

120VAC Interface Option Cards for V7/ V74X / GPD315 Drives

INSTRUCTIONS

Upon receipt of the product and prior to initial operation, read these instructions thoroughly, and retain for future reference.

Package Contents:

Name	Digital Input 120VAC Interface Card
Kit No. (Board No.)	DI-004 (DS085) DI-005 (DS088)
Instructions	IG.V7.69

NOTES FOR SAFE OPERATION

Before installation, operation, maintenance or inspection of this option, a technically qualified individual who is familiar with this type of equipment and the hazards involved should read this entire manual thoroughly. In this manual, the NOTES FOR SAFE OPERATION are classified as "CAUTION".



Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury to personnel and damage equipment. Lock all power sources feeding the drive in the "Off" position.

It may also be used to alert against unsafe practices.

Failure to heed notices labeled with situations or equipment damage.



may result in dangerous



Steps to be taken to insure proper operation and to avoid malfunctions.



This board contains electrostatic sensitive devices. Personnel should be grounded before removing the board from the static protective envelope and installing into the V7.



Handle the board as little as possible taking care NOT to touch the conductive surfaces. The oil and salt from your fingers will cause corrosion and eventual contact failure.

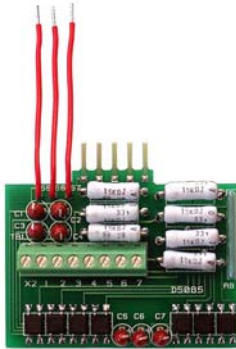
Description

The DI-004 and DI-005 are 120VAC logic interface option card kits for the V7 micro drive. They allow the drive's digital inputs (Run, Stop, Jog, etc) to be controlled by external 120VAC input signals. The cards mount directly to the drive's control board terminal strip. The original functionality of the V7 inputs are unaffected by either kit.

All inputs and the common terminal of the option cards are electrically isolated from the drive's control board circuitry. The input resistance of the option cards is 33K ohms.

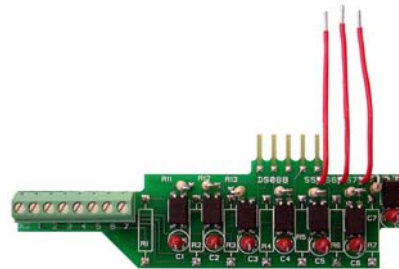
Due to physical limitations on the different sizes of the V7 and V74X models, there are two (2) different interface kits (cards). Please note that these kits are not applicable for the V7N Embedded DeviceNet series.

Kit DI-004 (Card DS085)



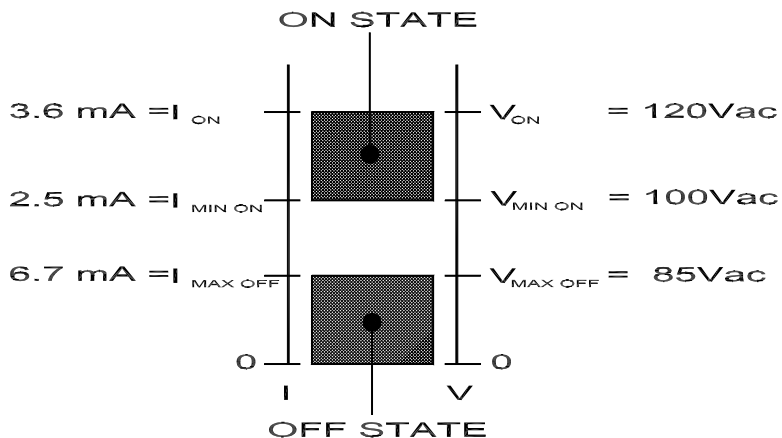
Models V7 and V74X:
20P1 - 20P7, 25P5, 27P5, 45P5, 47P5
(MVA001 - MVA005, MVA025, MVA033,
MVB015, and MVB018)

Kit DI-005 (Card DS088)



Models V7 and V74X:
21P5 - 23P7, 40P2-43P7
(MVA008 - MVA017, MVB001 - MVB009)

Operational Specifications



Voltage Max. 140VAC
Frequency = 45 to 66 Hertz
ON response = 4ms
OFF Response = 12ms

Installation

Refer to the Technical manual, TM.V7.01, for installation, set-up, and operating instruction for the drive.



It is necessary to first connect all power terminals (input and output power, DC link choke, DB resistor) if they are to be utilized **before** installing the 120VAC interface card. Once the card is installed, access to these terminals is not possible.

- (1) Turn off all power supplies to the V7 and the 120VAC interface card.
- (2) Remove the drive's front cover. Verify that the CHARGE indicator lamp is off.
- (3) Use a voltmeter at the incoming power terminals (L1, L2, L3) and the 120VAC leads to verify that power is disconnected.
- (4) Make all connections to the terminals referred to in the Note above prior to continuing this installation procedure.
- (5) Loosen the screws at the drive control board terminals S1, S2, S3, S4, and SC.
- (6) Slide the forked extensions on the interface card into the terminals listed above (see Figure 1) and re-tighten terminal screws securing the board in place.
- (7) Attach the three (3) pigtails of the 120VAC interface card to terminals S5, S6, and S7 (see Figure 1). Connect other conductors to proper drive terminals as required for your application.
- (8) Connect external control signal wiring to Terminal TB1. (see Figure 1 for default 2-wire control connections)
- (9) Check conductor routing to ensure that no conductors are in contact with the resistors that are mounted on top of the DS-085 interface card.
- (10) Check for loose connections and inspect wiring.
- (11) Set drive control inputs to NPN (default). See the drives technical manual TM.V7.01 for instructions.
- (12) Replace the front cover. Apply power to the drive and 120VAC interface card and proceed with the setup as described in the V7 Technical Manual.

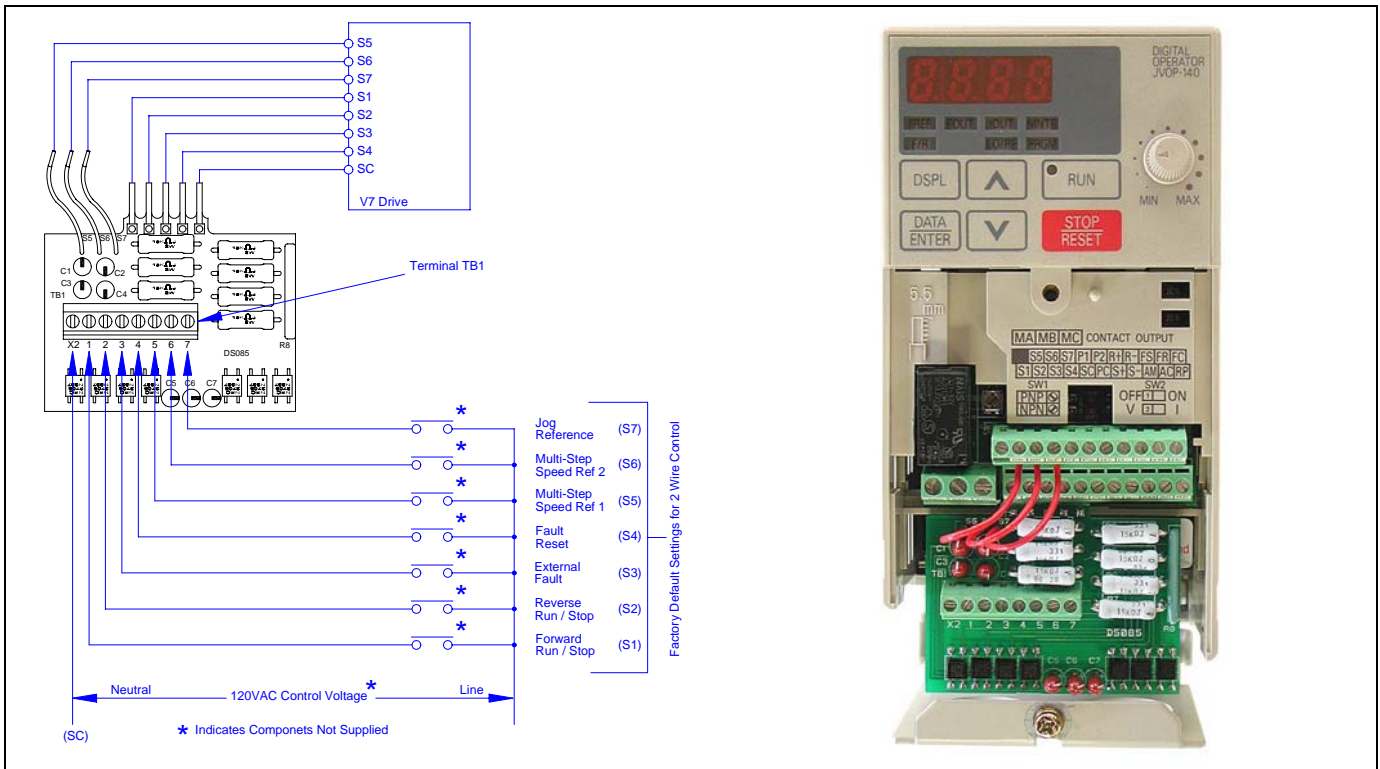


Since there are two (2) power supplies connected to the drive, one for main circuit power and one for the 120VAC interface card, the user must provide for the possibility of one supply being on when the other is off.

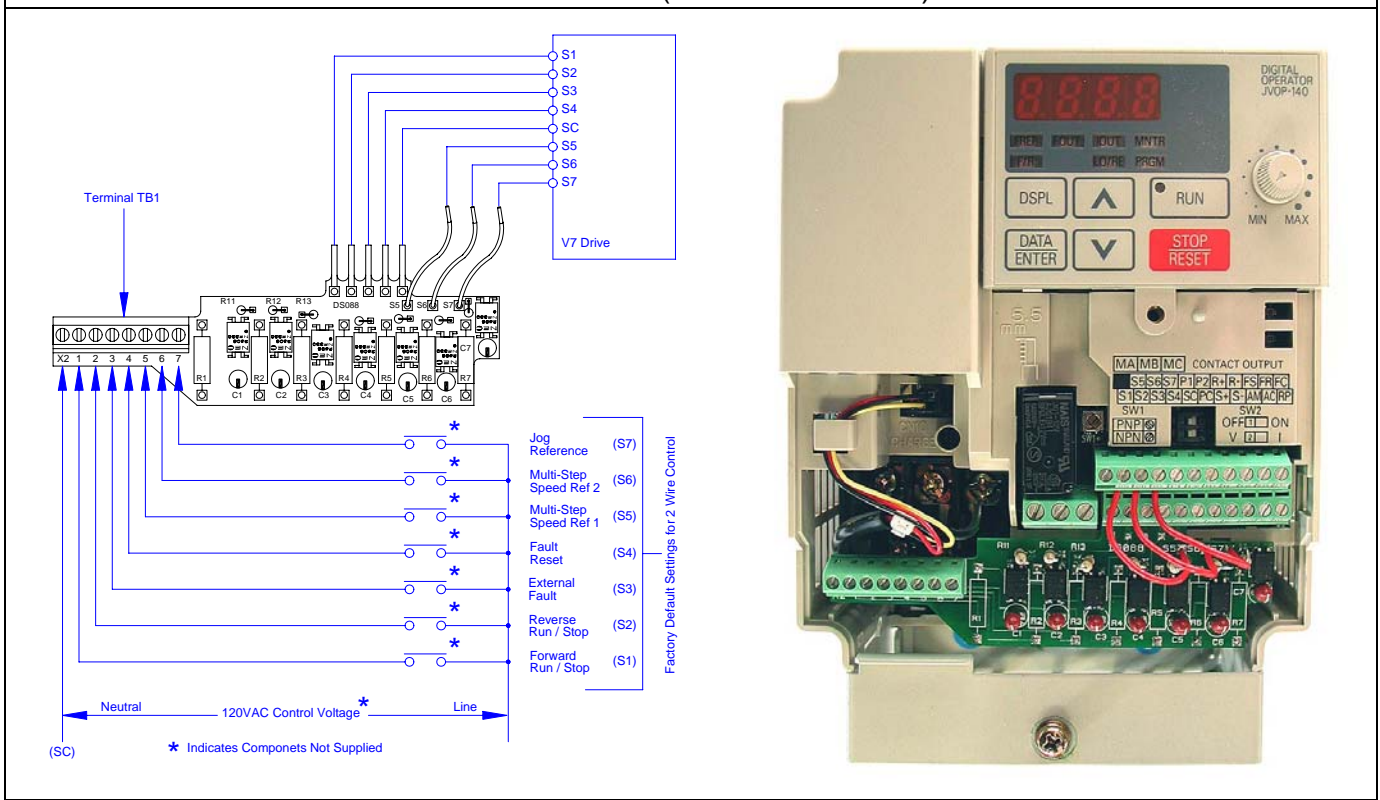


Be careful when installing control wiring to terminal TB1 and use minimum pressure on the board to avoid damaging or breaking the forks installed into the drive terminals.

Control Connections



Kit No. DI-004 (Board No. DS085)



Kit No. DI-005 (Board No. DS088)

Figure 1. Connection of Interface Card and Sample Control Schematic