Configuring Your Ultra3000 Drive with DeviceNet

The procedures in this section are listed in this table and apply to Ultra3000-DN drives with indexing.

Ultra3000 Drive Configuration Procedures

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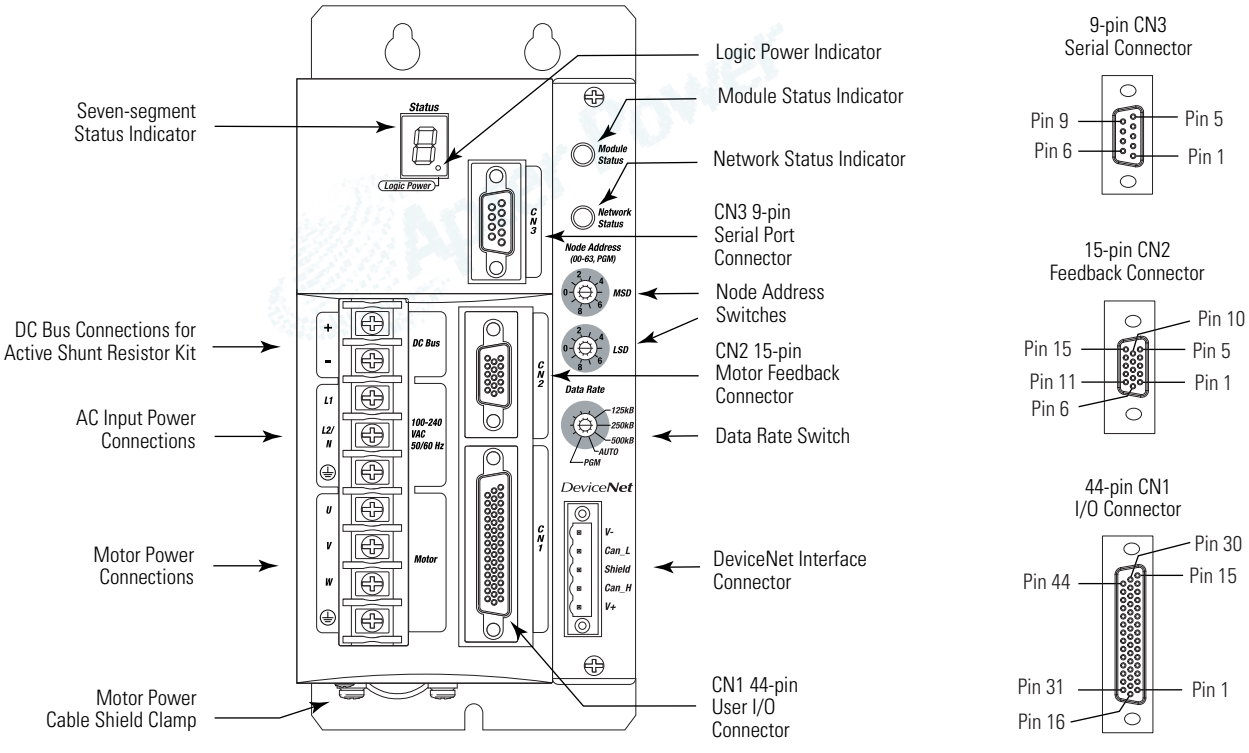
Apply Power to Your Ultra3000 Drive with DeviceNet	94

These procedures assume you have completed wiring the DeviceNet interface connector on your Ultra3000-DN drive.

Front Panel Connections

Use this figure to locate the front panel connections on the Ultra3000-DN 230V drives (500W, 1 kW, and 2 kW).

Front Panel Connections for 2098-DSD-005-DN, 2098-DSD-005X-DN, 2098-DSD-010-DN, 2098-DSD-010X-DN, 2098-DSD-020-DN, and 2098-DSD-020X-DN Drives



For CN1, CN2, and CN3 connector pin-out information, refer to the Ultra3000 Digital Servo Drives Installation Manual, publication 2098-IN003.

Configure Your Ultra3000 Drive with DeviceNet

Follow these steps to configure your Ultra3000-DN drive.

1. Verify that there is no power applied to the drive and that the DeviceNet cable is connected.

   Refer to the figures on pages 89…92 for switch locations.

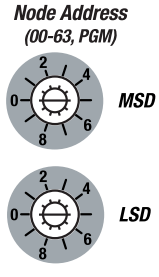
2. Set the node address for each drive in your system.

   Valid node addresses are 00…63 and PGM. The MSD rotary switch sets the most significant digit and the LSD rotary switch sets the least significant digit.

   Refer to the figures on pages 89…92 for the switch locations. Refer to this table for examples.

Node Address	MSD Switch	LSD Switch
10	1	0
11	1	1
12	1	2

Use the MSD and LSD rotary switches on the DeviceNet drive panel to set node addresses.



Selecting an invalid node address (> 63) sets the node address according to a non-volatile parameter stored in the drive.

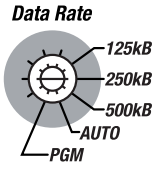
3. Set the data rate.

   Valid data rates are 125, 250, and 500 Kbps, AUTO, and PGM.

   Refer to the figures on pages 89…92 for the switch location.

   Selecting AUTO automatically matches the device data rate to the rate of the network. Selecting PGM sets the data rate according to a non-volatile parameter stored in the drive.

Use the Data Rate rotary switch on the DeviceNet drive panel to set the data rate.



Apply Power to Your Ultra3000 Drive with DeviceNet

This procedure assumes you have wired your Ultra3000-DN system, verified the wiring, and are ready to begin using Ultraware software.

ATTENTION



High voltage exists in ac line filters. The filter must be grounded properly before applying power. Filter capacitors retain high voltages after power removal. Before handling the equipment, voltages should be measured to determine safe levels. Failure to observe this precaution could result in personal injury.

Follow these steps to apply power to your Ultra3000-DN drive.

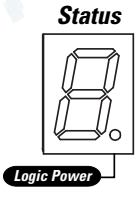
1. Disconnect any load to the motor, making sure the motor is free of all linkages when initially applying power to the system.

ATTENTION



To avoid damage to the drive due to improper sequencing of input power and the Drive Enable signal, you must assign one of the eight inputs as Drive Enable (Input 1 is the default setting).

2. Apply input power to the Ultra3000-DN drive and observe the front panel Logic Power status indicator.



If the Logic Power status indicator is	Then
ON	Go to step 3.
Not ON	1. Check your input power connections. 2. Repeat step 2.

3. Observe the front panel seven-segment status indicator on your Ultra3000-DN drive.

Seven-segment Status Indicator	Status	Do This
Actively cycling segments in a full circle	The drive is ready.	Go to step 4.
Flashing E followed by two numbers	The drive is faulted.	Go to Error Codes on page 98.

4. Observe the module status indicator.

Module Status Indicator	Status	Do This
Steady green	The drive is ready.	Go to step 5.
Not steady green	The drive is faulted.	Go to DeviceNet Module Status Indicator on page 109.

5. Observe the network status indicator.

Network Status Indicator	Status	Do This
Off	Establishing communication with network.	Wait for flashing or steady green.
Flashing or steady green	Communication is ready.	Go to step .
Not flashing or steady green	The drive is faulted.	Go to DeviceNet Network Status Indicator on page 109.

For further commissioning procedures, refer to the following table for procedures.

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Test Your Motor (indexing move)	26
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Refer to the Ultra3000 with DeviceNet Reference Manual, publication 2098-RM001, for information on communicating with the Ultra3000 drives using DeviceNet.