

Model: TD3000

Table Top Display

2 by 20 character display

USER MANUAL



NOTICE

The manufacturer of the POS table 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 device complies with Part 15 of FCC Rules. Operations is subject to the following two conditions: (1) this device may not cause harmful interference. and (2) this device must accept any interference received, including interference that may cause undesired operation.

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FEATURES and MODELS

The TD3000 table display offers a wide range of high quality features and models to choose from. Listed below are the features incorporated into each table display. Not all features are available in all models. The model charts will assist you in selecting the model best suited to your needs. Our standard wedge product is described in this manual. Inserts to the manual will be added when an RS232 or pass-thru model is purchased.

Features - All Models

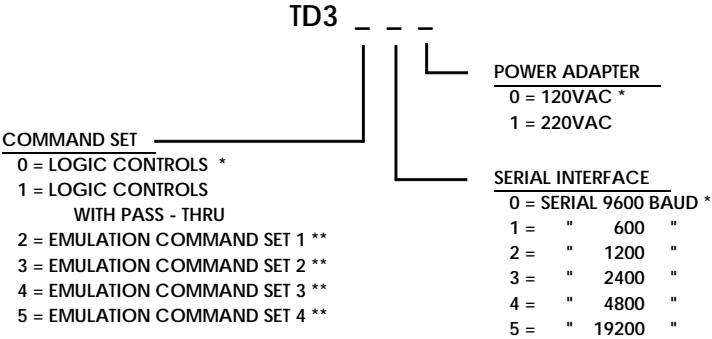
- Bright green fluorescent display
- High speed serial protocol:
up to 19,200 baud rate, 1 stop bit
- Automatic message scrolling
- User definable character
- Two line display
- 20 characters per line
- Matched optical lens for better viewing contrast
- Ergonomic design
- Direct RS232C
- Long life and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

Features - Model Dependent

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

MODEL INFORMATION

The TD3000 family of table displays offers a wide range of models to choose from. The following chart will help to identify the different models available.



* Default values
 ** Call for description of Command Set

Additional information:

Add -PT as a suffix to model numbers TD3300, TD3400, or TD3500 to order pass-thru feature.

Other baud rates are available as shown in the chart above.

CARTON CONTENTS

1. Table display, pre-assembled.
2. Interface cable, comes with a DB9 connector (to computer) and a RJ11 connector (to display) as standard equipment.

NOTE: This cable is only supplied with standard serial table displays TD3000, TD3300, TD3400, and TD3500.

3. Transformer adapter 120VAC to 6.0VAC standard.
4. User's manual.

INSTALLATION PROCEDURE

The TD3000 table display is pre-assembled to make installation as simple as possible.

1. Place the table display on the counter or table. Two holes are provided in the rear of the unit to secure it to the counter or table display.
2. Connect the DB9 connector to the computer's COM1 or COM2 port.
3. Connect the RJ11 connector to the table.
4. Plug the power adapter into a 120VAC outlet.
5. A green cursor will be displayed in the left-most digit of the top row.

FUNCTIONAL TEST

The following test sequence will verify that your table display is working properly. Before you start this procedure, you must install the table 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 Table Displays

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

From the C:\ prompt:

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

For TD3000, 3300, 3400, displays

1. Type "**ABCDEFGHIJKLMNOPS**" and press the **ENTER** key.
2. The display will show "**ABCDEFGHIJKLMNOPS**" on the first line.
3. To end the serial test press **Ctrl-C** (Ctrl and C keys together) to return the computer to the C prompt.

INTERFACE CONNECTION

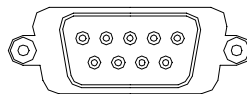
SERIAL INTERFACE

All serial table 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

The table 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.

The pinout configuration for the standard serial table display is a DB9F connector. It plugs directly into the serial port of the computer.



DB9F

SOFTWARE COMMANDS

The table display works by receiving software commands and data from the application software. Each table display model requires its own set of software commands. The following pages give a brief description of each command. The commands are enclosed within the less than and greater than signs (< >). These signs are not part of the command. All commands are in hexadecimal format.

LOGIC CONTROLS COMMAND SET (TD3000/3100):

1. **Vertical Scroll Mode (DC2) <12>:**
All data is written into the second row of the display and automatically transfers to the first row (data strings up to 20 characters) leaving the second row empty.

NOTE: When power is turned on, the DC2 mode is automatically selected. This mode will continue until the NORMAL DISPLAY mode (DC1) is selected.

2. **Normal Display Mode (DC1) <11>:**
Data can be written into either row.
3. **Brightness Control <04>:**
Adjusts the brightness of the display.
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. Its function depends on whether vertical scroll mode or normal scroll mode is selected.
6. **Line Feed <0A>:**
This command tells the cursor how to position itself. Its function depends on whether vertical scroll mode or normal scroll mode is selected.
7. **Carriage Return <0D>:**
The cursor moves to the most significant digit (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 settings are returned to the power-on conditions.
12. **Down Load Font <03><X> <F> <F> <F> <F> <F>:**
Allows a programmer to assign a standard keyboard a different style font.
13. **Alphanumeric Message Scroll <05>:**
Scrolls a continuous message of up to 45 characters.

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	Û
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	ä	θ	z	Ê
0	1	1	1	7			'	7	G	W	g	w	ç	ù	Ω	λ	³	Ï
1	0	0	0	8	BS		(8	H	X	h	x	ê	y	¿	μ	x	Ô
1	0	0	1	9	HT)	9	I	Y	i	y	ë	Ö	Γ	π	√	Û
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SPECIFICATIONS

OPTICAL (FLUORESCENT DISPLAY)

Number of Rows	2
Digits per Row	20
Digit Configuration	5x7 Dot Matrix
Digit Height	0.20 in (5.0 mm)
Digit Width	0.14 in (3.5 mm)
Digit Pitch	0.20 in (5.0 mm)
Character Config.	ASCII
Brightness	200 fl (690 cd/m ²) max.
Display Color	Blue/Green
MTBF	300,000 hours

ELECTRICAL

Power Adapter	
Input Power	120VAC, 60 HZ
Optional Input	220VAC, 50 HZ
Output Power	6.0vac, 1000ma.

CABLING

Interface Cable	
Computer side	DB9 female standard DB25 female optional
Display side	RJ11 male 6 conductor
Power connection	Jack style connector

ENVIRONMENTAL

Operating Temperature	0 to +50°C
Storage Temperature	-20 to +70°C
Relative Humidity	
Operating	85% max. non-condensing
Non-operating	90% max. non-condensing
Vibration (10 to 55 Hz.)	4G's
Shock	40G's

SPECIFICATIONS (CONTINUED)

INTERFACE

Serial Protocol	RS232C
Baud Rate	2400,4800,9600*,19,200
Data Bits	8
Parity	NONE
Stop Bits	1

* Preset at Factory

MECHANICAL

Weight	0.80 lbs.
with adapter	1.40 lbs.
Dimensions (in inches)	
Width	7.87
Depth	3.38
Height	3.17

CONNECTOR PINOUT

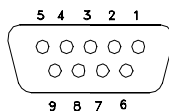
RJ11 M

1	No connection
2	6.0VAC
3	6.0VAC
4	Data
5	Ground
6	No connection



DB9 F

1	Tied to pins 4 and 6
2	No connection
3	Data
4	Tied to pins 1 and 6
5	Ground
6	Tied to pins 1 and 4
7	Tied to pin 8
8	Tied to pin 7
9	No connection



INPUT POWER (from power adapter)

Center contact connected to pin 2 of RJ11.

Outer contact connected to pin 3 of RJ11.

GENERAL INFORMATION

- 1) Power adapter and 6 foot cable (with RJ11M and DB9F connectors) supplied.
- 2) Call for list of available emulations.
- 3) All control lines are terminated in the DB9 connector.