

# 44D Quick Start Guide

## Quick Start Overview

The complete 44D User Manual is available for download at [www.telewave.com](http://www.telewave.com).

1. Unpack and inspect the 44D and accessories (USB cable, AC power supply, & AC adapter kit)
  - a. Check the box and contents for any damage immediately after it arrives
  - b. In case of damage or missing items, contact Telewave immediately, 408-929-4400 Opt 1.
2. Charge the Batteries
  - a. Connect the supplied USB cable into the 44D (connector on the back) and into the supplied AC power supply. Plug the power supply into a 90 to 250 VAC (50 or 60 Hz) wall socket (Charging begins automatically – there is no charging indication when the 44D is off)
  - b. The 44D must be charged for at least 2 hours before turning on for first use.

The 44D cannot be switched ON or OFF while charging via the USB. Disconnect the USB cable, toggle the power button, and then re-connect the USB to continue charging.

See the section “[Lithium Battery Management](#)” (next page) for battery management details

3. Build or procure “Primary Cables” (see “Appendix - Connecting the 44D to the Circuit”)
4. Press and hold the power button until the blue power indication in the switch illuminates
5. The 44D will be functional in three to five seconds as indicated by:
  - a. Backlight will be illuminated
  - b. Frequency, temperature & battery indicators are displayed
6. The HOME screen & menu tree:

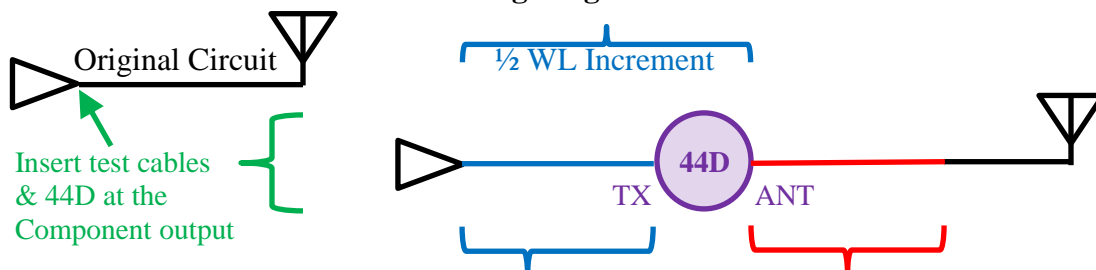
<u>MENU</u>	<u>MEAS</u>	<u>CALC</u>
V	Measurements	Calculations

Freq Range > Set low, medium or high frequency range  
Modulation > Selects the type of modulation to measure  
Settings > Modify some look & feel parameters  
Info & Help > Show Version, Telewave contact  
Exit > Return to the HOME screen



7. When in any MENU screen other than the HOME Screen, the function buttons will be UP, SELECT/EXIT, and DOWN.
  - a. Press SELECT implements the selection & returns HOME
  - b. Press EXIT aborts the selection and returns HOME
8. Set the Frequency Range before use, all other settings are optional
9. Once the 44D has been configured, the cables can be connected
  - a. Connect the primary cable to the port labeled TX on the left side of the 44D (RF input)
  - b. Connect the cable leading to the antenna to the port on the right side of the 44D (RF output)
10. The RF Sample port can be connected to any monitor or source test equipment. The sample port is bi-directional, with connectivity to both the Thru Line TX and Thru Line ANT port.

### Wiring Diagram



Primary Cable (1/2 WL increment minus 5”) Secondary Cable (Optional = 1/2 WL increment)

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# Lithium Battery Management

Lithium-ion batteries are used in the 44D to supply power. The behavior of the 44D batteries is similar to other devices that use the same battery technology (cell phones, iPads, etc.). Please carefully read this section regarding battery safety and operation details.

## Battery charging and discharging

The battery can be charged when the 44D is on or off, and can be charged from any USB source that can support a 2.4 amp load (wall charger, vehicle adapter, etc. – laptop not recommended) Charging begins automatically when power is applied to the USB port.

When the 44D is powered off there is no charging indication.

When the 44D is on, the battery life display turns yellow indicating the batteries are charging.

Depleted batteries will require 8 hours of charging time to reach a full charge.

Fully charged batteries will support about 8 hours of active operation.

Battery charge indication:	discharging:	Charging:
Bars 4 = Full	8 hours use time remain	trickle charge mode, see NOTE below
Bars 3 ~ 3/4	6-8 hours use time remain	normal charge mode, can use while charging
Bars 2 ~ 1/2	4-6 hours use time remain	normal charge mode, can use while charging
Bars 1 ~ 1/4	2-4 hours use time remain	normal charge mode, can use while charging
Flashing <1/4	0-2 hours use time remain	trickle charge mode, do not use the 44D

**NOTE:** The 44D can be used when charging, but when the charger is in trickle mode there is not enough current provided to operate the 44D; the batteries will eventually be depleted.

### **WARNING**

The batteries must be discharged to 1/3 or less capacity before the unit can be transported by Air.

This is a legal and safety requirement for all lithium batteries.

The internal batteries are not user serviceable. The 44D must be returned to Telewave for service if the batteries no longer accept or retain a sufficient charge.

Excessive cold or hot temperature can damage the batteries or create a fire hazard.

### **CAUTION**

Fully charge the batteries upon initial receipt; also before and after long term storage.

Fully charge the batteries at least once a month during long term storage

The batteries may self-deplete and malfunction unless they are periodically re-charged.

Once the internal charging controller detects that the batteries are fully charged, it will reduce the charging rate to trickle. The rate will remain at trickle until the USB is unplugged.

The 44D can be left on the charger for longer than 24 hours, but this is not recommended.