Application Note

RANGER Rescue Bootloader Mode

<table>
<thead>
<tr>
<th>Product Family</th>
<th>Hardware Revision</th>
<th>Firmware Revision</th>
<th>Applicable Firmware</th>
<th>Applicable Toolkit Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANGER</td>
<td>ALL</td>
<td>ALL</td>
<td>ALL</td>
<td>v1.0.0.4 and up</td>
</tr>
</tbody>
</table>

OVERVIEW

In accidental or unforeseen circumstances, the micro-USB wire attached to the RANGER may be detached from its port in the middle of a firmware update. In which case, it will have deleted its prior firmware and stuck with an incomplete firmware, making it incapable of any expected functionality. To resolve this, the RANGER was designed with bootloader mode to correct this.

REQUIREMENTS

To enter bootloader mode:

1. Disconnect the power supply from the RANGER
2. Hold Down the CHECK IN button
3. Connect the power to the RANGER while holding down the CHECKIN button until the green STATUS LED flashes.
4. Release the CHECK IN button
5. Open the RANGER toolkit and open its respective COM port. The RANGER should be detected followed by a window displaying the following:

   ![Load New Firmware?]

   Your Ranger is currently in the bootloader. Would you like to load new firmware?
   
   Click 'Yes' to load new firmware (recommended)
   Click 'No' to reboot

   Yes  No

6. Click “Yes”. You will be directed to the update firmware table as shown on the next page
7- Select the correct hardware revision for your RANGER and firmware variant, and then click on Start Firmware Update. It will detect the RANGER and then update the selected firmware to it. A successful rescue boot load will cause the following window to appear:

Firmware Update Successful

Ranger Firmware Updated Successfully to v0.1.23-v1

OK

8- Click on OK and the RANGER will be detected successfully.
**Revision History**

<table>
<thead>
<tr>
<th>Revision</th>
<th>Date</th>
<th>Changes/Updates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>08/17/2022</td>
<td>Initial Release for RANGER Rescue Bootloader Mode</td>
</tr>
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</table>