



# USER MANUAL

## MFT v1.0 Multi Frequency Transmitter



The information in this document is confidential to the person to whom it is addressed and should not be disclosed to any other person. It may not be reproduced in whole, or in part, nor may any of the information contained therein be disclosed without the prior consent of the SuperCom Ltd. ('the Company'). A recipient may not solicit, directly or indirectly (whether through an agent or otherwise) the participation of another institution or person without the prior approval of the directors of the Company.

Any form of reproduction, dissemination, copying, disclosure, modification, distribution and or publication of this material is strictly prohibited.

© All rights reserved. Supercom 2013

<b>Author</b>	Ehud Bachman
<b>Approved by</b>	Barak Trabelsi
<b>Document version</b>	1.1
<b>Product</b>	MFT v1.0
<b>Date</b>	August 2014

### Document version management

<b>Date</b>	<b>Version</b>	<b>Comments</b>	<b>Author</b>
<b>26.6.2014</b>	1.0	Initial version	Ehud Bachman
<b>18.8.2014</b>	1.1	Updated	Ehud Bachman

# Table of Contents

<b>1</b>	<b>Introduction.....</b>	<b>4</b>
1.1	About this Guide .....	4
1.2	Important Information.....	4
1.3	Safety Precautions.....	4
1.4	FCC Warnings .....	6
<b>2</b>	<b>Technical Specifications .....</b>	<b>7</b>
2.1	Interfaces and MMIs .....	7
2.1.1	RF.....	7
2.1.2	Interfaces & Connectors .....	7
2.1.3	Tampers & Sensors.....	7
2.1.4	MMI .....	7
2.2	Power Requirements .....	7
<b>3</b>	<b>Installation.....</b>	<b>8</b>
<b>4</b>	<b>Configuration .....</b>	<b>9</b>
<b>5</b>	<b>References .....</b>	<b>10</b>
5.1	Acronyms and Abbreviations .....	10
<b>6</b>	<b>Appendix A:.....</b>	<b>11</b>

# 1 Introduction

## 1.1 About this Guide

This User Guide contains important information for **installers and users** of the PRF-MFT10 product and all of its series. MFT stands for **Multi Frequency Transmitter**.

This guide introduces the PRF-MFT10 and provides instructions on how to install, configure, operate, and troubleshoot the device. Each section has both written and graphical explanations to provide the technical information necessary to be successful at using, installing, and configuring the PRF-MFT10 device.

## 1.2 Important Information

SuperCom Inc. reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and services at any time and to discontinue any product or service without notice. Customers should obtain the latest relevant information before placing orders and should verify that such information is current and complete. All products are sold subject to SuperCom Inc.'s terms and conditions of sale supplied at the time of order acknowledgment.

SuperCom Inc. warrants performance of its hardware products to the specifications applicable at the time of sale in accordance with SuperCom Inc.'s standard warranty. Testing and other quality control techniques are used to the extent SuperCom Inc. deems necessary to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

SuperCom Inc. assumes no liability for applications assistance or customer product design. Customers are responsible for their products and applications using SuperCom Inc. components. To minimize the risks associated with customer products and applications, customers should provide adequate design and operating safeguards.

SuperCom Inc. does not warrant or represent that any license, either express or implied, is granted under any SuperCom Inc. patent right, copyright, mask work right, or other SuperCom Inc. intellectual property right relating to any combination, machine, or process in which SuperCom Inc. products or services are used. Information published by SuperCom Inc. regarding third-party products or services does not constitute a license from SuperCom Inc. to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from SuperCom Inc. under the patents or other intellectual property of SuperCom Inc.

Resale of SuperCom Inc. products or services with statements different from or beyond the parameters stated by SuperCom Inc. for that product or service voids all express and any implied warranties for the associated SuperCom Inc.

Product or service and is an unfair and deceptive business practice. SuperCom Inc. is not responsible or liable for any such statements.

All company and brand products and service names are trademarks or registered trademarks of their respective holders.

## 1.3 Safety Precautions



**The equipment contains communication devices. Any changes or modifications made to the equipment without the written consent of SuperCom Inc. or SuperCom Ltd., or Vuance Ltd., and its resellers or distributors, can nullify the user's authority to operate this equipment.**

**The user assumes all risks associated with the use and handling of the equipment, and specifically acknowledges that SuperCom Inc. & SuperCom Ltd. & Vuance Ltd., and its resellers**

or distributors, will not be liable for any damages of any kind, including personal injury or property damages resulting from use of the equipment.

!

Carefully read the safety information contained in this section, and throughout this user guide, before installing, operating, or performing any maintenance task on the equipment.

!

Operations not performed as per the instructions in this user guide are done at the user's own risk and liability.

!

Only trained, authorized personnel should install, maintain and repair the equipment.

!

Unit shall be powered by a certified Limited Power Source supply adapter only (marked "L.P.S")

!

***Once you have thoroughly reviewed this user guide, if you have any questions, please contact your reseller.***

## 1.4 FCC Warnings

### The FCC Wants You to Know

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- a) Reorient or relocate the receiving antenna.
- b) Increase the separation between the equipment and receiver.
- c) Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- d) Consult the dealer or an experienced radio/TV technician.

### FCC Warning

Modifications not expressly approved by the manufacturer could void the user authority to operate the equipment under FCC Rules.

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

## 2 Technical Specifications

### 2.1 Interfaces and MMIs

#### 2.1.1 RF

- 1 x RF 433MHz ASK\FSK Receiver module
- 2 x LF 125KHz OOK Transmitter module

#### 2.1.2 Interfaces & Connectors

- RS-485
- 2 x Relay outputs / 3 x OC drivers
- 2 x Wiegand Outputs
- Ultra-Sonic module connector
- Power adapter socket

#### 2.1.3 Tamperers & Sensors

- Case tamper (*Optional*)
- Ultra-Sonic module (*Optional*)

#### 2.1.4 MMI

- Push Button
- Indication LEDs
- Internal Buzzer
- 1 x DIP Switch

Operational temperature:

- -20°C to +60°C

### 2.2 Power Requirements

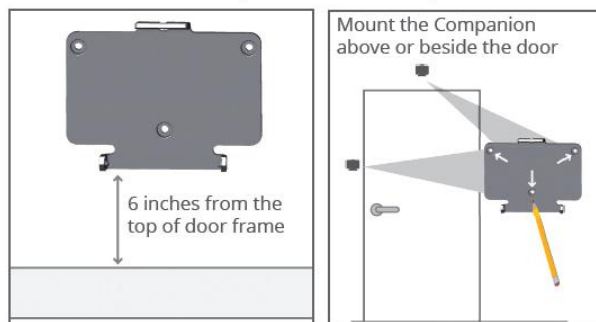
- 12V DC, 2A.

### 3 Installation

#### Reader Mounting Instructions

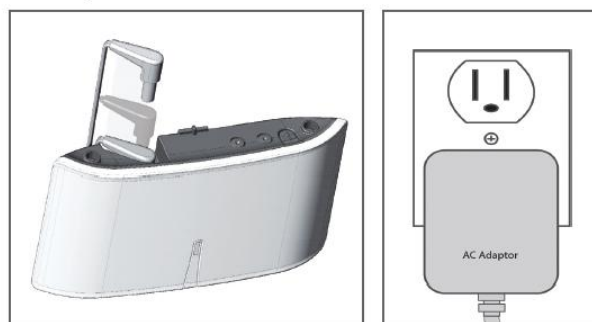
##### STEP 1: Mark Mounting Holes

Use the Companion mounting bracket to mark 3 holes on the wall (stepladder, ruler, & pencil needed).



##### STEP 3: Plug in AC Adaptor

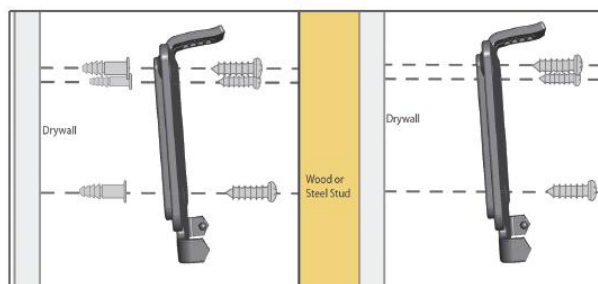
First, plug in AC adaptor to Companion. Then, plug AC adaptor into standard 120/230VAC outlet



##### STEP 2: Mount the Bracket (2 Options)

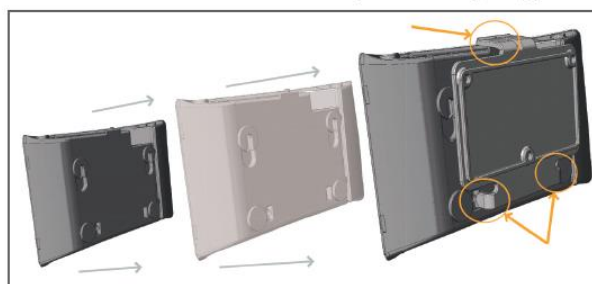
Plastic anchors & screws  
for DRYWALL ONLY

Just screws for wall  
with STUDS



##### STEP 4: Clip Companion to Bracket

Clip Companion to the mounting bracket lining up the 2 holes at bottom then snap on the top support



#### **NOTE:**

***Unit shall be powered by a certified Limited Power Source supply adapter only (marked "L.P.S").***

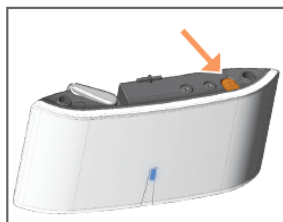


## 4 Configuration

### Calibration Instructions

#### STEP 1

- Make sure the Companion is turned on (blue light is displayed).
- Click and hold the top button for 2 seconds.
- A long beep will indicate that the calibration process has begun.



#### STEP 2

- Step back and grab the wrist tag.
- Position yourself at the maximum distance for which the Companion should alert.
- The Companion will sound short beeps for 7 seconds to allow you to get positioned.

RECOMMENDED DISTANCE: 5 – 8FT.

#### STEP 3

- The Companion will sound rapid short beeps while scanning the area for the wrist tag.
- Please do NOT move during this time.

#### STEP 4

**Calibration successful:** A green light will be displayed for 2 seconds.

**Calibration failed:**

- A red light will be displayed for 2 seconds.
- Return to step 1 and this time position yourself closer to the Companion.

### Pairing Instructions

#### STEP 1

- Make sure the unit is turned-on (Blue light steady-on).
- Click the top button (short click).
- The Companion will sound a long beep for 2 seconds along with light, indicating success or failure.

**Pairing successful:** A green light will be displayed for 2 seconds.

**Pairing failed:** A red light will be displayed for 2 seconds.

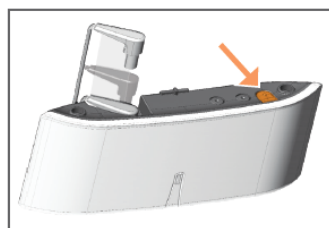
### Factory Reset Instructions

#### STEP 1

- Disconnect the power cord from the Companion.
- Make sure the unit is turned off (light is off).

#### STEP 2

- Click and hold the top button while re-connecting the power cord.



- Release the button after 5 seconds.
- A short beep will sound to indicate that the factory reset is complete.

## 5 References

### 5.1 Acronyms and Abbreviations

API	– Application Programmer Interface
ADC	– Analog to Digital Conversion
RF	– Radio Frequency
CPU	– Central processing unit
CAD	– Computer Aided Design
CISC	–Complex Instruction Set Computing
DAC	–Digital to Analog Convertor
ETSI	–European Telecommunications Standards Institute
FCC	–Federal Communications Commission
GUI	– Graphical User Interface
I/O	–Input/output
IRQ	–Interrupt Request
ISO	–International Organization for Standardization
Kbps	–kilobit per second
LED	–Light Emitting Diode
MCU	– Micro Controller unit
MMI	– man machine interface
RAM	–Random Access Memory
ROM	–Read Only Memory

## 6 Appendix A:

**Model Name:** **PRF-MFT10**

**MFT Types:** PRF-MFT10A, PRF-MFT10R, PRF-MFT10F.

The tables below describe the sensor combination that can be for any PRF-MFT10,  
For PRF-MFT10XX series:

FCC ID: W5P-PRF-MFT10			<b>Alarm base unit</b>
			<b>Model: PRF-MFT10</b>
LF Activator <input checked="" type="checkbox"/>	LF Activator <input type="checkbox"/>	LF Activator <input checked="" type="checkbox"/>	
RF Reader <input checked="" type="checkbox"/>	RF Reader <input checked="" type="checkbox"/>	RF Reader <input type="checkbox"/>	
<b>PRF-MFT10F</b>	<b>PRF-MFT10R</b>	<b>PRF-MFT10A</b>	SuperCom PN
Full MFT unit	Reader only	Activator only	