

Shore Based Field Manual

Predeployment Check

On STARTUP:

Charge battery pack until full (13+ v)

RED LED light on scanner should flash about 4-6 times / second

Small **GREEN** (constant) and **AMBER** (flashing) LED lights on logger

LOGGER Settings:

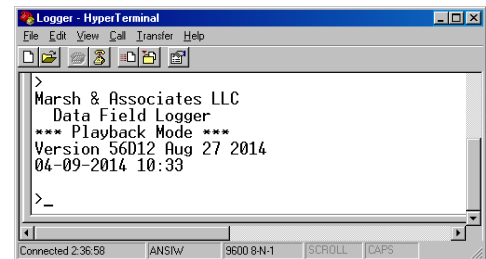
Turn on computer equipped with HyperTerminal

Plug USB connector into computer

Open HyperTerminal program

Connect communications cable to unit: Ikelite (submersible) or Switchcraft (shore based)

Logger will switch modes from "RECORD" (scanning) to "PLAYBACK" and banner will appear on screen



Date/Time:

Check date and time with "T" command and ensure scanning interval is set correctly

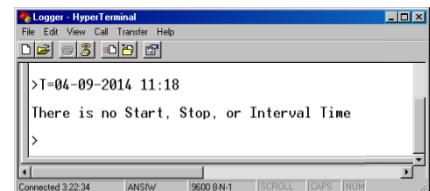
No start or stop time if continuous scanning desired

(Refer to "Logger Commands Page" for scanning interval instructions)

Check voltage:

Use "v" command to view voltage level

> 8.0 for Li-Ion > 6.5 for 6v Lead Acid > 13.0 for 12v Lead Acid



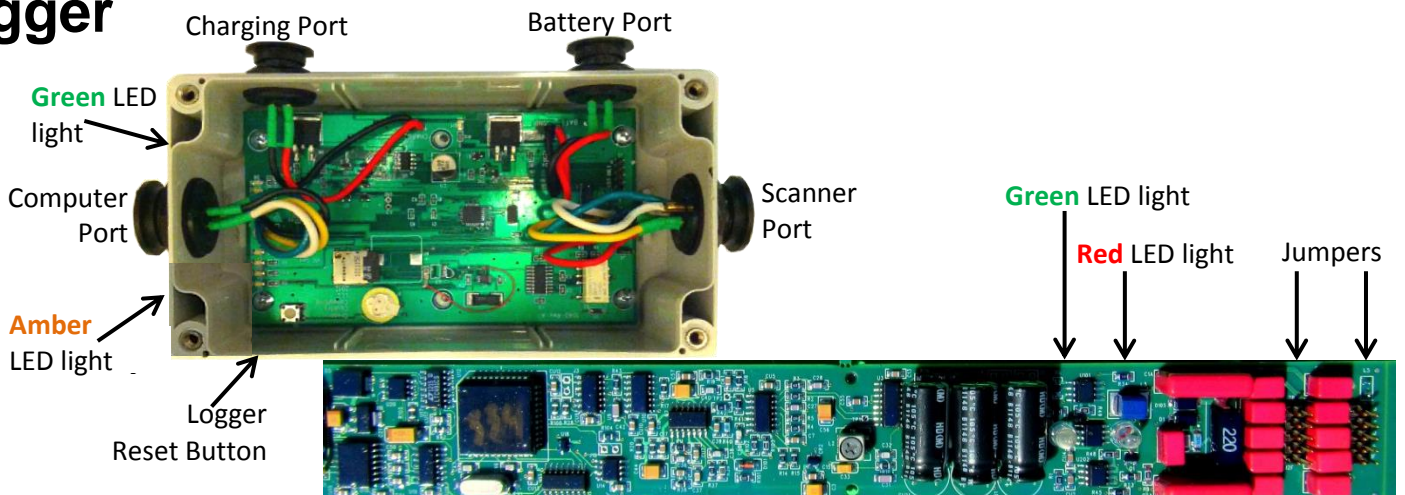
Secure battery compartment:

Disconnect cable from unit and replace dust cover or cap

Place battery and logger waterproof shore based box and prepare for deployment

***If banner does not appear, try exiting HyperTerminal, disconnecting cable from logger, then restarting HyperTerminal and reconnecting logger. If connection still fails, but lights on scanner are out (logger properly switching from PLAYBACK to RECORD), try using a different download cable.*

Logger



Scanner

Deployment

- Attach additional weight (sand bag) for deployment in swift current
- Make sure potential site is not out of range of cable length
- Place shore based box containing battery and logger in a flat, safe spot on shore
- Lay cable out between box and shore and place antenna on front of boat
- Maneuver boat slightly upstream of target area and deploy antenna into river
- Once deployed, travel back over antenna
 - Ensure antenna is not being dragged downstream and is lying flat
 - Mark location when directly above antenna

Maximum deployment time will vary. Water temperature and amount of ferrous material in substrate may impact battery life. Run a trial scanner deployment to determine run time in study area. With shore based units it is possible to leave an antenna deployed for a longer period of time with a solar panel or longer battery.

Retrieval

- Return to deployment site after pre-determined scan time to collect scanner
- Navigate to shoreline where logger and battery box is located
- Disconnect battery and scanner from box and slowly pull scanner to shore using ropes attached to antenna cable
- Once antenna is on shore, remove sandbag and check for irregularities such as water droplets in clear module
 - Is the scanner still running?
 - DO NOT re-deploy a scanner with a detectable leak
- Secure scanner unit to minimize stress on PVC joints and clear module

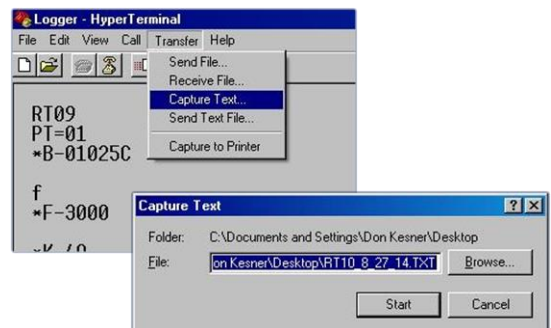
Data Retrieval

- Remove protective cap and unscrew battery compartment plug
- Follow computer/logger instructions on previous page
- Use “d” command to view data, ensure data appears correct

- To save data, go to “Transfer” drop down menu
- Select “Capture Text”
- Indicate location and relevant file name of scanner
- Select “Start” in “Capture Text” window

- Enter “d” command again to dump data to file
- Enter “T” command to add current date/time to file
- If time is incorrect, adjust using proper commands
- From “Transfer” drop down, stop “Capture Text”

- View saved text file and ensure successful transfer
- Erase logger data; reset pointers with “R” command
- Disconnect communications cable and continue to next site



In the event that data is not downloaded immediately in the field, record date and time when data is downloaded in case adjustments to time stamp are necessary.

*Standard Naming Format:
unitID_year_month_day.txt
LH03_2014_11_24.txt*