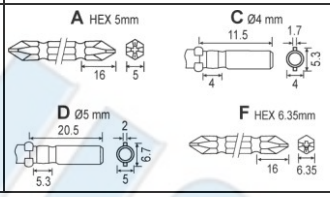
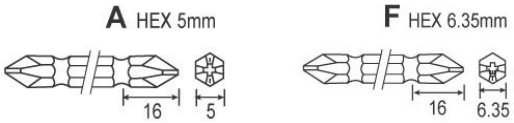
SUMAKE®

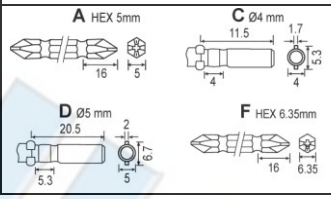
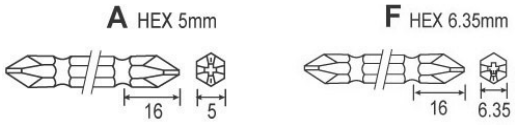
Professional & Industrial

※Specifications

MODEL		ES-207L1	ES-215L1	ES-625L1	ES-635L1	ES-645L1	ES-618LH1
Input Voltage		AC110V~120V 50HZ/60HZ					
Rated input		48W					
Bit torque	(kgf.cm)	0.5~7	2~15	5~25	10~35	15~45	5~18
	(Lbf.in)	0.43~6.08	1.74~13.02	4.34~21.70	8.68~30.38	13.02~39.06	4.34~15.62
	(N.m)	0.05~0.69	0.19~1.47	0.49~2.45	0.98~3.43	1.47~4.41	0.5~1.76
Rev speed at no load	RPM	1200	1200	1000	830	550	2000
Torque Accuracy (%)		±5%					
Torque Adjustment		Stepless					
Unloaded power Consumption (A)		0.3A	0.3A	0.3A	0.3A	0.3A	0.3A
Metal assembly screw Dia(mm)	Machine screw	1.6~3.0	2.0~4.0	2.6~5.0	2.6~5.0	3.0~6.0	2.0~4.0
	Tapping screw	1.4~2.0	2.0~3.0	2.6~4.0	2.6~4.0	3.0~5.0	2.0~3.5
Weight (g)		480		600			
Length (mm)		230		260			
Model of Torque Fixing Ring		EAA-TL3		EAA-TL2			
Model of Suspension Rack		EAA-HD2		EAA-HD1			
Bit Type							

* 1N.m=10.2Kgf.cm 1N.m=8.98Lbf.in

※Specifications

MODEL		ES-207L2	ES-215L2	ES-625L2	ES-635L2	ES-645L2	ES-618LH2
Input Voltage		AC220V~240V 50HZ/60HZ					
Rated input		48W		55W			
Bit torque	(kgf.cm)	0.5~7	2~15	5~25	10~35	15~45	5~18
	(Lbf.in)	0.43~6.08	1.74~13.02	4.34~21.70	8.68~30.38	13.02~39.06	4.34~15.62
	(N.m)	0.05~0.69	0.19~1.47	0.49~2.45	0.98~3.43	1.47~4.41	0.5~1.76
Rev speed at no load	RPM	1000	1000	1000	700	500	2000
Torque Accuracy (%)		±5%					
Torque Adjustment		Stepless					
Unloaded power Consumption (A)		0.2A	0.2A	0.2A	0.2A	0.2A	0.2A
Metal assembly screw Dia(mm)	Machine screw	1.6~3.0	2.0~4.0	2.6~5.0	2.6~5.0	3.0~6.0	2.0~4.0
	Tapping screw	1.4~2.0	2.0~3.0	2.6~4.0	2.6~4.0	3.0~5.0	2.0~3.5
Weight (g)		480		600			
Length (mm)		230		260			
Model of Torque Fixing Ring		EAA-TL3		EAA-TL2			
Model of Suspension Rack		EAA-HD2		EAA-HD1			
Bit Type							

*1N.m=10.2Kgf.cm 1N.m=8.98Lbf.in

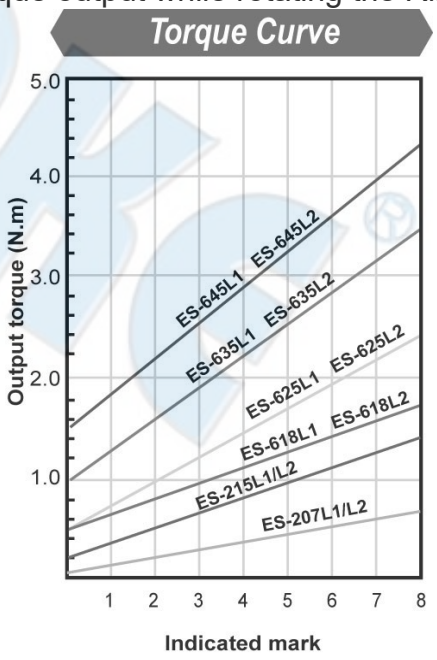
※Accessories

1. BIT Type:
   - NO. 0・・・・・・ Bit for screw dia. 1.8~ 2.0mm
   - NO. 1・・・・・・ Bit for screw dia. 2.0~ 2.6mm
   - NO. 2・・・・・・ Bit for screw dia. 3.0~ 3.5mm
   - ES-207L1, ES-207L2 with BIT 0# & 1# 1 Pce. Each
   - ES-215L1, ES-215L2 with BIT 1# & 2# 1 Pce. Each
   - ES-625L1, ES-625L2 with BIT 1# & 2# 1 Pce. Each
   - ES-635L1, ES-635L2 with BIT 2# 2Pce.
   - ES-645L1, ES-645L2 with BIT 2# 2Pce.
   - ES-618LH1, ES-618LH2 with BIT 1# & 2# 1 Pce. Each
2. Spring (Length: 30cm) 1 pce.
3. Carbon Brush :2 Pcs, Those 2 Pcs brush are spare parts.

※Torque Adjustment Operation

To adjust the torque on these screwdrivers. Proceed as follows :

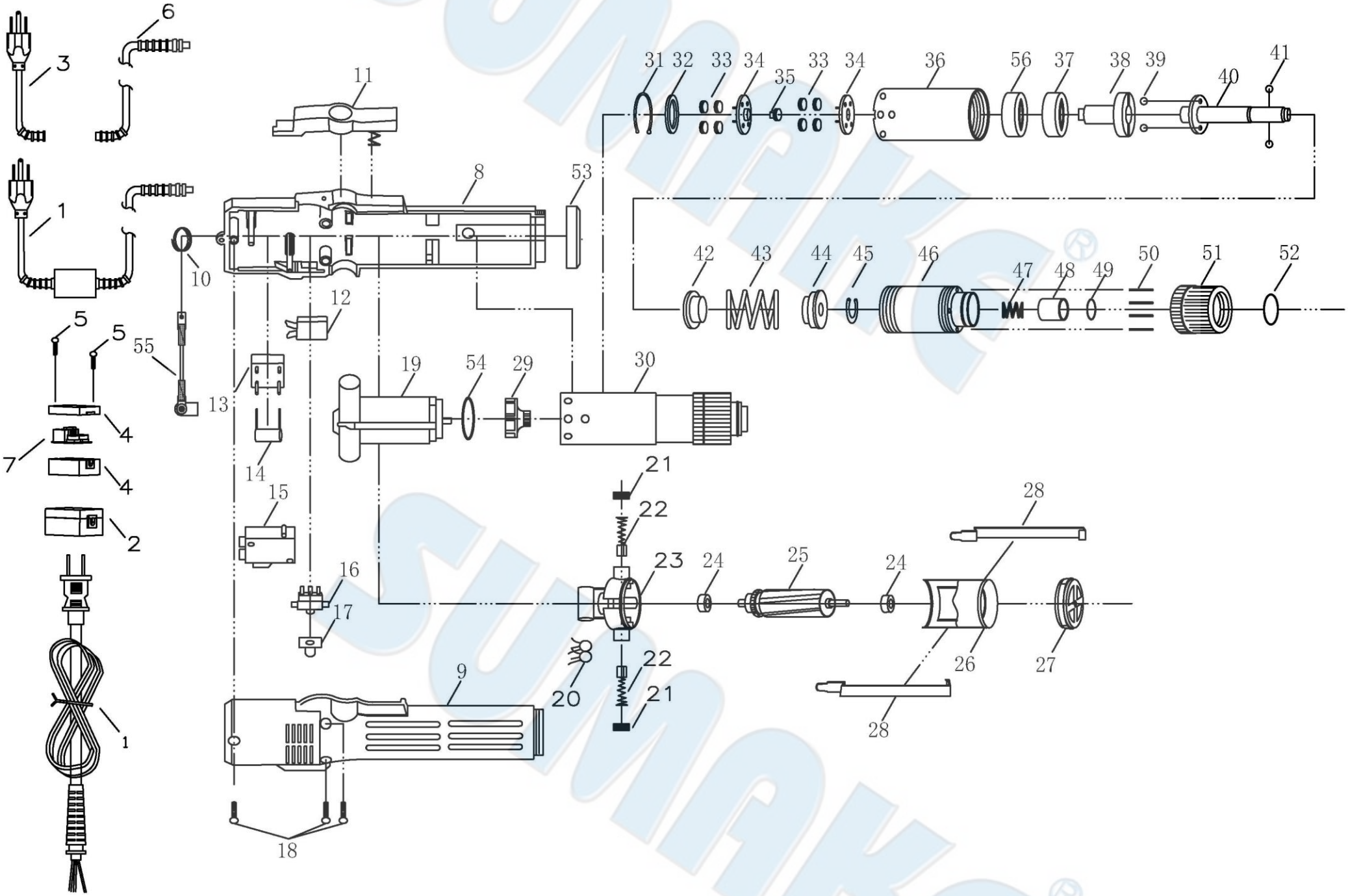
1. Determine the torque output of the tool by checking a tightened Fastener with a torque wrench.
2. Increase or decrease the torque by rotating the Spring Adjusting Ring. Rotating the Ring clockwise to a higher number on the torque Scale increase torque output while rotating the Ring counterclockwise to a lower number decreases the torque output.
3. Check the adjustment with a torque wrench. A number of factors will affect torque output from one job to another. Final torque adjustment should be made at the job through a of series of gradual increase. Always start below the desired torque and work upward.
4. Adjust the bit torque by changing the driving in length of the adjust ring at the end.
5. The relationship between torque scale and bit torque is as shown Ring, in the torque diagram. The figures of torque scale do not indicate bit torque values. However, the clamping torque of screw itself is different form type, size, material of the screw and the material of its mating part. Use it as standard to obtain an appropriate clamping torque.
6. The (Return torque method) in which once-clamped screw is returned with torque wrench or the like is available as one of torque control methods however, note that the measured values by the return torque method generally appear in 10%~30% lower than the actually clamping torque.
7. The torque checker measures the torque of screwdriver. The clamping torque of screw itself is different from the clamped conditions. Understand the correlation between clamping torque values and the torque checker values perform the torque control properly.



CAUTION

1. Also in reverse rotation, the clutch is turned off in such manner as in normal rotation, stopping the motor running. Accordingly, when the screw tightened at a large torque, set it to a higher torque scale.
2. The number from zero to eight on the Torque Scale are reference number only and not an indication of actual torque output.

ES-207L1(2), ES-215L1(2) SEMI-AUTO AC110V(220V) LEVER-START ELECTRIC SCREWDRIVER (DIRECT PLUG IN)



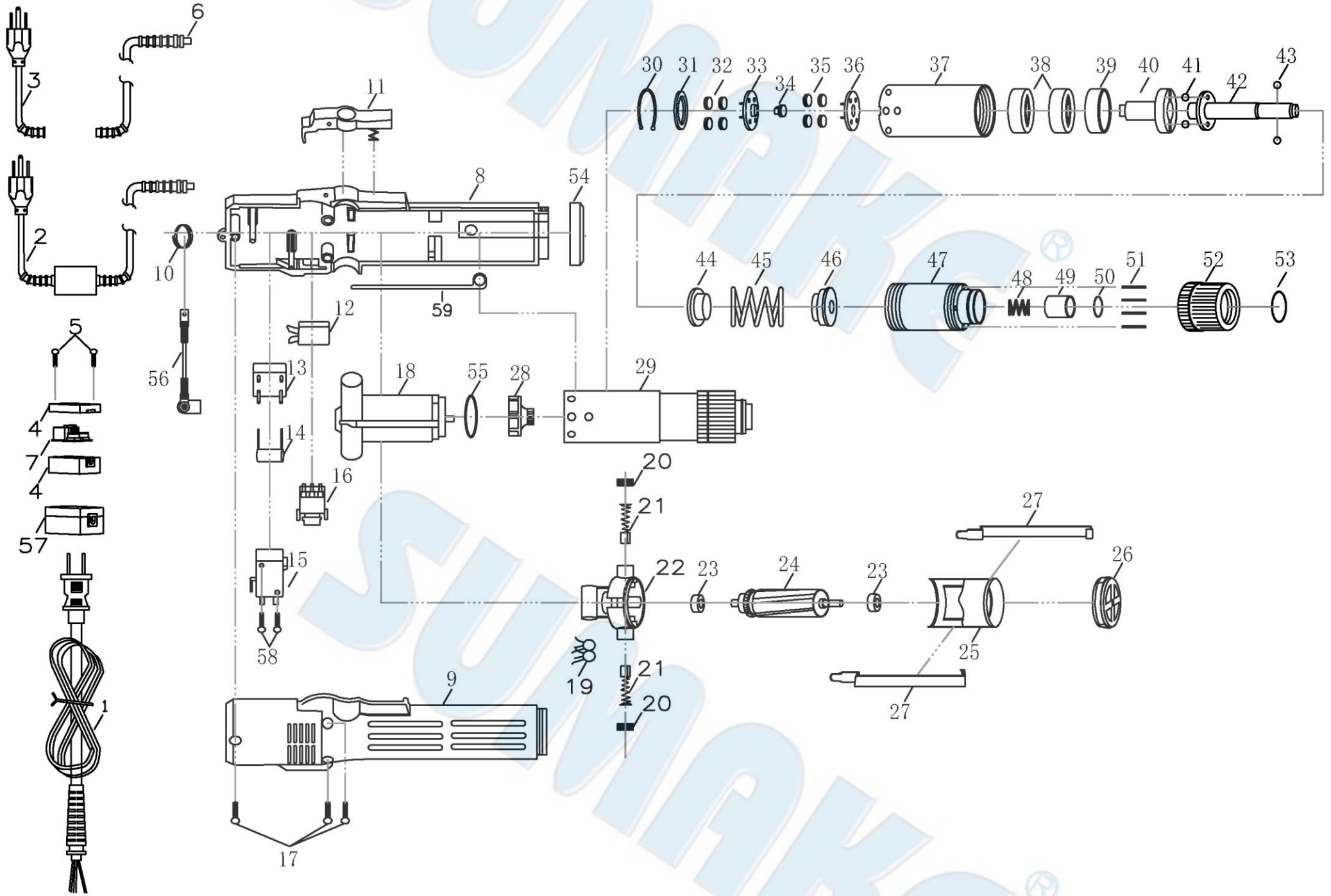
ES-207L1(2), ES-215L1(2) SEMI-AUTO AC110V(220V) LEVER-START ELECTRIC SCREWDRIVER (DIRECT PLUG IN)

PARTS LIST

No.	Parts No.	Description	Q'ty
1	EPAA20001	Cord 10ft For 110V	1
	EPA10102	Cord American 10ft For 110V	1
	EPA10104	Cord UK 10ft For 110V	1
	EPAD30001-A	Cord American-CE Box	1
	EPAD30001-D	Cord Australia-CE Box	1
	EPAD30001-F	Cord Europe-CE Box	1
	EPAA30001-G	Cord UK-CE Box	1
	EPAD30001-J	Cord India-CE Box	1
2	EPEJ30002-6	CE Box Assembly	1
3	EPAA30007-1	Cord American 1ft-CE Box	1
	EPAA30007-1D	Cord Australia 1ft-CE Box	1
	EPAA30007-2	Cord Europe 1ft-CE Box	1
	EPAA30007-5	Cord UK 1ft-CE Box	1
	EPAA30007-5E	Cord India 1ft-CE Box	1
4	EPEC30006	EMC-Box Case Only-CE Box	1
5	EPCH90152-1	Screw-CE Box	2
6	EPAA30009-3T	Cord 9ft-CE Box	1
7	EPEG30005-4	P.C.B.-CE Box	1
8	EPCB20021-1	Housing Underside For 110V	1
	EPCB20021-1	Housing Underside For 220V	1
9	EPCA20101-1	Housing Upside For 110V	1
	EPCA20101-1	Housing Upside For 220V	1
10	EPCJ20011	Suspension Ring	1
11	EPCC20031	Trigger	1
12	EPCF20061	Breaker For 110V	1
13	EPE31203-1	Birdge Diode	1
14	EPE30206	Capacitor For 110V	1
15	EPHB50071	Start Switch	1
16	EPHA15091F	Changeover Switch	1
17	EPCI33211-2	Switch Cap For ES-207L1(2)	1
	EPCI30211	Switch Cap For ES-215L1(2)	1
18	EPCH20102	Screw	3
19	EPMO20121-2	Motor Assembly For 110V	1
	EPMO22121	Motor Assembly For 220V	1
20	EPEB33610-2	Ceramics Capacitor For 110V	1
21	EPMD20151	Brush Cap	2
22	EPMC20161	Carbon	2
23	EPML20171	Motor Top Cover For 110V	1
	EPML33571	Motor Top Cover For 220V	1
24	EPME20181-1	Armature Bearing For 110V	2
	EPME21481-2	Armature Bearing For 220V	2
25	EPMH23601	Armature	1
26	EPMJ33631	Motor York Assembly	1
27	EPMB20221	Motor End Cover For 110V	1
	EPMB33651A	Motor End Cover For 220V	1
28	EPMA20211B	Assembly Spring For 110V	2
	EPMA33621A	Assembly Spring For 220V	2
29	EPMK20131-1	Fan For 110V	1
	EPMK33091	Fan For 220V	1

No.	Parts No.	Description	Q'ty
30	EPGZ22141-1A	Clutch Assembly For ES-207L1(2) Hex. 5mm Type (Opt.)	1
	EPGZ22141-1B	Clutch Assembly For ES-207L1(2) Hex. 6.35mm Type	1
	EPGZ22141-1C	Clutch Assembly For ES-207L1(2) Φ4mm Type (Opt.)	1
	EPGZ22141-1D	Clutch Assembly For ES-207L1(2) Φ5mm Type (Opt.)	1
	EPGZ22141-1DA	Clutch Assembly For ES-207L1(2) Hex. 5mm, Φ5mm Type (Opt.)	1
	EPGZ22141-2A	Clutch Assembly For ES-215L1(2) Hex. 5mm Type (Opt.)	1
	EPGZ22141-2B	Clutch Assembly For ES-215L1(2) Hex. 6.35mm Type	1
	EPGZ22141-2C	Clutch Assembly For ES-215L1(2) Φ4mm Type (Opt.)	1
	EPGZ22141-2D	Clutch Assembly For ES-215L1(2) Φ5mm Type (Opt.)	1
	EPGZ22141-2AD	Clutch Assembly For ES-215L1(2) Hex. 5mm, Φ5mm Type (Opt.)	1
31	EPGK20231	"C" Ring	1
32	EPGI20251-1	Iron Washer	1
33	EPGH20241	Gear Planet	8
34	EPGG20271	Gear Seat	2
35	EPG20101	Gear Of Center	1
36	EPGA30311-5	Gear Case	1
37	EPGN30321	Main Bearing	1
38	EPGC20301	Cam	1
39	EPGP30351	Steel Ball 4mm	2
40	EPGD30381A	Shaft For Hex. 5mm Type (Opt.)	1
	EPGD20321-3	Shaft For Hex. 6.35mm Type	1
	EPGD20321-2	Shaft For Φ4mm Type (Opt.)	1
	EPGD20321-1	Shaft For Φ5mm Type (Opt.)	1
	EPGD20321	Shaft For Hex. 5mm, Φ5mm Type (Opt.)	1
41	EPGP20331	Steel Balls For Hex. 5mm, Φ5mm Type (Opt.)	2
	EPGP21291B	Steel Balls For Hex. 6.35mm, Φ4mm Type	2
42	EPGF20341	Warring Plate For Hex. 5mm, Φ4mm, Φ5mm Type (Opt.)	1
	EPGF20341B	Warring Plate For Hex. 6.35mm Type	1
43	EPGE20351-1	Warring Spring For ES-207L1(2)	1
	EPGE20350-1	Warring Spring For ES-215L1(2)	1
44	EPGY30421	Warring Spring Base For Hex. 5mm, Φ4mm, Φ5mm Type (Opt.)	1
	EPGY30421B	Warring Spring Base For Hex. 6.35mm Type	1
45	EPGK20231B	"C" Ring For Hex. 6.35mm Type	1
46	EPGB30441-10	Clutch Case For Hex. 5mm, Φ4mm, Φ5mm Type (Opt.)	1
	EPGB30441-7A	Clutch Case For Hex. 6.35mm Type	1
47	EPGO30452	Bit Spring For Hex. 5mm, Φ4mm, Φ5mm Type (Opt.)	1
	EPGO20391B	Bit Spring For Hex. 6.35mm Type	1
48	EPGJ30461	Bit Sleeve For Hex. 5mm, Φ4mm, Φ5mm Type (Opt.)	1
	EPGJ3046B	Bit Sleeve For Hex. 6.35mm Type	1
49	EPGQ30471	"C" Ring For Hex. 5mm, Φ4mm, Φ5mm Type (Opt.)	1
	EPGQ21361	"C" Ring For Hex. 6.35mm Type	1
50	EPGL30481-1	Torque Adj Pins	4
51	EPGM20431-1	Torque Adj Ring	1
52	EPGS30501	"C" Ring For EPGM21381	1
53	EPCD20111	Coupler	1
54	EPMF30101	Insulating Washer For 220V	1
55	EPP12104	8cm Retaining Clip	1
56	EPGN30435	Main Bearing	1

ES-625L1, 635L1, 645L1 SEMI-AUTO AC110V LEVER-START ELECTRIC SCREWDRIVER (DIRECT PLUG IN)



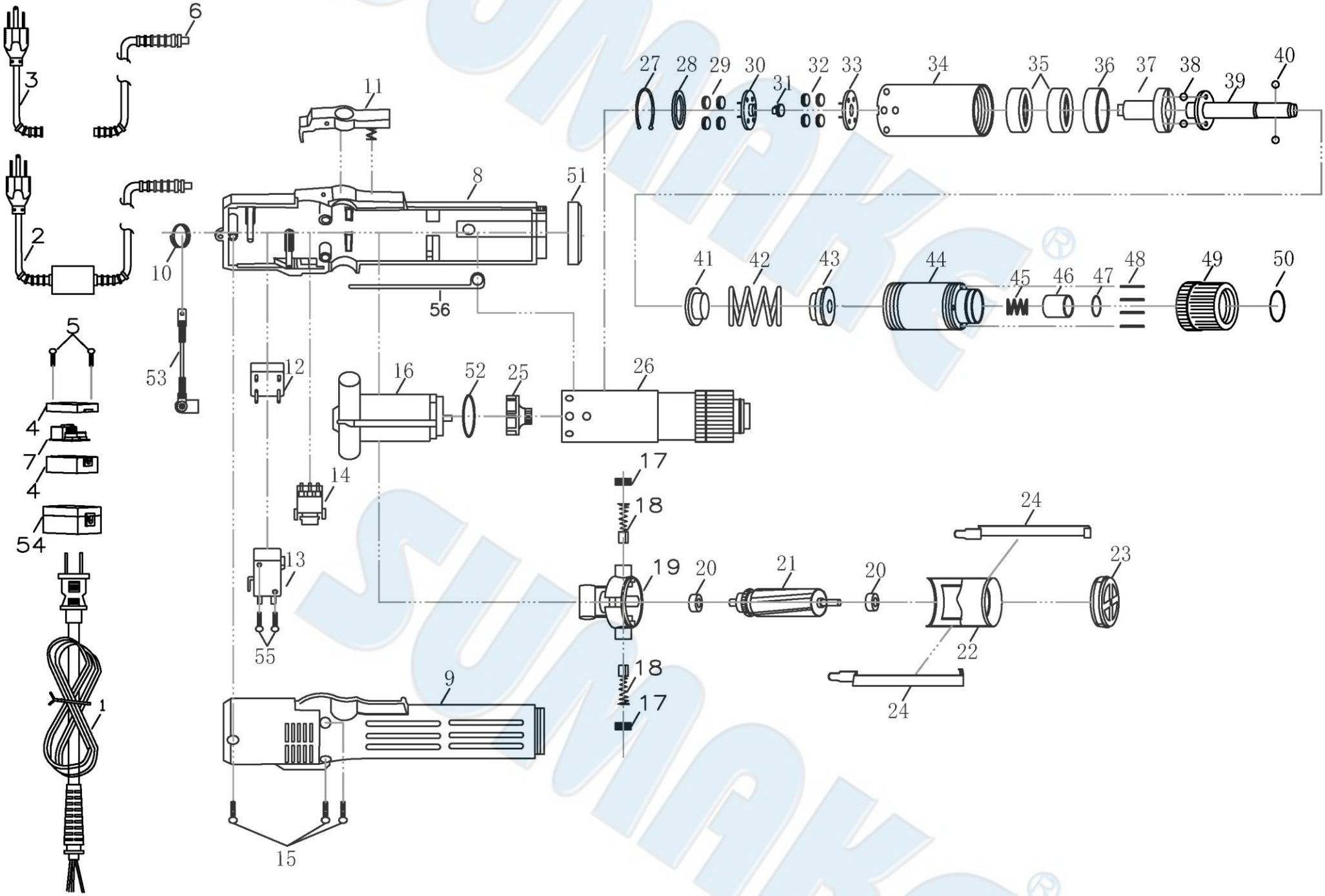
ES-625L1, 635L1, 645L1 SEMI-AUTO AC110V LEVER-START ELECTRIC SCREWDRIVER (DIRECT PLUG IN)

PARTS LIST

No.	Parts No.	Description	Q'ty
1	EPAA20001	Cord	1
2	EPAD30001-A	Cord American	1
	EPAD30001-D	Cord Australia	1
	EPAD30001-F	Cord Europe	1
	EPAA30001-G	Cord UK	1
	EPAD30001-J	Cord India	1
3	EPAA30007-1	Cord American 1ft	1
	EPAA30007-1D	Cord Australia 1ft	1
	EPAA30007-2	Cord Europe 1ft	1
	EPAA30007-5	Cord UK 1ft	1
	EPAA30007-5E	Cord India 1ft	1
4	EPEC30006	EMC-Box Case Only	1
5	EPCH90152-1	Screw	2
6	EPAA30009--3T	Cord 9ft	1
7	EPEG30005-4	P.C.B.	1
8	EPCB21041-1	Housing Underside	1
9	EPCA21161-1	Housing Upside	1
10	EPCJ20011	Suspension Ring	1
11	EPCC21011-A1	Trigger	1
12	EPCF20061	Breaker	1
13	EPE31203-1	Birdge Diode	1
14	EPE30207	Capacitor	1
15	EPHB50072	Start Switch	1
16	EPHA21151	Changeover Switch For ES-625L1	1
	EPHA91042	Changeover Switch For ES-635L1	1
	EPHA92051	Changeover Switch For ES-645L1	1
17	EPCH20102	Screw	3
18	EPMO22091	Motor Assembly For ES-625L1	1
	EPMO21092	Motor Assembly For ES-635L1, ES-645L1	1
19	EPEB33610-2	Ceramics Capacitor	1
20	EPMD20151	Brush Cap	2
21	EPMC21411	Carbon	2
22	EPML21421	Motor Top Cover	1
23	EPME21481	Armature Bearing	2
24	EPMH21471	Armature For ES-625L1	1
	EPMH21472	Armature For ES-635L1 ES-645L1	1
25	EPMJ90601	Motor York Assembly	1
26	EPMB21521A	Motor End Cover	1
27	EPMA21491B	Assembly Spring	2
28	EPMK21111	Fan For ES-625L1	1
	EPMK91091	Fan For ES-635L1	1
	EPMK92091	Fan For ES-645L1	1
29	EPGZ21121A	Clutch Assembly For ES-625L1 Hex. 5mm Type (Opt.)	1
	EPGZ21121AD	Clutch Assembly For ES-625L1 Hex. 5mm & Φ5mm Type (Opt.)	1
	EPGZ21121B	Clutch Assembly For ES-625L1 Hex. 6.35mm Type	1
	EPGZ35121A	Clutch Assembly For ES-635L1 Hex. 5mm Type (Opt.)	1
	EPGZ35121B	Clutch Assembly For ES-635L1 Hex. 6.35mm Type	1
	EPGZ21145A	Clutch Assembly For ES-645L1 Hex. 5mm Type (Opt.)	1

No.	Parts No.	Description	Q'ty
29	EPGZ21145AD	Clutch Assembly For ES-645L1 Hex. 5mm Type (Opt.)	1
	EPGZ21145B	Clutch Assembly For ES-645L1 Hex. 6.35mm Type	1
30	EPGK21181	C Ring	1
31	EPGI21191	Iron Washer	1
32	EPGH20241	Gear Planet For ES-625L1	3
	EPGH91232	Gear Planet For ES-635L1	3
	EPGH92231	Gear Planet For ES-645L1	4
33	EPGG21231	Gear Seat For ES-625L1	1
	EPGG91242-1	Gear Seat For ES-635L1	1
	EPGG92241-1	Gear Seat For ES-645L1	1
34	EPG20102	Gear Of Center For ES-625L1	1
35	EPGH20241	Gear Planet For ES-625L1	3
	EPGH91232-1	Gear Planet For ES-635L1	3
	EPGH92231-1	Gear Planet For ES-645L1	4
36	EPGG21231-2	Gear Seat For ES-625L1	1
	EPGG91272-1	Gear Seat For ES-635L1	1
	EPGG92271-1	Gear Seat For ES-645L1	1
37	EPGA21241	Gear Case For ES-625L1	1
	EPGA35241	Gear Case For ES-635L1, ES-645L1	1
38	EPGN21251	Main Bearing	2
39	EPGW21531	Iron Ring	1
40	EPGC31321	Cam	1
41	EPGP30351	Steel Ball 4mm	2
42	EPGD21281A	Shaft For Hex. 5mm Type (Opt.)	1
	EPGD21281AD	Shaft For Hex. 5mm & Φ5mm Type (Opt.)	1
	EPGD21281B	Shaft For Hex. 6.35mm Type	1
43	EPGP21291A	Steel Ball For Hex. 5mm (Opt.)	2
	EPGP21291B	Steel Ball For Hex. 6.35mm	2
44	EPGF21301	Warring Plate	1
45	EPGE21311	Warring Spring For ES-625L1	1
	EPGE35311	Warring Spring For ES-635L1	1
	EPGE92382-3	Warring Spring For ES-645L1 Hex. 5mm, Hex. 5mm & Φ5mm Type (Opt.)	1
	EPGE21314	Warring Spring For ES-645L1 Hex. 6.35mm	1
46	EPGY21321	Warring Spring Base	1
47	EPGB21331	Clutch Case	1
48	EPGO21341	Bit Spring	1
49	EPGJ22351	Bit Sleeve	1
50	EPGQ21361	"C" Ring	1
51	EPGL21371	Torque Adj Pins	4
52	EPGM21381	Torque Adj Ring	1
53	EPGS21391	"C" Ring	1
54	EPCD21031	Coupler	1
55	EPMF90061	Insulating Washer	1
56	EPP12104	8cm Retaining Clip	1
57	EPEJ30002-6	CE Box Assembly	1
58	EPCH30003	Screw	2
59	EPCH30671-1	Grounding Means	1

ES-625L2, 635L2, 645L2 SEMI-AUTO AC220V LEVER-START ELECTRIC SCREWDRIVER (DIRECT PLUG IN)



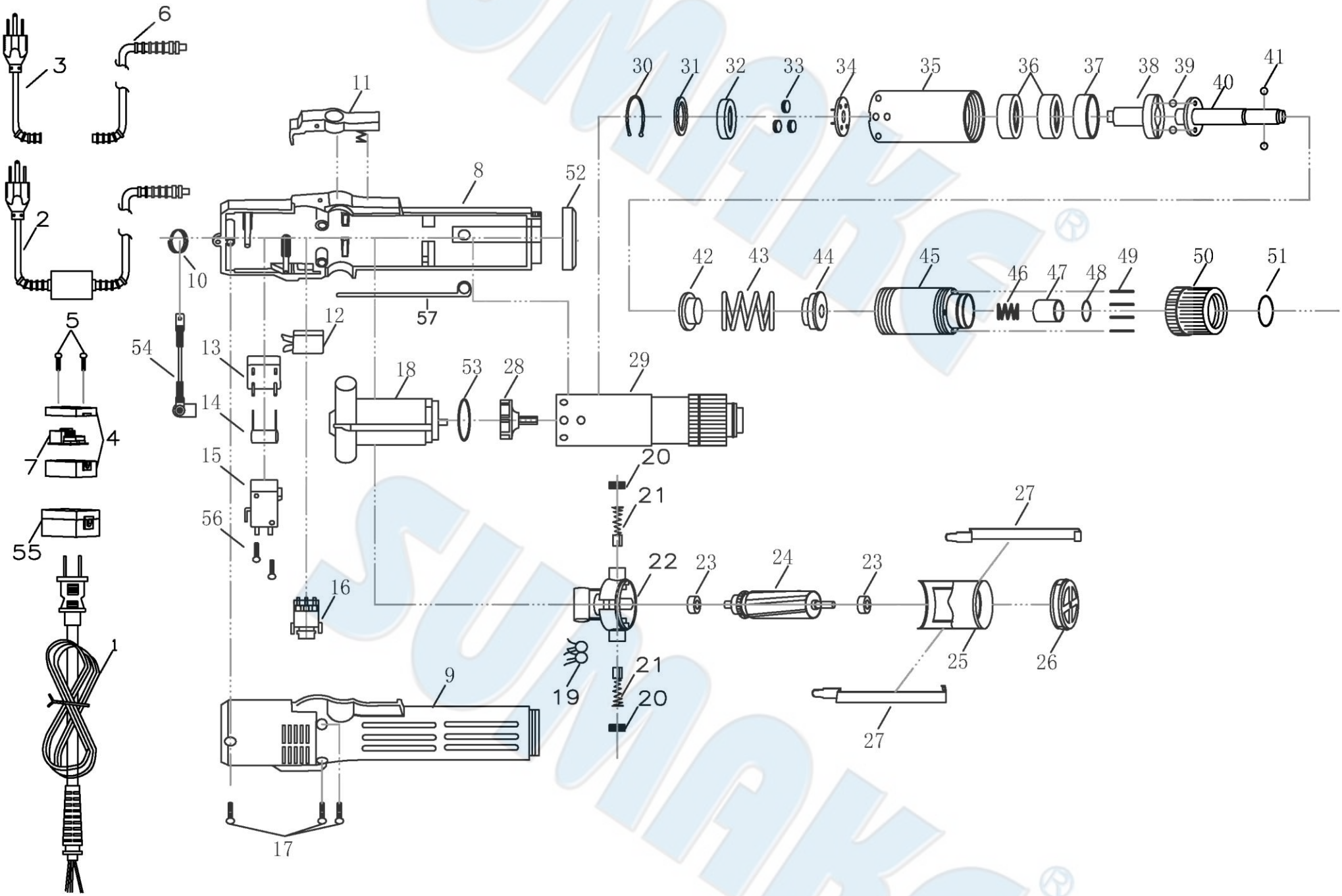
ES-625L2, 635L2, 645L2 SEMI-AUTO AC220V LEVER-START ELECTRIC SCREWDRIVER (DIRECT PLUG IN)

PARTS LIST

No.	Parts No.	Description	Q'ty
1	EPAA20001	Cord	1
2	EPAD30001-A	Cord American	1
	EPAD30001-D	Cord Australia	1
	EPAD30001-F	Cord Europe	1
	EPAA30001-G	Cord UK	1
	EPAD30001-J	Cord India	1
3	EPAA30007-1	Cord American 1ft	1
	EPAA30007-1D	Cord Australia 1ft	1
	EPAA30007-2	Cord Europe 1ft	1
	EPAA30007-5	Cord UK 1ft	1
	EPAA30007-5E	Cord India 1ft	1
4	EPEC30006	EMC-Box Case Only	1
5	EPCH90152-1	Screw	2
6	EPAA30009-3T	Cord 9ft	1
7	EPEG30005-4F	P.C.B.	1
8	EPCB21041-1	Housing Underside	1
9	EPCA21161-1	Housing Upside	1
10	EPCJ20011	Suspension Ring	1
11	EPCC21011-A1	Trigger	1
12	EPE31203-1	Birdge Diode	1
13	EPHB50072	Start Switch	1
14	EPHA91041	Changeover Switch-ES-625L2	1
	EPHA91042	Changeover Switch-ES-635L2	1
	EPHA92051	Changeover Switch-ES-645L2	1
15	EPCH20102	Screw	3
16	EPMO22091	Motor Assembly	1
17	EPMD20151	Brush Cap	2
18	EPMC20161	Carbon	2
19	EPML22421	Motor Top Cover	1
20	EPME21481	Armature Bearing	2
21	EPMH22471	Armature	1
22	EPMJ90601	Motor York Assembly	1
23	EPMB21521A	Motor End Cover	1
24	EPMA21491B	Assembly Spring	2
25	EPMK92091	Fan For ES-625L2	1
	EPMK91091	Fan For ES-635L2	1
	EPMK92091	Fan For ES-645L2	1
26	EPGZ21121A	Clutch Assembly For ES-625L2 Hex. 5mm Type (Opt.)	1
	EPGZ21121AD	Clutch Assembly For ES-625L2 Hex. 5mm & Φ5mm Type (Opt.)	1
	EPGZ21121B	Clutch Assembly For ES-625L2 Hex. 6.35mm Type	1
	EPGZ35121A	Clutch Assembly For ES-635L2 Hex. 5mm Type (Opt.)	1
	EPGZ35121B	Clutch Assembly For ES-635L2 Hex. 6.35mm Type	1
	EPGZ21145A	Clutch Assembly For ES-645L2 Hex. 5mm Type (Opt.)	1
	EPGZ21145AD	Clutch Assembly For ES-645L2 Hex. 5mm & Φ5mm Type (Opt.)	1
	EPGZ21145B	Clutch Assembly For ES-645L2 Hex. 6.35mm Type	1

No.	Parts No.	Description	Q'ty
27	EPGK21181	"C" Ring	1
28	EPGI21191	Iron Washer	1
29	EPGH20241	Gear Planet For ES-625L2	3
	EPGH91232	Gear Planet For ES-635L2	3
	EPGH92231	Gear Planet For ES-645L2	4
30	EPGG21231	Gear Seat For ES-625L2	1
	EPGG91242-1	Gear Seat For ES-635L2	1
	EPGG92241-1	Gear Seat For ES-645L2	1
31	EPG20102	Gear Of Center For ES-625L2	1
32	EPGH20241	Gear Planet For ES-625L2	3
	EPGH91232-1	Gear Planet For ES-635L2	3
	EPGH92231-1	Gear Planet For ES-645L2	4
33	EPGG21231	Gear Seat For ES-625L2	1
	EPGG91272-1	Gear Seat For ES-635L2	1
	EPGG92271-1	Gear Seat For ES-645L2	1
34	EPGA21241	Gear Case For ES-625L2	1
	EPGA35241	Gear Case For ES-635L2, ES-645L2	1
35	EPGN21251	Main Bearing	2
36	EPGW21531	Iron Ring	1
37	EPGC31321	Cam	1
38	EPGP30351	Steel Ball 4mm	2
39	EPGD21281A	Shaft For Hex. 5mm Type (Opt.)	1
	EPGD21281AD	Shaft For Hex. 5mm & Φ5mm Type (Opt.)	1
	EPGD21281B	Shaft For Hex. 6.35mm Type	1
40	EPGP21291A	Steel Ball For Hex. 5mm (Opt.)	2
	EPGP21291B	Steel Ball For Hex. 6.35mm	2
41	EPGF21301	Warring Plate	1
42	EPGE21311	Warring Spring For ES-625L2	1
	EPGE35311	Warring Spring For ES-635L2	1
	EPGE92382-3	Warring Spring For ES-645L2 Hex. 5mm, Hex. 5mm & Φ5mm Type (Opt.)	1
	EPGE22314	Warring Spring For ES-645L2 Hex. 6.35mm	1
43	EPGE21314	Warring Spring Base	1
44	EPGB21331	Clutch Case	1
45	EPGO21341	Bit Spring	1
46	EPGJ21351	Bit Sleeve	1
47	EPGQ21361	"C" Ring	1
48	EPGL21371	Torque Adj Pins	4
49	EPGM21381	Torque Adj Ring	1
50	EPGS21391	"C" Ring	1
51	EPCD21031	Coupler	1
52	EPMF90061	Insulating Washer	1
53	EPP12104	8cm Retaining Clip	1
54	EPEJ30002-6	CE Box Assembly	1
55	EPCH30003	Screw	2
56	EPCH30671-1	Grounding Means	1

ES-618LH1 SEMI-AUTO AC110V LEVER-START HIGH SPEED ELECTRIC SCREWDRIVER (DIRECT PLUG IN)



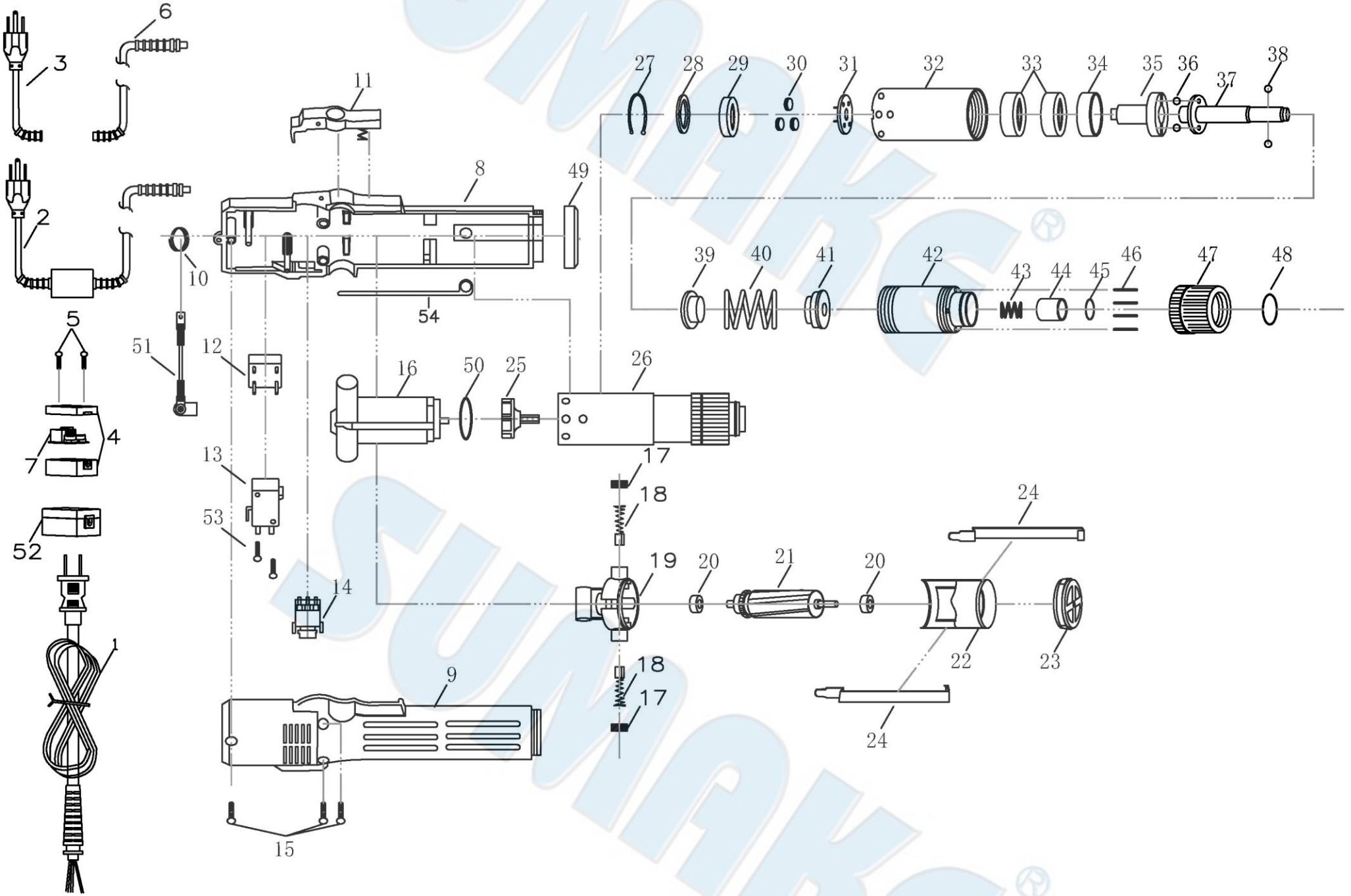
ES-618LH1 SEMI-AUTO AC110V LEVER-START HIGH SPEED ELECTRIC SCREWDRIVER (DIRECT PLUG IN)

PARTS LIST

No.	Parts No.	Description	Q'ty
1	EPAA20001	Cord	1
2	EPAD30001-A	Cord American	1
	EPAD30001-D	Cord Australia	1
	EPAD30001-F	Cord Europe	1
	EPAA30001-G	Cord UK	1
	EPAD30001-J	Cord India	1
3	EPAA30007-1	Cord American 1ft	1
	EPAA30007-1D	Cord Australia 1ft	1
	EPAA30007-2	Cord Europe 1ft	1
	EPAA30007-5	Cord UK 1ft	1
	EPAA30007-5E	Cord India 1ft	1
4	EPEC30006	EMC-Box Case Only	1
5	EPCH90152-1	Screw	2
6	EPAA30009-3T	Cord 9ft	1
7	EPEG30005-4	P.C.B.	1
8	EPCB21041-1	Housing Underside	1
9	EPCA21161-1	Housing Upside	1
10	EPCJ20011	Suspension Ring	1
11	EPCC21011-A1	Trigger	1
12	EPCF20061	Breaker	1
13	EPE31203-1	Birdge Diode	1
14	EPE30207	Capacitor	1
15	EPHB50072	Start Switch	1
16	EPHA21151	Changeover Switch For	1
17	EPCH20102	Screw	3
18	EPMO21091	Motor Assembly	1
19	EPEB33610-2	Ceramics Capacitor	1
20	EPMD20151	Brush Cap	2
21	EPMC21411	Carbon	2
22	EPML21421	Motor Top Cover	1
23	EPME21481	Armature Bearing	2
24	EPMH21471	Armature	1
25	EPMJ90601	Motor York Assembly	1
26	EPMB21521A	Motor End Cover	1

No.	Parts No.	Description	Q'ty
27	EPMA21491B	Assembly Spring	2
28	EPMK21111PF	Fan	1
29	EPGZ21121AF	Clutch Assembly For ES-618LH1 Hex. 6.35mm Type	1
	EPGZ21121BF	Clutch Assembly For ES-618LH1 Hex. 5mm Type (Opt.)	1
30	EPGK21181	"C" Ring	1
31	EPGI21191	Iron Washer	1
32	EPG21301	Washer, High Speed	1
33	EPGH21221-1	Gear Planet	3
34	EPGG21231-1	Gear Seat	1
35	EPGA21241	Gear Case	1
36	EPGN21251	Main Bearing	2
37	EPGW21531	Iron Ring	1
38	EPGC31321	Cam	1
39	EPGP30351	Steel Ball 4mm	2
40	EPGD21281A	Shaft For Hex. 5mm Type (Opt.)	1
	EPGD21281B	Shaft For Hex. 6.35mm Type	1
41	EPGP21291A	Steel Ball For Hex. 5mm Type (Opt.)	2
	EPGP21291B	Steel Ball For Hex. 6.35mm Type	2
42	EPGF21301	Warring Plate	1
43	EPGE21312	Warring Spring	1
44	EPGY21321	Warring Spring Base	1
45	EPGB21331	Clutch Case	1
46	EPGO21341	Bit Spring	1
47	EPGJ21351	Bit Sleeve	1
48	EPGQ21361	"C" Ring	1
49	EPGL21371	Torque Adj Pins	4
50	EPGM21381	Torque Adj Ring	1
51	EPGS21391	"C" Ring	1
52	EPCD21031	Coupler	1
53	EPMF90061	Insulating Washer	1
54	EPP12104	8cm Retaining Clip	1
55	EPEJ30002-6	CE Box Assembly	1
56	EPCH30003	Screw	2
57	EPCH30671-1	Grounding Means	1

ES-618LH2 SEMI-AUTO AC220V LEVER-START HIGH SPEED ELECTRIC SCREWDRIVER (DIRECT PLUG IN)



ES-618LH2 SEMI-AUTO AC220V LEVER-START HIGH SPEED ELECTRIC SCREWDRIVER (DIRECT PLUG IN)

PARTS LIST

No.	Parts No.	Description	Q'ty
1	EPAA20001	Cord	1
2	EPAD30001-A	Cord American	1
	EPAD30001-D	Cord Australia	1
	EPAD30001-F	Cord Europe	1
	EPAA30001-G	Cord UK	1
	EPAD30001-J	Cord India	1
3	EPAA30007-1	Cord American 1ft	1
	EPAA30007-1D	Cord Australia 1ft	1
	EPAA30007-2	Cord Europe 1ft	1
	EPAA30007-5	Cord UK 1ft	1
	EPAA30007-5E	Cord India 1ft	1
4	EPEC30006	EMC-Box Case Only	1
5	EPCH90152-1	Screw	2
6	EPAA30009-3T	Cord 9ft	1
7	EPEG30005-4	P.C.B.	1
8	EPCB21041-1	Housing Underside	1
9	EPCA21161-1	Housing Upside	1
10	EPCJ20011	Suspension Ring	1
11	EPCC21011-A1	Trigger	1
12	EPE31203-1	Birdge Diode	1
13	EPHB50072	Start Switch	1
14	EPHA91041	Changeover Switch For	1
15	EPCH20102	Screw	3
16	EPMO22091LF	Motor Assembly	1
17	EPMD20151	Brush Cap	2
18	EPMC20161	Carbon	2
19	EPML22421	Motor Top Cover	1
20	EPME21481	Armature Bearing	2
21	EPMH22471	Armature	1
22	EPMJ90601	Motor York Assembly	1
23	EPMB21521A	Motor End Cover	1
24	EPMA21491B	Assembly Spring	2
25	EPMK21111PF	Fan	1

No.	Parts No.	Description	Q'ty
26	EPGZ21121AF	Clutch Assembly For ES-618LH2 Hex. 6.35mm Type	1
	EPGZ21121BF	Clutch Assembly For ES-618LH2 Hex. 5mm Type (Opt.)	1
27	EPGK21181	"C" Ring	1
28	EPGI21191	Iron Washer	1
29	EPG21301	Washer,High Speed	1
30	EPGH21221-1	Gear Planet	3
31	EPGG21231-1	Gear Seat	1
32	EPGA21241	Gear Case	1
33	EPGN21251	Main Bearing	2
34	EPGW21531	Iron Ring	1
35	EPGC31321	Cam	1
36	EPGP30351	Steel Ball 4mm	2
37	EPGD21281A	Shaft For Hex. 5mm Type (Opt.)	1
	EPGD21281B	Shaft For Hex. 6.35mm Type	1
38	EPGP21291A	Steel Ball For Hex. 5mm Type (Opt.)	2
	EPGP21291B	Steel Ball For Hex. 6.35mm Type	2
39	EPGF21301	Warring Plate	1
40	EPGE21312	Warring Spring	1
41	EPGY21321	Warring Spring Base	1
42	EPGB21331	Clutch Case	1
43	EPGO21341	Bit Spring	1
44	EPGJ21351	Bit Sleeve	1
45	EPGQ21361	"C" Ring	1
46	EPGL21371	Torque Adj Pins	4
47	EPGM21381	Torque Adj Ring	1
48	EPGS21391	"C" Ring	1
49	EPCD21031	Coupler	1
50	EPMF90061	Insulating Washer	1
51	EPP12104	8cm Retaining Clip	1
52	EPEJ30002-6	CE Box Assembly	1
53	EPCH30003	Screw	2
54	EPCH30671-1	Grounding Means	1

SUMAKE®

Professional & Industrial

ELECTRIC SCREWDRIVER

OPERATION AND MAINTENANCE MANUAL

MAKE JOBS BETTER THAN EVER

EA(ED)(ES)-I-2110C-K2

INSTRUCTION

Congratulations on your purchase and welcome to SUMAKE.

NOTICE

SUMAKE Screwdrivers are designed for installing threaded fasteners in light industrial and appliance manufacturing applications. **SUMAKE** is not responsible for customer modification of tools for applications on which **SUMAKE** was not consulted.

WARNING

Important safety information enclosed.
Read all these instructions before placing tool in service or operation this tool and save these instructions. It is the responsibility of the employer to place the information in this manual into the hands of the operator. Failure to observe the following warnings could result in injury. When using electric tools, Basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following:

1. General Safety Rules

WARNING! Read all instructions. Failure to follow all instructions listed below may result in electric shock fire and/or serious injure. The term "Electric Screwdriver" in all of the warning listed below refer to your mains operated Electric Screwdriver.

SAVE THESE INSTRUCTIONS

1. **Electrical Safety**

(a) **Keep work area clean and well lit.** Cluttered and dark areas invite accidents.
(b) Electric Screwdriver plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) Electric Screwdrivers. Unmodified plugs and matching outlets will reduce risk of electric shock.
(c) **Don't expose Electric Screwdrivers to rain or wet conditions.** Water entering a Electric Screwdriver will increase the risk of electric shock.
(d) Do not abuse the cord. Never use the cord to carrying, pulling or unplugging the Electric Screwdriver. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.

2. **Personal Safety**

(a) **Stay alert, watch what you are doing and use common sense when operating a Electric Screwdriver. Do not use Electric Screwdriver while you are tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating Electric Screwdrivers may result in serious personal injury.
(b) **Avoid accidental starting. Ensure the switch is in the off position before plugging in.** Carrying Electric Screwdrivers with your finger on the switch or plugging in Electric Screwdrivers that have the switch on invites accidents.
(c) **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the Electric Tools in unexpected situations.

3. **Electric Screwdriver Use and Care**

(a) **Do not force the Electric Screwdriver. Use the correct Electric Screwdriver for your application.** The correct Electric Screwdriver will do the job better and safer at the rate for which it was designed.
(b) **Do not use Electric Screwdriver if switch does not turn it on or off.** Any Electric Screwdriver that cannot be controlled with the switch is dangerous and must be repaired.
(c) **Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the Electric Screwdrivers.** Such preventive safety measures reduce the risk of starting the Electric Screwdriver accidentally.
(d) **Store idle Electric Screwdrivers out of reach of children and do not allow persons unfamiliar with the Electric Screwdriver or these instructions to operate the Electric Screwdriver.** Electric Screwdrivers are dangerous in the hands of untrained users.

4. **Service**

(a) **Have your Electric Screwdriver serviced by qualified repair person using only identical replacement parts**, This will ensure that the safety of the Electric Screwdriver is maintained.

2. Operations Cautions

1. Whenever changing a bit, make certain the Forward / Reverse Switch is in the " OFF " position and tool is unplugged.
2. Do not allow chemicals such as acetone, benzene, thinner, trichloroethylene ketone, or other similar chemicals to come in contact with the screwdriver housing as damage will result.
3. Do not drop or abuse the screwdriver.
4. Do not adjust the torque setting higher than 8 on the torque scale.
5. Operation frequency: The original setting of the frequency is 1 sec on / 3 sec off. The number of screw fastened is about 15 pcs. Over frequently using makes the motor overheated and damage to screwdriver.
   Enough heat-dissipation is good for screwdriver.
   Slow speed Duty Cycle Conversion (for reference)
   Based on 1000 rpm, 1 second ON/3 seconds OFF. For example, the duty cycle for 350rpm,
   1000-350=650, 650/1000%=65%
   ON= 1*1.65= 1.65, OFF =3*1.65 =4.95 (rounded value) =2 seconds ON / 5 seconds OFF
   This tool is intended for a duty cycle of 2.0 sec on, 5.0 sec off.

Slow speed (rpm)	operation frequency	Slow speed (rpm)	operation frequency	Slow speed (rpm)	operation frequency
900	1.0 ON 3.0 OFF	600	1.0 ON 3.0 OFF	300	2.0 ON 5.0 OFF
850	1.0 ON 3.0 OFF	550	2.0 ON 5.0 OFF	250	2.0 ON 5.0 OFF
800	1.0 ON 3.0 OFF	500	2.0 ON 5.0 OFF	200	2.0 ON 5.0 OFF
750	1.0 ON 3.0 OFF	450	2.0 ON 5.0 OFF	150	2.0 ON 5.0 OFF
700	1.0 ON 3.0 OFF	400	2.0 ON 5.0 OFF	100	2.0 ON 5.0 OFF
650	1.0 ON 3.0 OFF	350	2.0 ON 5.0 OFF		

6. Do not use this screwdriver for tightening wood screws. This is " Metal Assembly Screw Driver "
7. Do not operate the Forward / Reverse Switch the motor is running.
8. Whenever a tool is not being used, move the Forward / Reverse Switch to the "OFF" position and unplug the screwdriver.
9. Please grasp the plug of power cord while plugging in or out the plugs of connecting cord of Electric Screwdriver and power cord.
10. Please fix the Power Supply to avoid any danger of pulling and dragging the power cord.
11. In case of the Power Supply is overheated or overloaded with maximum current rating of fuse, the high-speed fuse will be melt down and cut off the power. If the Power Supply continues to jump off or has an abnormal switching reaction, please stop the operation immediately and send back the Power Supply for repair.
12. When Electric Screwdriver is running, if slides Forward/Reverse Switch instantly, device will generate the protection program to force Electric Screwdriver stop.

CAUTION

1. Do not drop or abuse the tool.
2. Whenever a tool is not being used, position the Power Switch to the "OFF" position and unplug the power cord.

3. Description of Operation

Attaching / detaching bit and bit type

Push up the holder clamp by finger tip, and it will be unlocked. Thus, the bit can be freely attached and detached (single finger notion type).

1. Insert the power plug into a receptacle and set the change cover switch to "**F**" position.
2. Apply the bit to the screw head and press the lever or push main body to, then the switch will be turned ON to start the motor running.
3. When the screw is tightened and reach the torque that you had set, The tool will stopped automatically.
4. To reset the tool by releasing the lever to the original position or releasing the bit from the screw head.
5. To return the screw, set the changeover switch to "**R**" position.

WARNING ! DO NOT OPERATE THIS TOOL WITHOUT PROTECTIVE EARTH CONNECTED

4. Grounding Instructions

The tool should be grounded while in use to protect the operator from electric shock. The tool is equipped with a three-conductor cord and three-prong grounding-type plug to fit the proper grounding-type receptacle. The green (or green and yellow) conductor in the cord is the grounding wire. Never connect the green (or green and yellow) wire to a live terminal.

Green and yellow ----- Earth, Blue ----- Neutral, Brown ----- Live

5. Installation Instructions

1. Use the Power Supply voltage recommended in the specification of this manual.
2. When using a commercial Power Supply be sure to set up circuit and safety breakers. You must also properly ground the mechanisms.
3. The temperature and humidity should be kept at appropriate levels.
4. Do not set up the Power Supply in a room that has poor ventilation and where it may be exposed to dust and metallic flakes.
5. Do not put heavy object on top of Power Supply or pile thing on it.
6. Attach the Power Supply securely to a flat, stable surface. If the Power Supply is put a high place, take special care to ascertain that there is no danger of it falling.
7. Keep bystanders away. Do not permit unauthorized personnel to operate this Power Supply.
8. Do not set up the Power Supply near high voltage machinery or in an excessively noisy environment.
9. Avoid setting up or storing the Power Supply in wet or oily environments or where it might be exposed to corrosive or flammable gases.
10. We emphasize that the Power Supply should be placed in stable, fixed location.

6. Servicing

Maintenance and Inspection:

1. The screwdriver must be operated in top condition, one day working hour must be not more than eight hours.
2. Periodically check for wear of motor carbon brush, one day for eight hours use is normal, replace it after every five to six months.
3. Please note don't let the motor and Power Supply get over heated, every minute use 10~15 screws to operate.
4. The frequency use of this electric screw driver is over than eight hours a day, still it needs periodically testing and treatment. Every 5-6 months.
5. Inspect tool cords periodically and if damaged, have them repaired by an authorized service facility. Inspect extension cords periodically and replace if damaged.
6. Do not remove any labels. Replace any damaged label.

CAUTION

1. The use of other than genuine **SUMAKE** replacement parts may result in decreased tool performance and increased maintenance, and may invalidate all warranties.
2. All repairs and maintenance of this tool and its word must be performed by an authorized service center.
3. **SUMAKE** is not responsible for customer modification of tools for applications on which **SUMAKE** was not consulted.
4. Repairs should be made only by authorized, trained personnel. Consult your nearest **SUMAKE** authorized service center.
5. It is the responsibility of the employer to place the information in this manual into the hands of the operator.

IMPORTANT

1. Within warranty period, any quality issue please contact with **SUMAKE** distributors and do not take apart screwdrivers without authorization, otherwise warranty will NOT be covered.
2. Any repair and maintenance task has to follow **SUMAKE** directly training education.

SAVE THESE INSTRUCTIONS DO NOT DESTROY

ELECTRIC SCREWDRIVER **CORDLESS SCREWDRIVER**

www.SUMAKE.com