
Subject: TeamPoS 3600

SYNOPSIS

This document is intended to supply sufficient information to North American service planners to enable them to plan for the introduction of the above product(s).

This SPG is the generic version, released by the product authority, Fujitsu Frontech NA (FFNA), Sustaining Engineering. Each group releasing the product will use the information contained as the basis for their Logistics and Field Service planning activities.

This document details only the corporate philosophies, and does not seek to cover such subjects as additional services offered by Managed Services, third party service providers, low level repairs, or the local sourcing of components and consumable items.

The service descriptions in this document are guidelines, detailing the recommendations of the product authority. The information within this document has been reviewed for accuracy, but as with most documents, errors may be found and corrected in future revisions. Fujitsu Frontech NA (FFNA) cannot be held liable for any inaccurate information found in this document.



<u>INQUIRIES TO:</u>		DATE
Fujitsu Frontech North America	_____	_____
Exchange: Sustaining Engineering	Sustaining Engineering	_____
Mail: Fujitsu USA20, Sustaining Engineering	_____	_____
FAX: (949) 458-6257	Product Manager	_____
Internet: SustainingEngineering@us.fujitsu.com	_____	_____
FTP: ftp://ftp.ftxs.fujitsu.com/Pos/PosSustaining/	Author	_____

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0. DOCUMENT CONTROL

0.1. ISSUE LEVEL

This is the issue 2.0 of this document, introducing the TeamPoS 3600 into the Fujitsu product line.

0.2. CHANGES FROM PREVIOUS ISSUE

The major updates for this issue 2.0 are the addition of a Cash Drawer Port option, an updated Motherboard, and the Chassis allows for future release of a secured HDD bay. The Motherboard update was a hardware change and BIOS update (to R21) to support Windows 7 Marker requirements. Detailed change list:

Page 1	Changed company name to FFNA from FTXS in heading and throughout the document
Page 3	Document Control, Issue Level, and Changes from previous issue updated
Page 4	Updated Target Market and Release Schedule
Page 5	Updated Supported Operating Systems, clarified USB Ports
Page 6	Added New I/O Board Options
Page 8	Changed Operating Temperature to 40C
Page 9	Added note to option #4 with video card installed and updated to include Cash Drawer port
Page 10	Updated MTBF data to be at consistent measured temperature
Page 11	Added TeamPoS 3600 to the Training section
Page 13	Updated Repair Strategy
Page 14	New WinCLD for TeamPoS 3600 with and without Cash Drawer Port
Page 20	Updated jumper locations and description to match current COMM board
Page 21	Added pinouts for Com and USB connections
Page 22-23	Updated Intelligent PIN configuration
Page 24-26	Updated Recommended Spare Parts List

0.3. TERMS AND ABBREVIATIONS

AFR	Annualized Failure Rate
CD	Compact Disk
CDR	Cash Drawer
CLD	Confidence Level Diagnostic Software
EMI	Electromagnetic Interference
ESD	Electrostatic Discharge
FDD	Floppy Disk Drive
FRU	Field Replaceable Units
FPY	Failures Per Year
HDD	Hard Disk Drive
MSR	Magnetic Strip Reader
MTBF	Mean Time Between Failures
MTTR	Mean Time To Repair
POH	Power On Hours
PSU	Power Supply Unit
SPG	Support Planning Guide
UPC	Universal Product Code (Bar Code)
VFD	Vacuum Florescent Display

0.4. REFERENCE DOCUMENTS

L1KD02909-24XX	Product Specification Document
D900000338	Installation and Maintenance Manual
D900000317	Intelligent PIN Document

1. OVERVIEW

The TeamPoS 3600 is designed as a small form factor controller only, consisting of the following components:

- Chassis
- Micro ATX form factor motherboard
- Power Supply
- I/O Board Options

The chassis accommodates the following:

- Motherboard with on board LAN, Audio, and Video
- Front Operator Panel with one standard USB port in addition to the motherboard USB ports
- 350 Watt Power supply Unit with Fan
- 3.5", 7200 RPM, 160GB or greater, SATA HDD (Optional)
- 2nd HDD (same as above)
- DVD/CD-ROM, Combo Drive, SATA (Optional)
- Full Height PCI card
- One X16 PCI Express slot for optional video card
- Two X1 PCI express slots for 2nd LAN, Modem, etc. (low Profile)
- Powered USB I/O Option Card, with and without Cash Drawer Port
- Legacy I/O Option Card
- Powered USB and Legacy I/O Option Card, with and without Cash Drawer Port

1.1. TARGET MARKET

The TeamPoS 3600 is designed to satisfy markets where price and performance is of prime importance. This product is planned for distribution in North America, Asia, and Australia.

1.2. RELEASE SCHEDULE

Description	Release Date
TeamPoS 3600, Initial Release	September 2009
TeamPoS 3600, Phase II, CDR Port option, R21 BIOS, Secure HDD enabled	April 2010
TeamPoS 3600 with HDD Security Option	Q4 2010

1.3. PRODUCT DESCRIPTION

The TeamPoS 3600 has very few or no common components to the TeamPoS 3000 product lines. The controller will be offered in black only.

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1.4. SOFTWARE

1.4.1. OPERATING SYSTEMS

The TeamPoS 3600 controller supports the following operating systems:

- Windows XP Pro
- Windows XPe
- Windows Server 2003
- Windows WePOS
- Windows POSReady
- Linux, SuSe version SLED10, SP1, & SP2, Red Hat version RHEL55
- Windows 7 Professional
- Windows 7 Ultimate
- Windows Vista (32 or 64 bit) and Windows 2000 is not supported

Notes:

1. To support Windows 7 OEM Licensing, the Motherboard must be at BIOS R20 or above.
2. To use the new on-board Cash Drawer Port, the following software must be installed. All are available on the Fujitsu Support/Download web site and the FTP site (reference page 1).
 - FJOPOS 1.10.7 or later
 - FJJPOS 1.10.6 or later
 - USB to UART Bridge Virtual COM Port Driver CP210X_VCP (OS specific)

1.5. HARDWARE

The TeamPoS 3600 is equipped with the following features:

Motherboard Features:

- The BIOS incorporates Windows Marker feature, which is required for OEM Vista support
- The motherboard supports Intel's Active Management Technology or AMT and VPro technology
- The Trusted Platform Module feature will be supported for Windows operating systems
- Form Factor uATX
- Chipset: Q35 & ICH9
- Front Side Bus: 800/1066/1333MHz
- Four RAM Slots
- Memory: 1GB to 8GB DDR2 (non ECC)
- Video: 1 – VGA
- Ethernet: 10/100/1000 MB
- Card Slots: 1 PCI full height, 2 PCIe X1, low profile, 1PCIe X16 low profile (video card)
- Connectors:
 - Keyboard/PS2
 - Mouse/PS2
 - Mic in
 - Audio Line in
 - Audio Line out
 - VGA, DB15
 - LAN, RJ45
 - COM1, D-sub 9 pin male
 - 4 standard USB
 - 1 Front Mounted
 - 2 Standard Rear Mounted
 - 1 High Retention Rear Mounted (Orange)
- Other Features:
 - Wake on LAN
 - APM 1.2 Support
 - ACPI Support
 - DMI 2.0 Support

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- SMBIOS Support
- SLP 2.0
- PXE Boot
- AC Power Restoration
- TPM Version 1.2 Support

Chassis Features:

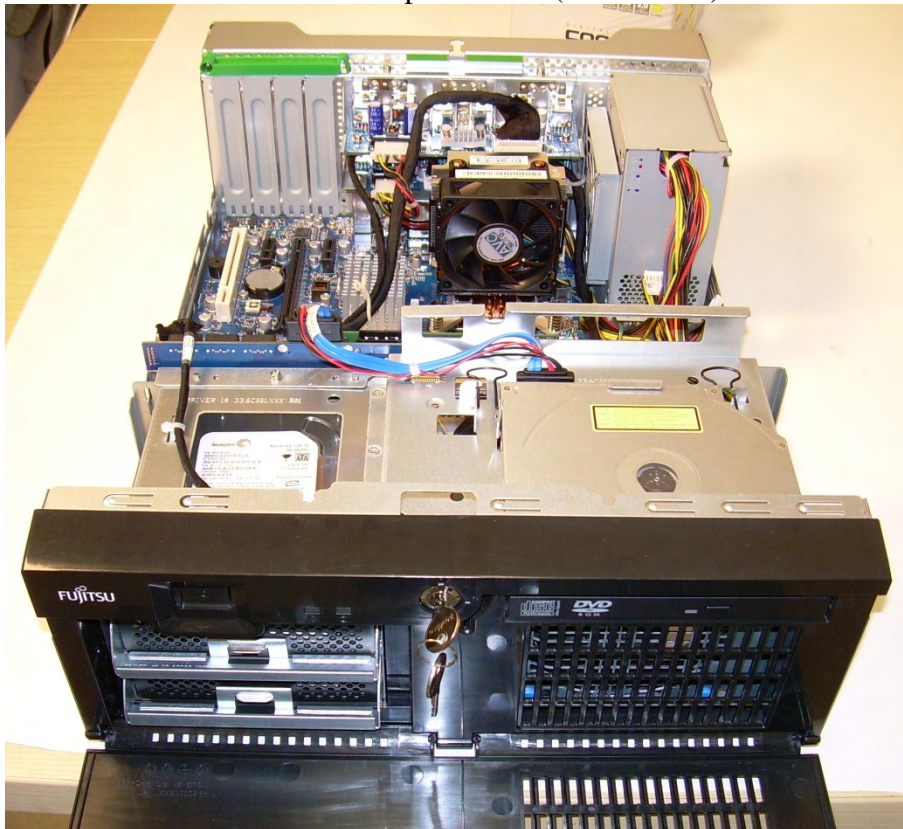
- Locking Front door
- Lockable HDD Bay (optional, future release)
- Handles two SATA 160GB-HDD's
- RAID Standard with two Drives
- CD-RW/DVD (optional)
- Power Switch
- Reset Switch (behind door)
- LED's:
 - Power
 - HDD Activity
 - LAN Activity
- I/O Board Options
 - Legacy Board I/O: 3 Powered COM Ports (+5 VDC/STD) with 2 Powered USB, 12VDC, (Teal)
 - Legacy Board I/O + Cash Drawer Port: Same as above except with TP15 cash drawer support
 - Powered USB: One +24VDC (Red), and five +12VDC (Teal)
 - Powered USB + Cash Drawer Port: One +24VDC (Red), Four +12VDC (Teal), plus cash drawer support (shown in the picture below between +12V and +24V powered USB ports)
 - Both Legacy Board and one of the powered USB Boards



TeamPoS 3600 (Rear View with Cash Drawer Port)



TeamPoS 3600 with top cover off (Front View)



1.6. SPECIFICATIONS

1.6.1.1. Dimensions

Height	135mm	5.3in
Width	340mm	13.4in
Depth	490mm	19.3in
Weight	10.2kg	22.4 lbs (w/2HDD + DVD)

1.6.1.2. Power

Output Voltage	+12V, (+24V is converted from +12V on PUSB board), +5V, +3.3V, and -12V
Output Current	+12V1 = 12A, +12V2 = 16A, +5V = 20A, +5VSB = 2.5A, +3.3V = 20.0A, -12V = .3A
I/F Connector	1 – PCI slot, 1 – PCIe-X16, 2 – PCIe-X1
Input Voltage	100 – 240VAC, 50-60Hz
Input Current	<9.0A @ 115VAC, <4.5A @ 240VAC
Total Wattage	350 Watts (maximum)

1.6.1.3. Temperature & Humidity

Temperature	Operating	0°C ~ 40°C (32° to 95°F); 15° C/Hr (Non-Condensing)
	Non-Operating	-5°C ~ 50°C (23° to 122°F); 15° C/Hr (Non-Condensing)
Humidity	Operating	10 ~ 90% (Non-Condensing)
	Non-Operating	8 ~ 95% (Non-Condensing)

1.6.1.4. Safety & Regulatory

This product is RoHS compliant. Any part that is replaced or used during the service of this product must be replaced with the same RoHS compliant component. This includes all sub-assemblies and component parts (screws, washers, metal parts, cables, etc). Any Repair Center or service operation cannot impact the RoHS (or other regulatory) compliance.

ESD	Air Discharge	±8KV
	Contact Discharge	±8KV
EMI Standards	FCC 47CFR part 15 class B Canada ICES-003 Class B EN55022:2006 Class B AS/NZS CISPR22:2006 class B	
Safety Standard	CAN/CSA-C22.2 No. 60950-1-03 EN60950 3 RD Edition, EN60825-1: 1994/A11: 1996/A2: 2001 IEC60825-1: 1993/A1: 1997/A2: 2001 (Laser)	
Immunity	EN55024 1998/ +A1: 2001 +A2:2003 EN61000-3-2 2000 +A2:2005 EN61000-3-3 1995/ +A1: 2001 +A2:2005 EN61000-4-2 1998/ +A1: 2001 +A2: 2003 EN61000-4-3 1998/ +A1: 2001 +A2: 2003 EN61000-4-4 1998/ +A1: 2001 +A2:2003 EN61000-4-5 1998/ +A1: 2001 +A2:2003 EN61000-4-6 1998/ +A1: 2001 +A2:2003 EN61000-4-8 1998/ +A1: 2001 +A2:2003 EN61000-4-11 1998/ +A1: 2001 +A2:2003	

1.7. OPTIONS

The TeamPoS 3600 has the following available options:

1. Optional CD-RW/DVD Drive. A blanking plate will be installed if no CD is installed.
2. Optional hard disk drives, second drive allows RAID capability.
3. Optional locking HDD bay for added security.
4. Optional I/O board options consist of a powered USB board, a legacy board or both. The picture below shows both installed.
5. PCIe X16 slot is available for use as a video card for dual display configurations. Note: The on-board VGA output will be disabled if video card is installed.
6. Memory can be populated up to 8 GB of DDR2 RAM using a combination of 1 and 2 GB RAM modules.
7. I/O Board Options:
 - a. Legacy I/O Board: 3 Powered COM Ports (+5 VDC/STD) with 2 Powered USB, 12VDC, (Teal)
 - b. Powered USB: One +24VDC (Red), and five +12VDC (Teal)
 - c. Powered USB with Cash Drawer Port: One +24VDC (Red), Four +12VDC (Teal), plus Cash Drawer support (shown in the picture on page 7 between +12V and +24V powered USB ports)
 - d. Legacy I/O Board and Powered USB Board
 - e. Legacy I/O Board and Powered USB Board with Cash Drawer Port

1.7.1. PERIPHERALS

The TeamPoS 3600 supports and has been validated with the following peripheral devices:

- 133UQ, 133AU, K110, PS-2 and USB Keyboards, and D22/D25 TeamKey
- DV15, D22, and D25 Digital and analog LCD's
- DT50III, TM-T88IV, and CT10 Printers
- VF60 Customer Display
- Cash Drawer can be fired from the printer or powered USB I/O Cash Drawer Port

Other peripherals will be added as required

Rear of TeamPoS 3600 showing the USB and Legacy I/O options installed



1.8. PRODUCT PERFORMANCE

1.8.1. RELIABILITY

Appendix A contains a work sheet for calculating the anticipated failure rate of a typical customer installation. The reliability data below is based on Engineering/Supplier data and assumes the unit/system is Installed, Maintained, Operated, and Preventive Maintenance performed as recommended.

Description	MTBF @ 25°C	MEASURE
Motherboard	324,803	Hours
CPU	10,000,000	Hours
CPU Fan	198,002	Hours
1GB DDR DIMM Memory	11,764,705	Hours
2GB DDR DIMM Memory	6,060,606	Hours
Power Supply (without fan)	648,720	Hours
PSU Fan	198,002	Hours
HDD I/F Board	11,837,936	Hours
Hard Disk Drive	300,000	Hours
CD-RW/DVD	600,000	Hours
USB Board	2,330,968	Hours
Legacy Board	4,846,704	Hours
Front Panel PCB	13,743,294	Hours
Chassis Fan	198,543	Hours

1.8.2. LIFE EXPECTANCY

The design life expectancy for the components are as follows.

Description	Life
Hard Disk Drive	>5 years at normal conditions, or 50,000 starts/stops
CD-RW/DVD	9,000 hours laser life 10,000 times loading of disk tray 2,000,000 seeks- feed motor life

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2. RESOURCES

The following sections list support, training, documentation, spares, repairs, and diagnostics available for this product.

2.1. SKILLS REQUIRED

Customer Service Representative:

A good working knowledge of Intel-based PC components, POS peripherals, I/O card installation and supported operating systems is required. Prior experience and knowledge of POS terminals and their associated peripherals, Confidence Level Diagnostics (CLD), and commercial off-the-shelf PC diagnostics is assumed.

Consultant/Project Manager:

Good working knowledge of PCs, supported operating systems, and specific application experience is assumed.

Repair Center Technician:

An in-depth understanding of Intel-based PC components, POS peripherals, I/O cards, and supported operating systems is required. Knowledge of Confidence Level Diagnostics (CLD) and commercial off-the-shelf PC diagnostics is assumed.

Experience with troubleshooting multilayer PWAs, including surface mount technology (SMT) is required.

2.2. TRAINING

Field Service training is under the discretion of each specific business unit. Sustaining Engineering will provide ‘train the trainer’ operations. The schedule and funding for training will be established on an individual case by case basis. All requests for training by Sustaining Engineering should be forwarded to the Sustaining Mailbox (reference the cover page).

Sustaining Engineering estimates that the Technical Publications listed are adequate for this product and additional training will not be necessary for Field Service personnel currently trained on similar Fujitsu products. The TeamPoS 3600 should be included in any future standard training provided to Fujitsu Field Service personnel.

2.2.1. THIRD PARTY TRAINING

Training for Dealer/VAR and self-serve customers will be contracted through National Technical Support (NTS)

2.3. TECHNICAL PUBLICATIONS

<u>Part Number</u>	<u>Description</u>	<u>Rev</u>	<u>Release</u>
D900000338	Installation and Maintenance Manual	3.0	May 2010

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2.4. SPARES

The TeamPoS 3600 is a Fujitsu product and will follow standard spares lead times. It is assumed that organizations will spare the TeamPoS 3600 at the FRU level. Some customers/organizations however, may choose to spare the major assembly level with the lower level repair performed at a central repair center or depot. The spares list takes both of these methods into consideration. Spares will be stocked at the North America Logistics Center (Richardson TX, USA24) and whole units should be returned on a RMA to the Logistics Center.

These part lists are provided as a reference only. The Fujitsu Engineering Data Base (PDM) is the final authority on part numbers and availability.

This product is RoHS compliant. Any part that is replaced or used during the service of this product must be replaced with the same RoHS compliant component. This includes all sub-assemblies and component parts (screws, washers, metal parts, cables, etc). Any Repair Center or service operation cannot impact the RoHS (or other regulatory) compliance.

While the component cost of the various FRU's within the TeamPoS 3600 allow all these spares to be flagged as Expensed/Non-Returnable parts, it is FFNA's recommendation that all failed parts be returned to a central location. Ideally, this process should exist for the life of the product, but should at minimum exist for the first year after product introduction, and for the warranty period of any subsequent shipments/installations. All returned and verified parts should be held for a minimum of 60 days. The purpose for these returns is to:

- Validate the component failure
 - Perform failure/symptom confirmation and/or analysis
- Provides details for early failures, and deviations from target AFR/MTBF rating
 - Makes failed samples available to engineering and/or manufacturer for root cause failure analysis if needed
 - Allows for early analysis and samples to identify root cause and potential improvements
- Provides 'repairable' parts pool for the eventual EOL of any major component
- Provides for hardware availability for manufactures in the event it is requested prior to warranty allowances
- Allows for controlled and proper disposal of potentially environmentally sensitive materials
- Ensure accountability for product spares usage

2.4.1. THIRD PARTY SPARES

Spares strategy, availability and process for Third Party (Dealer/VAR/Self Serve Customers) will be available through Fujitsu SupplyPoint at 800-538-8716.

2.4.2. CONSUMABLE PARTS

User consumable parts and spares are available via normal ordering Channels and are replaceable by customers. Order consumable parts from Fujitsu SupplyPoint at 800-538-8716

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2.5. REPAIR

North America Logistics Center (Richardson) offers repair services for the items they consider to be repairable. The OEM vendor also offers repair services that may be contracted by one of these repair centers or other organizations.

Logistics and Field Service organizations should utilize their own services to provide a test of units being returned from the field before shipment to repair centers as history has shown that not all units being returned from the field are actually faulty.

If faulty, logistics organizations may elect to have the repair done down to a component level replacement if parts and resources permit. However, at this time, there are no plans to have parts or FRU's repaired in the TeamPoS 3600 terminal.

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2.5.1. REPAIR STRATEGY

The terminal and all internal components are warranted by Fujitsu for a period of 45 days from date of shipment through the Customer Care for whole unit replacement. All other warranty claims for defective units/parts will be handled per the purchase agreement.

2.5.2. THIRD PARTY REPAIR

Repair strategy and process for Third Party (Dealer/VAR/Self Serve Customers) has not yet been determined and will be handled based on the purchase agreement.

2.5.3. FIELD REPAIR TIME

The following are time estimates for removing and replacing major assemblies on site. These time estimates do not include the time to diagnose the problem, gain clear access to the TeamPoS 3600, or perform any software reloading to return the unit to full customer functionality. It is assumed that this service is performed by a qualified and trained technician in the event it becomes necessary to diagnose and replace components within the terminal.

Description	Replacement Time (min)
Hard Disk Drive	<1Min
Memory	~2Min
CD ROM/DVD	~3Min
Power Supply	~3Min
Combo Card	~4Min
Control Panel PCB	~4Min
Motherboard and CPU	~12Min
Fans	~4Min
*Average MTTR for Complete Unit	3.7 Min

*Average MTTR for the Complete Unit is based upon these times and adjusted by the probability of a specific component failing.

2.5.4. REPAIR CENTER TIME

The following are time estimates for replacing FRU's and assemblies at some point if the FRU's are labeled repairable

Description	Repair Time (min)
Hard Disk Drive	<1Min
Memory	<1Min
CD ROM/DVD	~2Min
Power Supply	~2Min
Combo Card	~3Min
Control Panel PCB	~3Min
Motherboard and CPU	~8Min
Fans	~3Min
*Average MTTR for Complete Unit	2.44 Min

*Average MTTR for the Complete Unit is based upon these times and adjusted by the probability of a specific component failing

2.6. TOOLS

A Phillips head screwdriver is all that is needed to access the TeamPoS 3600 terminal.

2.6.1. DIAGNOSTICS

A new version of WinCLD is available to support the new Cash Drawer Port on the TeamPoS 3600, WinCLD version 2.1.4. The files listed below are available on the FTP site at <ftp://ftp.ftxs.fujitsu.com>. This new version also continues to support previous terminals (TeamPoS 3000 XL, XL2, and XE). The previous version (2.1.3) can also be used to test the TeamPoS 3600, but will not test the Cash Drawer Port.

- WinCLD214-Update.zip Software and instruction for updating an existing USB Thumb Drive
- WinCLD214-USBIImage.zip Software and instruction for creating a new USB Thumb Drive

Some PC diagnostics like PC Doctor can be used to troubleshoot motherboard issues.

2.6.2. SERVICE TOOLS

None at this time.

2.6.3. REPAIR TOOLS

None at this time.

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3. SERVICE PROFILES

3.1. PREVENTATIVE MAINTENANCE

Preventive Maintenance (PM) is a critical factor in keeping any system operating within its designed parameters and at peak efficiency, with minimal service calls. Appendix F contains a list of recommended PM activities and schedules. This list is broken down to the Device Level, so any specific installation should include all appropriate devices. Refer to the Service and Maintenance Manuals for details of performing the specific outlined tasks.

The recommended PM Schedule below is for ‘Typical’ retail installations. Depending upon specific Contract, Environmental, and Usage Profiles some customers or sites may require more or less frequent Preventive Maintenance schedules. It is also ‘assumed’ that the person performing the PM is fully trained on the details of service and support of the specific device/equipment in question.

In addition to the items identified, the various levels of Firmware and Software Driver levels should be verified. If found to be down-level, this should be noted. However, since many customers require internal validation and approval of any updates, other than noting the down-level object and notifying the customer and Managed Services management no further specific actions should be taken unless specifically called out for a customer or site.

Also included for each device is an estimated time to complete the PM for that device. This time estimate is only for performing the specified tasks and does not include items such as: gaining access to the system, performing repairs when found, atypical installation or mounting, etc.

Quarterly, six months, and yearly Preventive Maintenance should be scheduled and performed as required by the Preventive Maintenance guidelines in the Installation and Maintenance manual. During routine maintenance, as a result of a service call, it is recommended that Preventive Maintenance be performed on that device/assembly. If time allows additional Preventive Maintenance should be performed on other peripherals or lanes. Preventive Maintenance that is performed during a Service Call can be logged as completed scheduled Preventive Maintenance. Scheduled Preventive Maintenance Logs should be maintained for/at each site.

Items highlighted in *red Italic* are also considered Safety issues. Safety being to the Site, Personnel, or other Equipment and should be specifically addressed even if standard Preventive Maintenance is not contracted for a specific customer.

3.2. CORRECTIVE MAINTENANCE

In the event of a failure the customer should be expected to confirm the malfunction by carrying out his or her own internal problem resolution procedures. If their procedures are unable to resolve the problem, they should contact their local Field Service/Support organization.

Field Service/Support organizations should provide a support desk facility whereby customers can telephone for advice before logging a service request. If telephone assistance is unable to resolve the problem, the local Field Service/Support organization should send a representative to assist, unless the RFR option/maintenance agreement was selected. Field Service/Support should affect on-site repairs to the FRU level recommended by their Field Service/Logistics management.

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3.3. ESCALATION PROCEDURES

The escalation of product error reports or requests for assistance should take place in the following order. While some of these steps may be in the same organization, they are listed as individual steps to illustrate the 'functional' process flow.

Customer's Internal Service

First Line Support Service (Help Desk)

Field Service Organization

Field or Local Technical Support (FTS)

National Technical Support (NTS)

Sustaining Engineering

Development/Supplier Engineering – with Mgmt Escalation

Per the above, escalated product reports raised on supported products or general inquiries should be sent to the Sustaining mailbox (reference the cover page).

3.3.1. THIRD PARTY ESCALATION

The escalation process for Third Party (Dealer/VAR/Self Serve) customers will be through National Technical Support

4. APPENDIX A: FAILURE PER YEAR WORKSHEET

The following are specific variables that need to be determined for your specific customer configuration when calculating Failures Per Year (FPY).

Description	Variables
Avg. Power On Hours per Year (8760 max)	(A) _____
Avg. 'Green Mode' Power On Hours per Year	(B) _____
Avg. Transactions per Trading Hour	(C) _____
Avg. Trading Hours per day	(D) _____
Avg. Trading Days per Week	(E) _____
Avg. Keystrokes per Transaction	(F) _____
Avg. Keylock Cycles per Transaction	(G) _____
Avg. MSR Usage's per Transaction (1 out of 3=.33)	(H) _____
Avg. Print Lines per Transaction	(I) _____
Avg. Cash Drawer Openings per Transaction	(J) _____
Avg. Transaction per Terminal Year (C*D*E*52wks)	(K) _____

Units Affected by Power On Hours:

Device	Power On Hours	/ MTBF Hours	=	FPY
*	(A) _____	/	*	= _____
*	(A) _____	/	*	= _____
*	(A) _____	/	*	= _____
*	(A) _____	/	*	= _____
*	(A) _____	/	*	= _____
Power On Total				_____

Units Affected by Green Mode Operational Hours:

Device	Power On Hours	/ MTBF Hours	=	FPY
*	(B) _____	/	*	= _____
*	(B) _____	/	*	= _____
*	(B) _____	/	*	= _____
*	(B) _____	/	*	= _____
*	(B) _____	/	*	= _____
Green Mode Total				_____

Units Affected by Mechanical Usage:

Keyboard:	(F) x (K) / *	=	_____	
Keylock:	(G) x (K) / *	=	_____	
MSR:	(H) x (K) / *	=	_____	
Printer:	(I) x (K) / *	=	_____	
Cash Drawer:	(J) x (K) / *	=	_____	
Mechanical Total				_____

Total for your customer configuration (per lane):

Power On Total	_____
Green Mode Total	_____
Mechanical Total	_____
Total FPY Per Lane	_____

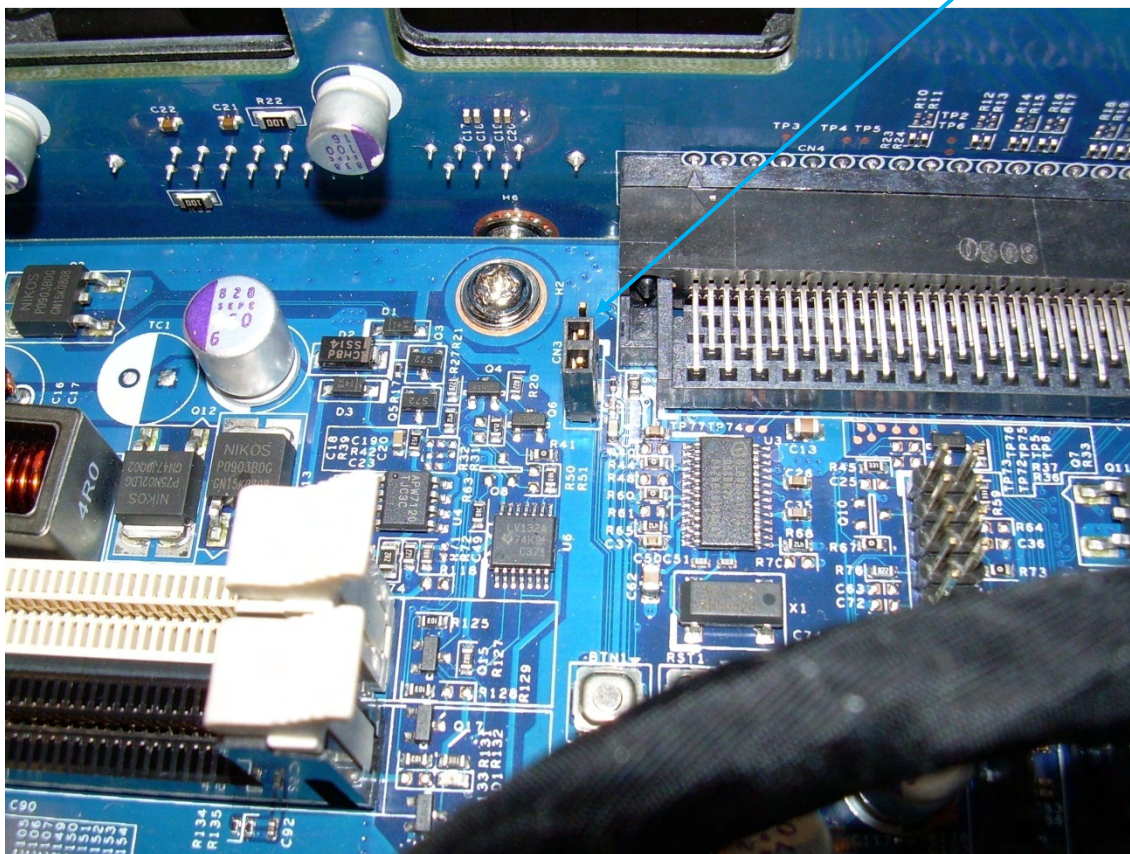
Note: This total does not include failures resulting from use of consumables (batteries, print heads, etc.), cables, software/firmware based problems, no-fault-founds, or resulting from use not considered standard for this type of equipment.

5. APPENDIX B: SWITCH AND JUMPER SETTINGS

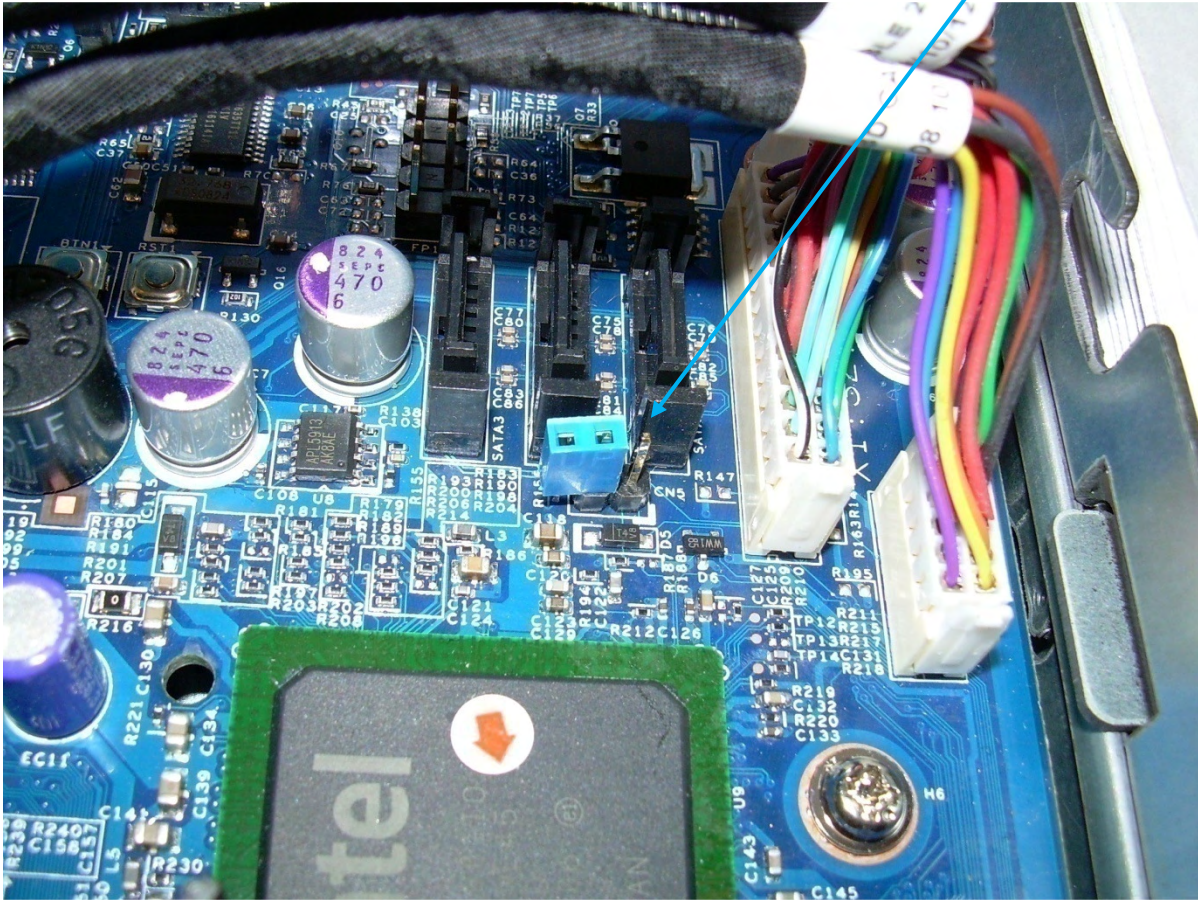
MOTHERBOARD

There are two jumpers on the motherboard. The Clear CMOS jumper is located next to the connector going to the HDD converter board. The label on the jumper is CN3 and is shown below in its normal operational state. In order to clear CMOS the following procedure needs to be followed:

- Power needs to be turned off and the AC plug removed.
- Move jumper CN3 from 1-2 to the 2-3 position.
- Plug in the AC power cord
- Remove the AC power cord
- Move jumper back to position 1-2
- Plug in the AC power cord and power up the terminal, this will clear CMOS

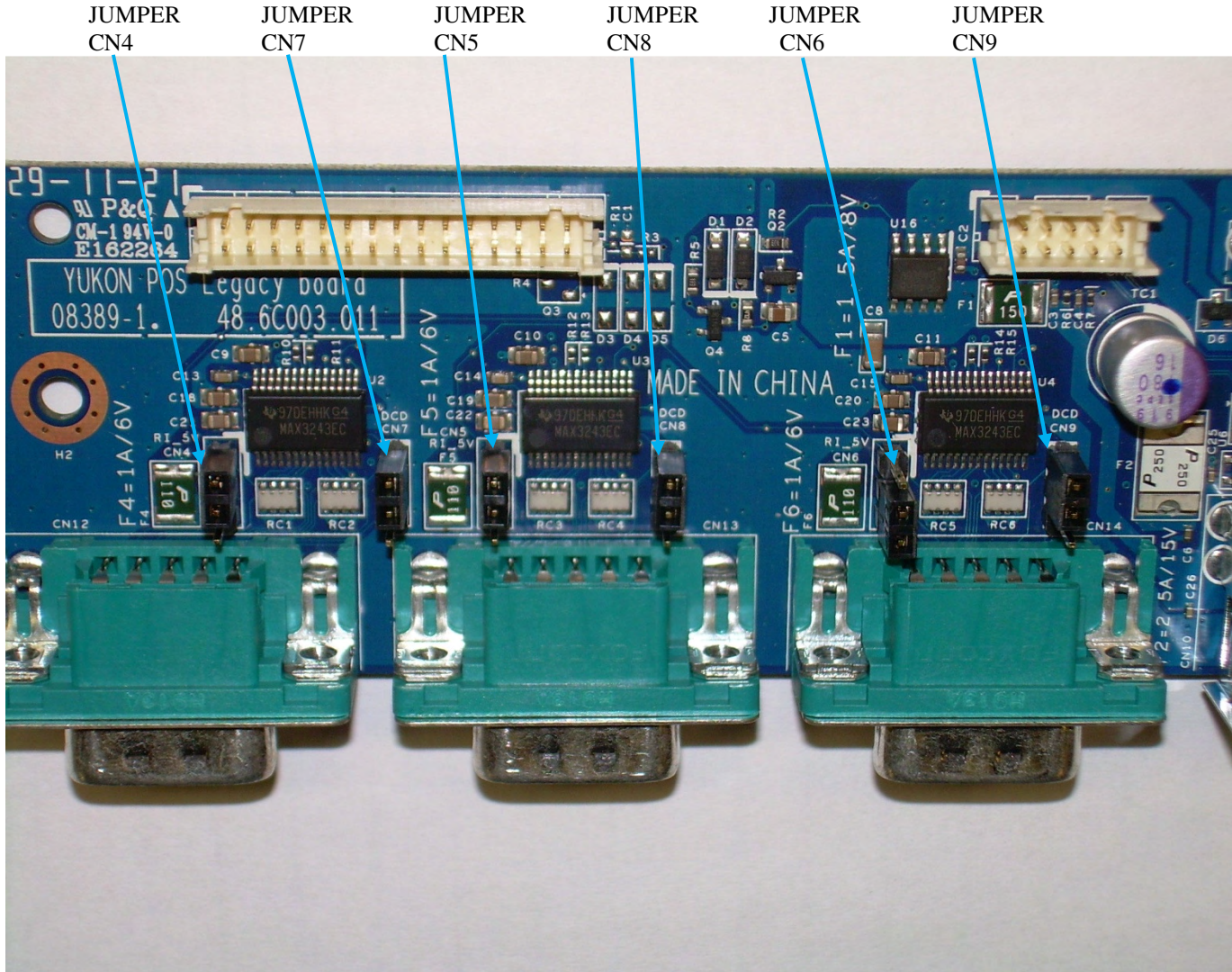


The second jumper on the motherboard is the test jumper. This jumper is located next to the SATA 1, 2, & 3 plugs. Do not use this jumper. A picture of this jumper is shown below for reference only. The jumper is shown in the normal position (not shorted)



COMM BOARD

The COMM board contains six jumpers. Three of the jumpers (CN4, CN5, & CN6) will either provide +5 V on pin 9 of DB9 connector or provide the RI signal on that pin. Default is set as RI on that pin. Jumpers CN7, CN8, and CN9 enable the DCD signal on pin 1 of the DB9 connector and should remain in this default position.



COMM Board

Pin	COM Female connector	COM Male Connector
1	Data Carrier Detect (DCD)	Data Carrier Detect (DCD)
2	RX	RX
3	TX	TX
4	DTR	DTR
5	Ground	Ground
6	DSR	DSR
7	RTS	RTS
8	CTS	CTS
9	RI or +5V depending upon jumpers CN7,8, or 9	RI or +5V depending upon jumpers CN7,8, or 9

6. APPENDIX C: CONNECTORS AND PINOUTS

The powered USB and COM connectors shown below have the same pin outs as the TeamPoS 2000 and TeamPoS 3000 connectors. See the pin assignments below in the table.



There are two jumper blocks on the COM Card (PW1 for COM5 and PW2 for COM6). Each block will determine if a voltage or RI (ring) signal is on pin 9 of the DB9 connector and whether the Data Carrier Detect (DCD) signal is used on pin 1. See chart on following page for jumper positions.

TeamPoS 3600 Pin Assignments

	COM 1 & 2 Female Connector	USB +24V	USB +12V
	Ground	Red powered USB connector	Green powered USB connectors
1	RX	5V USB Pwr	5V USB Pwr
2	TX	Data -	Data -
3	24V	Data +	Data +
4	Ground	Gnd	Gnd.
5	+5V	+24V Return	+12V Return
6	RTS	+24V Pwr	+12V Pwr
7	CTS	+24V Pwr	+12V Pwr
8	Ground	+24V Return	+12V Return

Other connectors are industry standard and need not be detailed in this document

7. APPENDIX D: INTELLIGENT PIN

Refer to the latest intelligent PIN document (D900000317) for any updates or changes.

Digit	Value	Brief Description
1	R	Yukon Chassis, TP3600 Standard/BLK, R16 MB - Available until stock depleted
1	P	Yukon Chassis, TP3600 Standard/BLK, R21 MB - HDD Security Compatible (Future release)
2	Q	OPN Yukon Motherboard Q35
3	1	OPN Celeron 440 CPU with Fan/Heat Sink
3	4	OPN E8400 CPU with Fan/Heat Sink
3	5	OPN E5300 CPU with Fan/Heat Sink
3	6	OPN E7400 CPU with Fan/Heat Sink
4	1	OPN Memory, 1GB, DDR2
4	2	OPN Memory, 2GB, DDR2
4	3	OPN Memory, 3GB, DDR2(3011+3012)
4	4	OPN Memory, 4GB, DDR2 (2 x 3012)
4	5	OPN Memory, 5GB, DDR2 (2 x 3012 + 1 3011)
4	6	OPN Memory, 6GB, DDR2 (3 x 3012)
4	7	OPN Memory, 7GB, DDR2 (3 x 3012 + 1 3011)
4	8	OPN Memory, 8GB, DDR2 (4 x 3022)
5	0	No I/O Option (blank panel)
5	1	OPN, Powered USB I/O
5	2	OPN, Legacy I/O
5	3	OPN, Legacy I/O and Powered USB
5	4	OPN, Powered USB I/O with Cash Drawer Port
5	5	OPN, Legacy and Powered USB I/O with Cash Drawer Port
6	0	No Hard Drive
6	4	OPN, 160GB HDD, SATA, 7200 RPM
7	0	No Second Hard Drive
7	A	RAID 0 - 160GB HDD, SATA, 7200 RPM in second slot
7	B	RAID 1 - 160GB HDD, SATA, 7200 RPM in second slot
7	C	Drives C & D - 160GB HDD, SATA, 7200 RPM in second slot
8	U	Built in the US
8	C	Built in China

Digit	Value	Brief Description
9	0	No Operating System
9	6	Windows XP Pro, Preloaded
9	7	Windows XPe, Server Downloaded
9	A	Windows Server 2003 w/5CAL EMB
9	P	Windows POSReady, Preloaded
9	W	Windows WePOS, Preloaded
9	Q	Windows 7 Professional, Preloaded
9	R	Windows 7 Ultimate, Preloaded
10	0	No CD Drive
10	4	OPN TP3600 CD-RW/DVD/BLK With Nero Software
10	6	OPN TP3600 CD-RW/DVD/BLK Without Nero Software
11	0	No Power Cord
11	6	CBL TP3600 Mains/U.S./BLK
12	0	Spare
13	0	No Video Card
13	V	Video Card
14	0	Spare
15	U	Manufactured FHR U.S.A. (Regulatory Label Made in USA)
15	C	Manufactured Wistron China (Regulatory Label Made in China)

8. APPENDIX E: SPARES LIST

These part lists are provided as a reference and planning purposes only. The Fujitsu PDM System is the final authority on part numbers and availability.

The following parts list includes both FRU and Whole Unit Assembly (**bolded**) levels. Crossed out parts are withdrawn or obsolete, included for reference only.

DESCRIPTION	PART NUMBER
TeamPoS 3600	
Chassis, Bare Bones, No CPU, HDD or I/O Board, Black, BIOS R16	11002856
Chassis, Bare Bones, No CPU, HDD or I/O Board, Black, BIOS R21	11003590
PCB, Motherboard, BIOS R16	11003001
PCB, Motherboard, BIOS R21	11003499
PSU, Power Supply, SPS 350W, 100/240VAC	11003009
Kit, Operator Panel w/ Bracket	11003014
Cable, Operator Panel	11003017
Fan, Chassis, 12VDC	11003016
Panel Assy, Front w/ Door and Keylock, Black	11003188
Keylock	11003423
Keys	11003422
Front Door, Black	11003190
Lever, PCI Care Locking, Plastic, Green	11003416
Cable Clip, MB Cables, Plastic	11003417
Rubber Foot, Chassis	11003418
Cable Clip, HDD Cables, Plastic	11003419
Spring, CD-ROM HD-368	11003420
Gasket, PCI Shield	11003421
Assy, Powered USB I/O Board without CDR Port, Bracket, Cables	11002846
Assy, Legacy I/O Board, Bracket, Cables	11002847
Assy, Legacy I/O Board and Powered USB without CDR Port, Brackets, Cables	11003039
Assy, Powered USB I/O Board with CDR Port, Bracket, Cables	11003538
Assy, Legacy and Powered USB I/O Board with CDR Port, Bracket, Cables	11003539
Cable, Legacy I/O, 330mm	11003079
Cable, Powered USB I/O	11003080
PCB, Powered USB I/O Board without CDR Port	11003570
PCB, Legacy I/O Board	11003571
Bracket, I/O Board Mounting, P-USB Option, No CDR Port	11003572
Bracket, I/O Board Mounting, Legacy Option	11003573
Bracket, I/O Board Mounting, P-USB , No CDR Port, and Legacy Options	11003574
Cable Clamp, AB15C-NQ2	11003575
Plate, Rear I/O Blanking	11003040
Fan/Heatsink, 12VDC	11003015
CPU, Intel Core 2 Duo, E8400, 3.0Ghz	11003037
CPU, Intel, Celeron 440, 2.0Ghz	11003010
CPU, Intel Pentium Dual-Core, E5300, 2.6Ghz	11003058
CPU, Intel Core 2 Duo, E7400, 2.8Ghz	11003059
DIMM, Memory Module, 1.0GB DDR2, 800Mhz	11003011
DIMM, Memory Module, 2.0GB DDR2, 800Mhz	11003012
DIMM ASSY, Memory Modules, 3.0GB DDR2, 800Mhz	11003071
DIMM ASSY, Memory Modules, 4.0GB DDR2, 800Mhz	11003072

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DESCRIPTION	PART NUMBER
DIMM ASSY, Memory Modules, 5.0GB DDR2, 800Mhz	11003073
DIMM ASSY, Memory Modules, 6.0GB DDR2, 800Mhz	11003074
DIMM ASSY, Memory Modules, 7.0GB DDR2, 800Mhz	11003075
DIMM ASSY, Memory Modules, 8.0GB DDR2, 800Mhz	11003076
HDD, Hard Disk Drive, 3.5, 160GB, SATA	11003013
HDD ASSY, 160G SATA HDD, w/ Chassis Hardware	11003042
Kit, HDD PCB Assy with Bracket	11003081
Kit, Adapter Tray, 2.5, SSD, Black	11003083
Tray, HDD Bay, 3.5, Black	11003085
Filler, HDD Bay, Black	11003041
CD/RW-DVD, 24X, w/Bezel/Cable/HW, w/NERO/WinDVD, Black	11003020
CD/RW-DVD, 24X, w/Bezel/Cable/HW, w/NERO, Black	11003087
CD/RW-DVD, 24X, w/Bezel/Cable/HW, No SW, Black	11003090
Cable, CD/RW-DVD Combo Drive	11003078
Card, Video/PCI/DVI	11001991
NIC, Intel Gigabit CT, 10/100/1000 Mbps	11003597
STACKING KIT (Garage)	
Integration Kit, TP3600 Controller, Black	11003412
Front Panel End, Plastic, Black	11003340
Kit, Sheet Metal, Black	11003357
Plate, Top, Black	11003346
Plate, Bottom, Black	11003347
Side, Left, Black	11003348
Side, Right, Black	11003349
Bracket, Front Panel	11003350
Spacer, 4.5ODx3mmx3.2ID, Aluminum	11003393
Screw, Flat Head, Phillips, M3x0.5x8mm, Black	11003445
Foot, Rubber, 20mmx1mm, 3M Adhesive, Black	11003444
Screw, Thumb, M3x6.8, 10mm Dia, Black	11003446
Screw, Pan Head, Phillips, SEMS, M3x0.5x8mm	11003448
Screw, Flat Head, Phillips, M3x0.5x5mm, Nickel	11000629
Screw, Pan Head, Phillips, SEMS, M3x0.5x6mm, Nickel	11000595
DOCUMENTS & MANUALS	
Intelligent PIN Description Doc, TP3600	D900000317
Installation & Maintenance Manual, TP3600	D900000338
Booklet, Safety Notice, English/French	11003214
CASH DRAWER CABLES	
CBL TP15/TP5C CDR to PTR/0.5/WHT	11000163
CBL TP15/TP5C CDR to PTR/0.5/BLK	11000164
CBL TP15/TP5C CDR to PTR/2.0/WHT	11000165
CBL TP15/TP5C CDR to PTR/2.0/BLK	11000166
CBL TP15/TP5C CDR to PTR/4.0/WHT	11000382
CBL TP15/TP5C CDR to PTR/4.0/BLK	11000384
Cable, TP36 Dual CDR, White, 0.65M	KD02906-2020
Cable, TP36 Dual CDR, Black, 0.65M	KD02906-2021
Cable, TP36 Dual CDR, White, 2.0M	KD02906-2022

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DESCRIPTION	PART NUMBER
Cable, TP36 Dual CDR, Black, 2.0M	KD02906-2023
Cable, TP36 Dual CDR, White, 4.0M	KD02906-2024
Cable, TP36 Dual CDR, Black, 4.0M	KD02906-2025
SOFTWARE	
NERO Software, OEM Suite, V8.3	11000672
Windows POSReady	yyy-POSReady-36XXQ35
Windows Server2003	yyy-SVR2003-36XXQ35
Windows 7 Professional	yyy-W7P-36XXQ35
Windows 7 Ultimate	yyy-W7U-36XXQ35
Windows WePOS	yyy-WePOS-36XXQ35
Windows XP Pro	yyy-XPro-36XXQ35

For the Software Images, yyy is defined as follows:

- DVD Recovery Disk
- IMG Base software image file
- OS Preloaded software image