

Menu Guide for the PA Plus series ticket printers

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Scope

This document is intended to assist a user in accessing and navigating the setup menus of the Practical Automation Plus series ticket printers.

General

Printer configuration and option selection is done through a user interface consisting of the four push-button switches and context specific printed menus.

The switches have 2 identifying names, one for programming, and one for operation.

Programming Name	Operational Name
F0	SEL
F1	TEST
F2	LINE FEED
F3	TICKET FEED

Normal printer operation switch functions.

Normal Operational switch functions are available when the printer is powered up or reset for normal operation without any of the switches being held at reset time.

Online Switch functions:

SEL (F0) – Set the printer to the OFFLINE state

TEST (F1) – no function

LINE FEED (F2) Adjust cut offset -20 mils per count

TICKET FEED (F3) Adjust cut offset +20 mils per count

Note: The cut offset feature is useful for adjusting the cut to perforation distance on the ITL+ front sensor, which is not adjustable. It can also be used in conjunction with the adjustable sensors on the ITX+, and with the ITL+ moveable side sensor. The maximum adjustment is +/- 200 mils.

Offline switch functions.

SEL (F0) – Set the printer to the ONLINE state

TEST (F1) – Print a test (“Splash”) ticket.

LINE FEED (F2). Move form 0.2”

FORM FEED (F3) Advance the top of form to the cut line.

POR Printer functions

The POR (Power On Reset) functions are accessed by holding switches on during reset or power on. For the remainder of this document, we will use the programming names for the switches.

F0 – Print “SYSTEM STATUS REPORT”, also known as the “F0 Ticket”. If F0 is held through the printing, of the F0 ticket, a switch help ticket will be printed, followed by an error help ticket. The printer then enters normal operation.

F1 – Enter the Diagnostics Menu

F2 – Reserved for future use

F3 – Enter EEPROM programming menu. Hold F3 until a second beep is heard, then release it. Then press F3 twice. The EEPROM menu will then be printed.

Diagnostic Menu

F0 Special Functions sub-menu.

F1-F3 Factory use

SPECIAL FUNCTIONS sub menu

Some of the functions in this menu require holding the switch for 5 seconds to prevent accidental activation.

F0 - Reserved for future use

F1 (Hold for 5 seconds) - Reset EEPROM settings to Factory Default

Note that FGL is the Factory default.

The printer will beep 5 times and reset after this is done.

F2 (Hold for 5 seconds) - Toggle the printer paper mode between Registration Mark and Continuous (roll). The printer will beep 5 times and reset after this is done. This feature is only available on the ITL+ series.

F3 (Hold for 5 seconds) - Toggle the printer operational mode between G and FGL. The printer will beep 5 times and reset after this is done.

EEPROM menus

The EEPROM setup menus are where most configurable printer parameters are set. There are 3 menu pages, or levels. Navigation help is on the help menu from the POR F0 function and the initial EEPROM menu:

F0 = MOVE cursor (>) UP
F1 = MOVE cursor (>) DOWN
F2 = CHANGE selection at cursor
F3 = ENTER Next MENU level
POWER OFF = EXIT EEPROM Change MENU

PRINTOUT of the parameter menu occurs approximately 1 second after pressing any switch..

By pressing F0 or F1 several times quickly and counting the beeps, the cursor can be moved several positions before the next printout.

Pressing F2 at the counted target will cause a change of the selection. This technique permits changes to be entered quickly without printing after each switch press.

EEPROM Setup Menus

Setup Menu page 1

INTENSITY, increment or decrement. This determines the amount of energy applied to a dot. Intensity can be adjusted from 1 to 16, with 16 being the darkest. The default is 6. Lower intensity will increase printing speed at the expense of print quality. Higher intensity would be needed for stock with less sensitive thermal coating.

WARM TIME, Seven settings: Normal, WT-1, WT-2, WT-3, WT+1, WT+2, WT+3. This setting determines how much extra heat is applied to dots in a raster line which are cold, i.e. not active in recent print raster lines. Negative values decrease the heat applied, positive values increase the heat applied.

PRINT SPEED – A print speed limit factor. It has a range of 0 (Default, fastest) to 7 (slowest). This will place a limit on the print speed which would normally be determined by the INTENSITY setting. This is useful to reduce smearing by allowing the print head to cool down between raster lines. The value will roll over from 7 to 0 during entry. This value can also be changed by the FGL <ps#> command, where ‘#’ is the desired setting, 0..7.

BEEPER. On or Off. The yellow ATTN/ERROR led follows the beeper activity and will remain active when the beeper is off.

LOW PAPER – sensor operation modes. Note: For all Status Modes except “**DISABLED**” the low paper condition is available to the host as Status Data. Options are:

STATUS Only (default) - The printer will only display the Low Paper condition on the switch and display panel, by a slow flashing of the P/P (Power/Paper) LED.

BUSY after document printed - The printer will complete the document in process and go offline. This reaction is distinguished from out of paper, in that the low paper warning provides enough paper in the path to complete the document in process.

WARNING - A warning beep will sound each time a document is printed while the low paper condition is active.

DISABLED - The printer ignores the low paper signal.

LP CABLE DETECT

PASSIVE – A non-present Active Low paper sensor will be ignored. (default). This is the correct setting for the switch based B15-10987-2R Ticket Holder Low paper assembly

ACTIVE – A non-present Active Low Paper sensor will result in a Low Paper indication. This should be used only with the optical detector based sensor for Roll stock.

USB ID Select. This selects which USB Serial number to use. This function has to be used when more than one identical printer is used on a host. Printers with the same ID are interchangeable without causing Windows to assign a new driver instance. The default is A. Alternates are B, C, D, or a unique S/N based on an internal serial number.

Serial Port Settings – these apply to the serial port when used for FGL

SERIAL BAUD RATE - Serial data bit rate,

Revision 5.09 and earlier: 1200, 2400, 4800, 9600(default),
19200, 57600.

Revision 5.10 and later: 1200, 2400, 4800, 9600(default),
19200, 28800, 38400, 57600, 115200.

SERIAL DATA BITS – 7 or 8(default)

SERIAL PARITY – ENABLED, DISABLED(default)

PARITY TYPE – EVEN(default), ODD

SERIAL FLOW CONTROL – BUSY(default), XON/XOFF

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LANGUAGE MODE – Used to enable use of translation tables for soft fonts, and conditionally resident fixed fonts.

Legacy Mode – No translations allowed

Enhanced Mode – Translations allowed

TRANS TABLE – Current default Code Page translation table. Note that this value can also be changed by the FGL command <tt#> where ‘#’ is one of the selections:

(0) Normal (Default)

(1) 1252 - 437

(2) 1252 - 850

(3) 1250 - 852

(4) 850 – 1252

XLATE RES FONT – Applies translation table to resident fixed fonts as well as soft fonts.

Do Not Xlate (default) – Do not apply translation to resident fixed fonts.

Xlate – Apply translation to resident fixed fonts if translations are allowed.

Setup Menu Page 2

END OF DOC ACTION – This option selects the desired behavior when a ticket is done printing. The cut operation may be overridden by FGL print commands to print without cutting. Options are:

NO CUT – Leave the Ticket at the cut line for tear bar type operation.

CUT ON IDLE – If another ticket is ready to print, do not cut but start printing. If no new ticket is ready, cut the ticket.

CUT ALWAYS (default) – Cut every ticket.

CONFIG MISC - Intended for enabling application specific behavior. Unless instructed otherwise, leave the STANDARD (default) setting in place.

REG_MARK_STYLE Select the type of registration mark on the ticket stock.

AUTO (default) - The automatic ticket sizing operation will measure the sensed mark and determine the effective mark style. This works for TOF, ETX/ITX, and LTX style marks.

TOF – a .2” mark at the ticket perforation/top of form.

ITX/ETX – A 0.5” mark with the leading edge 6.7” behind the perforation

ITL/LTX – A 0.75” mark with the trailing edge 2.2” behind the perforation.

TOF-5.8125 - A .5” mark with the leading edge 5.8125” behind the perforation

SENSOR SELECT MODE – The Plus series printers are equipped with sensors on both the FIXED and MOVEABLE sides of the ticket path. This allows the use of tickets with marks on either side.

AUTOMATIC (default) – The autosize function will use the last selected sensor to find a mark. If it fails to do so, it will retry with the other sensor. If a mark is found on the second attempt, the SELECTED SENSOR is updated. A second failure will result in an error.

MANUAL – Force the use of only the selected sensor

SELECTED SENSOR – Identifies the sensor in use for registration. In AUTOMATIC operation, it will be the first sensor checked in the ticket measuring operation. In Manual operation, it will be the only sensor checked. The sensors are

For ITL+:

FRONT FIXED (default) – This sensor is built into the print mechanism.

REAR MOVEABLE – Located on the adjustable side of the ticked guide.

For ITX+:

MOVEABLE SIDE (default) - Located on the adjustable side of the ticket guide.

FIXED_SIDE – Located along the fixed side of the ticket guide.

Setup Menu Page 3

STORED SIZE - The document length can be defined here in increments of 0.01". There are 4 selection fields for 10", 1", 0.1" and 0.01". The default is 5.5" This would be used as the document length if the **AUTOSIZE CONTROL** is set to **USE STORED SIZE**. In Continuous Mode, on an FGL configured printer, it is used as the default form length. The maximum allowed size is 11"; the minimum is 2".

AUTOSIZE CONTROL – This option determines whether a registration mode document will be automatically sized as part of the paper load operation. Selections are:

USE STORED SIZE – Use the size specified in the **STORED SIZE** option above. This results in registration alignment with one ticket discarded.

AUTOSIZE NO BU – Measure the ticket size by finding the distance between the first two registration marks seen. This usually results in the first ticket being discarded. This is needed for label stock.

AUTOSIZE WITH BU (Default) – Measure the ticket size by finding the distance between the first two registration marks seen, and then return to the first mark.

TRUNCATION CONTROL – This option only applies to printers configured for 'G' operation and in Registration Mark mode. It is meaningless in an FGL context. This option determines what action to take if a received form is longer than the defined or measured form length. Selections are:

PRINT ALL – Print the full image even if it flows onto the next form.
It is still limited by the size of the print buffer, 11".

TRUNCATE – Truncate the data to fit on a single form.

END OF DOC LENGTH - This option applies to continuous form operation in the G configuration. It allows the printing of a shorter ticket than the driver provided Form Length by ending the print after the last black data has been sent. The options are:

PER FORM LENGTH (default) – Print the ticket to the provided form length, padding the data as needed. This results in uniform length tickets.

AFTER LAST DATA – end the ticket after the last black data is received, adding a ¼" margin. This will use less paper, but the tickets will not be uniform in length, as the length will be dependent on the amount and position of the data sent.

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PNP RETURN STRING – This entry only applies to the ITL+. It enables the printer to identify to the host as an ITX printer. This allows an ITL+ to replace an ITX in an existing application, using the existing ITX driver.

ITL STANDARD (default) Identify to host as an ITL printer

ITX ALTERNATE – Identify to host as an ITX printer

2-INCH PERSONALITY – The base models of the ITL+ and ITX+ use 3” printheads and adjustable trays. In applications using exclusively 2” tickets, this allows the firmware to identify as a 2” printer to the host. This would be set at the factory with the guides set for 2”.

DISABLED (Default) – Identify as a 3” printer

ENABLED – Identify as a 2” printer