# Upgrade Receiver Firmware
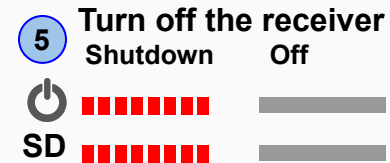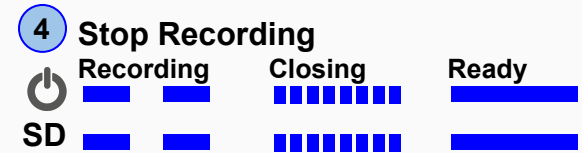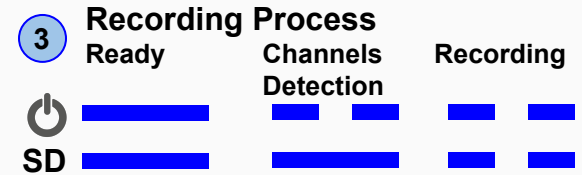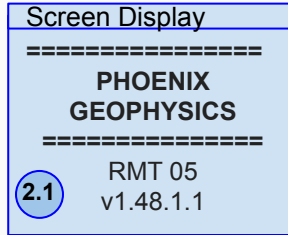
# Before beginning



Make sure the battery that the receiver is using is **fully charged** and the cables are properly connected. Run a quick recording to note the current receiver OS version and to make sure that the receiver is working as expected before upgrade.

1. Insert the **SD Card**

2. Turn on the **receiver**
   2.1. Review the OS version

3. Quick recording data test (2 minutes)
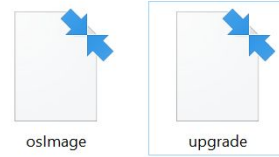
4. Stop the recording

5. Turn off the receiver

*This will help to keep a record of the current OS version that the receiver has prior to upgrade*

Screen Display
=================
**PHOENIX GEOPHYSICS**
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RMT 05
v1.48.1.1

**2** **Turn on the receiver**

| | Starting | Acquiring GPS | Ready |
|---|---|---|---|
| ⏻ | ▬ ▬ | ▬▬▬▬ | ▬▬▬ |
| SD | ▬▬ | ▬▬ | ▬▬▬ |

**3** **Recording Process**

| | Ready | Channels Detection | Recording |
|---|---|---|---|
| ⏻ | ▬▬▬ | ▬▬ ▬▬ | ▬▬ ▬▬ |
| SD | ▬▬▬ | ▬▬▬ | ▬▬ ▬▬ |

**4** **Stop Recording**

| | Recording | Closing | Ready |
|---|---|---|---|
| ⏻ | ▬▬ ▬▬ | ▪▪▪▪▪▪▪ | ▬▬▬ |
| SD | ▬▬ ▬▬ | ▪▪▪▪▪▪▪ | ▬▬▬ |

**5** **Turn off the receiver**

| | Shutdown | Off |
|---|---|---|
| ⏻ | ▪▪▪▪▪▪▪ | ▬▬ |
| SD | ▪▪▪▪▪▪▪ | ▬▬ |

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# Upgrading the Receiver Firmware

1. Download **"osImage"** and **"upgrade"** files from http://empower.phoenix-geophysics.com/releases/LATEST/Receiver%20Firmware/
   - Chrome/ Edge / IE, save the file name as "upgrade" *Don't save file name with any extension (.tar)*
   - Using Firefox, the file will keep the filename as "upgrade"

2. Put both files on a 32GB or smaller SD card (must be FAT32 formatted)

3. Put the SD card in receiver and power on
   - Wait for power button to be violet, and SD card button turn blue

4. Briefly push and release the **Power button** to start upgrading
   - Both LEDs will blink violet, indicating upgrade is in progress

5. Wait until both LEDs are solid violet (~15 minutes)

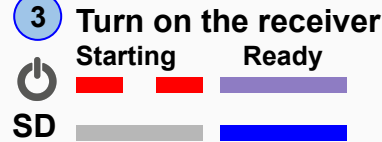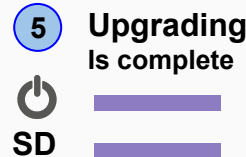6. Push and hold power button for >5 seconds to power off the receiver
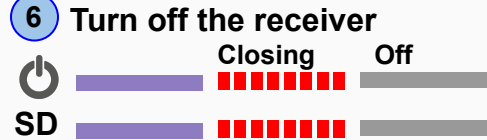


**3** Turn on the receiver

Starting    Ready

SD

**4** Start upgrading
In progress

SD

**5** Upgrading
Is complete
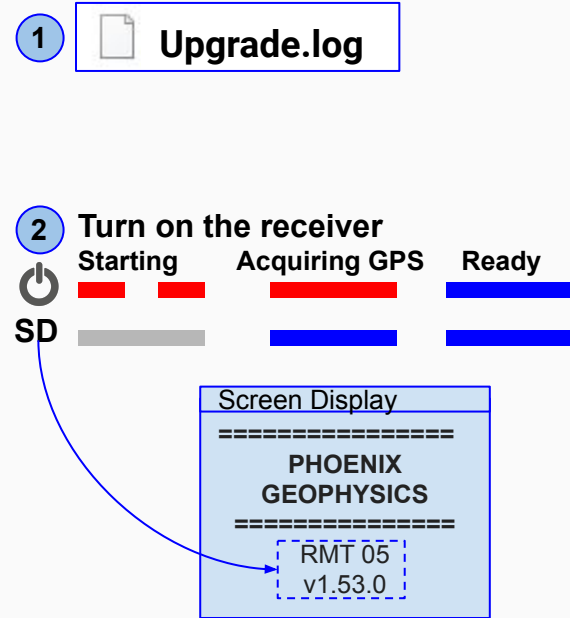
SD

**6** Turn off the receiver

Closing    Off

SD

GPS is not required during the upgrade

# After Upgrade

1. The receiver will create an **upgrade.log** file and a **receiver_backup.serial_number** file in the upgrade SD card if necessary.

   *\* **Do Not Delete** any of these files created by the receiver until the upgrade process is verified to be complete*

2. Turn on the receiver and verify that the upgrade process was completed and review the OS version



**① Upgrade.log**

**② Turn on the receiver**

Starting   Acquiring GPS   Ready

SD

Screen Display
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PHOENIX
GEOPHYSICS
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RMT 05
v1.53.0

# Troubleshooting

**Problem:**

**1.** SD card not detected in receiver due to format/SD hardware issues. SD led will be blinking RED and screen will display NO SD card error message

**Solution:**
- ○ Make sure the SD card is of the proper recommended type
- ○ For more information see Troubleshooting manual

**Problem:**

**2.** When the upgrade files **osImage and upgrade** are not detected or doesn't have the proper format then receiver will ignore those files

**Solution:**
- ○ Make sure that the files **osImage** and **upgrade** are downloaded and copied to the SD card properly

① **Warning**

SD ■■■■■■■

```
REC ERRORS
================
SD CARD IS DAMAGED
CORRUPTED OR
THE WRONG FORMAT
```

② Warning

Starting     Warning

SD

# Troubleshooting

**Problem:**

3. Both LEDs blinking fast in purple color. This could indicates that the **upgrade** file is not proper or the receiver is not supported by this upgrade file

   **Solution:**
   - Turn off the receiver
   - Review the upgrade.log file in the SD card *(if necessary download and copy the files to the SD card again)*

**Problem:**

4. Power LED is blinking fast RED after receiver was powered on

   **Solution:**
   - Check the upgrade card for file with similar format receiver_backup.serial_number. For example, if the receiver serial number 10111, the file name will be receiver_backup.10111. If the file is available, then perform the OS upgrade procedure again, using the same osUpgrade card
   - If no files were present in SD card contact Phoenix support.

**3** Both button blinking purple color

**Shutdown**

⏻ ▪▪▪▪▪▪▪▪

SD ▪▪▪▪▪▪▪

**4** Power LED blinking fast Red

**Shutdown**

⏻ ▮▮▮▮▮▮▮▮

SD ▬

# Technical Support Contact



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