

**Jiva SL & Jiva EL
(TP-5700 / TP-5800)
SERIES
TECHNICAL MANUAL**

WORK STATION

Rev. : Preliminary 2





SOME IMPORTANT NOTES

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.

WARRANTY LIMITS

Warranty will terminate automatically when the machine is opened by any person other than the authorized technicians. The user should consult his/her dealer for the problem happened. Warranty voids if the user does not follow the instructions in application of this merchandise. The manufacturer is by no means responsible for any damage or hazard caused by improper application.

ABOUT THIS MANUAL

This manual assists the user especially the software programmer who provides the software system for POS application to utilize the hardware of the Jiva SL (TP5700) & Jiva EL (TP5800) series which is a member of the POSIFLEX integrated point-of-sale terminal product family. The Jiva SL (TP5700) & Jiva EL (TP5800) is a compact point-of-sale system that gives the most user friendly application interface by providing a touch control LCD panel and combines the performance and affordability of personal computers with the elegance and reliability of business machine. The Jiva SL (TP5700) & Jiva EL (TP5800) also provides the built-in networking capability for easy communication among multiple terminals in addition to the data transfer and control through back office server.

The manufacturer of the Jiva SL (TP5700) & Jiva EL (TP5800) series heartily apologizes to the user for reserving the right to change or to modify this manual without notice due to the rapid and constant progress and improvement on science and technology. The user may always obtain the most up to date information or software utilities through any of our web sites:

<http://www.posiflex.com.tw>; <http://posiflexuk.com>; <http://www.posiflexusa.com>

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OVERVIEW

SCOPE

The Jiva SL (TP5700) & Jiva EL (TP5800) series is a series of fully integrated PC based Point-Of-Sale terminals. This series provides the best performance and the most user-friendly interface for Point-Of-Sale, Hospitality and Kiosk systems. This series also provides an industrial-use touch control panel over the 12" or 15" LCD integrated on the front surface of the system. In short, this series engages modular design for numerous advanced hi-tech applications in robust integrated construction.

FEATURES

- CPU: Celeron compatible 400 MHz up
HDD: 20 GB or above available for Jiva EL (TP5800) series
CF Card Interface: available for Jiva SL (TP5700) series
- Support Win98, Win2000, Win XP and Linux in Jiva EL (TP5800) series, and WinCE, Win XP embedded in Jiva SL (TP5700) series
- Support RDP architecture to boot WinCE in CF card
- Support Linux thin client architecture.
- High quality 12" / 15" TFT active matrix LCD panel
- **Vertical type LCD panel with easy tilt** angle adjustment from 17.5° to 87.5°
- Resistance type touch sensor
- Extra long life touch panel that endures 10 million touches at same spot
- Spill proof water resistant structure allowing easy cleaning
- Easy maintenance construction
- Various I/O ports supported, including:
 - a. 1 PS/2 KB port
 - b. 1 PS/2 mouse port
 - c. Serial Ports:4 for PS2 interface touch control. All with capability for +5V DC support
 - d. 1 parallel port

- e. 2 USB 2.0 ports
- f. 1 LAN port 10/100 base T Ethernet
- g. 1 Compact Flash memory card connector (for Jiva SL systems only)
- h. 1 external VGA monitor port
- i. 1 cash drawer connector for control over 2 cash drawers with drawer open detection
- j. 1 UPS battery connector (for optional UPS battery in base)
- k. 1 external CD ROM drive connector (for Jiva EL systems only)
- l. 1 DC 12 V input connector
- m. 1 set of Audio out port (1 Microphone input and 1 audio line output)
- IRQ and I/O address of all COM ports can be changed through CMOS setting.
- **Preprogrammed timer wake up function**
- **COM port MODEM ring up function**
- **LAN wake up function**
- **Built-in UPS function with battery low voltage detect and alarm** to support the system from intermittent power failure (battery itself is an option)
- **Accidental power off protection** – The power switch is safely located at one side, and this power switch can be defined as a “ON” switch only through software command
- **Software power off** makes full featured remote control through LAN or MODEM possible
- **Forced power off** against system malfunction under the power switch on/off mode or under power switch on only mode with prolonged effort
- **Touch control functions:** left/right button, double click, drag & drop
- **Touch sound** can be enabled or disabled or pitch adjusted by software control
- High resolution touch sensor controller: 1024 X 1024
- Support high performance **DDR266 DRAM** with maximum memory size **1GB in two modules**

- Integrated structure for optional security devices (incl. top mount LCD customer display and side mount security device with 40 keys programmable keypad, smart card reader, finger print sensor, MSR)
- Software programmable MSR parameters in KP100 for Win 98 or Win XP
- VGA memory size programmable by software up to (8 – 64 MB)

OPTIONAL ITEMS

Note: The “*” marked items in the following list means that option must be set prior to shipment from the factory. The rest items can be set by the dealers.

- a) * DDR266 DRAM memory expansion up to 1GB
- b) Internal UPS battery
- c) Deluxe security device upgrade (KP100) covering keypad and option(s) from KB interface MSR, smart card reader and finger print sensor
- d) Common security device upgrade (SD100) covering option(s) from USB interface MSR or smart card reader and finger print sensor or iButton reader
- e) Bar Code Card Reader (BC100)
- f) Integrated rear top mount LCD customer display PD-302
- g) VFD PD-2500 or graphic LCD PD-7100 stand alone Posiflex pole display
- h) External 12” LCD monitor LM-6000 series
- i) External CD ROM drive (for TP5800 only)
- j) Posiflex POS printers
- k) Posiflex cash drawers (CR3100/CR3200/CR4000/CR4100)
- l) Single cash drawer control cable 20863018010 or 2 in 1 cash drawer control cable 20863023800
- m) Wireless LAN in USB interface
- n) Preload OS
- o) Wall mount kit



GENERAL SPECIFICATION

SYSTEM

- CPU speed : Celeron compatible Eden series 400MHz up for TP5700; C3 800MHz up for TP5800
- DRAM : DDR266 128 MB (expandable to 1GB)
- CF card 16 – 512 MB for TP5700 only
- Built-in 3.5” HDD 20 GB above in IDE interface for TP5800 only

POWER SOURCE

Item	Specification
Voltage range of adaptor input	100 ~ 240 V AC
Load limit of adaptor input	1.8 A max.
Input frequency	50 / 60 Hz

Total Power Consumption Display used	TP5700	TP5800
12.1” TFT LCD	53 W	NA
15” TFT LCD	60 W	80 W

SYSTEM POWER ON/OFF CONTROL

- One main power ON/OFF slide switch at side, this switch can be programmed as “ON” only
- System can be waked up after each power off by any of the preset timer or a remote COM port MODEM call or LAN packet
- System can be switched off by software command through local or remote program control
- Forced power off when switch is ON/OFF or when switch is ON only with prolonged effort
- Power OFF to ON duration: 10 seconds min.

UPS SUPPORT (battery option)

- Supports system operation for 3~8 min. depending on loading condition
- Green LED turned on when adaptor power stand-by
- Blue LED flashes and system beeps when UPS battery starts working and discharging, and Green LED flashes when UPS near to end
- Working on UPS battery status can be detected through COM1 status port

12VDC POWER SUPPLY INTO Jiva SL (TP5700) & Jiva EL (TP5800)

- O / P : 12 +/- 1 V DC 6.67 Amp min. for TP5800; 5 Amp min. for TP5700
- I / P : 110 VAC/1.6A or 240 VAC/0.8A max., 50 / 60 Hz

OVERALL POWER OUTPUT LIMIT

- Including PS/2 KB, all USB & COM ports: +5VDC/2 Amp max.

INPUT / OUTPUT PORTS

- 1 X mini DIN 6 pin female PS/2 KB jack
- 1 X mini DIN 6 pin female PS/2 mouse jack
- 1 X VGA display port for external CRT display
- 1 X parallel port
- 1 X LAN port (Ethernet 10 base T and 100 base T)
- 2 X USB ports, USB 2.0 standard
- 4 X serial communication ports for TP5X12P/TP5X15P. 3 X serial communication ports for TP5X12R/TP5X15R. All serial communication ports can supply DC +5V through pin 9 under overall power output limit. Default setting is standard RI signal input at this pin for all ports.
- 1 X 2nd IDE port with power for CD ROM drive or 2nd HDD (TP5800 only)
- 1 X cash drawer control port for controlling 2 X cash drawers
- 1 X 4 pin 12 V DC power input jack
- 1 X UPS connector for 2.3AH/12V or above Lead Acid battery

TOUCH PANEL

- Touch control interface: PS/2 mouse emulation
- Sensor type: resistive
- Resolution: 1024 x 1024
- Calibration: initial calibration at setup only, no re-calibration required for day to day power on/off
- Driver support: DOS, Win98, Win CE, Win 2000, Win XP & Linux.

PS/2 TOUCH PANEL OPERATION

Function available under OS	Win98	WinNT/2000	WinXP
Firmware Version Readable By Software	YES	YES	YES
Touch Beep ON/OFF Programmable	YES	YES	YES
Touch Beep Pitch Programmable	YES	YES	YES
Touch Beep Duration Programmable	NO	YES	YES
Touch as Mouse Left Click (incl. Drag & Double Click)	YES	YES	YES
Double Click Area Programmable	YES	YES	YES
Double Click Duration Programmable	NO	YES	YES
Right Button Emulation ON/OFF Programmable	YES	NO	NO
Right Button Delay Time Programmable *	YES	NO	NO
Right / Left Button Selection Icon	NO	YES	YES

* The right button function can be engaged with a slight movement of a touch (after being **steady** on any point) on the surface of touch panel.

PRELOAD OS

- Option among Win98, Win CE, Win 2000 and Win XP

OPERATOR DISPLAY

Display Type	COLOR TFT 12" LCD	COLOR TFT 15" LCD
View area	246 X 184.5 mm	304.1 X 228.1 mm
Internal Interface	TTL	TTL
Luminance	150 cd/m ²	250 cd/m ² min
Contrast Ratio	200:1	250:1
Resolution	1024 X 768	1024 X 768
Memory size	8 MB up to 64 MB share memory	
Tilt angle	18° ~ 87°	

AUDIO PORT

- Output 2.83 Vp-p with max. output impedance 500 Ohm
- 20 dB gain for Microphone input
- Input impedance 20 KOhm

LED COLOR

- Type: blue/green dual color (blue for power on; green for stand by)
- Indication coverage: system ON/OFF status, external power status, UPS battery monitoring

EXTERIOR

- **DIMENSIONS:**

BASE: 270mm (D) X 260mm (W)

PANEL: 375mm (W) X 315mm (H)

HEIGHT: 360mm (Panel vertical)

275mm (Panel horizontal)

PACKING DIMENSION: 588mm X 458mm X 358mm

- **WEIGHT:**

	NET WEIGHT	GROSS WEIGHT
TP5712	6.8 kgs (15.0lbs)	10.0 kgs (22.0 lbs)
TP5715	7.0 kgs (15.4 lbs)	10.5 kg (23.1 lbs)
TP5812	7.6 kgs (16.8lbs)	10.7 kgs (23.6lbs)
TP5815	7.8 kgs (17.2 lbs)	11.2 kg (24.6 lbs)

MECHANICAL NOISE LEVEL

- Max. 65 dB measured at 30 cm distance for TP5800 series
- Less than 30 dB for TP5700 series

ENVIRONMENTAL

- **TEMPERATURE RANGE: (excl. UPS battery)**

Operating: 0°C ~ +40°C or 32°F ~ 104°F

Non-operating: -20°C ~ +60°C or -4°F ~ +140°F

- **TEMPERATURE RANGE for UPS battery**

Operating: 0°C ~ +40°C or 32°F ~ 104°F

Non-operating: -20°C ~ +40°C or -4°F ~ +104°F

- **HUMIDITY RANGE:**

Operating: 20%RH ~ 80%RH, non-condensing

max. wet bulb 26°C (78.8°F)

Non-operating: 10%RH ~ 80%RH, non-condensing

max. wet bulb 28.9°C (84.0°F)

ACCESSORIES

- User's manual: 1 copy
- Mechanical key for opening cable cover: 1 pc
- Power adapter 12 V DC 6.67 A max. plus power cord for TP5800 series; 5 A adapter for TP5700 series
- Driver utility diskette or Recovery CD

SAFETY APPROVALS

- Whole system meet CE, FCC class A standard
(meet IEC1000-4-2/-3/-4/-5/-6/-8/-11)
- Power supply is UL, VDE & T-mark approved

OPTIONS

CUSTOMER DISPLAY

MODEL Number	PD302	PD2500	PD7200
Display Media	LCD	VFD	LCD
Number of rows	2	2	2 / 4 / 2
Characters per row	20	20	20 / 26 / 10
Character width (mm)	6	7.2	17.2 / 8.0 / 17.2
Character height (mm)	9.66	11.25	7.79 / 5.55 / 16.7
Character format	5 X 7	5 X 7	8 x 16 / 6 x 8 / 16 x 16
Display color	Dark blue	Blue / Green	White
Background color	Yellow green	Black	Blue
Display area (mm x mm)	147 x 21	193 x 39	179 x 36
Mounting method	Top mount	Stand-alone	Stand-alone
Power source	5 V DC	5 V DC / 12V AC	12V DC / 12V AC

DRAM EXPANSION

- On board 2 DIMM sockets for 128 MB ea., 256 MB ea. and 512 MB ea. DDR266 SDRAM

GENERAL UPGRADE KIT SD100

- Functions include: MSR / smart card reader, finger print sensor / iButton reader

DELUXE UPGRADE KIT KP100

- Functions include: MSR, keypad, smart card reader, finger print sensor

MAGNETIC STRIPE READER

- USB interface in SD100; PS/2 KB interface in KP100
- ISO 2 tracks ((track 1 + track 2) or (track 2 + track 3))
- ISO 3 tracks (track 1 + track 2 + track 3)
- Characteristic parameters of ISO readers can be set via software in KP100 or via hardware jumper setting in SD100
- AAMVA/CA DMV format supported in ISO 3 tracks model

SMART CARD READER

- USB interface
- PC/SC 1.0 standard

FINGER PRINT SENSOR

- USB interface
- Detects electric field in sub-dermal layer

iBUTTON READER

- Programmed by RS232 interface
- Output through PS2 KB or RS232 interface

UPS BATTERY

- 2.3 AH/12V lead acid battery



EXTERNAL CD ROM DRIVE

- 24 x speed
- USB or ATA IDE interface

CASH DRAWER CONTROL CABLE

- 2 in 1 cash drawer control cable 20863023800 for independent control over two cash drawers of CR3100 or CR3200 or CR4000

WIRELESS LAN

- IEEE 802.11b with USB interface

WALL MOUNT

- Can be achieved by use of wall mount bracket

EXTERNAL FLOPPY DISK DRIVE

- 3.5" 2HD/2DD
- Only USB interface model of this item is available in the market

PRINTER:

- **PP-1000**
 1. Dot matrix 7 pin
 2. Bi-directional printing
 3. Friction type
 4. 42 columns for 16 CPI
 5. Accepts paper width 3 inches with adjustable paper guide
 6. Prints on ordinary or up to 3-fold carbonless copy paper
- **PP-2000**
 1. 2-station receipt/journal/validation printer
 2. Dot matrix 9 pin
 3. Bi-directional printing
 4. Auto cutter provides full cut and partial cut

5. Auto-detect between RS232 and EPP interface
- **PP-3000**
 1. Dot matrix 9 pin
 2. Bi-directional printing
 3. Friction type
 4. 40 columns for 15.4 CPI
 5. Accepts paper width 2.25/3/3.25 inches with adjustable paper guide
 6. Prints on ordinary or up to 3-fold carbonless copy paper
 - **PP-5600**
 1. Dot matrix 9 pin
 2. Bi-directional printing with logic seeking
 3. Friction type
 4. 40 columns for 16.9 CPI
 5. Accepts paper width 3 inches
 6. Prints on ordinary or up to 3-fold carbonless copy paper
 - **PP-6000**
 1. High speed thermal line printer up to 80 mm/sec
 2. High resolution 8 dots/mm by 512 dots/line
 3. Epson TM-T88 II compatible command set
 4. Low noise high reliability
 5. Auto roller blade cutter provides single point left partial cut
 6. Thermal sensitive paper roll at width 80 mm
 7. Supports UPC-A, EAN(JAN)13/8, ITF, CODE39, CODABAR printing
 8. Supports printing on label with marker on the other side
 9. Provides also Charcoal color option
 - **PP-7000 / PP-7000-II**
 1. High speed thermal line printer up to 80 mm/sec in text mode and 150 mm/sec in page mode for PP-7000
 2. Extremely high performance thermal line printer up to 180 mm/sec for both text and page modes for PP-7000-II



3. High resolution 8 dots/mm by 512 dots/line
4. Epson TM-T88 II compatible command set
5. Low noise high reliability
6. Auto guillotine type cutter provides single point left partial cut
7. Thermal sensitive paper roll at width 80 mm
8. Supports UPC-A, EAN(JAN)13/8, ITF, CODE39, CODABAR printing
9. Supports printing on label with marker on the other side
10. Provides also Charcoal color option

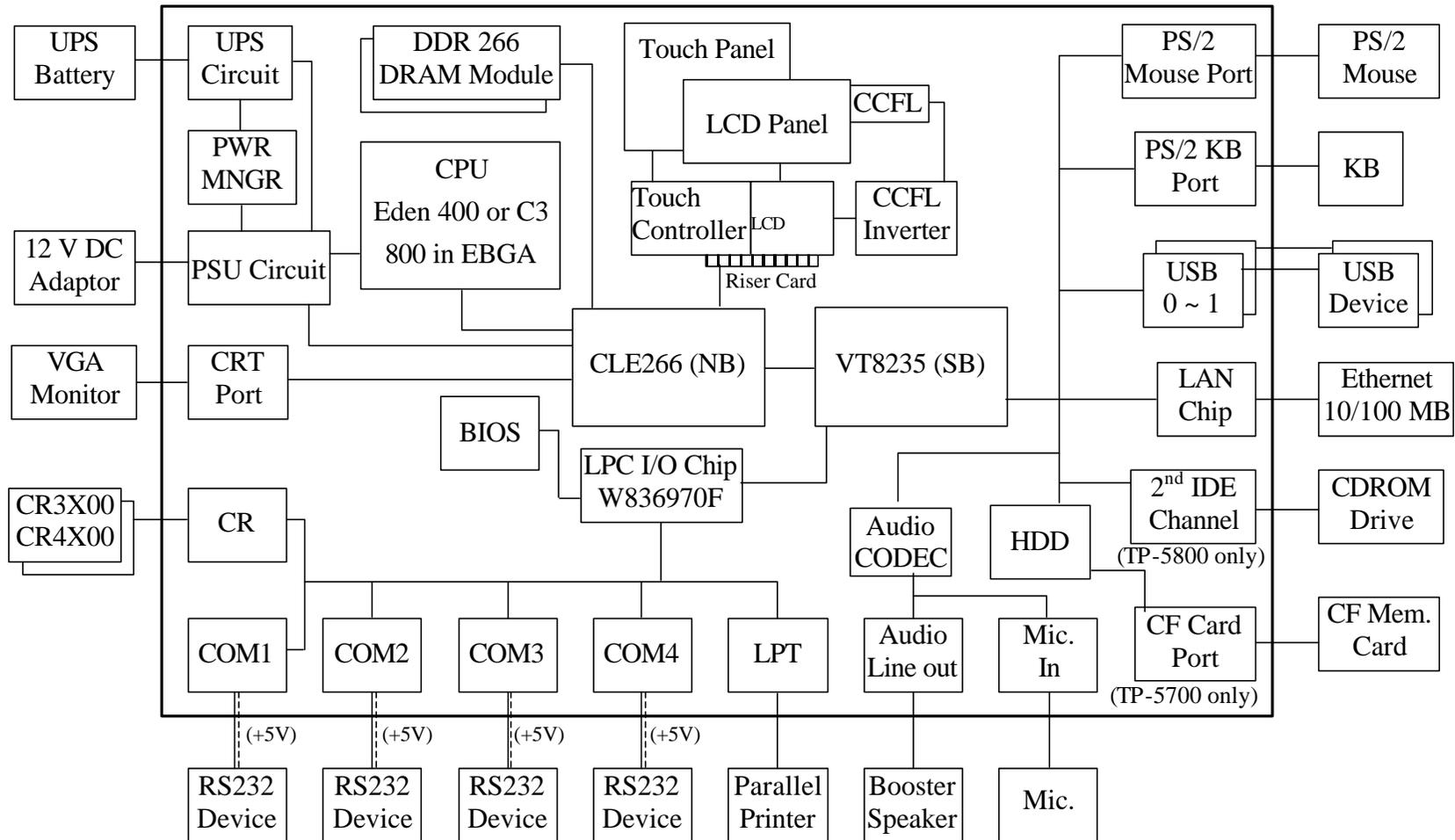
RELIABILITY SPECIFICATION

- **POWER ADAPTOR MTBF: 150,000 HRS**
- **TOUCH PANEL LIFE EXPECTANCY: 10,000,000 UP TOUCHES AT SAME SPOT**
- **LCD BACK LIGHT LIFE EXPECTANCY: 10,000 HRS FOR 12"; 40,000 HRS FOR 15"**
- **HDD MTBF: 50,000 HRS**
- **CUSTOMER DISPLAY LIFE EXPECTANCY:**
 - PD2500: 30,000 HRS**
 - PD302: 100,000 HRS (for BACK LIGHT)**
- **BCCR / MSR LIFE EXPECTANCY: 300,000 PASSES**
- **POWER SWITCH LIFE EXPECTANCY: 50,000 STROKES**
- **MOTHER BOARD MTBF: 50,000 HOURS**



SYSTEM DEFINITIONS

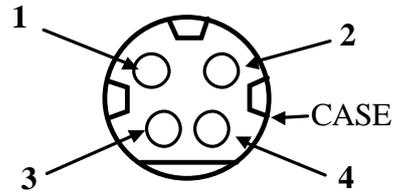
BLOCK DIAGRAM



12 V DC IN CONNECTOR

PIN ASSIGNMENT OF 4 PIN PLUG:

<u>PIN #</u>	<u>DEFINITION</u>
1	+12 V
2	+12 V
3	GND
4	GND
CASE	CHASSIS GND



VGA CONNECTOR

- This port is a standard 3 x 5 D-sub VGA connector

<u>PIN #</u>	<u>DEFINITION</u>	<u>PIN #</u>	<u>DEFINITION</u>	<u>PIN #</u>	<u>DEFINITION</u>
1	RED	6	GND	11	NC
2	GREEN	7	GND	12	NC
3	BLUE	8	GND	13	HSYNC
4	NC	9	NC/+12V	14	VSYNC
5	GND	10	GND	15	NC

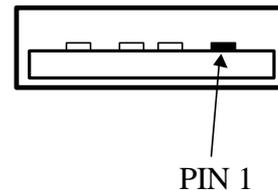
CASH DRAWER CONTROLLER

- This is a RJ11 jack for cash drawer control providing control ability over two cash drawers.
- Each cash drawer solenoid input is a 150 msec. grounding signal.
- The power to cash drawer solenoid is DC 12 V nominal.
- The command to open cash drawers is decoded through COM 1.
- The drawer open indication can be detected by software through status check on RI signal of COM 1.
- Should any difficulty occur in using the cash drawer controller, please try to arrange a serial printer to be connected to COM 1 so that the hardware handshaking signals can be properly handled.

USB0 / USB1

PIN ASSIGNMENT OF EACH 4 PIN JACK:

<u>PIN #</u>	<u>DEFINITION</u>
1	VCC
2	-DATA
3	+DATA
4	GND



SERIAL PORT COM1

PIN ASSIGNMENT OF 9 PIN D SUB MALE CONNECTOR:

<u>PIN #</u>	<u>DEFINITION</u>	<u>ALTERNATIVE</u>	<u>DEFAULT SETTING</u>
1	DCD	BATTWK	DCD
2	RX		
3	TX		
4	DTR		
5	GND		
6	DSR		
7	RTS		
8	CTS		
9	RI	CR OPEN / +5 VDC	RI

- **IRQ 4 is assigned to this port. Can be changed in CMOS setup under “Super IO Controller”**
- **Please refer to section “UPS DETECTION FUNCTION” in “APPLICATION GUIDE” for BATTWK signal. Please refer to “COM1 APPLICATION COMMENT” in same chapter for remarks on this port.**
- **+5 V DC supply is UPS supported.**
- **Jumper selection: please refer to the description in Hardware details of this manual.**

SERIAL PORT COM2/3/4

PIN ASSIGNMENT OF 9 PIN D SUB MALE CONNECTOR:

PIN # DEFINITION ALTERNATIVE DEFAULT SETTING

1	DCD		
2	RX		
3	TX		
4	DTR		
5	GND		
6	DSR		
7	RTS		
8	CTS		
9	RI	+5 VDC	RI

- IRQ 3 is assigned for COM2, IRQ9 is assigned for COM3, IRQ5 is assigned for COM4. All can be changed in CMOS setup.
- Port COM2 is mostly suggested when a modem is to be connected.
- DC supply to these ports is UPS supported.
- Jumper selection: please refer to the description in Hardware details of this manual.

ATA IDE CD ROM CONNECTOR (for TP5815)

- This port is a Half Pitch Centronics 36 F connector. The pin assignment in this connector is proprietary. However, Vcc is supplied through pins 10, 11, 31; +12V DC is supplied through pins 14, 29, 32, 33 and Gnd is connected at pins 19, 28, 30, 34.

PARALLEL PORT LPT1

PIN ASSIGNMENT OF 25 PIN D SUB FEMALE CONNECTOR:

<u>PIN #</u>	<u>SPP MODE</u>	<u>EPP MODE</u>	<u>ECP MODE</u>
1	- STROBE	-WRITE	-STROBE
2	D0	D0	D0
3	D1	D1	D1
4	D2	D2	D2
5	D3	D3	D3
6	D4	D4	D4
7	D5	D5	D5
8	D6	D6	D6
9	D7	D7	D7
10	- ACK	INTR	-ACK
11	BUSY	-WAIT	BUSY, PeriphAck
12	PE	NU	Perror, -AckReverse
13	SLCT	NU	SLCT
14	- AUTO FEED	-Datastb	-AutoFeed, HostAck
15	- ERROR	NU	-Fault, -PeriphRequest
16	- INIT	NU	-Init, -ReverseRequest
17	- SLCT IN	NU	- SLCT IN
18	GND	GND	GND
19	GND	GND	GND
20	GND	GND	GND
21	GND	GND	GND
22	GND	GND	GND
23	GND	GND	GND
24	GND	GND	GND
25	GND	GND	GND

- IRQ 7 is assigned for this port.

LAN PORT

PIN ASSIGNMENT OF 8 PIN TELEPHONE JACK:

PIN # DEFINITION

1	TD +
2	TD -
3	RD +
4	NC
5	NC
6	RD -
7	NC
8	NC

- This port is defined as 100 base T or 10 base T LAN port.
- This port is utilized by the system in pnp (Plug-N-Play) way, IRQ assigned is not fixed for this port. Most usual observation is IRQ 11.

PS/2 KEYBOARD CONNECTOR

PIN ASSIGNMENT OF 6 PIN MINI-DIN FEMALE CONNECTOR:

PIN # DEFINITION

1	KBDAT
2	NC
3	GND
4	VCC
5	KBCLK
6	NC

PS/2 MOUSE

PIN ASSIGNMENT OF 6 PIN MINI DIN JACK:

<u>PIN #</u>	<u>DEFINITION</u>
1	PMDAT
2	NC
3	GND
4	VCC
5	PMCLK
6	NC

AUDIO OUT

PIN ASSIGNMENT OF 3.5 Ø STEREO JACK:

<u>CONTACT ON PLUG:</u>	<u>DEFINITION:</u>
TIP	R
RING	L
OUTER	GND

MIC. IN

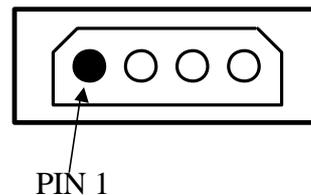
PIN ASSIGNMENT OF 3.5 Ø MONO JACK:

<u>CONTACT ON PLUG:</u>	<u>DEFINITION:</u>
TIP	IN
OUTER	GND

UPS BATTERY CONNECTOR

PIN ASSIGNMENT OF 4 PIN SOCKET:

<u>PIN #</u>	<u>DEFINITION</u>
1	+12 V
2	+12 V
3	GND
4	GND





CF CARD CONNECTOR

- **Accepts Compact Flash Memory Card type II**

APPLICATION GUIDES

POWER SUPPLY TO COM PORTS

On the solder side of the main board, jumpers on JP13 and JP14 determine the +5V DC supplies to the devices connected to COM1/COM2 and COM3/COM4 separately. Refer to the hardware details for jumper settings. The total load supplied from the Jiva SL (TP5700) & Jiva EL (TP5800) series to all USB devices on 5 V DC is limited to be within 1 Ampere, and power to all other peripherals including keyboard, COM ports etc. on 5 V DC is also limited to be within 1 Ampere. No matter what, the ventilation of the environment should be much improved to compensate the heat accumulation due to such excessive load.

CUSTOMER DISPLAY

The customer display, selectable from top mount PD302 upgrade kit and the stand alone PD303 or PD2500 or PD7200, can be connected to any available COM port with an internally supplied power set per instruction in Hardware Detail. Please refer to the user's manual of each customer display for detail instructions. Please refer to next paragraph if COM1 is selected for this usage.

COM1 APPLICATION COMMENT

Before using the port COM 1, the COM1 terminator should be removed and stored for future use when there will be no regular RS232 device to be connected to this port. It is definitely inadvisable to connect serial input devices like serial mouse to COM 1 port without thorough investigation. The reason is that some input devices do not provide standard RS232 hardware handshaking signals. In TP systems, the cash drawer controller and power management controller share the COM 1 port. When the system issues any command to cash drawer controller or power management controller, the hardware handshaking signal would be in error status and could halt this port if COM 1 is not connected properly. Any possible cross-link to the command for cash drawer or power manager that is also using COM1 at 9600bps, none parity, 8 data bits,

1 stop bit should be avoided. An index summary of such commands is tabulated at end of this chapter.

CASH DRAWER

The software command to open the cash drawer or the first cash drawer with the optional 2 in 1 cash drawer control cable is a hexadecimal code of <07> sent to COM1 port under the protocol of 9600bps, none parity, 8 data bits, 1 stop bit.

The software command to open the second cash drawer with the optional 2 in 1 cash drawer control cable is a hexadecimal code of <17> sent to COM1 port under the same protocol as above.

The drawer open status can be obtained through checking the communication status of COM1 at signal RI. When there is no drawer open, the RI signal of COM1 is always set. When there is any cash drawer opened, the RI signal of COM1 is reset. The RI signal is obtained as the bit 6 (the second most significant bit) of the I/O address 3FEh if the COM1 address is set to 3F8h~3FFh (conventional address for COM1) in system configuration.

ATA IDE CD ROM CONNECTOR

The CD ROM connector supports a Posiflex provided CD ROM drive to be connected to the Jiva EL (TP5800) series. This CD ROM drive is defined as the master device in the IDE channel and can read data in 24 x speed.

POWER ON/OFF CONTROL

EXTERNAL POWER SWITCH

Whenever the Jiva SL (TP5700) & Jiva EL (TP5800) series is to be powered on for the first time after connected to external AC power, this switch must be engaged to turn on the power. This switch is originally an “ON/OFF” power switch. It can be programmed into a power “ON” only switch through software command. To program this switch, the programmer needs to issue the following mentioned commands in the

application program to COM1 under the protocol: 9600 bps, parity none, 8 data bits, 1 stop bit.

- **Change to power on only switch** – the command string is <1B> <19> <01> or alternatively <1B> <00> <00> <00> <00> <00> <00> <18> in hexadecimal format.
- **Change to power on/off switch** -- the command string is <1B> <19> <00> or alternatively <1B> <00> <00> <00> <00> <00> <18> <00> in hexadecimal format. (default status)

In case the power switch status has been changed from the default status, the switch function will remain after power off. However, if the AC power has been disconnected during the power off stage, such change will be discarded. Therefore, it is advisable for the application program to reinstate the switch function every time the system is rebooted or every time the program is executed to ensure the proper action of the power switch. This function can also be achieved by use of the Posiflex Touch Terminal Manager.

SOFTWARE SWITCH OFF

An easy method for software control to turn the system off is the software off switch. The hexadecimal command string for software switch off function is : <06> <16> <19> <1D> <n>.

In the above, the “n” indicates the time delay in seconds for actual power off after the command string given to COM1. However, an alternative command string <1B> <00> <00> <00> <00> <00> <00> <00> can be used instead to turn off the system power immediately.

Some operating system or software may require complete termination of application programs before system power off for the sake of system maintenance. In that case the programmer has to program the command to close the application programs (just like “Alt+F4” in Windows), and then at the end of the closing operation, the application program should issue the above mentioned software switch off command string to COM1 under the protocol: 9600 bps, parity none, 8 data bits, 1 stop bit.

FORCED POWER OFF

In case of serious system halt due to system resources conflict or any reason, the system could fail to power off through normal means. The Forced Power Off method is designed for such occasions. With the external power switch defined as power ON/OFF switch (default status), push down and hold this Power ON/OFF Switch. The system will be powered off within 10 seconds in this way. Whenever the machine receives a software command to change the external power switch to ON only, the forced power off function is disabled for early production of this product series by mid 2003. However, since 2nd half 2003, an enhance power off command is provided for the software programmer to allow forced power off after changing the switch to be ON only. The enhance forced power off command string is <1B> <00> <00> <00> <00> <00> <18> <18> and it has to be sent in same way like the ON only switch command. This enhanced forced power off requires the user to keep the switch pressed for a longer period between 10 to 20 seconds to function.

In case the system halt situation is so serious that some hardware/firmware registrations are already confused, this above mentioned forced power off could though very unlikely still fail. When such situation happens, please remove the external power input from the adaptor and disconnect the UPS battery for few minutes to reset the hardware registers.

One example of the need for this forced power off function could happen when power switch is triggered within 10 seconds of last switching off. It is a common practice that once the system power is switched off there should be some waiting time before next switching back on. If the system power is switched off and on in very short time chances are the system LED could indicate power on status while the system remains off. In such case, please use the forced power off function to cancel the error and wait for 10 seconds before switching on again.

UPS BATTERY

The optional UPS battery is a maintenance-free lead-acid battery and is targeted to support basically the data preservation and smooth running of the system during intermittent power failure. This battery is not designed for prolonged power support to the system against power shutdown. That means, when the AC power outage is known

to last for more than few minutes, it is advisable to turn off the system instead of using the battery up while **repeatedly using it up reduces the battery life dramatically**.

The battery will undergo self-discharging over time even when not in use. A useful advice to preserve the battery at best condition is to regularly recharge the battery if the battery or the TP system with the battery is put in storage for a period of time. It is recommended to turn on the system to recharge the battery for 1 ~ 2 hours every 3 months of storage if the storage temperature is lower than 30°C. The battery should be recharged for 1 ~ 2 hours every month if the storage temperature exceeds 30°C. However, the user shall avoid the situation with storage temperature over 30°C to protect the life of the battery. Do not connect any other battery to this UPS battery because mixed use of batteries of different capacity, history, or manufacturers may cause damages. In case the user wants to have a longer battery support time during AC power off, he/she should consult his/her dealer for application of an external 12 V battery.

UPS FUNCTION ENABLING

The complete UPS function requires use of the optional UPS battery. The Posiflex UPS functions can support the system against intermittent power failure. However, in order to achieve best hardware stability against any possible memory or CMOS data loss or even system crash, the UPS function should be enabled or disabled depending on the existence of UPS battery. This setup is based on the consideration that when UPS battery is present and ready to serve, the UPS function should be enabled so that the hardware power good signal will be maintained for a smooth power transition to UPS battery power. On the other hand, when there is no UPS battery, the UPS function must be disabled so that the hardware power good signal will be shut down early enough to inhibit any improper operation of any device.

This setup on UPS function is in fact automatically taken care of with the Posiflex software installed in the preloaded operating system of Windows. However, just incase the application programmer wants to manipulate this setting or if the operating system used is some one else, this setting can be achieved by sending following command string to COM1 port under protocol: 9600 bps, parity none, 8 data bits, 1 stop bit.



- To enable UPS function: <06> <16> <19> <1F> <05> or <1B> <00> <00> <00> <00> <18> <00> <18>
- To disable UPS function: <06> <16> <19> <1F> <04> or <1B> <00> <00> <00> <00> <18> <18> <00>

UPS DETECTION FUNCTION

In the Jiva SL (TP5700) & Jiva EL (TP5800) series products, when the system is working on UPS battery power, the status is indicated by LED and is detectable by software. This “operating on battery” signal can be obtained through checking the communication status of COM1 at signal DCD provided this signal is not engaged elsewhere (In other words, Modem is not recommended to be used on COM1). When the system is working on AC power, the DCD signal of COM1 is reset (value = 0). When the system is working on battery power, the DCD signal of COM1 (BATTWK signal) is set (value = 1). The DCD signal is obtained as the bit 7 (the most significant bit) of the I/O address 3FEh if the COM1 address is set to 3F8h~3FFh (conventional address for COM1) in system configuration.

There is further an auto detect function on the existence of UPS battery provided. This capability supports the Posiflex software installed in the preloaded operating system of Windows to enable or disable the UPS function automatically as long as it is initialized. The system is capable to detect the existence / status of UPS battery and to respond to 2 query command strings. These 2 query command strings have to be sent as usual to COM1 under protocol: 9600 bps, parity none, 8 data bits, 1 stop bit. The system changes DCD status of COM1 as response.

“Check Battery-Detect Capability” command string is <1B> <00> <00> <00> <00> <18> <00> <00> in hexadecimal format. And the DCD of COM1 will be set for a period of time if the battery-detect capability of the system is operating.

“Check Battery Condition” command string is <1B> <00> <00> <00> <00> <18> <18> <18> in hexadecimal format. And the DCD of COM1 will be set for a period of time if the battery responds correctly to the battery detect.

The period of time in these 2 responses starts after several machine cycles since receipt of the query command and stops about 15 seconds later or whenever another query command is received. It is advisable to take a check on the response between 1 to

10 seconds after sending the query command and to send the other query command only after first response checked to avoid any possible ambiguity.

POSIFLEX TOOLS

In the preinstalled OS there will be a program group named Posiflex Tools if any of the PS2 interface touch panel, UPS battery is installed and the deluxe security device KP100. There will be a “Posiflex Touch Calibrator” and a “Posiflex Touch Manager” in this group for the PS2 interface touch panel. The touch calibrator is a tool for the user to recalibrate the touch screen once required. The touch manger allows the user to define the touch response as beep sound control and double click speed. There will be a “Posiflex Power Switch Manager” in the tool group for the UPS battery installed. This utility automatically detects the existence of the UPS battery and handles hardware setup accordingly besides the power control functions over the hardware power on/off switch and the software power off function. There will be a “Posiflex Programmable Keyboard” in the tool group if KP100 is installed. There will also be a “Posiflex MSR Manager” in the tools group if a MSR is included in the installed KP100. However, please note that this MSR manager won’ t be applicable for the MSR in SD100 -- the other type of upgrade kit. Maneuvering MSR behavior over SD100 requires some hardware modification.

The user may have also noticed that there can be program(s) “Posiflex Power Switch Init” or “Posiflex MSR Init” in the StartUp program group or “Posiflex Power OFF” in “Program Files” or “All Programs” menu or some shortcut links in Start menu or on desktop per content installed in Posiflex Tools. These Init programs are required for their related devices to function properly in Windows. The “Posiflex Power OFF” provides the software control over the power management system. Details of the Posiflex Tools follow.

TOUCH CALIBRATOR

This function can recalibrate the touch panel with the LCD display panel. After clicking “Start”, the user is requested to touch the lower left corner and upper right corner of the screen consecutively and then the confirmation block to ascertain the calibration. Clicking “Exit” saves the calibration parameters and exits the program.



TOUCH MANAGER

This function allows the user to define the touch response as beep sound control and double click speed. Once executed, there will be several controller items as below.

ENABLE TOUCH BEEP

Clicking on this item alters the check status in the check box. When it is checked, every time the panel is touched, there will be a beep sound determined by parameters below this item.

BEEP FREQUENCY

Clicking on the left or right arrow decreases or increases the reference value for the beep tone when touch beep enabled. This value ranges from 500 to 5000 at a step of 100.

BEEP DURATION TIME

Clicking on the left or right arrow decreases or increases the time for the beep to continue when touch beep enabled. This value ranges from 20 to 1000 at a step of 20.

DOUBLE CLICK TIME

Clicking on the left or right arrow decreases or increases the time interval for consecutive clicks to be identified as a double click. This value ranges from 10 to 1000 at a step of 10.

DOUBLE CLICK SNAP DOTS

Clicking on the left or right arrow decreases or increases the size of area for consecutive clicks to be identified as a double click at same spot. This value ranges from 5 to 100 at a step of 5. The larger the number set in this item the larger the area is considered as same position on the touch panel. However, the accuracy of the touch position will also be reduced as a consequence.

TASK BAR STATE

Clicking on this item makes it possible to utilize touch to call the task bar once it is set to hidden. Otherwise it would be difficult for a mouse emulation of the touch to be

at the very edge of screen display and making a movement to go outward from the screen like a real mouse does.

EXIT

Clicking on this item saves all the parameters and exits the program.

POWER SWITCH MANAGER

POWER SWITCH SETTING

The function of the power switch that is at the lower part of the right side as viewed in desktop application can be defined here. When “ON/OFF” function for this switch is selected, the power switch turns the system on when the system is off and turns the system off when the system is on. When “ON Only” function for this switch is selected, the power switch **always turns the system on** regardless of the status whether the system is On or Off. In this way, accidental switching off of the system is avoided. However, the software power off per instructions given in page 5 - 3 of this chapter or the “Posiflex Power OFF” function has to be engaged to turn off the system in such approach.

UPS BATTERY STATUS

When the system is equipped with a valid UPS battery, the system will indicate that the UPS function is “Enabled” to guard the system against **intermittent** power failure. When there is no UPS battery installed or when the battery installed is already out of service, the system will indicate that the UPS function is “Disabled” and the system will immediately turn off to reject any possible noise or the consequent RTC CMOS setup data loss when power fails. It is advisable to replace as soon as possible an installed UPS battery but found out of service from this function.

POWER OFF DELAY TIME

This function defines the time delay between the software power off command (Posiflex Power OFF) and the physical power off. The count is programmable between 1 and 255, and each count represents 1 sec delay. This software power off command is an irrevocable process just like pulling the plug after a certain delay to allow the shutdown procedures. So special care must be exercised in using this software power



off command. However, this command must be engaged to turn the power off when the power switch is set to “ON Only”.

SAVE AND EXIT

Clicking on this item saves all parameter and exits the program.

CANCEL AND EXIT

Clicking on this item discards all parameter changes and exits the program.

PROGRAMMABLE KEYBOARD

STARTING THE PROGRAM

This program applies only to the KP100 upgrade kit side mounted to a TP5700/TP5800 series. It is assumed that a PS2 keyboard is connected to the back of KP100 for entering data to be programmed into its programmable keys. If this program is started without a KP100 connected, in failure of detecting a KP100, it will ask for subject to program between KB4000 and KP100 series. Please select KP100 to start an offline programming. Please prevent any action on keyboard, mouse or touch on screen when the indicates so to have a proper detection on the KP100.

KEY MAP

The upper part of the screen display in this program below the command menu represents a map in the key-layout of the programmable portion on the keyboard. Each key is identified by a 2 character notation, in which the first letter stands for column, the second number stands for row. The identification where current cursor is will be in pink color while the rest in gray. The lower part of the screen display are editing areas. When you touch any position in the upper map, that position becomes pink, the left row of lower part becomes same column of keys in the map and the right row of lower part becomes contents of each key in that column. At this moment the corresponding key in the lower left row shows pink background. If you touch any position in the lower left column, you may notice that the background color of that key turns into blue. This indicates that you may edit the notation of that key in this program. When you touch any bar in the lower right column, the position in lower left column corresponding to this

bar turns into yellow to indicate that you are now editing the content of this particular key.

COMMAND MENU

Please remember that if the keyboard programming utility ends without any “Save” (to file) or “Write” (to keyboard) operation, every effort done in this utility will be washed away leaving no slightest trace. Please always “Write” to keyboard in order to “program” the KP100. Materials below help mastering this programming utility.

File – “Open” to load an existing template file into the program for editing. “Save” to store the edited result into a template file. “Exit” to exit the program.

Keyboard – “Read” to load the content of the connected KP100 into program for editing. “Write” to store the edited result into the connected KP100.

Edit – “Copy”, “Paste” and “Clear” functions over key map.

View – This menu is used to switch among “Pages” of the keyboard and is not applicable to KP100.

Config – Beep function on key press and “Intercharacter Delay” are defined in this menu. The so-called “Intercharacter Delay” determines how fast a string of characters defined in each key are transmitted to the host TP system when that key is pressed in application.

MSR – This menu is only applicable to KP100 of revision A0a. Please apply MSR manager for most of MSR in KP100.

About – Version information of this utility.

Help – This menu was intended for giving guidance for programming the special content. However, it has no action in this program.

Exit – To quit this program.

SPECIAL KEY CONTENT

To program a key containing any special function keys such as the “F1” through “F12” or even some special keys only for particular language keyboard (“Muhankan” “Henkan” Hiragana”), the user shall right click the mouse at the editing bar in lower right column. On mouse right click, there will be some editing functions in left column of a popup box and special content selections in right column. After such contents are



programmed to KP100, in application of KP100 when that key is pressed, it works as if those special keys on a standard keyboard were pressed as predefined.

BREAK CODE – For programming function keys like “Shifts”, “Controls” or “Alts” in content for a key, its corresponding “break code” must be also programmed into the key content afterwards. Otherwise these function keys will act as if they are kept pressed for any other contents transmitted to host after it.

TO INSERT A TIME DELAY – Selecting “Delay 1” or “Delay 10” or the like in the content of a key can insert a time delay of 1 second or 10 seconds accordingly in the keyboard input when that key is pressed in application.

TO PROGRAM MULTI-LEVEL – You may program in some keys on KP100 to contain 1 to 7 “Marks” then you program each rest keys on KP100 to have multiple sections of content and separate each section by “Separator”. In application, when the multiple section defined key is pressed only the first section before any “Separator” will be transmitted to the host TP system. When it is pressed in combination with a key containing certain number of “Mark”’s, then only the section after that number of “Separator”’s in this multiple defined key will go to the host.

MSR MANAGER

The MSR maneuver program is applicable to most PS2 KB interface MSR in KP100 except those carrying the revision number of A0a on back of KP100. Please note that the following is **not** applicable to standard MSR in SD100 that uses USB interface.

USE ALT-NUM EMULATION

This function is required for systems using a different keyboard layout of the alphabetical part from the US keyboard when track 1 of the MSR is enabled. This function will have no influence if the MSR uses only track 2 and/or track 3. The reason is that the data of the MSR are sent to the host via keyboard port. When the alphabetical data in track 1 of the MSR is read, the data goes to the keyboard controller in scan code format. However, this scan code could be confusing if the system keyboard controller interprets it according to a different layout. (For example, the location for “A” in US keyboard is that for “Q” in a French keyboard. The location for “Z” in US keyboard is that for “Y” in a German keyboard.) One way to deal with such problem is to use the

“Alt-num” approach. This means that, for example, when “A” is read, the scan codes for pressing and holding “Alt” key while pressing “6” and “5” keys of the numerical keypad consecutively are sent to the keyboard controller. Therefore, the data will not be misinterpreted regardless of the keyboard layout.

ENABLE MSR TRACK 1

A tick in the check box enables the reading of track 1 data. Without this check, the data of track 1 on the MSR will be ignored.

ENABLE MSR TRACK 2

A tick in the check box enables the reading of track 2 data. Without this check, the data of track 2 on the MSR will be ignored.

ENABLE MSR TRACK 3

A tick in the check box enables the reading of track 3 data if the MSR reader is a 3 track reader. Without this check, the data of track 3 on the MSR will be ignored.

MSR WILL SEND THE LEADING CODE

In data encoding of the magnetic stripes, each tracks are separated with each start/end sentinels. However the user may decide whether to send codes of/for these sentinels or not depending on the requirement of the application software.

MSR TRACK 1 LEADING CODE

MSR TRACK 2 LEADING CODE

MSR TRACK 3 LEADING CODE

MSR ENDING CODE

Once the codes for the sentinels of each track are defined to be sent to the keyboard controller, the leading codes for each start sentinels and the ending code for the common end sentinel can be selected from a table of displayable characters with ASCII code from 20h to 7Eh. Pressing each left/right button selects each code. The



default track 1 leading code is “%”; the default track 2 and track 3 leading code is “;”; the default ending code is “?”.

INTERCHARACTER TRANSMISSION DELAY

Usually, the processing algorithm and the keyboard data input buffer in an operating system are arranged in such a way that the system resources are preserved as much as possible while data input from the keyboard port presents no problem. However, as we know that the amount of data read from one single stroke of MSR can be much much larger than any possibly fastest keyboard entry in same duration. Some operating system may be unable to handle such a bunch of data in so short time. Therefore, a so-called intercharacter delay is introduced to allow the keyboard controller to digest the input data. When data read from the MSR is marching to the keyboard controller, a programmable time delay is inserted between any two characters. The value to define this intercharacter delay ranges from 1 to 32. The correspondent delay time ranges from 4 ms to 66 ms.

RESET TO ENGLISH DEFAULTS

RESET TO NON-ENGLISH DEFAULTS

These two options provide users to reset all the MSR maneuver functions to the proper defaults according to the system language the users uses. This consideration involves mostly of the Alt-Num emulation and the intercharacter delay.

SAVE AND EXIT

Clicking on this item saves all parameter and exits the program.

CANCEL AND EXIT

Clicking on this item discards all parameter changes and exits the program.

SOFTWARE COMMAND INDEX

Following table is a collection of software command applicable to the Jiva SL (TP5700) & Jiva EL (TP5800) series for a quick look up. The page number listed could deviate from the display of this file if different viewer is utilized.

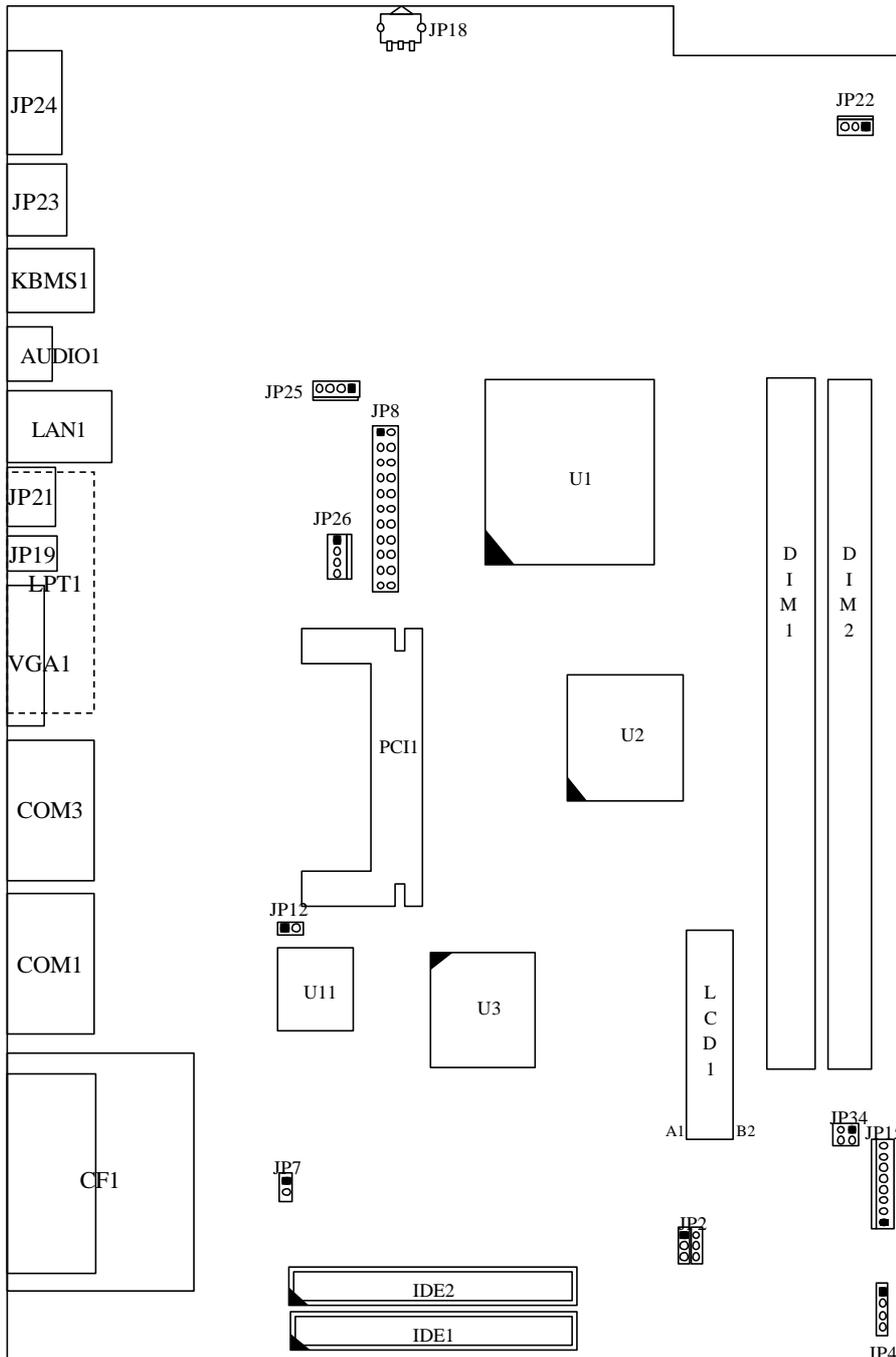
Usage of the Command	Page	Chapter	Section / Subsection
Open CR1	5-2	Application Guide	Cash Drawer
Open CR2	5-2	Application Guide	Cash Drawer
Drawer open sense	5-2	Application Guide	Cash Drawer
Main switch ON only	5-3	Application Guide	Power On/Off Control / External Power Switch
Main switch ON/OFF	5-3	Application Guide	Power On/Off Control / External Power Switch
Software power off	5-3	Application Guide	Power On/Off Control / Software Switch Off
Enhance forced power off	5-4	Application Guide	Forced Power Off
Enable UPS function	5-6	Application Guide	UPS Function Enabling
Disable UPS function	5-6	Application Guide	UPS Function Enabling
Check autodetect capability	5-6	Application Guide	UPS Detection Function
Check battery condition	5-6	Application Guide	UPS Detection Function
UPS status check	6-5	Hardware Details	Software Awareness of UPS Status



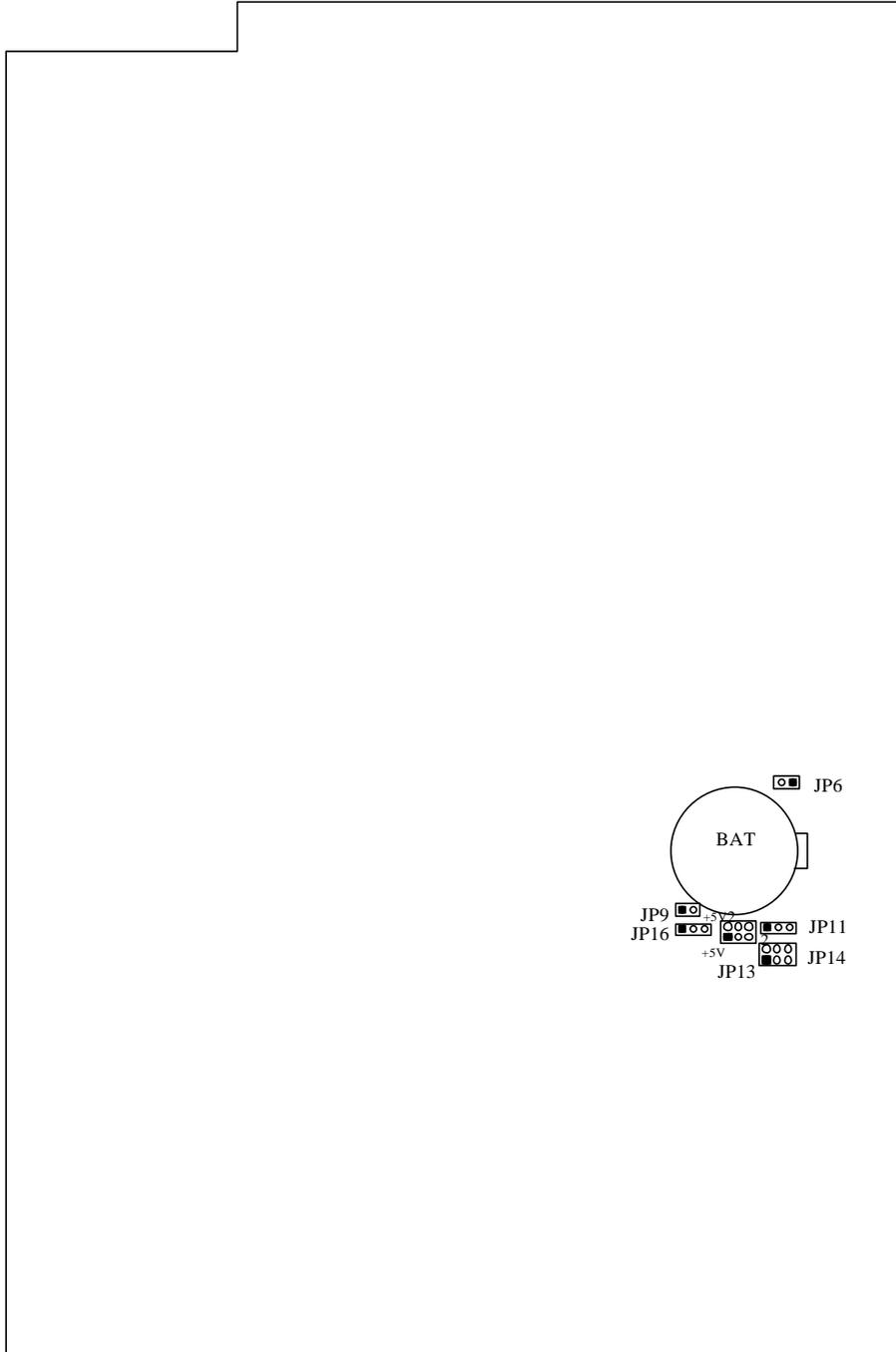
HARDWARE DETAILS

MAIN BOARD

COMPONENT SIDE



SOLDER SIDE



JUMPERS AND CONNECTORS

ON COMPONENT SIDE

Position	Part Spec	Usage
AUDIO1	3.5ØJacks	Audio Port
CF1	CF Slot	CF Card Slot
COM1	2x D Sub 9M	COM1 & COM2 Connector
COM3	2x D Sub 9M	COM3 & COM4 Connector
DIM1	DDR Socket 184p	DDR SDRAM Socket
DIM2	DDR Socket 184p	DDR SDRAM Socket
IDE1	Slot 40p	IDE1 Slot
IDE2	Slot 40p	IDE2 Slot
JP2	HDR 2x3	Touch Signal Setting (Reserved)
JP4	HDR 1x4	PS2 Mouse Signal Loop (Reserved)
JP7	HDR 1x2	CF Card Master/Slave Status Control
JP12	HDR 1x2	Reserved
JP15	HDR 1x8 +L	Riser Card Control (Reserved)
JP18	Switch	Power Switch
JP19	HDR 1x3 Rt	LED Connector
JP21	RJ11 Jack	CR Port
JP22	HDR 1x3 +L	Exhausted Fan Connector (Reserved)
JP23	Socket 4p	Power Jack
JP24	Socket 1x4	UPS Battery Connector
JP25	HDR 1x4 +L	IDE Power Connector
JP26	HDR 1x4 +L	CPU Fan Connector (Reserved)
JP34	HDR 2x2	Scaler Controller Setting (Reserved)
KBMS1	2x mini DIN 6p	PS2 KB & PS2 Mouse Connector
LAN1	Composite Conn.	LAN & 2xUSB Connector
LCD1	Slot 60p	Riser Card Slot
LPT1	D Sub 25F	LPT Port
PCI1	Slot SMD mini PCI	Mini PCI Slot (Reserved)
VGA1	3x5 D	VGA Port



ON SOLDER SIDE

Position	Part Spec	Usage
BAT1	Round Socket	CMOS BATTERY SOCKET
JP6	Mini HDR 1x2	VGA DC SUPPLY
JP9	Mini HDR 1x2	LAN Enable/Disable Control
JP11	Mini HDR 1x3	CMOS Data Control
JP13	Mini HDR 2x3	COM1/COM2 DC Supply Select
JP14	Mini HDR 2x3	COM3/COM4 DC Supply Select
JP16	Mini HDR 1x3	UPS Status

JUMPER SETTINGS

The “★” marks in the following tables denote the factory default settings.

CMOS DATA CONTROL

JP11 STATUS	CMOS DATA CONTROL
1-2 short	Clear CMOS data
2-3 short	Normal operation ★

COM1/COM2 DC SUPPLY SELECT

STATUS OF JP13 ON SOLDER SIDE	PIN 9 STATUS
1 – 3 short	COM1 Pin9 connected to 5 V DC
3 - 5 short	COM1 Pin9 connected as RI ★
2 – 4 short	COM2 Pin9 connected to 5 V DC
4 - 6 short	COM2 Pin9 connected as RI ★

Please note that the 5 V DC supply should be selected only for supporting the Posiflex serial devices that are designed to be powered from this source. Whenever such Posiflex device is to be removed from this port, the 5 V DC supply must be deselected.

COM3/COM4 DC SUPPLY SELECT

STATUS OF JP14 ON SOLDER SIDE	PIN 9 STATUS
1 – 3 short	COM3 Pin9 connected to 5 V DC
3 - 5 short	COM3 Pin9 connected as RI ★
2 – 4 short	COM4 Pin9 connected to 5 V DC
4 - 6 short	COM4 Pin9 connected as RI ★

Please note that the 5 V DC supply should be selected only for supporting the Posiflex serial devices that are designed to be powered from this source. Whenever such Posiflex device is to be removed from this port, the 5 V DC supply must be deselected.

SOFTWARE AWARENESS OF UPS STATUS

STATUS OF JP16 ON SOLDER SIDE	COM1 PIN1 SIGNAL
1 – 2 short	Normal (DCD signal)
2 - 3 short	Detect UPS status ★

The UPS status is used to inform the software the power source the system is operating on (AC adaptor or UPS battery). The default of this jumper is set to detect the UPS status to enable the software detection on existence of AC power. When the DCD bit of COM1 is set, the AC power is present. The user has to change this jumper if he/she wants to detect the standard DCD signal on COM1.

SCALER CONTROLLER

STATUS OF JP34	TOUCH SIGNAL
1 – 2, 3 – 4 Short	TP076/TP077 ★
All Open	TP056/057, TP066/067

CF CARD STATUS

STATUS OF JP7	STATUS IN IDE CHANNEL
Short	MASTER ★
Open	SLAVE

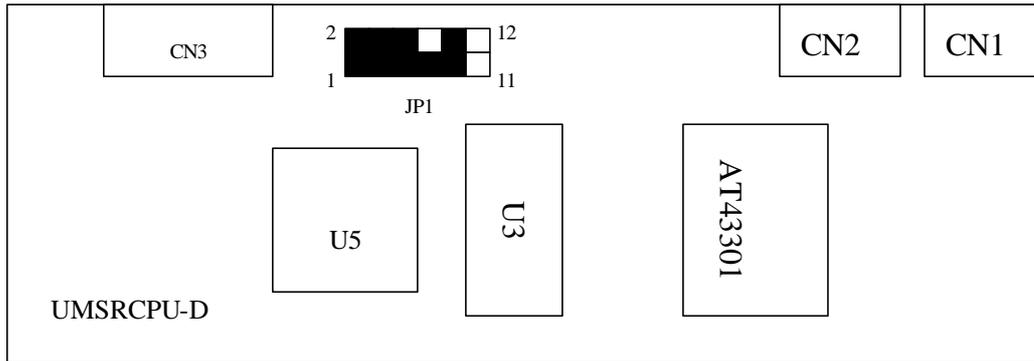


VGA PORT DC POWER ENABLE/DISABLE

STATUS OF JP6 ON SOLDER SIDE	VGA PORT
Short	12 V DC ENABLED (For LM6001 or TM6001)
Open	12 V DC DISABLED

USB MSR CONTROL BOARD (UMSRCPU)

JUMPER SETTING IN JP1



T1 Enable -> 1&2 = Short ; T1 Disable -> 1&2 = Open

T2 Enable -> 3&4 = Short ; T2 Disable -> 3&4 = Open

T3 Enable -> 5&6 = Short ; T3 Disable -> 5&6 = Open

ISO MSR -> 7&8 = OPEN ; JIS2 MSR-> 7&8 = Short

ALT+NUM ON -> 9&10 = Open ; ALT+NUM OFF -> 9&10 = Short

Leading Code Enable -> 11&12 = Open ; Disable -> 11&12 = Short

SERVICE AND SPARE PARTS

SERVICE GUIDE

Reference to the Posiflex Jiva Instructional Assembly & Disassembly Video CD could help instant comprehension on operations below.

SIDE MOUNT UPGRADE KIT

The available side mount upgrade kits include KP100 and SD100. The KP100 is a larger unit with always a 40 key programmable keypad. The SD100 is a smaller unit without this keypad. Various function kits besides the keypad can be applied in the upgrade kit. The possible configurations are tabulated as below:

Function Kits Included	SD100	KP100
No function kit but keypad		V
MSR (PS2 KB connector)		V
MSR (USB interface)	V	
F/P sensor	V	V
SC reader	V	V
I/B (Dallas Key) reader	V	
MSR (PS2 KB connector) + F/P sensor		V
MSR (PS2 KB connector) + SC reader		V
F/P sensor + SC reader	V	V
F/P sensor + MSR (USB interface)	V	
SC reader + I/B (Dallas Key) reader	V	
I/B (Dallas Key) reader + MSR (USB interface)	V	
MSR (PS2 KB connector) + F/P sensor + SC reader		V

If the side mount unit SD100 is ordered together with the Jiva SL (TP5700) & Jiva EL (TP5800) system, this side mount unit will be attached on the Jiva SL (TP5700) & Jiva EL (TP5800) system when delivered. However, if the side mount unit is KP100 or if SD100 is ordered separately from the Jiva system, installation of the side mount upgrade kit is required. To install the side mount upgrade kit please find two screw holes on back of the right side of the main unit. Just align the side mount unit on the right

edge of the main unit and fasten the two screws with washer as indicated in the picture. Route the cable with or without an extension cable through the side of the cable cover to proper port. Break the obstructing sidewall of the cable cover at the cable entrance to the connector area.

Side Mount
Screw

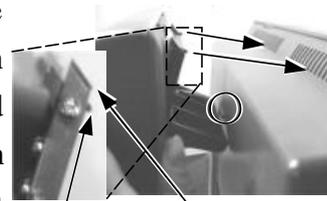


REAR TOP MOUNT UPGRADE KIT

The upgrade kit that can be mounted on rear top of the whole Jiva series (all TP series) is PD302, a 2 by 20 LCD customer display. Separate the main unit from its stand assembly. Prepare power for the PD302 in the service window on rear side of the main unit and then reunite the touch terminal.



1. Aim the bottom center cavity of PD302 series toward the latch stub at rear of touch terminal main unit. Then aim both metal and plastic hooks at rear of the PD302 series toward the suitable ventilation openings on top rear of the main unit. Please use a phillips head driver to fasten the screws on the metal hook but not to overdo it so that the metal hooks hold the ribs of the ventilation holes from inside.



Plastic hook Metal hook

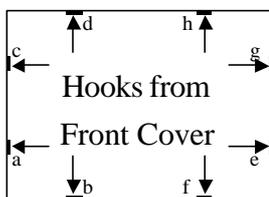
2. Plug the DB9 female connector to the COM port with power DC supply from the TP series. If the COM1 terminator is found on COM1 port that happens to be the COM port planed for PD302, please remove the COM1 terminator and save it at a safe place for future use.
3. Route the cable to go through the notch on back of the stand assembly of touch terminal as indicated in the picture. Reassemble the main unit and stand assembly.



4. **Guidance for future un-installation:** Please always use a screw driver to release the metal hook before removing PD302 from the ventilation holes.

OPEN THE MAIN UNIT

Opening the main unit is a tricky and difficult job. The first and the easiest step is to disconnect power and every cable (including the LED cable) and separate the main unit from the paddle assembly. Unlock and open the cable cover.



To work on the most tricky part of the operation please first notice the 8 hooks on the front cover holding the back cover at about 6 cm (2.5”) away from each corner. The simplified drawing on the left indicates the positions of these hooks as viewed from the back of the main unit.

It takes skill and strength to get the front cover unhooked from the back cover. A push/pull on the edge of the inner opening of the front cover could be engaged to help unhooking the front cover. But please keep cautious not to get scratch/damage on the touch panel. The unhooking sequence advisable from the experience suggests to unhook one hook on the side (either left or right) then the hook on top or bottom nearest the same corner to release one corner first. Then apply same trick to release the other corner on same side and then the other side to remove the front cover from the back cover. One example of doing so is to follow the alphabetical order (a to h) of the hooks as indicated in the simplified drawing above.

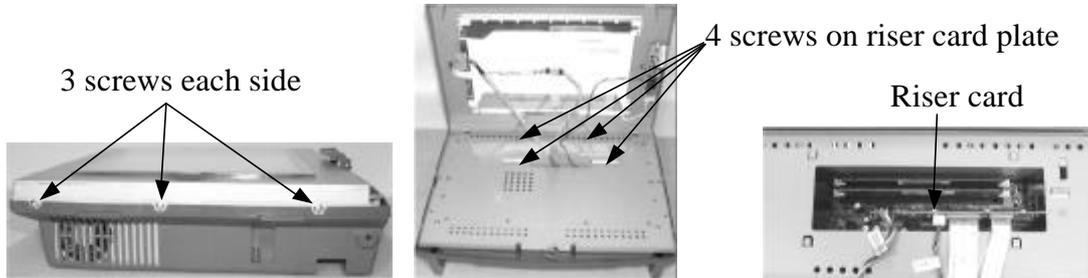


Remove the LED cable from the LED hole in the front cover if necessary.

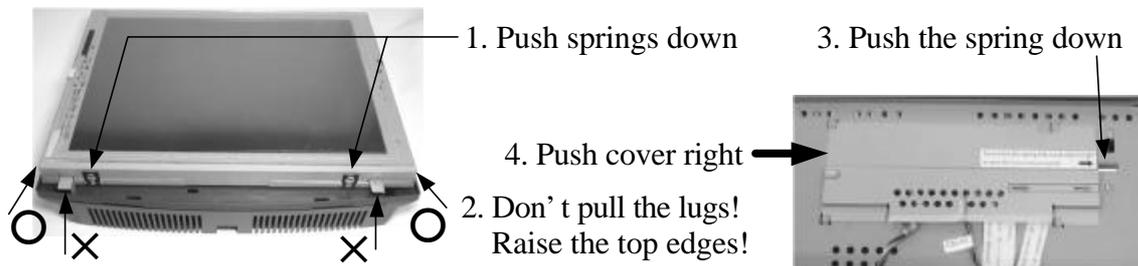
SEPARATE LCD PANEL ASSEMBLY

Please refer to the assembly drawing for all the following operations. After removing the front cover, we see three screws on both sides. Unscrew these six screws, it is then possible to remove the whole LCD panel assembly. However, in order not to damage the three cables connected to the LCD panel assembly, do not take the LCD panel assembly right away. With the LCD panel assembly lifted at top, please first notice the way the cables connect and unscrew the four screws holding the riser card

cover plate, remove the cover plate, and remove the riser card from the opening before completely removing the LCD panel assembly.



However, if the mechanical structure of the system is already of a newer version that we call it as snap-on structure and utilizes minimal number of screws in assembly as in pictures below a lot of unscrewing operations are eliminated. Press down the 2 springs on bottom side of LCD panel assembly and lift the LCD panel assembly by top edges. Don't pull the 2 lugs easily visible for this operation because they actually belong to the lower part. Just press down the spring located at right side to the riser card cover plate and meantime push this cover plate to the right to show the riser card.



Now, please disconnect the three cables (LCD display cable, touch controller cable and inverter cable) from the riser card and also the LCD panel assembly for replacement of the riser card. Disconnect the connector(s) on the inverter board and unscrew four screws to release the LCD panel from the metal frame. Unscrew two screws to remove the inverter board. The touch control panel is fixed on the metal frame as an individual service part. Please pay particular attention to the routing of the three cables during the reverse process for reassembling. Please also make sure that in the reassembly process, the edge of the riser card is secured in the openings of the riser card cover plate.

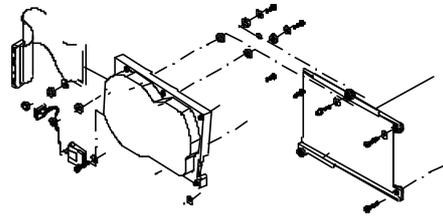
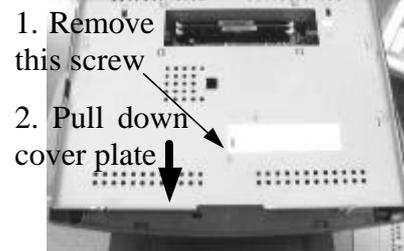
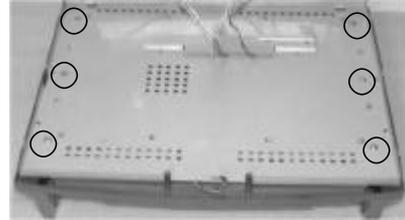
REPLACE HDD (only for TP5815)

Unscrew totally 9 screws (2 on top, 4 on bottom, 2 each on either side) on the cover plate of the steel box revealed after removal of LCD panel assembly. Do **not** loosen any of the 3 screws on each side that the screw heads are within the small circular openings of the cover plate.

Just as in the previous section, for the snap on structure version the operation is also greatly simplified. Remove the only screw as indicated and pull the cover plate down to remove it.

Disconnect the power and data cables to the HDD. Unscrew the 4 screws holding the HDD bracket to dismount the HDD assembly leaving the 4 screws on the bracket with their washers, rubber sleeves and copper inner sleeves on the bracket. Unscrew the 4 screws from bottom of the HDD mounting bracket to replace the HDD. Please note that there is one rubber ring on each side of the mounting bracket for each of the 4 screws holding HDD to its bracket.

Don't touch circled screws!

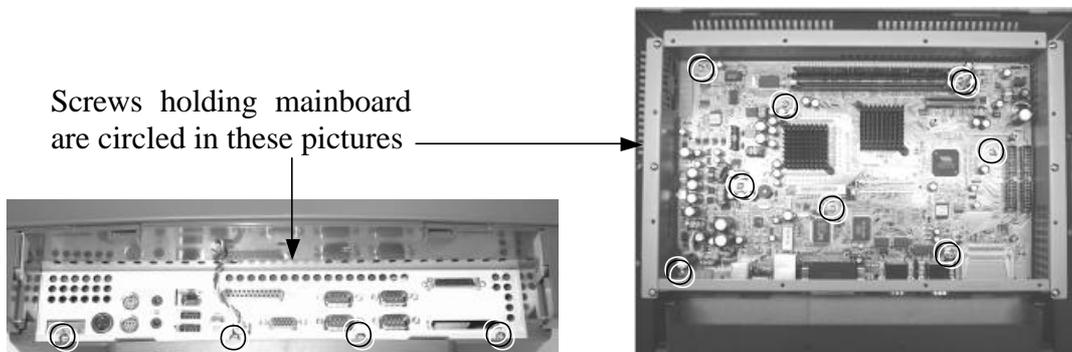


These rubber sleeves, copper inner sleeves, rubber rings are the essential parts for suspending the HDD against mechanical vibration and shock. That is one of the keys why Posiflex products are always more durable than other brands. Such suspension parts, could be lost during parts replacement, and can be purchased as service part. To screw HDD back to the mounting bracket, please align the rubber rings on each side of the bracket and the screw hole on HDD bottom. Some mild adhesives could be applied to help the operation if there comes the difficulty. To replace a lost rubber sleeve, please first squeeze the rubber sleeve without the copper inner sleeve through the opening in the bracket and make the bracket to settle in the middle ring groove of the

rubber sleeve. Then insert the copper sleeve from the bottom of the bracket so that the screw and washer can fix the bracket from top.

REPLACE MAINBOARD

After removal of HDD or HDD and the CD ROM adaptor card PST069 for system since revision D, please remove the 4 (round head) screws at the bottom of the connector panel and the 8 screws holding the mainboard to the back cover assembly. Disconnect the exhaust fan and raise the mainboard up along the HDD support posts. Unscrew the hex head screws of the connectors on the connector panel to release it from the mainboard and screw them back to the mainboard in case of mainboard



replacement.

No further disassembly on the back cover assembly is allowed except releasing the exhaust fan from the metal box. Such disassembly operation by any non-well-trained people will almost doomed to cause damage without awareness of the occurrence. Such damage is strictly the responsibility of the person who intended to disassemble and is not covered by the product warranty.

To reassemble the whole system back, please just do the counter actions in reverse order.

SPARE PARTS LIST

The column “Pos.” in the list below refers basically to the ID numbers indicated in the Assembly Drawing. However, if this column is not available, it refers to a packaging item. The column “S.” indicates the alternative selections available for that position. Please pay particular attention in making selection among the alternatives when there are some clues given in the column “Description” to indicate its relation with other items in the system. **Error in such selection may cause unrecoverable damage.** Once any particular selection of an item becomes obsolete through time, the need for replacement shall call for replacement of other items related to that selection to another. Please follow the separately issued list if it is renewed later. The snap-on structure parts are not yet completed in this issue.

Pos.	S.	Part Number	Description
101	1	36272007101	Front Cover for 12.1” w/ Blue LED & cable, Beige
	2	36272007102	Front Cover for 12.1” w/ Blue LED & cable, Charcoal
	3	36272008101	Front Cover for 15” w/ Blue LED & cable for Touch source: E, Beige
	4	36272008102	Front Cover for 15” w/ Blue LED & cable for Touch source: E, Charcoal
	5	36282001002	Front Cover for 15” w/ Blue LED & cable for Touch source: F, Beige
	6	36282001001	Front Cover for 15” w/ Blue LED & cable for Touch source: F, Charcoal
102	1	20862041400 CCBLA-414	HDD/CDROM Power Cable supporting Vcc and + 12V DC for TP-5800 series only
103	1	20861038010 CCBLA-380A	HDD/CDROM Data Cable for TP-5800 series only
104	1	20953002004	HDD 20GB or up for TP-5800 series only



	2	20953002011	HDD IBM 20GB or up for TP-5800 series only
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Pos.	S.	Part Number	Description
105	1	36202006000 DTP6KHDDKITASY	HDD Suspension Kit (incl. screws, washers, rubber rings, rubber sleeves, copper inner sleeves) for TP-5800 series only
106	1	16200112000 MTP6M-112	HDD Mounting Bracket for TP-5800 series only
107	1	3628200010	CPU Fan + Heat Sink w/ Cable for TP-5800 CPU or TP-5700 NB chipset (CLE266)
108	1	46280244200	TP5700 series M/B
	2	46280254200	TP5800 series M/B
109	1	20833200000 HCT-50TC-8	Exhaust Fan w/ Cable for TP-5800 series only
110	1	36282002001	Back Cover Assembly (incl. Chassis), Beige
	2	36282002002	Back Cover Assembly (incl. Chassis), Charcoal
	3	36282003001	Back Cover Assembly (incl. Chassis), Snap on Structure, Beige
	4	36282003002	Back Cover Assembly (incl. Chassis), Snap on Structure, Charcoal
111	1	36201111001 DTP6KSTNDKIT-B	Stand Assembly (incl. Stopper), Beige
	2	36201111002 DTP6KSTNDKIT-C	Stand Assembly (incl. Stopper), Charcoal
112	1	16200312001 MTP6P-008	Plastic Stopper for Main Unit, Beige
	2	16200312002 MTP6P-008C	Plastic Stopper for Main Unit, Charcoal

113	1	16200011300 MRUBFT19*5	Rubber Foot Set (1026319 x 05R x 4Pcs)
Pos.	S.	Part Number	Description
116	1	16100320001 MTP3P-020	Plastic Key, Beige
	2	16100320002 MTP3P-020-C	Plastic Key, Charcoal
118	1	16200303001 MTP6P-003	Cable Cover, Beige
	2	16200303002 MTP6P-003C	Cable Cover, Charcoal
119	1	16200120040	Riser Card Cover Plate
	2	16200120060	Riser Card Cover Plate, Snap on structure
120	1	16250104040	I/O Connector Plate for TP5700/5800 series
121	1	16200119020 MTP6M-119B	Top Metal Cover Plate for Main Chassis
	2	16200119050	Top Metal Cover Plate for Main Chassis, Snap on structure
122	1	36283001000	LCD Display Cable set for 15" AU/CPT LCD (M150XN05/CLAA150XG01) on TP076 (20864043600 + 20864043700)
	2	20863042800 CCBLA-428	LCD Display Cable for 1024 x 768 LVDS LCD 12.1" LG (LP121X04) or 15" AU (B150XG02) on TP056/7
123	1	46256204000 TP056	Riser Card, w/ PS2 Touch Controller, for LVDS LCD of 15" AU (B150XG02) and 12.1" LG (LP121SA-A2QT/LP121X04)
	2	46281204100 TP076	Riser Card, w/ PS2 Touch Controller, for TTL LCD of 15" AU (M150XN05)

	3	46281214100 TP076-CPT	Riser Card, w/ PS2 Touch Controller, for TTL LCD of 15" CPT (CLAA150XG01)
Pos.	S.	Part Number	Description
124	1	20862033400 CCBLA-334	7 Wire Touch Panel Extension Cable for F touch
125	1	20862029000 CCBLA-290	Inverter Cable for single backlight LVDS LCD 12.1" LG (LP121X04)
	2	20862031600 CCBLA-316	Inverter Cable for 15" LCD of source AU/CPT (M15DXN05/CLAA150XG01)
126	1	20811156201	LCD Panel 15" source AU (model: M15DXN05)
	2	20811157201	LCD Panel 15" source CPT (model: CLAA150XG01)
	3	20811121101	LCD Panel 12.1" source LG (single back light) (model: LP121X04) LVDS 1024 x 768
127	1	20815121101	LCD Inverter for LVDS LCD (LP121X04), single back light
	2	36282034000	LCD Inverter for 15" LCD source AU (M15DXN05) dual back light w/ insulator
	3	20815151201	LCD Inverter for 15" LCD source CPT (CLAA150XG01) dual back light w/o insulator
128	1	36282014000	Touch Panel & Support Frame Assembly 15" source Touch: F w/TP068A; LCD: AU/CPT (model: M15DXN05 or CLAA150XG01)
	2	36282008000	Touch Panel & Support Frame Assembly 12.1" source Touch: F w/TP068A; for LCD: LG (single back light) (model: LP121X04) LVDS 1024 x 768
	3	36282029000	Touch Panel & Support Frame Assembly 15", Snap on Structure source Touch: F w/TP068A; for LCD: AU/CPT (model: M15DXN05 or CLAA150XG01 or B150XG02)

Pos.	S.	Part Number	Description
(128)	4	36282022000	Touch Panel & Support Frame Assembly 12.1", Snap on Structure source Touch: F w/TP068A; for LCD: LG (single back light) (model: LP121X04) LVDS 1024 x 768
129	1	46209202000 TP069	External CDROM Adaptor Card (TP069) for TP-5800 series only
131	1	36201005000 16200110020+2X MSCRW#6-8+P	Cable Exit Cover Plate w/ 2x Screws
132	1	20901302032 CBT3.0VLI	Li-Battery CR2032

S.	Part Number	Description
1	20972060120	AC Power Adaptor 12V/65W for TP5700 series
2	20972080121	AC Power Adaptor 12V/80W for TP5800 series
1	20868101300 CCBLPWR-AUST	Power Cord for Australia for TP5700 series
2	20868201300 CCBLPWR-EURP	Power Cord for Europe for TP5700 series
3	20868301300 CCBLPWR-JPN	Power Cord for Japan for TP5700 series
4	20868401300 CCBLPWR-SA	Power Cord for S.A. for TP5700 series
5	20868501300 CCBLPWR-UK	Power Cord for U.K. for TP5700 series
6	20868601300 CCBLPWR-USA	Power Cord for U.S.A. for TP5700 series
7	20868100500	Power Cord for Australia for TP5800 series



S.	Part Number	Description
8	20868200500	Power Cord for Europe for TP5800 series
9	20868300500	Power Cord for Japan for TP5800 series
10	20868400500	Power Cord for S.A. for TP5800 series
11	20868500500	Power Cord for U.K. for TP5800 series
12	20868600500	Power Cord for U.S.A. for TP5800 series
1	16200511160	TP57/58/6000 Packing Carton
1	16200541050	TP57/58/6000 PE Foam per Pair
1	16280900010	TP5700/5800 User' s Manual

