

General Information

Intended Audience

This guide provides customers the basics of how to setup and use the AVX-10K. Refer to the Operator Manual for additional details.

Related Information

VIAVI maintains a webpage where additional product information is available to customers:

<https://www.viavisolutions.com/avx-10k>

Use this manual in conjunction with the following information:

- **Operations Manual:** provides guidance for approved operation procedures.
- **Maintenance Manual:** provides guidance for approved maintenance and troubleshooting procedures.
- [Product Brochure](#): provides ordering information for parts and accessories.
- [Configuration Selection Guide](#): provides information on configuration details.
- **Data Sheet:** provides technical specifications.
- [StrataSync™ User Guide](#): provides operational information on the StrataSync™ Application

Declaration Of Conformity

VIAVI recommends keeping a copy of the Declaration of Conformity that shipped with the unit with the device at all times.

Warranty Information

Warranty information for this product is available on the VIAVI website at:

- <https://www.viavisolutions.com/en-us/warranty-information>

1. Upon Receipt

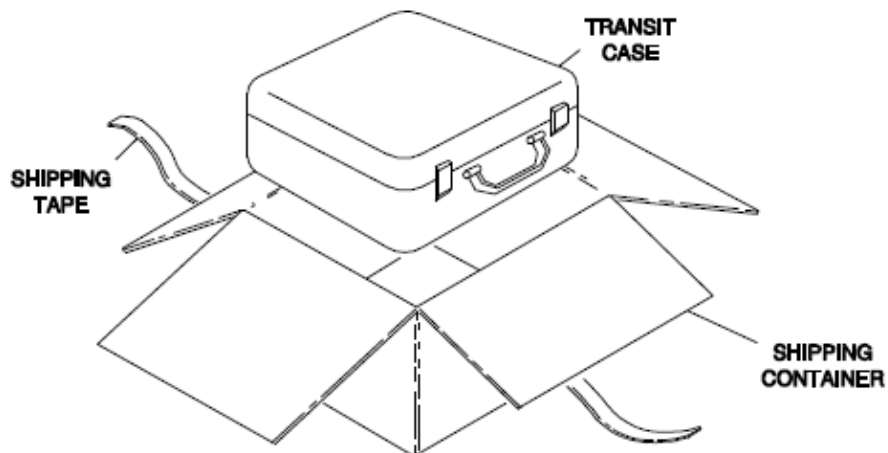
Perform the following when the device is received from the factory:

1. Unpack delivered equipment from shipping container.



- New units purchased with a transit case are shipped inside the transit case.
- Returned units returned to the customer from VIAVI will be shipped in accordance with VIAVI shipping standards; and will be shipped inside the unit's transit case, as applicable.
- Store dunnage, packing material, and shipping container for possible future use.

2. Verify shipment is complete in accordance with packing list and/or from the below applicable configuration ordered. Report any discrepancies to VIAVI.
3. Follow the 'First Time Use' procedure below.
4. Check all accessory equipment for damage incurred during shipment. If any equipment has been damaged, report the damage to VIAVI.



Configuration Details

Catalog Number	Item Description	Preconfigured Kits			
		AVX-10K-FLTS (Test Set Only)	AVX-10K-NAV (NAV/COMM)	AVX-10K-SVLC (Surveillance)	AVX-10K-CNS (COMM/NAV/SVLC)
AVX-10K	AVX-10K Unit	■	■	■	■
AC10K-PWRADPTR	AC/DC Power Adapter	■	■	■	■
AC10K-HANDSTRAP	Hand Strap	■	■	■	■
AC10K-OPSMNL	Manual, Operations	■	■	■	■
AC10K-QSGUIDE	Manual, Quick Start	■	■	■	■
AC10K-TRANSITCASE	Carrying Case, Hard Transit		■	■	■
AC10K-ADPTRKIT	Calibration Kit, VSWR/DTF	■	■	■	■
AC10K-ANT-ILS	Antenna, VOR / ILS		■		■
AC10K-ANT-MB	Antenna, Marker Beacon		■		■
AC10K-CBL6FT	Cable, Coax 6'		■	■	■
AC10K-ANT-FPANT	Antenna, RF Flat Panel w/1' Cable			■	■
UC-584	Coupler, UC-584 w/25' Cable			■	■
UC-584S	Coupler, UC-584S w/25' Cable				■
Software Options	Select Test Capability				
AVX-10K-SXPDR	Transponder Modes A,C,S			■	■
AVX-10K-SADSB	ADS-B In/Out/GICB/Target Gen			■	■
AVX-10K-STCAS	TCAS II				
AVX-10K-SDME	DME		■	■	■
AVX-10K-SUAT	UAT In/Out				
AVX-10K-SNAV	Navigation (ILS/MB/VOR)		■		■
AVX-10K-SELT	ELT 121.5/243/406MHz				
AVX-10K-SCOM	Radio Test AM/FM (Comms)		■		■

Selectable Power Cords

AC10K-PWRCRD-US/CAN	AC Power Cord - US / Canada
AC10K-PWRCRD-EU	AC Power Cord - Continental Europe
AC10K-PWRCRD-AUSNZ	AC Power Cord - Australia / New Zealand
AC10K-PWRCRD-INDIA	AC Power Cord - India
AC10K-PWRCRD-UK/IRE	AC Power Cord - UK / Ireland
AC10K-PWRCRD-SWITZ	AC Power Cord - Switzerland

Additional Accessories

AC10K-ANTBRKT	Required to use your current IFR6000 1030/1090 RF Antenna
AC10K-CC	Soft Side Carrying Case
AC10K-BATTERY	Internal Battery, Lithium Ion 7.3V 13Ah
AC10K-CBL12FT	Cable, Coax 12'
141131	Cable, Coax 25'
142839	Cable, Coax 50'
140889	TC-201A TCAS/XPDR Directional Antenna Coupler
90106	UC-584S Coupler Placement Pole



Figure 1. Representative photo of AVX-10K kit (does not apply to AVX-10K-FLTS)

Safety Information

Refer to the Operation's Manual for complete safety information.



Caution:

- Only use the AC Adapter/Charger provided with the product to charge the battery.
- Only connect the AC Adapter/Charger to the correct mains voltage indicated on the ratings label.
- Do not use or store the battery in temperatures that exceed the manufacturer's specifications. Follow manufacturer's instructions for battery storage and use.
- The battery included with the product is only to be used with the AVX-10K.
- Do not overload input connectors. Refer to product specification or product labelling for maximum input ratings.

Grounding Power Cord



WARNING: DO NOT USE A THREE-PRONG TO TWO-PRONG ADAPTER PLUG. DOING SO CREATES A SHOCK HAZARD BETWEEN THE CHASSIS AND ELECTRICAL GROUND.

For AC operation, the AC Line Cable, connected to the DC Power Supply, is equipped with standard three-prong plug and must be connected to a properly grounded three-prong receptacle that is easily accessible. It is the customer's responsibility to:

- Have a qualified electrician check receptacle(s) for proper grounding.
- Replace any standard two-prong receptacle(s) with properly grounded three-prong receptacle(s).

Product Specifications

Refer to the Product Data Sheet for complete specifications.

Table 1 Temperature Specifications

Parameter	Specification
Storage Temperature	-30 to +71 °C (-22 to 159 °F)
Operating Temperature	-20 to 45 °C (-4 to 113 °F)
Charging Temperature	0 to 45 °C (32 to 113 °F) ≤ 85% RH

Table 2 Power Specifications

Parameter	Specification
Battery Operation	up to 6 hours typical use
Charging Time	5 hours
Power Supply Input	100-240 VAC, 1.5 A, 50-60 Hz
Power Supply Output	12 VDC, 5.0A max, DC Input Connector

Table 3 Maximum Input Ratings

Input Connector	Specification
SWR Connector	20 mW max, 0V DC
RF I/O Connector	4 kW Peak, 10 W average
Antenna Connector	10 W peak, 0.5 W average

2. Product Familiarization

2.1. Controls, Connectors and Indicators



2.2. Indicators

Front Panel LEDs

Charge Status LED

UI Indicators are shown at the top of the touchscreen.



2.3. Interacting with the AVX-10K

The device has hard keys for control and navigation. The Liquid Crystal Display (LCD) is a capacitive touch screen that supports gestures such as press to open/select/activate, press and hold, drag and drop, swipe sideways and pinch to zoom where applicable.

The AVX-10K's screen layout and screen content changes based on factors such as the selected function, user settings and modes of operation. Most screens consist of a Header Bar, the Main Display area, and a Footer area. The Main Display area has Ribbons that can be opened or closed and when opened, the underlying applications are displayed.

Refer to the Operation Manual for more information.

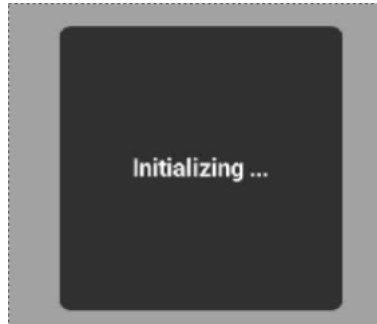
3. First Time Use



Caution: Please read this section in its entirety before powering on the device.

Turn the Test Set ON

1. Press and release the Power Button.
 - An initializing indicator screen is displayed during the boot-up process. Wait while the device completes the boot-up process.



- Battery LED indicator is illuminated, and the UI loads the Home screen in the display when the device is ready for use.
- Chime may occur (optional setting).

Run Self-Test

1. Remove the protective film from the touchscreen display before use.
2. Ensure that the Test Set is ON.
3. Verify Test Set Operation
 - a. On the Home screen, open the Self-Test ribbon.
 - b. Select the Self-Test application.
 - c. Press the RUN soft key and follow the prompts as directed. A cable will be needed for External Loopback test. This cable is supplied with each AVX-10K.
 - d. When Self-Test has completed running all tests, verify that all portions of the test have passed. If any portion of Self-Test fails, please contact VIAVI Customer Service.

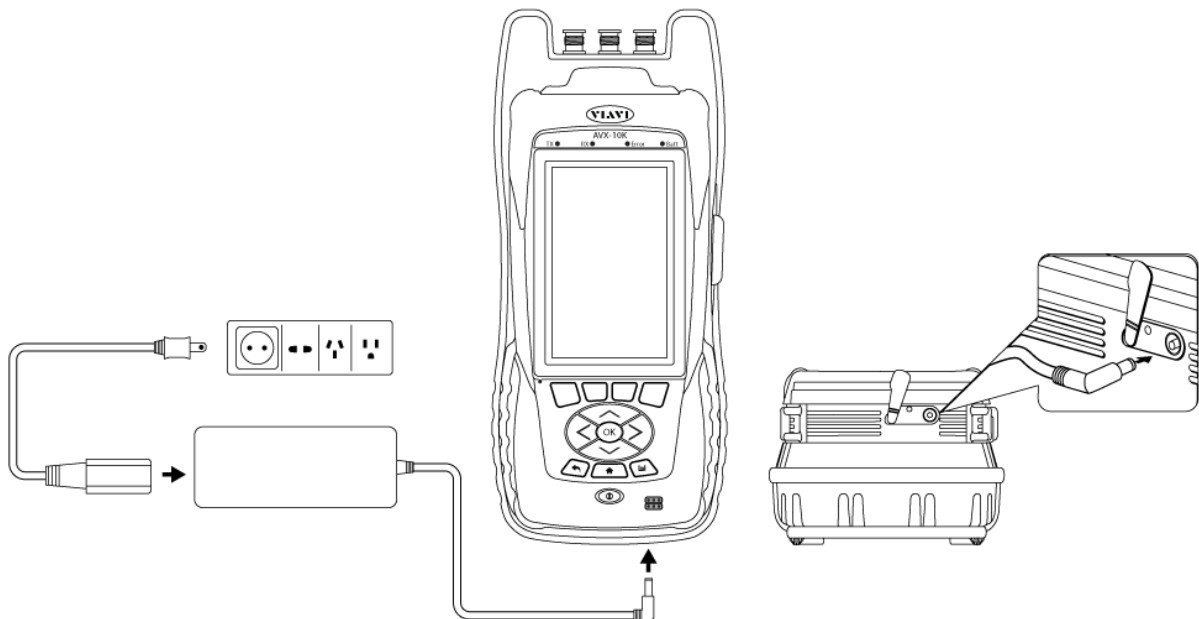
Turn the Test Set OFF

1. Press and hold the Power button ~3 seconds.
2. The device performs a series of power-down processes and shuts down.
 - Chime (optional setting).
3. Release the Power Button when the Front Panel LEDs begin to flash.

Charging the Device

The AVX-10K is designed to be powered by an internal battery or AC power. It is recommended that you fully charge the battery prior to first use.

1. To charge the battery, connect the device to an AC power source.
 - a. Connect the power cord to the AC Adapter/Charger.
 - b. Connect the DC connector to the device's DC input connector.
 - c. Connect the power cord to properly grounded AC power.



2. Verify the device's Battery LED turns Amber to indicate the battery is charging.



3. The Battery LED turns green when the battery is fully charged.

Software Download

Prior to use for testing, verify that the device is running the most recent software version. The version on the AVX-10K can be found by opening the System ribbon and launching the System Settings application. Select Hardware & Software Revisions and note the software version at the top of the screen.

To locate (and download) the most recent software version you will need to obtain a StrataSync™ account. To do this, go to: <https://www.viavisolutions.com/en-us/products/stratasync> and click the REQUEST AN ACCOUNT link.

For European countries, please use the Server Address:

<https://www.eu.stratasync.viavisolutions.com>.

REQUEST AN ACCOUNT link.

Component	Version
Base	4.35.0-dev
Solution	1.0.10
AVX Transponder Engine	0.1.6
AVX ADS-B Monitor Engine	0.1.1
AVX ADS-B Auto Engine	0.1.1
AVX GICB Engine	0.1.6
AVX TCAS Engine	0.1.0
AVX Target Gen Engine	0.1.0
AVX UAT Gen Engine	0.1.0
AVX Diagnostics Engine	0.1.7

[Contact a Sales Expert](#)
[Request a Quote](#)
[Request a Demo](#)

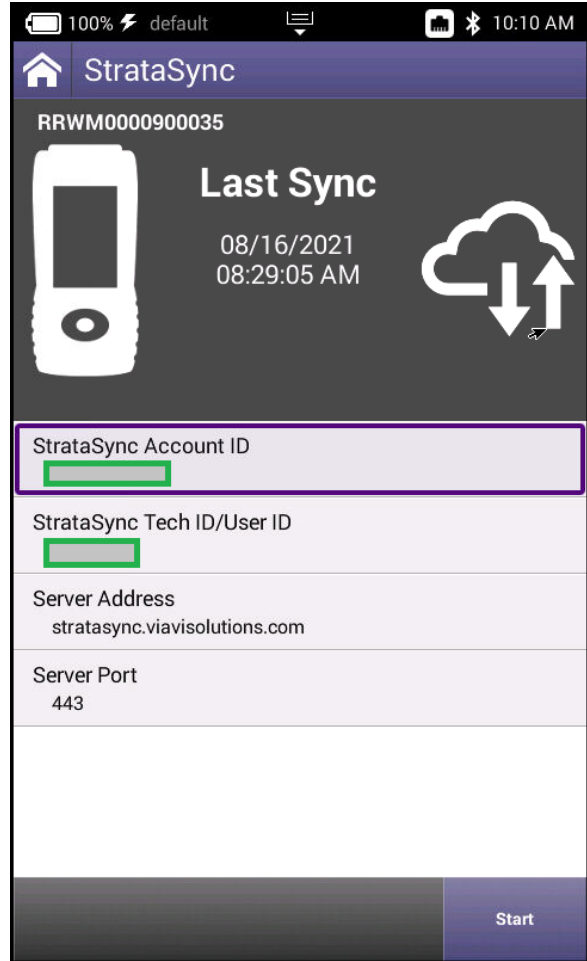
Request an Account

If you have purchased your VIavi products directly from VIavi SOLUTIONS, to obtain a Customer number, fill out the form and submit your StrataSync™ account request. Shortly after submittal, you should receive an email with your StrataSync™ account ID number, username and temporary password.

If you have purchased your VIavi products from a VIavi Channel Partner or authorized VIavi reseller, have your Channel Partner or reseller make the request to establish the StrataSync™ account on your behalf. Please have the request sent to: stratasyncadmin@viavisolutions.com.

Once you are able to login to StrataSync™, open the StrataSync™ application from the System ribbon on the AVX-10K and enter the StrataSync™ account ID number that was provided and enter a Tech ID / User ID for this device of your choosing. The Tech ID / User ID will be included on all test reports that are run on this device.

Connect the AVX-10K to your network via WiFi or Ethernet. Now you can press the START button and synchronize this device. Once the synchronization procedure completes, the device will appear on the assets list on the StrataSync™ website. Verify that the serial number on the side of the AVX-10K appears in the asset list.



View Asset Group: None [Manage Asset Groups](#)

Actions ▼ For 0 selected record(s)

	Asset class	Asset Type	Model	Unique ID	Serial No
<input type="checkbox"/>	Syncable				
<input type="checkbox"/>	Syncable	AVX-10K	AVX-10K	100000013	100000013
<input type="checkbox"/>	Syncable	AVX-10K	AVX-10K	RRWM0000900015	RRWM0000900015
<input type="checkbox"/>	Syncable	AVX-10K	AVX-10K	RRWM0000900039	RRWM0000900039

Now you can check for the latest available software version. From your StrataSync™ account, click on the Assets menu and Update Firmware.



The latest software version will be available at the top of the list. If you do not have the latest software version, follow the instructions below to update software.

The screenshot shows the StrataSync dashboard with the 'Assets' menu open. The menu items are: Asset List, Add a new asset, Import Assets, Manage Asset Type, Update Firmware (highlighted with a green box), Manage Templates, and Manage Asset Options. The dashboard also shows a table of Assets Class (15) with columns for count and name: 8 StrataSy, 0 User De, 7 Modules, and 0 Accessor.

UPDATE FIRMWARE - Select an update method

Select a method and click on under the Action column to deploy

Select an update method: Online updates Upload package

Select an asset type to view available online updates: AVX-10K

Enforce Firmware Version

Package Name	Action	Version	Release Date
1.0.2		1.0.2	2021/08/06
1.0.0		1.0.0	2021/08/04
0.9.78		0.9.78	2021/07/30

StrataSync™ Update Procedure

1. From the StrataSync™ account, select “Update Firmware” from the Assets Menu and click the rocket ship icon next to the version of the software to install.

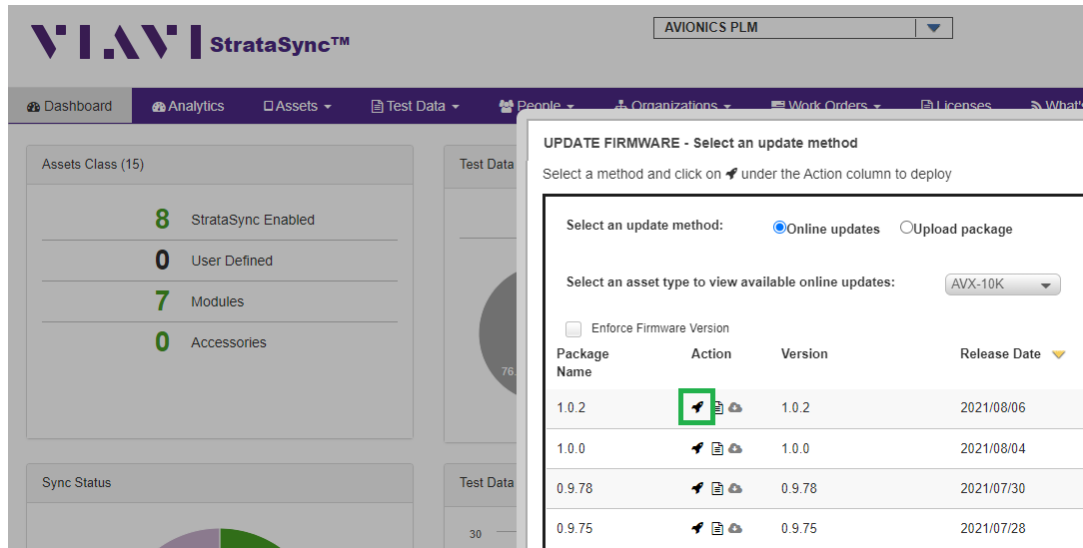


Figure 16: StrataSync™ Update

2. Locate the test set (or test sets) that you would like to update and click the box in the left-most column and “YES” on the next screen to proceed.
 3. Then from the AVX-10K test sets that have been targeted for update, select the START button from the StrataSync™ page. Follow the prompts to finalize software update. The unit will shutdown after the update is complete. Power the unit on to use.
- For reference, the full [StrataSync™ User Guide](#) is available from:
<https://www.viavisolutions.com/avx-10k>

Contact Information

Contact VIAVI Customer Service for technical support or with any questions regarding this or any other VIAVI products.

- Phone: 844-GO-VIAVI
- email: Techsupport.avcomm@viavisolutions.com

For the latest information, go to:

- <https://www.viavisolutions.com/en-us/services-and-support/support/technical-assistance>.

AVX-10K Serialization

The AVX-10K is supported with three serial tags, this information is to explain the use for each.

First, if you purchased one of the pre-configured kits, AVX-10K-NAV, AVX-10K-SVLC or AVX-10K-CNS you will notice a serial tag on the transit case. This serial tag is the composite level serial tag for the entire kit associated with the configuration purchased.



On the side of the AVX-10K unit, you will notice a serial tag that supports the base top half of the unit. This serial tag is the parent serial number that StrataSync™ recognizes when registering your unit. As a point of reference, should the base unit (upper half) need to be repaired and it is determined to replace the entire base unit the s/n will change, and show up as a new asset when sync'd with StrataSync™.

Finally, on the back of the unit you will see a serial tag and UID label which is the controlling serial number for the handheld unit **and should be used when requesting an RMA for service.**

VIAVI recommends tracking the kit serial number and the controlling serial number on the back of the unit for your reference.

