

6 Updating the SK-LCD's Firmware

New firmware revs can found at the Skookum Robotics *Support* webpage.

To update the unit's firmware with an SK360, connect it to your PC using the USB interface dongle. Then start the setup software on your PC, go to the menu item Firmware, and select the firmware's hex file.

To update the unit's firmware with an SK720, connect it to your SK720, then connect the SK720 to your PC. Then start the setup software on your PC, go to the menu item Utility->LCD Terminal Update, and select the firmware file.

The update will take about 2 minutes, and LCD will be blank during the update.

7 Warranty and Technical Support

Skookum Robotics Ltd warrants this product against any defects in materials or workmanship for a period of 90 days from the purchase date. This warranty is limited to the original purchaser. In the event of a malfunction, Skookum Robotics will repair or replace the product to meet its standard operating condition. This warranty does not apply in cases where the product has been overheated, electrically shorted, subject to crash damage, otherwise abused, or had unauthorized repair attempts.

UNDER NO CIRCUMSTANCES DOES SKOOKUM ROBOTICS ACCEPT LIABILITY FOR INCIDENTAL DAMAGE OR INJURIES RESULTING FROM THE OPERATION OF THE SK-LCD OR OTHER PRODUCTS.

Skookum Robotics will provide customers with technical assistance by email free of charge. If the unit has malfunctioned and the 90-day warranty period has expired, we will attempt repair, and discuss the cost of possible repairs with the owner, for the cost of postage.

If you wish to return the unit or related product, please write "WARRANTY RETURN" clearly on the shipping box, and mail it to the address given below.

Manufactured in Canada by Skookum Robotics, Ltd

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Rev 1.16

SK-LCD *Field Terminal*

User Manual



1 Intro

The SK-LCD Field Terminal allows you to set up your SK360 or SK720 Digital Flybar at the field without a laptop computer. It will give you access to all the functions of the PC-based GUI, except upgrading firmware.

Features include:

- Large format display
- Offline editing of setups
- Save and load 25 setups for the SK360 or SK720, with the terminal's internal flash memory
- No batteries are required
- Can transfer setups to and from the normal PC-based setup software
- The SK-LCD's firmware can be upgraded
- Compatible with future Skookum Robotics products

2 Use with an SK360

The SK-LCD comes with a special 4-wire cable to connect it to your SK-360 or SK-720 Digital Flybar, or to the Skookum Robotics LCD dongle. (Note: Early-model SK360s that have blue gain dials should not be connected to the USB interface with this cable, but for all others units, it doesn't matter)

To connect to an SK360 or SK720, just plug the cable into the gyro, and provide the gyro with power. The SK-LCD unit will receive power from the gyro. After a short splash screen, the top of the menu will tell you if the device is connected, its serial number and firmware rev, whether you're in online or offline editing mode, and the file name of the current setup file.

You can now edit "live" right away. Step through the menu by using the up and down scroll buttons, or enter an edit page with the right button. Press the center button to go back to the menu.

Once you are in a menu, the up/down keys will change the selected item (marked with an arrow), and the right/left buttons will change that value. The top line of the display will show the menu you're current at. **The changes are sent to the gyro when you return to the menu with the center button.**

Please see your Gyro's User Manual for details about and use of each setup option.

If you scroll down to the bottom of the menu, the **Inputs & Sense** page will show you the live inputs from your radio to the gyro, and the motion it is sensing.

As well, the **Actual Gains** page will show you the current gain-dial readings from the gyro, the bank selected (if the bank/gain channel is enabled). This page will also show the gains the gyro will actually use in flight (going from the gain input/dials and the base gains for the current bank).

3 Use with the PC Setup Software (SK360 only)



To practice using the unit, or to transfer setup files to and from your PC, just **connect the SK-LCD's four-wire cable** to the USB-dongle that came with your gyro (you may have to **remove** the dongle's black 3-wire cable).

If you then start the PC setup software

for your SK360, the LCD Field Terminal will connect to your PC as if it were an SK360. You can send files to it to save to its flash memory, or get files from it and save them to disk. Note that you don't have to be in the main menu of the SK-LCD to transfer files.

4 System Page, and Offline Editing

This page will tell you the LCD display's serial number and firmware revision. It will also allow you to adjust the contrast, or choose offline-editing mode.

When you put the SK-LCD into offline-edit mode, then any changes you make to the current setup will **not** be sent to the gyro. If you don't save the setup to the internal flash or later change to online-editing mode, your changes will be lost when the SK-LCD loses power.

5 Using the Internal Flash Memory

On the Files page you can see the name of the current file loaded for editing, rename that file, and save to or load a file from the built-in flash memory.

If you want to rename a setup file, then select "Rename" and press the right button. You can then go through each letter in turn using the right/left buttons, and change the letter using the up/down buttons. To exit out of renaming mode, press the left button while at the first character of the file name.

To select another file slot, go to "File" and use the right/left buttons. Note: Selecting a file here does not save or load from the flash memory yet.

To save a setup file to the internal flash at the selected file slot, go to "Save", and press the right button. The load a file from the selected file slot, go to "Load" and press the right button.

If the LCD is connected to a gyro when you select "Load", and it's not in offline mode, then the file will both be loaded into current memory **and** sent to the gyro.