

PD - 2601 Series

POSIFLEX

User's Manual

Rev. Original



FCC Notes:

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with 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 to correct the interference.

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BRIEF INTRODUCTION

THE PRODUCT

The PD-2601 is a pole mount customer display option designed for Posiflex HT series hybrid POS terminals. It is delivered in separate carton for HT series and shall be installed per instruction in this manual.

FEATURES

- Bright VFD (vacuum fluorescent display) with green filter
- Rear mount Pole Display for Posiflex HT series hybrid terminals
- Two-line display with 20 characters per line
- Adequately large characters for easy viewing (9.03 mm by 5.25 mm)
- Long life and trouble free operation
- 15 °, 30 ° and 45 ° adjustable viewing angles
- Total height 385 mm above top surface of main unit of HT series
- Display frame can rotate horizontally 270° freely
- Various command emulation modes selectable by DIP switch
- Support 12 Code Pages of 128 characters each
- Support 12 international character sets of 12 characters each
- Simple installation
- Selectable between Serial (RS232) interface model for HT-4000 and USB interface model for other HT series
- Supports UPOS 1.8 and is WEPOS ready
- Case color choices: ivory, charcoal

INSTALLATION GUIDES

HOST SYSTEM PREPARAION

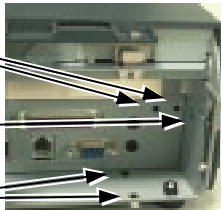
For serial interface (RS232) PD-2601 to be used in HT-4000 series, you have to adjust during power off the internal jumper of the host system to **supply 5 V DC** to the COM port selected for PD-2601.

For both serial and USB interface PD-2601, you have to open the back cover according to the Users' Manual of HT system and find the necessary holes for installation of PD-2601 near the right corner (as you are facing the HT system from its back) on bottom of the chassis as in the left picture.

Locating holes
on I/O plate

Screw hole on
sidewall

Installation holes
on bottom



back cover according to the Users' Manual of HT system and find the necessary holes for installation of PD-2601 near the right corner (as you are facing the HT system from its back) on bottom of the chassis as in the left picture.

POLE DISPLAY BASE UNIT

To install PD-2601 to the HT system, please take PD-2601 out of its box and observe its base unit as in the left picture.

Base unit

Locating bosses
to I/O plate

This side
against sidewall

Bottom

locking lugs



Please note at the bottom edge there are 2 extruding lugs, on 1 side of bottom part there are 2 extruding cylindrical bosses to match in the holes on I/O plate of the HT system and on another side there are screw holes to fit to the sidewall of HT chassis.

OPENING THE TOP COVER OF HT SERIES

For ease of PD-2601 installation operation, the main unit has to be opened with sufficient precautions. First turn the display panel to straight up position. Prepare enough space in front of the HT system and lay a piece of clean soft clothe of appropriate size there to prevent damage. With the back cable cover opened, push in the circled spring button in the right picture on both sides of chassis and raise the rear edge of the top cover.

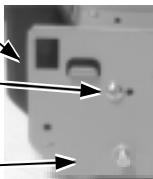


FIXING THE POLE DISPLAY

PD-2601 Base

Fixing screw

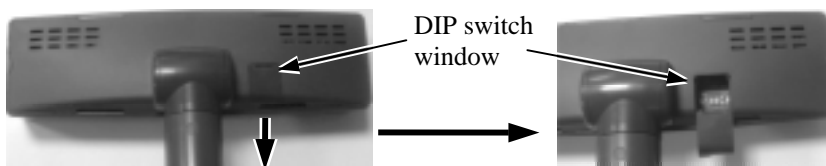
HT chassis
sidewall



Insert the 2 bottom locking lugs into the 2 rectangular installation holes on bottom of HT chassis from the right corner. Match the 2 cylindrical locating bosses into 2 round holes in the I/O plate. The side of PD-2601 base with the screw holes shall face against

the sidewall of HT system chassis. Use the self-tapping screw that comes with PD-2601 to fix from external side of sidewall as demonstrated in the above picture. Carefully close back the top cover of HT system and connect the interface cable of PD-2601 to appropriate port in HT connector area. Then close the back cover of HT system. Please reserve the pole hole cover from the back cover for future use.

COMMAND EMULATION MODE SETUP



Now please check the back of PD-2601 display head as in the left picture above. There is a small piece of plastic cover for the “DIP switch window”. Slide the cover downward but don’t pull it off otherwise you may have to practice for inserting it back. You can find 6 positions of DIP switches in this window. Adjust for the appropriate command mode used by the application program according to below table. Switch position counts from left to right and “ON” means pushed up as indicated in the right picture above.

Switch Position						Command Mode
1	2	3	4	5	6	
ON	OFF	OFF	ON	OFF	OFF	ADM
ON	OFF	ON	ON	OFF	OFF	Aedex
ON	OFF	ON	OFF	OFF	OFF	Epson
ON	OFF	OFF	ON	ON	OFF	Futaba
ON	OFF	ON	OFF	ON	OFF	Noritake
ON	OFF	ON	ON	ON	OFF	UTC

The factory default command mode is set to Noritake mode for normal delivery. Please change it to Epson mode if OPOS or UPOS driver is used for the application program.

USING THE CUSTOMER DISPLAY

INTERFACE SELECTION

This series of customer display is designed to serve in HT-4000 series with RS232 interface model and to serve other HT series with USB interface model. It is of course possible to use it the other way round if the user has well studied about the I/O port availability of the host system.

When a RS232 (serial) interface model of PD-2601 is used, the jumper on main board of HT system must be modified to supply power to the COM port designated for PD-2601. Whenever the RS232 interface PD-2601 is to be removed from the HT system, consequently the jumper has to be changed back to neutralize the COM port, **otherwise damage could occur!**

For a USB interface model of PD-2601, power is supplied through the USB port itself and there is no need for other special arrangement.

COMMAND MODE SELECTION GUIDE

The below table provides some comparison for selection on command mode to be used in the application program if it is not yet determined. The list of commands available in each mode can be found in the appendix.

Mode	ADM	Aedex	Epson	Futaba	Noritake	UTC
Cursor	N.A.	N.A.	Invisible	Blinking Block	Blinking Block	Blinking Block (DP)
Default mode	N.A.	N.A.	Over/W	V. scroll	Over/W	PT
User defined font	N.A.	N.A.	2 chars	N.A.	2 chars	2 chars (PT)
Brightness control	NO	NO	YES	YES	YES	YES (DP)
Leading code change	NO	YES	NO	YES	YES	YES (PT)
Code page select	NO	NO	YES	YES	YES	YES
Auto scroll message	NO	NO	NO	YES	YES	YES (PT)
Timer clock	NO	NO	YES	NO	NO	YES (PT)

DRIVER INSTALLATION

For application software to use RS232 interfaced PD-2601, there is no direct need for any driver. The OPOS (OLE POS) driver or the JPOS (Java POS) driver would be required for OPOS or JPOS programs and the PD-2601 would have to be set to "Epson" command mode. These drivers are available from our web: <http://www.posiflex.com>

For USB interfaced PD-2601, the programmer, may visit our web site and find the driver from the class "PD23_26U". The guidance for each function call in the library "USBPD.dll" is covered in the "ReadMe" file in that class.

SPECIFICATION

OPTICAL

Number of digits	20 digits/row, 2 rows
Dot matrix	5 X 7 dots
Digit height	9.03 mm
Digit width	5.25 mm
Display color	Green (550 nm)

MECHANICAL

Total Height (above HT)	385 mm
Display Head Height	28.2 mm
Display Head Width	196.6 mm
Display Head Depth	28.2 mm
Case color	Charcoal or Ivory

ELECTRICAL

Power from interface port of HT system:
+ 5VDC 1A

ENVIRONMENTAL

Operating temperature	0° to + 40°C
Storage temperature	-20° to + 70°C
Operating humidity	20% to 85%, non-condensing
Storage humidity	5% to 90%, non-condensing

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

APPENDIX

COMMAND CODES SUMMARY

Command	Function	Command	Function
ADM mode			
<i>0C</i>	Clear Display	<i>10</i>	Write Decimal Point
<i>0D</i>	Carriage Return	<i>1E</i>	Write Field 1
<i>0E</i>	Write Line 1	<i>1F</i>	Write Field 2
<i>0F</i>	Write Line 2		
AEDEX mode Attention code + Function code + data + CR			
1	Display top	7	Stop trapping
2	Display bottom	8	Change attention code
4	On going scroll	9	Display whole area
6	One time scroll		
EPSON mode			
BS	Move cursor left	US ;	Mark semicolon
HT	Move cursor right	US <	Clear mark
LF	Move cursor down	US E	Set/cancel blinking
HOM	Move cursor home	US T	Set and display counter
CLR	Clear display screen	US X	Brightness adjustment
CR	Move cursor left-most	ESC %	Set/cancel user-defined char.
CAN	Clear cursor line	ESC &	Define user-defined char.
US MD1	Overwrite mode	ESC ?	Delete user-defined char.
US MD2	Vertical scroll mode	US @	Show firmware version
US MD3	Horizontal scroll mode	ESC =	Select peripheral device
US LF	Move cursor up	ESC t	Select code page table
US CR	Move cursor right-most	US B	Move cursor to bottom
US \$	Move cursor specified	ESC @	Initialize display
US ,	Mark comma	ESC R	International character set
US .	Mark period	US U	Display counter
FUTABA mode			
<i>1F</i>	Reset	<i>10 pp</i>	Digit select
<i>04 bb</i>	Brightness control	<i>13</i>	Cursor on

<i>1E pp</i>	Change code page	<i>14</i>	Cursor off
<i>1C 0i</i>	International character set	<i>08</i>	Back space
<i>05 . . . 0D</i>	Moving sign	<i>11 09</i>	Horizontal tab
<i>06 x1 x2</i>	Change leading code	<i>12 09</i>	Vertical scroll up
<i>01</i>	Set pass through flag	<i>11 0A</i>	Cursor up/down
<i>x1 x2 02</i>	Clear pass through flag	<i>12 0A</i>	Line feed
		<i>0D</i>	Carriage return
NORIRAKE mode			
<i>1B 49</i>	Reset	<i>1B 54 nn</i>	Cursor blinking Rate
<i>0E</i>	Clear	<i>15</i>	Cursor on
<i>1B 4C bb</i>	Brightness control	<i>16</i>	Cursor off
<i>1E pp</i>	Change code page	<i>08</i>	Back space
<i>1C 0i</i>	International character set	<i>11 09</i>	Horizontal tab
<i>05 . . . 0D</i>	Moving sign	<i>12 09</i>	Vertical scroll up
<i>06 x1 x2</i>	Change leading code	<i>11 0A</i>	Cursor up/down
<i>01</i>	Set pass through flag	<i>12 0A</i>	Line feed
<i>x1 x2 02</i>	Clear pass through flag	<i>0C</i>	Form feed
<i>1B 48 pp</i>	Digit select	<i>0D</i>	Carriage return
<i>1B 43 ad x1 ~ x5</i>	User defined fonts		
UTC Pass through mode Command [+data] [+CR]			
ESC uA	Top line message	ESC uH	Redefine graphic
ESC uA CR	Clear top line	ESC uIx	Display fonts
ESC uB CR	Clear bottom line	ESC uE	Set/Display time
ESC uB	Bottom line message	ESC utcEx	Change d mode
ESC uD	Continuous scrolling	ESC utcFx	Change RS mode
ESC uF	Top line scroll once	ESC RS *	Direct to pole mode
UTC Direct to pole mode			
EOT x	Brightness	DC4	Cursor off
BS	Back spacing	CAN	Clear to end of line
HT	Horizontal tab	EM	Clear to end of display
LF	Line feed	SUB x	Display fonts
CR	Carriage return	ESC d *	Pass thru mode
DLE	Display position	FS	Flashing text start
DC1	Normal display mode	GS	Flashing text end
DC2	Vertical scroll mode	RS	Clear display

DC3	Cursor on	US	Reset display
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INTERNATIONAL CHARACTER SETS

Hex code	Country	Hex code	Country
0	USA	6	Italy
1	France	7	Spain
2	Germany	8	Japan
3	United Kingdom	9	Norway
4	Denmark I	A	Denmark II
5	Sweden	B	Ex-Yugoslavia

FONT PAGES

Hex code	Deci-code	Code page number	Language
00	0	PC437	English-European
01	1		Katakana (English-Japanese)
02	2	PC850	Multi-lingual
03	3	PC860	Portuguese
04	4	PC863	Canadian-French
05	5	PC865	Nordic
06	6		Russian
07	7		Albic
13	19	PC858	Euro
FD	253	PC437G	Greek
FE	254	Win1257	Windows Baltic
FF	255	Win1253	Windows Greek

