



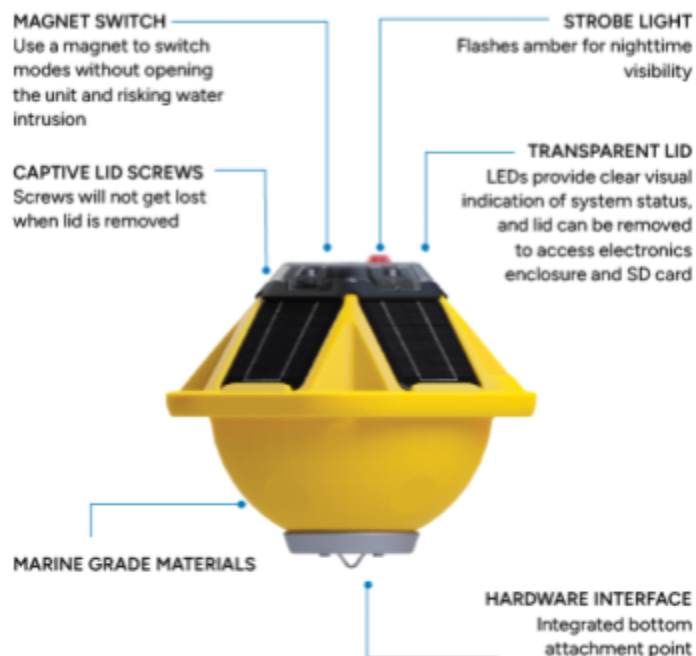
How to access and download the full dataset collected onboard your Sofar Spotter buoy

It is best practice to retrieve the SD card each time you recover or service your Sofar buoy. Below, you will find instructions on how to find and extract the SD card from the buoy and how to download the data to your computer.

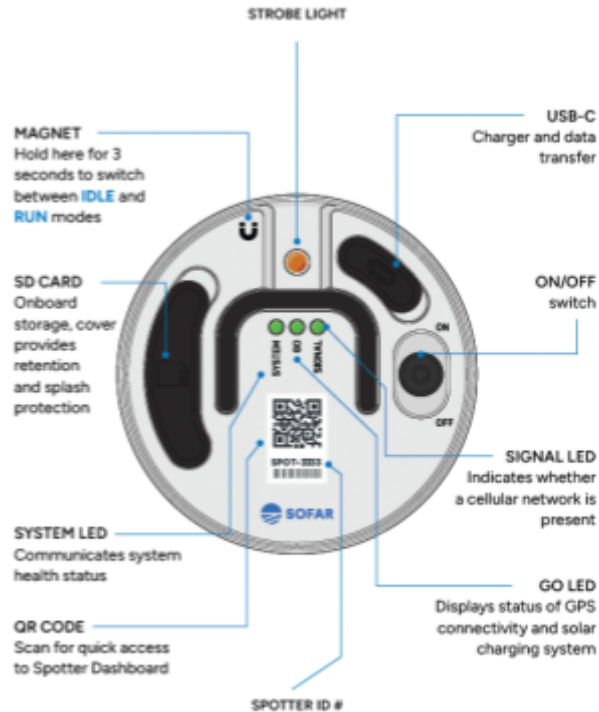
A fresh SD card can be used each time you deploy or service a buoy. You can [buy replacement/backup SD cards](#) and swap them out in the field. Please use a 16GB SD card. Most off-the-shelf SD cards will be formatted to “FAT32”, which is also what you need for your Sofar buoy. If, when you insert the SD card into your card reader, you are given formatting options, select “FAT32”.

How to access and replace the SD card on the buoy:

1. Remove your buoy from the water, rinse with fresh water, and towel dry.
2. Unscrew the **transparent lid** on top of the Sofar Spotter buoy with a 5mm hex key. Remove the lid carefully to prevent water from dropping onto the electronics box.
3. After the lid is removed, turn the device off using the on/off switch.















4. Peel back the rubber cover, labeled below.
5. Gently push in on the SD card to release the spring-loaded socket and remove the SD card.
6. Place a new SD card in the slot and push down to secure.



7. Smooth the rubber flap over the SD card slot. *Be sure not to push too hard on the rubber flap, as that could release the spring-loaded SD card and eject it. (If this does happen, you will see it in the indicator light, noted below.)*

RUN mode (continued)

SYSTEM GO SIGNAL AFTER STARTUP (CONTINUED)

			Blinking green GO LED. System is not solar charging. If this is a night deployment or the panels are covered, ignore and deploy. If this is a day deployment, something is wrong with the charging system. Do not deploy.
			Solid red SYSTEM LED. Check if SD card is present. If not, turn off system, insert a freshly formatted SD card, and switch back on. If the red light persists, there may be a serious system error. Do not deploy until this is resolved and please contact the Sofar team.
			Solid red GO LED. Limited GPS connectivity. Ensure system is outside with a clear view of the sky. Wait a few minutes for system to connect with the GPS satellite. If the system has a clear view of the sky and the GO LED remains red for longer than 30 minutes, something may be wrong. Please contact the Sofar team.
			Both solid red. Do not deploy. Follow instructions for red SYSTEM or GO LED detailed above.

How to download the data from the SD card to your laptop/computer:

You will need an SD card reader that connects to your laptop/computer. Make sure you get one with the correct connection type (e.g., USB, USB-C). Here's an [example](#).

1. Plug SD card reader into your laptop/computer and insert the SD card into the slot.
2. Open the Finder window (Mac) or File Explorer (Windows) to view the contents on the SD card.
3. Copy and paste or drag and drop all the files onto your laptop/computer. You will likely want to create a folder titled with the date and SPOT-ID of the buoy that the SD card was extracted from.
4. If you would like to share this data with the Backyard Buoys team, email info@backyardbuoys.org, and we can set up a Google Drive folder for file transfer.

Where to find a description of the file types stored on the SD card...

- For Legacy Spotters:
<https://sofarocean.notion.site/Spotter-SD-Card-Data-Guide-Legacy-ac9d3fd245b849529a1c85b263626a0e>
- For newer Spotters:
<https://sofarocean.notion.site/Spotter-3-SD-Card-Data-Guide-9d96bd0cbad24d54919700fa172f0d0b>