



1395 Digital DC Drive Renewal Parts

Important Information, Read First

The 1395 Product Line has evolved from current rated units to horsepower rated units. Within the range of sizes there are various series levels of hardware that you must identify before ordering parts.

Figure 1-1 Series Levels

Current Rated Pages 4 thru 9

SERIES A			SERIES B (MKVA)			SERIES A (HKVA)		
3.6A	230V	345A	346A	230V	980A	1350A	230/380/415V	2250A
3.6A	460V	345A	346A	460V	980A	1350A	460/575/660V	2250A

Horsepower Rated Pages 10 thru 15

SER B			SER A			SER B(Med KVA)		
1HP	230V	30HP	40HP	230V	100HP	125HP	230V	300HP
2HP	460V	60HP	75HP	460V	200HP	250HP	460V	600HP

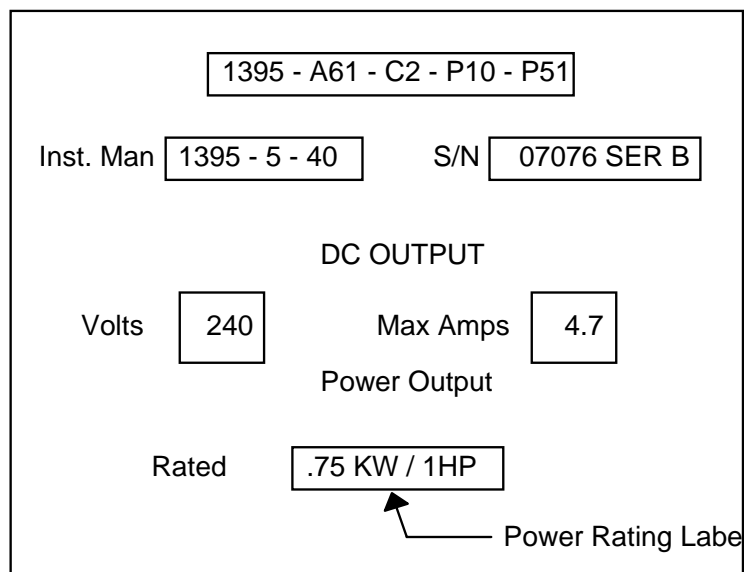
Drive Series Identification

The Drive Nameplate (Fig. 1-2) which is located inside the front cover of the drive can be used to identify the Series of your drive. If your drive contains an extra Power Output Rating entry at the bottom of the label it is a Horsepower rated drive.

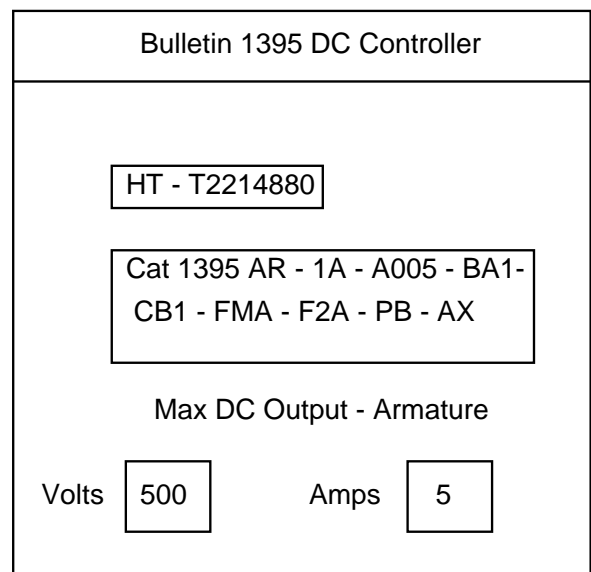
Figure 1-2.

Drive Nameplates

Horsepower Rated Drive Nameplate



Current Rated Drive Nameplate



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How to order Spare parts

Customers:

Please call local distributor for all parts orders. When looking at a printed circuit board for a part number, refer to the label with “*Kit*” preceding the 6 digit number.

Distributors:

The vast majority of the parts in this manual are in the 6 digit AMAPS format with the remainder being in Catalog Number format.

For some time the 6 digit part numbers in the Passport System needed an “SP” prefix in front of the number. Later, the “SP” was changed to “1395” and in fact if you enter an “SP xxxxxx”, Passport will convert it to “1395 xxxxxx”. If you enter “SP xxxxxx” and the part comes up invalid, enter “1395 xxxxxx”. If the part still comes back as invalid, follow the procedure below:

1. Call 1395 Tech Support at 262-512-8176 to establish a Clarify Case number and verify that the part number is valid.
2. Ask to be transferred to Customer Service for price and delivery. (They will ask for the case number.)
 1. Enter the Passport P/N as SP-SDB-CUSTOM.
 2. In the Memo Text block:
 - A) Enter the 6 digit part number.
 - B) Enter the Clarify Case number.
 - C) Enter price and delivery information.
3. Summit order.

1395 Digital DC Drive Renewal Parts

Current Rated, Series A Drives, 3.6A to 345A, 50/60 Hz, 230, 380, 415 & 460 Volt AC Inputs.
Parts Common to All Ratings

<u>Description</u>	<u>Part Number</u>	<u>Quantity per Drive</u>	<u>Supersedes</u>
Main Control Board (All boards refer to "spare parts kit" number label on board. And all are downward compatible.)			
Firmware Rev. 3.01	119521	1	
Firmware Rev. 4.01	140354	1	
Firmware Rev. 4.03	144961	1	
Firmware Rev. 5.01	145048	1	
Firmware Rev. 8.02	155800	1	
Firmware Rev. 8.03	156009	1	
Firmware Rev. 8.10	185694	1	170174
Firmware Rev. 9.20	185713	1	
Firmware Rev. 10.10	194933	1	
Firmware Rev. 9.30	196259	1	Rev 10.10 194933 (Note 1)
Discrete Adapter Board 115V AC	170024	1	119712 & 145479
Discrete Adapter Board 24 VDC	170023	1	145472
Digital Reference Adapter Board.....	140093	1	
Digital Ref Adapt Bd (RTP only) KP13	164325	1	133496
Multi Communication Adapter Board.....	196274	1	145108,155993
ControlNet Adapter Board	KP54EN (196273)	1	185240
Node Adapter Board	148540	1	119527
Feedback Board 240V.....	122970	1	
Feedback Board 300-575V	122972	1	
Armature Pulse Transformer & Snubber Board.....	110996	3	
Field Pulse Transformer & Snubber Board.....	170130	1	110997
PSI Board	170948	1	119524
PSI Board Cable Connectors:			
J1, 6 Pin Cable connector	122982	1	
J10, 12 Pin Cable Connector	122983	1	
Power Supply Board Kit			
(Includes 2.5" and 18" cable & PCB connector)...	142129	1	126438 (Assembly)
Transformer, 24V Supply	122985	1	
Fuse, 600V, 25A KTK-R	101705	3	
Fuse, 250V 1 A MDL	101664	1	
Fuse, 250V, 5A Slow Blow	113829	1	
Pilot Relay	125928	1	
Heat Sink Thermoswitch.....	112929	1	
ACT 1, ACT2, 250:1.....	123969	2	
MOV Field 240-480V	173973	2	115549
MOV Three Phase 240-480V	115547	1	
MOV Control Power.....	123396	1	

Notes:

(1) 9.30 functionally identical to 10.10. ITS and DT-32 limited to three digits.

1395 Digital DC Drive Renewal Parts

Current Rated (Continued) Series A Drives, 3.6A to 345A, 50/60 Hz, 230, 380, 415 & 460 Volt AC Inputs.
Parts Associated with a Particular Rating

<u>Description</u>	<u>3.6- 19A</u>	<u>20- 56A</u>	<u>57- 80A</u>	<u>81- 110A</u>	<u>Quantity Per Drive</u>
Line Fuse, 240-480V	155620	155621	140053	155622	3
Line Circuit Breaker, 240-480V	123479	123477	123476	123475	1
Cooling Fans (2 per unit)	NA	NA	NA	129016	2
Cooling Fans (3 per unit)	NA	NA	NA	NA	3
Contactor - 2 Pole wo/DB	123148	123148	123154	123154	1
Contact Kit for	123148 (56A):	40410-331-54 (2Ea) Normally Open (N/O)			
	123166 (110A):	40420-322-52 (2Ea) Normally Open (N/O)			
Contactor - 3 Pole w/DB	123172	123172	123178	123178	1
Contact Kit for	123172 (56A):	40410-331-54 (2Ea) N/O & 40410-857-01 (1Ea) N/C			
	123178 (110A):	40420-322-52 (2Ea) N/O & 40420-850-01 (1Ea) N/C			
N.O./N.C. Aux. Contact	111307	111307	111307	111307	1
Contactor Coil	119487	119487	119488	119488	1
Contactor Suppressor 120VAC, 5 Joules	151643	151643	151643	151643	1
SCR Armature 240-480V Kits	192704(4)	192706(1)	192706(1)	192706(1)	6
SCR Field 240-480V	192704(2)	192704(2)	192704(2)	192704(3)	2

Notes:

- (1) Supersedes 135110,123119, 192705 (2) Supersedes 119734, 142569 , 192738
(3) Supersedes 142570, 192738 (4) Supersedes 135111

Parts Associated with a Particular Rating

<u>Description</u>	<u>111- 140A</u>	<u>141- 180A</u>	<u>181- 260A</u>	<u>261- 345A</u>	<u>Quantity per Drive</u>
Line Fuse, 240-480V	155623	155624	155625	155626	3
Line Circuit Breaker, 240-480V	123388	123387	123387	NA	1
Cooling Fans (2 per unit)	129016(11)	129016(11)	NA	NA	2
Cooling Fans (3 per unit)	NA	NA	129016	129016	3
Contactor - 2 Pole wo/DB	123160	123160	123166	170858(5)	1
Contact Kit for	123160 (180A):	40430-300-52 (2Ea) Normally Open (N/O)			
	123166 (280A):	40440-325-52 (2Ea) Normally Open (N/O)			
	170858 (360A):	Z-34042 (2Ea) Normally Open (N/O)			
Contactor - 3 Pole w/DB	163440(13)	163440(13)	123190	170861(6)	1
Contact Kit for	163440 (180A):	40430-300-52 (2Ea) (N/O) & 40430-850-01 (N/C)			
	123190 (280A):	40440-325-52 (2Ea) (N/O) & 40440-850-01 (N/C)			
	170861 (360A):	Z-34042 (2Ea) (N/O) & (40450-319-52 Front term assy, 40450-320-52 Rear term assy, 40450-318-52 Movable Contact) N/C Kit			
N.O. /N.C. Aux. Contact	111307	111307	111307	NA	1
Contactor Coil	119489	119489	119490	119490	1
Contactor Suppressor	151643(12)	151643(12)	151643(12)	115621	1
SCR Armature 240-480V Kits	192707(7)	192707(7)	192708(8)	192709(9)	6
SCR Field 240-480V	192704(10)	192704(10)	192704(10)	192704(10)	2

Notes:

- (5) Supersedes 155770, 116747(ASEA EFLG315-2P) To replace 116747, use kit # 170859
(6) Supersedes 155780, 117940(ASEA EFLG315) To replace 117940 , use Kit #170862
(7) Supersedes 135109, (8) Supersedes 135108, (9) Supersedes 135107, (10) Supersedes 142570, 192738
(11) Supersedes 135787, (12) Supersedes 115619, (13) Supersedes 123184

1395 Digital DC Drive Renewal Parts

**Current Rated, Series B Drives, 346A to 980A, MKVA, 50/60 Hz, 230, 380, 415 & 460 Volt AC Input
Parts Common to All Ratings**

Description	Part Number	Quantity per Drive	Supersedes
Main Control Board (All boards refer to "spare parts kit" number label on board. And all are downward compatible.)			
Firmware Rev. 3.01	119521	1	
Firmware Rev. 4.01	140354	1	
Frmware Rev. 4.03	144961	1	
Firmware Rev. 5.01	145048	1	
Firmware Rev. 8.02	155800	1	
Firmware Rev. 8.03	156009	1	
Firmware Rev. 8.10	185694	1	170174
Firmware Rev. 9.20	185713	1	
Firmware Rev. 10.10	194933	1	
Firmware Rev. 9.30	196259	1	Rev 10.10 194933 (Note 1)
Discrete Adapter Board 115V AC	170024	1	119712 & 145479
Discrete Adapter Board 24 VDC	170023	1	145472
Digital Reference Adapter Board.....	140093	1	
Digital Ref Adapt Bd (RTP only) KP13	164325	1	133496
Multi Communication Adapter Board.....	196274	1	145108,155993
ControlNet Adapter Board	KP54EN (196273)	1	185240
Node Adapter Board	148540	1	119527
Feedback Board 240V.....	122970	1	
Feedback Board 300-575V	122972	1	
Armature Pulse Transformer Board	126511	3	
Armature Snubber board.....	129844	3	
Field Pulse Transformer & Snubber Board.....	170131	1	110997 & 155227
Power Stage Interface Board (PSI)	170950	1	126305
PSI Board Cable Connectors:			
J1, 6 Pin Cable connector	122982	1	
J10, 12 Pin Cable Connector	122983	1	
Power Supply Board Kit			
(Includes 2.5" and 18" cable & PCB connector)...	142129	1	126438 (Assembly)
Transformer, 24V Supply	122985	1	
Fuse, 600V, 20A KTK-R	101669	3	
Fuse, 500V, 800A, Blade Semiconductor type	119436	6	
Fuse, 250V 1A MDL	109226	1	
Fuse, 250V, 5A Slow Blow	113829	1	
Pilot Relay.....	125928	1	
Cooling Fans	117475	3	
Fan Switch Kit (Includes switch and vane).....	103997	3	
Fan Switch (Only).....	101935	3	
Fan Switch Vane	102362	3	
Contacto-1 Pole	172002	1	117474
SCR Field Kit, 104A, 1500V	192706	2	135110,192705
SCR, Field (Part of Kit # 192706, Order Kit)	192697	2	123119,192696
MOV Field	173973	2	115549
MOV Three Phase.....	115547	1	
Current Transformer (FCT) 1000:1	105061	1	
Current Transformer (ACT1-3) 1500:1	118430	3	
Inductor (CH1) 40 amp 0.11mh	129816	1	

Note: (1) 9.30 functionally identical to 10.10. ITS and DT-32 limited to three digits.

1395 Digital DC Drive Renewal Parts

Current Rated,(CONTINUED) Series B Drives, 346A to 980A, MKVA, 50/60 Hz, 230, 380, 415 & 460 Volt AC Input

Parts Associated with a Particular Rating

<u>Description</u>	<u>346A- 670A</u>	<u>671A- 980A</u>	<u>Quantity per Drive</u>
SCR-Armature, 240-480V Regen	117486 (1050A, 1200V)	117487 (1880A, 1200V)	12
SCR-Armature, 240-480V Non-Regen	117486	117487	6
Arm Pole Piece Regen	118571	117444	3
Armature Pole Piece Non-Regen	118573	118572	3

Tool needed to replace SCR

Pole Piece Fixture Assembly	119495 (Includes PIP Gauge) 119518 (PIP Gauge only)
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1395 Digital DC Drive Renewal Parts

Current Rated,(CONTINUED)

Series A Drives, 1350A & 2250A, HKVA , 50/60 Hz, 230, 380, 415, 460, 575 & 660 Volt, AC Input.

Parts Common to All Ratings

<u>Description</u>	<u>Part Number</u>	<u>Quantity per Drive</u>	<u>Supersedes</u>
Main Control Board (All boards refer to "spare parts kit" number label on board. And all are downward compatible.)			
Firmware Rev. 3.01	119521	1	
Firmware Rev. 4.01	140354	1	
Firmware Rev. 4.03	144961	1	
Firmware Rev. 5.01	145048	1	
Firmware Rev. 8.02	155800	1	
Firmware Rev. 8.03	156009	1	
Firmware Rev. 8.10	185694	1	170174
Firmware Rev. 9.20	185713	1	
Firmware Rev. 10.10	194933	1	
Firmware Rev. 9.30	196259	1	Rev 10.10 194933 (Note 1)
Discrete Adapter Board 115V AC	170024	1	119712 & 145479
Discrete Adapter Board 24 VDC	170023	1	145472
Digital Reference Board (24V DC).....	140093	1	
Digital Ref Adapt Bd (RTP only) KP13	164325	1	133496
Multi Communication Adapter Board.....	196274	1	145108,155993
ControlNet Adapter Board	KP54EN (196273)	1	185240
Node Adapter Board	148540	1	119527
SCR Firing Power Supply (4.5A @ 24 VDC)	168363	1	137875
Armature Pulse Board (Regen)	144965	4	
Armature Pulse Board (Non-Regen)	144965	2	
Field Pulse Board	170131	1	110997
PSI Board	170952	1	144966
Power Supply Board Kit			
(Includes 2.5" and 18" cable & PCB connector)...	142129	1	126438 (Assembly)
Fuse, Arm Bridge 900A, 700V,SPP	132650	12	
Fuse, Field Bridge 45A, 600V, LPJ	143151	1	
Fuse, Power Transformer 7A, 600V	149860	2	
Fuse, Power Transformer 8A, 600V	101698	1	
Fuse, Power Transformer 5A, 600V	125422	1	
Pilot Relay	125928	1	
SCR-Field KIT, 104A, 1500V(uses 192697 scr)...	192706	2	135110(2), 192705(3)
MOV-Field.....	173973	2	115549
Current Transformer, Field	105061	1	
Current Transformer, Armature	505534	3	
Inductor, Field.....	109833	1	

- Notes:
- (1) 9.30 functionally identical to 10.10. ITS and DT-32 limited to three digits.
 - (2) 135110 includes 123119 SCR-1200v
 - (3) 192705 includes 192696 SCR 1400v

1395 Digital DC Drive Renewal Parts

Current Rated,(CONTINUED)

Series A Drives, 1350A & 2250A, HKVA , 50/60 Hz, 230, 380, 415, 460, 575 & 660 Volt, AC Input.
Parts Associated with a Particular Rating

<u>Description</u>	<u>1350A 230- 460V</u>	<u>1350A- 575- 660V</u>	<u>2250A- 230- 460V</u>	<u>2250A- 575- 660V</u>	<u>Quantity per Drive</u>	
Feedback Board Kit 230VAC	122970	NA	122970	NA	1	
Feedback Board Kit 300 - 575V AC	122972	NA	122972	NA	1	
Feedback Board Kit 660V AC	NA	317027-A01(3)	NA	317027-A01(3)	1	
Fuse, Field Bridge 25A, 1500V	NA	159367	NA	159367	2	
Fuse, Field Bridge 40A, 1500V	NA	159366	NA	159366	2	
Fuse, Field Bridge 60A, 1500V	NA	159368	NA	159368	2	
Fuse, Fan 15A, 600V, LPJ	118346	NA	118346	NA	3	
Fuse, Fan 15A, 700V,	NA	145003	NA	145003	3	
Line Circuit Breaker	192950(1)	192950(1)	192952(2)	192952(2)	1	
Cooling Fan	506393	144133	506393	144133	1	
Contacto,r,1 Pole	147703	147703	147704	147704	1	
Rectifier Bridge for Contacto,r	129362	129362	129362	129362	1	
SCR Armature (Regen)	506155	505998	506155	505998	12	
SCR Armature (Non-Regen)	506155	505998	506155	505998	6	
Armature Pole Piece:						
Regenerative (+) Bridge	505980	506031	505980	506031	1	(No longer available,
Regenerative (-) Bridge	505981	506032	505981	506032	1	Replace Drive
Non-Regenerative (+) Bridge	505978	506029	505978	506029	1	With 2361 HKVA
Non-Regenerative (-) Bridge	505979	506030	505979	506030	1	Series Drive)
MOV -3 Phase AC (MOV 4, 5, 6)	173490(4)	173492(5)	173490(4)	173492(5)	See notes	
MOV -3 Phase AC (MOV 7)	173490(4)	173492(5)	173490(4)	173492(5)	See notes	

Note 1, Supercedes 506152

Note 2, Supercedes 506153, 192951, 506154

Note 3, Supercedes 142429

Note 4, 173490 is a kit which contains 3 each of 142241 and 1 each of 142242

Note 5, 173492 is a kit which contains 3 each of 142463 and 1 each of 142464

1395 Digital DC Drive Renewal Parts

Horsepower Rated

Series B Drives, 1 to 30 HP, 230 Volt, 2 to 60 HP, 460 Volt, Regenerative & Non-Regenerative
Parts Common to All Ratings,

Description	Part Number	Quantity Per Drive	Supersedes
Front Cover	192632	1	
Shoulder Hinge Screw.....	125930	2	
Washer, Flat Plastic.....	126002	2	
Main Control Board (All boards refer to "spare parts kit" number label on board. And all are downward compatible.)			
Firmware Rev. 3.01.....	119521	1	
Firmware Rev. 4.01.....	140354	1	
Firmware Rev. 4.03.....	144961	1	
Firmware Rev. 5.01.....	145048	1	
Firmware Rev. 8.02.....	155800	1	
Firmware Rev. 8.03.....	156009	1	
Firmware Rev. 8.10.....	185694	1	170174
Firmware Rev. 9.20.....	185713	1	
Firmware Rev. 10.10	194933	1	
Firmware Rev. 9.30	196259	1	Rev 10.10 194933 (Note 1)
Discrete Adapter Board 115VAC.....	170024	1	119712 & 145479
Discrete Adapter Board 24V DC.....	170023	1	123240, 145472
Digital Reference Adapter Board.....	140093	1	
Digital Reference Adapter Board (RTP only) KP13	164325	1	133496
Multi Communication Adapter Board.....	196274	1	145108,155993
ControlNet Adapter Board	KP54EN (196273)	1	185240
Node Adapter Board	148540	1	119527
Mounting Hardware (Main Control Board and all Adapter Boards)			
White plastic hinge bar	145324	1	
Left Hinge Bracket.....	145321	1	
Right Hinge Bracket.....	145322	1	
Screw, Bracket to White Plastic Hinge Bar	109844	2	
Screw, Pivot	126019	2	
Power Board w/Dual Field MOV (Note: Includes 173595 Connector)			
Regenerative.....	173172	1	148249 & 155507 & 170770
Non-Regenerative	173174	1	148250 & 155506 & 170771
Mounting Hardware (Power Board)			
Bus Bar	152229	1	
Screw	152793	10	
Standoff.....	128937	2	
Washer.....	152434	2	
White Plastic Mounting Standoffs.....	145310	9	
TB1, 4 pin cable connector.....	173595	1	
PSI/Switcher Board (with J2, 5 pin connector)	194954	1	148248 & 154966 & 170946 & 173169 & 192364
Mounting Hardware (PSI Board)			
Base Plate	145316	1	
Screws Shoulder, Hinge	126019	2	
Mylar Insulator, 2"x 2", .5 mil	152922	1	
Black plastic mounting standoffs	111565	10	
J2 cable connector, 5 pin	145381	1	
J14 cable conn, 12 pin, w/screw hold downs.....	170980	1	
TB2, 7 Pin Cable connector	145457	1	
Wire Harness Assembly, J14.....	170981	1	
Fuse 250V,1.5AAGC (F1 on PSI).....	106937	1	
Fuse 250V, 1A MDL (F2 on PSI)	128458	1	
Fuse 250V, 5A MDX (F3 on PSI).....	113829	1	
Fuse 600V, 12A KTK-R (F1, F2 on Power)	117033	2	
Heat Sink Thermoswitch.....	112929	1	
MOV1 (Control Power)	107960	1	
ACT1, ACT2, FCT	173941	3	123969
ACT turns 230Volt 1-5 HP (6 turns) 7.5-30 HP (1 turn)			
ACT turns 460Volt 2-10 HP (6 turns) 15 -60 HP (1 turn)			
TD-1 Transducer, 825:1.....	105062	1	

Notes: (1) 9.30 functionally identical to 10.10. ITS and DriveTools32 were limited to three digits.

1395 Digital DC Drive Renewal Parts

Horsepower Rated(CONTINUED) Series B Drives, 1 to 30 HP, 230 Volt Regenerative & Non-Regenerative
Parts Associated with a Particular Rating

Description	1-5 HP	7.5-10 HP	15 HP	20-30 HP	Quantity per Drive
Auxiliary Contact NO./NC.	111307	111307	111307	111307	1
Contactor, 2 Pole	123148	123148	123148	123154	1
Contact Kit for					
123148 (56A):	40410-331-54 (2Ea) Normally Open (N/O)				
123154 (110A):	40420-322-52 (2Ea) Normally Open (N/O)				
Contactor, 3 Pole with DB	123172	123172	123172	123178	1
Contact Kit for					
123172 (56A):	40410-331-54 (2Ea) N/O & 40410-857-01 (1Ea) N/C				
123178 (110A):	40420-322-52 (2Ea) N/O & 40420-850-01 (1Ea) N/C				
Contactor Coil	119487	119487	119487	119488	1
Contactor Suppressor	151643	151643	151643	151643	1
Fan (if supplied)	-	-	129016	129016	1
Fuses, Line					
500V FWH-35A	151038	-	-	-	3
500V FWH-60A	-	151041	151041	-	3
500V FWH-125A	-	-	-	140054	3
Lugs	155256	155256	155256	155255	3
Mounting Post for fuses, White	145396	145396	145396	145396	6
Nut for Mounting post	145380	145380	145380	145380	6
Fuse, Snubber Board					
600V, 0.3A KTK-R	140852	-	-	-	1
Snubber Bd .w/Resistor	151490	-	-	-	1
SCR, Armature Kits					
Regenerative	192704(1)	192704(1)	192706(2)	192706(2)	6
Non-Regenerative	192704(1)	192704(1)	192706(2)	192706(2)	3
SCR, Field	145415	145415	145415	145415	1

Series B Drives , 2 to 60 HP, 460 Volt, Regenerative & Non-Regenerative

Description	2-10HP	15-20HP	25-30HP	40-60HP	Quantity per Drive
Auxiliary Contact	111307	111307	111307	111307	1
Contactor, 2 Pole	123148	123148	123148	123154	1
Contact Kit for					
123148 (56A):	40410-331-54 (2Ea) Normally Open (N/O)				
123154 (110A):	40420-322-52 (2Ea) Normally Open (N/O)				
Contactor, 3 Pole with DB	123172	123172	123172	123178	1
Contact Kit for					
123172 (56A):	40410-331-54 (2Ea) N/O & 40410-857-01 (1Ea) N/C				
123178 (110A):	40420-322-52 (2Ea) N/O & 40420-850-01 (1Ea) N/C				
Contactor Coil	119487	119487	119487	119488	1
Contactor Suppressor	151643	151643	151643	151643	1
Fan (if supplied)	-	-	129016(3)	129016(3)	1
Fuses, Line					
500V FWH-35A	151038	-	-	-	3
500V FWH-60A	-	151041	151041	-	3
500V FWH-125A	-	-	-	140054	3
Lugs	155256	155256	155256	155255	3
Mounting Post for fuses, White	145396	145396	145396	145396	6
Nut for Mounting post	145380	145380	145380	145380	6
Fuse, Snubber Board,					
600V, 0.3A KTK-R	140852	-	-	-	1
Snubber Bd. w/Resistor	151490	-	-	-	1
SCR, Armature Kits					
Regenerative	192704(1)	192704(1)	192706(2)	192706(2)	6
Non-Regenerative	192704(1)	192704(1)	192706(2)	192706(2)	3
SCR, Field	145415	145415	145415	145415	1

Notes:

- (1) 192704 SCR 1600v, Supersedes: 135111 Kit, which included SCR 123118 1200v
- (2) 192706 SCR 1500v, Supersedes: 145416 (SCR 1200V)
- (3) Supersedes: 135787

1395 Digital DC Drive Renewal Parts

**Horsepower Rated Series A Drives, 40 to 100 HP, 230 Volt, 75 to 200 HP, 460 Volt,
Parts Common to All Ratings**

<u>Description</u>	<u>Part Number</u>	<u>Quantity per Drive</u>	<u>Supersedes</u>
Main Control Board (All boards refer to "spare parts kit" number label on board. And all are downward compatible.)			
Firmware Rev. 3.01	119521	1	
Firmware Rev. 4.01	140354	1	
Firmware Rev. 4.03	144961	1	
Firmware Rev. 5.01	145048	1	
Firmware Rev. 8.02	155800	1	
Firmware Rev. 8.03	156009	1	
Firmware Rev. 8.10	185694	1	170174
Firmware Rev. 9.20	185713	1	
Firmware Rev. 10.10	194933	1	
Firmware Rev. 9.30	196259	1	Rev 10.10 194933 (Note 1)
Digital Reference Adapter Board.....	140093	1	
Discrete Adapter Board 115VAC	170024	1	119712 & 145479
Discrete Adapter Board 24V DC	170023	1	145472
Digital Ref Adapt Bd (RTP only) KP13	164325	1	133496
Multi Communication Adapter Board.....	196274	1	145108,155993
ControlNet Adapter Board	KP54EN (196273)	1	185240
Node Adapter Board	148540	1	119527
Feedback Board 230V AC	122970	1	
Feedback Board 460V AC	122972	1	
Armature Pulse Transformer and Snubber Board ..	110996	3	
Mounting Hardware			
Hex Spacer.....	107955	6	
Field Pulse Transformer and Snubber Board	170130	1	110997
Power Stage Interface Board.....	170948	1	119524
PSI Board Cable Connectors:			
J1, 6 Pin Cable connector	122982	1	
J10, 12 Pin Cable Connector	122983	1	
Power Supply Board Kit			
(Includes 2.5" and 18" cable & PCB connector)...	142129	1	126438 (Assembly)
Fuse 600V, 25A KTK-R (F4, F5, F6).....	101705	3	
Fuse 250V, 1A MDL (F7).....	101664	1	
Fuse 250V, 5A MDX (F8)	113829	1	
Fuse Holder for F7 & F8.....	126018	2	
Heat Sink Thermoswitch.....	112929	1	
Pilot Relay	125928	1	
Suppressor, Control 120VAC, 55J (4 MOV).....	123396	1	
Suppressor, Field (2, 3 MOV).....	173973	2	115549
Suppressor, Pilot Relay (SP2).....	115621	1	
Suppressor, Three-Phase(1 MOV).....	115547	1	
Transformer, 24V Supply	122985	1	
ACT1, ACT2, FCT1	105061	3	
TD-1	105062	1	

Notes: (1) 9.30 functionally identical to 10.10. ITS and DriveTools32 were limited to three digits.

Auxiliary Contacts 100hp @ 230V and 200hp @ 460V See page 13 for rest of HP ratings

<u>Auxiliary Contact Position</u>	<u>Terminal marking</u>	<u>Part Number</u>
11A	N.O., 13-14, N.C., 21-22	608830-4BA
11B	N.O., 43-44, N.C., 31-32	172108
11C	N.O., 53-54, N.C., 61-62	301609

1395 Digital DC Drive Renewal Parts

**Horsepower Rated(CONTINUED) Series A Drives, 40 to 100 HP, 230 Volt
Parts Associated with a Particular Rating**

Description	40 HP	50 HP	60-75 HP	100 HP	Quantity per Drive
Auxiliary Contact, N.O./N.C.	111307	111307	111307	See page 12	1
Contactor, 2 Pole	123160	123160	123166	170858 (1)	1
Contact Kit for 123160 (180A):	40430-300-52 (2Ea) Normally Open (N/O)				
123166 (280A):	40440-325-52 (2Ea) Normally Open (N/O)				
170858 (360A):	Z-34042 (2Ea) Normally Open (N/O)				
Contactor, 3 Pole with DB	163440(2)	163440(2)	123190	170861 (3)	1
Contact Kit for 163440 (180A):	40430-300-52 (2Ea) (N/O) & 40430-850-01 (N/C)				
123190 (280A):	40440-325-52 (2Ea) (N/O) & 40440-850-01 (N/C)				
170861 (360A):	Z-34042 (2Ea) (N/O) &				
	(40450-319-52 Front term assy, 40450-320-52 Rear term assy, 40450-318-52 Movable Contact) N/C Kit				
Contactor Coil	119489	119489	119490	-	1
Contactor Suppressor MOV(SP1)	151643(9)	151643(9)	151643(9)	115621	1
Contactor Suppressor RC Snubber	192298	192298	192298	-	1
Fans (if supplied)	129016(8)	129016(8)	-	-	2
			129016(8)	129016(8)	3
Fuses, Line	155623	155624	155625	155626	3
SCR, Armature Kit 1600V	192707(4)	192707(4)	192708(5)	192709(6)	6
SCR, Field Kit 1600V	192704(7)	192704(7)	192704(7)	192704(7)	2

**Series A Drives, 75 to 200 HP, 460 Volt
Parts Associated with a Particular Rating**

Description	75 HP	100 HP	125 - 150 HP	200 HP	Quantity per Drive
Auxiliary Contact, N.O./N.C.	111307	111307	111307	See page 12	1
Contactor, 2 Pole	123160	123160	123166	170858(1)	1
Contact Kit for 123160 (180A):	40430-300-52 (2Ea) Normally Open (N/O)				
123166 (280A):	40440-325-52 (2Ea) Normally Open (N/O)				
170858 (360A):	Z-34042 (2Ea) Normally Open (N/O)				
Contactor, 3 Pole with DB	163440(2)	163440(2)	123190	170861(3)	1
Contact Kit for 163440 (180A):	40430-300-52 (2Ea) (N/O) & 40430-850-01 (N/C)				
123190 (280A):	40440-325-52 (2Ea) (N/O) & 40440-850-01 (N/C)				
170861 (360A):	Z-34042 (2Ea) (N/O) &				
	(40450-319-52 Front term assy, 40450-320-52 Rear term assy, 40450-318-52 Movable Contact) N/C Kit				
Contactor Coil	119489	119489	119490	-	1
Contactor Suppressor MOV (SP1)	151643(9)	151643(9)	151643(9)	115621	1
Contactor Suppressor RC Snubber	192298	192298	192298	-	1
Fans (if supplied)	129016(8)	129016(8)	-	-	2
			129016(8)	129016(8)	3
Fuses, Line 200A, 500V	155623	-	-	-	3
250A, 500V		155624	-	-	3
350A, 500V			155625	-	3
400A, 500V				155626	3
SCR, Armature Kit 1600V	192707(4)	192707(4)	192708(5)	192709(6)	6
SCR, Field Kit 1600V	192704(7)	192704(7)	192704(7)	192704(7)	2

- (1) Supersedes 155770, 116747(ASEA EFLG315-2P) To replace 116747, use kit # 170859
- (2) Supersedes 123184
- (3) Supersedes 155780, 117940(ASEA EFLG315).To replace 117940, use kit # 170862
- (4) Supersedes 135109 Kit, includes SCR 110463 1200V. (5) Supersedes 135108 Kit, includes SCR 107427 1200V.
- (6) Supersedes 135107 Kit, includes SCR 117404 1200V. (7) Supersedes 142570 SCR 1600V., 192738
- (8) Supersedes 135787 (9) Supersedes 115619

1395 Digital DC Drive Renewal Parts

Horsepower Rated

**Series B Drives, MKVA, 125 to 300 HP@230 Volt; 250 to 600 HP@460V; 500 to 600 HP@575V; 600 to 737HP@660V
Regenerative & Non-Regenerative**

Parts Common to All Ratings

<u>Description</u>	<u>Part Number</u>	<u>Quantity per Drive</u>	<u>Supercedes</u>
Main Control Board (All boards refer to "spare parts kit" number label on board. And all are downward compatible.)			
Firmware Rev. 3.01.....	119521.....	1.....	
Firmware Rev. 4.01.....	140354.....	1.....	
Firmware Rev. 4.03.....	144961.....	1.....	
Firmware Rev. 5.01.....	145048.....	1.....	
Firmware Rev. 8.02.....	155800.....	1.....	
Firmware Rev. 8.03.....	156009.....	1.....	
Firmware Rev. 8.10.....	185694.....	1.....	170174
Firmware Rev. 9.20.....	185713.....	1.....	
Firmware Rev. 10.10.....	194933.....	1.....	
Firmware Rev. 9.30.....	196259.....	1.....	Rev 10.10 194933 (Note 1)
Discrete Adapter Board 115VAC.....	170024.....	1.....	119712 & 145479
Discrete Adapter Board 24V DC.....	170023.....	1.....	145472
Digital Reference Adapter Board.....	140093.....	1.....	
Digital Reference Adapter Board (RTP only) KP13.....	164325.....	1.....	133496
Multi Communication Adapter Board.....	196274.....	1.....	145108,155993
ControlNet Adapter Board.....	KP54EN (196273).....	1.....	185240
Node Adapter Board.....	148540.....	1.....	119527
Mounting Hardware for above boards:			
White plastic hinge bar.....	119912.....	1.....	
Armature Pulse Board.....	126511.....	3.....	
Field Pulse Board.....	170131.....	1.....	110997 & 155227
Feedback Board.....			
230 VAC (150/300VAC).....	122970.....	1.....	
460V AC (300/575VAC).....	122972.....	1.....	
575/660V AC.....	142429.....	1.....	
Power Stage Interface Board (PSI).....	170950.....	1.....	126305
PSI Board Cable Connectors:			
J1, 6 Pin Cable connector.....	122982.....	1.....	
J10, 12 Pin Cable Connector.....	122983.....	1.....	
Power Supply Board Kit			
(Includes 2.5" and 18" cable and PCB connector).....	142129.....	1.....	126438 (Assembly)
Contactors.....	172002.....	1.....	117474
Fans.....	117475.....	3.....	
Fan Switch Kit (Includes switch and vane).....	103997.....	3.....	
Fan Switch (Only).....	101935.....	3.....	
Fan Switch Vane.....	102362.....	3.....	
Fuse SCR, (F7 to F12) 800A, 500V.....	119436.....	6.....	Bulletin 2361(MCC) 505973
Fuse SCR, (F7 to F12) 800A, 700V Bull. 2361, MCC.....	505973.....	6.....	
Fuse 600V, 20A KTK-R (F1, F2, F3).....	101669.....	3.....	
Fuse 125V,1.5A MDL (F5).....	109226.....	1.....	
Fuse 250V, 7A MSL (F4).....	128427.....	1.....	125747
Fuse Holder for F4 & F5.....	126018.....	2.....	
Pilot Relay.....	125928.....	1.....	
Pilot Relay Diode Bridge (D1) 35A 1200V.....	129362.....	1.....	117112
SCR Field Kit, 104A, 1500V.....	192706.....	2.....	135110, 192705
Suppressor, Control 115V AC (4 MOV).....	123396.....	1.....	
Suppressor, Field (2, 3 MOV).....	173973.....	2.....	115549
Suppressor, Pilot Relay (SP2).....	115621.....	1.....	
Suppressor, Three-Phase(1 MOV).....	120630.....	1.....	
Transformer, 24V Supply.....	122985.....	1.....	

Notes: (1) 9.30 functionally identical to 10.10. ITS and DriveTools32 were limited to three digits.

1395 Digital DC Drive Renewal Parts

Horsepower Rated(CONTINUED)

**Series B Drives, MKVA, 125 to 300 HP@230 Volt; 250 to 600 HP@460V; 500 to 600 HP@575V; 600 to 737HP@660V
Regenerative & Non-Regenerative**

Parts Associated with a Particular Rating

<u>Description</u>	<u>Part Number</u>	<u>Quantity</u>	<u>Bull. 2361 MCC Style</u>
SCR Cell Assembly Kits, 125-200 HP@230V, 250-400 HP@460V (670 Amps)			
Includes Upper(133736) and Lower(129891) Snubber Boards. For MCC Style Upper and Lower are same (161502)			
Regenerative Drive	142756(1)	3	161489(3)
Non-Regenerative Drive	142758(2)	3	161491(4)
SCR Only, 230/460V, 1050A-1200V	117486	12 regen 6 Non-regen	

- Notes: 1. Supersedes Armature Pole Part 133177
2. Supersedes Armature Pole Part 133178
3. Supersedes Armature Pole Part 161485
4. Supersedes Armature Pole Part 161487

SCR Cell Assembly Kits, 250-300 HP@230V, 500-600 HP@ 460V (980 Amps)			
Includes Upper(133736) and Lower(129891) Snubber Boards. For MCC Style Upper and Lower are same (161502)			
Regenerative Drive	142757(1)	3	161490(3)
Non-Regenerative Drive	142759(2)	3	161492(4)
SCR Only, 230/460V, 1880A-1200V	117487	12 regen 6 Non-regen	

- Notes: 1. Supersedes Armature Pole Part 133175
2. Supersedes Armature Pole Part 133176
3. Supersedes Armature Pole Part 161486
4. Supersedes Armature Pole Part 161488

**Series B Drives, MKVA , 500 to 600 HP@575 Volt
Parts Associated with a Particular Rating**

<u>Description</u>	<u>Part Number</u>	<u>Quantity</u>	<u>Bull. 2361 MCC Style</u>
500-600 HP, 575V			
Includes Upper and Lower Snubber boards. Only MCC Style available, Upper and Lower are same (161502)			
Regenerative Drive, 1880A Pole Parts for 575V Drive		3	161493
Non-Regenerative Drive, SCR Cell Assy Kit (Not Used)		N/A	N/A
SCR only, 1880 Amp 1800V	161469	12 regen	

Tool needed to replace SCR

Pole Piece Fixture Assembly. (Includes PIP Gauge)	119495
PIP Gauge only	119518

Field Installation Kits

**Series A and B Drives, 3.6A to 345A, 1 to 100 HP, 230 Volt, 2 to 200 HP, 460 Volt, 50/60 Hz AC Inputs
Regenerative & Non-Regenerative
Parts Common to All Ratings**

<u>Description</u>	<u>Kit *</u> <u>Number</u>	<u>Catalog **</u> <u>Number</u>	<u>Quantity</u>	<u>Supersedes</u>
Node Adapter Board	148542	1395-KP50	1.....	
Discrete Adapter Board 24 VDC	170977	1395-KP11	1.....	142136
Discrete Adapter Board 115 VAC	170976	1395-KP10	1.....	142137
Digital Reference Adapter Board.....	140263	1395-KP12	1.....	
Multi Communication Adapter Board.....	196274	1395-KP51	1.....	155993
ControlNet Adapter Board	196273	1395-KP54EN	1.....	185240

**Series B MKVA Drives, 346A to 980A, 125 to 300 HP, 230 Volt, 250 to 600 HP, 460 Volt, 50/60 Hz AC Inputs,
Regenerative & Non-Regenerative**

<u>Description</u>	<u>Kit*</u> <u>Number</u>	<u>Catalog**</u> <u>Number</u>	<u>Quantity</u>	<u>Supersedes</u>
Node Adapter Board	148542	1395-KP50	1.....	
Discrete Adapter Board 24 VDC	170975	1395-KP31	1.....	142135
Discrete Adapter Board 115 VAC	170974	1395-KP30	1.....	142134
Digital Reference Adapter Board.....	140297	1395-KP32	1.....	
Multi Communication Adapter Board.....	196274	1395-KP51	1.....	155993
ControlNet Adapter Board	196273	1395-KP54EN	1.....	185240

*** Do NOT order Kit number**

**** Use catalog number for ordering**

1395 Programming Terminals

Door Mounted Terminals (DMT)	Mac No.	Order using
.....		these numbers:
DMT Terminal w/10ft Cable and Bezel.....	148287	1300-DMT10
DMT Terminal w/20ft Cable and Bezel.....	148288	1300-DMT20
Replacement DMT with Gasket only		128961
Enhanced Door Mounted Terminals (EMT)	Mac No.	Order using
.....		these numbers:
EMT Terminal w/10ft Cable and Bezel	148289	1300-EMT10
EMT Terminal w/20ft Cable and Bezel	148290	1300-EMT20
Replacement EMT with Gasket only		129151
Handheld Terminals (DHT)	Mac No.	Order using
.....		these numbers:
Standard handheld terminal w/10ft Cable	155187(1)	1300-DHT
Enhanced handheld terminal w/10ft Cable	155189(1)	1300-EHT
DHT or EHT EMI filter kit w/ screws and installation instructions (plugs into end of cable of all handhelds).....		155183

Note (1): DHT (155187) and EHT (155189) are shipped with the filter kit (155183) installed on the cable (155179). DMT/EMT door mount terminals do not require filters (155183) as there are EMI ferrite core filters built into the 9 pin D-Shell connector on the cables listed below.

Cables

DHT and EHT and ITS (from 1300-ITSSC to drive)	10ft.....	126427	
	20 ft.....	126345	
	50 ft.....	126428	No Longer Available
DHT and EHT, Replacement cable, with filter	10ft.....	155179	

1395 Programming Software

DOS Based, Free download, software and user manual from <http://www.ab.com/support/abdrives/1395>

ITS (Intelligent Terminal System Kit) Cat.1300-ITS.....	158096	No longer orderable
ITS software and documentation only, Cat. 1300-ITSSO	140265	No longer orderable, Download only
ITS converter (includes 126427 cable), Cat. 1300-ITSSC.....	140266	

Windows™ 95/98 and Windows™ NT <http://www.ab.com/drives/drivetools/>

Application	Catalog Base	Catalog Options	Number of Licenses
DriveManager32	9303-3	C S0E10	1
	"	C1E10	2-3
	"	C2E10	4-6
	"	C3E10	7-24
DriveExecutive	9303-4DTE01ENE		1
DriveMonitor32	9303-3C	S0E20	1
	"	C1E20	2-3
DriveTrending32	9303-3C	S0E80	1

Note: for serial communication to the drive, 1300-ITSSC (above) is required.

Miscellaneous

Encoder Driver Module (Publication 1395-5.23)	133341
Reverse Motion Detector Assembly, Including Mounting Bracket	119901
Reverse Motion Detector, Board Only	119822
Reverse Motion Detector, Bracket only	119823
Contactors Coil Snubber	116418
Node Adapter J2, 6 Pin, Black Cable Connector (Blue Hose).....	119654
ControlNet and MultiComm Adapters, J5, 4 pin, black (TE connector)	108828
MultiComm Adapter, Channel A or B, black, 3 pin, cable connector.	138893

Series A wiring harness's:

DMT D-Shell to Main Control Board, 11.5"	125904
TB3 Pins 1-12 to Series A PSI Board J10	124111

Series B wiring harness's:

DMT to Main Control Board, 7.5"	145264
TB3 Pins 1-12 to Series B PSI Board J14.....	170981

Ribbon Cables:

All Drives:

Main Control Board to Adapter Ports A & B,	108605
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Low Kva:

Power Supply Board J2 to PSI Board J7, 2.5", Series A (in 142129 Kit).....	142005
Main Control Board J2 and J5 to PSI J8 and J9, Series A,	113503
PSI J2 to Feedback Board J2, 16 Pin, Series A,	124158
PSI J3, J4, J5 to Armature Pulse Transformer / Snubber Board, 10", Series A	124159
PSI J6 to Field Pulse Transformer/Snubber Board J1, 10 Pin, 8.25" Series A,	109129
Main Control Board J2 and J5 to PSI J10 and J13, Series B,	145314
PSI J9 to Power Board J6, 4.5" Series B.....	145313

Low Kva, Series A & B Wire harness:

Discrete Adapter Board J3 to TB3, Pins 43 to 51, 12 Pin, Digital I/O	126013
Discrete Adapter Board J4 to TB3, Pins 23 to 41, 20 Pin, Analog I/O	126014
TB3 to Digital Reference Adapter Board	133340
TB3 Encoder to Main Control Board	124110

Medium Kva Ribbon Cables:

Power Supply Board J2 to PSI Board J7, 18", (In 142129 PS Kit).....	142016
Main Control Board J2 and J5 to PSI J8 and J9.....	129040
PSI J2 to Feedback Board J2	113499
PSI J3,4,5 to Armature Pole Piece J1, 60", 20 Pin	118811
PSI J6 to Field Pulse Transformer / Snubber Bd. J1, 40", 10 Pin	118809
PSI J10 to TB3 Pins 1-12, STD Interface	124186
Main Control Board J1(Encoder) to TB3	124187

Medium Kva Wire Harness

DMT D-Shell to MCB, 34",	124373
Discrete Adapter Board J3 to TB3, Pins 43 to 51, 12 Pin, Digital I/O	124107
Discrete Adapter Board J4 to TB3, Pins 23 to 41, 20 Pin, 3.5', Analog I/O	126529
Digital Reference Adapter Board to TB3	133527

Miscellaneous (continued)

HKVA Ribbon Cables:

Power Supply Board J2 to PSI Board J7, 18", Series A, (In 142129 PS Kit)	142016
PSI J2 to Feedback board J2, 16 Lead 28 Ga, 43".....	143761
PSI J6 to Field Pulse Transformer and Snubber Board J1, 10 lead 28 Ga, 37",.....	143760
PSI J8 or J9 to Main Control Board J5 or J2, 34 Lead 28Ga, 2"	113503
PSI J7 to Power Supply J1, 26 Lead,.....	142005

HKVA Wire Harness:

Encoder to Main Control Board,	124110
DHT to Main Control Board J4,	143763
PSI J10 to TB3 Pins 1-12,	143762
Discrete Adapter Board J3 to TB3, Pins 43 to 51, 12 Pin, Digital I/O.....	126013
Discrete Adapter Board J4 to TB3, Pins 23 to 41, 20 Pin, Analog I/O, Includes 126014	159381

Tachometer Feedback Scaling PCB's

All Series and Ratings

<u>Description</u>	<u>Catalog Number</u>	<u>Quantity</u>
Feedback scaling PCB for 0-33V inputs	2361-SPP01A	1
Feedback scaling PCB for 34-46V inputs	2361-SPP02A	1
Feedback scaling PCB for 47-70V inputs	2361-SPP03A	1
Feedback scaling PCB for 71-125V inputs	2361-SPP04A	1
Feedback scaling PCB for 126-178V inputs	2361-SPP05A	1
Feedback scaling PCB for 179-250V inputs	2361-SPP06A	1

Encoder Feedback Selection Example, for complete information see link below.

845H-SJHN26FWY2C

Explanation: H = English Servo

N = 3/8" Shaft with Flat

2 = 8-24 Vdc Power Supply

6 = DLD 8-24 Vdc Output Configuration

FW = 1024 Pulses Per Revolution

2 = Radial Connector (Side)

C = With Mating Connector

845S Encoder line has been discontinued and replaced with the 845H

Literature: http://literature.rockwellautomation.com/idc/groups/literature/documents/ca/845h-ca500_-en-p.pdf

[Online Configurator with drawings](#)

