

Models: PD3000/PD6000 Series

Customer Displays

2 by 20 character display

USER MANUAL



NOTICE

The manufacturer of the POS pole display makes no representations or warranties, either expressed or implied, by or with respect to anything in this manual, and shall not be liable for any implied warranties of fitness for a particular purpose or for any indirect, special or consequential damages. Information in this document is subject to change without notice and does not represent a commitment on the part of the manufacturer.

FCC NOTICE

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with this manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A digital device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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FEATURES and MODELS

The PD3000/PD6000 family of pole displays offers a wide range of high quality features and models to choice from. Listed below are the features incorporated into each pole display. Not all features are available in all models. The model charts will assist you in selecting the model best suited to your needs.

The PD3000 family has the industry standard 5mm high vacuum fluorescent 5x7 pixel display. The PD6000 family has a pixel height of 11.25mm; one of the largest vacuum fluorescent display on the market today.

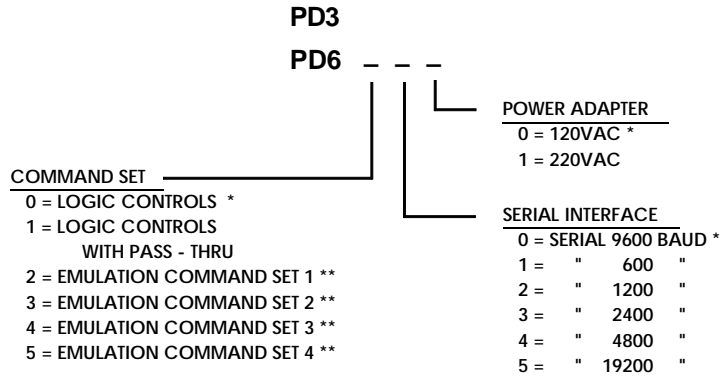
Features - All Models

- Bright green fluorescent display
- Supports high speed serial protocol:
up to 19,200 baud rate, 1 stop bit
- Automatic message scrolling
- Two line display with 20 characters per line
- Matched optical lens for better viewing contrast
- Ergonomic design
- Direct RS232C or parallel interface
- Long life and trouble free operation
- Five adjustable viewing angles
- Simple installation
- Available in different heights
- Available with 120V or 220V Power Adapters

Features - Model dependent

- Emulation of other popular command sets
- Parallel pass-thru
- True RS232C pass-thru
- Real time clock
- One time message scrolling
- Ability to disable attention code
- Ability to change attention code

MODEL CHART INFORMATION



* Default values

** Call for description of Command Set

CARTON CONTENTS

1. Pole display, pre-assembled.
2. Interface cable, comes with a DB9 connector (to computer) and a DIN6M connector (to display) as standard equipment. Optional DB25 connector (to computer) is available.

NOTE: This cable is only supplied with standard serial pole displays PD3000, PD3300, PD3500, PD6000, PD6300, and PD6500.

3. Transformer adapter 120VAC to 6.0VAC standard.
4. Metal base plate with mounting hardware.
5. User's manual.

INSTALLATION

Your PD3000/PD6000 family of pole displays has been pre-assembled to make the installation as simple as possible.

Serial Installation (PD3000, PD3300, PD3500, PD6000, PD6300, PD65000)

1. Mount the pole display to the metal base plate using the mounting hardware provided.
2. The pole display can be used in a free-standing mode or attached to the counter using the remaining mounting hardware.
3. Connect the DB9 connector to the computer's COM1 or COM2 port.
4. Connect the DIN6 connector from the pole display to the DIN6 connector of the interface cable.
5. Connect the female phone jack of the power adapter to the male phone jack of the interface cable.
6. Plug the power adapter into a 120VAC outlet.
7. A green start up message (LOGIC CONTROLS POS COMPONENTS) will be present for a short time. When this message disappears the cursor will be displayed in the left-most digit of the top row.

Parallel Installation (PD3090, PD3390, PD3500, PD6090, PD6390, PD6590)

1. Mount the pole display to the metal base plate using the mounting hardware provided.
2. The pole display can be used in a free-standing mode or attached to the counter using the remaining mounting hardware.
3. Connect the DB25 connector to the computer's parallel port (LPT1).
4. Connect the female phone jack of the power adapter to the male phone jack of the interface cable.
5. Plug the power adapter into a 120VAC outlet.
6. A green start up message (LOGIC CONTROLS POS COMPONENTS) will be present for a short time. When this message disappears the cursor will be displayed in the left-most digit of the top row.

FUNCTIONAL TEST

The following test sequence will verify that your pole display is working properly. Before you start this procedure, you must install the pole display correctly as outlined under the Installation section.

NOTE: The actual key entries are enclosed within quotation marks (" "). Do **not** type the quotation marks as part of your entries.

Serial Pole Displays

This test procedure assumes the pole display is connected to COM1 of the computer. If COM2 is being used, simply insert COM2 where COM1 is called out.

1. Type "MODE COM1 96,N,8,1" and press the ENTER key.
2. Type "TYPE CON>COM1" and press the ENTER key.

For PD3000, 3300, 3500, 6000, 6300, 6500 displays

3. Type "ABCDEFGHJKLMNOPQRS" and press the ENTER key. The display will show "ABCDEFGHJKLMNOPQRS" on the first line.

For PD3090, 3390, 3590, 6090, 6390, 6590 displays

1. Type "ECHO ABCDEFGHJKLMNOPQRS>LPT1" and press the ENTER key. The display will show "ABCDEFGHJKLMNOPQRS" on the first line.

INTERFACE CONNECTION

SERIAL INTERFACE, PD3000/PD6000

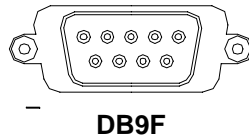
All serial pole displays (standard and pass-thru) are factory configured for serial RS232C interface with the following protocol:

9600 Baud Rate No Parity 8 Data Bits 1 Stop Bit No Handshake
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The pole display also accepts TTL compatible (0 and 5-volt levels) serial ASCII data. If the TTL driver is an open collector device, a pull-up resistor must be included in the driver.

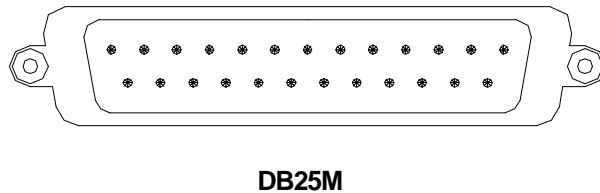
Connector configuration

The pin out configuration for the standard serial pole display is a DB9F connector. It plugs directly into the serial port of the computer.



PARALLEL INTERFACE PD3090/PD6090

All standard parallel pole displays will have a DB25 male connector. It is connected to the printer port of the computer.



SOFTWARE COMMANDS

Your Logic Controls pole display works by receiving information from the computer. This information is known as a command set. Depending on the type of pole display that you have will determine which command set works with your pole. Refer to the model chart for further information.

LOGIC CONTROLS COMAND SET (PD3000/PD6000):

1. **Vertical Scroll Mode (DC2) <12>:**
Data is written into the second row and transferred to the first row leaving the second row empty.
2. **Normal Display Mode (DC1) <11>:**
Data can be written into either row.
3. **Brightness Control <04>:**
The brightness of the display can be adjusted by using this command.
4. **Back Space <08>:**
The cursor position moves one digit to the left erasing the previous information.
5. **Horizontal Tab <09>:**
The cursor position shifts one digit to the right. How it functions depends on whether vertical scroll mode or normal scroll mode is previously selected.
6. **Line Feed <0A>:**
This command tells the cursor how to position itself. How it functions depends on whether vertical scroll mode or normal scroll mode is previously selected.
7. **Carriage Return <0D>:**
The cursor moves to the MSD of the row it is in.
8. **Digit Select <10><P>:**
Moves the cursor to any position on the display
9. **Cursor On <13>:**
Turns on the cursor.

10. **Cursor Off <14>:**

Turns off the cursor.

11. **Reset <1F>:**

All characters are erased and all settings are returned to the power-on reset conditions.

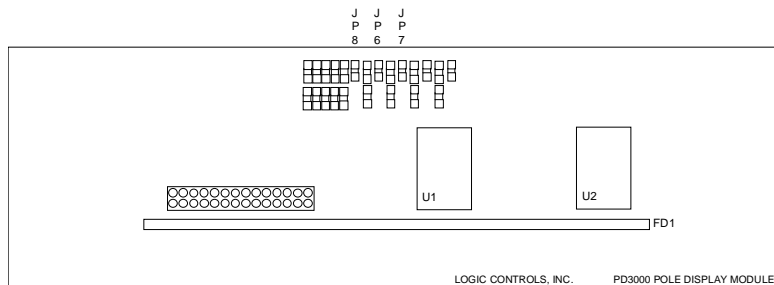
12. **Down Load Font <03><X> <F> <F> <F> <F> <F>:**

Allows a programmer to assign a keyboard key (ASCII code 20 to 7F) a different style font. The "X" represents the ASCII code for the selected key. The "F's" represent the 5 segments which will make up the special font.

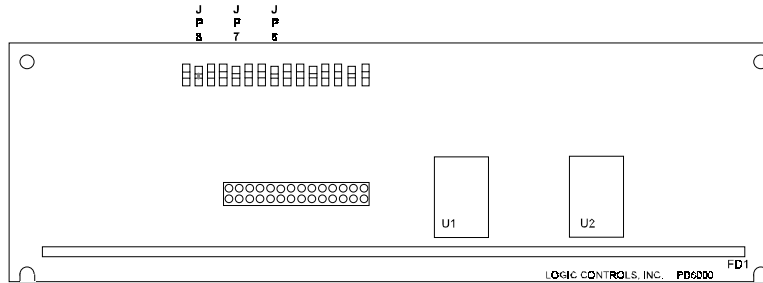
13. **Alphanumeric Message Scroll <05>:**

Scrolls a continuous message of up to 45 characters.

HARDWARE CONFIGURATION



PD3000 POLE DISPLAY MODULE



PD6000 POLE DISPLAY MODULE LAYOUT

Serial pole displays were factory configured for serial RS232C interface using the following protocol:

- 9600 Baud Rate
- 8 Data Bits
- 1 Stop Bit
- No Parity

Other optional baud rates are available. The jumper locations and pinouts are shown for reference only. The manufacturer strongly recommends that changes to the protocol be made at the factory.

Baud Rate	JP6	JP7	JP8
19200	Open	Open	Open
9600	Open	Open	Close
4800	Open	Close	Open
2400	Open	Close	Close
1200	Close	Open	Open
600	Close	Open	Close
300	Close	Close	Open
150	Close	Close	Close

WARNING: If the user opens the pole display housing to make changes, all product warranty will be voided.

DISPLAY CHARACTER CODES

				D7	0	0	0	0	0	0	0	0	1	1	1	1	1	1
				D6	0	0	0	0	1	1	1	1	0	0	0	0	1	1
				D5	0	0	1	1	0	0	1	1	0	0	1	1	0	0
				D4	0	1	0	1	0	1	0	1	0	1	0	1	0	1
D3	D2	D1	D0		0	1	2	3	4	5	6	7	8	9	A	B	C	D
0	0	0	0	0		DP	SP	0	@	P	'	p	Ç	È	á	α	§	À
0	0	0	1	1		DC1	!	1	A	Q	a	q	ü	æ	í	β	IE	É
0	0	1	0	2		DC2	"	2	B	R	b	r	é	Æ	ó	γ	IR	Ù
0	0	1	1	3		DC3	#	3	C	S	c	s	â	ô	ú	Δ	f	Ë
0	1	0	0	4	DIM	DC4	\$	4	D	T	d	t	ä	ö	ñ	ε	¯	Ï
0	1	0	1	5			%	5	E	U	e	u	à	ò	Ñ	η	-1	Â
0	1	1	0	6			&	6	F	V	f	v	â	û	α	θ	2	Ê
0	1	1	1	7			'	7	G	W	g	w	ç	ù	Ω	λ	3	Î
1	0	0	0	8	BS		(8	H	X	h	x	ê	y	ı	μ	x	Ô
1	0	0	1	9	HT)	9	I	Y	i	y	ë	Ö	Γ	π	√	Û
1	0	1	0	A	LF		*	:	J	Z	j	z	è	Ü	¬	ρ	±	Û
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GENERAL SPECIFICATIONS

	<u>PD3000</u>	<u>PD6000</u>
OPTICAL:		
Number of rows	2	2
Number of digits/row	20	20
Dot matrix	5 x 7 plus underline	5X7 plus comma
Digit height (11.25mm)	0.20in. (5.0mm)	0.44in.
Digit width	0.14in. (3.5mm)	0.28in. (7.2mm)
Character config.	ASCII	ASCII
Brightness (typical)	690 cd/m ²	700 cd/m ²
Display color	Green-Blue	Green-Blue
MTBF (hours)	300,000	300,000
MECHANICAL:		
Weight	2.4 lb.	2.8 lb.
Dimensions (in inches) (w x h x d)		
Display head	7.9 x 3.4 x 1.75	11.0 x 3.25 x 1.75
Rectangular base	2.12 x 2.0 x 2.25	2.12 x 2.0 x 2.25
Base plate	4.0 x 0.09 x 8.0	4.0 x 0.09 x 8.0
Overall height (typical)	25	25
ELECTRICAL:		
Adapter input power	120VAC, 60HZ	
Adapter output power	6VAC, 1000ma	
ENVIRONMENTAL:		
Operating temperature	-10 to +65°C	
Storage temperature	-40 to +85°C	
Relative Humidity	80%, non-condensing	
Vibration (10 to 55 Hz.)	4G's	
Shock	40G's	
CABLES & CONNECTORS:		
Serial		
Display cable		6-pin DIN (male)
Interface cable		6-pin Din (female)
		DB9 (female)
Power adapter		Phone jack (male)
		Phone jack (female)
Parallel		
Display cable		DB25 (female)