HP Trusted Platform Module

User Guide

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1 Product overview

The HP Trusted Platform Module Accessory (TPM) provides secure device identity with certificate private keys generated and protected by the TPM. The TPM strengthens protection of encrypted credentials and data stored on the printer or MFP by automatically sealing device encryption keys to the TPM.

The TPM automatically pairs with the printer at installation. Once installed, the printer and the TPM are sealed and the printer owns the TPM. The TPM may not be moved to another device without losing its ownership from the original printer. If moved and ownership is transferred to a new printer, the data on the original printer will be cryptographically erased.

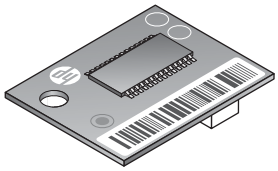
The TPM can create, use and store encryption keys. It automatically protects drive lock password, stored passwords, and certificate private keys. Keys are sealed to the master encryption key stored in the TPM and only accessible through the TPM.

The TPM prevents the printer from starting if the TPM is missing. If the TPM is removed from the printer, a front control panel error message will appear to indicate that the TPM is missing.

If the **Stop Using TPM** process is performed, firmware will be reinstalled when the printer is restarted. All other installed applications or solutions will need to be reloaded and the printer reconfigured.

NOTE: In some situations, a hard drive error might be seen requiring printer firmware to be manually restored with a USB flash drive at the preboot menu.

Product views



Product specifications

Technical specifications

Part number	F5S62A
What's in the box	HP Trusted Platform Module, Install Guide
Warranty	One-year, onsite limited warranty
Standards and certifications	Designed to the TPM 1.2 standard set by the Trusted Computing Group.[1]

[1] The Trusted Computing Group (TCG) is an international industry standards group that develops specifications amongst its members. The TCG publishes the specifications for use and implementation by the industry.

Learn more at www.hp.com/go/printsecurity.

Operating environment specifications

Temperature	Operating: 13 to 30° C (56 to 86° F); Storage: 0 to 40° C
Humidity	Humidity: Operating: 10 to 80% RH; Storage: 10 to 90% RH

Supported printers and MFPs

HP LaserJet: M806

HP LaserJet MFP: M630, M830

HP Color LaserJet: M651, M855

HP Color LaserJet MFP: M680, M880

HP Officejet: X555

HP Officejet MFP: X585

If your printer is not listed, please refer to the printer datasheet to confirm if the HP Trusted Platform Module is a compatible accessory.

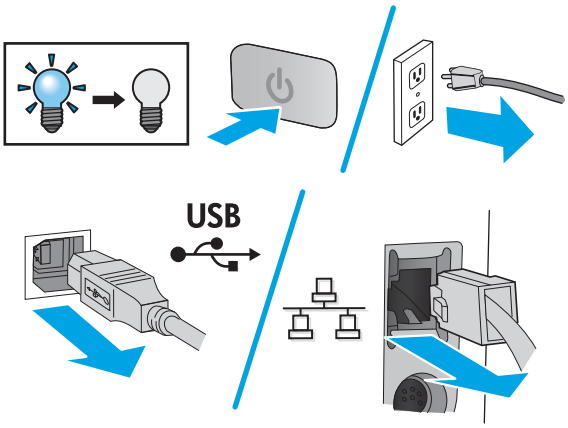
Product Dimensions

Dimensions	21.62 x 18.03 x 6.2 mm (0.85 x 0.71 x 0.24 in)
Weight	1.71 g (0.06 oz)

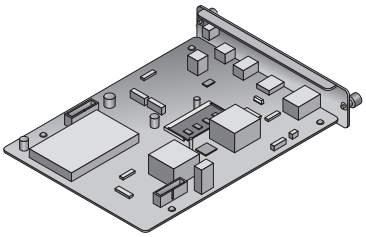
Product hardware setup and software installation

1. Go to www.hp.com/support and download the latest firmware version for your printer. Update the firmware on your printer. Refer to the printer documentation for instructions. After the latest firmware is installed successfully, go to Step 2.

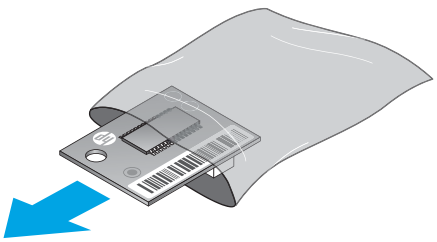
2. Turn the printer off, and then unplug the power cord and network cables.



3. Remove the formatter from the printer. Formatter appearance and removal procedure will vary from printer to printer. Refer to the product support page for your printer on www.hp.com/support for additional information, if needed.

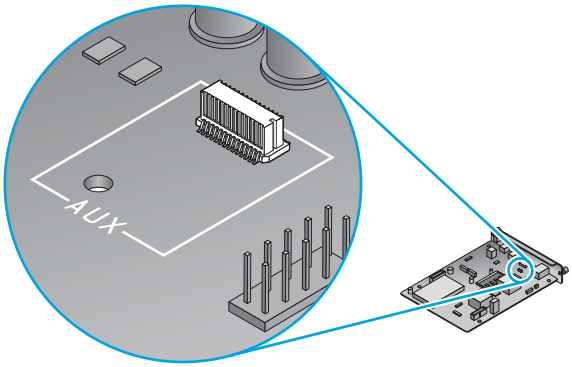


4. Remove the TPM from packaging.

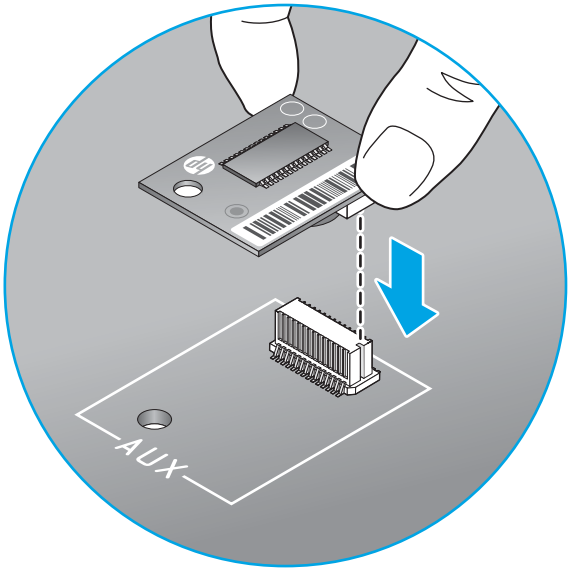


5. Locate the correct connector on the formatter. The outline of a white square the same size as the TPM is printed on the formatter and surrounds the connector and a hole in the formatter.

NOTE: The letters **AUX** might not appear on some older boards. The location of the connector on your formatter might be different from the location shown.

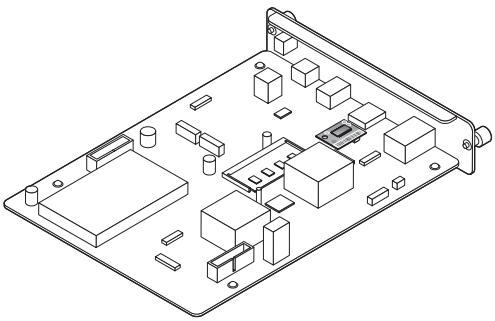


6. Hold the TPM by the edges as shown and align the connector on the TPM with the connector on the formatter. Gently position the TPM on the connector on the formatter. Apply slow, steady, downward pressure. You will hear a click when the connectors are fully engaged.

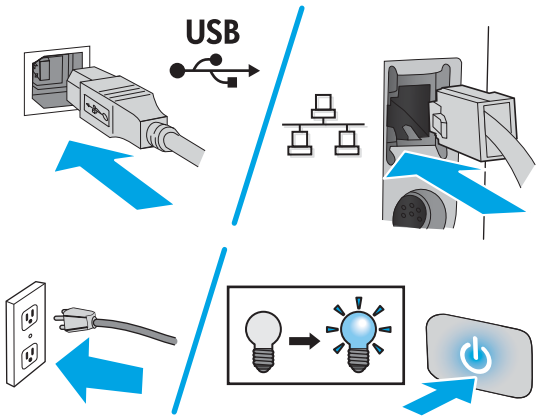


7. Reinstall the formatter into the printer.

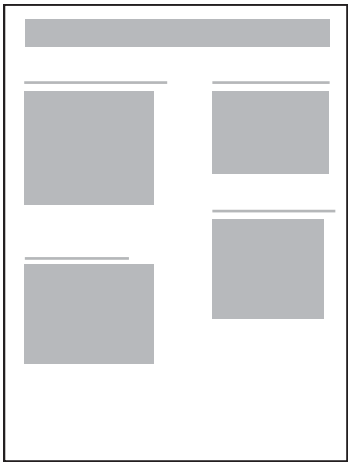
NOTE: It is recommended to secure the formatter with a Kensington Lock.



8. Plug in the power cords and network cable, and then turn the printer on.



9. After the printer has initialized, print a configuration page. Refer to the printer documentation for instructions. Look under the **Installed Personalities and Options** heading on this page and verify that **HP TPM Accessory: Enabled** is listed. For additional TPM user information and troubleshooting, go to www.hp.com/support/.



2 Manage the product

- View TPM status via HP Embedded Web Server (EWS)
- Stop using TPM
- Install a new or re-enable an existing TPM after disabling a previous TPM

View TPM status via HP Embedded Web Server (EWS)

- How to access the HP Embedded Web Server (EWS)
- Product security features

NOTE: The HP Embedded Web Server is not accessible beyond the network firewall.

How to access the HP Embedded Web Server (EWS)

Refer to the printer user guide for information on how to access the HP Embedded Web Server.

Product security features

The product includes several security features to ensure that the information it holds is made more secure from external software attack and physical theft.

- Installation confirmation
- Certificates and the TPM
- EWS

Installation confirmation

After the printer has initialized, print a configuration page. Refer to the printer documentation for instructions. Look under the **Installed Personalities and Options** heading on this page and verify that **HP TPM Accessory: Enabled** is listed.

Certificates and the TPM

The TPM provides secure device identity with certificate private keys generated and protected by the TPM. It strengthens protection of encrypted credentials and data stored on the printer or MFP by automatically sealing device encryption keys to the TPM.

NOTE: New certificate keys will be generated by the TPM unless marked as exportable. Exportability is specified at the time the key is generated.

EWS

The Embedded Web Server (EWS) can be used to perform the following tasks:

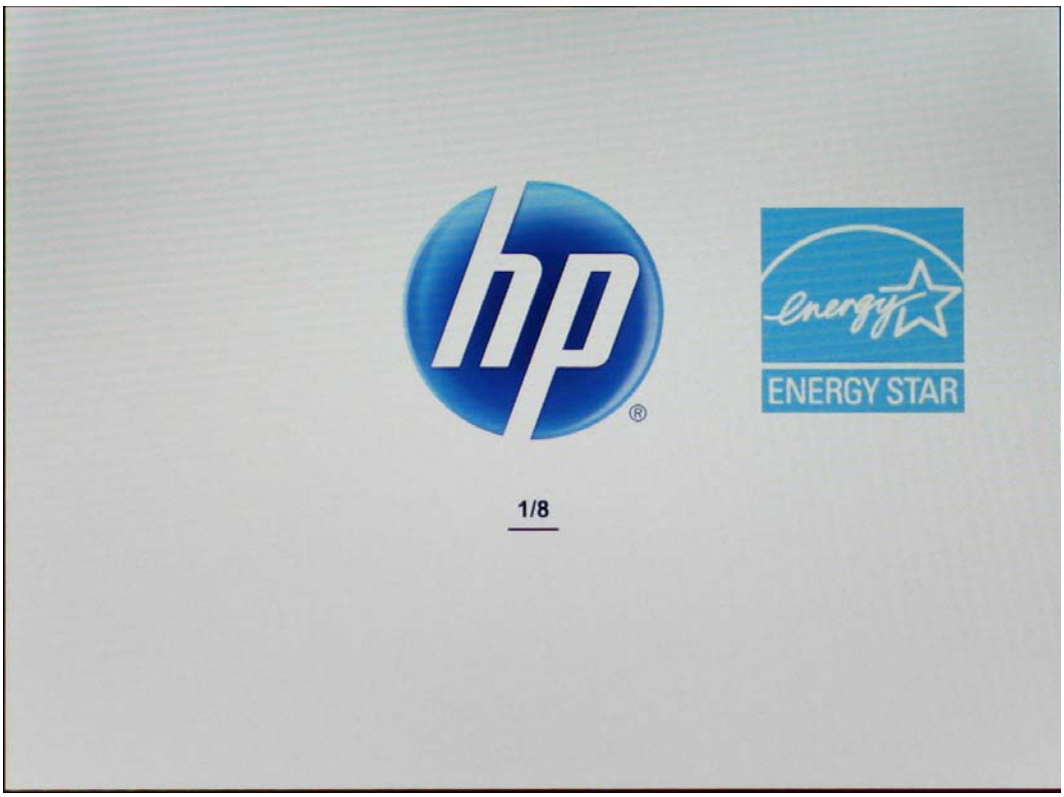
- Determine which certificates on the printer are protected by the TPM
- Create certificates using the TPM
- Export the certificate and private keys if they are marked as exportable

NOTE: Refer to the printer user guide for information on how to access the HP Embedded Web Server (EWS).

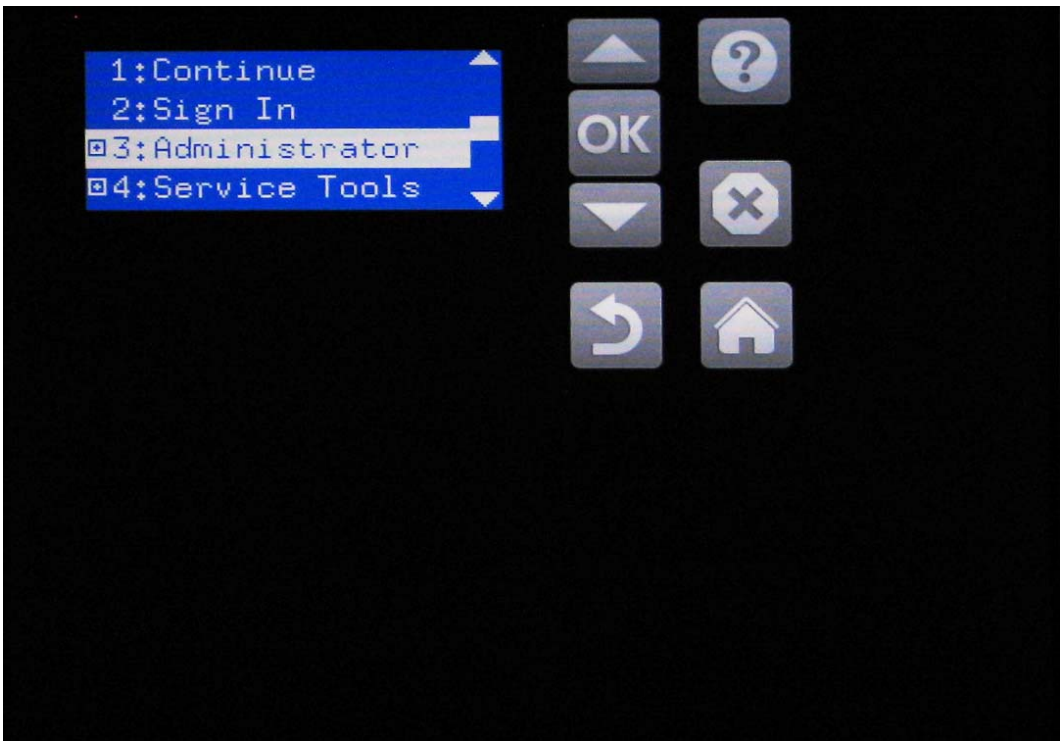
Stop using TPM

⚠ **WARNING!** By performing this procedure, all customer data will be lost, including at installed solutions on the device.

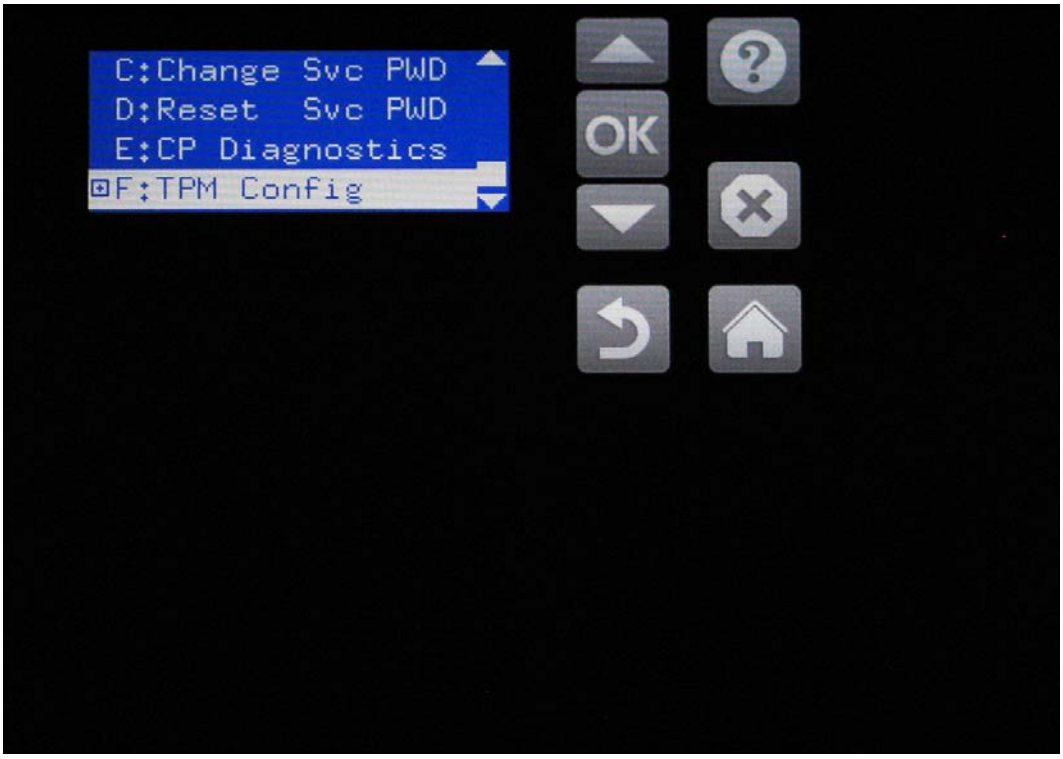
1. Access the preboot menu by pressing the HP logo when the initializing screen has reached **1/8** for Multi Function Printers. Press the HP logo before **1/8** for Single Function Printers.



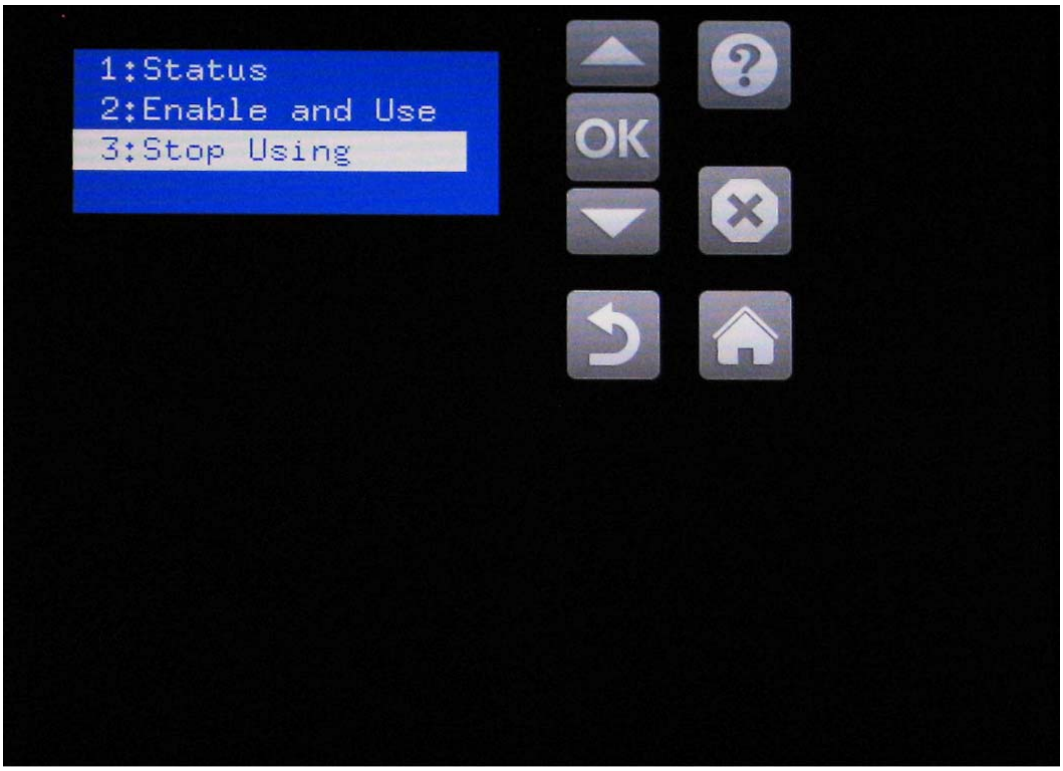
2. From the preboot menu on the control panel, navigate to **Administrator** and press **OK**. If prompted, enter the Administrator password.



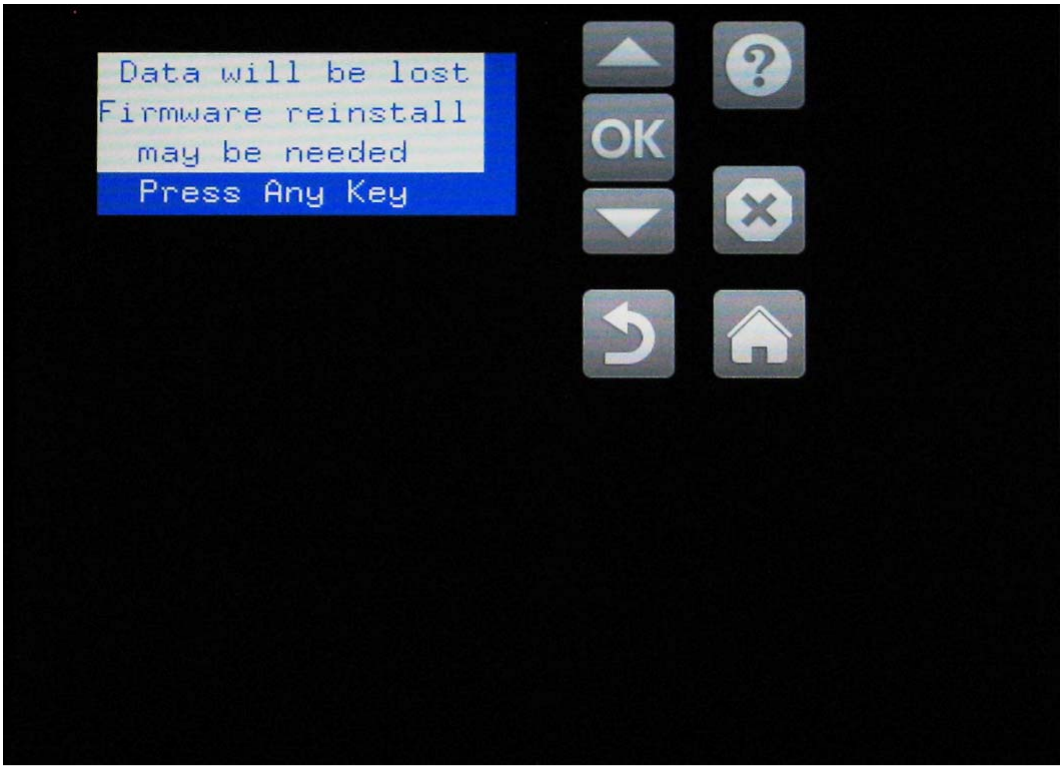
3. Navigate to **F: TPM Config** and press **OK**.



4. Press **Stop Using** and then **OK**.

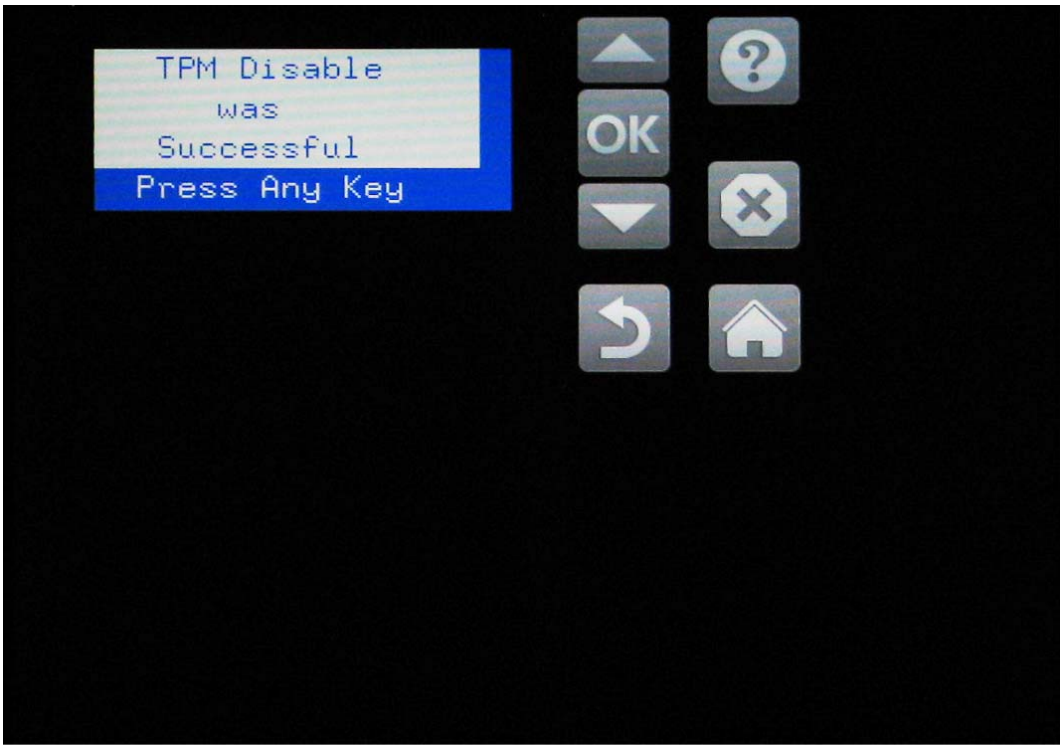


5. The control panel displays **Data will be lost Firmware reinstall may be needed**. Press any key.



6. Press **Disable TPM** then **OK**.

7. The control panel displays **TPM Disable was Successful**. Press any key.



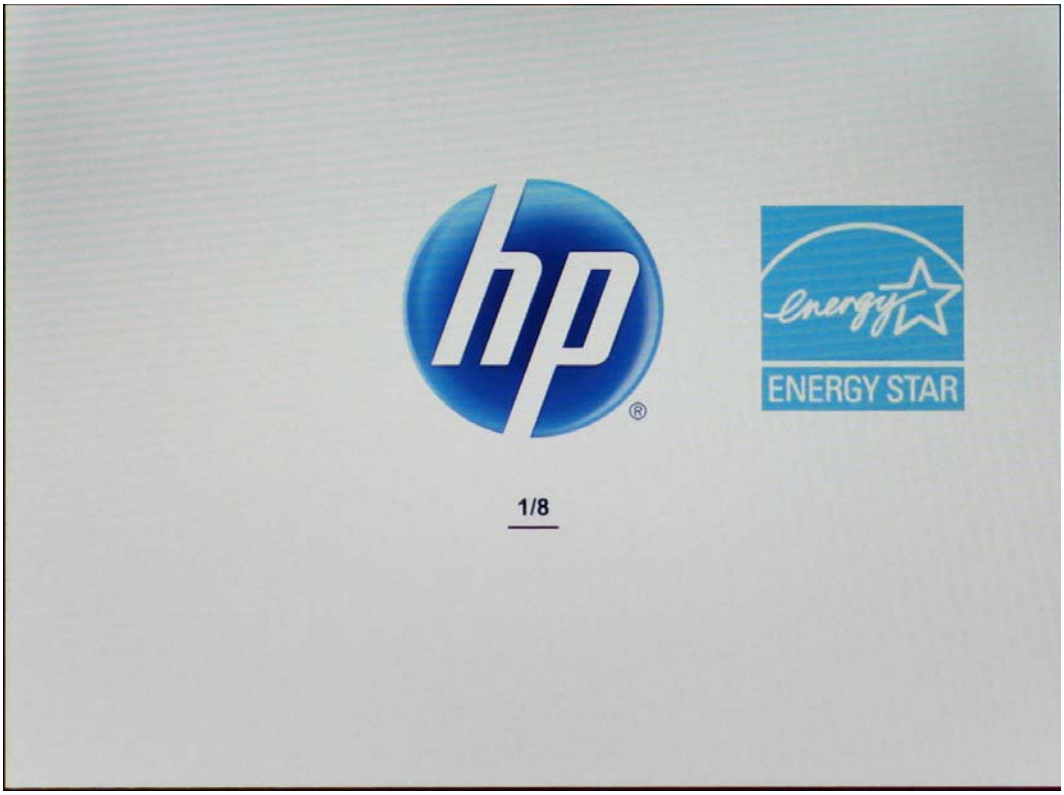
NOTE: Once disabled, the TPM may be left on the formatter or removed. If left installed, it can be re-enabled by following the steps in the **Install a new or re-enable an existing TPM after disabling a previous TPM** section.

8. The printer restarts and displays **Upgrading FW** and progress bar on the control panel.

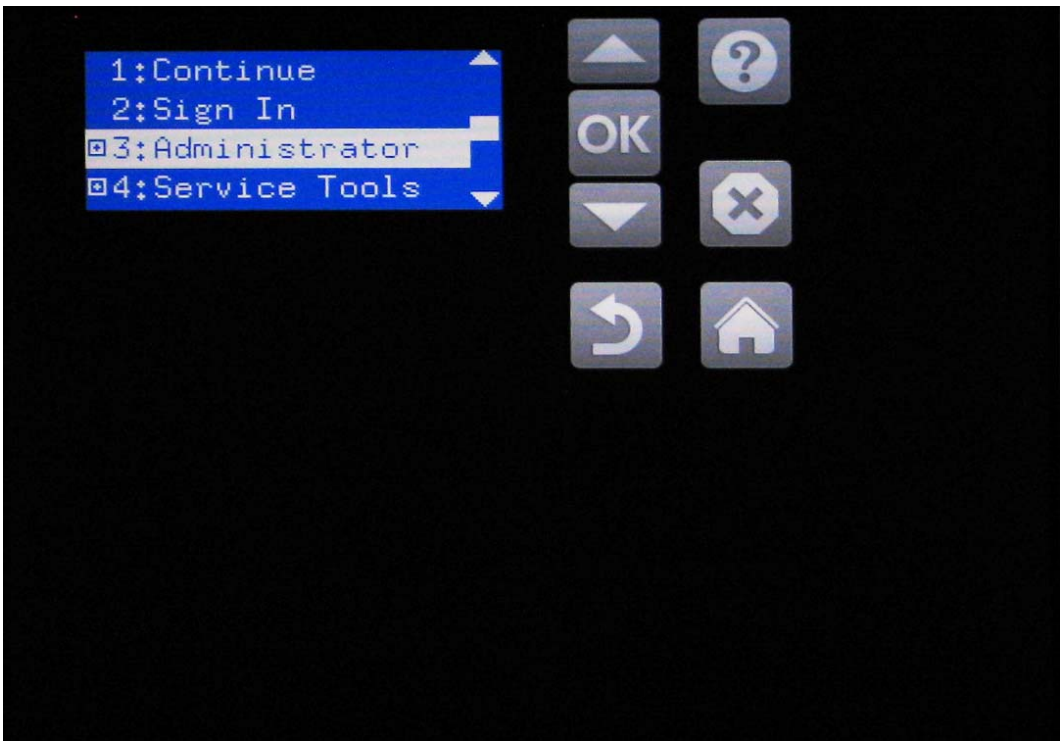
9. Verify the TPM is disabled by printing a configuration page and looking for **HP TPM Accessory: Disabled**.

Install a new or re-enable an existing TPM after disabling a previous TPM

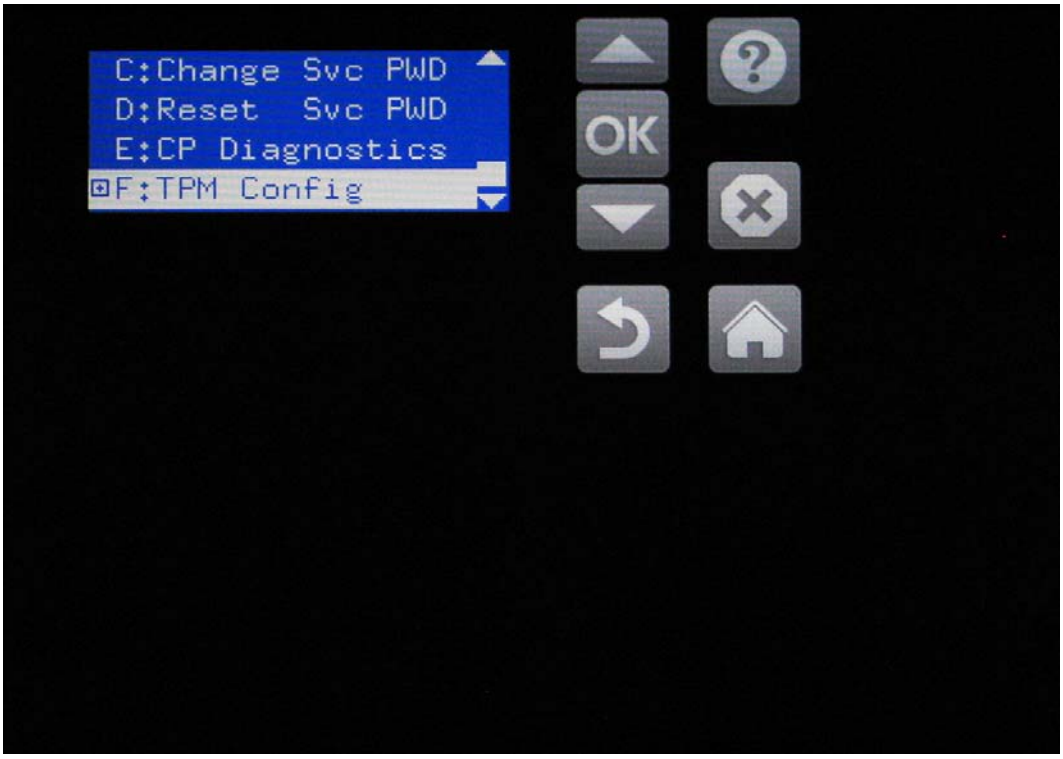
1. Install the TPM on the formatter and then install the formatter in the printer.
2. Access the preboot menu by pressing the HP logo when the initializing screen has reached **1/8** for Multi Function Printers. Press the HP logo before **1/8** for Single Function Printers.



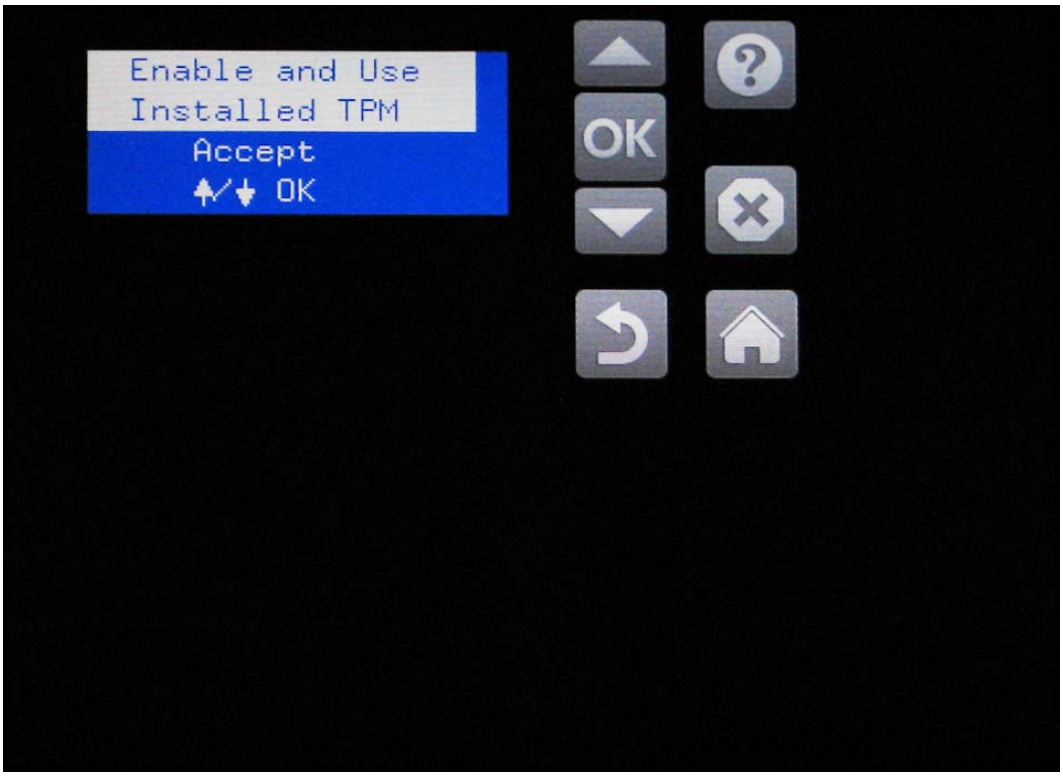
3. At the preboot menu, navigate to **Administrator** and press **OK**. If prompted, enter the Administrator password.



4. Navigate to **F: TPM Config** and press **OK**.



5. Press **Enable and Use** and then **OK**.



6. The printer restarts.

7. After the printer has initialized, print a configuration page. Look under the **Installed Personalities and Options** heading on this page and verify that **HP TPM Accessory: Enabled** is listed.

3 Solve problems

- HP TPM related error codes
- Software and firmware updates

HP TPM related error codes

Error Code	Reason	Description	Solution
33.04.01	Missing TPM	A TPM is missing from a printer that previously had a TPM installed.	Reinstall the missing TPM module into the printer. Restart the printer.
33.04.02	Unknown TPM	The wrong TPM is installed on a printer that previously had a different TPM installed.	Reinstall the original TPM into the printer. Restart the printer.
33.04.03	Unknown TPM	A used TPM has been installed on a printer that has not previously had a TPM installed.	Remove the TPM module. The printer will not be protected. OR If choosing to protect the printer with the used TPM, refer to the **Install a new or re-enable an existing TPM after disabling a previous TPM** section.
33.04.04	Unknown TPM	A new TPM is installed in a printer that previously had a different TPM installed.	Reinstall the original TPM into the printer. Restart the printer. OR If choosing to protect the printer with the new TPM, please go to www.hp.com/support/ for detailed instructions.

Software and firmware updates

Refer to the printer documentation for information on software and firmware updates.

4 Service and Troubleshooting

Customer support

Get telephone support, free during your warranty period, for your country/region. Have the printer name, serial number, date of purchase, and problem description ready.	Country/region phone numbers are on the flyer that was in the box with your product or at www.hp.com/support
Get support for products used with a Macintosh computer	www.hp.com/go/macosx
Order genuine HP parts or accessories	www.hp.com/buy/parts
Order additional HP service or maintenance agreements	www.hp.com/go/carepack

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