INTRODUCTION

GroundControl RFS Software / Firmware Upgrade

New software versions are available for the GroundControl™ Remote Followspot Controller.

Summary of Changes

GC Main Board v3.01 change log:

Note: Due to increased functionality implemented in v3.01, user settings will be reset to defaults upon loading. Once settings have been changed within v3.01 they will be retained through a power cycle as usual.

+ Implement encoder paging. This allows the Controller to use the three top encoders to control framing live on GC Best Boy units. This feature is similar to the Chopper and Side Cutters that can be found on many popular conventional followspots.
+ Show DMX percentages on the Preset Manual Control menu.
+ Allow the user to change the fixture’s DMX address from the controller; the controller now uses the fixture’s address as its own.
+ Utilize SNMP protocol with the 4 Way Switcher box to identify each fixture’s port independently of its DMX address. This allows the user to set each fixture’s DMX address to any value instead of being limited to 1, 51, 151, and 201.
+ Fix issue with persistent data which could cause controller to hang in Launch screen.
+ Implement one-push white balance camera option (white balance DMX channel, values 241-242).
+ Add ability to disable the reticle button in Options menu.
+ Correctly set Best Boy CTW’s “open white” position to 50 instead of 0.
+ Use descriptions instead of numbers for fan & sensor fixture log messages.
+ Show the fixture’s DMX address on the Comm menu row headers.
+ Implement teching screen for determining status of all buttons & encoders.
+ On 4 Way Switcher box Versions menu, label the fixtures A/B/C/D instead of 1/2/3/4 to match labeling in other menus.
+ Fix preset numbering in log messages.
+ Implement LumLoader v2.0 for more flexible loading options.
+ Throw out DMX break null byte at beginning of Virtuoso message to prevent the module download messages from being interpreted as incoming DMX.
+ Implement RDM through DMX.
+ Initialize Best Boy effect index value when fixture is found.
+ Clarify the status of each deselected GC mechanism by showing “off” or “console” on the Main menu depending on the state of incoming comm.
+ Add manual camera focus control option in Options menu, with manual focus being controlled by the leftmost encoder.
+ Implement GroundControl Longthrow compatibility.
+ Require confirmation for overwriting an existing preset.
+ Reset outgoing DMX values to defaults when “Reset fixture” command is sent from the menu.
+ Refresh the menu when a different fixture type is selected through the 4 Way Switch.
+ Specify the fixture letter in log messages received from a followspot for identification of the source of the message.
+ Disable function filter buttons that are unavailable on the selected fixture.
Summary of Changes cont...

GC Switch Board v2.00 change log:
+ This version prevents operation of the erase switch to avoid unintentional loss of firmware. The user functionality is equivalent to v1.02.

GC Truss Box change log:
+ No changes. See below.

GC Bad Boy change log:
+ No changes. See below.

GC Best Boy change log:
+ No changes. See below.

Latest Software and Firmware Versions

The current firmware/software versions are shown in the Information menu. The latest versions are as follows:

<table>
<thead>
<tr>
<th>Firmware</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truss Box: v1.02 3/7/2016 16:13</td>
<td>GroundControl: v3.01 11/7/2016 12:30</td>
</tr>
<tr>
<td>Switch Board: v2.00 11/03/16 16:00</td>
<td>GC Bad Boy: v0.06 3/9/2016 11:42</td>
</tr>
<tr>
<td></td>
<td>GC Best Boy: v0.05 3/9/2016 9:00</td>
</tr>
</tbody>
</table>

Note: You may need to update some of the devices if they do not match the latest versions.
NEW FEATURE DETAILS

LIVE FRAMING

Live Framing has been added for GC Best Boy systems. The operator can now access framing functions from the GC Controller.

Note: You MUST be using a Best Boy fixture for the menu structures to appear.

To enable Framing:
+ To utilize live framing, access the Options menu and enable “Framing Paging”.

+ Once enabled, Preset button 4 will toggle between the main GC home screen and the GC live framing screen. The encoders change from the default Edge and Frost to [shutter] Chop, Rotate, and Side.
**TECH INFO**

The "Tech Info" window has been added and allows for functionality testing of all buttons, encoders and faders on the GC controller without any additional devices.

+ Access this window by clicking on the encoder values within the Status/Info menu.

Note: This should not be a substitute for a full Ground Control System prep, but rather for when shipping without a fixture or when a fixture/truss box is not available.
UPDATING SOFTWARE

Updating GroundControl Software

GroundControl software is updated using the two access ports (Figure 1) available on the underside of the Control Arm:

+ Port 1 (DMX) - used to load firmware into the Control Arm’s Switch Board.
+ Port 2 (Ethernet) - used to load firmware into the Control Arm's main board, the GC Truss Box, and the GC luminaire (connected to the arm).

![Figure 1: Access Ports](image-url)
To update main board, truss box, or luminaire:
Step 1. Connect Truss Box and Luminaire to GC Controller as normal.
Step 2. Connect Ethernet cable between computer and Control Arm Access Port 2 (Figure 1).
Step 3. Open required .jar file.
Step 4. If computer has more than one Ethernet interface available, select appropriate network interface from drop-down menu.
Step 5. Click Start Download button. Touchscreen display will change to bootloader screen and show load progress.
Step 6. Wait for download to complete.
Step 7. After download, the updated version can be verified in the Information menu.

Note: Screen shown below are generic and not specific to this release version.

To update switch board:
Step 1. Connect XLR cable between computer and PRG Node device or S400 System.
Step 2. Connect XLR cable between Node / S400 and Control Arm Access Port 1 (Figure 1).
Step 3. Open required .jar file.
Step 4. Click Start Download button. Touchscreen display will change to bootloader screen and show load progress.
Step 5. Wait for download to complete.
Step 6. After download, the updated version can be verified in the Information menu.

Note: Screen shown below are generic and not specific to this release version.
Software Crossload

The Information menu provides a method for sending the current GC Followspot Controller software to any connected Controllers. Controllers can be daisy-chained using the DMX512 ports located on the Control Arm interface panel.

**Note:** At the last Controller in the chain, install a male termination connector at the DMX OUT connector.

![Figure 2: Example Daisy-Chain Configuration](image)

To initiate the software crossload, press Crossload Software at the Information menu. At confirmation menu, press "Yes." If a connected Controller already has that software version, it will do nothing. If it does not have the same version, it will go into the boot screen and start updating.

**Note:** Screen shown below are generic and not specific to this release version.

![Screen](image)

**Note:** There should be no active control during the update process.