

Submersible Field Manual

Predeployment Check

On STARTUP:

Charge battery pack until full (8.0+ v)

RED LED light on scanner should flash about 2-3 times / second

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

LOGGER Settings:

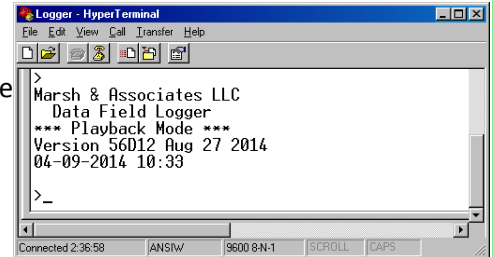
Turn on computer equipped with HyperTerminal

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

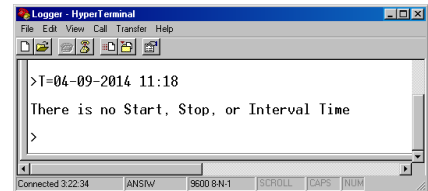


Date/Time:

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

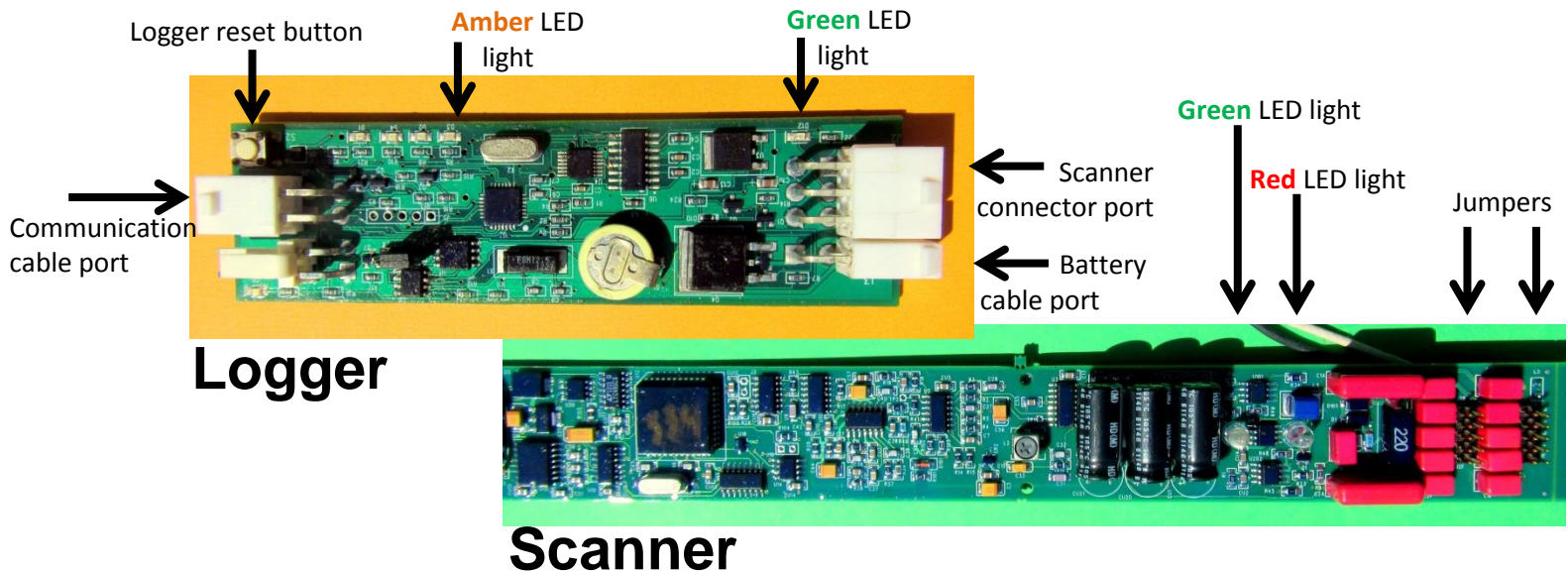
> 8.0 for Li-Ion > 6.5 for 6v Lead Acid > 13.0 for 12v Lead Acid

Secure battery compartment:

Disconnect cable from unit and replace dust cover or cap

Ensure battery compartment plug is free of any dirt before tightening down and replacing protective cap

***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.*



Deployment

Attach additional weight (sand bag) for deployment in swift current
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.

Retrieval

Return to deployment site after pre-determined scan time to collect scanner
Approach scanner slowly from downstream
Use retrieval pole to hook float rope attached to downstream side of scanner
Lift scanner and sandbag safely into boat
Check unit 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



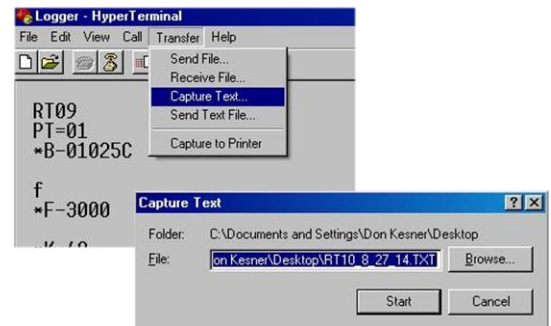
Data Retrieval

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