

TITLE: TeamPoS Terminal Family  
Support Planning Guide

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SYNOPSIS:

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

This is the generic version, released by the product authority, GPG. It is intended that each country releasing the product will use this information as the basis for their logistics and CS planning activities, to producing another localised version of the document detailing the precise strategies they elect to adopt.

This document details only the corporate philosophies, and does not seek to cover such subjects as additional services offered at the country level, low level repairs (which country service centers may be able to effect) or the local sourcing of components and consumable items.

The service descriptions in this document are guidelines, detailing the recommendations of the product authority.

This document is combined with data formerly contained in the TeamPoS Select SPG, document RET-48-0597.

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## 0.0 DOCUMENT CONTROL

### 0.1 CHANGES FROM PREVIOUS ISSUE

Changes from Issue 10.0 to 11.0 (all updates in bold)

- Addition of the **PAK 2005 version 1.2 Motherboard**
- Addition of the **PAK 2005 K6-2/300MHz Configurations**
- Addition of a **PAK 2005 128MB DIMM**
- Addition of a **10GB HDD**
- Updates to **Appendix C,E,F,G and H**

Changes from Issue 9.0 to 10.0

- Addition of the PAK 2005 K6/266MHz Configurations
- PAK 2005 K6/266MHz Board Drawing/Jumper Settings (Appendix C)
- PAK 2005 BIOS Update (Appendix D)
- Configuration Chart Update (Appendix E)
- HDD Jumper Chart (Appendix F)
- TeamCOM Default Board Drawing Default Setting (Appendix G)
- TeamPoS 5000 Upgrade Kits (Appendix H)
- Fiscal Printer Option (Appendix J)
- Service Reference Manual Update
- TeamCOM OPC Support
- PAK 2005 16, 32 and 64MB DIMMs
- 4 and 6GB HDDs

Changes from Issue 8.0 to 9.0

- Addition of the PAK-2005 Motherboard
- Addition of PAK-2005 Drawing and Jumper Chart (Appendix C)
- Addition of PAK-2005 BIOS Screen Settings (Appendix D)

Changes from Issue 7.0 to 8.0:

- Addition of Production version TeamCOM Board
- Updated TeamCOM Jumper Chart to Production Version (Appendix G)
- Addition of Pentium Intel Drawing and Jumper Charts (Appendix I)
- Addition of TeamCOM CLD Diagnostics (Section 2.6)
- Addition of Rear Connector Definitions (Section 1.3.1)
- Addition of Check-It as GPG recommended PC Diagnostic (Section 2.6)

Changes from Issue 6.0 to 7.0:

- Organisational Change from PM&LS to GPG (Global Products Group)
- Addition of 2.0GB HDD, 133/166MHz Pentium, and 486DX4-100 Options (486DX2-66 and Pentium 100 are Withdrawn)
- Addition of TeamCOM Board and Riser Cards
- Addition of TeamPoS Configuration Chart (Appendix E)
- Addition of HDD Jumper Chart (Appendix F)

- Addition of TeamCOM Jumper Chart (Appendix G)
- Addition of TeamPoS Upgrade Chart (Appendix H)
- Addition of TP8 Cash Drawer and withdrawal of TP10 Cash Drawer
- Clarification of Preventative Maintenance (Section 2.8)
- Clarification of SIMM metal type mixing (Section 2.5)
- Updated (version 2.01.00) OPC CLD

Change from Issue 5.0 to 6.0:

- Addition of S18 Emulator Board
- Several Updates to the Parts List
- Addition of Several New Supported Printers
- Addition of 8MB SIMM
- Added Appendix B to Illustrate 486 Motherboard Jumper Settings
- Added Appendix C to Illustrate Pentium Motherboard Jumper Settings
- Added Appendix D to Illustrate Standard BIOS/CMOS Settings

## 0.2 CHANGES FORECAST

This SPG will be updated as new options are added.

## 0.3 TERMS AND ABBREVIATIONS

CLD	Confidence Level Diagnostics
CS	Customer Service
FDD	Floppy Disk Drive
FPY	Failures Per Year
GPG	ICL Global Products Group
HDD	Hard Disk Drive
MTBF	Mean Time Between Failure
MTTR	Mean Time To repair
OPC	Open Peripheral Connect
ORU	Optimal Replaceable Unit
PHS	Peripheral Handler Software
PSU	Power Supply Unit
SMT	Surface Mount Technology
SPG	Support Planning Guide
VFD	Vacuum Fluorescent Display

## 0.4 REFERENCE DOCUMENTS

TeamPoS Product Announcement	Retail/PA/0001
TeamPoS Product Description	PD/RBC/0313
SPG for Epson TM-H5000 Printer	SPG/RRV96008
SPG for Epson TM-T88 Printer	SPG/RRV96009
SPG for Epson TM-U950 Printer	SPG/RRV95010
SPG for Epson TM-U925 Printer	SPG/RRV96003
SPG for AT93 (Axiohm 7193) Printer	SPG/RRV96007
SPG for ADT40 (Axiohm 7156) Printer	SPG/RRV95013

**SPG for A758 Axiohm Printer**

**SPG/A758**

**SPG for A794 Axiohm Printer**

**SPG/A794**

SPG for Support of 9520/150 Peripherals

SPG/RRV95015

SPG for Support of 9518/200 Peripherals

SPG/RRV95017

PAK-2005 Pentium Specification

80215665

PSD TeamPoS 5000 Fiscal Printer

PSD/RRV63083

## 1.0 OVERVIEW

### 1.1 PRODUCT DESCRIPTION

TeamPoS 5000 is targeted at all retail segments served by ICL. The control unit can be configured as an integrated unit or used with distributed peripherals to achieve a modular configuration.

TeamPoS Select is a POS terminal that uses an industry-standard PC and POS peripherals. A variety of peripheral devices can be incorporated as part of the terminal, facilitating maximum configuration flexibility. The Open Peripheral Connect (OPC) is the core component of TeamPoS. It is an intelligent device, which attaches to the PC's parallel port and inter-connects with the POS peripherals.

With the introduction of the TeamCOM board, the TeamPoS 5000 is Microsoft Windows Hardware Compliant (WHC). The TeamCOM board can be configured (via jumpers) such that all peripherals currently supported by the OPC will directly connect to the TeamCOM board (hardware compatible), including cables. Upgrade kits are available to convert a TeamPoS 5000 with OPC to TeamCOM. In the Pentium configuration, the Riser Card may have either 3 ISA slots (standard) or optionally 1 ISA and 1 shared ISA/PCI slot (2 slots total).

### 1.2 SOFTWARE PRODUCT DESCRIPTION

The following features are available (OPC variant):

- Industry standard operating systems software MS/DOS 6.x, OS/2 3.0/Warp and above, Windows 95 and Windows NT. (Refer to Support Bulletin PSB-98-029 for software limitations)
- Drivers supporting POS peripherals and 10BaseT/10Base2 LAN cards for both DOS and OS/2.
- PHS (Peripheral Handler Software) provides device handlers to the drivers to simplify application programming.
- Confidence Level Diagnostics (CLD) to assist in isolating problems to major replaceable units without involving the POS application. Additional information regarding the CLD is described in section 2.6.

The TeamPoS with TeamCOM is Microsoft Windows Hardware Compliant (WHC) when operated under Windows 95 or NT environments. Under DOS, only 4 total COM ports are accessible unless the Extended DOS driver is loaded. A TeamPoS 5000 with TeamCOM is NOT software compatible with a TeamPoS 5000 with OPC.

### 1.3 HARDWARE PRODUCT DESCRIPTION

### 1.3.1 HARDWARE CONFIGURATION

TeamPoS 5000 Control Unit is a styled enclosure containing an industry standard (25 & 33MHz 486 no longer produced) DX2-66 or DX4-100 486; or a 100, 133, 166, 266, or **300MHz** Pentium processor. Battery backup up to 10 minutes and a minimum of 4MB of memory on 486 or 8MB memory on a Pentium. The control unit is capable of Power-Save-Mode operation under control of its application software. If activated by the application, power to the POS peripherals will be removed and control unit power consumption is reduced. Some of the benefits that can be realised by Power-Save-Mode are: Power consumption for the customer is minimised; and increased life of the Control Unit and peripherals.

TeamPoS 5000 Control Unit capabilities include:

- Two PC serial ports
- One PC parallel port (dedicated to OPC)  
(Parallel port available in TeamCOM configuration)
- One mouse port
- One PC keyboard port
- One SVGA monitor port
- Buzzer (connected to PC Motherboard)
- Lead Acid battery
- 150w PSU, 115-220v
- OPC Configuration:  
OPC board with 64KB non-volatile CMOS memory  
(3 year lithium system battery and onboard 'Super Cap')  
7 RS232 POS Peripheral Ports with individual ports supplying  
+5VDC or +24VDC (8th port with optional cable)
- TeamCOM Configuration:  
TeamCOM board with 32KB non-volatile CMOS memory  
(3 year lithium system battery and onboard 'Super Cap')  
7 RS232 POS Peripheral Ports  
Ports selectable between OPC powered compatible  
or WHC (standard COM Port)
- Riser Card Options:  
ISA - 3 ISA Slots (standard)  
PCI Combo - 1 PCI & 1 shared ISA/PCI slot (Pentium only)
- HDD 210/270, 340, and 520MB, 1/1.2, 2, 4, 6, and **10GB** (option)  
(520MB Max on original 486)  
(Disks **<2.1GB** no longer available in production)  
(4, 6 and **10GB** on Pentium only)
- FDD 1.44MB, 3.5" (option)
- Access door lock (option)
- 10BaseT and 10Base2 LAN ISA bus cards (optional RPL Boot ROM)
- 10BaseT ISA bus internal Hub Card
- Memory Upgrades to 48MB/486, 64MB/PAC-2000, 128MB/PAK-2005
- 4, 8, 16 and 32MB SIMMs, (16, 32, 64, **128MB** DIMMs PAK-2005)

Displays:

- Model C90M CRT (9" VGA Monochrome) Stacked
- Model C90C CRT (9" VGA Color) Stacked (new replacement)
- Model C90MC CRT (9" VGA Monochrome) Dispersed
- Model C90CC CRT (9" VGA Color) Dispersed (new replacement)
- Model VF40 Customer/Operator Display (2x20)
- 2x20 Keyboard Embedded Operator VFD Display (only available on Model 92R keyboard)

Keyboards:

- Model 133PQ Windows NT compatible POS/PC Keyboard:
  - Choice of non-standard Keylock combinations
  - MSR Track 1/2 or 2/3 (new UIC replacements)
- Model 136P Windows NT compatible POS/PC Keyboard:
  - Choice of non-standard Keylock combinations
  - MSR Track 1/2 or 2/3 (new UIC replacements)
- Model 92R, non-stackable POS Keyboard:
  - Choice of non-standard Keylock Combinations
  - Vertical Keylock Orientation (horizontal is standard)
  - MSR Track 1/2 or 2/3
  - 2x20 VFD Display

Printers:

- Model FD20 (40/40/40) POS Printer
- Model FD21 (40/40/70) POS Printer
- Model E3S (TM-U930) Epson Printer (withdrawn by Epson)
- Epson TM-U925 Printer (Refer to Separate SPG, section 0.4)
- Epson TM-U950 Printer (Refer to Separate SPG, section 0.4)
- Epson TM-H5000 Printer (Refer to Separate SPG, section 0.4)
- Model ADT40 Thermal Receipt, Impact Slip Printer with optional MICR Check Reader (Refer to Separate SPG, section 0.4)
- Model AT93 Thermal Receipt Printer (Refer to Separate SPG, section 0.4)
- **Model A758 Thermal Receipt, Impact Slip Printer with optional MICR Check Reader (Refer to separate SPG, section 0.4)**
- **Model A794 Thermal Receipt Printer (Refer to Separate SPG, Section 0.4)**

Cash Drawers:

- Model TP10 or TP8 Cash Drawer (Maximum of 2) (TP10 Cash Drawer Last Time Buy, at end October 1997)
- NAF Cash Drawer
- Cassette style (ADS)

The FIC PAC-2000 Pentium Motherboard has been discontinued and will not support the GlobalStore software application. In the past to support this application, an (Intel) Pentium Motherboard version of the TeamPoS 5000 with TeamCOM has been used. This configuration is limited to a single customer in North America and has also been discontinued. The spare parts list has the unique part numbers for Intel.

The **initial release** of the FIC PAK-2005 Pentium Motherboard (**Version 1.1 REV-2**) replaced the PAC-2000 and the interim Intel version for GlobalStore application support. This board has an improved PCI chip set and it supports 100, 133 and 166MHz CPUs and higher performance system memory (DIMMs).

In June 1998 TeamPoS 5000 configurations (with an enhanced Motherboard Version 1.1 REV-3/4/5) were released that supported AMD 266MHz CPU and 4 and 6 GB hard disks. These configurations replaced all previous Pentium classed TeamPoS 5000 configurations.

This the latest release of TeamPoS 5000 configurations (with Motherboard Version 1.2) support AMD K6-2/300 CPUs, 128MB DIMMs and 10GB hard disk drives. Existing CPUs, memory, and hard disks will also be supported, but new configurations will limit memory and disk drive options. These enhancements are required to help bridge the gap between traditional PC and TeamPoS 5000 PC technology.

The new motherboard will support remote management functions, such as remote boot, remote diagnostics, etc. Remote management requires additional software, which will not be available at release. Availability of this software will be market driven and will be considered for a future release.

The new 10GB disk will have the same IDE interface and form factor as the existing 2, 4 and 6GB hard disks. This disk will also be available for field upgrades.

The trend in memory technology is towards DIMMs and away from SIMMs. This new release will support 16, 32, 64 and 128MB configurations.

Currently the maximum memory is 128MB with two 64MB DIMMs. Configurations with 128MB memory will now be available. These configurations will utilize a single DIMM. With the addition of a second DIMM, memory up to 256MB will be possible.

The following table shows the major features and displays the differences between the PAC-2000, **PAK-2005 Version 1.1** and **PAK-2005 Version 1.2** Motherboards.

Motherboard	PAC-2000	PAK-2005 version 1.1	<b>PAK-2005 version 1.2</b>
Manufacturer	FIC	Same	<b>Same</b>
Format	LPX	Same	<b>Same</b>
Core Logic	VIA Apollo VT82C575/5X	VIA Apollo VPII VT82C595 + VT82C586B	<b>Same</b>
Supported CPUs	Intel 90, 100, 133 and 166MHz	Intel 100, 133 & 166 AMD K6/266 (Note only tested CPUs listed)	<b>Intel 100, 133 &amp; 166 AMD K6/266 &amp; K6-2/300 (Note only tested CPUs listed)</b>
Max memory (MB)	128	128 (2 64MB DIMMS)	<b>256 (2 128MB DIMMS)</b>
Memory sockets	4 72 pin SIMM, Gold	2 72 pin SIMM, Gold 2 168 pin DIMM, Gold	<b>Same</b>
ECC memory support	No	Yes (DIMM only)	<b>Same</b>
Cache std/max.	256K/512K/1MB	256K/1MB	<b>Same</b>
Video controller	Cirrus FD 5434/36/40	S3 Trio64/DX	<b>Same</b>
Video memory std/Max.	1MB/2MB	Same	<b>Same</b>
Ports, standard	Keybaord/mouse/COM1/ COM2/Parallel/SVGA	Keybaord/mouse/COM1/CO M2/Parallel/SVGA	<b>Same</b>
Ports, Optional	None	USB (future)	<b>Same</b>
BIOS	Award	Same	<b>Same</b>
Interfaces	SVGA, Enhanced IDE	Same	<b>Same</b>
CPU fan kit	Socket 5 type	Socket 7 type	<b>Socket 7 type with larger heat sink</b>
Remote management support	No	No	<b>Yes</b>
Wake on LAN	No	No	<b>Yes(requires future PSU)</b>

The TeamPoS 5000 with PAK-2005 and TeamCOM board configurations will utilize the two-slot riser card. One slot is PCI only and the other supports PCI or ISA add-in cards. The three-slot ISA card will be available as an option for field installation. The TeamPoS 5000 with PAK-2005 configurations and OPC boards will utilize the existing three-slot ISA riser card. The two-slot riser card, standard on TeamCOM board configurations will be available as an option for field installation.

NOTE: The spared Pentium TeamCOM Upgrade Kit (P/N=80329510 and PIN#=PB600166) that contained a TeamCOM board, ISA Riser and misc. H/W is being withdrawn. A new TeamCOM Kit (P/N=80602156 and PIN#=PB600444) containing a TeamCOM Board and misc. H/W only is being introduced. When upgrading to TeamCOM the TeamCOM Kit and choice of Riser Card is needed.

The TeamPoS 5000 with TeamCOM will now support OPC operation. The following table shows the jumper configuration and CMOS BIOS setting needed for the TeamCOM board depending on the mode of operation. A new driver is also required (Refer to Support Bulletin PSB-98-016B for driver information). Refer to appendix G for the TeamCOM board layout and jumper locations.

TeamCOM Mode	Mode Jumper	Parallel Port Jumper	IRQ	CMOS BIOS setting for Parallel Port on the Motherboard
MCP	MCP	n/a	5	378/IRQ7
OPC	OPC	0378H	7	278/IRQ5

A new cost reduced TeamCOM board will be available prior to release of the items in this SPG update. The new TeamCOM board has no technical fit, form or function implications. Due to the reduced cost differential between the new TeamCOM and OPC board, no TeamPoS 5000 configurations with OPC boards will be released. All units will be manufactured with the jumper set for TeamCOM mode. If OPC mode is required, it must be set during staging/customisation or at installation. As is currently the case with TeamCOM boards, the PCI riser card will be standard. It provides one PCI and one shared PCI/ISA slot. The 3-slot ISA card will be available as an option for installation during staging, customisation or installation.

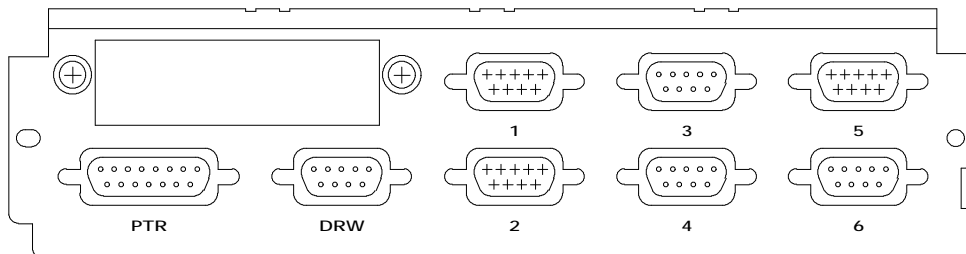
When servicing the TeamPoS 5000 - Pentium, the PAK-2005 Motherboard can be used as a replacement for the PAC-2000 Motherboard, providing the differences are accommodated (list below). However, because there could be a noticeable performance improvement with the PAK-2005 over the PAC-2000, the PAC-2000 cannot be a replacement for the PAK-2005. Additionally the PAK-2005 offers a USB (Universal Serial Bus) interface option. The PAC-2000 does not.

When replacing a PAC-2000 Motherboard with a PAK-2005 Motherboard the CPU and SIMM memory must be removed from the old Motherboard and installed on the new Motherboard. The PAK-2005 CPU fan/heat-sink kit (socket 7 style) is different than the PAC-2000 fan/heat-sink kit (socket 5 style). The PAC-2000 CPU fan/heat-sink must be replaced. It should also be noted that the PAC-2000 Motherboard has 4 SIMM slots, the PAK-2005 Motherboard has 2 SIMM and 2 DIMM slots. Both SIMM and DIMM memory cannot be installed simultaneously. In situations where there are more than 2 SIMMs installed on a PAC-2000 Motherboard, higher density SIMMs or DIMMs may be required and the old SIMMs may not be useable.

With the release of the new PAK-2005 (Version 1.2) Motherboard a new fan/heat-sink assembly (p/n-80602243/PIN-PB600540) is required for the 300MHz CPU configurations. The CPU running at 300MHz includes the Intel Pentium MMX instruction set plus additional graphic instructions. The higher speed produces more CPU internal heat. To compensate for the additional heat, the larger CPU heat sink is required. This new fan/heat-sink assembly is compatible with all previously released Intel CPUs (100, 133, and 166MHz) and also the AMD 266MHz CPU.

The new motherboard (PAK 2005 Version 1.2) will be cut-in immediately for all 300MHz configurations. The existing stock of Motherboards (PAK 2005 Version 1.1) will be used up, once depleted, the new board will be cut-in for all Pentium class TeamPoS 5000 configurations.

Below is an illustration of the rear connector panel on the TeamPoS 5000 (either OPC or TeamCOM). The typical connections listed are dependent upon the application and may differ between customer configurations.



Port	Typical Use
PTR	POS Printer
DRW	Cash Drawer
1	Scale
2	Scanner
3	Pole Display
4	POS Keyboard
5	Spare
6	Spare

IMPORTANT NOTES:

1. The TeamPoS Select PC and TeamPoS 5000 are not necessarily shipped as a fully configured system. The hard disk drive, floppy disk drive, LAN card, memory and other options may need to be installed by the receiving CS organisation.
  
2. With the original 486 Motherboard installed, the Floppy Disk Drive (FDD) connects to the 'A' port on the FDD cable (labeled 'FDDA'). With the new 486 or Pentium Motherboard, the FDD will connect to the 'B' port on the cable (labeled 'Fddb'). All CMOS settings and configurations are the same (Floppy A installed as 1.44MB 3.5" floppy). In both cases, the FDD is setup as an 'A' drive and is bootable.
  
3. When the Pentium Motherboard is used with a 210MB HDD, the CMOS setup (BIOS setting) must be set for Mode 1. If this is not set correctly, the system will not boot-up properly and the disk will appear to be corrupted. At this point, there has been no data corruption. However if ANY attempt is made to write to the disk, the entire disk is now unusable and must be low-level formatted to recover. This formatting will loose all data stored on the disk.
  
4. Hot Plugging (connecting or disconnecting) external devices to the control slice, specifically the OPC or TeamCOM board is strictly prohibited. This is known to cause hardware failure and/or blown fuses. This would be considered an operator or field technician induced failure. This action would not be a reliability issue and should not be considered when calculating MTBF's

1.3.2 UNIT DIMENSIONS

Description	Width	Depth	Height	Weight
TeamPoS 5000 Control Unit	450.0mm	500.0mm	97.0mm	12.60Kg
TeamPoS Select OPC5	285.0mm	181.2mm	62.0mm	2.00Kg
TeamPoS Select OPC8	285.0mm	205.0mm	62.0mm	2.00Kg
Model 133PQ Keyboard	450.0mm	202.0mm	42.0mm	1.91Kg
Model 136P Keyboard	450.0mm	202.0mm	42.0mm	1.93Kg
Model 92R Keyboard	386.0mm	140.0mm	58.0mm	2.00Kg
Model 92R with MSR	405.5mm	140.0mm	80.0mm	2.11Kg
Model 92R with vertical keylk	429.0mm	140.0mm	70.0mm	2.14Kg
Model 92R with vert keylk/MSR	447.0mm	140.0mm	80.0mm	2.25Kg
Model VF40 Display	270.0mm	60.0mm	113.0mm	1.70Kg
TeamPoS 5000 Model C90M CRT	249.0mm	299.0mm	264.0mm	4.16Kg
TeamPoS 5000 Model C90C CRT	280.0mm	308.0mm	318.0mm	4.16Kg
TeamPoS Family C90MD CRT	249.0mm	250.0mm	230.0mm	3.80Kg
TeamPoS Family C90CD CRT	249.0mm	250.0mm	230.0mm	3.80Kg

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FD20 and FD21 Printer	251.0mm	298.0mm	197.0mm	6.00Kg
E3S Printer	251.0mm	298.0mm	197.0mm	6.00Kg
TP10 or TP8 Cash Drawer	450.0mm	501.0mm	123.0mm	13.80Kg
NAF Cash Drawer	454.0mm	353.0mm	92.0mm	TBD
Cash Drawer (9520A)	480.0mm	530.0mm	123.0mm	13.80Kg

### 1.3.3 RELIABILITY

In order for customer service organisations to be more competitive in bidding against other suppliers, it is important to understand the variables that affect the expected number of Failures Per Year (FPY) for a TeamPoS family terminal. Some of these variables to be considered on a per customer basis include:

- The peripherals used in the configuration
- The year-long, average use of the terminal components based upon power-on hours, and transaction throughput
- Transaction characteristics based upon the POS application and customer transaction profile.

"Average" needs to reflect usage if averaged over a 12-month period, not peak transaction periods such as the Pre-Christmas shopping season. It is also important to consider the impact of the number of checkout lanes in determining the average number of failures per store. Stores with a large number of checkout lanes have some "busy" terminals experience a higher FPY than "idle" lanes that are only used occasionally. With these considerations in mind, GPG has provided the customer service manager "raw" MTBF data and a worksheet so that the correct variables can be taken into account when calculating the AVERAGE hardware failures per year for your specific customer.

Components whose FPY are affected by power-on hours:

Assembly	MTBF
TP5K PAK-2005 w/o CPU/SIMMs	100,000 Hours
TeamPoS 5000 Motherboard W CPU	140,000 Hours
TeamPoS 5000 Power Supply Unit	25,000 Hours
TeamPoS Select PC (486SX)	15,000 Hours
HDD	300,000 Hours
FDD	120,000 Hours
TeamPoS OPC Controller	107,000 Hours
TeamPoS TeamCOM Controller	TBD (assume same as OPC)
TeamPoS Select OPC PSU	150,000 Hours
LAN Card	100,000 Hours
S18 Emulator Board for TeamPoS	100,000 Hours

Components whose FPY power-on hours are significantly impacted if Power-Save-Mode operation is implemented:

Assembly	MTBF
C90 CRT (Mono or Color)	5,000 Hours ***
VF40 Display	100,000 Hours

Components whose FPY are effected by mechanical usage:

Assembly	MTBF
Keyboard	8,000,000 Depressions
Keylock	50,000 Cycles
MSR	300,000 Passes
FD20/21, or Epson U930 Printer	5,000,000 Lines
TP10 Cash Drawer (withdrawn, Oct 1997)	1,000,000 Cycles
TP8 Cash Drawer	1,000,000 Cycles

\*\*\* NOTE: We have received an updated clarification of the expected failure rate (MTBF) for the Action Monitors. Previously documented to be 25,000 hours the new documentation specifies 30,000 hours for the Monitor and 6,000 for the CRT. After calculating MTBF the figure is now 5,000 hours. Shutting down the CRT under software control will greatly increase the life of the Monitor.

See Appendix A for FPY Worksheet.

## 2.0 RESOURCES

### 2.1 INTRODUCTION

This section estimates the needs for the CS Support Organisation for documentation, service aids, sparing, training and personnel to support TeamPoS family.

### 2.2 SKILLS REQUIREMENTS

#### 2.2.1 CUSTOMER SERVICE REPRESENTATIVES

General understanding is required of Intel-based PC components and working knowledge of I/O Card installation and MS-DOS, OS/2, Windows 95 and Windows NT. Prior experience and knowledge of POS terminals and their associated peripherals is also recommended. Familiarity with Confidence Level Diagnostics and commercial off-the-shelf PC diagnostics is desired.

#### 2.2.2 CONSULTANTS/PROJECT MANAGERS

Good working knowledge of PCs, MS-DOS, OS/2, Windows 3.x, Windows 95, Windows NT and specific application experience is assumed.

### 2.3 TRAINING

No product specific training is planned at this time. GPG Sustaining Engineering will assist with training of trainers and senior personnel upon request and receipt of an educational plan.

## 2.4 TECHNICAL PUBLICATIONS

Manual	PIN
TeamPoS Reference Manual	40313/003
TeamPoS PHS Reference Manual	45887/001
PHS Software, w/Documentation, w/LAN card info	50076/001

## 2.5 SPARES

It is assumed that countries will spare TeamPoS at the ORU level although some countries may choose to have the CS representative replace major assemblies (i.e. CRTs, Keyboards, Printers, etc.) and perform the ORU level repair at a local depot. Other countries may elect to perform the ORU level repair on-site by the CS person. The spares listing takes these two service methods into consideration.

Spares will be stocked at the Service logistics Distribution Centre Stevenage, and in the North America Logistics Center (Dallas).

Memory SIMMs on the Pentium Motherboard must be installed in matched pairs (ex. For 8M, install 2 4M SIMMs not a single 8M SIMM). For further details, refer to the TeamPoS Service Reference Manual.

### GENERAL CAUTIONARY NOTE:

When replacing Memory SIMMs/DIMMs, care must be taken when selecting the memory type. SIMMs/DIMMs and SIMM/DIMM sockets of different metal types MUST NEVER BE MIXED. Mixing SIMMs/DIMMs and sockets of differing metals will severely impact long-term reliability. At this time, all released versions of TeamPoS 5000 Motherboards have Gold Plated sockets and all SIMMs/DIMMs listed below are specified as Gold Plated.

- Gold Plated sockets, MUST have Gold Plated SIMMs/DIMMs
- Tin Plated sockets, MUST have Tin Plated SIMMs/DIMMs

An early version (pre-production) of the TeamCOM board was released to some customers for limited use. If one of these early boards should fail or for any reason have to be removed from the TeamPoS Terminal. It should be replaced with the production version. The pre-production version should be discarded.

Pre-Production TeamCOM (Non-ASIC)	80329713	Withdrawn
Production TeamCOM (ASIC)	80329504	

## 2.5.1 SPARES LIST

The following spares list includes major assemblies and ORUs. Items that have changed since the last SPG update are in **BOLD**. Items that are labelled 'Withdrawn' are no longer offered from sales but may still need to be supported in existing installations. For completeness and ease of exporting for other uses, all items are contained in this list even though they may also be shown elsewhere in this document.

<u>TEAMPOS 5000 CONTROLLER CONFIGURATIONS</u>	<u>SUPPLIER P/N</u>	<u>P/N</u>	<u>PIN</u>	<u>COMMENTS</u>
Generic TeamPoS 5000 Packaging	Factory Only	80602307	PB600481	
Base 486, w Motherboard, NoCPU, NoMemory, NoDisk		80303344	56778/001	Withdrawn
Base 486, with EC PSU		80316976	PB600026	Withdrawn
Base 486, no CPU, TeamCOM		80329554	PB600160	Withdrawn
Base 486, no CPU, TeamCOM, with EC PSU		80329555	PB600161	Withdrawn
Base PAC2000 OPC, NoCPU, NoMemory, NoDisk		80215503	PB600009	Withdrawn
Base PAC2000 TC, NoCPU, NoMemory, NoDisk		80329509	PB600162	Withdrawn
<b>Base PAK2005 OPC, NoCPU, NoMemory, NoDisk, ISA</b>		<b>80602130</b>	<b>PB600456</b>	<b>Withdrawn</b>
<b>Base PAK2005 TC, NoCPU, NoMemory, NoDisk, PCI</b>		<b>80328971</b>	<b>PB600412</b>	<b>Withdrawn</b>
Base Pent TeamCOM Chassis, no MB	Factory Only	80602380	PB600479	
Base Pent OPC Chassis, no MB	Factory Only	80602306	PB600480	<b>Withdrawn</b>
486/25/4M, No FDD, No HDD		80303304	51400/001	Withdrawn
486/25/8M, No FDD, No HDD		80303305	51400/002	Withdrawn
486/25/16M, No FDD, No HDD		80303306	51400/003	Withdrawn
486/25/4M/210MB		80303307	56712/001	Withdrawn
486/25/8M/210MB		80303308	56712/002	Withdrawn
486/25/16M/210MB		80303309	56712/003	Withdrawn
486/25/4M/340MB		80303705	56712/007	Withdrawn
486/25/8M/340MB		80303706	56712/008	Withdrawn
486/25/16M/340MB		80303707	56712/009	Withdrawn
486/25/4M/520MB		80303708	56712/010	Withdrawn
486/25/8M/520MB		80303709	56712/011	Withdrawn
486/25/16M/520MB		80303710	56712/012	Withdrawn
486/33/4M, No FDD, No HDD		80303953	59189/001	Withdrawn
486/33/8M, No FDD, No HDD		80303954	59189/002	Withdrawn
486/33/16M, No FDD, No HDD		80303955	59189/003	Withdrawn
486/33/4M/210MB		80303956	59189/004	Withdrawn
486/33/8M/210MB		80303957	59189/005	Withdrawn
486/33/16M/210MB		80303958	59189/006	Withdrawn
486/33/4M/340MB		80303959	59189/007	Withdrawn
486/33/8M/340MB		80303960	59189/008	Withdrawn
486/33/16M/340MB		80303961	59189/009	Withdrawn
486/33/4M/520MB		80303962	59189/010	Withdrawn
486/33/8M/520MB		80303963	59189/011	Withdrawn
486/33/16M/520MB		80303964	59189/012	Withdrawn
486/66/4M, No FDD, No HDD		80316625	53691/001	Withdrawn
486/66/8M, No FDD, No HDD		80316626	53691/002	Withdrawn
486/66/16M, No FDD, No HDD		80316627	53691/003	Withdrawn
486/66/4M, No FDD, No HDD, with EC PSU		80316979	PB600018	Withdrawn
486/66/8M, No FDD, No HDD, with EC PSU		80316980	PB600019	Withdrawn
486/66/16M, No FDD, No HDD, with EC PSU		80316981	PB600020	Withdrawn
486/66/4M/210MB		80316628	53691/004	Withdrawn
486/66/8M/210MB		80316629	53691/005	Withdrawn
486/66/16M/210MB		80316630	53691/006	Withdrawn
486/66/4M/340MB		80316631	53691/007	Withdrawn
486/66/8M/340MB		80316632	53691/008	Withdrawn
486/66/16M/340MB		80316633	53691/009	Withdrawn
486/66/4M/520MB		80316634	53691/010	Withdrawn

486/66/8M/520MB	80316635	53691/011	Withdrawn
486/66/16M/520MB	80316636	53691/012	Withdrawn
486/66/4M/1.0-1.2GB	80328182	PB600050	Withdrawn
486/66/8M/1.0-1.2GB	80316972	PB600016	Withdrawn
486/66/16M/1.0-1.2GB	80316973	PB600017	Withdrawn
486/66/4M/520MB, with EC PSU	80316982	PB600021	Withdrawn
486/66/8M/520MB, with EC PSU	80316983	PB600022	Withdrawn
486/66/16M/520MB, with EC PSU	80316984	PB600023	Withdrawn
486/66/4M/1.0-1.2GB, with EC PSU	80328183	PB600105	Withdrawn
486/66/8M/1.0-1.2GB, with EC PSU	80316985	PB600024	Withdrawn
486/66/16M/1.0-1.2GB, with EC PSU	80316986	PB600025	Withdrawn
486/100/4M, No FDD, No HDD	80329618	PB600167	Withdrawn
486/100/8M, No FDD, No HDD	80329619	PB600168	Withdrawn
486/100/16M, No FDD, No HDD	80329620	PB600169	Withdrawn
486/100/4M, No FDD, No HDD, with EC PSU	80329649	PB600191	Withdrawn
486/100/8M, No FDD, No HDD, with EC PSU	80329650	PB600192	Withdrawn
486/100/16M, No FDD, No HDD, with EC PSU	80329651	PB600193	Withdrawn
486/100/4M/1.0-1.2GB	80329621	PB600170	Withdrawn
486/100/8M/1.0-1.2GB	80329622	PB600171	Withdrawn
486/100/16M/1.0-1.2GB	80329623	PB600172	Withdrawn
486/100/4M/1.0-1.2GB, with EC PSU	80329652	PB600194	Withdrawn
486/100/8M/1.0-1.2GB, with EC PSU	80329653	PB600195	Withdrawn
486/100/16M/1.0-1.2GB, with EC PSU	80329654	PB600196	Withdrawn
486/100/4M/2.0GB	80329624	PB600176	Withdrawn
486/100/8M/2.0GB	80329625	PB600177	Withdrawn
486/100/16M/2.0GB	80329626	PB600178	Withdrawn
486/100/4M/2.0GB, with EC PSU	80329655	PB600200	Withdrawn
486/100/8M/2.0GB, with EC PSU	90329656	PB600201	Withdrawn
486/100/16M/2.0GB, with EC PSU	80329657	PB600202	Withdrawn
486/100/4M, No FDD, No HDD/TC	80329667	PB600179	Withdrawn
486/100/8M, No FDD, No HDD/TC	80329668	PB600180	Withdrawn
486/100/16M, No FDD, No HDD/TC	80329669	PB600181	Withdrawn
486/100/4M, No FDD, No HDD/TC, with EC PSU	80329685	PB600203	Withdrawn
486/100/8M, No FDD, No HDD/TC, with EC PSU	80329686	PB600204	Withdrawn
486/100/16M, No FDD, No HDD/TC, with EC PSU	80329687	PB600205	Withdrawn
486/100/4M/1.0-1.2GB/TC	80329670	PB600182	Withdrawn
486/100/8M/1.0-1.2GB/TC	80329671	PB600183	Withdrawn
486/100/16M/1.0-1.2GB/TC	80329672	PB600184	Withdrawn
486/100/4M, FDD,1.0-1.2GB/TC,with EC PSU	80329688	PB600206	Withdrawn
486/100/8M,FDD,1.0-1.2GB/TC,with EC PSU	80329689	PB600207	Withdrawn
486/100/16M,FDD,1.0-1.2GB/TC,with EC PSU	80329690	PB600208	Withdrawn
486/100/4M/2.0GB/TC	80329673	PB600188	Withdrawn
486/100/8M/2.0GB/TC	80329674	PB600189	Withdrawn
486/100/16M/2.0GB/TC	80329675	PB600190	Withdrawn
486/100/4M/2.0GB/TC, with EC PSU	80329691	PB600212	Withdrawn
486/100/8M/2.0GB/TC, with EC PSU	80329692	PB600213	Withdrawn
486/100/16M/2.0GB/TC, with EC PSU	80329693	PB600214	Withdrawn
P100/8M, No FDD, No HDD	80316896	PB600001	Withdrawn
P100/16M, No FDD, No HDD	80316897	PB600002	Withdrawn
P100/8M/520MB	80316920	PB600003	Withdrawn
P100/16M/520MB	80316898	PB600004	Withdrawn
P100/32M/520MB	80328109	PB600084	Withdrawn
P100/8M/1.0-1.2GB	80316899	PB600005	Withdrawn
P100/16M/1.0-1.2GB	80316900	PB600006	Withdrawn
P100/32M/1.0-1.2GB	80328111	PB600085	Withdrawn
P100/8M/2.0GB	80602115	PB600422	Withdrawn
P100/16M/2.0GB	80602116	PB600423	Withdrawn
P100/32M/2.0GB	80602117	PB600424	Withdrawn
P133/8M, No FDD, No HDD	80329556	PB600228	Withdrawn

P133/16M, No FDD, No HDD	80329557	PB600229	Withdrawn	
P133/32M, No FDD, No HDD	80329558	PB600230	Withdrawn	
P133/8M/1.0-1.2GB	80329559	PB600231	Withdrawn	
P133/16M/1.0-1.2GB	80329560	PB600232	Withdrawn	
P133/32M/1.0-1.2GB	80329561	PB600233	Withdrawn	
P133/8M/2.0GB	80329565	PB600237	Withdrawn	
P133/16M/2.0GB	80329566	PB600238	Withdrawn	
P133/32M/2.0GB	80329567	PB600239	Withdrawn	
P133/8M, No FDD, No HDD/TC	80329526	PB600215	Withdrawn	
P133/16M, No FDD, No HDD/TC	80329528	PB600216	Withdrawn	
P133/32M, No FDD, No HDD/TC	80329530	PB600217	Withdrawn	
P133/8M/1.0-1.2GB/TC	80329532	PB600218	Withdrawn	
P133/16M/1.0-1.2GB/TC	80329534	PB600219	Withdrawn	
P133/32M/1.0-1.2GB/TC	80329536	PB600220	Withdrawn	
P133/8M/2.0GB/TC	80329544	PB600224	Withdrawn	
P133/16M/2.0GB/TC	80329546	PB600225	Withdrawn	
P133/32M/2.0GB/TC	80329548	PB600226	Withdrawn	
P166/16M/1.0-1.2GB	80329636	PB600287	Withdrawn	
P166/32M/1.0-1.2GB	80329637	PB600289	Withdrawn	
P166/16M/2.0GB	80329641	PB600304	Withdrawn	
P166/32M/2.0GB	80329642	PB600288	Withdrawn	
P166/8M, No FDD, No HDD/TC	80329580	PB600241	Withdrawn	
P166/16M, No FDD, No HDD/TC	80329581	PB600242	Withdrawn	
P166/32M, No FDD, No HDD/TC	80329582	PB600243	Withdrawn	
P166/8M/1.0-1.2GB/TC	80329583	PB600244	Withdrawn	
P166/16M/1.0-1.2GB/TC	80329584	PB600245	Withdrawn	
P166/32M/1.0-1.2GB/TC	80329585	PB600246	Withdrawn	
P166/8M/2.0GB/TC	80329586	PB600247	Withdrawn	
P166/16M/2.0GB/TC	80329587	PB600248	Withdrawn	
P166/32M/2.0GB/TC	80329588	PB600249	Withdrawn	
P166PK2005/8M/No HDD, TC, PCI	80328983	PB600408	Withdrawn	
P166PK2005/16M/No HDD, TC, PCI	80328972	PB600375	Withdrawn	
P166PK2005/16M/2.0GB, TC, PCI	80328973	PB600376	Withdrawn	
P166PK2005/32M/2.0GB, TC, PCI	80328974	PB600377	Withdrawn	
P166PK2005/64M/2.0GB, TC, PCI	80328975	PB600378	Withdrawn	
P166PK2005/8M/No HDD, OPC	80602109	PB600427	Withdrawn	
P166PK2005/8M/2.0GB, OPC	80602110	PB600428	Withdrawn	
P166PK2005/16M/2.0GB, OPC	80602111	PB600429	Withdrawn	
P166PK2005/32M/2.0GB, OPC	80602112	PB600430	Withdrawn	
P166PK2005/16M/TC/PCI	Sales Config Only	n/a	PB600482	
P166PK2005/16M/2.0GB/TC/PCI	Sales Config Only	n/a	PB600483	
P166PK2005/32M/4.0GB/TC/PCI	Sales Config Only	n/a	PB600484	
P166PK2005/16M/OPC	Sales Config Only	n/a	PB600487	Withdrawn
P166PK2005/16M/2.0GB/OPC	Sales Config Only	n/a	PB600488	Withdrawn
P166PK2005/32M/4.0GB/OPC	Sales Config Only	n/a	PB600489	Withdrawn
P166PK2005/32M/6.0GB/OPC	Sales Config Only	n/a	PB600490	Withdrawn
<b>P166PK2005/32M/2GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600514</b>	
<b>P166PK2005/64M/2GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600515</b>	
<b>P166PK2005/32M/2GB/OPC</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600516</b>	Withdrawn
<b>P166PK2005/32MB/6GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600565</b>	
<b>P166P1.2/32M/2GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600545</b>	
<b>P166P1.2/32M/4GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600579</b>	
K6-266/32M/TC/PCI	Sales Config Only	n/a	PB600485	
K6-266/32M/2GB/TC/PCI	Sales Config Only	n/a	PB600486	
K6-266/64M/6GB/TC/PCI	Sales Config Only	n/a	PB600474	
<b>K6-266/64M/2GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600513</b>	
<b>K6-266P1.2/16M/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600544</b>	
<b>K6-266P1.2/64M/4GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600580</b>	
<b>K6-266P1.2/16M/2GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600546</b>	

TeamPoS SERIES TERMINALS

<b>K6-266P1.2/32M/4GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600547</b>	
<b>K6-266P1.2/64M/10GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600549</b>	
<b>K6-266PK2005/32MB/2GB/OPC</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600567</b>	<b>Withdrawn</b>
<b>K6-300P1.2/32M/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600550</b>	
<b>K6-300P1.2/128M/10GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600552</b>	
<b>K6-300P1.2/64M/10GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600581</b>	
<b>K6-300P1.2/128M/4GB/TC/PCI</b>	<b>Sales Config Only</b>	<b>n/a</b>	<b>PB600589</b>	
Pentium 100Mhz, CPU Kit (includes HS & Fan), PAC-2000		80316926	PB600013	Withdrawn
Pentium 133Mhz CPU Kit (includes HS & Fan), PAC-2000		80328201	PB600164	Withdrawn
Pentium 166Mhz CPU Kit (includes HS & Fan), PAC-2000		80329589	PB600240	Withdrawn
Pentium 166Mhz CPU Kit (includes HS & Fan), PAK-2005 1.1		80602127	PB600445	
486SX to 486DX2-66 Upgrade Kit		80316902	PB600008	Withdrawn
486SX to 486DX4-100 Upgrade Kit		80329732	PB600251	Withdrawn
486DX2-66, 3.3V CPU Kit, with HeatSink		80316964	PB600027	Withdrawn
486DX4-100, 3.3V CPU Kit, with HeatSink		80329551	PB600163	Withdrawn
486 OPC to TC Upgrade Kit (TC, ISA Riser, Misc H/W) (486DX4 only)		80329731	PB600165	
Pentium OPC to TeamCOM Upgrade Kit (TC, ISA Riser, Misc H/W)		80329510	PB600166	Withdrawn
Pentium TeamCOM Upgrade Kit (TeamCOM & Misc H/W)		80602156	PB600444	
486 OPC to P100 OPC Upgrade Kit (MB,CPU,ISA Riser)		80316901	PB600007	Withdrawn
486 OPC to P133 OPC Upgrade (MB,CPU,ISA Riser)		80329603	PB600227	Withdrawn
486 OPC to P166 OPC Upgrade (MB,CPU,ISA Riser)		80328198	PB600250	Withdrawn
<b>Video RAM Kit, 1M, PAK-2005</b>		<b>80602345</b>	<b>PB600529</b>	

**Special TeamPoS 5000 TeamCOM GlobalStore Configuration, with Intel Pentium Motherboard**

Base Intel Pentium TeamCOM TeamPoS, No CPU		80329705	PB600283	Withdrawn
Intel P166/32M/2.0GB, TeamCOM		80329708	PB600284	Withdrawn
Intel P166/32M/2.0GB, TeamCOM, PCI			PB600308	Withdrawn
Intel Pentium MB Assy, with Bracket		80329704	n/a	Withdrawn
Intel Pentium Motherboard		80329703	n/a	Withdrawn
SIMM, 16Mx9, 70ns, Tin Plated		80329714	n/a	Use on Intel MB Only
SIMM, 16M EDO, 72Pin			PB600309	Withdrawn

**TEAMPOS SELECT CONFIGURATIONS**

486/25/4M, No Disk, 240V		86023964	50767/001	Withdrawn
486/25/4M/210MB, 240V		n/a	50767/005	Withdrawn
486/25/4M, No Disk, 115V		86023965	51216/001	Withdrawn
486/25/4M/210MB, 115V		n/a	51216/005	Withdrawn
OPC8, w 115V PSU, w Parallel Cable		n/a	PB000/011	<b>Withdrawn</b>
OPC8, w 240V PSU, w Parallel Cable		n/a	PB000/012	<b>Withdrawn</b>
OPC Mounting Bracket		80203574	57202/001	<b>Withdrawn</b>

**TEAMPOS 5000 PARTS**

PC Motherboard w/o CPU, w/o Memory, w/o Bracket		80214636	PB000/015	Withdrawn
PC Motherboard w/o CPU, w/o Memory, w Bracket		80316664	n/a	Withdrawn
PC Motherboard,25Mhz CPU, w/oMemory, wBracket		80303302	PB000/019	Withdrawn
CPU Kit, 486SX-25SL, 5VDC w Label		80213426	PB000/016	Withdrawn
PC Motherboard,33Mhz CPU, w/oMemory, wBracket		80303949	PB000/020	Withdrawn
CPU Kit, 486SX-33SL, 5VDC w Label		80213437	PB000/017	Withdrawn
PC Motherboard,66Mhz CPU, w/oMemory, wBracket		80303950	PB000/021	Withdrawn
CPU Kit, 486DX2-66SL, 5VDC w Label, w HeatSink		80316691	PB000/018	Withdrawn
66MHz DX2 Upgrade Kit (Intel)		80316183	PB000/099	Withdrawn
Pentium Motherboard w/o CPU/Memory, w Bracket		80316893	n/a	Withdrawn
Pentium Motherboard w/o CPU/Memory, w/o Bracket		80215502	n/a	Withdrawn
P2005 Motherboard w/o CPU/Memory, w Bracket		80328970	n/a	Withdrawn
P2005 Motherboard w/o CPU/Memory, w/o Bracket		80328280	n/a	Withdrawn
P2005 1.1 MB K6-266 Support,w/o CPU/Mem/Bracket		80602302	PB600471	
<b>P2005 1.2 MB K6-300 Support,w/o CPU/Mem/Bracket</b>		<b>80602376</b>	<b>PB600542</b>	
Mounting Plate (Pentium or 486)	CA31153-E601	80316924	n/a	
Insulator Sheet	CA31153-Y618	80215576	n/a	

<b>Pentium K6-300Mhz CPU</b>		<b>80602392</b>	<b>PB600541</b>	
Pentium K6-266Mhz CPU		80602092	PB600469	
Pentium 166Mhz CPU		80215516	PB600380	
Pentium 133Mhz CPU		80328199	n/a	Withdrawn
<b>Pentium 100Mhz CPU</b>		<b>80212808</b>	<b>PB600511</b>	<b>Withdrawn</b>
Pentium HeatSink & Fan Assy, PAC-2000		80316967	n/a	Withdrawn
<b>Pentium HeatSink &amp; Fan Assy, PAK-2005 1.1</b>		<b>80602114</b>	<b>PB600478</b>	<b>Withdrawn</b>
<b>Pentium HeatSink &amp; Fan Assy, PAK-2005 1.2</b>		<b>80602243</b>	<b>PB600540</b>	
486/DX2/DX4 Motherboard w/oCPU/Memory/Bracket		80215501	n/a	Withdrawn
Mounting Plate (old or new 486)		80213353	n/a	Withdrawn
486DX4-100, 3.3V CPU		80329550	n/a	Withdrawn
486DX2-66, 3.3V CPU		80215559	n/a	Withdrawn
Heatsink for 486 CPU		80214694	n/a	Withdrawn
Heatsink Pad for 486 CPU		80212243	n/a	Withdrawn
<b>BIOS, 486/DX2/DX4, Y2K</b>		<b>80602325</b>	<b>PB600524</b>	
486 ISA Bus 3 Slot Riser Card	CA20185-B01X	88836533	n/a	Withdrawn
486 ISA Bus 3 Slot Riser Card, with Diode & -5V Trace		88836543	n/a	Withdrawn
486 ISA Riser Card, (for 486/DX2/DX4 only)		88836545	n/a	Withdrawn
486/TeamCOM Riser Card, 3 ISA	CA05950-0056	88836552	PB600496	
Pentium ISA Bus 3 Slot Riser Card		88836546	n/a	
Pentium/TeamCOM Riser Card, 3 ISA	CA21202-B40x	80329505	PB600443	
Pentium/TeamCOM Riser Card, 1 PCI & 1ISA/PCI	CA05950-0057	88836553	PB600338	
Cable, Riser to TeamCOM		80329507	n/a	
PSU 110-240V	CA02951-2050	80213366	n/a	Withdrawn
PSU, 110-240V, EC Compliant	CA02951-4180	80215544	PB600074	
Operator Panel Board	CA20185-B51X	88836534	n/a	
<b>TeamCOM Controller PWA, FJ Built</b>	<b>CA05031-D100</b>	<b>80329504</b>	<b>PB600442</b>	
<b>TeamCOM Controller PWA, Celestica Built</b>		<b>88836556</b>	<b>PB600442</b>	
TeamCOM Replaceable Fuse		80329616	n/a	
Hot Plug Warning Label		80316862	n/a	
Firmware - TC Rev 003AC	8004	n/a	n/a	Obsolete
Firmware - TC Rev 004AC - CMOS Cksm Error	8005	80602180	n/a	
TeamCOM Insulator Sheet		80329508	n/a	
Blanking Panel, TeamCOM, (Cover OPC Parallel Port Hole)		80329506	n/a	
TeamCOM Label		80329511	n/a	
OPC8 Board Assembly w Bracket	CA98001-4185	88836532	n/a	Withdrawn
OPC8 Board Assembly w Bracket (replaceable fuses and CMOS Corruption fix)		88836544	n/a	<b>Withdrawn</b>
Replaceable Fuse, 3.15A, F1 & F2, (D544 only)		80215294	n/a	<b>Withdrawn</b>
OPC8 Firmware, 2.0.6		80316783	n/a	<b>Withdrawn</b>
Hot Plug Warning Label		80316862	n/a	
SIMM, 4Mx9, 70ns, Gold Plated		80212839	58325/001	Withdrawn
SIMM, 8Mx8, 70ns, Gold Plated		80328155	PB600115	
SIMM, 16Mx9, 70ns, Gold Plated		80213565	58611/001	
SIMM, 32Mx9, 70ns, Gold Plated		80328982	PB600333	
DIMM, 16MB, 100MHz, Gold Plated		80602133	PB600447	
DIMM, 32MB, 100MHz, Gold Plated		80328982	PB600448	
DIMM, 64MB, 100MHz, Gold Plated		80602134	PB600449	
<b>DIMM, 128MB, 100MHz, Gold Plated</b>		<b>80602383</b>	<b>PB600539</b>	
FDD 3.5", 1.44MB		80061209	50017/001	
HDD, 210MB		80212789	52075/004	Withdrawn
HDD, 270MB		80212792	52075/004	Withdrawn
HDD, 270MB		80215462	52075/004	Withdrawn
HDD, 340MB		80212566	54538/001	Withdrawn
HDD, 340MB		80215463	54538/001	Withdrawn
HDD, 520MB		80212750	54515/001	Withdrawn
HDD, 520MB		80215464	54515/001	Withdrawn
HDD, 1.0GB (Pentium & 486-DX2/DX4 Only)		80215517	PB600010	Withdrawn
HDD, 1.2GB (Pentium & 486-DX2/DX4 Only)		80328181	PB600010	Withdrawn
HDD, 2.0GB (Pentium & 486-DX2/DX4 Only)		80329740	PB600159	<b>Withdrawn</b>

HDD, 4.0GB (Pentium)		80602091	PB600475
HDD, 6.0GB (Pentium)		80602090	PB600476
<b>HDD, 10.0GB (Pentium)</b>		<b>80602388</b>	<b>PB600538</b>
<b>Front Panel EMI Gasket</b>		<b>80602381</b>	<b>n/a</b>
Cable, OPC to Operator Panel		80303340	n/a
Cable, OPC to Back Panel		80303341	n/a
Cable, Lead Battery to Power Supply		80303342	n/a
Cable, Lithium Battery to PC Motherboard		80303339	n/a
Cable, Parallel-External OPC to PC		80303343	n/a
Cable, FDD to Motherboard		80303345	n/a
Cable, HDD to Motherboard		80303346	n/a
Front Panel Assembly w/o Keylock		80303296	n/a
Front Panel Assembly w Keylock		80316689	PB000/038
Power Switch Door		80213333	n/a
Control Panel Door		80213332	n/a
Mini Latch		80213359	n/a
Keylock Assy		80214628	n/a
Front Panel Key	LOCA81002-1462	n/a	n/a
Rear Cover		80213334	n/a
AT Cover Assy		80303300	n/a
Upper Cover Assy		80303299	n/a
Base Cover Assy		80303295	n/a
Peripheral Guide Bracket Kit		80303553	n/a
Printer Guide		80213350	n/a
Keyboard Guide		80213347	n/a
Display Guide		80213351	n/a
FDD Bracket		80213311	n/a
FDD Dummy Panel		80213320	PB600094
HDD Bracket		80213312	n/a
HDD Mounting Kit		80303552	n/a
Buzzer w Harness		80303935	PB000/039
Lithium Battery		80213298	n/a
Lead-Acid Battery		80215302	n/a

**TEAMPOS SELECT PARTS**

SIMM, 4Mb, 70ns, 72 Pin, 1x36 Bit		80212121	50782/001	<b>Withdrawn</b>
PC PSU - Highpower, AutoSelect		80212219	n/a	<b>Withdrawn</b>
5 Slot Card		80212136	n/a	<b>Withdrawn</b>
PC Motherboard w 25Mhz CPU, w/o Memory		n/a	n/a	Withdrawn
PC Motherboard, w/o CPU		80213570	n/a	Withdrawn
CPU, A80486SX-25, +5V		80054996	n/a	Withdrawn
Keyset Keylock, 143140-0069		80067409	n/a	<b>Withdrawn</b>
Blanking Plate, Plastic 3.5"		80067713	n/a	<b>Withdrawn</b>
Blanking Plate, Plastic 5.25"		80067714	n/a	<b>Withdrawn</b>
SRAM 32K x 8, CACHE		80212161	n/a	<b>Withdrawn</b>
Control Panel With ICL 1/47 Buttons		80067715	n/a	<b>Withdrawn</b>
OPC PSU - 115v		80062881	58915/001	<b>Withdrawn</b>
OPC PSU - 240v		80062882	58915/002	<b>Withdrawn</b>
OPC5 Assy without PSU		80203248	59252/001	Withdrawn
Hot Plug Warning Label		80316862	n/a	Withdrawn
OPC5 Controller PCB		88836526	n/a	Withdrawn
OPC5 Firmware 1.0.3		80303429	n/a	Withdrawn
OPC5 POS I/O Adapter Board		80203615	50518/001	Withdrawn
OPC5 Enclosure		80203235	n/a	Withdrawn
OPC8 Assy without PSU		80303775	PB000/010	<b>Withdrawn</b>
OPC8 Controller PCB		88836532	n/a	Withdrawn
OPC8 Controller PCB (D544 based)		80316145	n/a	<b>Withdrawn</b>
OPC8 Firmware 2.0.6		80316783	n/a	<b>Withdrawn</b>
Replaceable Fuse, 3.15A, F1 & F2, (D544 Only)		80215294	n/a	<b>Withdrawn</b>

Hot Plug Warning Label		80316862	n/a	Withdrawn
OPC8 Enclosure		80303779	n/a	Withdrawn
OPC8 DC/DC Converter		88836538	n/a	Withdrawn
OPC8 Controller Support Bracket		80303772	n/a	Withdrawn
OPC8 DC/DC Converter Support Bracket		80303773	n/a	Withdrawn
OPC8 Rear Plate		90303774	n/a	Withdrawn
Cable, FDD		80072578	n/a	Withdrawn
Cable, HDD		80072579	n/a	Withdrawn
Cable, Game Port		80072580	n/a	Withdrawn
Cable, Parallel, 1.5M		80303284	n/a	Withdrawn
Cable, Parallel, 3M		80203585	59173/001	Withdrawn

**KEYBOARDS & CABLES**

Model 133PQ (9535)	CA02952-3403	80213371	53256/001	Withdrawn
Model 133PQ, Windows NT compatible	CA02952-3400	80328215	PB600335	
<b>Model 133PQ, Windows NT, Field Upgraded</b>	<b>CA05950-0131</b>	<b>80328215</b>	<b>PB600512</b>	
Model 133PQ Windows NT Upgrade Kit (PB600512)	N860-4683-T581	80602026	PB600491	
133PQ wRemap Keycodes, IBM Emulation	CA02952-3405	80329739	PB600315	
<b>Ace Hardware 133PQ Keyboard</b>	<b>CA02952-3406</b>	<b>80602355</b>	<b>PB600560</b>	
<b>Ace Hardware Keyboard Controller</b>	<b>N86D-4683-R501/01</b>	<b>n/a</b>	<b>n/a</b>	
Model 136P (9536)	CA02952-3413	80213372	56883/001	Withdrawn
Model 136P, Windows NT compatible	CA02952-3410	80328258	PB600336	
MSR 1/2, Model 133PQ, 136P, w Cable		80303315	50975/001	
MSR 2/3, Model 133PQ, 136P, w Cable		80303316	58751/001	
Cable, Model 133PQ, 136P Stacked, 0.65m		80213558	50949/001	
Cable, Model 133PQ, 136P Distributed, 2m		80213559	58159/001	
Model 133PQ, 136P Specialty Labels	CA02952-3453	80062036	57458/001	
Model 133PQ, 136P 1x1 Keycaps, Qty 100	N860-4683-T501	80303337	56790/001	
Model 133PQ, 136P 1x2 Keycaps, Qty 25	N860-4683-T502	80303338	59253/001	
Model 133PQ, 136P 1x1 Blanks, Qty 100		80303481	54004/001	
Model 133PQ, 136P 2x2 Keycaps, Qty 25	N860-4683-T503	80303482	53147/001	
Model 133PQ, 136P Keycap Puller		80303517	56079/001	
Model 133PQ, 136P Keylock 1	CA81003-2503	80213760	n/a	
Model 133PQ, 136P Keylock 2	CA81003-2504	80303319	57631/001	
Model 133PQ, 136P Keylock 3	CA81003-2505	80303320	57631/002	
Model 133PQ, 136P Keylock 4	CA81003-2506	80303321	57631/003	
Model 133PQ, 136P Keylock 5	CA81003-2507	80303322	57631/004	
Model 133PQ, 136P Keylock 6	CA81003-2508	n/a	n/a	
Model 133PQ, 136P Operator Keylock 1	CA81003-2515	80213761	n/a	
Model 133PQ, 136P Operator Keylock 2	CA81003-2516	80213762	n/a	
Model 133PQ, 136P Operator Keylock 3	CA81003-2517	80213763	n/a	
Model 133PQ, 136P Operator Keylock 4	CA81003-2518	80213764	n/a	
Model 133PQ, 136P Operator Keylock 5	CA81003-2519	80213765	n/a	
Model 133PQ, 136P Type 2 Manager Key	CA81003-2523	80213766	n/a	
Model 133PQ, 136P Auxiliary Key	CA81003-2524	80213767	n/a	
Model 133PQ, 136P Numeric Keycaps, Qty=50	N860-4683-V571	USA0207008	n/a	
Bulk 1/2 TK MSR, 133PQ, 136P, Qty=210		80328151	PB600118	
Bulk 2/3 TK MSR, 133PQ, 136P, Qty=210		80328152	PB600119	
133PQ QWERTY Keycaps, Belgium	N860-4683-V664	n/a		
133PQ QWERTY Keycaps, Denmark	N860-4683-V661	n/a		
133PQ QWERTY Keycaps, France	N860-4683-V654	n/a		
133PQ QWERTY Keycaps, Germany	N860-4683-V653	n/a		
133PQ QWERTY Keycaps, Italy	N860-4683-V655	n/a		
133PQ QWERTY Keycaps, Holland	N860-4683-V660	n/a		
133PQ QWERTY Keycaps, Norway	N860-4683-V659	n/a		
133PQ QWERTY Keycaps, Portugal	N860-4683-V665	n/a		
133PQ QWERTY Keycaps, Spain	N860-4683-V656	n/a		
133PQ QWERTY Keycaps, Sweden	N860-4683-V657	n/a		
133PQ QWERTY Keycaps, Switzerland	N860-4683-V658	n/a		

TeamPoS SERIES TERMINALS

133PQ QWERTY Keycaps, UK	N860-4683-V652	n/a		
RS232, Model 92R Keyboard	90310-003/0000	80203338	53876/001	
RS232 Controller PCB	81413-003/0001	n/a	n/a	
Keyswitch Matrix Assy	75201-136/0001	80155064	n/a	
Ground Cable	12411-492/0001	80155202	n/a	
Plastic Base	12623-606/0000	80155104	n/a	
Plastic Top	12623-607/0000	80155109	n/a	
Plastic Display Blank	12623-608/0000	80155377	n/a	
Plastic MSR Blank	12623-325/0001	80155106	n/a	
<b>RS232, Model 92R Keyboard,wCyrillic Display,MSR1/2</b>		<b>80602035</b>	<b>PB600498</b>	
RS232, Model 92R Keyboard without Keycaps		80328170	PB600121	
RS232, Model 92R w MSR 1/2		80203339	53876/002	
RS232, Model 92R w MSR 2/3		80203340	53876/003	
RS232, Model 92R w Display		80203341	53876/004	
RS232, Model 92R w Display & MSR 1/2		80203342	53876/005	
RS232, Model 92R w Display & MSR 2/3		80203343	53876/006	
RS232, Model 92R w Vertical Keylock		80203344	53876/007	
RS232, Model 92R w MSR 1/2, Vert Kylk		80203345	53876/008	
RS232, Model 92R w MSR 2/3, Vert Kylk		80203346	53876/009	
RS232, Model 92R w Display, Vert Kylk		80203347	53876/010	
RS232, Model 92R w Display, MSR 1/2, Vert Kylk		80203348	53876/011	
RS232, Model 92R w Display, MSR 2/3, Vert Kylk		80203349	53876/012	
Cable, RS232, Model 92R Stacked, 0.6m		80203320	50275/001	
Cable, RS232, Model 92R Distributed, 3m		80203460	50275/002	
Cable, RS232, Model 92R Long Distributed, 5m		80203463	50275/003	
RS232, Model 92R Embedded Operator Display		80062912	58967/002	
<b>RS232, Model 92R Embedded Display, Cyrillic</b>		<b>80602055</b>	<b>PB600499</b>	
RS232, Model 92R Vertical Keylock Kit		80192471	52999/001	
Model 92R 1x1 Blank Tiles, Qty 100	12308-073/0000	80155185	14125/001	
Model 92R 1x1 Relegendable Keycaps, Qty 100	12308-074/0000	80155186	14125/002	
Model 92R 1x2 Relegendable Keycaps, Qty 50	12308-086/0001	80155162	14125/003	
Model 92R Relegendable Raised 1x2 Keycaps, Qty 50	12308-075/0000	80155163	14125/004	
Model 92R 1x3 Relegendable Keycaps, Qty 25	12308-077/0000	80155183	14125/005	
Model 92R 2x2 Relegendable Keycaps, Qty 25	12308-076/0000	80155328	14125/006	
Model 92R Paper Insert Kit (10ea, Grey, Green, Red)	12671-804/0000	80155349	14125/007	
Model 92R Keycap Puller, Qty 10	13013-011/0000	80155350	14125/008	
Model 92R Keycover Kit (100ea, Red, White, Green)	13013-049/0000	80212431	14125/012	
Model 92R MSR 1/2 Track Kit		80155148	14125/010	Withdrawn
MSR 1/2 Track		80061712	n/a	Withdrawn
Cable, MSR 1/2 Track		80155210	n/a	Withdrawn
Model 92R MSR 2/3 Track Kit		80155149	14125/009	
MSR 2/3 Track		80061714	n/a	Withdrawn
Cable, MSR 2/3 Track		80155211	n/a	Withdrawn
92R MSR Kit, 1/2 Track		80316868	14125/010	
MSR, 1/2 Track		80215453	n/a	Withdrawn
MSR, 1/2 Track	ACE-TEK 082B-12BICLF	80602010	n/a	
92R MSR Kit, 2/3 Track		80316869	14125/009	
MSR, 2/3 Track		80215454	n/a	Withdrawn
MSR, 2/3 Track	ACE-TEK 082B-23BICLF	80602011	n/a	
Model 92R MSR Housing		80155325	n/a	
ISS45 Keycap kit for 92R Keyboard		80328171	PB600122	
Model 92R Keylock/Keys 500		80328186	n/a	
Model 92R Keylock/Keys 501		80213906	n/a	
Model 92R Keylock/Keys 502		80213907	n/a	
Model 92R Keylock/Keys 503		80213908	n/a	
Model 92R Keylock/Keys 504		80213909	n/a	
Model 92R Keylock/Keys 505		80213910	n/a	
Model 92R, 501P1 Key		7764912	n/a	

Model 92R, 502P1 Key		7764917	n/a
Model 92R, 503P1 Key		7764922	n/a
Model 92R, 504P1 Key		7764925	n/a
Model 92R, 505P1 Key		7764929	n/a
Model 92R, 501P2 Key		7764913	n/a
Model 92R, 502P2 Key		7764918	n/a
Model 92R, 503P2 Key		7764923	n/a
Model 92R, 504P2 Key		7764926	n/a
Model 92R, 505P2 Key		7764930	n/a
Model 92R, 501P3 Key		7764920	n/a
Model 92R, 502P3 Key		7764919	n/a
Model 92R, 503P3 Key		7764924	n/a
Model 92R, 504P3 Key		7764927	n/a
Model 92R, 505P3 Key		7764932	n/a

**PRINTERS & CABLES**

Model FD20, FJ Impact 40/40/40	CA02485-D011	80213373	53312/001	
Model FD21, FJ Impact, 40/40/70	CA02485-D010	80213374	56203/001	
FD20/21 Cutter Blade, Upper Left		7756762	n/a	
FD20/21 Cutter Blade, Upper Right		7756763	n/a	
FD20/21 Cutter Blade, Lower		7756764	n/a	
Mylar Printhead Ribbon Cable Protector	D860-1160-X507	n/a	n/a	
Printer Cassette Ribbon, FD20/FD21		80085491	n/a	
Receipt/Journal Paper, FD20/FD21, Qty 50		80085500	n/a	
Print Head Replacement, FD20/FD21	D86B-1127-D158	80213904	n/a	
Journal Reel, FD20/FD21	D860-1160-X261	7756770	n/a	
Journal Flange, FD20/FD21/FT30	D860-1160-X263	7756771	n/a	
FD20/21 Journal Keylock	CA81002-1461	n/a	n/a	
FD20/21 Journal Key	CA81002-1462	n/a	n/a	
FD20/21 Fiscal Kit, Cable, w/o Firmware	n/a	80328954	PB600385	
Fiscal Kit (Main PWA, Memory, Cable)	n/a	80602118	PB600450	
Main Fiscal PWA	n/a	88836554	n/a	
Fiscal Memory PWA	n/a	88836555	n/a	
Fiscal Memory Cable to Main PWA	n/a	80328289	n/a	
FD20/21 Fiscal Cable Kit	n/a	80602119	PB600451	
Internal Fiscal Printer Cable	n/a	80602005	n/a	
Internal Fiscal Op Display Cable	n/a	80602003	n/a	
Fiscal Printer Base Assy	n/a	80602120	PB600452	
Fiscal Printer Base	n/a	80328299	n/a	
Printer Base Blanking Plate	n/a	80328300	n/a	
Fiscal Seal Holder Kit, Qty=10	n/a	80602123	PB600455	
Fiscal Encapsulate, 2KG Pack	n/a	80602124	PB600457	
Fiscal Encapsulate, 2KG Pack	n/a	80602125	PB600458	
Cable, Fujitsu Printer, 0.5m		80213562	51380/001	
Cable, Fujitsu Printer, 5m		80213563	55222/001	
<b>Cable, Epson Printer, 0.5m</b>		<b>80203217</b>	<b>54325/001</b>	<b>Withdrawn - OPC Only</b>
<b>Cable, Epson Printer, 3m</b>		<b>80203218</b>	<b>54325/002</b>	<b>Withdrawn - OPC Only</b>
<b>Cable, Epson Printer, 5m</b>		<b>80203219</b>	<b>54325/003</b>	<b>Withdrawn - OPC Only</b>
<b>Cable, Epson Printer, 0.5m</b>		<b>80602313</b>	<b>PB600509</b>	
<b>Cable, Epson Printer, 3m</b>		<b>80602353</b>	<b>PB600562</b>	
<b>Cable, Epson Printer, 5m</b>		<b>80602314</b>	<b>PB600510</b>	
Cable, Axiohm Printer, 0.5m		80316697	PB000/043	Withdrawn - For OPC Only
Cable, Axiohm Printer, 5m		80316698	PB000/044	Withdrawn - For OPC Only
Cable, Axiohm Printer, 0.5m		80328278	PB600339	
Cable, Axiohm Printer, 5m		80329279	PB600340	
Atrium 40/40/70 Printer (same cable as FDxx)		80061944	10492/001	
Atrium 40/40/40 Printer (same cable as FDxx)		80062743	54566/001	
Fujitsu F3, 3 Station Printer		80061704	18151/002	Withdrawn

**DISPLAYS & CABLES**

VF40 Operator/Customer Display	CA02950-0748	80213365	51704/001	Withdrawn
<b>VF40 Operator/Customer Display, w/Cyrillic</b>	<b>CU200215SCPb-T4C</b>	<b>80602359</b>	<b>51704/001</b>	
Bulk Pack, Qty=?		n/a	PB600120	
<b>VF40 Oper/Cust Dsp, w/Cyrillic, w/Socketed EPROM</b>	<b>CU200215SCPb-T6C</b>	<b>80602360</b>	<b>51704/002</b>	
VF40 Stacked Operator Display Assy Mtg Kit	CA81001-0566	80303312	51929/001	Withdrawn
VF40 Stacked Customer Display Assy Mtg Kit	CA81001-0567	80303313	58918/001	
VF40 Distributed Customer Display Assembly	CA31153-D831	80303314	51935/001	
VF40 Mounting Kit without Pole (M&S)		80329802	PB600319	
VF40 Pole Kit, 0.3m		80303786	PB501002	
VF40 Pole Kit, 0.6m		80303787	PB501003	
VF40 Pole Kit, 1m		80303788	PB501004	
VF40 Pole Base		80329614	PB600252	
VF40 Tilt Cover		80213388	n/a	
VF40 Tilt Parts		80213389	n/a	
VF40 Collet Adaptor		80303784	n/a	
Cable, VF40 Stacked, 0.85m		80213560	51065/001	
Cable, VF40 Distributed, 1.5m		80329769	PB600317	
Cable, VF40 Distributed, 5m		80213561	50778/001	
RS232 Remote Pole Display Assy		80203350	55836/001	Withdrawn
Cap for Remote Pole		80155228	n/a	Withdrawn
Pole Mount Assy, 0.15m		80192083	14803/004	Withdrawn
Pole Mount Assy, 0.3m		80155054	14803/001	Withdrawn
Pole Mount Assy, 0.6m		80155055	14803/002	Withdrawn
Pole Mount Assy, 1m		80155057	14803/003	Withdrawn
CRT, 9" VGA Mono, 115V	KFC MB0931	80203352	58566/001	Withdrawn
CRT, 9" VGA Mono, 240V	KFC MB0931	80062915	58566/002	Withdrawn
CRT, C90M, w Cable, Stacked	MV-0901	80213368	n/a	Withdrawn
CRT, C90M, w Cable, Stacked	MV-0951	80215699	58312/001	
CRT, C90MC, w Cable, Dispersed	MV-0901	80214482	n/a	Withdrawn
CRT, C90MC, w Cable, Dispersed	MV-0951	80215700	PB000/009	
CRT, C90C, w Cable, Stacked	CV-1028	80213369	58312/002	Withdrawn
CRT, C90C, w Cable, Stacked	CV-1053	80215701	58312/002	Withdrawn
CRT, C90C, w Cable, Stacked	CV-1053 Non-MPRII	80602100	PB600440	
CRT, C90CC, w Cable, Dispersed	CV-1028	80213082	59367/001	Withdrawn
CRT, C90CC, w Cable, Dispersed	CV-1053	80215702	59367/001	Withdrawn
CRT, C90CC, w Cable, Dispersed	CV-1053 MPRII	80602101	PB600441	
VGA Extension Cable, 2M		80328132	PB600114	
<b>W&amp;M Label for CRT, 29.99lb</b>		<b>80328167</b>	<b>PB600029</b>	
<b>W&amp;M Label for CRT, 30.00lb</b>		<b>80328103</b>	<b>PB600558</b>	
2X20 RS232 Display Kit		n/a	52477/001	Withdrawn
2X20 RS232 Display Cable, .5M		80203590	57831/001	Withdrawn
2X20 RS232 Display Cable, 3M		80203591	57831/002	Withdrawn
2X20 RS232 Display Cable, 5M		80203599	57831/003	Withdrawn
14" SVGA Monitor			PB600407	Not Released
14" Monitor Stacking Tray		80329711	PB600307	
VGA Splitter Kit, North America Only		80329737	PB600314	Validated w ISS45 Only
VGA Splitter/Booster Box		80329736	n/a	
VGA Cable Extension, 3M		80329735	n/a	
NA Mains Cable		80215033	n/a	

**CASH DRAWERS & CABLES**

TP10 Cash Drawer w Media Tray, 6 Coin	CA31592-0203	80213376	54258/001	
TP10 Cash Drawer w Media Tray, 6 Coin, Kylk 1	CA31592-0201	80213377	54258/002	
TP10 Cash Drawer w Media Tray, 6 Coin, Kylk 2	CA31592-0202	80213378	54258/003	
TP10 Cash Drawer w Media Tray, 6 Coin, Kylk 3	CA31592-0214	80215557	PB600014	
TP10 Cash Drawer, Solenoid Unit	CA31952-0221	n/a	n/a	
TP10 Cash Drawer, Drawer Bearing	CA81001-0082	n/a	n/a	
TP10 Cash Drawer, Main Body Bearing	CA81001-0533	n/a	n/a	

TP10 Cash Drawer, #1 Keylock with Key	CA31952-0231	n/a	n/a	
TP10 Cash Drawer, #2 Keylock with Key	CA31952-0232	n/a	n/a	
<b>TP10 Cash Drawer, #3 Keylock with Key</b>	<b>CA31952-0253</b>	<b>n/a</b>	<b>n/a</b>	
TP10 Cash Drawer Key, #1	CA31952-0211	n/a	n/a	
TP10 Cash Drawer Key, #2	CA31952-0212	n/a	n/a	
TP10 Cash Drawer Key, #3	CA31952-0213	n/a	n/a	
TP10 Media Tray	CA31592-0209	80303328	53140/001	
TP10 6-Coin Insert	CA31592-0207	80303329	50404/001	
TP10 8-Coin Insert	CA31592-0208	80303330	58523/001	
TP10 Media Tray Locking Cover	CA31592-0217	80303331	53612/001	
Cable, TP8/TP10 Stacked, 0.22m		80213556	53728/001	Withdrawn - Use PB600331
Cable, TP8/TP10 Distributed, 5m		80213557	59406/001	Withdrawn - Use PB600332
Cable, TP8/TP10 Dual Cash Drawer, 0.5m		80213576	59717/001	Withdrawn - Use PB600379
Cable, Extension for Dual TP8/TP10 Cash Drawers, 4m		80155127	15016/002	
Cable, TP8/TP10 Stacked, 0.22m	CA02591-2821	80329852	PB600331	
Cable, TP8/TP10 Distributed, 5m	CA02591-2822	80329853	PB600332	
Cable, TP8/TP10 Dual Cash Drawer, 0.5m		80602013	PB600379	
Cable, Ithica Printer to TP10/TP8 C/D (NA Only)		80329737	PB600334	
TP8 Cash Drawer, with Media Tray, without Keylock	7-30368	80328249	PB600154	
TP8 Cash Drawer, with Media Tray, with #1 Keylock	7-30365	80328250	PB600151	
TP8 Cash Drawer, with Media Tray, with #2 Keylock	7-30366	80328251	PB600152	
TP8 Cash Drawer, with Media Tray, with #3 Keylock	7-30367	80328252	PB600153	
TP8 Media Tray with Dividers and Clamps	9-1A001	80328253	PB600155	
Media Tray for TP10 Drawer	9-1A019	80328264	PB600157	
TP8 Media Tray Locking Cover with Keys	9-1A002	80328254	PB600156	
Locking Cover Keys (2)	9-1A011	n/a	n/a	
Media Clamp Assy (1 each, 2 piece)	9-1A003	n/a	n/a	
Divider Kit (4 Bill and 4 Coin)	9-1A004	n/a	n/a	
#1 Keylock with Mtg H/W and Cam, with Keys	9-1A005	n/a	n/a	
#1 Keys (2)	9-1A008	n/a	n/a	
#2 Keylock with Mtg H/W and Cam, with Keys	9-1A006	n/a	n/a	
#2 Keys (2)	9-1A009	n/a	n/a	
#3 Keylock with Mtg H/W and Cam, with Keys	9-1A007	n/a	n/a	
#3 Keys (2)	9-1A010	n/a	n/a	
Mounting Foot	9-1A014	n/a	n/a	
Base Assy with Soleniod/Switch, Slides, Spring	9-1A015	n/a	n/a	
Solenoid/Switch Assy	9-1A013	n/a	n/a	
Spring Assy with Retainer	9-1A012	n/a	n/a	
Drawer Front Panel, with Lock Hole	9-1A017	n/a	n/a	
Drawer Front Panel, without Lock Hole	9-1A018	n/a	n/a	
Drawer Assy without Front Panel or Latch Pin	9-1A016	n/a	n/a	
Drawer Latch Pin and Keeper	9-1A020	n/a	n/a	
Cable, ADS Cash Drawer, 3m		80213577	55598/001	Withdrawn
Cable, 9520A Cash Drawer, 0.5m		80203466	55975/001	Withdrawn
Cable, 9520A Cash Drawer, 3m		80203469	55975/002	Withdrawn
Cable, 9520A Cash Drawer, 5m		80203472	55975/003	Withdrawn
Cable, 9520A Dual Cash Drawer, 0.5m		80203476	55832/001	Withdrawn
Cable, ADS Cash Drawer, 0.5m		80203487	57054/001	Withdrawn
Cable, ADS Cash Drawer, 3m		80203490	57054/002	Withdrawn
Cable, ADS Cash Drawer, 5m		80203493	57054/003	Withdrawn
Cable, 9518 Cash Drawer, 0.5m		80203500	54863/001	Withdrawn
Cable, 9518 Cash Drawer, 3m		80203503	54863/002	Withdrawn
Cable, 9518 Cash Drawer, 5m		80203506	54863/003	Withdrawn
Cable, 9518 Dual Cash Drawer, 0.5m		80203510	52092/001	
Cable, Cash Drawer Extension, 4m		80203480	53337/001	
NAF Cash Drawer, with Lock #1		TBD	46669/001	
NAF Cash Drawer, with Lock #2		TBD	46669/002	
NAF Cash Drawer, with Lock #3		TBD	46669/003	
NAF Cash Drawer, with Lock #4		TBD	46669/004	

NAF Cash Drawer, with Lock #5	TBD	46669/005	
NAF Cash Drawer, with Lock #6	TBD	46669/006	
NAF Cash Drawer Media Tray	TBD	17083/001	
NAF Cash Drawer Media Tray Locking Cover	TBD	11342/001	
<b>Cable, NAF Cash Drawer, 0.5m</b>	<b>80303946</b>	<b>PB501005</b>	
<b>Cable, NAF Cash Drawer, 4m</b>	<b>80303947</b>	<b>PB501006</b>	

**MISC ITEMS**

UPS - 115v, 400VA	80213965	55958/001	Withdrawn
UPS - 240v, 400VA	80213966	55958/002	Withdrawn
OPC8, RS232 Expansion Kit, M-D9, Port 8	80303310	55478/001	<b>Withdrawn</b>
OPC8, RS232 Expansion Kit, F-D9, Port 8	80303311	55478/002	<b>Withdrawn</b>
LAN Card, Duo 16l (10BaseT&2) w/o BootROM	7766765	50304/001	Withdrawn
LAN Card, Duo 16l w LAN Mgr RPL BootROM	7766766	50304/002	Withdrawn
LAN Card, Duo 16l w Netware BootROM	7766767	50304/003	Withdrawn
LAN Card, 10BaseT w/o BootROM	n/a	53582/001	Withdrawn
LAN Card, 10BaseT w LAN Mgr RPL BootROM	n/a	53582/002	Withdrawn
LAN Card, 10BaseT w Netware RPL BootROM	n/a	53582/003	Withdrawn
LAN Card, 10BaseT 8 Port Hub ISA	n/a	55085/001	Withdrawn
LAN Card, TWISA, Combo, w/o BootROM	n/a	PB000/034	Withdrawn
LAN Card, TWISA, Combo, w BootROM	n/a	PB000/035	Withdrawn
LAN Card, TWISA, 10BaseT, w/o BootROM	n/a	PB000/036	Withdrawn
LAN Card, TWISA, 10BaseT, w BootROM	n/a	PB000/037	Withdrawn
3Com Etherlink III Combo LAN Card	USA0205619	n/a	NA Use Only
RPL Chip for 3Com Card	USA0205715	n/a	NA Use Only
3Com LAN, 10Base2/5 Only	USA0205240	n/a	NA Use Only
TeamPoS 2001E Kit (TeamPoS to S18)	80328178	40304/002	PIN includes S/W
TeamPoS ISA to S18 Board (003-023294-001)	88836550	n/a	
Adapter Cable	80316248	n/a	

**MISC CABLES**

Mains Cable, Straight, UK	80316727	PB503001	
Mains Cable, Straight, Europe	80316729	PB503002	
Mains Cable, Straight, South Africa	80316731	PB503003	
Mains Cable, Straight, Australia	80316733	PB503004	
Mains Cable, Straight, USA/Canada	80316735	PB503005	
Mains Cable, Straight, Unterminated	80316737	PB503006	
Cable, UPS to PC	80203587	50593/001	Withdrawn
Cable, S9000/9500 Scanner, 5m	80203983	52413/001	
Cable, S9000/9500 Scale, 5m	80303044	51765/001	
Cable, ORION RS232 Scanner, 3m	80155542	11845/001	
Cable, ORION RS232 Scanner, 5m	80155543	11845/002	
Cable, ORION RS232 Scale, 3m	80155545	16704/001	
Cable, ORION RS232 Scale, 5m	80155546	16704/002	
Cable, Carol, M1000 Scanner, 3m	80155548	19623/001	
Cable, Carol, M1000 Scanner, 5m	80155549	19623/002	
Cable, Peach, M33 Scanner, 3m	80155548	19623/001	
Cable, Peach, M33 Scanner, 5m	80155549	19623/002	
Cable, ScanTech, M2010 Scanner, 5m	80203890	51717/001	
Cable, Symbol Model LS2020 Scanner	80061790	19551/001	
Cable, Nippon Denso BHS6000 Scanner	80062561	54369/001	

**DIAGNOSTIC TOOLS**

RS232 Loopback Plug, D9M	80303084	n/a	Withdrawn
RS232 Loopback Plug, D9M, second voltage LED	80602312	n/a	
Printer Loopback Plug, D15	80203280	n/a	
RS232 Loopback Plug, D9F	80203279	n/a	
CPU Removal Tool	7767996	n/a	
MSR Cleaner Cards	7737171	n/a	

MSR Test Cards		80064971	n/a
133PQ Keycap Removal Tool	N860-4683-T551	n/a	n/a
3.5" Floppy Disk Head Cleaner Kit		42004344	n/a

## 2.6 SERVICE AIDS

Diagnostics - Two levels of diagnostics are provided.

1. The first level consists of BIOS diagnostics, which are executed at power-on and test basic operations of the PC Motherboard. (Note: The results of these diagnostics can only be seen if a CRT is attached). At power on the OPC and TeamCOM also perform self-test diagnostics and upon successful completion turns on an LED (LED on OPC Only). A blinking LED after initial power on indicates CMOS checksum failure. CLD can be run to write to CMOS memory and correct this error. If the error re-occurs, the OPC board should be replaced.
2. OPC/TeamCOM: Confidence Level Diagnostics (CLD) is the second level of diagnostics (OPC CLD is different than TeamCOM CLD). CLD is a standalone application that allows a service engineer to identify POS problems to the ORU by performing Loopback tests on the RS232 ports and exercising the POS peripherals that are attached. Specific instructions for executing CLD can be found in the Service Reference Manual. The latest version of OPC CLD is 02.01.00 and for TeamCOM is 1.16 and is available on the Internet FTP site.

Diagnostics for testing of the PC portion of the TeamPoS is accomplished via a commercially available diagnostic program. Check-It is the diagnostic certified and recommended by GPG Development. It can be obtained at a local computer sales facility.

The following is a list of test/repair tools needed:

- 80303084 RS232 Loopback Plug-Male (used with CLD)
- 80203280 Printer Loopback Plug (used with CLD)
- 80203279 RS232 Loopback Plug-Female (used with CLD)
- 7767996 CPU Removal Tool
- 7737171 MSR Cleaner Cards
- 80064971 MSR Test Cards

### BIOS Download Utilities - Pentium only

To simplify the process of updating the BIOS in the TeamPoS 5000 terminals, download utilities have been made available.

The download utility program for the PAC-2000 is FLASH534.EXE and

for the PAK-2005 is FLASH560.EXE. Both are available on the GPG FTP Internet Site (FTP.FJICL.COM). For further information please refer to Support Bulletin PSB-98-033B.

## 2.7 REMOVE AND REPLACE TIMES

The following are time estimates for removing and replacing major assemblies. These time estimates do not include the time to diagnose the problem or to get clear access to the control unit (i.e. disassembly of stacked peripherals, removal of cables or removal from within the checkstand).

<u>Item</u>	<u>Time</u>	<u>Item</u>	<u>Time</u>
Motherboard	30 Min	CRT	2 Min
Power Supply	10 Min	VFD	4 Min
Power Supply Fan	5 Min	Keyboard	2 Min
OPC/TeamCOM Board	7 Min	Keylock	4 Min
LAN Controller Card	5 Min	MSR	4 Min
HDD	5 Min	Printer	2 Min
FDD	5 Min	Cash Drawer	2 Min

Based on these times to remove and replace ORU components and adjusted by the probability of a specific component failing, the MTTR is 10 minutes.

## 2.8 PREVENTATIVE MAINTENANCE

The Lithium and Lead Acid batteries require replacement at 36-month intervals.

General cleaning of the terminal, peripherals, and MSR is required on a regular basis. These procedures are described in the User Reference Manual and are the responsibility of the customer. In particular, dust must be removed from internal components, air vents, fans, and exhaust screens to allow sufficient airflow to maintain proper internal operating temperatures. Printers must also have paper dust/scrap removed regularly to maintain proper printer operation. The frequency of this cleaning will depend upon installed environments. Lack of this cleaning will greatly reduce equipment reliability.

To achieve the MTBF of 300,000 passes for the MSR, cleaning with a MSR cleaner card must be performed approximately every 1,000 passes.

**Appendix A: FPY Worksheet**

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

<u>Descriptions</u>	<u>Variable</u>
Average # Power-On Hours per year (8736 Hrs Max)	(A) _____
Average # Power-Save-Mode Power-On Hours per year	(B) _____
Average # of Transactions per trading hour	(C) _____
Average # of Trading Hours per day	(D) _____
Average # of Trading Days per week	(E) _____
Average # of Keystrokes per Transaction	(F) _____
Average # of Keylock cycles per Transaction	(G) _____
Average # of MSR usage per Transaction(1 out of 3=.33)	(H) _____
Average # of Print Lines per Transaction	(I) _____
Average # of cash drawer openings per Transaction	(J) _____
Average # Transactions per Terminal Year(C*D*E*52wks)	(K) _____

Control Unit Components

<u>Device</u>	<u>Variable</u>	<u>Power On Hours</u>	<u>/</u>	<u>MTBF Hours</u>	<u>=</u>	<u>FPY</u>
PC Motherboard	(A)	_____	/	Section 1.3.3=	=	_____
Power Supply	(A)	_____	/	25,000	=	_____
OPC/TeamCOM Board	(A)	_____	/	107,000	=	_____
LAN Card	(A)	_____	/	100,000	=	_____
FDD	(A)	_____	/	120,000	=	_____
HDD	(A)	_____	/	300,000	=	_____

Control unit Totals \_\_\_\_\_

Peripherals whose FPY hours impacted with Power-Save-Mode Implementation:

<u>Device</u>	<u>Variable</u>	<u>Power On Hours</u>	<u>/</u>	<u>MTBF Hours</u>	<u>=</u>	<u>FPY</u>
Mono CRT	(B)	_____	/	5,000	=	_____
Color CRT	(B)	_____	/	5,000	=	_____
Customer VFD	(B)	_____	/	100,000	=	_____
Operator VFD	(B)	_____	/	100,000	=	_____

Power-Save-Mode Peripherals Totals \_\_\_\_\_

Appendix A: (continued)

Peripherals FPY based on mechanical usage.

Keyboard:

Keys-MTBF= 8,000,000 Depressions

Formula  $(F)*(K) / 8,000,000 =$  \_\_\_\_\_

Keylock:

MTBF= 50,000 Cycles

Formula  $(G)*(K) / 50,000 =$  \_\_\_\_\_

MSR:

MTBF= 300,000 Passes

Formula  $(H)*(K) / 300,000 =$  \_\_\_\_\_

Printer:

MTBF= 5,000,000 Lines

Formula  $(I)*(K)* / 5,000,000 =$  \_\_\_\_\_

Cash Drawer:

MTBF= 1,000,000 Cycles

Formula  $(J)*(K) / 1,000,000 =$  \_\_\_\_\_

Mechanical Peripheral Totals \_\_\_\_\_

Totals for the Terminal based on your customer environment.

Control unit Totals \_\_\_\_\_

Power-Save-Mode Peripheral Totals \_\_\_\_\_

Mechanical Peripheral Totals \_\_\_\_\_

Terminal FPY \_\_\_\_\_

Note: This total does not include failures resulting from use of consumables (i.e. Batteries, Print Heads), cables, software/firmware-based problems, or no-fault-found.

## Appendix B: 486 Motherboard Jumper Settings

(486DX2/DX4 3.3V CPU Motherboard only)

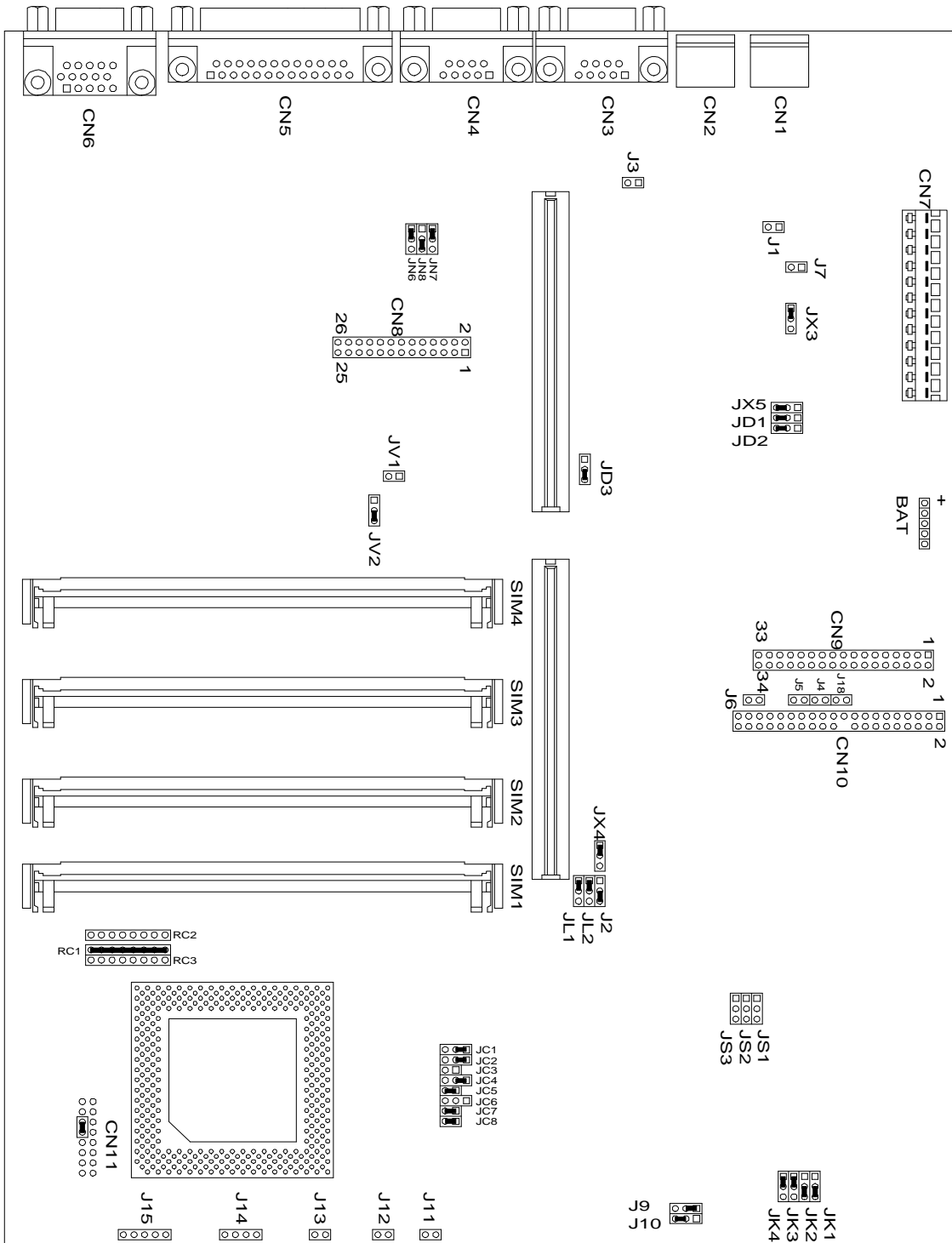
CONNECTOR	DEFINITION
BAT	External CMOS Battery
CN1	PS/2 Keyboard
CN2	PS/2 Mouse
CN3	Serial Port 1
CN4	Serial Port 2
CN5	Parallel Port
CN6	VGA Port
CN7	DC Power Input
CN8	8514A Connector
CN9	FDD Connector
CN10	HDD IDE Connector
CN11	3.3V Daughter Board (Not Used, See below)
J3	Green PSU Connector
J6	HDD LED
J11	Turbo Switch
J12	Turbo LED
J13	Reset Switch
J14	External Speaker
J15	Keylock and Power LED

JUMPER	SETTING	DEFINITION
J1	OPEN	I/O Channel Transfer Rate to 5.7MB/s
J2	2-3	SL-Enhanced CPU
J4	OPEN	Disable HDD_BALE
J5	OPEN	Disable HDD_IOCHRDY
J7	OPEN	Password (Short to clear)
J9	1-2	Factory Default
J10	2-3	SL-Enhanced CPU
J18	OPEN	Factory Default
JC1	1-2	Select 486DX/DX2/DX4
JC2	1-2	Select 486DX/DX2/DX4
JC3	OPEN	Select 486DX/DX2
	Short	Select 486DX4
JC4	1-2	Select 486DX/DX2/DX4
JC5	SHORT	CPU Select
JC6	OPEN	DX4 Internal Clock (Don't Care for DX2)
JC7	OPEN	Cache Write Back
JC8	SHORT	CPU Type (non-Intel)
JD1	2-3	Normal HDD Speed
JD2	2-3	Normal HDD Speed
JD3	2-3	Enable Local IDE
JK1	2-3	33.3MHz Select
JK2	2-3	33.3MHz Select
JK3	1-2	33.3MHz Select
JK4	1-2	33.3MHz Select
JL1	1-2	VL Bus Zero Wait Write
JL2	1-2	VL Bus Clock Speed to 33MHz

Appendix B: (continued) 486 Jumper Settings:

JUMPER	SETTING	DEFINITION
JN1	2-3	Hardwired
JN2	2-3	Hardwired
JN3	2-3	Hardwired
JN4	2-3	Hardwired
JN5	1-2	Hardwired
JN6	1-2	I/O Port Address (Index=26Eh, Data=26Fh)
JN7	1-2	Bi-Directional Printer Port
JN8	2-3	Printer Port (Don't Care for Bi-Directional)
JS1	OPEN	Cache Size Select (Not Used)
JS2	OPEN	Cache Size Select (Not Used)
JS3	OPEN	Cache Size Select (Not Used)
JV1	OPEN	Disable IRQ-9
JV2	2-3	Enable VGA
JV3	2-3	Hardwired
JX1	1-2	Hardwired
JX2	1-2	Hardwired
JX3	1-2	SL-Enhanced CPU
JX4	1-2	SL-Enhanced CPU
JX5	2-3	SL-Enhanced CPU
JX6	2-3	Hardwired
RC1	INSTALLED	CPU Select
RC2	OPEN	CPU Select
RC3	OPEN	CPU Select
CN11	5-7	SHORTED for 3.3V CPU (Default)
	5-7	OPEN for 5V CPU

Appendix B: (continued) 486 Jumper Settings:  
 (Jumpers shown in DX2 settings)



**Appendix C: Pentium PAC 2000 Motherboard Jumper Settings**

CONNECTOR	DEFINITION
BAT1	Lithium Battery
CN1	Keyboard
CN2	PS/2 Mouse
CN3	Serial Port 1 (COM1)
CN4	Serial Port 2 (COM2)
CN5	DC Power Input
CN6	Secondary IDE HDD (not used)
CN7	Floppy Disk
CN8	Primary IDE HDD
CN9	VRM Connector (not used)
J3	Power Management State LED (not used)
J5	CPU Fan Power (not used)
J6	Outlet Connector (not used)
J14	VGA Port
J15	VGA Feature (not used)
J28	IR Connector (not used)
J29	Parallel Port
JP1	Speaker
JP2	Reset Switch
JP3	Power LED / Key lock

JUMPER	SETTING	DEFINITION
J1	SHORT	3.45V
J2	OPEN	Display Type, VGA
J4	OPEN	Internal Use - Do not change
J8	1-2	Lithium Battery Select
J9	1-2	+5VDC BIOS Refresh
J10	2-3	HDD IDE Mode Select
J11	2-3	HDD IDE Mode Select
J21	1-2 OPEN	100MHz CPU Clock
	1-2 SHORT	133/166MHz CPU Clock
	3-4 OPEN	100/133MHz CPU Clock
	3-4 SHORT	166MHz CPU Clock
J26	SHORT	COM Port (PC87332)
JCP1	OPEN	Internal Use - Do Not Change
JCP2	OPEN	Password Normal (short to clear password)
JK1	1-2 OPEN	External Clock (66MHz)
	3-4 SHORT	External Clock (66MHz)
JLV	Note 1	3.3V SRAM (M7-M14) / Only one of these
JMV	Note 1	Mixed Voltage SRAM \ should be installed
JP4	OPEN	Internal Use - Do Not Change
JS1	1-2	Cache RAM - 256KB
JS2	1-2	Cache RAM - 256KB
RN1	Installed	CPU Type Select
RN2	OPEN	CPU Type Select
RN3	OPEN	CPU Type Select

NOTE 1: These jumpers are dependent upon the SRAM chips installed during manufacturing. Do not change them from the settings received on the board. JLV and JMV should not both be installed at the same time.



## Appendix C: Pentium PAK 2005 Motherboard Jumper Settings

### CPU Power Selection

VR1	CPU TYPE/CORE VOLTAGE	VOLTAGE
1-2		3.5V
3-4	Intel P54C STD 166/133/100 MHz	3.3V
5-6		3.2V
7-8		2.9V
9-10		2.8V
11-12	K6 for 300/266 MHz	<b>2.2V</b>

VR2		
1-2	K6	P54C
3-4	ON	OFF
	ON	OFF

### Intel Pentium CPUs

#### CPU Clock Rate

#### Frequency

CPU Speed	External (CPU/CLK)	CLK1	CLK2	CLK3	Internal	FREQ1	FREQ2	FREQ3
166 MHz	66 MHz	1-2	1-2	1-2	2.5 x Ext	2-3	2-3	1-2
133 MHz	66 MHz	1-2	1-2	1-2	2 x Ext	2-3	1-2	1-2
100 MHz	66 MHz	1-2	1-2	1-2	1.5 x Ext	1-2	1-2	1-2

### AMD K6 Pentium CPUs

#### CPU Clock Rate

#### Frequency

CPU Speed	External (CPU/CLK)	CLK1	CLK2	CLK3	Internal	FREQ1	FREQ2	FREQ3
<b>300 MHz</b>	<b>66 MHz</b>	<b>1-2</b>	<b>1-2</b>	<b>1-2</b>	<b>4.5 x Ext</b>	<b>2-3</b>	<b>2-3</b>	<b>2-3</b>
266 MHz	66 MHz	1-2	1-2	1-2	4 x Ext	2-3	1-2	2-3

### Clear Password

CPW	
Open	Clear CMOS RAM
1-2	Normal
	Clear password

### SRAM Mode

SRAM	MODE
1-2	Intel Burst
2-3	Linear Burst

VGA Status

VGA1	Status
<u>1-2</u>	Enabled
<u>2-3</u>	Disabled

BIOS Setting

1M Flash ROM	EP1	EP2
<u>Intel/MXIC</u>	2-3	Open
<u>ATMEL/SST/AMD</u>	1-2	1-2

Note 1: Standard jumper defaults are underlined.

Note 2: Be aware BIOS and CPU jumpers are component dependent.

Note 3: Physical VGA enable/disable required for add-on adapters.

The Pentium PAK 2005 Motherboard drawing below shows the Intel 166MHz jumper configuration. The jumper charts above detail all the jumper configurations for the PAK 2005 Motherboard.



## Appendix D: CMOS Setups

Below are the CMOS/BIOS settings for the 4 Motherboards (2 - 486, 2 - Pentium) that have been shipped in the TeamPoS 5000 terminal.

### NOTES:

1. The BIOS Date and Time will be set in manufacturing to the current date and time of the manufacturing location (UK time for UK built, California time for Irvine built).
2. The setting for HDD Drive C is dependent upon the terminal configuration at time of manufacture.
3. The setting for FDD Drive A is dependent upon the terminal configuration at time of manufacture. It will be set to 'None' in a disk-less terminal; otherwise it will be set as shown below.
4. The Virus Warning setting will be set to Disabled. It is recommended that after the HDD is installed and OS/Application are loaded, this be changed to Enabled. This will allow the highest degree of protection. The downside of Enabling this feature are: 1) slightly longer boot-up time, and 2) unable to format or load OS onto HDD.
5. External Cache is set to Enable even if there is physically no external Cache present to take advantage of other higher speed settings.
6. The Power Management feature is Disabled for all boards. Applications or customers that wish to take advantage of this feature must enable this setting(s).
7. The settings shown below are the standard 'default' settings for the hardware configuration. Some of these settings may be changed to accommodate a specific Operating System or Application loaded. Contact the Application Development & Validation group for details of any different settings required a specific Application.
8. When updated BIOS firmware is released, some CMOS settings may change. For field use, the older settings are also still required. In order to meet these requirements, the following criteria will be used:
  - Updates are shown in **bold** (effect all versions).
  - Features no longer available in new BIOS are in ~~strikeout~~.
  - Changed settings, the older settings are in (parentheses).

Appendix D: (continued)  
Original 486 Motherboard CMOS/BIOS

Award BIOS v4.50  
Standard CMOS Setup

Date (mm:dd:yy)	: <set to current date>
Time (hh:mm:ss)	: <set to current time>
	<u>CYLS.</u> <u>HEADS</u> <u>PRECOMP</u> <u>LANDZONE</u> <u>SECTORS</u>
Drive C	: User <Parameters set by autodetect, drive dependent>
Drive D	: None
Drive A	: 1.44M, 3.5 in.
Drive B	: None
Video	: EGA/VGA
Monitor Type	: 0
Halt On	: All, But Keyboard

BIOS Feature Setup

Virus Warning	: Disabled	System BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	Video BIOS Shadow	: Enabled
External Cache	: Enabled	C8000 - CBFFF Shadow	: Disabled
Quick Power On Self Test	: Disabled	CC000 - CFFFF Shadow	: Disabled
Boot Sequence	: A,C	D0000 - D3FFF Shadow	: Disabled
Boot Up Floppy Seek	: Enabled	D4000 - D7FFF Shadow	: Disabled
Boot Up NumLock Status	: On	DB000 - DBFFF Shadow	: Disabled
Boot Up System Speed	: High	DC000 - DFFFF Shadow	: Disabled
IDE HDD Block Mode	: Enabled		
Typematic Rate Setting	: Disabled		
Typematic Rate (Chars/Sec)	: 6		
Typematic Delay (Msec)	: 250		

Appendix D: (continued)

Original 486 Motherboard CMOS/BIOS (continued)

Chipset Features Setup

Relocate 256k/384k	: Disabled	Onboard FDD Controller	: Enabled
Video BIOS Cacheable	: Enabled	Onboard IDE Controller	: Enabled
System BIOS Cacheable	: Enabled	Onboard Serial Port 1	: COM1
Memory Hole at 15Mb Addr.	: Disabled	Onboard Serial Port 2	: COM2
Cache Timing Control	: Fast	Onboard Parallel Port	: 378H
DRAM Timing Control	: Fast	COM3 & COM4 Address	: Disabled
Fast DRAM	: Enabled		

Power Management

Power Management	: Disabled
Doze Mode/Timer	: 2 min
Suspend/Sleep Timer	: 8 min
VGA Activity Wakeup	: Disabled
Power Saving Mode	: Sleep
Power Management Audio	: Disabled

Appendix D: (continued)  
New 486 Motherboard CMOS/BIOS

Award BIOS v4.50G (3.274GN2)  
Standard CMOS Setup

Date (mm:dd:yy)	:	<set to current date>
Time (hh:mm:ss)	:	<set to current time>
Daylight Saving	:	Disabled
		<u>CYLS.</u> <u>HEADS</u> <u>PRECOMP</u> <u>LANDZONE</u> <u>SECTORS</u> <u>MODE</u>
Drive C	:	User <Parameters set by autodetect, drive dependent>
Drive D	:	None
Drive A	:	1.44M, 3.5 in.
Drive B	:	None
Video	:	EGA/VGA
Halt On	:	All, But Keyboard

(Disk mode should be set to default to LBA mode)

BIOS Feature Setup

Virus Warning	:	Disabled	System BIOS Shadow	:	Enabled
CPU Internal Cache	:	Enabled	Video BIOS Shadow	:	Enabled
External Cache	:	Enabled	C8000 - CBFFF Shadow	:	Disabled
Quick Power On Self Test	:	Disabled	CC000 - CFFFF Shadow	:	Disabled
Boot Sequence	:	A,C	D0000 - D3FFF Shadow	:	Disabled
Swap Floppy Drive	:	Disabled	D4000 - D7FFF Shadow	:	Disabled
Boot Up Floppy Seek	:	Enabled	DB000 - DBFFF Shadow	:	Disabled
Boot Up NumLock Status	:	On	DC000 - DFFFF Shadow	:	Disabled
Boot Up System Speed	:	High			
IDE HDD Block Mode	:	Enabled			
Fast A20 Port 92H	:	Enabled			
Memory Parity Check	:	Enabled			
Typematic Rate Setting	:	Disabled			
Typematic Rate (Chars/Sec)	:	6			
Typematic Delay (Msec)	:	250			

Appendix D: (continued)  
New 486 Motherboard CMOS/BIOS (continued)

Chipset Features Setup

Decoupled Refresh	: Enabled	Onboard FDC Controller	: Enabled
Relocate 256k/384k	: Disabled	Onboard IDE Controller	: Enabled
Video BIOS Cacheable	: Enabled	Onboard Serial Port 1	: COM1
System BIOS Cacheable	: Enabled	Onboard Serial Port 2	: COM2
		COM3 & COM4 Address	: 3E8H, 2E8H
External Cache Scheme	: Write Back	Onboard Parallel Port	: 378,IRQ7
Combine Alter & Tag Bits	: Disabled		
CHRDY for ISA Master	: Disabled		
Memory Hole at 15Mb Addr.	: Disabled		
Cache Timing Control	: Turbo(Fast)		
DRAM Timing Control	: Fast		
Fast DRAM	: Enable		
Burst Write	: Disabled		
CPU Write Back Cache	: Disabled		
P24T Cache Replace BLAST	: Disabled		

Power Management

Power Management	: Disabled
Doze Timer	: 2 min
Doze Mode Speed	: CLKIN/4
Sleep Timer	: 8 min
Sleep Mode	: Sleep
HDD Power Management	: Disabled
VGA Activity Wakeup	: Disabled
RTC Alarm Wakeup	: Disabled
INTR Enable PMI	: Disabled
IO Activity	: Disabled

Appendix D: (continued)  
Pentium PAC 2000 Motherboard CMOS/BIOS

ROM PCI/ISA BIOS (2A5L7F0H)  
Standard CMOS Setup

Date (mm:dd:yy)	: <set to current date>
Time (hh:mm:ss)	: <set to current time>
Daylight Saving	: Disabled
<u>HARD DISKS</u>	<u>TYPE SIZE CYLS HEAD PRECOMP LANDZ SECTOR MODE</u>
Primary Master	: Auto <Parameters set by autodetect, drive dependent>
Primary Slave	: None
Secondary Master	: None
Secondary Slave	: None
Drive A	: 1.44M, 3.5 in.
Drive B	: None
Video	: EGA/VGA
Halt On	: All, But Keyboard

(Disk mode should be set to default to LBA mode)

BIOS Feature Setup

Virus Warning	: Disabled	System BIOS Shadow	: Enabled
External Cache	: Enabled	C8000 - CBFFF Shadow	: Disabled
Quick Power On Self Test	: Disabled	CC000 - CFFFF Shadow	: Disabled
Boot Sequence	: A,C	D0000 - D3FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D4000 - D7FFF Shadow	: Disabled
Boot Up Floppy Seek	: Enabled	DB000 - DBFFF Shadow	: Disabled
Boot Up NumLock Status	: On	DC000 - DFFFF Shadow	: Disabled
Port 92H Fast A20G	: Fast		
Memory Parity Check	: Enabled	O/S Select DRAM >64M	: Non-OS/2
Typematic Rate Setting	: Disabled		
Typematic Rate (Chars/Sec)	: 6		
Typematic Delay (Msec)	: 250		
Security Option	: Setup		
PS/2 Mouse Function Control	: Enabled		

Appendix D: (continued)  
 Pentium PAC 2000 Motherboard CMOS/BIOS (continued)

Chipset Features Setup

<del>Auto Configuration</del>	<del>+</del> Enabled	DRAM for Bank 0	: Standard
<del>AT Bus Clock</del>	<del>+</del> CLKIN/8	DRAM for Bank 1	: Standard
Decoupled Refresh	: Enabled	Onboard FDC Controller	: Enabled
Video BIOS Cacheable	: Enabled	Onboard IDE Controller	: Secondary
System BIOS Cacheable	: Enabled	Onboard Serial Port 1	: COM1/3F8
Memory Hole at 15Mb Addr.	: Disabled	Onboard Serial Port 2	: COM2/2F8
Cache Timing Control	: Fast	Onboard Parallel Port	: 378H,IRQ7
DRAM Timing Control	: Fast	Onboard Printer Mode	: Compatible
SRAM Tag/Alt Bit Config	: 7 Tags + ALT	ECP Use DRAM Channel	: 1
OnChip IDE First Channel	: Enabled		
IDE HDD Block Mode	: Enabled		
IDE Primary Master PIO	: Auto		
IDE Primary Slave PIO	: Auto		

Power Management

Power Management	: Disabled	IRQ3 Activity	: Primary
Doze Timer	: 2 min	IRQ4 Activity	: Primary
Suspend Timer	: 8 min	IRQ5 Activity	: Primary
Suspend Mode	: Disabled	IRQ7 Activity	: Primary
HDD Power Management	: Disabled	IRQ8 Activity	: Secondary
VGA Activity Wakeup	: Disabled	IRQ10 Activity	: Primary
Video Off Method	: DPMS Support	IRQ11 Activity	: Primary
		IRQ12 Activity	: Primary

Appendix D: (continued)  
 Pentium PAK-2005 Motherboard CMOS/BIOS

ROM PCI/ISA BIOS (2A5LC008)  
 Standard CMOS Setup  
 Award Software, Inc.

Date (mm:dd:yy)	:	<set to current date>
Time (hh:mm:ss)	:	<set to current time>
<u>HARD DISKS</u>		
	TYPE	SIZE CYLS HEAD PRECOMP LANDZ SECTOR MODE
Primary Master	: None	0 0 0 0 0 0 0 AUTO
Primary Slave	: None	0 0 0 0 0 0 0 AUTO
Secondary Master	: None	0 0 0 0 0 0 0 AUTO
Secondary Slave	: None	0 0 0 0 0 0 0 AUTO
Drive A	:	1.44M, 3.5 in.
Drive B	:	None
Floppy 3 Mode Support	:	Disabled
Video	:	EGA/VGA
Halt On	:	All Errors
ESC : Quit	↑ ↓ ⇒ ⇐	: Select item
F1 : Help	(Shift)F2	: Change Color
	PU/PD/+/-	: Modify

BIOS Feature Setup

Virus Warning	:	Disabled	Video BIOS Shadow	:	Enabled
CPU Internal Cache	:	Enabled	C8000 - CBFFF Shadow	:	Disabled
External Cache	:	Enabled	CC000 - CFFFF Shadow	:	Disabled
Quick Power On Self Test	:	Enabled	D0000 - D3FFF Shadow	:	Disabled
Boot Sequence (LS120/ZIP100)	:	A,C,SCSI	D4000 - D7FFF Shadow	:	Disabled
Boot Up Floppy Seek	:	Enabled	D8000 - DBFFF Shadow	:	Disabled
Boot Up NumLock Status	:	On	DC000 - DFFFF Shadow	:	Disabled
Gate A20 Option	:	Fast			
Typematic Rate Setting	:	Disabled			
Typematic Rate (Chars/Sec)	:	6			
Typematic Delay (Msec)	:	250			
Security Option	:	Setup			
OS Select For DRAM > 64MB	:	Non-OS2			

Chipset Features Setup

Video BIOS Cacheable	:	Enabled	CPU to PCI Write Buffer	:	Enabled
System BIOS Cacheable	:	Disabled	PCI Dynamic Bursting	:	Enabled
Memory Hole at 15Mb Addr.	:	Disabled	PCI Burst	:	Enabled
 			PCI Master 0 WS Write	:	Enabled
Sustained 3T Write	:	Enabled	Quick Frame Generation	:	Enabled
CPU Pipeline	:	Enabled	PCI Peer Concurrency	:	Enabled
Memory ECC Check	:	Disabled	 		
DRAM Auto Configuration	:	Disabled			
DRAM Timing Control	:	Fast			
SDRAM Single/Burst Write	:	Burst			
SDRAM Cycle Length	:	3			
SDRAM Bank Interleave	:	Disabled			

Appendix D: (continued)  
 Pentium PAK-2005 Motherboard CMOS/BIOS

Power Management

Power Management	: Disabled		
PM Control by APM	: Yes		
Video Off Option	: Suspend → Off	IRQ3 (COM 2)	: Primary
Video Off Method	: DPMS Support	IRQ4 (COM 1)	: Primary
MODEM Use IRQ	: NA	IRQ5 (LPT 2)	: Primary
		IRQ7 (LPT 1)	: Primary
**PM Timer**		IRQ8 (RTC Alarm)	: Disabled
HDD Power Down	: Disabled	IRQ9 (IRQ2 Redir)	: Disabled
Doze Mode	: Disabled	IRQ10 (Reserved)	: Disabled
Suspend Mode	: Disabled	IRQ11 (Reserved)	: Disabled
		IRQ12 (PS/2 Mouse)	: Primary
**PM Events**		IRQ14 (Hard Disk)	: Primary
VGA I/O & Memory	: OFF	IRQ15 (Reserved)	: Disabled
LPT & COM I/O	: LPT/COM		
HDD & FDD I/O	: ON		

PNP and PCI Setup

PNP CS Installed	: No	PCI IRQ Activated BY	:Level
Resources Controlled By	: Auto	Assign IRQ For VGA	:Disabled
Reset Configuration Date	: Disabled		
IRQ Sequence:	15,11,10,9,12,14,5,7,3,4		

Integrated Peripherals

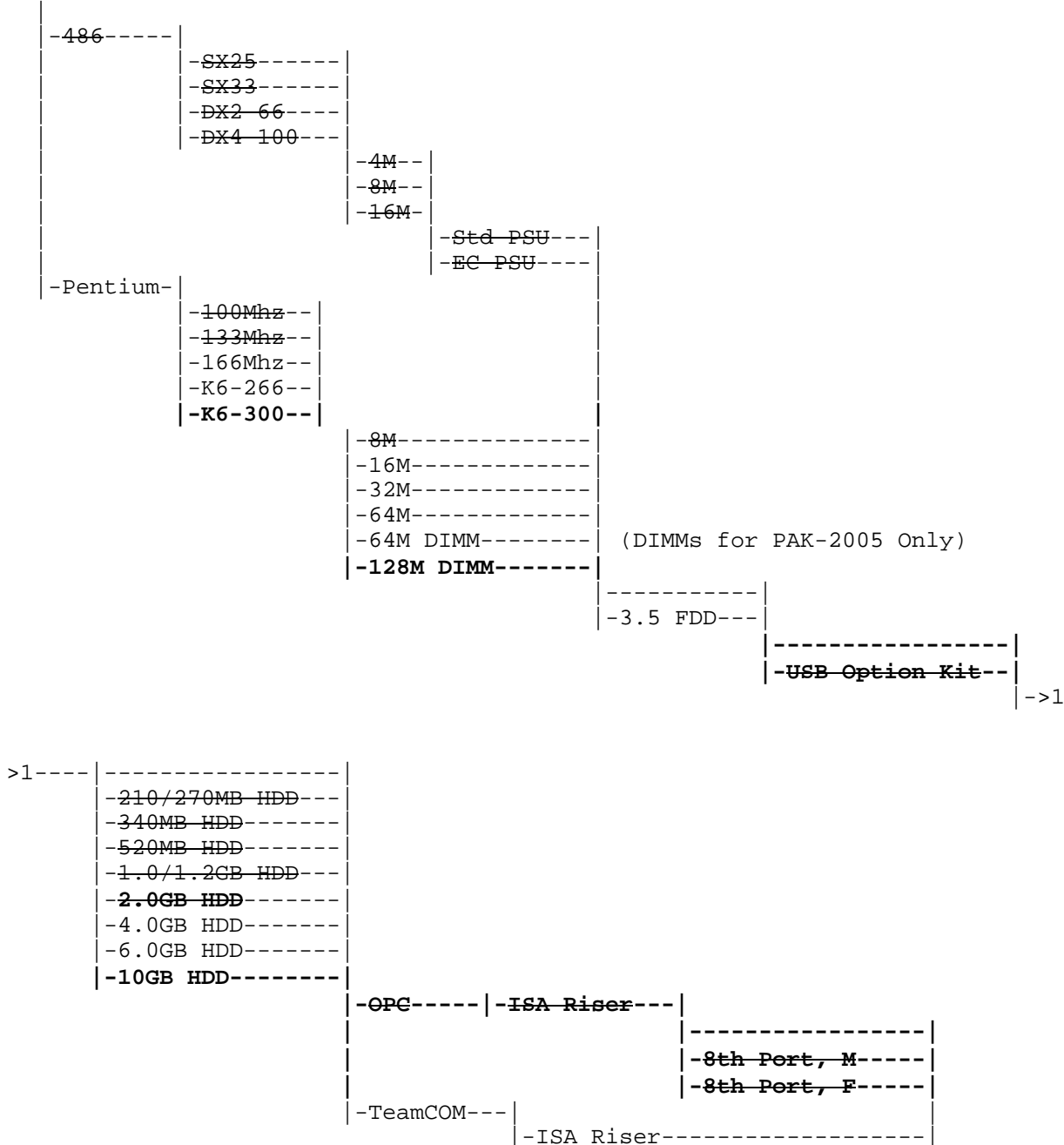
IDE HDD Block Mode	: Enabled	Onboard FDD Controller	:Enabled
On-Chip Primary PCI IDE	: Enabled	Onboard Serial Port 1	:3F8/IRQ4
On-Chip Secondary PCI IDE	: Enabled	Onboard Serial Port 2	:2F8/IRQ3
IDE Primary Master PIO	: Auto	UART2 Mode	:Standard
IDE Primary Slave PIO	: Auto		
IDE Secondary Master PIO	: Auto	Onboard Parallel Port	:378/IRQ7
IDE Secondary Slave PIO	: Auto	Parallel Port Mode	:Normal
IDE Primary Master UDMA	: Disabled		
IDE Primary Slave UDMA	: Disabled		
IDE Secondary Master UDMA	: Disabled		
IDE Secondary Slave UDMA	: Disabled		
HDD S.M.A.R.T. Capability	: Disabled		
USB Controller	: Disabled		

## Appendix E: TeamPoS Configuration Chart

The following configuration flow chart will assist the reader with understanding the various configurations that are available. This is NOT an all encompassing chart and does not show many 'add-on' features. Instead it gives a basic understanding of the major terminal configurations possible and supported. Some items will be shown to have features in common (ex. All printers flow to a Stacked/Dispersed choice), this does not imply that this is the same feature (PIN number) for all printers. It simply shows that all have that feature choice. Items shown in ~~strikethrough/bold~~ text are no longer available from production. All new configurable items are **bolded**.

### Controller

START



| -ISA/PCI Riser (Pent Only)--- | ->2

```
>2-----|-----|
| -Locking Front Cover---|
|                                     |
|                                     |
| -2001E Board--|
| -LAN Card-----| ->3
```

Keyboards

```
>3-----|-----|
| -133PQ-----|
| -Remapped 133PQ--|
| -136P-----|
|                                     |
|                                     |
| -Stacked---|
| -Dispersed-|
|                                     |
|                                     |
| -1/2 MSR---|
| -2/3 MSR---|
|                                     |
| -Keylock #1-5-----|
|
| -92R-|
| -Stacked---|
| -Dispersed-|
|                                     |
|                                     |
| -1/2 MSR---|
| -2/3 MSR---|
|                                     |
|                                     |
| -H Keylock #0-5--|
| -V Keylock #0-5--|
|                                     |
| -Op Display-----|
|                                     |
|-----| ->4
```

Printers

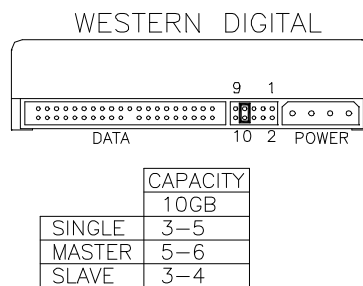
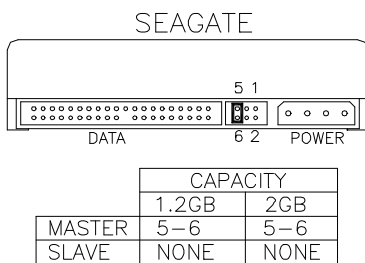
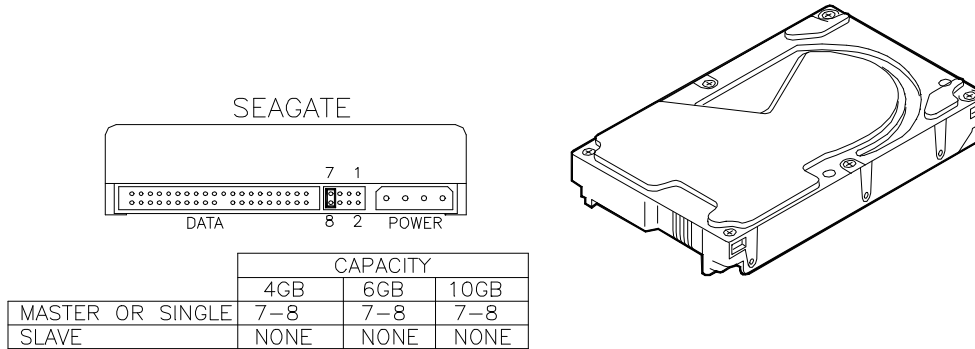
```
>4-----|-----|
| -FJ Atrium-----|
| -FJ 9518/200-----|
| -FJ 9520/150-----|
| -FJ FD20-----|
| -FJ FD21-----|
| -FJ FD21 Fiscal--|
| -Epson U930-----|
| -Epson U925-----|
| -Epson U950-----|
| -Epson T88II-----|
| -Epson H5000II---|
| -Axiohm 7156-----|
| -Axiohm 7193-----|
| -Axiohm A758-----|
| -Axiohm A794-----|
|                                     |
| -Stacked-----|
| -Dispersed-----|
|-----| ->5
```

Displays

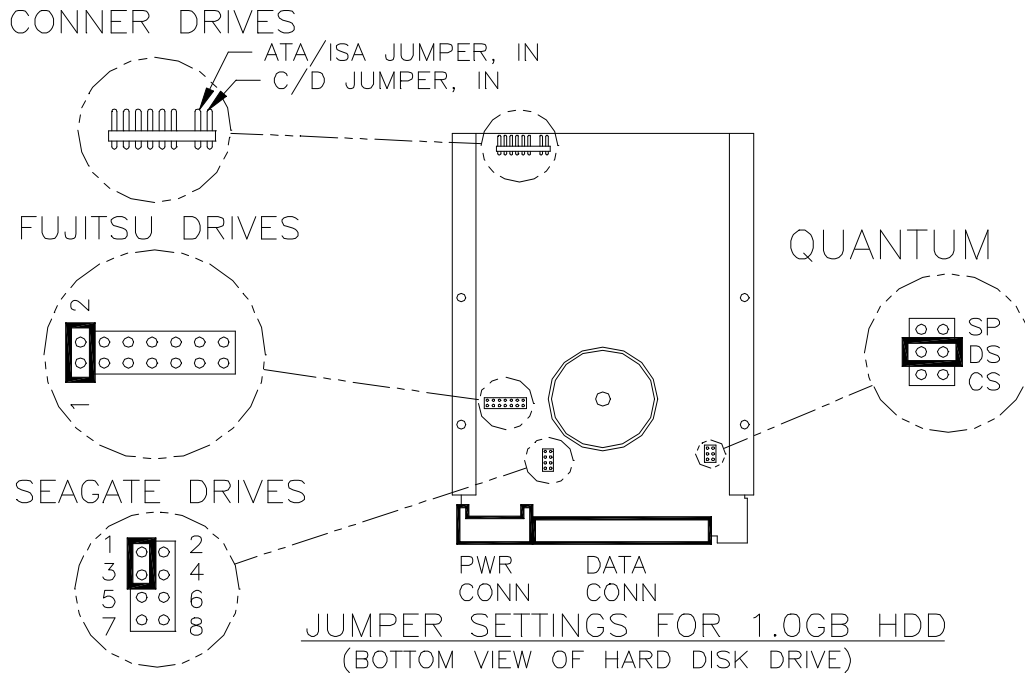
```
>5-----|-----|
| -10" Mono CRT----|
| -10" Color CRT---|
|                                     |
| -Stacked-----|
| -Dispersed-----|
```



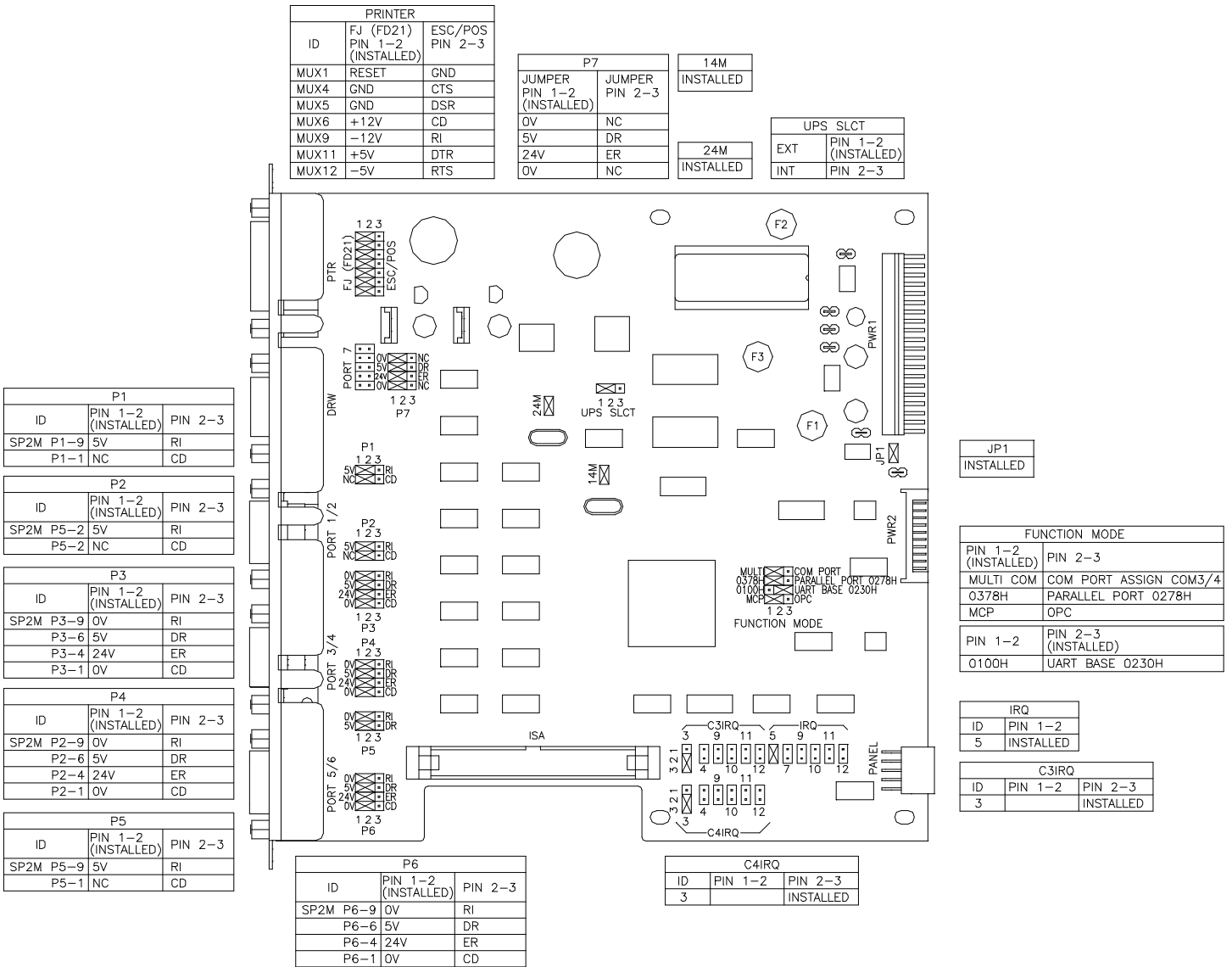
**Appendix F: HDD Jumper Chart**



JUMPER SETTING (REAR VIEW)



**Appendix G: TeamCOM Jumpers/Ports/Interrupts/Addresses/Power Budget**



Jumpers shown in their default position.

**FUSES:**

- Fuse labelled F1 = +24V to printer.
- Fuse labelled F2 = +5V to ports 1-2-5
- Fuse labelled F3 = +5V to ports 3-4-6

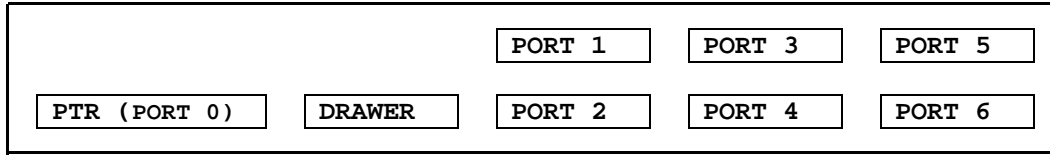
Appendix G: TeamCOM Jumpers (continued)

Jumper	1-2 Short	2-3 Short
JP1	<u>FG-SG Short</u>	N/A
Mode	<u>MCP (TeamCOM)</u>	OPC (Not Supported)
Mode	<u>Base Address=100H</u>	<u>Base Address=230H</u>
Mode	<u>Parallel Port Add=378H</u>	<u>Parallel Port Add=278H</u>
Mode	<u>Multi Com Ports</u>	COM 3&4
UPS	<u>External UPS</u>	Internal UPS
14M	<u>14MHz Clock</u>	N/A
24M	<u>24MHz Clock</u>	N/A
P6 CD-0V	<u>Port 6 Pin 1 = 0V</u>	Port 6 Pin 1 = CD
P6 ER-24V	<u>Port 6 Pin 4 = 24V</u>	Port 6 Pin 4 = DTR
P6 DR-5V	<u>Port 6 Pin 6 = 5V</u>	Port 6 Pin 6 = DSR
P6 RI-0V	<u>Port 6 Pin 9 = 0V</u>	Port 6 Pin 9 = RI
P5 CD-NC	<u>Port 5 Pin 1 = n/c</u>	Port 5 Pin 1 = CD
P5 RI-5V	<u>Port 5 Pin 9 = 5V</u>	Port 5 Pin 9 = RI
P4 CD-0V	<u>Port 4 Pin 1 = 0V</u>	Port 4 Pin 1 = CD
P4 ER-24V	<u>Port 4 Pin 4 = 24V</u>	Port 4 Pin 4 = DTR
P4 DR-5V	<u>Port 4 Pin 6 = 5V</u>	Port 4 Pin 6 = DSR
P4 RI-0V	<u>Port 4 Pin 9 = 0V</u>	Port 4 Pin 9 = RI
P3 CD-0V	<u>Port 3 Pin 1 = 0V</u>	Port 3 Pin 1 = CD
P3 ER-24V	<u>Port 3 Pin 4 = 24V</u>	Port 3 Pin 4 = DTR
P3 DR-5V	<u>Port 3 Pin 6 = 5V</u>	Port 3 Pin 6 = DSR
P3 RI-0V	<u>Port 3 Pin 9 = 0V</u>	Port 3 Pin 9 = RI
P2 CD-NC	<u>Port 2 Pin 1 = n/c</u>	Port 2 Pin 1 = CD
P2 RI-5V	<u>Port 2 Pin 9 = 5V</u>	Port 2 Pin 9 = RI
P1 CD-NC	<u>Port 1 Pin 1 = n/c</u>	Port 1 Pin 1 = CD
P1 RI-5V	<u>Port 1 Pin 9 = 5V</u>	Port 1 Pin 9 = RI
P7 NC-0V	<u>Port 7 Pin 1 = 0V</u>	Port 7 Pin 1 = n/c
P7 ER-24V	<u>Port 7 Pin 4 = 24V</u>	Port 7 Pin 4 = DTR
P7 DR-5V	<u>Port 7 Pin 6 = 5V</u>	Port 7 Pin 6 = DSR
P7 NC-0V	<u>Port 7 Pin 9 = 0V</u>	Port 7 Pin 9 = n/c
	<b>1-2 Shorted</b>	<b>2-3 Shorted</b>
IRQ	Select one value: <u>5, 7,8,10,11,12</u>	N/A
C3IRQ	Select one value for COM3 IRQ: <u>4,9,10,11,12</u>	<u>Select COM3 (DOS)</u>
C4IRQ	Select one value for COM4 IRQ: <u>4,9,10,11,12</u>	<u>Select COM4 (DOS)</u>
PTR	<u>FD21 FJ</u>	ESC/POS

Notes: Defaults are Underlined  
C3IRQ and C4IRQ are only used for DOS mode  
PTR is a block of 7 jumpers

Appendix G: TeamCOM Jumpers (continued)

TeamCOM connector ports with pin-out assignments



	PORT 1/2/5		PORT 3/4/6		DRAWER	PRINTER PORT 0		
						FJ PTR	ESC/POS	To: DB9
	D9 Male		D9 Female		D9 Female	D15 Male		
1	N/C	CD	GND	CD	GND	RST (TTL)	GND	NC -
2	RX	RX	RX	RX	CD1-Status	RX	RX	RX 2
3	TX	TX	TX	TX	CD1-Sol+	TX	TX	TX 3
4	DTR	DTR	+24V	DTR	N/C	Ground	CTS	CTS 8
5	Gnd	SG	SG	SG	Gnd	Ground	DSR	DSR 6
6	DSR	DSR	+5V	DSR	N/C	+12V	CD	CD 1
7	RTS	RTS	RTS	RTS	CD2-Sol+	Ground	SG	SG 5
8	CTS	CTS	CTS	CTS	CD2-Status	+24V Ret	GND	NC -
9	+5V	RI	GND	RI	GND	-12V	RI	RI 9
10						+5V	+5v	NC -
11						+5V	DTR	DTR 4
12						+5V	RTS	RTS 7
13						+24V Ret	GND	NC -
14						+24V	+24v	NC -
15						+24V	+24V	-

TEAMCOM interrupts & I/O address, interrupt selectable by jumper

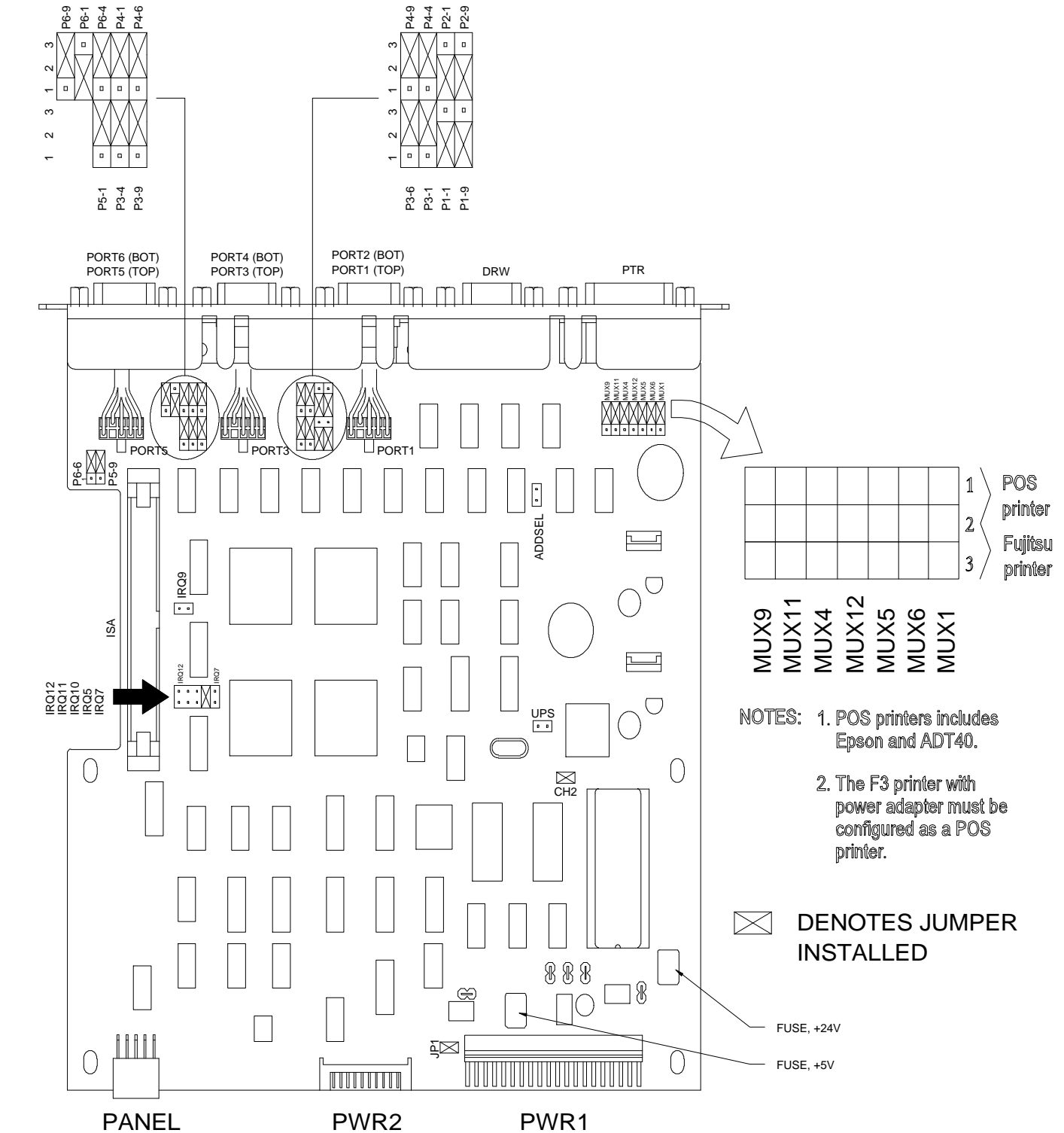
	Port 0	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6	Port 7
Connector	D9 F/M	D9 MALE	D9 MALE	D9 F/M	D9 F/M	D9 MALE	D9 F/M	Internal
Power	+5V +12V +24V - 12V	5V	5V	5V - 24V	5V - 24V	5V	5V - 24V	
Typical Use	Printer	Scale	Scanner	Cust Disp	RS232 K/B		Oper. Disp	
WIN NT/95								
COM Port #	COM 3	COM 4	COM 5	COM 6	COM 7	COM 8	COM 9	Com 10
Interrupt	5, 7, 10, 11 and 12 Jumper Selectable							
I/O Address	100/230	108/238	110/240	118/248	120/250	128/256	130/260	138/268
DOS 8 Ports								
COM Port #	COM 3	COM 4	COM 5	COM 6	COM 7	COM 8	COM 9	Com 10
Interrupt	5, 7, 10, 11 and 12 Jumper Selectable							
I/O Address	100/230	108/238	110/240	118/248	120/250	128/256	130/260	138/268

Appendix G: TeamCOM Jumpers (continued)

Pre-Production TeamCOM Board:

The jumper chart and illustration below are for the 'Pre-Production' units. This illustration and jumper chart will be removed from future releases of this SPG. If you will need this chart, keep a local copy for future use.

(All Jumpers Shown in Default Position)



Appendix G: TeamCOM Jumpers (continued)

Pre-Production TeamCOM Jumper Chart:  
(Defaults are shown underlined)

RS232 Port Power/Signal Selections:

Jumper		Port & Pin Affected		Definition
P1-1	<u>1-2</u>	Port 1	Pin 1	Open
	2-3	Port 1	Pin 1	CD (Carrier Detect)
P1-9	<u>1-2</u>	Port 1	Pin 9	+5V
	2-3	Port 1	Pin 9	RI (Ring Indicator)
P2-1	<u>1-2</u>	Port 2	Pin 1	Open
	2-3	Port 2	Pin 1	CD (Carrier Detect)
P2-9	<u>1-2</u>	Port 2	Pin 9	+5V
	2-3	Port 2	Pin 9	RI (Ring Indicator)
P3-1	1-2	Port 3	Pin 1	GND
	<u>2-3</u>	Port 3	Pin 1	CD (Carrier Detect)
P3-4	1-2	Port 3	Pin 4	+24V
	<u>2-3</u>	Port 3	Pin 4	DTR (Data Terminal Ready)
P3-6	1-2	Port 3	Pin 6	+5V
	<u>2-3</u>	Port 3	Pin 6	DSR (Data Set Ready)
P3-9	1-2	Port 3	Pin 9	GND
	<u>2-3</u>	Port 3	Pin 9	RI (Ring Indicator)
P4-1	1-2	Port 4	Pin 1	GND
	<u>2-3</u>	Port 4	Pin 1	CD (Carrier Detect)
P4-4	1-2	Port 4	Pin 4	+24V
	<u>2-3</u>	Port 4	Pin 4	DTR (Data Terminal Ready)
P4-6	1-2	Port 4	Pin 6	+5V
	<u>2-3</u>	Port 4	Pin 6	DSR (Data Set Ready)
P4-9	1-2	Port 4	Pin 9	GND
	<u>2-3</u>	Port 4	Pin 9	RI (Ring Indicator)
P5-1	1-2	Port 5	Pin 1	Open
	<u>2-3</u>	Port 5	Pin 1	CD (Carrier Detect)
P5-9	1-2	Port 5	Pin 9	+5V
	<u>2-3</u>	Port 5	Pin 9	RI (Ring Indicator)
P6-1	<u>1-2</u>	Port 6	Pin 1	GND
	2-3	Port 6	Pin 1	CD (Carrier Detect)
P6-4	1-2	Port 6	Pin 4	+24V
	<u>2-3</u>	Port 6	Pin 4	DTR (Data Terminal Ready)
P6-6	1-2	Port 6	Pin 6	+5V
	<u>2-3</u>	Port 6	Pin 6	DSR (Data Set Ready)
P6-9	1-2	Port 6	Pin 9	GND
	<u>2-3</u>	Port 6	Pin 9	RI (Ring Indicator)

IRQ Selection (only one can be installed):

<u>IRQ5</u>	IRQ7	IRQ9	IRQ10	IRQ11	IRQ12
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Appendix G: TeamCOM Jumpers (continued)

Misc. Jumpers:

Jumper	Setting	Definition
JP1	OPEN	Signal to Frame Ground Open
	SHORT	Signal to Frame Ground Connected
CH2	OPEN	Open Clock to 8032 (for MFG Test Only)
	SHORT	Clock to 8032
UPS	OPEN	8032 UPS Control
	SHORT	Port 6
ADDSEL	OPEN	UART Base Address: 100H-138H
	SHORT	UART Base Address: 230H-268H

**TeamPoS power budget and worksheet:**

The following worksheet estimates the terminals total power usage and compares it to the maximum available.

Total the 5 and 24 VDC device amp usage and enter it in the space provided in row A.

Subtract the total average 5 and 24 VDC amps from the maximum available listed in row B. If the number is negative, there is not enough power for the peripherals.

Peripheral	Average in-use amps		Total average in-use amps	
	① 5 VDC	② 24VDC	③ 5 VDC	④ 24 VDC
FD20/FD21 Printer	0.8	1.4		
9520/150 or Atrium Printer	0.8	1.6		
Model E3 Printer (Epson TM930)		1.6		
Model AT93		1.0		
Model ADT40 Printer		1.4		
Model TM-U950/U925		1.9		
Model TM-T88		1.2		
Model TM-H5000		2.0		
Model 133PQ or 136P Keyboard (PC port connected)				
Model 92R Keyboard <u>without</u> display		0.080		
Model 92R Keyboard <u>with</u> display		0.150		
Model VF40 Display		0.150		
Other				
Other				
(A) Total				
(B) Maximum Available			2.0	3.0
Difference (B-A) (must be positive number)				

## Appendix H: TeamPoS 5000 Upgrade Kits

The charts below show the kits needed for upgrading one TeamPoS configuration to a higher level.

### TeamPoS 5000 Disk Upgrades

To	1.44M FDD	210/270M HDD	340M HDD	520M HDD	1.0/1.2G HDD	2G HDD	4G HDD	6G HDD	10G HDD
No FDD	50017/001								
No HDD		52075/004	54538/001	54515/001	PB600010	PB600159	PB600475	PB600476	<b>PB600538</b>
210/270M HDD		-----	54538/001	54515/001	PB600010	PB600159	PB600475	PB600476	<b>PB600538</b>
340M HDD			-----	54515/001	PB600010	PB600159	PB600475	PB600476	<b>PB600538</b>
520M HDD				-----	PB600010	PB600159	PB600475	PB600476	<b>PB600538</b>
1.0/1.2G HDD					-----	PB600159	PB600475	PB600476	<b>PB600538</b>
2G HDD						-----	PB600475	PB600476	<b>PB600538</b>
4G HDD							-----	PB600476	<b>PB600538</b>
6G HDD								-----	<b>PB600538</b>
<b>10G HDD</b>									-----

### TeamPoS 5000 Memory Upgrades

To	4M SIMM	8M SIMM	16M SIMM	32M SIMM	64M SIMM	64M DIMM	128M DIMM
4M SIMM	-----	58325/001	PB600115 (2)	58611/001 (2)	PB600333 (2)		
8M SIMM		-----	PB600115	58611/001 (2)	PB600333 (2)	PB600449	<b>PB600539</b>
16M SIMM			-----	58611/001	PB600333 (2)	PB600449	<b>PB600539</b>
32M SIMM				-----	PB600333	PB600449	<b>PB600539</b>
64M SIMM					-----	PB600449	<b>PB600539</b>
64M DIMM						-----	<b>PB600449</b>
128M DIMM							-----

- ◆ DIMM Memory only supported by the PAK-2005 Pentium Motherboard.
- ◆ When converting from SIMMs to DIMMs, all SIMMs must be removed.

### TeamPoS 5000 Base Configuration Upgrades (Based upon standard configurations)

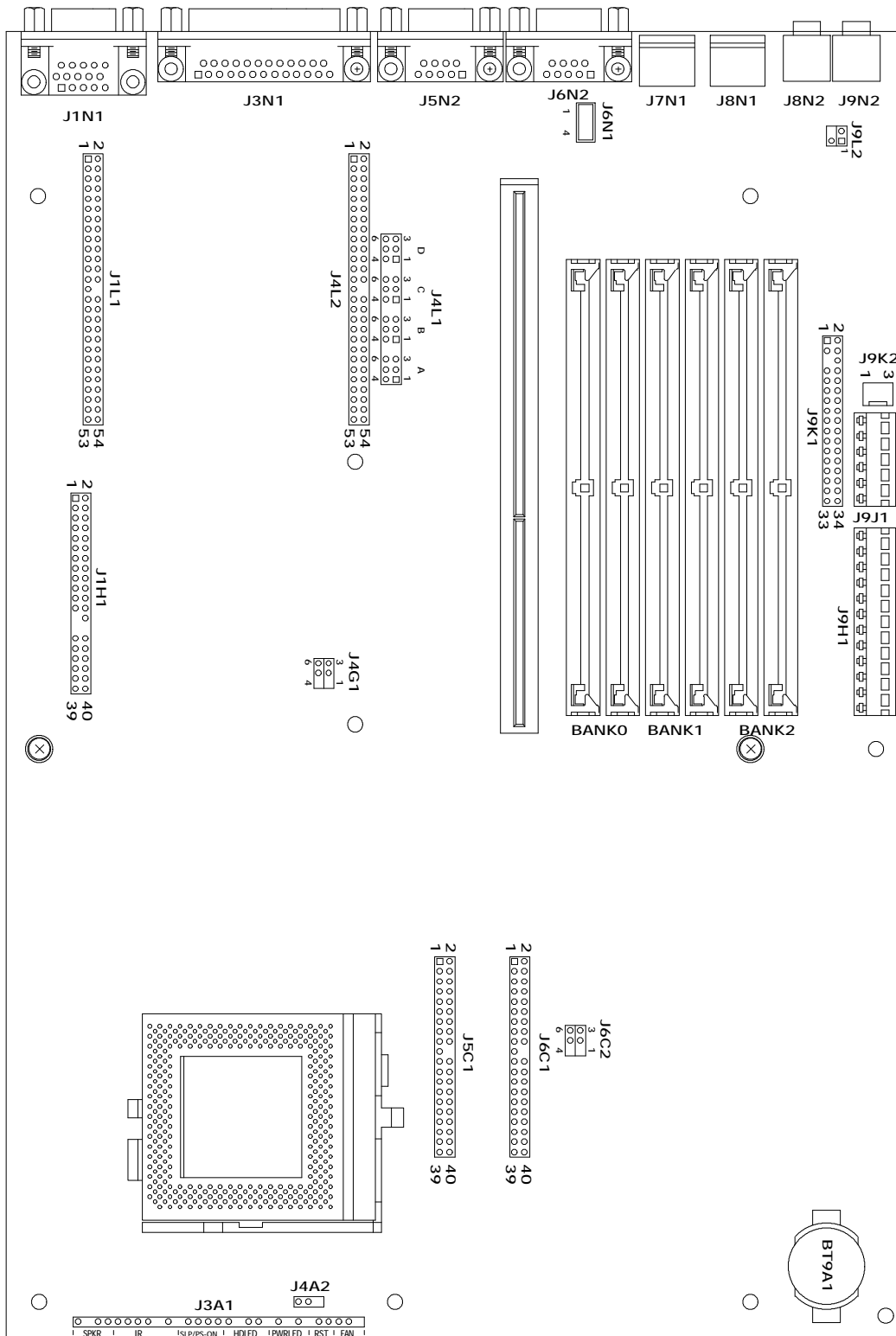
To	486-25 (Old MB) OPC	486-33 (Old MB) OPC	486-66 (Old MB) OPC	486DX2-66 OPC	486DX2-66 TeamCOM	486DX4-100 OPC	486DX4-100 TeamCOM
486-25 OPC (Old Motherboard)	-----	PB000017	PB000018	PB600008 PB600027	PB600008 PB600027 PB600165	PB600008 PB600163	PB600008 PB600163 PB600165
486-33 OPC (Old Motherboard)		-----	PB000018	PB600008 PB600027	PB600008 PB600027 PB600165	PB600008 PB600163	PB600008 PB600163 PB600165
486-66 OPC (Old Motherboard)			-----	PB600008 PB600027	PB600008 PB600027 PB600165	PB600008 PB600163	PB600008 PB600163 PB600165
486DX2-66 OPC				-----	PB600165	PB600163	PB600008 PB600163 PB600165
486DX2-66 TC					-----		PB600163
486DX4-100 OPC						-----	PB600165
486DX4-100 TC							-----

From	To	Pentium 100 OPC	Pentium 133 OPC	Pentium 166 OPC	Pentium 166 TeamCOM	Pent K6-266 OPC	Pent K6-266 TeamCOM	Pent K6-300 TeamCOM
486-25 OPC (Old Motherboard)	PB600074 PB600007	PB600074 PB600227	PB600074 PB600250	PB600074 PB600250 PB600166	PB600074 PB600443 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600541 PB600542 PB600540
486-33 OPC (Old Motherboard)	PB600074 PB600007	PB600074 PB600227	PB600074 PB600250	PB600074 PB600250 PB600166	PB600074 PB600443 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600541 PB600542 PB600540
486-66 OPC (Old Motherboard)	PB600074 PB600007	PB600074 PB600227	PB600074 PB600250	PB600074 PB600250 PB600166	PB600074 PB600443 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600541 PB600542 PB600540
486DX2-66 OPC	PB600074 PB600007	PB600074 PB600227	PB600074 PB600250	PB600074 PB600250 PB600166	PB600074 PB600443 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600541 PB600542 PB600540
486DX2-66 TC				PB600074 PB600250		PB600074 PB600338 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600541 PB600542 PB600540	
486DX4-100 OPC	PB600074 PB600007	PB600074 PB600227	PB600074 PB600250	PB600074 PB600250 PB600166	PB600074 PB600443 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600541 PB600542 PB600540
486DX4-100 TC				PB600074 PB600250		PB600074 PB600338 PB600469 PB600471 PB600478	PB600074 PB600338 PB600444 PB600541 PB600542 PB600540	
Pentium 100 OPC	-----	PB600164	PB600240	PB600445 PB600471 PB600338 PB600444	PB600469 PB600471 PB600478	PB600338 PB600444 PB600469 PB600471 PB600478	PB600338 PB600444 PB600541 PB600542 PB600540	
Pentium 133 OPC		-----	PB600240	PB600445 PB600471 PB600338 PB600444	PB600469 PB600471 PB600478	PB600338 PB600444 PB600469 PB600471 PB600478	PB600338 PB600444 PB600541 PB600542 PB600540	
Pentium 166 OPC			-----	PB600471* PB600478* PB600338 PB600444	PB600469 PB600471 PB600478*	PB600338 PB600444 PB600469 PB600471 PB600478*	PB600338 PB600444 PB600541 PB600542** PB600540**	
Pentium 166 TC				-----		PB600469 PB600471 PB600478*	PB600541 PB600542** PB600540**	
Pent K6-266 OPC					-----	PB600338 PB600444	PB600338 PB600444 PB600541 PB600542** PB600540**	
Pent K6-266 TC						-----	PB600541 PB600542** PB600540**	
Pent K6-300 TC							-----	

- \* = Only needed if current MB is a PAC-2000.
- \*\* = **Not needed if PAK-2005 1.2 MB installed.**

### Appendix I: Intel Pentium Motherboard Jumpers

Below are the jumper settings for a limited number of TeamPoS 5000's that shipped with the Intel Pentium Motherboard.



Appendix I: Intel Pentium Motherboard Jumpers (continued)

Motherboard Connectors:

Connector	Description
J8N1	PS/2 keyboard
J7N1	PS/2 Mouse
J6N1	Serial Port 1 (COM1)
J5N2	Serial Port 2 (COM2)
J1N1	VGA Port
J3N1	Parallel Port
J9L2	Telephony
J9K2	Soft-OFF
J9J1	3.3V Power
J9H1	Primary Power
J9K1	Floppy Drive
J4L2	Video Memory Upgrade
J1L1	Video Memory Upgrade
J1H1	VESA/AMC
J6C1	Primary IDE
J5C1	Secondary IDE
J4A2	Keylock
J3A1	Front Panel
JP3	Power LED/Keylock

Jumper Settings: (Default Underlined)

Function	Jumper	Configuration
Clear Password	J4L1-A	<u>1-2 Password Enabled</u> 2-3 Clear/Disable Password
CMOS (NVRAM & ESCD) Clear	J4L1-A	4-5 Normal <u>5-6 Reset to Default Settings</u>
BIOS Setup Access	J4L1-B	<u>1-2 Access Enabled</u> 2-3 Access Denied
Host Bus Frequency	J4L1-C	See Next Table
Processor Frequency	J4L1-D	See Next Table
2/3 PCI Select	J4G1	1-2 and 4-5 Two PCI Slots 2-3 and 5-6 Three PCI Slots
FLASH BIOS Recovery	J6C2	<u>1-2 Normal Operation</u> 2-3 Recover FLASH
Processor Voltage	J6C2	<u>4-5 VR Voltage</u> 5-6 VRE Voltage

Jumper Settings for Processor and Host Bus Frequencies (MHz):

Processor Freq	Jumpers J4L1-C	Jumpers J4L1-D	Host Bus Freq	PCI Bus Freq	ISA Bus Freq	Bus/Pro Ratio
200	1-2 & 5-6	1-2 & 5-6	66	33	8.33	3
166	1-2 & 5-6	2-3 & 5-6	66	33	8.33	2.5
150	2-3 & 4-5	2-3 & 5-6	60	30	7.5	2.5
133	1-2 & 5-6	2-3 & 4-5	66	33	8.33	2
120	2-3 & 4-5	2-3 & 4-5	60	30	7.5	2
100	1-2 & 4-5	1-2 & 4-5	66	33	8.33	1.5
90	2-3 & 4-5	1-2 & 4-5	60	30	7.5	1.5
75	2-3 & 5-6	1-2 & 4-5	50	25	6.25	1.5
Reserved	2-3 & 5-6	1-2 & 5-6				
Reserved	1-2 & 4-5	All				

## APPENDIX J: FISCAL PRINTER OPTION

### Overview:

The TeamPoS 5000 (Fujitsu FD21) POS Printer now have the capability of being fiscalized. Fiscalized Printers are used basically to prevent the loss of revenue; government in some countries is mandating all cash registers provide a secure means of auditing the business transacted through a particular device. In this case a memory module stored in the Printer is used to record transactions for auditing purposes.

Fiscal is being released on a limit basis and only on the Printer mentioned above due to the legal requirements governing fiscal, which differ in each country and is continually evolving. It is the responsibility of the local ICL organizations to establish and maintain regulatory compliance of the fiscal printer in each country, including acquisition of all necessary authorizations. The initial release of fiscal is for Russia only.

### Hardware Product Description:

The TeamPoS 5000 Fujitsu FD21 Printer is converted into a fiscal Printer by the addition of the following parts:

Kit, fiscal Printer PCBs and cable	PB600450
This kit consists of:	
Main fiscal PCA	88836554
Fiscal memory PCA	88836555
Cable, fiscal memory to main PCA	80328289
Kit fiscal Printer cables (internal)	PB600451
This kit consist of:	
Cable TP5K fiscal printer	80602005
TP5K fiscal, op display I/F cable	80602003
Kit Printer base assembly	PB600452
This kit consist of:	
Base for fiscal printer	80328299
Blanking panel for base	80328300
M3 x 6 Sems & M4 x 12 pan head screw	
Label, commercial, ICL logo, sys	80328298
license, rating & donor printer details	
FD21 fiscal base, interface label	80328950
Rubber feet, 12mm x 12mm x 3.1	

Kit, fiscal Printer seal holder (QTY 10)	PB600455
This kit consist of:	
10 fiscal seal holders	80328292
(only 1 used per printer)	
Encapsulate 2KG or 9KG	PB600457 or PB600458

The correct firmware for the relevant country is maintained and controlled by that country and must be added to the above kit.

With the main fiscal board installed to the TeamPoS 5000 Printer, there is a provision for connecting 2 RS232 Displays, one for the operator and one for the customer. Different data can be displayed on the Displays at the same time.

Notes:

The fiscal Printer connects to the TeamPoS 5000 Printer controller by the standard TeamPoS 5000 Fujitsu cables, (PINs 51380/001 or 55222/001).

The TeamPoS 5000 must have its internal Printer jumpers on the OPC or TeamCOM board set to the FJ Printer setting.

The fiscal Printer encapsulates is a joint compound that seals the fiscal memory and the cable that runs from the memory to the main PCB. Two quantities are available, 2KG, which is the amount needed to seal approximately 25 Printer, or 9KG for approximately 130 Printers.

Reliability:

Due to the nature and secrecy of fiscal, no reliability information is available.

Maintenance:

Access to the Printer mechanism and fiscal board is only possible after removing the fiscal seal. This is a requirement of the fiscal regulation.

Spare Parts:

Description	PIN	Part Number
OPN TP5K Fiscal Printer Kit I/F Cable	PB600451	80602119
OPN TP5K Fiscal Printer Base Assy	PB600452	80602120
Cable, TP5K I/F Fiscal Printer		80602005
TP5K Fiscal Optional Display I/F Cable		80602003
Blanking Plate for TP5K Fiscal Base		80328300
OPN TP Fiscal Printer Kit PCB/Cable	PB600450	80602118
OPN TP Fiscal Printer Seal Holder Kit (QTY 10)	PB600455	80602123
OPN TP Fiscal Printer Encapsulate 2KG	PB600457	80602124
OPN TP Fiscal Printer Encapsulate 9KG	PB600458	80602125
Main Fiscal PCB		88836554
Fiscal Memory PCB		88836555
Cable, Fiscal Memory to Main PCB		80328289
Fiscal Seal Backing Plate		80328293

The old fiscal option support (primarily in Italy and Greece) is not upward compatible with this new release nor is the new fiscal downward compatible with the old. The old version has been obsolete, issued last time buys and supports the 9518/200 terminal not the TeamPoS 5000. The two versions are completely different and should not be confused.