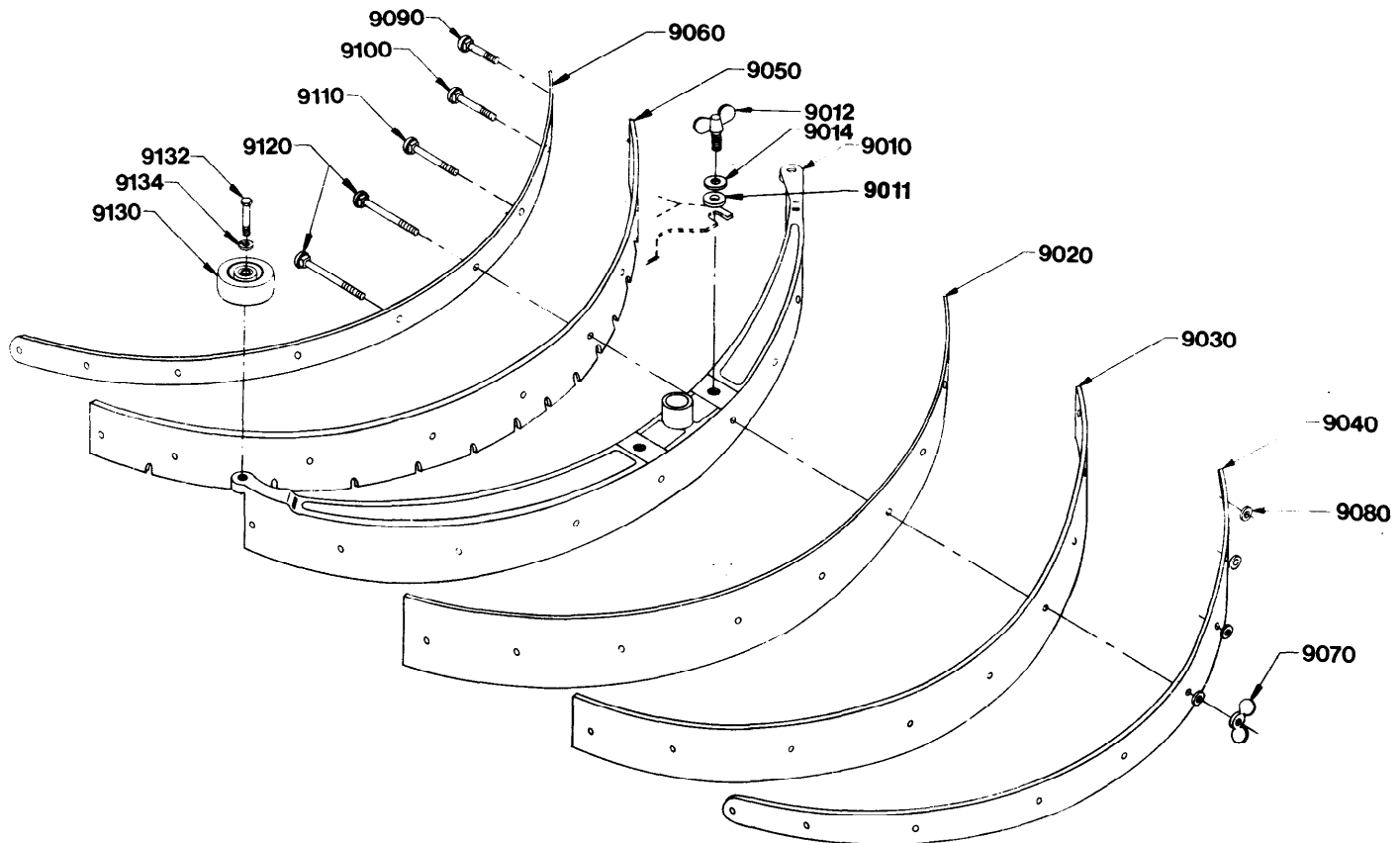
320 Squeegee Assy

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	SWITCH, SNAP, 25A, ROLLER, SPNO&C	3410	069-764-008	
2	SCREW, HEX HD., #06-32UNC x 1.00	3412	069-764-002	
3	WASHER, PLAIN, ANSI-A, #06 ZP	3414	069-764-053	
2	WASHER, LOCK, SPRING, ANSI, #06, ZP	3416	069-764-054	
2	NUT, HEX, #6 - 32 UNC	3418	069-762-159	
1	SQUEEGEE LINKAGE SWIVEL BRKT	3510	612-107-000	
2	BEARING, FLANGE, .38ID, .50 OD OILITE	3515	069-764-064	
1	SQUEEGEE SUSPENSION ARM	3520	612-111-000	
1	SLEEVE, 12.70 OD, 10.32ID, 6.10LG	3521	612-071-000	
1	SCREW, HEX HD., M10 x 25	3522	200-031-541	
2	WASHER, PLAIN, ANSI-A, .30" WIDE, ZP, M10	3524	611-375-000	
1	NUT, HEX LOCK, M10	3528	200-160-018	
1	SQUEEGEE SPRING ROD	3530	612-112-000	
1	PIN, HAIRPIN	3531	612-254-000	
1	PIN, CLEVIS, .38" DIA x 1.75" LG	3532	601-103-000	
1	WASHER, PLAIN, ANSI-A, .30" WIDE, ZP, M10	3533	069-760-077	
1	PIN, COTTER, .12" DIA x 1.00" LG	3534	069-760-713	
1	NUT, HEX, STD, .50" - 13UNC, ZINC PLATE	3536	069-760-110	
1	WASHER, PLAIN, ANSI-A, .50" WIDE, ZP	3538	069-760-091	
2	SPRING, COMP, 25.4 OD x 13.0 ID x 140 LG	3540	069-760-419	
1	SPRING, 25.4 OD x 13.0 ID x 114 LG.	3545	612-238-000	
1	SQUEEGEE ROD GUIDE	3550	612-113-000	
1	SQUEEGEE ATTITUDE BRKT	3560	612-115-000	
1	SCREW, HEX HD., M10 x 30mm	3562	200-031-544	
2	WASHER, PLAIN, ANSI-A, .38" WIDE, ZP, M10	3564	069-760-077	
1	NUT, HEX LOCK, M10	3568	200-160-018	
1	SQUEEGEE ATTITUDE ARM	3570	612-114-000	
1	SCREW, HEX HD., M08 x 25mm	3572	200-031-491	
2	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	3574	069-760-079	
1	NUT, HEX LOCK, M08	3578	200-160-017	
1	SQUEEGEE KNOB ANGLE BRACKET	3580	612-120-000	
1	SCREW, HEX HD., M08 x 20mm	3582	200-031-488	
1	NUT, HEX LOCK, M08	3588	200-160-017	
1	KNOB, PLASTIC, .31-18UNC x 2.25"	3590	069-764-192	
1	NUT, HEX LOCK, .31-18UNC, NYLON INSERT	3591	069-777-303	
1	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	3592	069-760-079	
1	SPRING, SQUEEGEE KNOB	3595	612-126-000	
1	SQUEEGEE HANGER LINK	3610	612-116-000	
1	WASHER, PLAIN, ANSI-A, .38" WIDE, ZP, M10	3612	069-760-077	
1	PIN, COTTER, .12" DIA x 1.00" LG	3614	069-760-713	
1	SQUEEGEE LOCK ACTUATOR	3620	612-117-000	
1	SQUEEGEE HANGER & LOCK PIVOT SLEEVE	3630	612-118-000	
1	SCREW, HEX HD., M08 x 30mm	3632	200-031-494	
1	WASHER, PLAIN, ANSI-A, .31" WIDE, ZP, M08	3634	069-760-079	
1	WASHER, LOCK, SPRING, ANSI, .31", ZP, M08	3636	069-760-078	
1	NUT, HEX, STD, M08 x 1.00	3638	200-102-017	
2	SQUEEGEE SPRING & ROD BRACKET	3640	612-119-000	
4	SCREW, HEX HD., M06 x 20mm	3642	200-031-438	
4	WASHER, LOCK, SPG., ANSI, #06	3646	069-760-085	
4	NUT, HEX, STD, M06 x 1.00	3648	200-102-016	
1	SPRING, EXT. 0.50"OD, 2.0"LG, .063"WD	3650	612-127-000	
1	CLIP, LINKAGE, .25" DIA. ROD	3655	611-059-000	
1	SQUEEGEE LATCH ROD	3660	612-121-000	
1	CLOSURE, VINYL	3665	612-136-000	
1	SQUEEGEE WHEEL BRACKET	3670	612-122-000	
2	SCREW, HEX HD., M06 x 20mm	3672	200-031-438	
2	WASHER, LOCK, SPG., ANSI, #06	3676	069-760-085	
2	NUT, HEX, STD, M06 x 1.00	3678	200-102-016	
1	WHEEL, 2.00" PLASTIC	3680	612-125-000	
1	SPACER, RND, 06.5ID, 07.9OD, 28LG, STEEL	3681	612-124-000	
1	SCREW, HEX HD., M06 x 40mm, DIN 933, ZP	3682	921-640-000	
1	WASHER, PLAIN, ANSI-A, #12 WIDE, ZP, M06	3684	069-760-090	
1	WASHER, LOCK, SPRING, ANSI, .25", ZP, M06	3686	069-760-085	
1	NUT, HEX, STD, M06 x 1.00	3688	200-102-016	
1	SQUEEGEE MOUNTING BRACKET	3690	612-123-000	
1	SCREW, HEX HD., M10 x 25	3692	200-031-541	
2	WASHER, PLAIN, ANSI-A, .38" WIDE, ZP, M10	3694	069-760-077	
1	NUT, HEX LOCK, M10	3698	200-160-018	
2	BEARING, FLANGE, .38ID, .50 OD OILITE	3710	069-764-064	
1	PIN, CLEVIS, .38" DIA x 4.62" LG	3722	069-764-065	
1	WASHER, PLAIN, ANSI-A, .38" WIDE, ZP, M10	3724	069-760-077	
1	PIN, COTTER, .12" DIA x 1.00" LG	3726	069-760-713	

320 Squeegee Assy

QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	SQUEEGEE, MACHINED, 32"	9010	612-160-000	
2	WASHER, NYLON	9011	059-650-290	
2	SCREW, WING, .50-13 x 1.00"	9012	069-764-149	
2	WASHER, PLAIN, ANSI-A, .50" WIDE, ZP	9014	069-760-091	
1	BLADE, SQUEEGEE, REAR	9020	067-761-601	
1	STRIP, BACK UP, SQUEEGEE	9030	067-761-603	
1	STRIP, RETAINER, REAR	9040	069-761-604	
1	BLADE, SQUEEGEE, FRONT	9050	067-761-602	
1	STRIP, RETAINER, FRONT	9060	069-761-605	
10	NUT, WING, .25-20UNC	9070	612-090-000	
10	WASHER, FLAT, 07.9ID, 19, 1.7, .25"SS	9080	069-762-311	
2	SCREW, CARRIAGE, .25-20UNC x 1.5	9090	612-184-000	
2	SCREW, CARRIAGE, .25-20UNC x 2.0	9100	612-185-000	
2	SCREW, CARRIAGE, .25-20UNC x 2.5	9110	612-186-000	
4	SCREW, CARRIAGE, .25-20UNC x 2.75	9120	612-187-000	
2	WHEEL, RUBBER, DIA 76 x 22 WD	9130	069-760-748	
2	SCREW, HEX HD., .31-18UNC x 1.75"	9132	069-760-092	
2	WASHER, PLAIN, ANSI-A, .25" WIDE, ZP	9134	069-760-082	

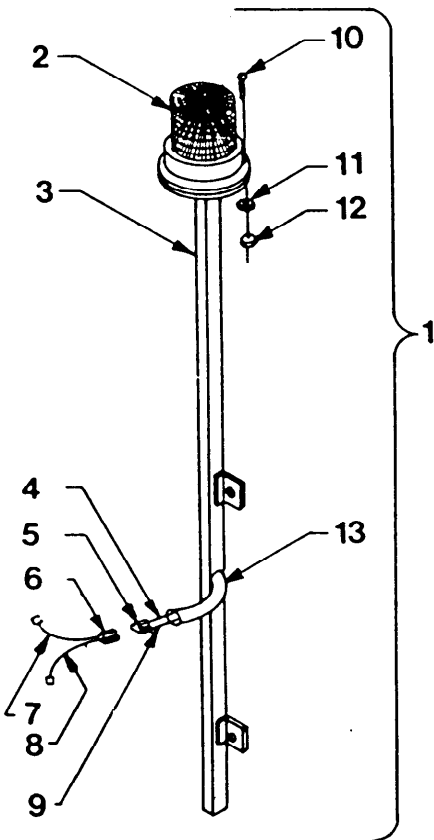
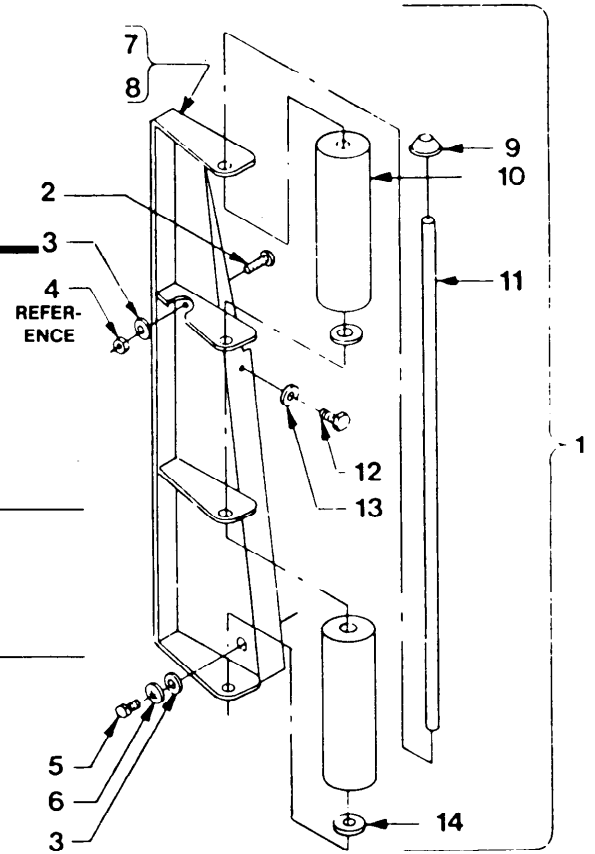
NOTE: FOR SQUEEGEE BLADE REPLACEMENT KIT (INCLUDES 9020, 9030 & 9050)
ORDER 199-201-018



320 Flashing Light/Wall Roller Kits

Upper Wall Roller Kit Parts List

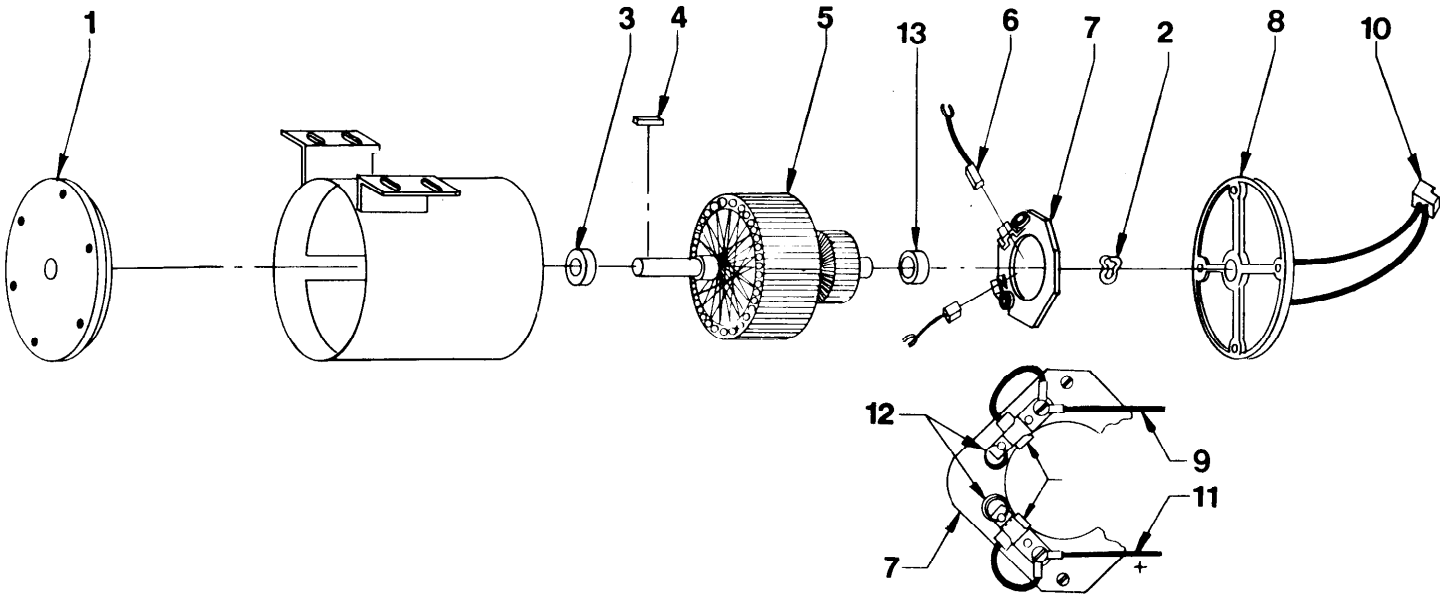
QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER
1	WALL ROLLER KIT, COMPLETE (OPTION)	1	611-276-000
2	SCREW, TRUSS., 5/16"-18 x 3/4"	2	069-764-060
4	WASHER, FLAT, DIA. 5/16"	3	069-760-079
2	NUT, 5/16"-18 UNC	4	069-762-010
2	SCREW, HEX HD., M08 x 16	5	200-031-486
2	WASHER, LOCK	6	200-370-019
1	ROLLER BRACKET, L.H.	7	611-299-000
1	ROLLER BRACKET, R.H.	8	611-298-000
2	CAP, PUSH-ON	9	069-764-114
6	ROLLER	10	069-764-040
2	ROD	11	069-764-036
4	SCREW, HEX HD., M06 x 10	12	200-031-432
4	WASHER, FLAT, DIA. 6mm	13	069-760-090
6	WASHER, FLAT, DIA. 1/2"	14	069-760-091



Flashing Light Kit Parts List

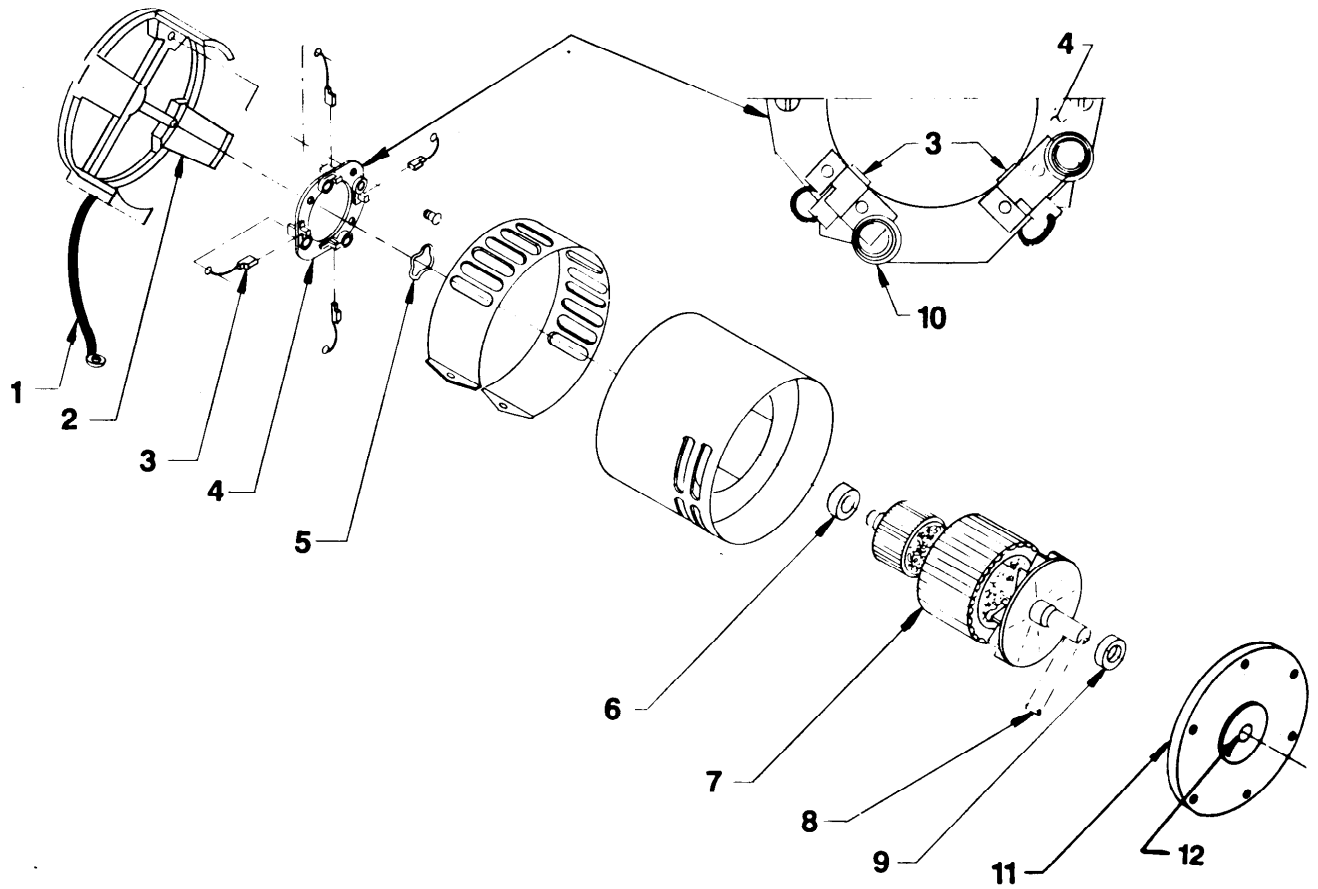
QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	FLASHING LIGHT KIT, COMPLETE (OPTION)	1	467-760-961	
1	LIGHT, RED STROBE	2	069-762-180	
1	PEDESTAL	3	069-762-357	
1	WIRE ASSY., RED, 1500mm	4	283-001-073	
1	CONNECTOR, MALE	5	069-760-700	
1	CONNECTOR, FEMALE	6	069-762-188	
1	WIRE ASSY., RED, 150mm	7	283-001-071	
1	WIRE ASSY., BLACK, 150mm	8	283-001-074	
3	SCREW, OVAL HD., M05 x 14	10	200-070-384	
3	WASHER, LOCK	11	069-762-005	
3	NUT, HEX M05	12	200-102-015	
1	SLEEVE, WIRE	13	069-762-278	

320 Drive Motor



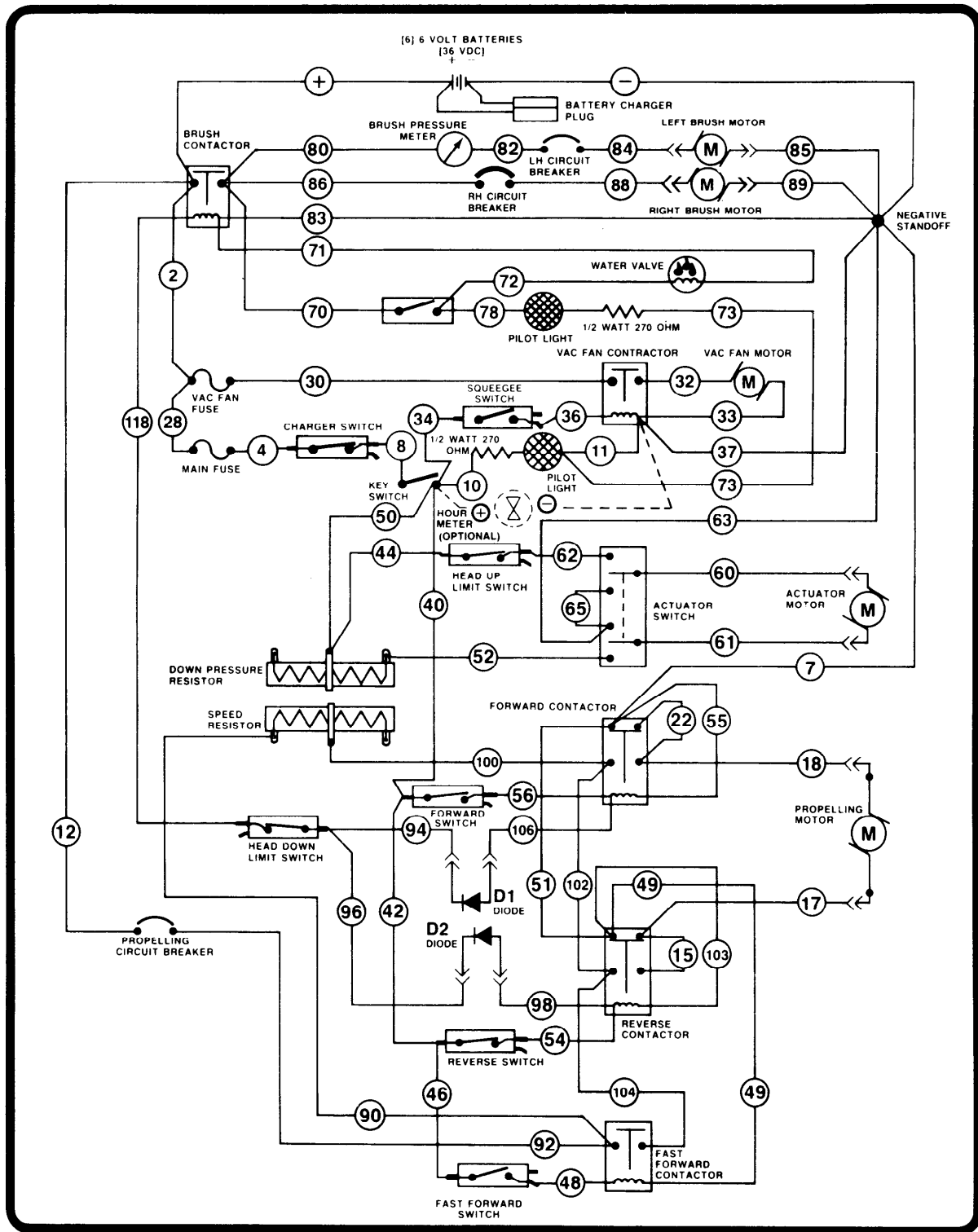
QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	B.E. BRACKET	1	602-086-000	
1	HELICAL WASHER	2	602-087-000	
1	BEARING	3	602-088-000	
1	KEY, SHAFT	4	069-764-176	
1	ARMATURE ASSEMBLY (INCL. ITEMS 3 AND 13)	5	602-090-000	
Set of 2	BRUSH ASSEMBLY	6	602-084-000	
1	BRUSH BOARD ASSEMBLY (INCL. ITEMS 6 AND 12)	7	602-091-000	
1	COMMUTATOR BRACKET	8	602-092-000	
1	LEAD ASSEMBLY	9	602-093-000	
1	CONNECTOR HOUSING	10	602-094-000	
1	LEAD ASSEMBLY	11	602-095-000	
Set of 2	BRUSH SPRING	12	602-096-000	
1	BEARING	13	602-088-000	

320 Brush/Pad Motor



QUANTITY	DESCRIPTION	ITEM NUMBER	PART NUMBER	REFERENCE
1	LEAD ASSEMBLY	1	611-284-000	
1	COMMUTATOR BRACKET	2	611-288-000	
4	BRUSH MOTOR	3	611-287-000	
1	BRUSH BOARD ASSY. (INCL. ITEMS 3 AND 10)	4	611-283-000	
1	HELICAL WASHER	5	602-087-000	
1	BEARING	6	602-088-000	
1	ARMATURE ASSEMBLY (INCL. ITEMS 6 AND 9)	7	611-282-000	
1	KEY, SHAFT	8	069-764-080	
1	BEARING	9	602-104-000	
Set of 4	BRUSH SPRING	10	602-131-000	
1	COMMUTATOR BRACKET	11	611-286-000	
1	OIL SEAL	12	601-077-000	

320 Wiring Diagram



- 1 WIRE ASSEMBLY, 320 MAIN
- 1 WIRE ASSEMBLY, 320 BRUSH/PAD CIRCUIT
- 2 REPLACEMENT DIODES

9400
9410

612-218-000
612-201-000
069-764-206

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