

Objective

545,546,547,548,550,551, 570,571 and 590A analog drive conversion to 590+

Note: This chart is a guidance only. Since the various drives are not exactly the same, the wiring between the various model numbers, will vary. Some technical knowledge of drives will be required to convert the wiring logic, if needed.

Equipment

Hand tools, 590+ chassis drive or DRV package, Product manual, system schematics, motor specifications, or computer to program using the software DSELite.

Procedure

- 1) Disconnect all power to the drive.
- 2) Remove all terminal connections making note of the old terminal numbers on the schematics of the drive system. If schematics are not available create a chart showing all the connections including any pertinent description.
- 3) Remove the old drive and associated hardware.

Note: The 590+DRV drives from 35 amps to 165 amps have an internal three phase AC contactor and fuses in the incoming power circuit. 590+DRV drives above 166 amps come with either a three phase incoming AC contactor or a DC motor contactor. The regenerative (4 quadrant) 590+DRV drives also include an armature fuse.

590+ chassis drives above 166 amps are delivered without contactors or fuses.

It may be necessary to reuse some of the old hardware.

- 4) Install the new drive.
- 5) Using the chart below to convert from the old terminal numbers to the new terminal numbers.
- 6) Reconnect the power and controls terminations.

If you have questions, please call the Product Support Group at (704) 588-3246.

Conversion Table for 545/546/570/590A to 590+

Terminal Description	545/6/7/8/ 550/551 Terminal #	590/1A Terminal #	570/1 Terminal #	590+/591+ Terminal #
0 V Common	A1	4	A1	A1
Buffered Armature Current	A2	5	A9	A9
Ramp Reset	A3	6	N/A	Programmable
Ramp Input	A4	7	A4	A4 (default)
Ramp Output	A5	8	N/A	Programmable
Direct Reference Input #1	A6	9	A2	A2 (default)
Direct Reference Input #2	A7	10	N/A	Programmable
Inverted Total Reference	A8	11	N/A	N/A
Direct Reference Input #3	A9	12	N/A	Programmable
Total Reference Setpoint	A10	13	A8	A8 (default)
+10 vdc reference	A11	14	B3	B3
-10 vdc reference	A12	15	B4	B4
0 V Common	B1	16	B1	B1
DC Tachometer Input	B2	3	B2	G3 (tach feedback board)
Current Demand Isolate	B3	18	C8	C8 (default)
Current Demand Output	B4	19	N/A	Programmable
Auxiliary Current Input	B5	20	A3	A3
Select Auxiliary Input	B6	21	Refer to Current Demand Isolate	Refer to Current Demand Isolate
Auxiliary Current Limit (+)	B7	22	A6	A6 (default)
Main Current Limit	B8	23	Selectable	Selectable
+10 vdc reference	B9	24	B3	B3
Auxiliary Current Limit (-)	B10	25	A5	A5
Buffered Tachometer	B11	26	A7	A7 (default)
Buffered Current	B12	27	A9	A9

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Conversion Table for 545/546/570/590A to 590+

Terminal Description	545/6/7/8/ 550/551 Terminal #	590/1A Terminal #	570/1 Terminal #	590+/591+ Terminal #
0 V Common	C1	28	C1	C1
Thermistor Input	C2	29	C2	TH1, TH2
Auxiliary Enable	C3	30	N/A	Programmable
Start Supply	C4	31	N/A	N/A
Enable	C5	32	C5	C5
Stop	C6	33	N/A	N/A
Start	C7	34	C3	C3
Ready Relay Drive	C8	35	B7	B7 (default)
Zero Speed Relay Drive	C9	36	B5	B5 (default)
Health Relay Drive	C10	37	B6	B6 (default)
+24 vdc	C11	38	C9	C9
External Fault Reset	C12	39	N/A	Programmable
Ext. AC Field Supply	D1	D1	D1	D1 (FL1)
Ext. AC Field Supply	D4	D2	D2	D2 (FL2)
Field +ve	D5	D4	D4	F+
Field -ve	D8	D3	D3	F-
Auxiliary Supply Live	D9	D8	D8	D8 (L)
Auxiliary Supply Neutral	D10	D7	D7	D7 (N)
Contactors Supply Neutral	D11	D6	D6	D6 (4/N)
Contactors Supply Live	D12	D5	D5	D5 (3/L)

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