

TOSHIBA

GUIDE TO FEATURES

TCx™ Single Station Printer (6145-1TN)

TCx™ Dual Station Printer (6145-2TN, 2TC)



Updates in this version:

Withdrawal of cash drawer cable
Introduction of Brilliant White color

Version 2.1

Last update: **January 28, 2019**

Not yet published

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The “Fine Print”

This Document is a derivative work. The source documents are not required to stay in sync with this guide. The Feature Codes relate precisely to the Offering Structure and Sales Manual. The Part Number that is included is the “Top Bill” part number which is used to build the ordering tables. The Top Bill DOES NOT SHIP to a customer. This part number causes SMU Parts (Shippable Manufacturing Units) to be assembled and shipped. The SMU number changes frequently during the life cycle of a product.

FRU Numbers, where listed, are for those features where a one-to-one relationship exists between the Feature Code and the Field Replaceable Unit number.

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If you have questions, concerns, or suggestions, please send them to us as a TechLine inquiry. <http://www.toshibaqcs.com/support/>



General Information

Naming Convention for Model Numbers 6145-xyz

The **x** digit is Number of Print Stations

- 1yz – 1-station Printer
- 2yz= 2-station (Receipt + Document)

The **y** digit for this series is set as “T”

The **z** digit is an indicator for the capability to read magnetic ink on checks

- xyN = No MICR (check reading)
- xyC = MICR Reader

There are two “Specify codes” which determine the color of the upper covers. All units will have a Raven Black base

- 2918 – Pearl White (Models 2TN, 2TC Only)
- 2925 – Raven Black

All printers will ship with the following:

- Safety & Warranty information
- One DI-station ribbon for the model 2xx printers

SMUs and FRUs – What are these things anyway?

The Part Numbering scheme has been a source of many conversations ever since the first pictorial guide was published. There is a **Top Bill**, or **MFI** (Machine Feature Index) Part number that connects the Feature Codes to the Parts system. The intention is that this is a place-holder that can remain a constant number, yet allow for lifecycle changes in the content underneath the feature to change over the program life. The Top Bill will have a list of **SMUs** – Shippable manufacturing Units. The SMU is the collection of **PPNs** (Production Part Numbers) that the factory orders or fabricates to make the feature.

This manual attempts to show the initial Top Bill as of the day of announcement, the Shippable Manufacturing Unit (SMU) Part number, and the Field Replacement Unit (**FRU**) Part number for machine features. The Top Bill should not change during the program life. The SMU number will change – most often, for instance, with Keyboards with each microcode change, and Memory or Media with additional vendor or component certifications.

Our Support team is repeatedly asked, “What Part Number will be on the box that arrives ?” It should be either the SMU number, or occasionally a FRU number. The MFI or Top Bill number will most likely be on the packing list.

RPQs – For CUSTOM Solutions

The process to initiate a custom solution begins with an RPQ submission. This is an old IBM acronym for “Request for Price Quotation”. If you sign into the Toshiba Portal, select the SALES workspace, then the tab: How Do I???, you will see the process steps.

Things I need to know before placing my first order

1. Toshiba 6145 printers include both Powered USB and standard USB interfaces. That means that the only time one needs to select an interface adapter is if an Ethernet, Wireless, or RS-232 interface is desired.
2. There is no provision for RS-485 interface adapters at this time. In a Windows environment the VSP driver package provide the RS232 functionality. With the driver package installed the printer API remains the same as for a printer with a physical RS232 interface.
3. The VSP driver package provides enhanced function and performance relative to the RS-232 interface adapter at a lower cost. The RS-232 adapter is recommended only where a physical RS-232 connection is required or where VSP support is not available, i.e. Linux, and direct communication with the printer is required by the application.
4. The Powered USB connection uses a compact connector to the printer. This cable is **DIFFERENT** from the IBM and Toshiba SureMark 4610 Printer family. You are advised to look at FC 6079, 6080, and 6081 to become familiar with this.
5. The TCx Printer bases are physically shorter (from front to back) than the IBM 4610 or Toshiba SureMark 4610 printer. Therefore, a new filler is required if you wish to install the TCx Printer into a SurePOS 500, SurePOS 700, or TCx 700 Integration Tray. The filler fits between the rear of the printer and the integration fence. Please examine the descriptions for FC 7221, 7222, 7656, and 7657.
6. There is no capability to order a small roll of receipt paper roll. If your customer requires terminal integration or testing / verification prior to installation, then it is your responsibility to acquire this media.
7. The TCx Printers have the capability of actuating a Toshiba SDL or IBM-branded 24-volt SDL cash drawer via a special cable (FC 3387 or 6097). The USB-interfaced cash drawers must be actuated from the POS terminal.
8. The Power Brick (FC 4930) is backward compatible to IBM and Toshiba 4610 SureMark Printers. The use of legacy SureMark Printer power bricks is not supported due to capacity, efficiency, and other changes during the SureMark Printer lifecycle.
9. The Interface panel on these printers is different than prior generations of 4610 SureMark printers. The basic panel with USB, Power, and the cash drawer port is fixed. Therefore, the USB Interface (standard and powered) is ALWAYS present. The Ethernet, Wireless, or RS-232 option cards fit into the Interface panel. When FC 6276, 6277, or 6278 are present, please be aware that only ONE connection is supported. Therefore you should not use a Powered USB and Standard USB connection at the same time, nor an Ethernet nor wireless connection at the same time as a USB connection. **Note:** for product setup, configuration, etc., the USB connection may be used with an adapter installed; however, using both interfaces concurrently may cause unpredictable results.



10. The 6145 Printer family does not accept the 103mm diameter receipt paper rolls. **The maximum diameter is 83mm**

11. The use of a powered USB connection at the same time as the FC 4930 Power Brick is not recommend. Using both will not cause damage but typically results in a configuration that costs more and is more complex than needed.
12. The printer cash drawer port is capable of supporting two cash drawers. It is the customer's responsibility to acquire a cable to support this. The characteristics are described in the User's Guide (to be published by the General Availability date). This port is the same as the cash drawer port on the legacy IBM and Toshiba 4610 SureMark printers.

Special Considerations for the RS-232 Interface

We strongly recommend against using the RS232 adapter and cables with 6145 printers because:


- The data rate is significantly slower than USB or network options. This slows printing especially receipts with graphics and logos.
- At lower data rates, printing may be jerky with pauses as the receipt is being printed.
- There is an additional cost for the RS232 module. USB and Powered USB is built in with no additional charge.
- There is an additional cost for the required external power brick. Powered USB connectivity leverages the system unit's power supply.
- System Management function is dependent on the application when RS232 attached. USB or Network attachment using OPOS or JavaPOS enables industry standard System Management APIs.
- Automated configuration and firmware updates independent of the application are not available when directly using RS232 attached printers.
- RS232 hardware flow control is not reliable on modern, windows and Linux based, computer systems due to interrupt latency. In some cases, this can cause data loss and printing errors. Problems increase with data rate.

The only configuration that requires the RS232 adapter is Linux configurations where the application directly controls the printer via RS232. Windows™ applications that directly control the printer can use the Virtual Serial Port driver to control a USB or Powered USB attached printer. Applications that use the UPOS (OPOS/JavaPOS) API can control network, USB or Powered USB attached printers and do not need to use RS232 connections.

- The VSP driver provides the same direct printer interface for Windows applications that interface directly to the printer.
- UPOS drivers can be easily reconfigured to use USB or network rather than RS232. No application changes required.

FEATURES

Feat Code	MFI / MFC PN	Image	Description
2918	9992918		Pearl white covers (Models 2TN, 2TC Only)
2919	9992919		Brilliant white covers (Model 1TN Only)
2925	9992925		Raven Black covers
6276	3AA01100300		SMU: 3AA01100400 FRU: 3AC00574100 Ethernet Option Card
6277	3AA01100500		SMU: 3AA01100600 FRU: 3AC00574200 Wireless Interface Option Card
6278	3AA01110400		SMU: 3AA01110500 FRU: 3AC00574300 RS232 Interface Option Card Please consider the VSP package rather than a physical RS-232 adapter. (see page 5)

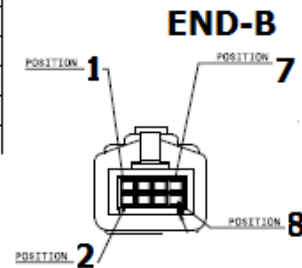
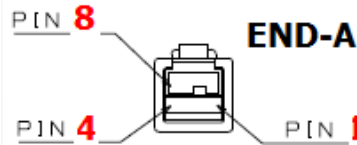
Feat Code	MFI / MFC PN	Image	Description
4930	3AA00804000 New Top Feature Number		MES (field upgrade) Orders do not include the line cord. SMU: 3AA00803800 FRU: 3AC00535100 Power Supply

CABLES


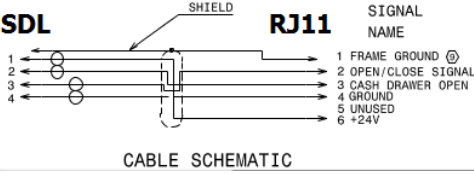

6079	WITHDRAWN JAN 2019 3AA00995900		SMU: 3AA00996000 FRU: 3AC00568500 Powered USB Signal Cable 0.5M compact USB connector
6080	73Y1103		SMU: 73Y1104 FRU: 73Y1104 USB Powered Signal Cable 2.0M compact USB connector
6081	73Y1122		SMU: 73Y1123 FRU: 73Y1123 USB Powered Signal Cable 4.0M compact USB connector

These cables are PEBBLE GRAY

END A	SIGNAL NAME	END B
1	+5V	3
2	-DATA	6
3	+DATA	4
4	GROUND	5
5	GROUND	7
6	+24V	2
7	+24V	8
8	GROUND	1



4924	08L2148		SMU & FRU: 40N4767 Standard USB 5 meters (A-B Connectors)
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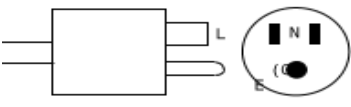
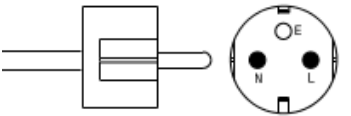
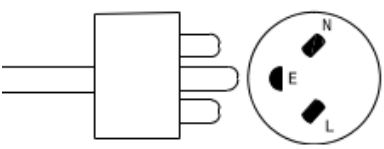
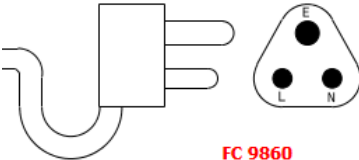
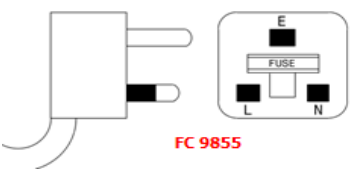
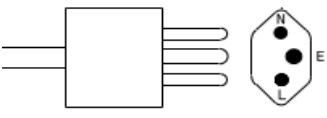
Feat Code	MFI / MFC PN	Image	Description																														
3387	72H3811	 <p>This requires an SDL connected drawer – FC 4408, 4409, 4483, 4484, 4881, 4883, for example.</p>	<p>SMU & FRU: 40N4779 Cash drawer cable – 3.8M</p>																														
6097	41J8960	 <p>SDL RJ11 SIGNAL NAME</p> <p>1 1 FRAME GROUND Ⓞ 2 2 OPEN/CLOSE SIGNAL 3 3 CASH DRAWER OPEN 4 4 GROUND 5 5 UNUSED 6 6 +24V</p> <p>CABLE SCHEMATIC</p> <p>This cable does not support USB Cash drawers. This cable activates the Cash Drawer from the 6145 Printer</p>	<p>DO NOT USE FC 6097 ON INTEGRATION TRAYS with SurePOS 500 OR SurePOS 700 or SP700 Cable Arm</p> <p>SMU & FRU: 41J8961 Printer Cash Drawer Cable 0.5 Meters long</p>																														
2405	03R7887	 <p>This cable provides the conversion from RJ45 style interface that is on the head to a male 9 pin RS232. When using this cable, the port will need to be programmed in BIOS as “non-powered”. There are two hex nuts and washers included with this cable to convert it into an adapter cable enabling attachment of existing serial devices that use 9-pin D-shell RS232 connectors.</p>	<p>SMU & FRU: 40N5341 RS-232 Cable – .75m - 9pin to RJ-45 PLEASE MAKE CERTAIN that you review the connection on your terminal You must have an RS232 Adapter FC 6278</p> <p>Please consider the VSP package rather than a physical RS-232 adapter. (see page 5)</p>																														
2406	03R7888	<table border="1"> <thead> <tr> <th></th> <th>RJ45</th> <th>9-PIN</th> </tr> <tr> <th>SIGNAL</th> <th>PIN</th> <th>PIN</th> </tr> </thead> <tbody> <tr> <td>DSR/RI</td> <td>1</td> <td>6</td> </tr> <tr> <td>CD</td> <td>2</td> <td>1</td> </tr> <tr> <td>DTR</td> <td>3</td> <td>4</td> </tr> <tr> <td>GND</td> <td>4</td> <td>5</td> </tr> <tr> <td>RXD</td> <td>5</td> <td>2</td> </tr> <tr> <td>TXD</td> <td>6</td> <td>3</td> </tr> <tr> <td>CTS</td> <td>7</td> <td>8</td> </tr> <tr> <td>RTS</td> <td>8</td> <td>7</td> </tr> </tbody> </table>		RJ45	9-PIN	SIGNAL	PIN	PIN	DSR/RI	1	6	CD	2	1	DTR	3	4	GND	4	5	RXD	5	2	TXD	6	3	CTS	7	8	RTS	8	7	<p>SMU & FRU: 40N5343 RS-232 Cable – 2.0m - 9pin to RJ-45 PLEASE MAKE CERTAIN that you review the connection on your terminal to determine if the RJ45 connector is used.</p> <p>You must have an RS232 Adapter FC 6278</p> <p>Please consider the VSP package rather than a physical RS-232 adapter. (see page 5)</p>
	RJ45	9-PIN																															
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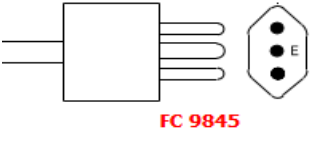
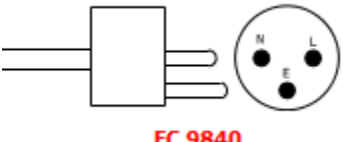
Feat Code	MFI / MFC PN	Image	Description																				
4931	01L1874	 <p>NOTE: This is not a normal 9-pin cable. There is nothing connected to pins 1, 7, and 9. Pins 6 and 8 are tied together on the female end.</p> <table border="1" data-bbox="480 596 768 936"> <thead> <tr> <th>PIN</th> <th>SIGNAL</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>NOT CONNECTED</td> </tr> <tr> <td>2</td> <td>TRANSMIT</td> </tr> <tr> <td>3</td> <td>RECEIVE</td> </tr> <tr> <td>4</td> <td>DTR</td> </tr> <tr> <td>5</td> <td>SIGNAL GROUND</td> </tr> <tr> <td>6</td> <td>DSR</td> </tr> <tr> <td>7</td> <td>NOT CONNECTED</td> </tr> <tr> <td>8</td> <td>TIED TO PIN 6</td> </tr> <tr> <td>9</td> <td>NOT CONNECTED</td> </tr> </tbody> </table>	PIN	SIGNAL	1	NOT CONNECTED	2	TRANSMIT	3	RECEIVE	4	DTR	5	SIGNAL GROUND	6	DSR	7	NOT CONNECTED	8	TIED TO PIN 6	9	NOT CONNECTED	<p>SMU & FRU: 40N4780 RS-232 Cable – 2.0m</p> <p>PLEASE MAKE CERTAIN that you review the connection on your terminal to determine if the 9-pin connector is used.</p> <p>You must have an RS232 Adapter FC 6278</p> <p>Please consider the VSP package rather than a physical RS-232 adapter. (see page 5)</p>
PIN	SIGNAL																						
1	NOT CONNECTED																						
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6	DSR																						
7	NOT CONNECTED																						
8	TIED TO PIN 6																						
9	NOT CONNECTED																						
8998	99Y2314		<p>SMU & FRU: 45T9436 Ethernet Cable, CAT-6, 4.3Meters</p>																				
SINGLE STATION ADAPTERS																							
3602	3AA0115000	 <p>Prototype shown. The exposed surfaces will be black in the production parts.</p>	<p>SMU 3AA0115500 FRU 3AC00578600 Wall mounting bracket -Single Station</p>																				

Feat Code	MFI / MFC PN	Image	Description
8058	3AA01115400		<p>SMU 3AA01115500 FRU 3AC00578500 58mm Paper width guide</p> <p>These parts snap into the right-hand side of the paper supply cavity to allow for 58mm wide media to be used. Please refer to the installation manual for the steps that are required to install this option.</p> <p>NOTE: This will not be installed at the factory. It is the customer's responsibility to install this option</p>
FILLERS			
7221	3AA01113100		<p>SMU 3AA01113500 FRU 3AC00578900 Filler Panel – Single Station (Iron Gray)</p>
7657	3AA01113000		<p>SMU 3AA01113400 FRU 3AC00578800 Filler Panel – Single Station (Black)</p>
7659	3AA01112900		<p>SMU 3AA01113300 FRU 3AC00578700 Filler Panel – Single Station (Pearl White)</p> <p>Raven Black Prototype shown NOTE: This is ONLY necessary when the Integration Tray for the TCx™700, TCx™800, or SurePOS 500 is used.</p>
7222	3AA01103300		<p>SMU: 3AA0110350 FRU: 3AC00575500 FC7222 - Rear Filler panel - Dual Station (Iron Gray)</p>
7656	3AA01103200		<p>SMU: 3AA01103400 FRU: 3AC00575400 FC7656 - Rear Filler panel - Dual Station (Raven Black)</p>
7658	3AA01109300		<p>SMU: 3AA01109500 FRU: 3AC00575700 FC7656 - Rear Filler panel - Dual Station (Pearl White)</p> <p>Raven Black Prototype shown</p>

Line Cords

10 Amp, Right-Angle style cord is preferred for the 6145 printer models.

Feature Code	Country	MFI / MFC	SMU	FRU	Comments
9880	1.8 M Non-Locking, CHICAGO	80Y3666	80Y3280	80Y3369	 <p>FC 9825, 9875, 9880</p> <p>FC 9880 is required in Chicago US except Chicago, Anguilla, Cayman Islands, Turks and Caicos Islands, Virgin Islands (British)</p>
9875	Non-Locking, US	80Y3667	80Y3282	80Y3371	
9870	Non-Locking, Euro	41A3298	80Y3295	39M5121	 <p>FC 9870</p> <p>Euro, France, Greenland, Mauritius, St. Lucia, Saint Vincent and the Grenadines</p>
9865	Non-Locking, Denmark	41A3303	80Y3300	39M5128	 <p>FC 9865</p> <p>Denmark</p>
9860	Non-Locking, South Africa	41A3302	80Y3304	39M5142	 <p>FC 9860</p> <p>South Africa</p>
9855	Non-Locking, UK/Ireland	41A3299	80Y3307	39M5149	 <p>FC 9855</p> <p>UK/Ireland</p>
9850	Non-Locking, Switzerland	41A3304	80Y3312	39M5156	 <p>FC 9850</p> <p>Switzerland</p>

<p>9845</p>	<p>Non-Locking, Italy</p>	<p>41A3294</p>	<p>80Y3316</p>	<p>39M5163</p>	 <p>Italy</p>
<p>9840</p>	<p>Non-Locking, Israel</p>	<p>41A3305</p>	<p>80Y3320</p>	<p>39M5170</p>	 <p>Israel</p>

Revision History

- V2.0 – Sept 5, 2018 – Announcement of Single Station Model
- V1.0a – May 2, 2018 – Branding Consistency
- V1.0 - January 9, 2018 – Initial Input

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