



## Screwdrivers

**Electra Series Screwdriver**  
**Lever Start, Low Voltage**

*Ideal for Electronics Assembly and Applications  
Requiring Precise, Accurate Torque Control*



**AE-4520ESD**

### Specifications:

<b>Bit-Shank - in:</b>	1/4
<b>Free Speed - rpm:</b>	720
<b>Overall Length - mm:</b>	8.0
<b>Power Source:</b>	35V DC
<b>Torque Range - in-lbs:</b>	1.3-8.2
<b>Torque Range - kgf-cm:</b>	1.5-9.4
<b>Weight - lb:</b>	.95

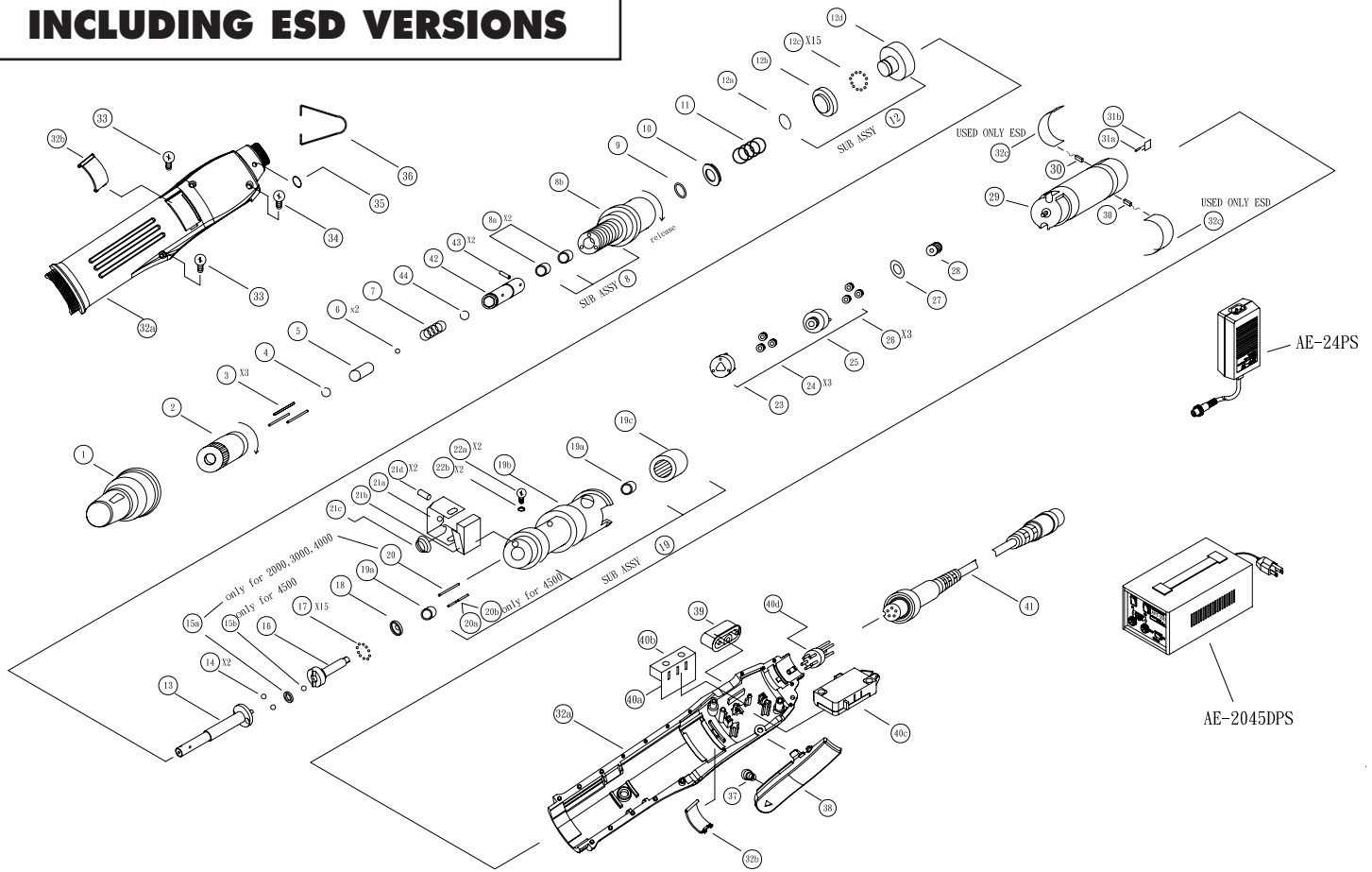
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# AE-2020/4020/4520 ELECTRIC SCREWDRIVERS

**INCLUDING ESD VERSIONS**



## PARTS LIST — FOR REFERENCE ONLY

Index Number	Part Number	Description	Qty.	Index Number	Part Number	Description	Qty.	Index Number	Part Number	Description	Qty.	
1	6H1053	Retaining Ring	1		4K2047	Hammer (High 1.95mm C/W Bearing)	1	31b	2C6616	Capacitor (104J 100V)	1	
	6H1055	Retaining Ring (ESD)	1	★	4K2048	Hammer (High 1.95mm)	1	▲	32	6A1036	Plastic Housing (L+R w/Carbon Maintenance Bonnet Set)	1
2	4J1071	Regulating Handle	1	●	4B1024	Ball (ø 2.0)	15	▲	32a	6Z1226	Plastic Housing	1
	4J1081	Regulating Handle	1	▲	17	4E7011	Retainer (ø15*ø7* t2.80)	1	32b	6C5026	Carbon Maintenance Bonnet Set	1
3	4N1026	Push Pin (L=18.8mm)	3	18	4A7029	Gear Housing Sub Ass'y	1	32	6A1035	Plastic Housing (L+R ESD Black w/Carbon Maintenance Bonnet Set)	1	
4	4U1052	Snap Ring (ø1*ø6)	1	19a	4E1021	Ball Bearing (ø9*ø6.35*3.17T)	2	★	32a	6Z1225	Black Plastic Housing (ESD)	1
5	4H2081	Bit Slide Sleeve (ø10*ø7* 11mm)	1	19b	4R1074	Gear Housing	1	★	32b	6C5025	Carbon Maintenance Bonnet Set (ESD)	1
6	4B1026	Ball (ø2.5)	2	19c	4X1055	Internal Gear (T=30T)	1	▲	32c	6W1212	Insulated Plate (ESD)	2
7	4S3074	Sleeve Spring (1/4")	1	20	4N1143	Roller Pin (ø2.0*12.8mm)	1	▲	33	8T1663	Screw (M2.6*6mm)	2
8	4A1025	Hammer Casing Sub Ass'y	1	20a	4N1145	Roller Pin (ø2.0*5.8mm)	1	▲	34	8T2624	Screw (M2.6*5mm)	1
8a	4E1022	Ball Bearing (ø7*ø11* 3T)	2	20b	4N1146	Roller Pin (ø2.0*6.8mm)	1	▲	35	4F1023	Hanger Ring (ø1.0*ø12.0*2T)	1
8b	4T1035	Hammer Casing (ø7.00)	1	21	2A7012	Micro Switch Sub Ass'y	1	36	4F1012	Hanger Ring	1	
9	4W6015	Washer (ø10.9*ø7* 0.2T)	1	21a	4V1032	Fixing Plate	1	37	4S3052	Fwd. Spring	1	
10	4W6411	Washer (ø15*ø11* 2.4T)	1	21b	2S3018	Micro SW. Only (5GL)	1	38	6P4013	Fwd. Trigger (Black)	1	
11	4S1114	Spring (ø1.6)	1	▲	2S3011	Micro SW. Only (10GL)	1	▲	39	6P4015	Fwd. Trigger (ESD Black)	1
	4S1073	Spring (ø1.4)	1	●	4S3043	Recoil Spring (ø0.35mm)	1	39	6P4023	Rev. Trigger (Black)	1	
	4S1026	Spring (ø1.1)	1	■	4N4015	Spring Cotter (ø2.0*8mm)	1	★	6P4025	Rev. Trigger (ESD Black)	1	
12	4A5025	Retainer Sub Ass'y	1	21c	4L2851	Second Gear Cage	1	(1)	40	2A6039A	PWB Sub Ass'y	
12a	4U1037	Snap Ring (ø0.8mm)	1	21d	4G2654	Second Planet Gear (10T)	3	40a	2H1083	Circuit Board		
12b	4E6011	Washer	1	22a	4L1654	First Gear Cage (C/W Center Gear)	1	40b	2S3012	Micro Switch (SS-10)	1	
12c	4B1024	Ball (ø2.0)	15	22b	4G2654	First Planet Gear (10T)	3	40c	2S1021	Micro Switch (V-12-1E5)	1	
12d	4K6011	Driven Clutch	1	27	4W6012	Washer (ø4.5*ø9* t0.2)	1	40d	2G1023	5P Socket	1	
	4K6012	Driven Clutch	1	▲	28	4G1652	Driving Gear (9T)	1	41	2W2122	5P-5P Connector Wire (2.4m)	1
13	4C1024	Anvil (O.D. 7.00)	1	●	29	2M2061	Motor (7Q2765-21020)	1	42	4C1191	Bit Holder (1/4")	1
	4C1025	Anvil (O.D. 7.00)	1	▲	30	2B1018	Brush (Pair)	2	43	4N4012	Spring Cotter (ø2.0 x 9.8mm)	2
14	4B1029	Ball (ø4.0)	2	▲	31a	2R2014	Resistor (100?)	1	44	4U1054	Snap Ring (1/4")	1
15	4E1023	Ball Bearing (ø3*ø8* t4mm)	1	●								
	4B1027	Ball (ø3.0)	1	▲								
16	4K2046	Hammer (High 1.6mm)	1	■								

### KEY

- AE-2020
- AE-4020
- ▲ AE-4520
- ★ ESD



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When ordering spare parts, please specify tool type, part number and description.



## **Electra™ Driver Calibration Guidelines**

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Calibration of the Electra™ electric screwdrivers from AIMCO is similar in process and experience to other pneumatic or electric clutch type screw drivers from any brand.

To properly perform a calibration the tool should be used as it would be on a rotating joint assembly that delivers a repeatable joint characteristic as is advised in ISO 5393.

The joint to be used is set to either the user conceived standard (A, B, C, D with A being hard and D being soft) or to a setting that most closely matches the joint characteristics of the application on which the tool will be run on.

Typical procedure is to test the tool with a rotary transducer installed between the output (1/4" hex on Electra™ drivers) of the tool and the bit or implement being driven on the test joint. An absolute minimum of 5 rundowns with a recommendation of 30 rundowns is to be performed and judgements made from the results of those runs.

In all cases with clutched power tools, the joint is an integral part of resulting accuracy of the power tool. As such it is difficult if not inaccurate for a maker to state a known accuracy of their power tool without a caveat as to how the results were derived.

As a guideline, Electra™ drivers (with the exception of AE2015) are capable of accuracy +/- 5% in our lab when run on a known joint, with an operator hand holding the tool, and over a 30 run data set. With typical workers on an assembly line and the wide variety of part consistency that the tool may encounter we would expect to see results in the 7-11% range.

AE-2015 is a Cushion Clutch design with no shutoff. The clutch features a slip clutch configuration that can be operator sensitive should the operator choose to maintain trigger activation for a period of time longer than 3 seconds after clutch activation. These tools typically exhibit 10% accuracy in the lab and 15-20% accuracy under line conditions. Results may vary depending on the diligence of the worker.