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SECURE FIELD
PROGRAMMER

USER'S
GUIDE



HARRIS

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INTRODUCTION

The Secure Field Programmer (SFP) is a USB flash drive with the following features:

- 4 GB storage capacity.
- Operates by entering a Personal Identification Number (PIN).
- If lost or stolen, data on the SFP cannot be accessed.
- Provides convenient way to load files on a Harris radio.

Download and print the manual first before making any changes.

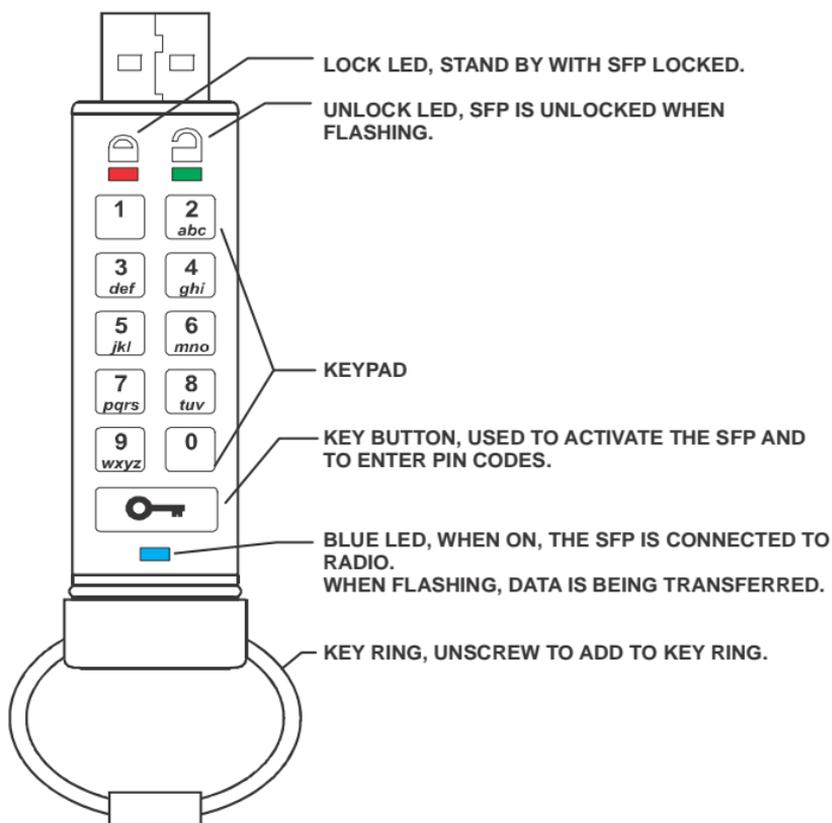
NOTE

Charge battery prior to first use by plugging into a powered USB port for 90 minutes and enter factory default PIN: 1-1-2-2-3-3-4-4 on the SFP.

NOTE

Auto-launch only applies to radio's: RF-7800V, RF-7850A, RF-7850M, or RF-7850S with firmware version 4.2.2 or above.

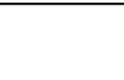
SECURE FIELD PROGRAMMER INTRODUCTION



SECURE FIELD PROGRAMMER

LED INDICATORS

LED INDICATORS

| | | |
|---|-------------------|--------------------------------------|
|  | Dark | No power |
|  | On solid | SFP connected to USB port. |
|  | Blinking | SFP is unlocked, plug into USB port. |
|  | Blinking | SFP is locked. |
|  | On solid | SFP does not have a User PIN. |
|  | On solid | SFP accepting new PIN. |
|  | Blink together | User PIN accepted. |
|  | Double blink | Accepting Admin PIN. |
|  | On solid | SFP connected with host computer. |
|  | Blinking | Data is being transferred. |
|  | Intensify | Security self testing. |
|  | Blink alternately | Error |

OPERATE THE SFP

The SFP is shipped with a default user PIN of 1-1-2-2-3-3-4-4. We recommend that you change the user PIN immediately for security reasons. Refer to [CHANGE PIN](#).

| Procedure | LEDs | LED Activity |
|---|---|---|
| 1. Select the key button.  |  | Will blink together. |
| 2. Enter the User PIN within ten (10) seconds.  |  | Will blink for a correct PIN entry. Will blink for an incorrect PIN entry. |
| 4. Connect the SFP to a USB port within thirty (30) seconds. |  | Will be on solid. Will be on or blink for activity. |
| 5. Disconnect the SFP from the USB port. | | |

CHANGE PIN

A user PIN can be changed to almost any number that is desired.

PIN Rules

- Factory preset PIN (1-1-2-2-3-3-4-4).
- PIN is 7 to 15 digits long.
- PIN cannot contain all repeating numbers (3-3-3-3-3-3-3).
- PIN cannot have sequential numbers (1-2-3-4-5-6-7) or (7-6-5-4-3-2-1).

NOTE

If an error is made when changing the PIN, or the process was not complete, the SFP will retain the original PIN.

| Procedure | LEDs | LED Activity |
|--|---|----------------------|
| <p>1. Select the key button.</p>  | | Will blink together. |
| <p>2. Enter the User PIN and select the key button within ten (10) seconds.</p>  |   | |

| Procedure | LEDs | LED Activity |
|---|---|--|
| 3. Select and hold the key button for three (3) seconds. <div style="text-align: center;">  </div> |  | Will be on solid. |
| 4. Enter a new PIN. 5. Select the key button to store the new PIN. <div style="text-align: center;">  </div> |  | Will blink together. |
| 6. Enter the new PIN. 7. Select the key button to confirm the new PIN. <div style="text-align: center;">  </div> |  | Will blink if the new PIN is accepted and the SFP is unlocked and ready to use. Will blink alternately if the new PIN was not accepted. |

RESET THE SFP

In case the User PIN has been forgotten, or if you would like to delete all data stored on the SFP and configure a new user PIN, follow the instructions below. The reset process will clear all PINs and encryption keys and destroy all data. This means a new User PIN will have to be defined in order to re-enable the SFP. Also, since this will force the creation of a new encryption key, the SFP will have to be reformatted.

NOTE

By resetting the SFP, all data previously stored on the drive will be lost.

| Procedure | LEDs | LED Activity |
|---|--|----------------------|
| 1. Select the key button.  |  | Will blink together. |
| 2. Select the key button.  |  | Will blink. |
| 3. Select and hold the key button and the number 2 button for three (3) seconds.   |  | Will blink together. |

| Procedure | LEDs | LED Activity |
|---|---|---------------------|
| <p>4. Enter 9-9-9 and select the key button.</p>  | | LEDs will turn off. |
| <p>5. Select the key button.</p>  |  | Will be on solid. |
| <p>6. Setup a new user PIN prior to use.</p> |  | When on and solid. |

SECURE FIELD PROGRAMMER

SET UP NEW PIN AFTER RESET

SET UP NEW PIN AFTER RESET

Once the SFP is reset either by the previous method or if the SFP was locked by a brute force attack (ten unsuccessful attempts to unlock the SFP), a new user PIN will need to be defined. Refer to [CHANGE PIN](#).

| Procedure | LEDs | LED Activity |
|---|--|--|
| <p>1. Select and hold the key button for three (3) seconds.</p>  |  | Will be on solid. |
| <p>2. Enter the new PIN within ten (10) seconds.</p> |  | Will be on solid. |
| <p>3. Select the key button to save.</p>  |  | Will blink together if accepted. |
| <p>4. Enter the new PIN, and select the key button.</p>  |  | Will blink if the new PIN is accepted and the SFP is unlocked and ready to use. Will blink alternately if the new PIN was not accepted. |

SET UP WITH WINDOWS AFTER A COMPLETE RESET

A complete reset of the SFP will erase all information and partition settings. You will need to initialize and format the SFP.

Perform the following to initialize the SFP:

- a. Connect the SFP to USB port on radio.
- b. Set up new PIN after reset.
- c. Operate the SFP.
- d. Confirm blue LED is on.
- e. Select Manage from the context menu of My Computer to get Computer Management window (or go to Administrative Tools > Computer Management).
- f. Select Disk Management in the Computer Management window.
- g. Observe that the SFP is recognized as a removable device in raw format.
- h. Select Removable Raw drive from the context menu to make the SFP recognized as a basic drive in the blank area under the Unallocated section.
- i. Select Format.

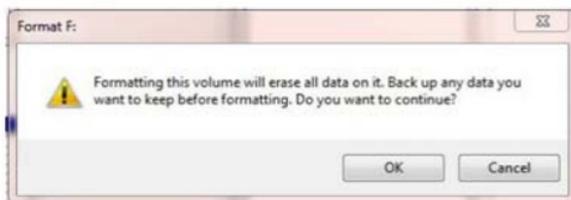


SECURE FIELD PROGRAMMER SET UP WITH WINDOWS AFTER A COMPLETE RESET

- j. Select FAT or FAT32 depending on your requirements.



- k. Select OK.



- l. Select OK on the Format warning window.
- m. Confirm the blue LED is flashing which indicates the SFP is formatting.
- n. Confirm the blue LED is on solid which indicates the SFP is ready for use.

CREATE AN ADMIN PIN

The Administrator (Admin) PIN is useful in an environment where an Admin will provide access to the SFP if the User PIN is forgotten or unavailable. Individuals are strongly discouraged from using this feature as it can be cumbersome to setup and improper use can provide unintended results.

The SFP can be setup with an Admin PIN. If the Admin PIN is used to access the SFP the User PIN will be erased, and a new User PIN will need to be created. The user data will not be erased, only the User PIN.

After setting up the Admin PIN, you should create a User PIN. If you use the Admin PIN to access the SFP, the User PIN will be erased.

Refer to [CHANGE PIN](#).

| Procedure | LEDs | LED Activity |
|---|---|----------------------|
| 1. Select the key button.  |  | Will blink together. |
| 2. Enter the User PIN within ten (10) seconds and select the key button.  |  | Will blink. |
| 3. Select the key button twice (rapidly) and hold the key button on the second press for four (4) seconds.   |  | Will be on solid. |

SECURE FIELD PROGRAMMER

CREATE AN ADMIN PIN

| Procedure | LEDs | LED Activity |
|---|---|---|
| <p>4. Enter the new Admin PIN. 5. Select the key button.</p> <div data-bbox="187 296 289 336" style="text-align: center;"></div> |  | <p>Will double blink.</p> <p>If the LEDs are single blinking, then the first key press did not register or was not fast enough. If you continue, you will be changing the User PIN.</p> |
| <p>6. Enter the new Admin PIN. 7. Select the key button.</p> <div data-bbox="187 491 289 531" style="text-align: center;"></div> |  | <p>Will double blink if the new PIN is accepted and the SFP is unlocked.</p> |
| <p>8. Perform Step 3 through Step 7 again.</p> |  | <p>Will blink alternately if the new PIN was not accepted.</p> |

OPERATE IN ADMIN MODE

| Procedure | LEDs | LED Activity |
|---|--|--|
| 1. Select the key button twice. 2. Enter the Admin PIN within ten (10) seconds.  |  | Will double blink together. |
| 3. Select the key button.  |  | Will double blink if correct. New user PIN is erased. Will blink if incorrect. |
| 4. Connect the SFP to a USB port within thirty (30) seconds. |   | Will be on solid. Will be on or blink for activity. |
| 5. Disconnect the SFP from the USB port to lock. | | |

CREATE A USER PIN AFTER ACCESSING WITH ADMIN PIN

A User PIN can be changed to almost any number. Refer to [CHANGE PIN](#)

| Procedure | LEDs | LED Activity |
|---|---|--|
| 1. Select the key button for three (3) seconds.  |  | Will be on solid. |
| 2. Enter the new PIN within ten (10) seconds. Refer to CHANGE PIN . |  | Will be on solid. |
| 3. Select the key button to save.  |  | Will blink together if accepted. |
| 4. Enter the new PIN. 5. Select the key button.  |  | Will blink if the new PIN is accepted and the SFP is unlocked and ready to use. Will blink alternately if the new PIN was not accepted. |

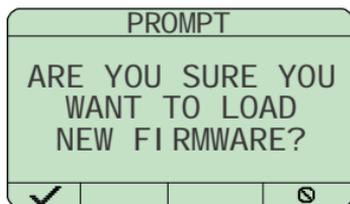
LOAD FIRMWARE FILE OR MISSION PLAN ON RADIO

This auto-launch procedure only applies to radio's: RF-7800V, RF-7850A, RF-7850M, or RF-7850S with firmware version 4.2.2 or above.

NOTE

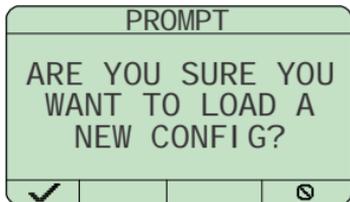
To take advantage of the auto-launch procedure have only one (1) firmware file and one (1) mission plan file loaded in the SFP root directory.

- Connect the SFP to USB port for radio.
- Observe that a prompt to load firmware will display if a firmware file is present.
- Select Yes soft key to confirm installation of firmware file or No to load mission plan file if present.



CL-0363-4200-4091

- Observe that a prompt to load config will display if a mission plan file is present.
- Select soft key Yes to confirm installation of mission plan.

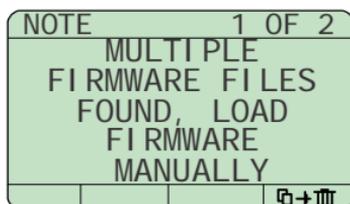


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MULTIPLE FILES ON SFP

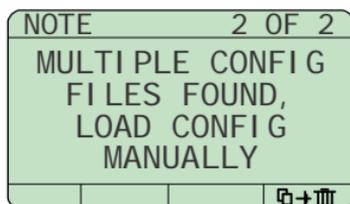
When multiple firmware or mission plan files are in the SFP root directory, the auto-launch cannot complete. The files must be loaded manually.

- a. Connect the SFP to USB port for radio.
- b. Observe that a message will display if multiple firmware files are present.



CL-0363-4200-4093

- c. Select **[CLR]** button to erase message or   to delete all messages if there are more than one.
- d. Observe that a message will display if multiple mission plan files are present.
- e. Select **[CLR]** button to erase message or   to delete all messages if there are more than one.



CL-0363-4200-4094

- f. Load firmware and mission plans manually as described in the operation manual.

TROUBLESHOOTING

Battery is Dead

The SFP has a built-in rechargeable battery. If the battery is fully discharged you can recharge the battery as follows:

- a. Connect the SFP to a USB port on a computer.
- b. Enter the User or Admin PIN to operate the SFP when connected to a computer.
- c. While connected to the USB port, the internal battery will charge in approximately 1 hour.

Forgotten PIN

If you forget the User and Admin PINs, there is absolutely no way of gaining access to the data stored on the SFP. There are no back doors into the SFP. You will need to completely reset the SFP by following the directions in [RESET THE SFP](#). Data stored on the SFP will be inaccessible.

When the SFP is reset, the following occurs:

- A new encryption key is generated.
- The User and Admin PIN are deleted.
- Data on the SFP is no longer accessible.
- A new User PIN will need to be set, refer to [SET UP NEW PIN AFTER RESET](#).
- The SFP will need to be formatted, refer to [SET UP WITH WINDOWS AFTER A COMPLETE RESET](#).

Brute Force or Hack Protection

If the SFP has had 10 consecutive unsuccessful attempts to unlock, the brute force will activate and will completely reset the SFP as follows:

- A new encryption key is generated.
- The User and Admin PIN are deleted.
- Data on the SFP is no longer accessible.
- A new User PIN will need to be set, refer to [SET UP NEW PIN AFTER RESET](#).
- The SFP will need to be formatted, refer to [SET UP WITH WINDOWS AFTER A COMPLETE RESET](#).

TECHNICAL SUPPORT

Support Overview

We recognize that continued success in our business requires an on-going commitment to customer support. We offer this support not only through our sales and service facilities in nearly 120 countries around the world but also through our Field Engineering Department. This department can assist our customers in the specification, installation, operation, and maintenance of all of our products.

In addition, further help is available via direct communications with our main facility in Rochester, New York using any method shown below:

Mail

Harris Corporation
Communication Systems
1680 University Avenue
Rochester, NY 14610 USA

Telephone

1-866-264-8040 (toll-free) 1-585-242-3561

Fax

1-585-242-4483

E-mail

TAC@harris.com

LIMITED ONE YEAR WARRANTY
HARRIS CORPORATION (COMMUNICATION SYSTEMS)

FROM HARRIS TO YOU - This warranty is extended to the original buyer and applies to all Harris Corporation equipment purchased and employed for the service normally intended, except those products specifically excluded.

NOTE: Terms and conditions of the standard warranty may be superseded by the terms and conditions of your contract.

WHAT WE WILL DO - If your Harris Corporation equipment purchased from us fails in normal use because of a defect in workmanship or materials within one year from the date of shipment, we will repair or replace (at our option) the equipment or part with new, reconditioned, or remanufactured equipment or parts without charge to you, at our authorized repair center or factory.

WHAT YOU MUST DO - You must notify us promptly of a defect within one year from date of shipment. Assuming that Harris concurs that the complaint is valid, and is unable to correct the problem without having the equipment shipped to Harris:

- Customers with equipment purchased for use outside the United States must obtain a Return Material Authorization (RMA) Number for the return of the defective equipment or part to our factory in Rochester, NY, U.S.A., for repair or replacement. You must prepay all transportation, insurance, duty and customs charges. We will pay for return to you of the repaired/replaced equipment or part, C.I.F. destination; you must pay any duty, taxes or customs charges.
- Customers with equipment purchased for use in the United States must obtain an RMA number, properly pack, insure, prepay the shipping charges and ship the defective equipment or part to our factory or to the Authorized Warranty Repair Center indicated by us.
 - RMA may be obtained using our Premier Website (login required) <https://rfcommpremier.harris.com>
 - Shipping instructions will be provided with the RMA confirmation.
 - Harris Product Service: Phone (585) 242-3561, Toll-free (866) 264-8040, Fax: 585-242-4483

Harris will repair or replace the defective equipment or part and pay for its return to you, provided the repair or replacement is due to a cause covered by this warranty.

WHAT IS NOT COVERED - We regret that we cannot be responsible for:

- Defects or failures caused by buyer or user abuse or misuse.
- Units that have been misused, neglected, or damaged by accident.
- Defects or failures caused by unauthorized attempts to repair or alter the equipment in any way by persons other than Harris Corporation.
- Includes units that have been disassembled
- Damage caused by leaking batteries
- Consequential damages incurred by a buyer or user from any cause whatsoever, including, but not limited to transportation, non-Harris repair or service costs, downtime costs, costs for substituting equipment or loss of anticipated profits or revenue.
- The performance of the equipment when used in combination with equipment not purchased from Harris.
- **HARRIS MAKES NO OTHER WARRANTIES BEYOND THE EXPRESS WARRANTY AS CONTAINED HEREIN. ALL EXPRESS OR IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY ARE EXCLUDED.**

SERVICE WARRANTY - Any repair service performed by Harris under this limited warranty is warranted to be free from defects in material or workmanship for sixty days from date of repair. All terms and exclusions of this limited warranty apply to the service warranty.

IMPORTANT - Customers who purchased equipment must obtain an RMA before shipping the defective equipment to us. Failure to obtain an RMA before shipment may result in a delay in the repair/replacement and return of your equipment.

IF YOU HAVE ANY QUESTIONS - Concerning this warranty, refer to Harris Terms & Conditions of Repair at <http://www.harris.com/frequentlyrequesteditems.asp>.