

INPUT INTERFACE (DI-8)/F-I MONITOR OPTION

MODEL DS826

Before installing this kit, a **TECHNICALLY QUALIFIED INDIVIDUAL**, who is familiar with this type of equipment and hazards involved, should **READ** this **ENTIRE INSTRUCTION SHEET**.

IMPORTANT

This Input Interface (DI-8) circuit will function properly only with a unit which has the following EPROMs in place (between 8CN and 9CN) on the Main Control PCB.

U10: 100102L, 100201L, or 100200L
U11: 100102H, 100201H, or 100200H

If replacement EPROMs are required, contact your MagneTek Drives & Systems sales representative.

IMPORTANT

This kit may have been installed by the factory. However, certain steps can only be completed at the installation site. Therefore, review and then perform those steps which complete the installation process.

INTRODUCTION

When installed, this option allows the user to interface an 8-bit digital input reference to the inverter. This reference can be binary, BCD(HZ) or BCD(%). (Refer to the Technical Manual description of system constant Sn-07.)

This option also provides a 0-10 VDC signal, which represents either Inverter Output Frequency, or Inverter Output Current. (Refer to Technical Manual description of control constants Cn-24 and Cn-25 for GAIN settings.)

CAUTION

THIS OPTION CONTAINS ELECTROSTATIC SENSITIVE DEVICES. PERSONNEL SHOULD BE GROUNDED BEFORE REMOVING CONTENTS FROM THE CARTON AND INSTALLING THIS INTO THE EQUIPMENT.

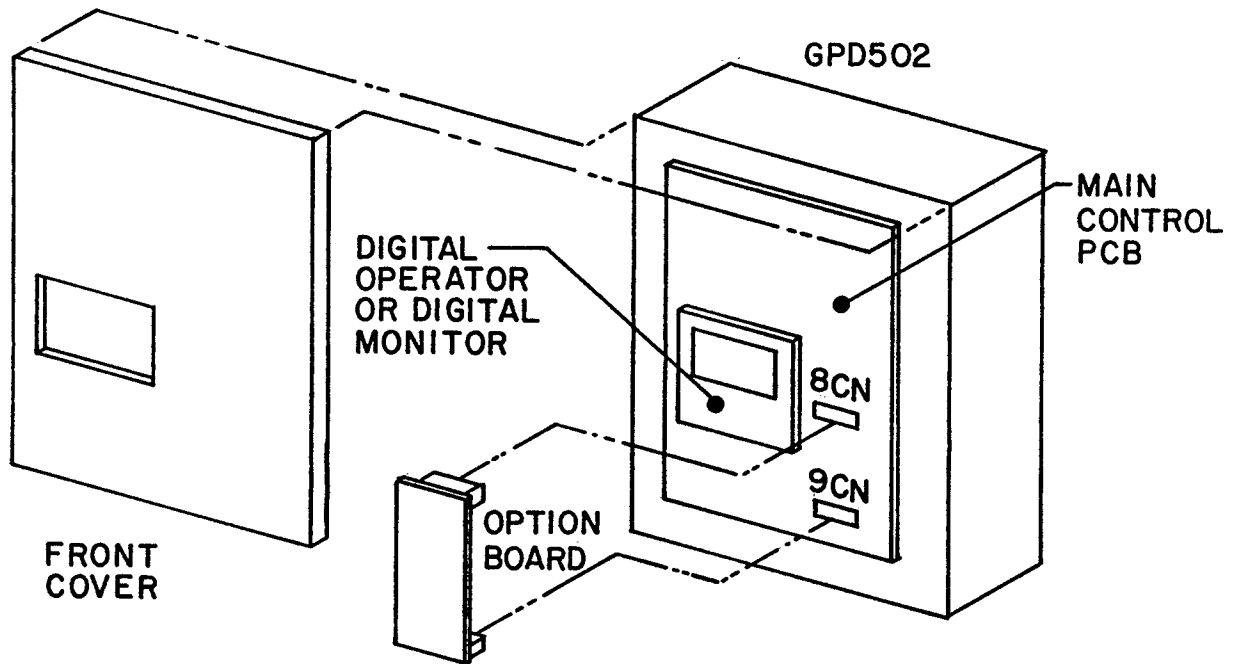
CHANGE RECORD				DWG. NO. 02Y00025-0282 SHEET 1 OF 5 EFF. 2/15/89 (0)
1	STD-3754	REV. 8-30-89		

Table 1. Specifications

FUNCTION	PARAMETER	RATING			UNIT
		MIN.	NOM.	MAX.	
Frequency Monitor (See description of Cn-24)	V _o		10/100% F		V
	Output Impedance		200		ohms
	Output Accuracy			0.5	%
Current Monitor (See description of Cn-25)	V _o		10/170% I		V
	Output Impedance		200		ohms
	Output Accuracy			3	%
Digital Input (See description of Sn-07)	V _{IH}	3.5		5.0	V
	V _{IL}	0		1.0	V
	Output Accuracy				
	Binary 8 bit			100%/255	%
	BCD 2 digit				

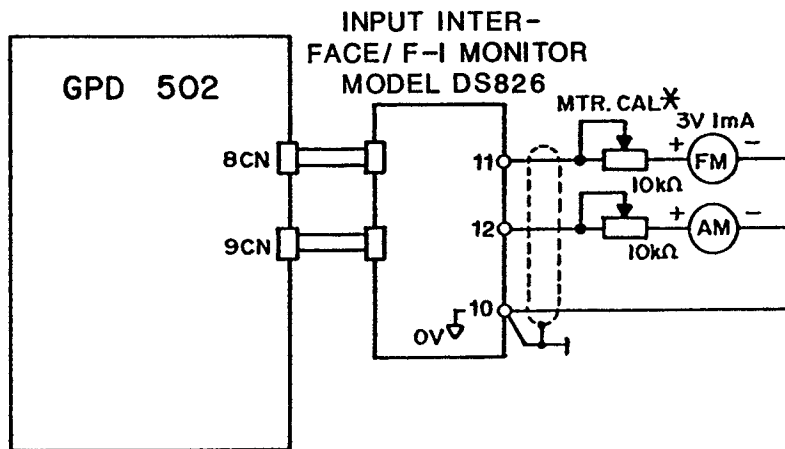
V_o: Output Voltage F: Inverter Output Frequency I: Inverter Output Current
V_{IH}: High Level Voltage Input V_{IL}: Low Level Voltage Input

DWG. NO. 02Y00025-0282-
SHEET 2 OF 5
EFF. 2/15/89 (0)



REF.2Y25.GPD502.OPTION

Figure 1. Installation of Input Interface/F-I Monitor in GPD 502



* MTR. CAL can be omitted by setting of control constants Cn-24 and Cn-25. Otherwise, observe meter and calibrate for 1mA full scale deflection.

Figure 2. Interconnection Diagram for F-I Monitor Circuit

DWG. NO. 02Y00025-0282
 SHEET 3 OF 5
 EFF. 2/15/89 (0)

INSTALLATION

1. Disconnect all electrical power to drive.
2. Remove drive front cover.
3. Verify voltage has been disconnected by using a voltmeter to check for voltage at incoming power terminals.

WARNING

HAZARDOUS VOLTAGE CAN CAUSE SEVERE INJURY OR DEATH.

LOCK ALL POWER SOURCES FEEDING DRIVE IN "OFF" POSITION.

4. See Figure 1. Install the option on the Main Control Board, 1PCB, and insure 8CN and 9CN are properly connected. Make sure Electrostatic procedure is followed.
5. Wiring. See Figure 2 for F-I Monitor connections. Connect signal wires to terminals 11 (+) (for Frequency Monitor output) or 12 (+) (for Current Monitor output) and 10 (-).

See Figure 3 for Input Interface (DI-8) connections. Connect digital input signals to terminals 1-8 (+) and 9 (-).

CAUTION

TO PREVENT ERRONEOUS OPERATION CAUSED BY NOISE INTERFERENCE, DIGITAL SIGNAL WIRING DISTANCE MUST BE 10M(33FEET) OR LESS.

Route wires from the inverter and connect to the peripheral device(s).

6. Adjustments. There are no adjustments to be made on the Input Interface/F-I Monitor; however, the Lancer GPD 502 will have to be reprogrammed for the input requirement of the digital reference, and for the GAIN requirement of the F-I Monitor. Refer to Technical Manual description of system constant Sn-07 (Input Interface) and control constants Cn-24 and Cn-25 (F-I Monitor).

IMPORTANT

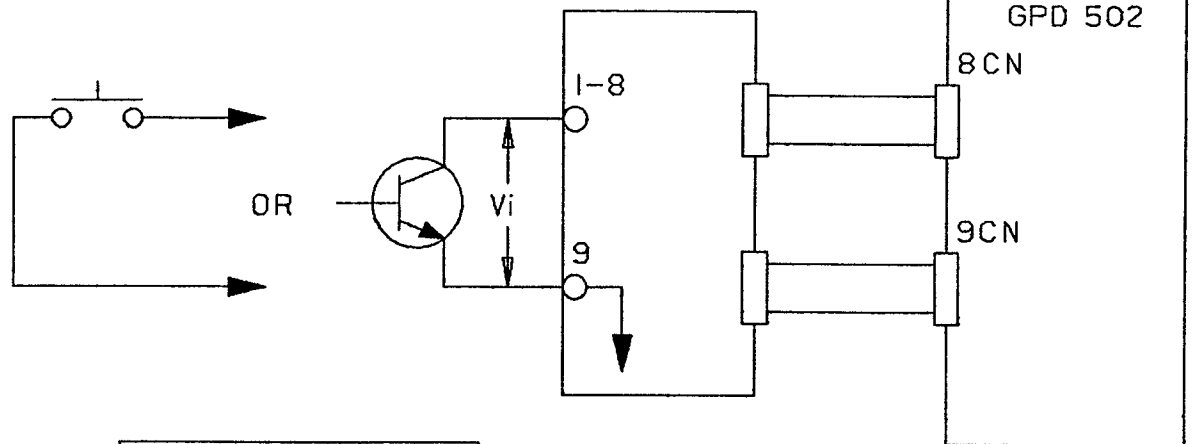
For the Input Interface circuit to function properly, system constant Sn-04 must be set to XX00 (input to DI-8 replaces auto speed reference signal).

7. Reinstall and secure drive cover.
8. Place this instruction sheet with the inverter Technical Manual.

This completes installation of this option.

DWG. NO. 02Y00025-0282
SHEET 4 OF 5
EFF. 2/15/89 (0)

INPUT INTERFACE/
F-I MONITOR
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INPUT VOLTS V_i	LOGIC LEVEL
3.5-5.0V	0
0-1.5V	1

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TERMINAL	INPUT SIGNAL		REMARKS
	BINARY	BCD	
1	2^0	1	Binary or BCD is decided by <u>XXXX</u> digits of system constant Sn-07 setting.
2	2^1	2	
3	2^2	4	
4	2^3	8	
5	2^4	1	
6	2^5	2	
7	2^6	4	
8	2^7	8	
9	(0V)	(0V)	

Figure 3. Interconnection Diagram for Input Interface (DI-8) Circuit

DWG. NO. 02Y00025-0282
SHEET 5 OF 5
EFF. 2/15/89 (0)