



## Quick Start Guide

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

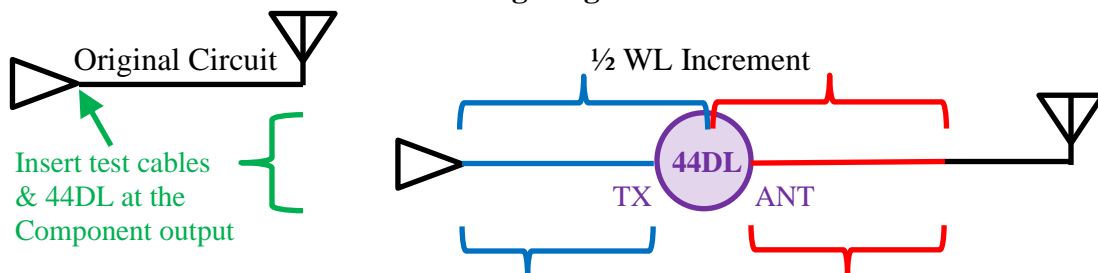
1. Unpack the 44DL and accessories (USB cable, AC power supply, & AC adapter kit)
2. Check the box and contents for any damage immediately after it arrives
3. In case of damage or missing items, contact Telewave immediately, 408-929-4400 Opt 1.
4. Charge the Batteries
  - Connect the supplied USB cable into the 44DL (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 44DL is off)
  - The 44DL must be charged for at least 2 hours before turning on for first use.
  - The 44DL 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](#)” for battery management details
5. Build or procure “Primary Cables” (see “Appendix - Connecting the 44DL to the Circuit”)
6. Press and hold the power button until the blue power indication in the switch illuminates
7. The 44DL will be functional in three to five seconds as indicated by:
  - Backlight will be illuminated
  - Frequency, battery indicators are displayed
8. The HOME screen & menu tree:
  - Freq Range > Set operating frequency range\*
  - Modulation > Selects the modulation type\*
  - Settings > Modify some look & feel parameters
  - Info & Help > Show Version, Telewave contact

\*Set the Frequency Range and Modulation before use or measurement will be inaccurate, other settings are optional

When in any MENU screen other than the HOME Screen, the function buttons will be UP, SELECT/EXIT, and DOWN. Press SELECT implements the selection & returns HOME

9. Once the 44DL has been configured, the cables can be connected
10. Connect the primary cable to the port labeled TX on the left side of the 44DL (RF input)
11. Connect the cable leading to the antenna to the port on the right side of the 44DL (RF output)
12. 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 3”) Secondary Cable (Optional = 1/2 WL incr. - 3”)



## Lithium Battery Management

Lithium-ion batteries are used in the 44DL to supply power. The behavior of the 44DL 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 44DL 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.

#### **NOTE: Two Power Management Rules**

- Always make sure that there is at least one bar (2 hours) battery life before using the 44DL.
- Unplug the USB cable before operating the power switch (turning the power on or off) and then plug USB cable back in if needed for charging or operation
- When the 44DL is powered off, the blue power ring will illuminate (but the display will not be illuminated) indicating that the batteries are charging.
- When the 44DL is on, the battery life indicator turns yellow indicating that 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.

**NOTE:** The 44DL can be used when charging, but when the charger is in trickle mode there is not enough current provided to operate the 44DL; 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 44DL 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 44DL can be left on the charger for longer than 24 hours, but this is not recommended.
- The 44DL is protected by internal fuses. If the battery is shorted the fuses may blow requiring factory replacement.