

QUICK START GUIDE



Maestro™

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Thank you for purchasing the Maestro Control Console for the FLEX-6000 Series radios from FlexRadio Systems. This Quick Start Guide (QSG) will walk you through the steps for setting up and operating your Maestro control console. Please read all included documentation before proceeding and store this guide and all other contents, including the shipping container, for future reference and use.

The Quick Start Guide is designed to get you on the air with minimum effort. To do this, we assume a basic HF installation and home networking setup knowledge and do not delve into all of the many possibilities of home network setup issues.

This QSG provides only the basic steps to set up and operate your Maestro. For more information, you are referred to the Maestro documentation, which can be found on our website at www.flexradio.com

If you run into any trouble during the set-up process, please:

- Re-check your steps.
- Refer to next paragraph, "Need Assistance"

Need Assistance?

If you encounter any issues setting up or operating your Maestro unit with FlexRadio Systems' Signature Series radios, please contact FlexRadio Systems technical support by opening a HelpDesk ticket on-line at: <http://helpdesk.flexradio.com> or by phone at +1 (512) 535-4713, extension #2. For EU countries please contact your national distributor or contact FlexRadio Systems Representative for EU (see back cover for contact information). Please leave a voice mail message if you don't get an answer.

Hours of operation:

Our Technical Support engineers are available Monday through Friday from 8:00am to 5:30pm Central Standard Time (CST). If you call after business hours, on a holiday or weekend, please leave a detailed message and we will return your call during regular business hours in the order it was received.

You may always submit a HelpDesk support ticket at any time. If you need assistance opening a HelpDesk ticket, please refer to the HelpDesk Assistance Center home page for step-by-step instructions at <http://support.flexradio.com>

IMPORTANT NOTICE - READ BEFORE OPERATING THIS UNIT

WARNING!

The Maestro control console is designed to control your FLEX-6000 Series radio which has been configured to operate in your country according to your nation's regulations. It will operate on frequencies which are not allowed for public use. You are required to have a valid amateur radio license of an appropriate class from your government to have the privileges to operate on amateur radio frequencies.

Except those actions which have been described in the Quick Start Guide and in the FLEX-6000 Signature Series Hardware Manual and SmartSDR Software Manual which are available for the radios compatible with Maestro, no other manipulations to the radio are allowed. The unit must be opened and/or serviced only by a qualified technician. Note: opening the Maestro unit will void the factory warranty.

Please study the Quick Start Guide, Maestro User Manual and the FLEX-6000 Signature Series Hardware Manual and SmartSDR Software Manual prior to operating the unit. These documents contain important information for safe operation.

If you have any questions due to misunderstanding, translation errors and alike, please refer to the Maestro User Manual and/or the FLEX-6000 Signature Series Hardware Manual and SmartSDR Software Manual first. Please contact the appropriate party for further information.

Radio frequency energy (RF) from transmitters can interact with some electronic devices, such as cardiac pacemakers and defibrillators. Please refer to the implanted pacemaker or defibrillator manufacturer's instructions with respect to precautions to be taken in the vicinity of an amateur radio transmitter. If any interaction or interference with a pacemaker or implanted defibrillator is suspected, **STOP** transmitting immediately.

IMPORTANT NOTICE - READ BEFORE OPERATING THIS UNIT

! – WARNING!

Δ - Caution

i - Information

! – This unit is NOT A TOY. It must not be handled by children nor placed/operated within reach of children.

! – Do not leave packing material for this unit unattended. It may be harmful to children if misused.

! – This unit contains small parts that could be a choking hazard to small children. Do not leave accessories unattended.

! – Do not operate this unit in potentially explosive environments.

! – Never attempt to insert wires or any tools into the interior of this unit during operation. This may cause fire or electric shock.

! – Never place the Maestro on an unstable surface where it may suddenly fall. This could cause injury or damage the unit.

! – Never operate the unit with a headset or other audio accessory at high volume levels. Use caution when adjusting the volume to prevent any harm to your hearing. If you experience ringing in your ears, lower the volume or discontinue use.

! – This unit must only be operated with the electrical power

described in this Quick Start Guide. NEVER CONNECT THE +10-15 VDC POWER CONNECTOR DIRECTLY TO AN AC OUTLET. Never apply more than +16VDC to the power connector. This may cause a fire, injury, or electrical shock.

! - Never operate the Maestro unit during a lightening storm. It may result in electrical shock, cause a fire or damage the unit. Always disconnect the power source and antenna source before a storm.

! - When using an optional battery pack to power your Maestro unit, follow all instructions provided with said battery for safe use. FlexRadio is not responsible for mis-use of a customer supplied battery and/or any resulting collateral damage. Keep all batteries out of reach of children.

Δ - This unit must be opened and/or serviced only by a qualified technician. Opening the unit will void the manufacturer's warranty.

Δ - Do not operate this unit in areas of extreme humidity or expose to rain, snow or any liquids.

Δ - Avoid operating this radio in direct sunlight or other areas of extreme heat, excessive vibration, or mechanical force.

Δ - If this unit is intended for use in commercial applications, special safety regulations and cautions may apply to prevent accidents.

1.0 GETTING STARTED

Δ - If any defect, abnormal result, or other observations occur that are not covered by this Quick Start Guide; immediately cease operation and contact the manufacturer or local distributor for operational advice or repair of the unit.

i - No other physical modification of this device is allowed. Any other use or modification (including software changes that affect operational characteristics) will void the manufacturer's warranty.

i - Do not leave the Maestro unit in an insecure place to avoid use by unauthorized persons.

i - Please study the complete Quick Start Guide and Maestro User Manual. These documents contain important information regarding the safe operation of this unit. If you have any questions, please contact the manufacturer or local distributor for further information.

1.0 GETTING STARTED

Supplied Accessories:

The following accessories and materials are included with your Maestro Control Console. Carefully remove the Maestro from its shipping container, unpack and identify the items listed below.

- One (1) FlexRadio Maestro device
- One (1) Fixed angle mounting stand with three M4 x 8 phillips screws
- One (1) 7ft. (2.1m) CAT 5E Ethernet cable
- One (1) AC / DC wall adapter with 2.1mm barrel plug
- One (1) Six foot (1.83m) DC power cord with 2.1mm barrel plug and pigtails
- One (1) 1/8" to 1/4" TRS adapter
- One (1) Maestro Quick Start Guide (QSG)

Additional Required and Optional Items Not Supplied with the Maestro Console:

In addition to the accessories, parts and cables supplied with the Maestro unit, you must provide the following:

One of the following connections to your FLEX-6000 Signature Series radio:

1. a wired Ethernet connection to an open port on your local area network (LAN) on which your radio is connected
2. a WiFi connection to the network on which your radio is connected
3. a wired direct Ethernet connection to your radio (WiFi or wired Ethernet is needed for Maestro updates)
4. AC or DC power source

and you may optionally choose to provide one or more of the following:

1. Powered stereo speakers (computer type) and/or stereo headphones
2. A microphone with an RJ-45 style connector or a 1/8" TRS plug
3. A straight key, paddles or a keyer with a 1/8" TRS plug
4. A 5-volt rechargeable battery powerbank to power the unit without the use of the 12-volt power supply. It is recommended that this battery be a minimum of 10000mAh and should be no larger than 6"L x 3"W x 0.75"H in order to fit the battery compartment.
5. Headphones
6. Separate PTT Switch

2.0 MAKING THE CONNECTIONS

The following steps describe the required connections for getting your Maestro connected to your FLEX-6000 Signature Series SDR.

First Steps:

1. Carefully remove the packaged accessories and the Maestro from the shipping carton and identify all of the supplied accessories listed in the previous section.
2. Attach the included fixed angle foot, or the optional tilt feet if ordered, to the back of the unit using the provided screws.
3. Place the Maestro in your operating position making sure it has adequate ventilation.

Back Panel Connections

1.) Ethernet - If you plan to connect your Maestro to your Flex Signature Series radio via a wired connection, plug one end of the supplied CAT 5 Ethernet cable into the Ethernet socket on the back panel. Connect the other end of the cable to the FLEX-6000 Series radio, either directly or via a local area network. When connected via a LAN, it should be plugged into an available 100/1000 BASE-T Ethernet port on your firewall/router or Ethernet switch on the same subnet as your FLEX-6000.

radio. Note that there are two RJ-45 type sockets on the back of the Maestro, one for an Ethernet connection, one for a microphone. Be careful to use the Ethernet connection for this step.



If the intent is to connect your radio to Maestro via WiFi, then the wired connection is not made and a WiFi connection to the LAN that contains the radio will be made in a later step.

2.) Optional Speakers or Headphones - If desired, connect powered stereo speakers to the jack marked PWR-SPKR using a 1/8" stereo TRS plug, and/or, connect stereo headphones to the jack marked PHONES using a 1/8" stereo TRS plug. Maestro includes an internal speaker, so speakers and headphones are optional.

3.) Microphone - Connect a dynamic microphone with an RJ-45 plug to the RJ-45 MIC 1 socket. The FHM-1 microphone that is included with your FLEX-6000 series transceiver can be used with an 8-pin male foster to RJ-45 adapter cable, or, a headset microphone, optionally with a Push-to-Talk switch, can be connected to the MIC 2 socket, using a 1/8" inch TRS plug.



4.) Key/Paddles/Keyer: Connect your CW paddles, keyer or straight key to the jack marked KEY using a 1/8" stereo TRS plug. Optionally you can use a 1/8" mono (TS) plug for connecting a straight key. For paddles or a keyer, connect the TRS tip to DOT, Ring to DASH and the Sleeve to common. For a straight key, using a TRS plug, connect the TRS Tip to KEY and the Sleeve to common. Do NOT connect the TRS Ring. If using a TS plug with a straight key, connect the tip to KEY and the Sleeve to common.



5.) Power - Connect the supplied power supply to the socket labeled 10-15V DC. Plug the power supply into your local AC power. Do NOT power on the Maestro at this time.

3.0 GETTING TO KNOW YOUR FLEX MAESTRO

The following is a description of the FLEX Maestro front and rear panel controls and connectors.

Maestro Front Panel

1	Power Button
2	Eight inch multiple touch sensitive HD color display
3	VFO A multi-function control for audio level, AGC Threshold, Squelch and audio Solo operation
4	VFO A multi-function control for receiver filter bandwidth
5	VFO B multi-function control for audio level, AGC Threshold, Squelch and audio Solo operation
6	VFO B multi-function control for receiver filter bandwidth
7	Manual transmit (MOX) button
8	Tune (TUNE) button
9	ATU on / tune /bypass button

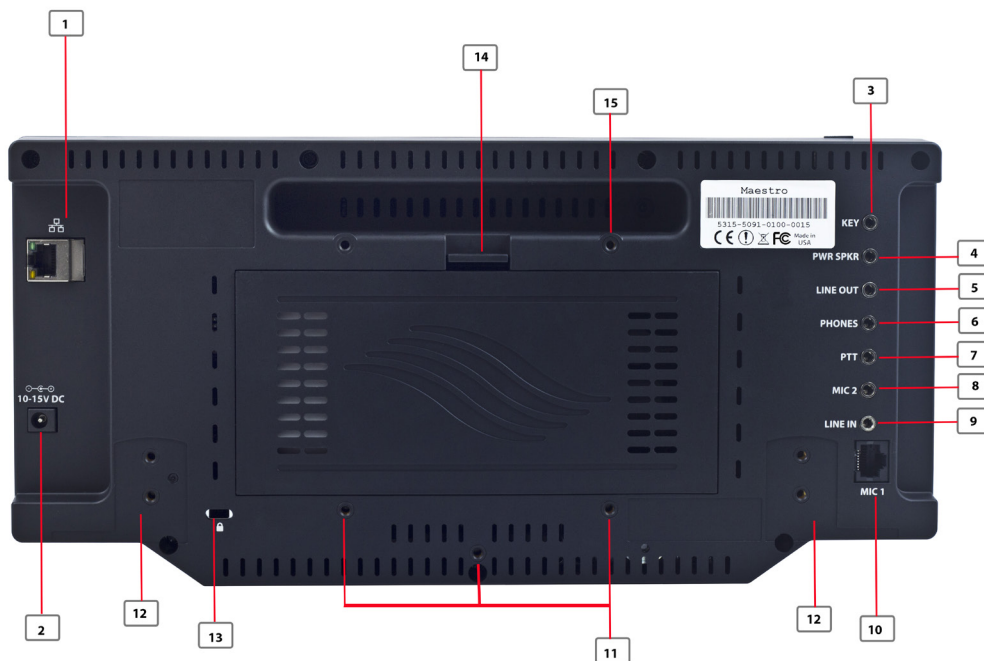
10	Microphone level, key speed, transmitter power and TX menu multi-function control
11	Function keys, 1 through 6
12	VFO A Receiver enable button
13	VFO A Transmitter enable button
14	VFO B Receiver enable button
15	VFO B Transmitter enable button
16	A copy to B (A>B); B tracks A (A>>B)
17	VFO A RIT / XIT indicator
18	VFO A tuning knob, VFO A menu / clear control
19	VFO B tuning knob, VFO B menu / clear control
20	VFO A and B tuning step control button
21	VFO A and B tuning lock button
22	VFO B RIT/XIT indicator



Maestro Rear Panel

1	Ethernet port, RJ-45, 100/1000 twisted pair
2	DC Power input, 10 to 15 VDC, up to 2 amps
3	CW Key, 1/8" inch TRS connector
4	Powered Speakers, 1/8" inch TRS connector
5	Line-Out, 1/8" inch TRS connector
6	Headphones, 1/8" inch TRS connector
7	Push-to-Talk, 1/8" inch TRS connector
8	Mic 2 Microphone, 1/8" TRS connector
9	Line-In, 1/8" TRS connector
10	Mic 1 Microphone, RJ-45 connector
11	Fixed foot mounting points; 3 screws

12	Tilt feet mounting points (2 positions, 4 screws)
13	Security cable tie point
14	Auxiliary battery compartment
15	Optional VESA mounting points (4)



4.0 USING MAESTRO

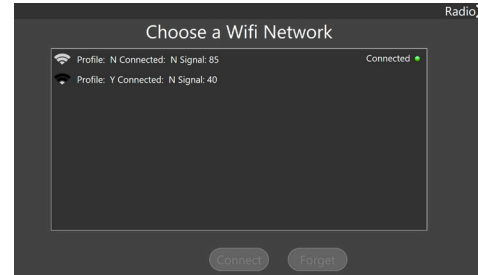
Step 1. Starting Maestro for the First Time

Turn on your FLEX-6000 series radio. Do **NOT** start SmartSDR if it is available. Don't be concerned with the CAT and DAX applications at this time.

Turn on Maestro by pressing the right side of the **POWER** button on top of the unit for approximately five seconds before releasing. Maestro will start after a few seconds. The Maestro welcome screen will appear on start-up. This screen can take several seconds to appear.

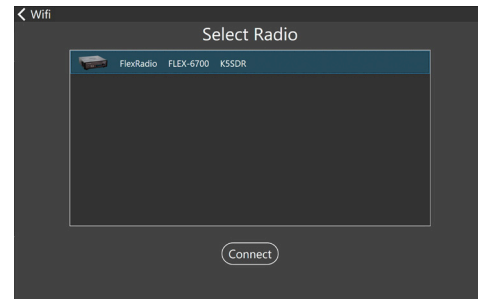


If using WiFi to connect to the FLEX-6000 transceiver, choose the network to connect to by tapping on the offered network names. Follow the screen prompts to enter security information to make the WiFi connection.

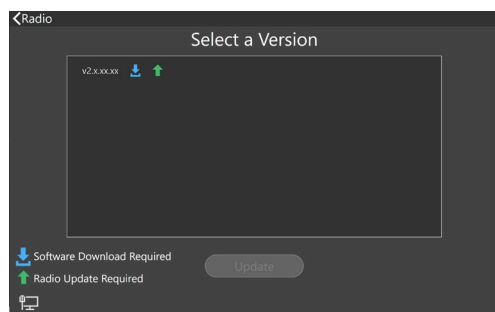


If using wired Ethernet, this step will be skipped as Maestro detects your network.

The **Select Radio** screen will then appear. Tap on a radio to select it, then tap on the **Connect** button.



The **Select a Version** screen appears. Available versions of the Maestro software are listed. Tap on a version to select it. If the selected version has not been loaded into Maestro, a download and installation will take place. **Please note - if Maestro is not connected to the Internet, only the factory installed version of the software will be available.**



Note: If multiple versions appear on the start up screen, choose the most recent version of software for download.

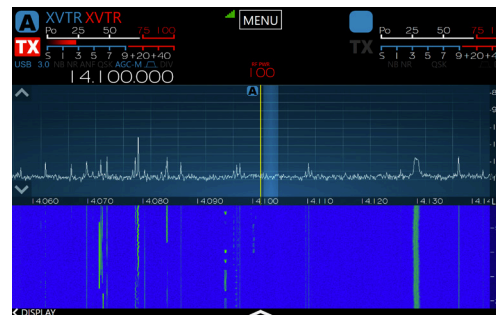
Next, tap the **RUN** button to start Maestro.

The Maestro main control screen will appear as shown below.

- Single panadapter is displayed
- One receiver is shown, VFO A will be active
- Speaker or headphones will be active

Step 2. Operating Your FLEX-6000 Transceiver with Maestro

The Maestro display will initially show one High Definition Panafall Spectrum Display and one Receiver tuned to 14.100MHz as shown below.



In addition, the framework for a second Receiver (VFO B) is shown, which will be inactive. Note: If the FLEX-6000 transceiver was previously active using SmartSDR, the persistence features of the radio may cause the Receivers to appear with the settings that were last used, rather than the settings described here.

Maestro provides two VFOs, labeled A and B. The A VFO is controlled by the leftmost audio and RX filter controls, and by the larger Tuning knob and its associated RX, TX, Step and Lock buttons on the Maestro front panel. The B VFO is controlled by the rightmost audio and RX filter controls, and by the smaller Tuning knob and its associated RX, TX, Step and Lock buttons on the Maestro front panel.

To activate the VFO B Receiver:

1. Press the RX button above the VFO B Receiver's Tuning Knob. The B VFO will become active at a frequency near the A VFO Receiver and the B RX button will illuminate green.
2. Tune the B VFO Receiver as described previously.
3. Move the transmitter control to the B VFO, if desired, by pressing the B TX button.

To **TUNE** a Receiver to another band:

1. Tap the frequency display in the VFO display or press and hold the Tuning knob for a moment until the respective VFO Menu appears.
2. Select the band from the band sub-menu by tapping the desired band.
3. The VFO Receiver menu disappears and the radio is tuned to the selected band.

4. Adjust the frequency within the band by either:

- a. Turning the Tuning Knob
- b. Tapping the frequency display to bring up the respective VFO Menu, then enter the frequency using the 10-digit keypad. Tap the ENT button to enter the frequency into the VFO. Tap the frequency again to remove the VFO menu.
- c. Double tapping the panadapter display at the approximate desired frequency, then fine-tuning with the Tuning knob.

To set the operating MODE:

1. Tap the frequency display on the VFO or press the Tuning knob for a moment. The VFO menu will appear.
2. Select the operating mode from the mode sub-menu by tapping on the desired mode.
3. Remove the VFO menu by tapping anywhere on the panadapter display or press the Tuning Knob until it disappears.

To Transmit:

1. Adjust the MIC level and transmitter power level using the transmitter multi-function control. These levels are displayed on the Maestro screen as the values are changed.

2. To adjust other transmitter settings such as voice processing, monitoring, VOX, downward expansion and transmitter filter limits, press the transmitter multi-function control on the mic/speed knob. The TX Menu will appear on the Maestro screen. Tap or slide the controls to make adjustments, then press the multi-function control knob, or tap the panadapter to remove the TX menu.

3. Press the PTT switch on the microphone, or press the MOX button on the Maestro front panel to engage the transmitter. Speak in a normal voice. The MOX button will illuminate red to indicate that the transmitter is operating. The front panel LED on the FLEX-6000 will also illuminate red. Release the PTT switch, or press the MOX button again to end transmission.

Congratulations! Your FLEX-6000 Signature Series SDR is now operational using your Maestro controller. Please refer to the FLEX-6000 Series Hardware Manual and the Maestro Users Guide for detailed instructions and additional information regarding the operation of your FLEX-6000 Signature Series SDR.

NOTES:

FCC INFORMATION

FOR CLASS B UNINTENTIONAL RADIATORS:

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:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult FlexRadio or an experienced radio/TV technician for help

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Changes or modifications to this device, not expressly approved by FlexRadio Systems, could void your authority to operate this device under FCC regulations.

Contains FCC ID; PPD-QCA6234

Contains IC: 4104A-6234

Accessing Regulatory Information in the Maestro Software

Regulatory compliance information may be accessed in the Maestro software through the following sequence:

1. Press [MENU] on the main Maestro touch screen display.
2. Press the [MAESTRO] tab on the left side of the Menu display.
3. Regulatory information will be displayed on the screen.

"CE" marked devices meet the essential requirements of Directive 1999/5/EC



The exclamation point warning symbol means that the system is to be operated in a non-harmonized frequency band and/or according to the laws of the telecommunications authority in the country of use.

Please ensure that you have acquired the device for the use and approved operation, and that the respective national frequency allocations are respected. See also the warning on page 3 of this guide.

Waste Disposal

The device may not be disposed of with household waste! This device complies with EU Directive on Electronic and electrical equipment (WEEE regulation) and will therefore not be disposed of with household waste. Dispose of the device at your local collection points for electronic equipment!



Compliance documentation for the embedded Dell Venue 8 Pro, Regulatory Type: TD01D001 is available from Dell Computer at: <http://www.dell.com/learn/us/en/uscorp1/regulatory-compliance>



European Union Declaration of Conformity

We
FlexRadio Systems - U.S.A.
4616 W. Howard Lane, Ste. 1-150
Austin, TX 78728 USA

Equipment: Docking Station
Brand Name: FlexRadio Systems
Type: Maestro

Declare on our own responsibility:

Part 1 R&TTE Directive and Safety

According to DIRECTIVE 2004/108/EC that this equipment complies with the essential requirements of R&TTE (Radio & Telecommunications Terminal Equipment Directive 2004/108/EC) and that according to the below mentioned applicable documents the essential test suite measurements have been performed. This declaration of compliance is based on the below listed harmonized and non harmonized standards, specifications or documents.

Electro Magnetic Compatibility (EMC):

EN 55022: 2010
EN 55024: 2010

RADIO:

WLAN

EN 300 328 V1.7.1
EN 301 893 V1.6.1
EN 301 489-1 V1.9.2
EN 301 489-17 V2.1.1
EN 62311 :2008

Bluetooth

EN 300 328 V1.7.1
EN 301 489-1 V1.9.2
EN 301 489-17 V2.1.1
EN 62311:2008

Safety:

EN 60950-1: 2006 +A1: 2010 +A11: 2009 +A12: 2011

Part 2 RoHS Directive

According to DIRECTIVE 2011/65/EU that this equipment complies with the restriction of the use of certain hazardous substances in electrical and electronic equipment. Standards used:

RoHS: EN 50581: 2012

Austin, Texas, USA, 25th November 2015

Person Responsible: Gerald Youngblood (Signature on file)
President & CEO FlexRadio Systems

FlexRadio Systems - U.S.A

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