

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

<b>Description</b>	<b>Part Number</b>	<b>Quantity per Drive</b>	<b>Supersedes</b>
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 0.1mh .....	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 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

**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

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.

## 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](http://literature.rockwellautomation.com/idc/groups/literature/documents/ca/845h-ca500_-en-p.pdf)

[Online Configurator with drawings](#)

