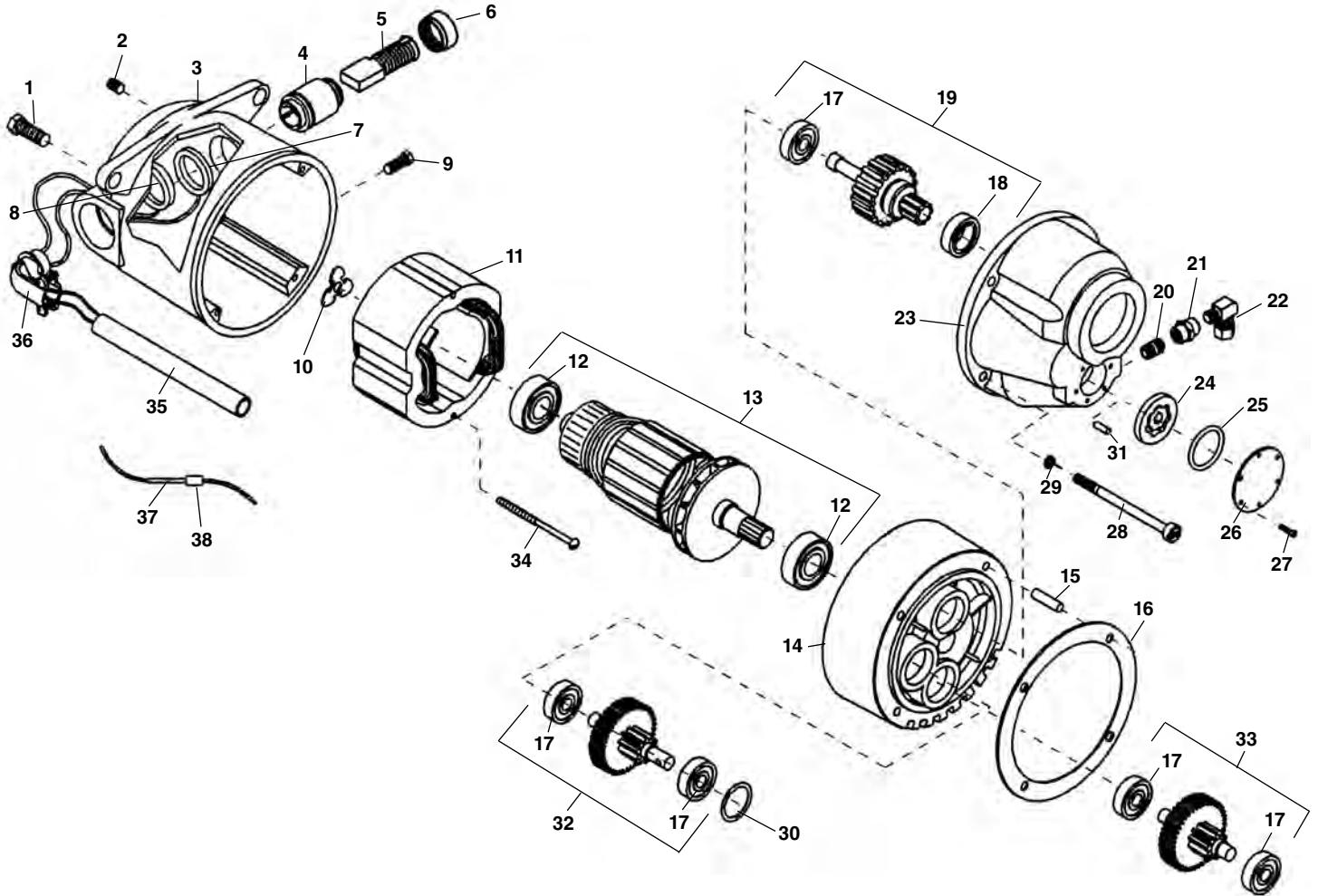


2192
2292
2192R
2292R

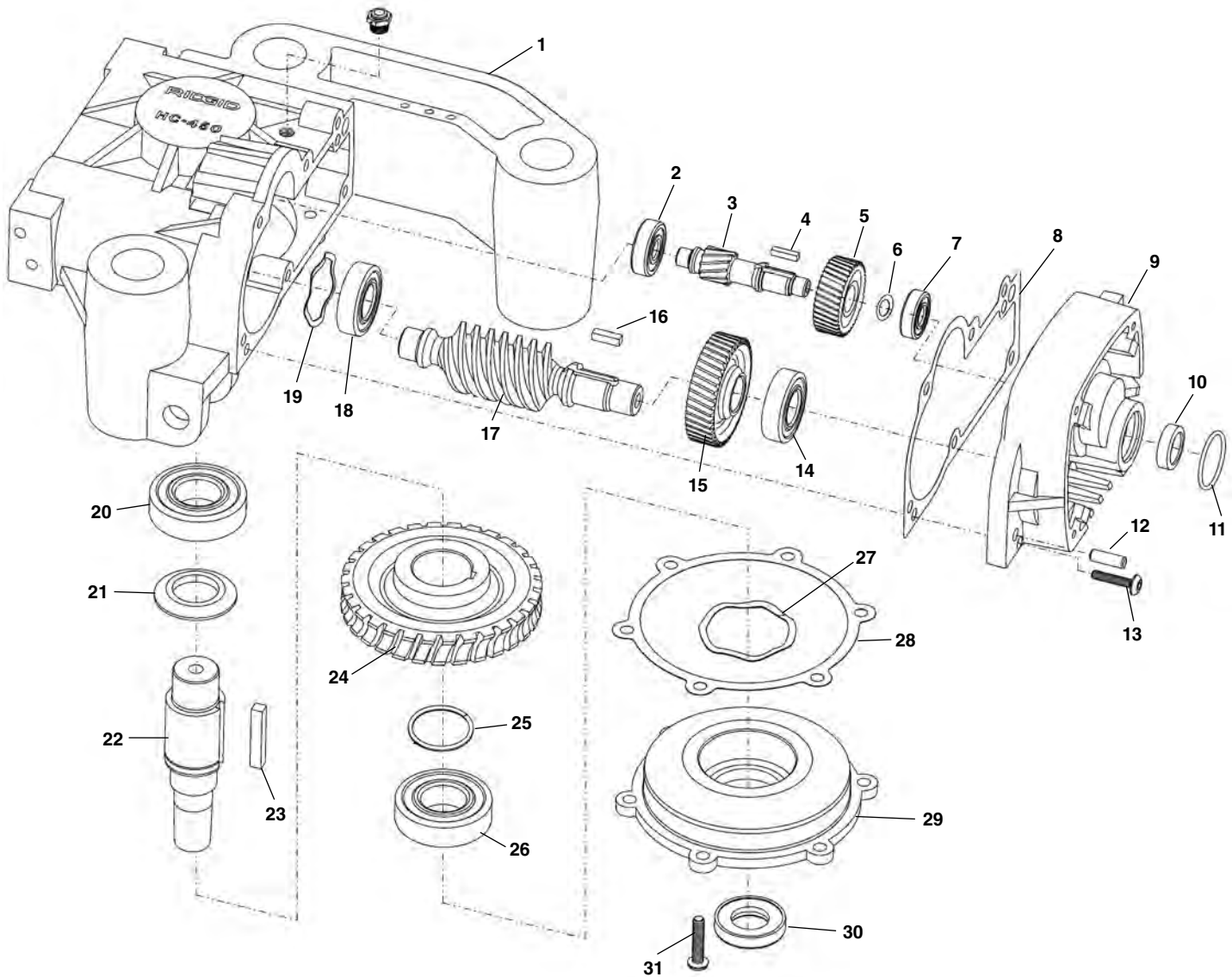
Motor



**NOTE: Order parts by Catalog Number only.
 DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	72127	Motor Model 2292, 230V	12	44565	Armature Bearing (2)	26	96840	Cover Plate
—	54797	Motor Model 2192R, 115V	13	52497	115V Armature	27	96890	Screw #4 x 3/8" (6)
—	54802	Motor Model 2292R, 230V		54542	230V Armature	28	45075	Screw 1/4" - 20
1	85915	Motor Mounting Bolt (2)	14	54552	Fan Housing Assembly	29	45150	Lock Washer 1/4"
2	39770	Set Screw 1/4" - 20 x 1/4" (2)	15	45165	Dowel Pin	30	96880	Oil Seal
3	52482	Motor Housing	16	52502	Gasket	31	96885	Pin
4	45025	Brush Holder Set (2)	17	44760	Gear Bearing	32	52522	1st Gear Assembly
5	44540	Brush Assembly Set (2)	18	45315	Front Bearing	33	54547	2nd Gear Assembly
6	44545	Brush Cap Set (2)	19	54537	Main Drive Gear Assembly	34	44555	Screw 10 - 24 x 3"
7	86685	Red Brush Lead	20	52507	1/8" NPT Close Nipple (2)	35	63382	Plastic Tube
8	86680	White Brush Lead	21	52512	1/8" Coupling (2)	36	46900	90 Connector
9	83500	Field Locking Screw	22	52517	Elbow Compression Fitting (2)	—	47412	Male Wire Connector
10	44580	Loading Spring	23	96830	Gear Case	—	52537	Female Wire Connector
11	44015	Field 100/115V	24	96870	Gerotor Set	37	16946	Male Connector
	44035	Field 230V	25	96875	"O" Ring	38	16956	Female Connector

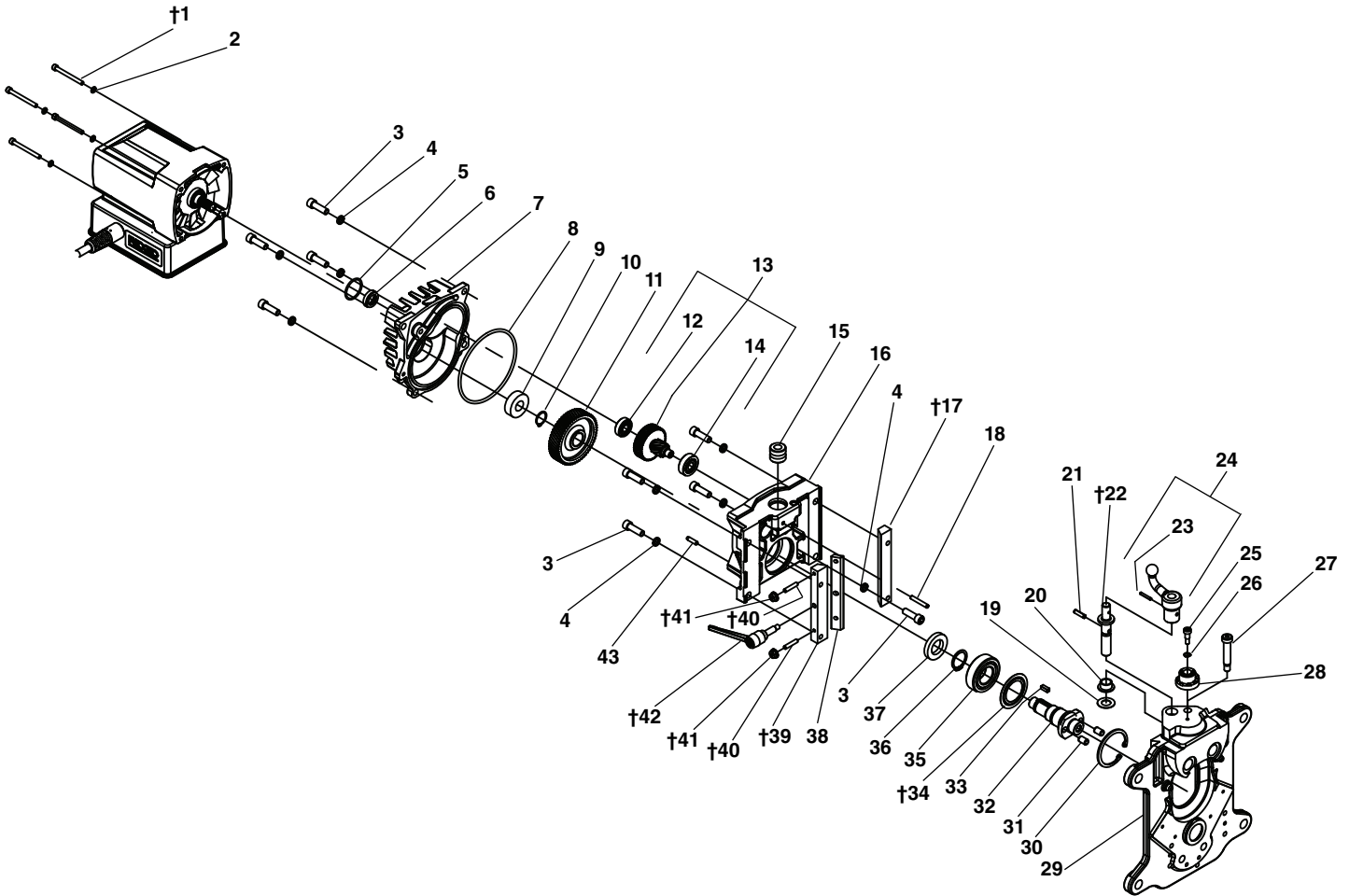
Transmission



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	59062	Transmission Housing	15	59052	Helical Gear
2	44760	Ball Bearing	16	26657	Key, 3/16" Sq. x 5/8" Lg.
3	77222	Intermediate Gear Shaft, T2	17	59047	Worm Shaft
	59037	Intermediate Gear Shaft	18	44565	Ball Bearing
4	34472	Key	19	72267	Wave Washer
5	59042	Helical Gear	20	59152	Angular Contact Bearing
6	77237	Spacer, T2	21	59162	Spacer
7	77217	Ball Bearing, T2	22	59142	Output Spindle
	59147	Ball Bearing	23	26457	Key, 1/4" Sq. x 1 3/16"
8	72192	Gasket, T2	24	59167	Worm Gear
	59077	Gasket	25	72217	Retaining Ring
9	77212	Motor Adapter, T2	26	45315	Ball Bearing
10	77207	Grease Seal, T2	27	59082	Wave Washer
11	77202	O-Ring, T2	28	72207	Gasket
	60227	O-Ring	29	72202	Cover
12	44640	Dowel Pin, 1/4" x 3/4" (2)	30	59392	Oil Seal
13	72212	Hex Button Hd Scr w/Sealant (12)	31	59935	Screw, 1/4" x 20 x 1" SHC
14	59137	Angular Contact Bearing	32	40628	Breather Plug 100V Only (NOT SHOWN)

Motor Gearbox



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
†1	10923	Screw, 10-24 x 2 SHC Pkg 6 (4)	23	50598	HD Coiled Pin 1/8 x 3/4
2	58542	Lock Washer #10 Pkg 5 (4)	24	50593	Feedscrew Handle w/Pin
3	44590	Screw 3/16-18 x 1 SHC Pkg 5 (9)	25	87947	Shoulder Screw
4	95837	Hicollar Lock Washer 3/16" Pkg 5 (9)	26	87972	Wave Spring
5	77202	O-Ring 2mm x 28mm	27	50632	Shoulder Screw 3/8 x 1 1/2
6	77207	Grease Seal	28	50748	Landwidth Adjustment Gauge
7	50438	Motor Gear Housing	29	50393	Faceplate
8	50443	O-Ring	30	50543	Retaining Ring 52mm INT
9	65477	Bearing	31	50568	Dowel Pin .312 x .50 Pkg 2 (2)
10	77252	Retaining Ring	†32	50453	Cutter Spindle
11	50448	Cutter Output Gear	33	46930	Square Key 3/16 x 1/2
12	58522	Bearing	†34	50608	Bearing Shield
13	50658	Intermediate Gear Shaft Assembly	35	45315	Bearing .9843 ID x.5906L
14	44760	Bearing	36	50538	Retaining Ring 25mm EXT
15	50613	Insert 1/2-13 UNC LH	37	50493	Seal .875 x 1.50 x .25
16	50433	Motor Gear Housing for Rails	38	50458	Gib Plate
†17	50468	Dovetail Slide	†39	50463	Gib Plate Slide
18	76735	Spring Pin 1 1/4 x 3/16 (1)	†40	50758	Cone Point Set Screw #10-32 x 1 Pkg 2 (2)
19	93782	Thrust Washer	†41	50648	Flange Nut #10-32 Pkg 2 (2)
20	50513	Flange Bearing	†42	50603	Gib Lock Handle Assembly
21	51728	HD Coiled Pin 3/16 x 3/4 (1)	43	47282	Dowel Pin .188 x .75 (2)
†22	50498	Cutter Feedscrew			

†Service Notes: Ref. No. 1 - Torque to 20-25 in-lbs.

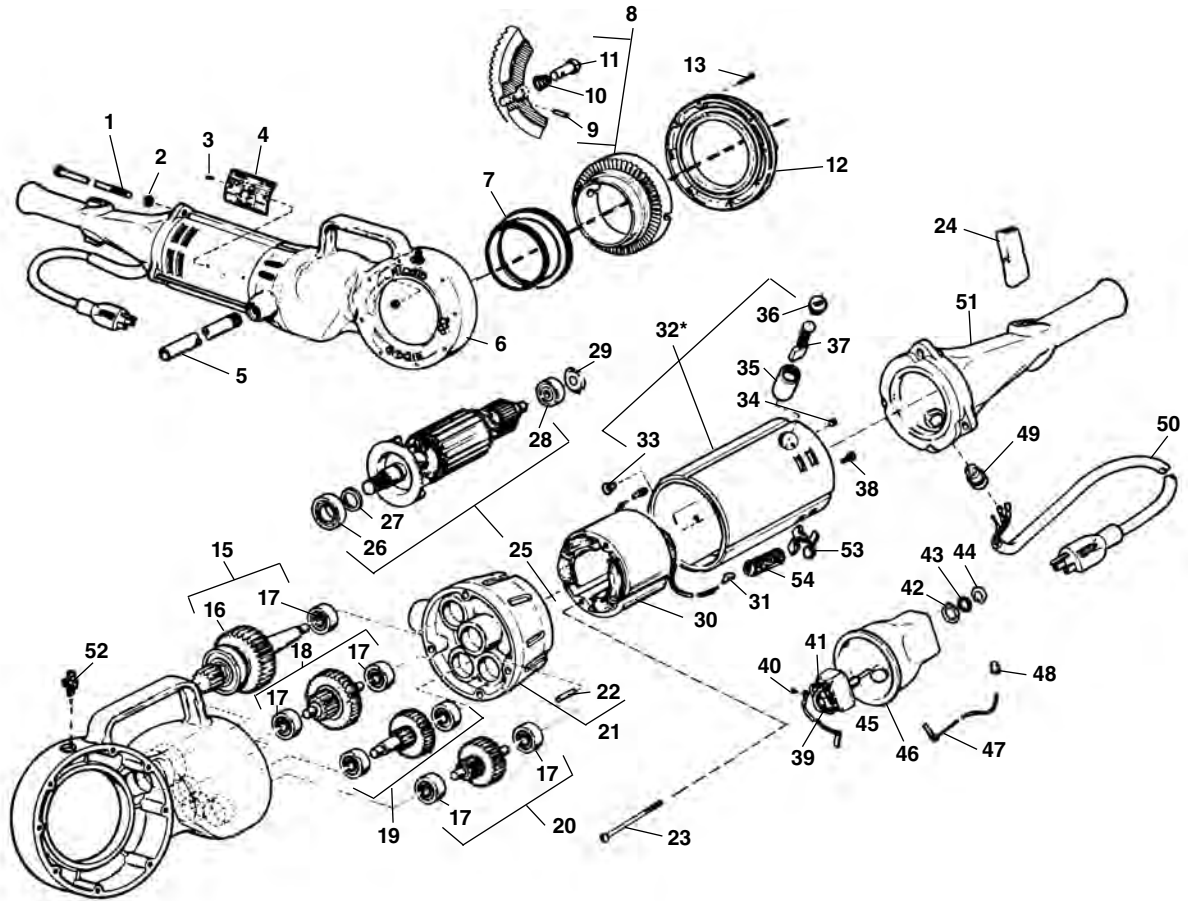
Ref. No's 17, 22, 39, 42 - Apply thin film of general purpose grease to contact surfaces.

Ref. No. 34 - Install concave side of shield towards bearing Ref 35.

Ref. No. 40 - Tighten until it binds, then loosen 1/2 turn. Hold position while tightening Ref 41 to torque spec.

Ref. No. 41 - Torque to 30-35 in-lbs.

Type 1

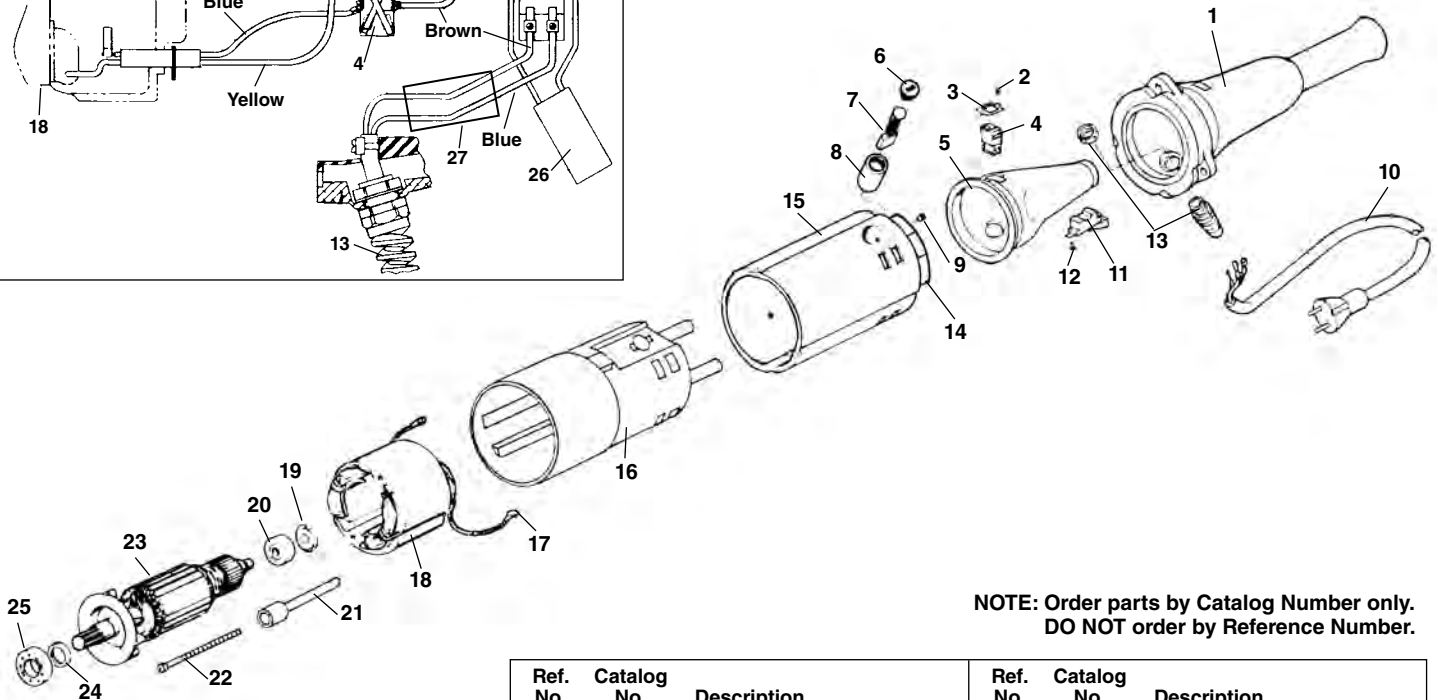
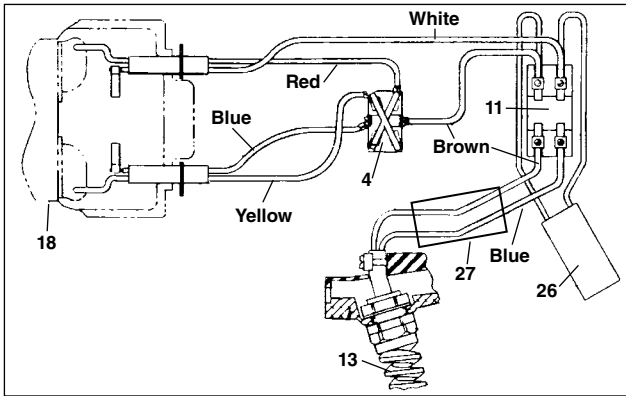


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	44785	Tie Bolt (4)	28	44760	Bearing
2	40770	Lock Washer (4)	29	44790	Load Spring
3	85920	Pop Rivet (2)	30	44070	Field (115V) (Incl. Ref. No. 31)
4		Name Plate (115V) Name Plate (230V)		28922	Field (230V) (Incl. Ref. No. 31)
5	46615	Torque Arm	31	83895	Ring Tongue Terminal (2)
6	42970	Gear Case Assembly (Includes Ref. 7, 13, 14, 52)	32*		Motor Housing Assembly
7	44060	Bearing	33	44765	Lock Screw
8	43395	Face Gear Assembly	34	39770	Set Screw (2)
9	32475	Spring Pin (2)	35	44795	Brush Holder (2)
10	44915	Spring (2)	36	45660	Brush Cap (2)
11	44910	Adapter Pawl (2)	37	44815	Brush Assembly (2)
12	43345	Cover	38	45420	Ground Screw
13	46775	Screw (8)	39	44905	Switch
14	83890	Lock Nut (8)	40	46310	Screw (5)
15	44900	4th Gear Assembly	41	44890	Jumper (2)
16	76562	Bearing	42	75700	Lock Ring
17	45060	Bearing (7)	43	75695	Lock Washer (Internal Tooth)
18	44830	3rd Gear Assembly	44	46590	Lock Nut
19	44820	1st Gear Assembly	45	44880	Brush Lead (Blue)
20	44825	2nd Gear Assembly	46	43390	Switch Insulator
21	43335	Fan Housing Assembly	47	44885	Brush Lead (White)
22	45165	Dowel Pin	48	44635	Wire Nut
23	44555	Field Mtg. Screw (2)	49	46730	Cord Retainer
24	97260	Switch Button	50	89155	Service Cord (115V)
25	44055	Armature & Fan Assy. (115V)		44045	Service Cord (230V)
	44075	Armature & Fan Assy. (230V)	51	97255	Handle
26	44565	Bearing	52	46860	Grease Fitting
27	44430	Retaining Ring	53	41270	"X" Washer
			54	44755	Insulator Tube
			55	41620	Grease

Note: *Replace Type 1 Motor Housing with Type 2 components: 18676 Motor Housing, 27418 Warning Decal, 18486 Field Screws, 58542 Lock Washers, 18566 Sleeve, and Type 2 Field (27408 - 115V or 27413 - 230V). Does not include 44815 Motor Brushes.

No. 700 Power Drive-w/Dual Switch (Europe Only) – Type 1



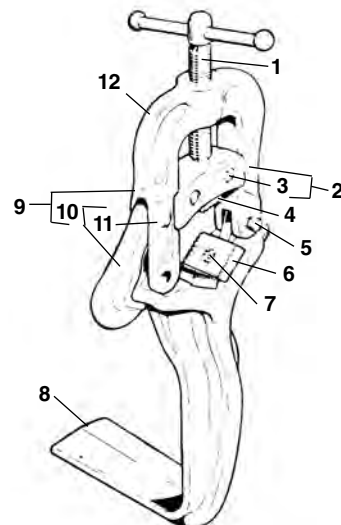
NOTE: Order parts by Catalog Number only. DO NOT order by Reference Number.

Service Note:

For service parts used in early style machines, refer to the model 700 with a single control switch.

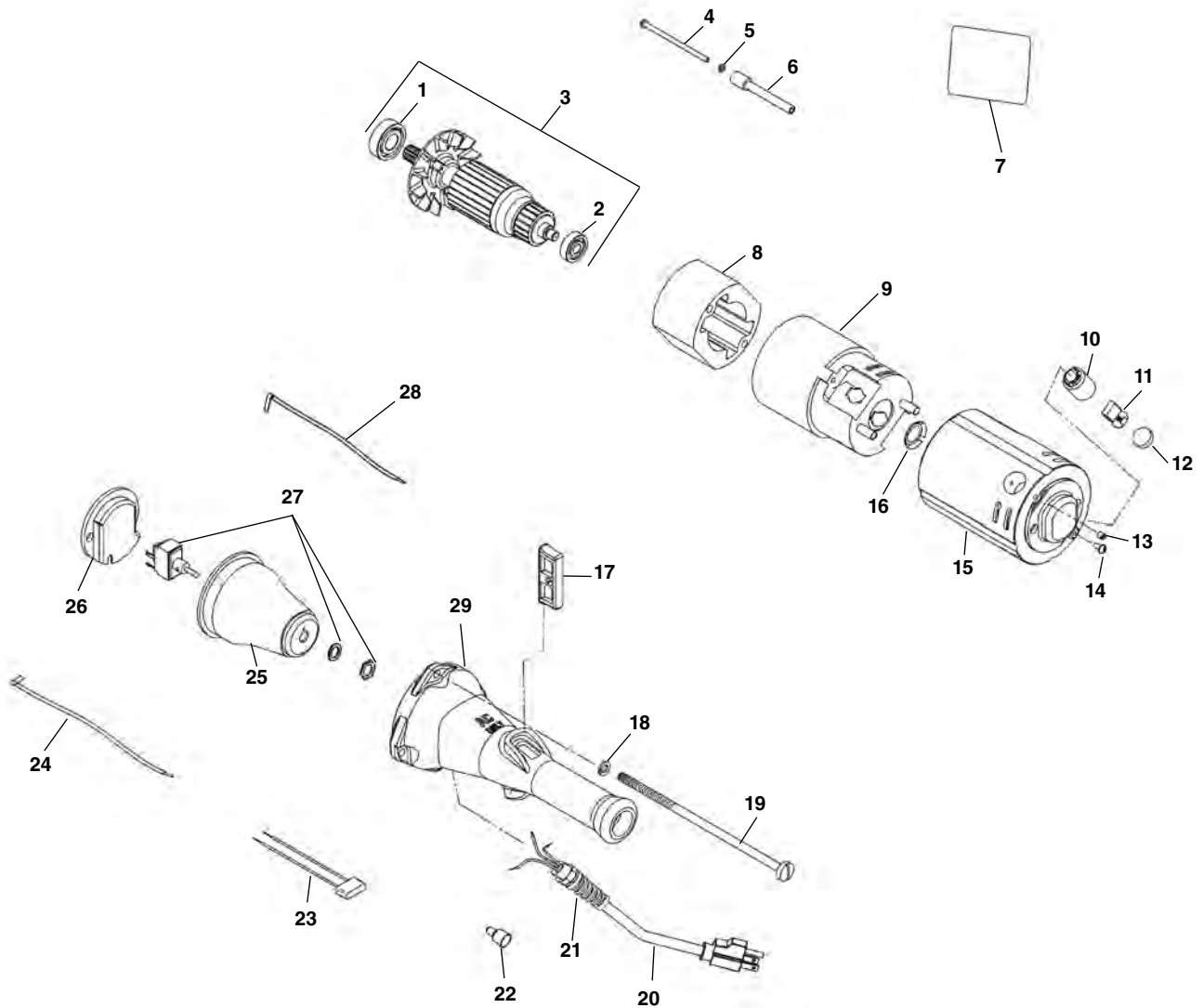
Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	32116	Handle	15	18676	Motor Housing
2	32176	Screw	16	18506	Sleeve f/Field
3	32166	Clip	17	12456	Terminal (2)
4	32126	Reversing Switch	18	18606	Field
5	32106	Switch Liner	19	44790	Load Spring
6	30906	Brush Cap	20	44760	Bearing
7	44815	Brush Assembly	21	18566	Sleeve f/Screw
8	30916	Brush Holder	22	18486	Field Mounting Screw (2)
9	39770	Set Screw (2)	23	18596	Armature and Fan Assembly (Eur. Di.)
10	18666	Line Cord (Eur. Di.)	24	44430	Retaining Ring
11	32136	ON/OFF Switch	25	44565	Bearing
12	32156	Screw	26	18406	Suppressor
13	32246	Strain Relief w/Cable Sleeve	27	63377	Ferrite Bead
14	32096	Insulating Cap			

No. 775 Support Arm



Ref. No.	Catalog No.	Description
1	40355	Feed Screw
2	40360	Jaw Clamp (Incl. Ref. No. 3)
3	40345	Screw and Washer (2)
4	40335	Upper Jaw
5	40325	Hinge Bolt, Washer and Nut
6	32100	Lower Jaws (1 set) (2 per set)
7	32205	Lower Jaw Screw (2)
8	42945	Base
9	40310	Yoke and Hook Assembly (Incl. Ref. No. 10)
10	40320	Hook (Incl. Ref. No. 11)
11	40340	Hinge Pin
12	40315	Yoke Assembly Complete (Incl. Ref. Nos. 1, 2, 4, 5 & 9)

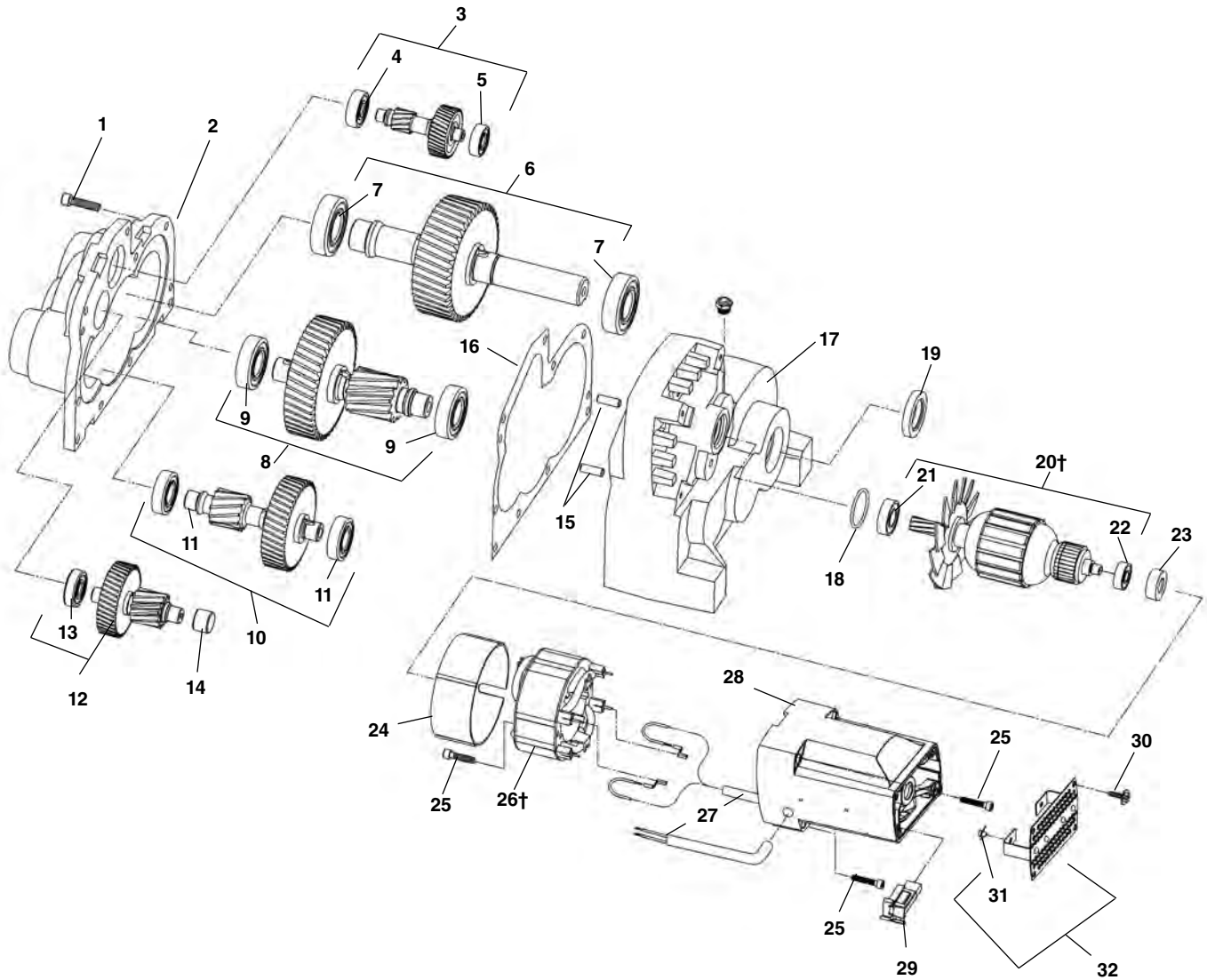
Electrical Components – Type 2



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	44565	Bearing	18	40770	Lock Washer (4)
2	44760	Bearing	19	44785	Tie Bolt (4)
3	44055	Armature Assembly 115V	20	31938	Power Cord 115V w/Molded Strain Relief
	18596	Armature Assembly 230V		31943	Power Cord 230V w/Molded Strain Relief
4	18486	Field Mounting Screw (2)		18666	Power Cord 230V (Europe Export)
5	58542	Lock Washer (2)		45022	Power Cord 115V (U.K. Export)
6	18566	Field Screw Sleeve (2)		15692	Power Cord 230V (Australia Export)
7	27418	Warning Decal	21	29788	Strain Relief (Export Models)
8	27408	Field 115V Type 2	22	44635	Wire Nut
	27413	Field 230V Type 2	23	18406	Suppressor (230V Europe)
9	18506	Field Insulator Sleeve	24	44880	Brush Lead - Blue
10	44795	Brush Holder (2)	25	43390	Switch Insulator
11	44815	Brush Assembly (2)	26	27403	Motor Housing Insulator
12	45660	Brush Cap (2)	27	44905	Switch
13	39770	Set Screw (2)	28	44885	Brush Lead - White
14	45420	Ground Screw	29	27398	Handle Type 2
15	18676	Motor Housing Assy. (Includes Ref. Nos. 9, 10, 12 and 13)			
16	44790	Load Spring			
17	97260	Switch Button			

Motor Transmission Type 2 – Early Style

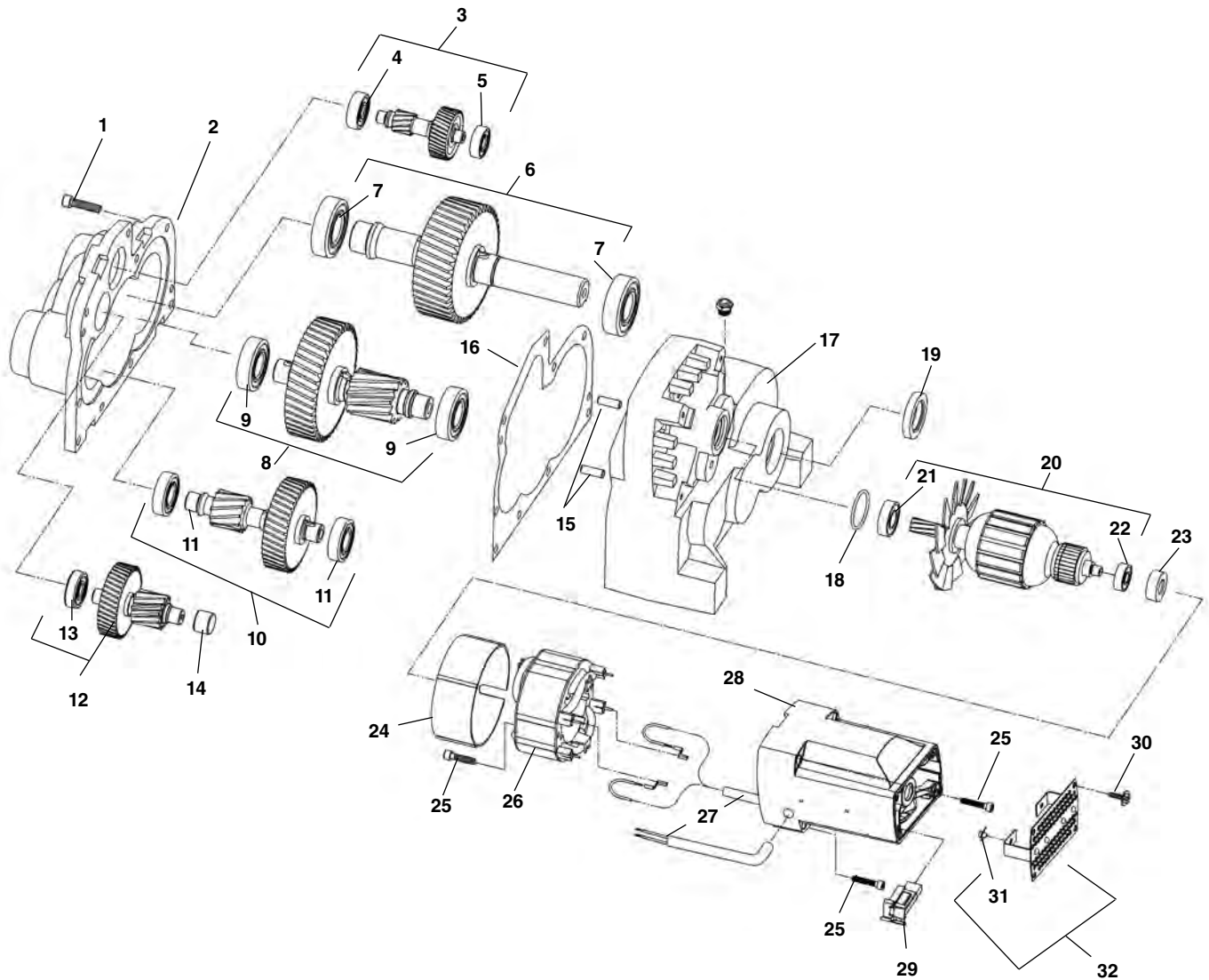


NOTE: Order parts by Catalog Number only. DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	83685	Screws	14	65492	Needle Bearing	24	35328	Fan Shroud
2	65452	Transmission Housing Cover	15	44640	Dowel Pin (2)	25	10923	Screw #10-24 x 2" (6)
3	65457	1st Intermediate Gear Assembly	16	65502	Gasket	†26	58572	Field Assembly – 100V
4	44760	Ball Bearing	17	65507	Transmission Housing	45897		Field Assembly – 115V
5	59147	Ball Bearing	18	60227	O-Ring Seal	58567		Field Assembly – 230V
6	65462	Output Shaft Assembly	19	65512	Grease Seal	27	58562	Wiring Harness
7	45315	Ball Bearing (2)	†20	58557	Armature Assembly – 100V	28	22043	Motor Housing
8	65467	4th Intermediate Gear Assembly	18	45907	Armature Assembly – 115V	29	34078	Brush/Holder Set – 100V, 115V
9	44565	Ball Bearing (2)		58552	Armature Assembly – 230V	34083		Brush/Holder Set – 230V
10	65472	3rd Intermediate Gear Assembly	21	45912	Ball Bearing	30	10908	Screw (4)
11	65477	Ball Bearing (2)	22	43017	Ball Bearing	31	10918	Bumper (2)
12	65482	2nd Intermediate Gear Assembly	23	42777	Bearing Mount	32	10913	Motor Housing Cover
13	65487	Ball Bearing						

† Service Note: When replacing early style 115V or 230V armature# or field# you must replace with both new style armature#, field# and brushes#.

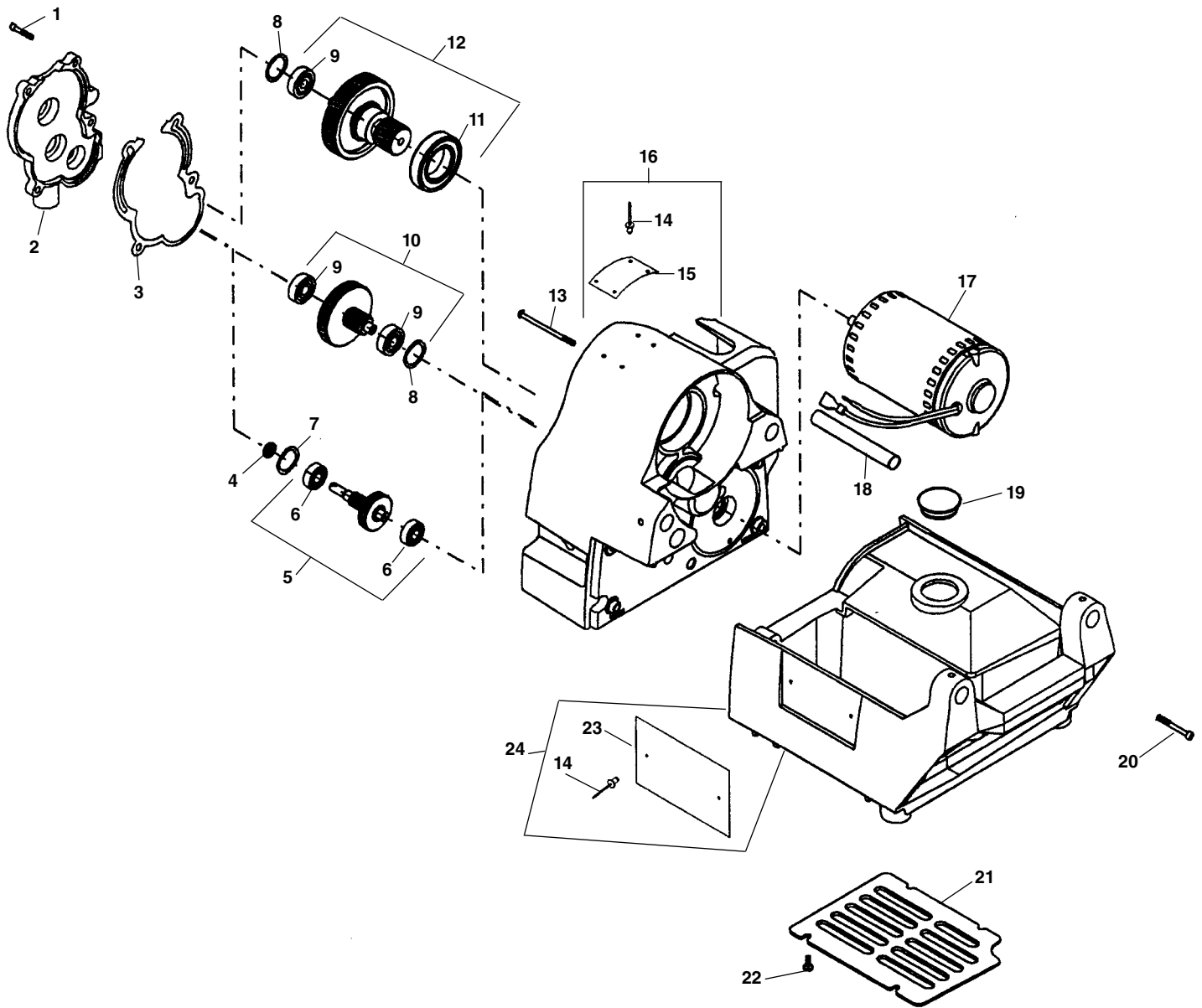
Motor Transmission Type 2 – Motors built after Serial Number EAH XXXX 1109



NOTE: Order parts by Catalog Number only. DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description		
1	83685	Screws	14	65492	Needle Bearing	24	35328	Fan Shroud		
2	65452	Transmission Housing Cover	15	44640	Dowel Pin (2)	25	10923	Screw #10-24 x 2" (6)		
3	65457	1st Intermediate Gear Assembly	16	65502	Gasket	26	38848	Field Assembly - 115V		
4	44760	Ball Bearing	17	65507	Transmission Housing	27	38853	Field Assembly - 230V		
5	59147	Ball Bearing	18	60227	O-Ring Seal	28	38858	Field Assembly - 100V		
6	65462	Output Shaft Assembly	19	65512	Grease Seal	29	58562	Wiring Harness		
7	45315	Ball Bearing(2)	20	40943	Armature Assembly -115V	30	22043	Motor Housing		
8	65467	4th Intermediate Gear Assembly	21	40948	Armature Assembly - 230V	31	34078	Brush Holder Assembly -100V, 115V		
9	44565	Ball Bearing (2)	22	40953	Armature Assembly - 100V	32	34083	Brush Holder Assembly - 230V		
10	65472	3rd Intermediate Gear Assembly	23	45912	Ball Bearing		29	10908	Screw (4)	
11	65477	Ball Bearing (2)		22	43017	Ball Bearing		31	10918	Bumper (2)
12	65482	2nd Intermediate Gear Assebmly		23	42777	Bearing Mount		32	10913	Motor Housing Cover
13	65487	Ball Bearing								

Drive Components

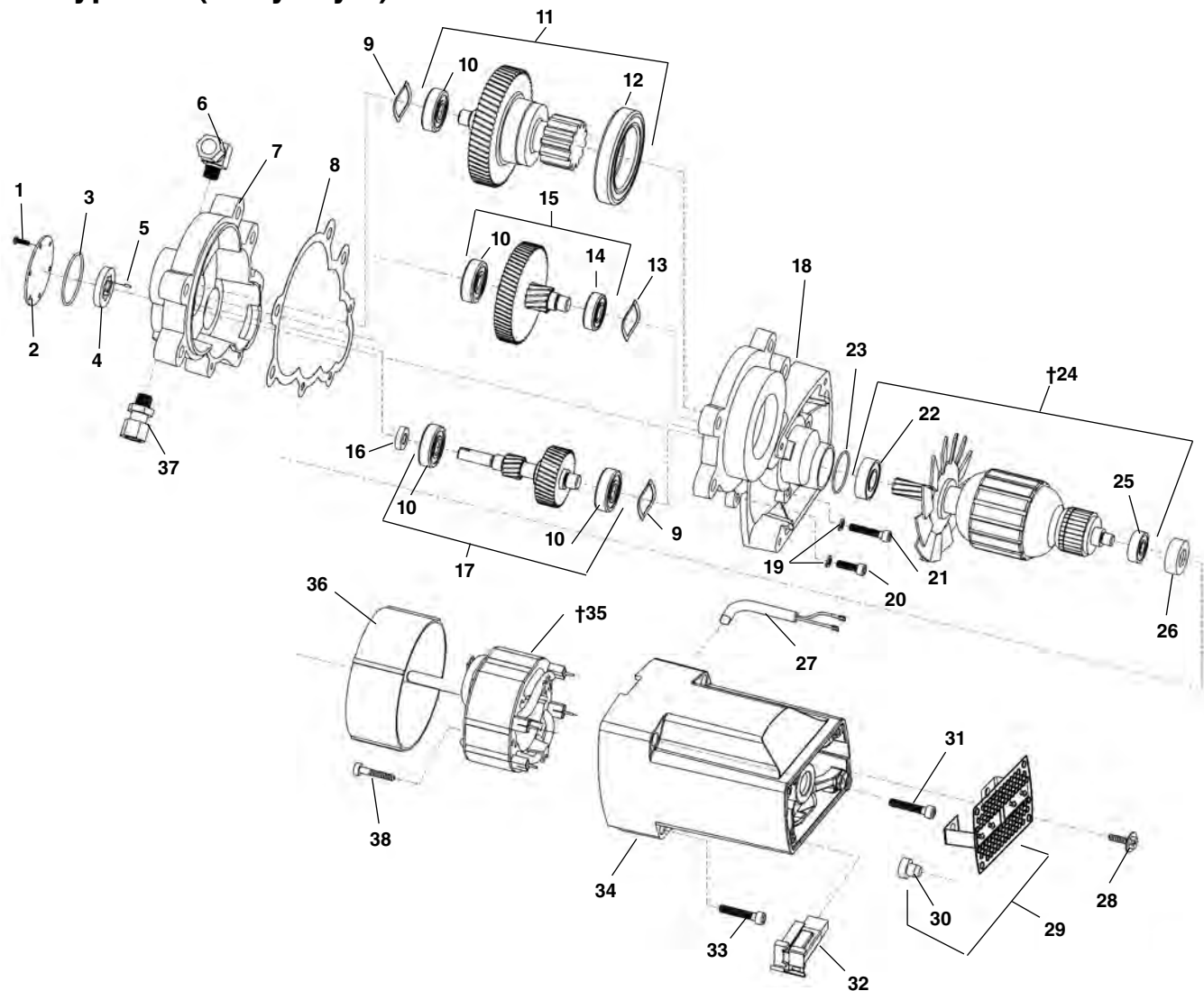


NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
1	40910	Screw 1/4" - 20 x 1/2" Soc. Hd. (4)	14	85920	Pop Rivet 3/32" (6)
2	69362	Gear Case Cover	15	69347	Warning Plate
3	69332	Gear Case Gasket	16	69227	Spindle Housing w/Spindle Bearings
4	96880	Seal	17	69222	Motor 115V
5	69207	1st Intermediate Gear Assembly		72362	Motor 230V
6	59147	Ball Bearing (2)		72402	Motor 100V
7	35365	Wave Spring	18	59342	Insulator Sleeve
8	68037	Wave Spring	19	69367	Brush Cover Plastic Plug
9	44760	Ball Bearing (3)	20	40657	Screw 1/4" - 20 x 1 1/2" Soc. Hd. (4)
10	69212	2nd Intermediate Gear Assembly	21	69252	Motor Cover
11	69277	Ball Bearing	22	79965	Screw #10 - 32 x 1/2" Pan Head (4)
12	69217	Main Drive Gear Assembly	23	69387	Name Plate
13	69402	Screw #10 - 32 x 4" Pan Head (2)	24	69242	Base

4194

Motor Type 2 – (Early Style)

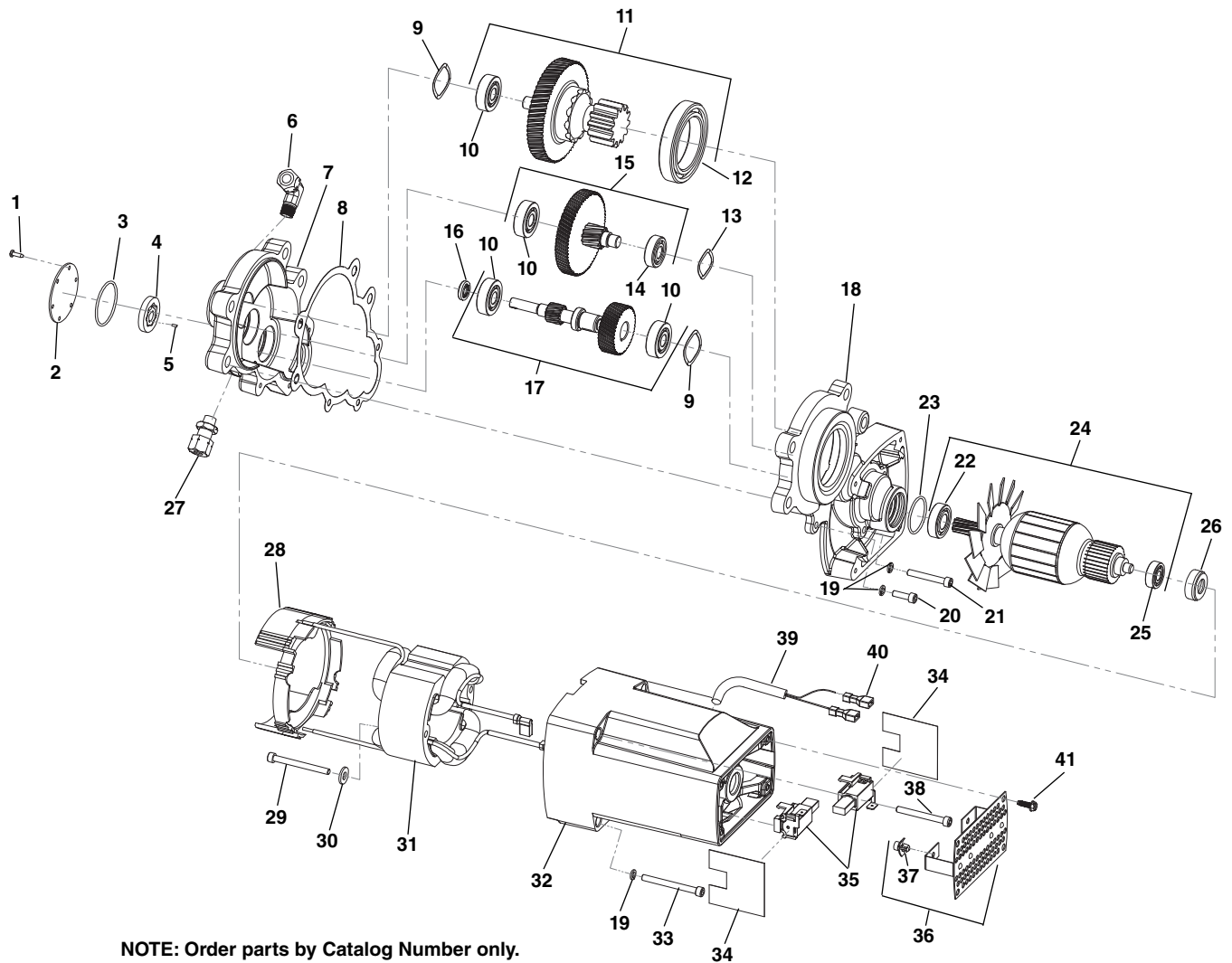


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	58352	4194 Motor Assembly - 115V	20	58547	Screw 10-32 x 3/4" S.H.C.S.
1	96890	Screw 4-40 x 3/8" (6)	21	26642	Screw 10-32 x 1 1/4" S.H.C.S.
2	96840	Geroter Cover	22	60227	O-Ring
3	96875	O-Ring	23	45912	Bearing
4	96870	Geroter Set	†24	45907	Armature Assembly - 115V
5	96885	Geroter Pin	25	43017	Bearing
6	52517	90 degree fitting	26	42777	Rubber Bearing Mount
7	58492	Rear Gear Case	27	58562	Wiring Harness
8	58497	Gasket	28	10908	Screw Self Tapping (4)
9	58502	Wave Spring (2)	29	10913	End Cover
10	44760	Bearing (4)	30	10918	Bumper
11	58507	Drive Gear Assembly	31	10933	Screw #10-32 x 1 5/8" S.H.C.S.
12	58512	Bearing	32	34078	Brush Holder Assembly (2) 115V
13	35365	Wave Spring	33	10938	Screw #10-32 x 2" S.H.C.S. (5)
14	58522	Bearing	34	22048	Motor Housing
15	58527	2nd Gear Assembly	†35	45897	Field Assembly 115V
16	96880	Oil Seal	36	35328	Fan Shroud
17	58532	1st Gear Assembly	37	58582	Straight Fitting
18	58537	Front Gear Case	38	10923	Screw #10-24 x 2" S.H.C.S. (2)
19	58542	#10 Lock Washer (3)			

† Service Note: When replacing early style 100V, 115V or 230V armature# or field# you must replace with both new style armature#, field# and brushes#.

Motor Type 2 – Motors built after Serial Number EAH XXXX 1109

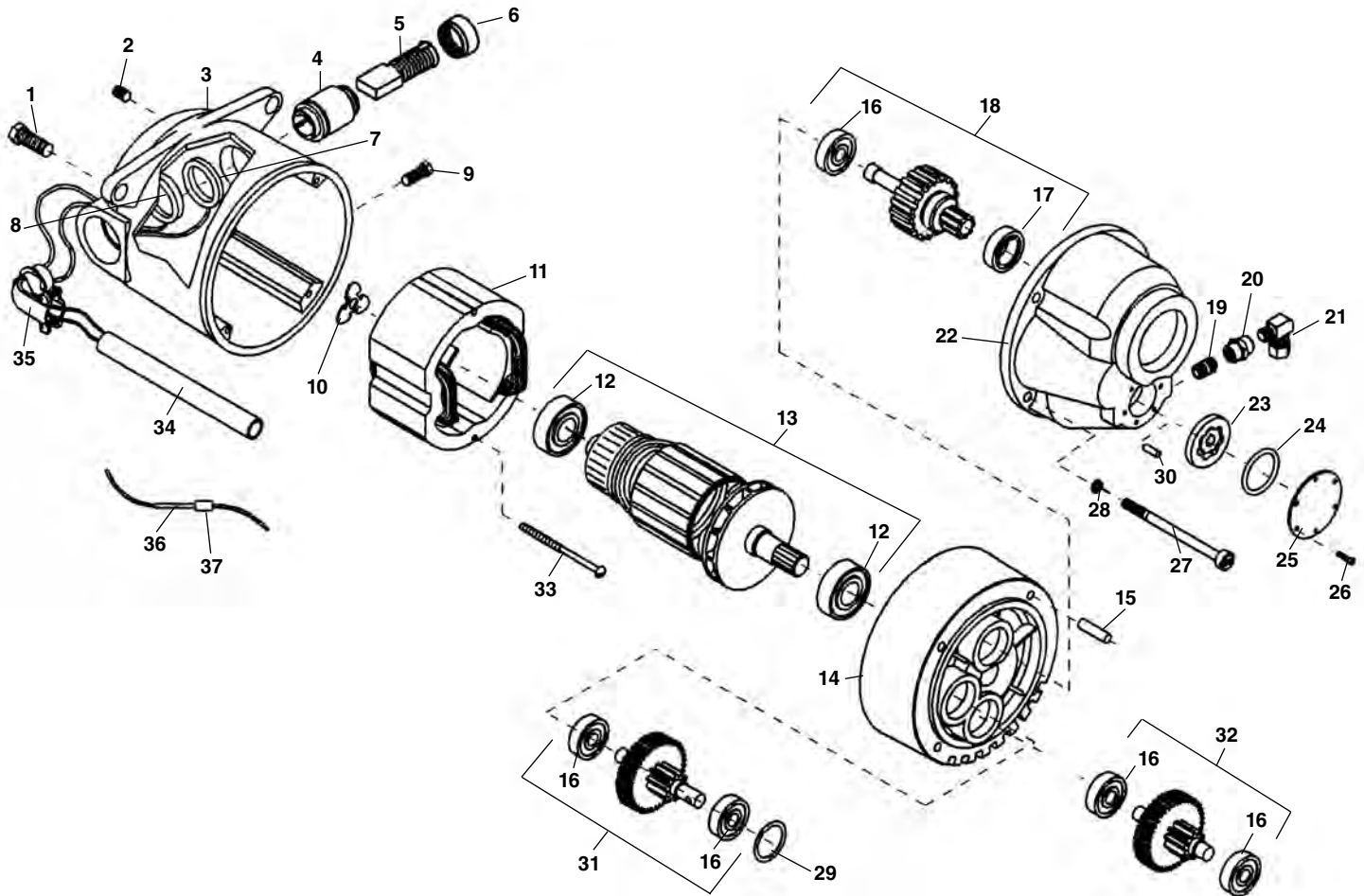


**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	58352	4194 Motor Assembly - 115V	22	45912	Bearing
—	58347	Motor Assembly EU -230V	23	60227	O-Ring
1	96890	Screw 4-40 x 3/8" (6)	24	40943	Armature Assembly - 115V
2	96840	Gerotor Cover	25	40948	Armature Assembly - 230V
3	96875	O-Ring	26	43017	Bearing
4	96870	Gerotor Set	26	42777	Rubber Bearing Mount
5	96885	Gerotor Pin	27	58582	Straight Fitting
6	52517	90 Degree Fitting	28	35328	Fan Shroud
7	58492	Rear Gear Case	29	10923	Screw #10-24 x 2" S.H.C.S (2)
8	58497	Gasket	30	41592	#12 Flat Washer
9	58502	Wave Spring (2)	31	38848	Field Assembly 115V
10	44760	Bearing (4)	31	38853	Field Assembly 230V
11	58507	Drive Gear Assembly	32	22048	Motor Housing
12	58512	Bearing	33	10938	Screw #10-32 x 2" S.H.C.S (5)
13	35365	Wave Spring	34	39003	Shield (2)
14	58522	Bearing	35	34078	Brush Assembly 115V
15	58527	2nd Gear Assembly	35	34083	Brush Assembly 230V
16	96880	Oil Seal	36	10913	End Cover
17	58532	1st Gear Assembly	37	10918	Bumper (2)
18	58537	Front Gear Case	38	10933	Screw #10-32 x 1 3/4" S.H.C.S (5)
19	58542	#10 Lock washer (3)	39	58562	Wiring Harness
20	58547	Screw 10-32 x 3/4" S.H.C.S.	40	59007	Female Disconnect (2)
21	26642	Screw 10-32 x 1 3/4" S.H.C.S.	41	10908	Self Tapping Screw (4)

Motor

**3092
3192
3292
3192R
3292R**



**NOTE: Order parts by Catalog Number only.
DO NOT order by Reference Number.**

Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description	Ref. No.	Catalog No.	Description
—	52457	Motor Model 3092, 100V	11	44015	Field 100/115V	23	96870	Gerotor Set
—	52462	Motor Model 3192, 115V	—	44035	Field 230V	24	96875	O-Ring
—	52467	Motor Model 3292, 230V	12	44565	Armature Bearing (2)	25	96840	Cover Plate
—	52472	Motor Model 3192R, 115V Rev.	13	52487	100V Armature	26	96890	Screw #4 x 3/8" (6)
—	52477	Motor Model 3292R, 230V Rev.	—	52497	115V Armature	27	45075	Screw 1/4" - 20
1	85915	Motor Mounting Bolt (2)	—	52492	230V Armature	28	45150	Lockwasher 1/4"
2	39770	Set Screw 1/4" - 20 x 1/4" (2)	14	54552	Fan Housing Assembly	29	96880	Oil Seal
3	52482	Motor Housing	15	45165	Dowel Pin	30	96885	Pin
4	45025	Brush Holder Set (2)	16	44760	Gear Bearing	31	52522	1st Gear Assembly
5	44540	Brush Assembly Set (2)	17	45315	Front Bearing	32	52527	2nd Gear Assembly
6	44545	Brush Cap Set (2)	18	45370	Main Drive Gear Assembly	33	44555	Screw 10-24 x 3"
7	86685	Red Brush Lead	19	52507	1/8" NPT Close Nipple (2)	34	63382	Plastic Tube
8	86680	White Brush Lead	20	52512	1/8" Coupling (2)	35	46900	90 Connector
9	83500	Field Locking Screw	21	52517	Elbow Compression Fitting (2)	36	16946	Male Wire Connector
10	44580	Loading Spring	22	96830	Gear Case	37	16956	Female Wire Connector