

**D77B-DSNAP Starter Network Adapter Product Installation Leaflet****Mount D77B-DSNAP to IT. Starter**

The IT. D77B-DSNAP is designed to be installed in the auxiliary contact locations of the following IT. family of starters.

NEMA N101/N501	IEC E101/E501
00	B
0	C
1	D
2	E
3	F
4	
5	

- Align both the D77B-DSNAP feet with the auxiliary contact mounting slots on the starter.  
**Recommendation:** Use the middle mounting auxiliary location on the contact block when mounting the D77B-DSNAP.
- When the D77B-DSNAP is aligned, insert the feet into the starter auxiliary location and slide the D77B-DSNAP towards the overload until a "click" is heard. This ensures that the D77B-DSNAP is securely mounted to the starter.

On all starters, one or more auxiliaries can be used along with the D77B-DSNAP. The following table lists starters and indicates the number of available auxiliary locations for each.

Starter Frame Size (mm) (mounting location)	Number of Cover Mounted Available Auxiliary Locations when Center Mounted
45 (middle location)	1 single
54 (middle location)	1 single or 1 dual
76 (middle or right location)	1 single or 2 dual
105 (all locations)	2 single or 2 dual
140 (all locations)	2 single or 2 dual

**Wire the D77B-DSNAP to the Starter**

The D77B-DSNAP assembly contains a Starter Terminal Adapter to simplify the wiring of the D77B-DSNAP to the IT. starter. The Starter Terminal Adapter is installed into the IT. starter terminal and the terminal's screws are tightened securing the Starter Terminal Adapter in the terminal.

The D77B-DSNAP is connected to the IT. starter using a factory-provided jumper with an RJ-45 plug on each end. Connect one end of the jumper to J1 on the D77B-DSNAP and the other end of the jumper to J1 on the Starter Terminal Adapter.

**Note:** 24V DC needs to be wired to the Starter Terminal Adapter to power the starter. Size the power supply in accordance with the Motor Controller manual.

**Connect the D77B-DSNAP to DeviceNet**

Connect the DeviceNet cable to the 5-position connector located at the top of the D77B-DSNAP.

- The D77B-DSNAP will work with thick and thin media.
- The DeviceNet cable is color-coded and matches the colors on the 5-position connector located at the top of the D77B-DSNAP. The connector has screws for positive retention to eliminate accidental unplugging.
- Use one wire per terminal and torque to 0.5 Nm (4.5 lb-in).

**Set the DeviceNet MAC ID and Baud Rate**

The MAC ID and baud rate can be set through the DIP switches or through a software tool. When using a software tool (such as CH Studio) to set the MAC ID and Baud Rate set the Baud Rate switches to ON (B0 and B1 to ON) and set the MAC ID DIP Switches to anything but all ON. This "illegal" switch state will allow a tool to configure the MAC ID and Baud Rate.

When manually setting the MAC ID and BAUD RATE, set the DIP switches on the face of the D77B-DSNAP. Moving a DIP switch away from the DeviceNet connector (right) is ON and moving the switch towards the DeviceNet connector (left) is OFF. The MAC ID is in binary with the major units numbered to the right of the switch on the side label. Adding up the major units set to ON determines the MAC ID of the D77B-DSNAP.

**Example:** To set the MAC ID to 25, start from the top (or 32) and set the switches to OFF(32), ON(16), ON(8), OFF(4), OFF(2), ON(1) (16+8+1=25).

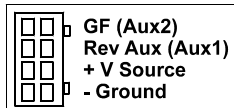
The baud rate is set using the configuration switches B0 and B1.

B1	B0	Baud
OFF	OFF	125K
OFF	ON	250K
ON	OFF	500K
ON	ON	Not Allowed

**Connect Auxiliary Devices to the D77B-DSNAP**

The IT. D77B-DSNAP can accept two auxiliary inputs. One input is designed for the ground fault (GF) detector and the other input is for detecting the position of the reversing contactor (AUX) for full voltage reversing starters.

On the front of the D77B-DSNAP is a Connector Access breakout. The connector is accessed by prying up and removing breakout. The mating part of the connector is supplied with the Auxiliary device. The illustration describes the locations of the Auxiliary wiring.

**Setup and Configuration of the D77B-DSNAP**

The IT. D77B-DSNAP requires no extra setup or configuration for normal operation, the user must only set the MAC ID and Baud Rate. Prior to powering the D77B-DSNAP for the first time, ensure that the D77B-DSNAP is properly mounted and connected to the IT. Starter. The first time the D77B-DSNAP/IT. Starter assembly is powered, the D77B-DSNAP will associate to the IT starter. This association has to be broken if the D77B-DSNAP is to be placed on another starter of a different overload size or frame size. To reassociate the D77B-DSNAP to another starter, use a DeviceNet management tool or set all the DIP switches to ON, power cycle the D77B-DSNAP and reset the DIP switches.

There are extended parameters that can be set for increased diagnostics, also, the input and output data can be changed depending on system requirements. For more information on the parameters and how to modify them refer to the user manual **MN05004001E**.

**Environmental Ratings of the D77B-DSNAP**

Transportation and Storage	Temperature	-50°C to 80°C (-58°F to 176°F)
	Humidity	5-95% non-condensing
Operating	Temperature	-25°C to 55°C [-13°F to 131°F]
	Humidity	5-95% non-condensing
	Altitude	Above 2000 meters (6600 feet) consult factory
	Pollution Degree	2
	Power Draw	90 mA Steady State
	Shock IEC 68-2-27	15G any direction for 11 milliseconds
	Vibration IEC 68-2-6	5 – 150 Hz, 5G, 0.7 mm maximum peak-to-peak

**Approvals/Certifications of the D77B-DSNAP**

Agency Certifications	UL 508 CUL (CSA C22.2 No. 14) CE (Low Voltage Directive)
Radiated and Conducted Emissions	EN5011 Class A
Electrical/EMC	
•ESD Immunity (IEC61000-4-2)	+/- 8kV air, +/- 4kV contact
•Radiated Immunity (IEC61000-4-3)	10V/m 80-1000 MHz, 80% amplitude modulation @ 1kHz
•Fast Transient (IEC61000-4-4)	+/- 2kV supply and control +/- 1kV communications
•Surge (IEC61000-4-5)	+/- 1kV line-to-line +/- 2kV line-to-ground
•RF Conducted (IEC61000-4-6)	10V, 0.15 – 80MHz
•Magnetic Field (IEC61000-4-8)	30 A/m, 50Hz
Protection Degree (IEC60947-1)	IP20

**Default Data of the D77B-DSNAP (Full Voltage Non Reversing with or without HOA)****Assembly 105 D77B-DSNAP Abbreviated Motor Starter 1 (Input)**

Byte	7	6	5	4	3	2	1	0
0	At Reference Or Aux 2*	-	CtrlFrom Net	Ready	Aux 1*	Running 1	Warning	Fault
1	% Thermal Capacity							
2	% FLA							
3	Fault Code (low byte)							

**Assembly 3 Basic Motor Starter (Output)**

Byte	7	6	5	4	3	2	1	0
0	-	-	-	-	-	Fault Reset	-	Run1

**Default Data of the D77B-DSNAP (Full Voltage Reversing with or with out HOA)****Assembly 106 D77B-DSNAP Abbreviated Motor Starter 2 (Input)**

Byte	7	6	5	4	3	2	1	0
0	At Reference Or Aux 2*	-	CtrlFrom Net	Ready	Running 2	Running 1	Warning	Fault
1	% Thermal Capacity							
2	% FLA							
3	Fault Code (low byte)							

**Assembly 5 Extended Motor Starter (Output)**

Byte	7	6	5	4	3	2	1	0
0	-	-	-	-	-	Fault Reset	Run2	Run1

**DeviceNet Codes for the D77B-DSNAP**

Vendor ID 0x44 (68 Dec)
Product Code Full Voltage Non Reversing or S751 0x1101 (4353 Dec)
Product Code Full Voltage Reversing 0x1102 (4354 Dec)
Product Code Full Voltage Non Reversing or S751 with HOA 0x110D (4366 Dec)
Product Code Full Voltage Reversing with HOA 0x110E (4367 Dec)
Device Type Full Voltage Non Reversing 0x16 (22 Dec)
Device Type Full Voltage Reversing 0x16 (22 Dec)
Device Type Soft Start S751 0x17 (23 Dec)

\* For information on how to use Aux 1 and Aux 2 refer to the Auxiliary Inputs section of the user manual MN05004001E.