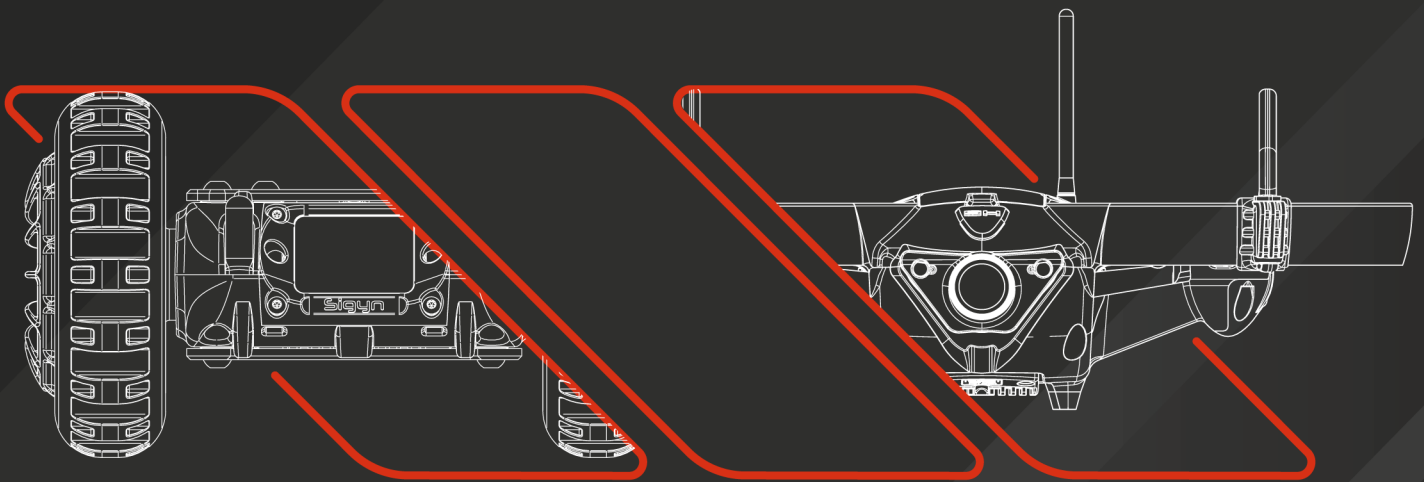


Unified Indoor Tactical Recon Robots System OPERATOR'S MANUAL

ADD-ON | **Odyssey v.3.0.0**

19.09.2022



 Please carefully read this supplement to the user manual instructions before use

SH
SKY-HERO

ODYSSEY
COMPATIBLE


Set Region

D GCS MENU STRUCTURE

DEVICE SETTINGS

Loki Mk2

- Button Allocation NEW 13
- Drone Angle
- LED Brightness
- Quick Takeoff - Off NEW 13

Loki Mk1 NEW 15

- Button Allocation NEW 15

Sigyn Mk1 NEW 15

- Button Allocation NEW 15
- Turn Speed NEW 15
- Max Speed NEW 15
- Top LED Brightness NEW 15
- Front LED Brightness NEW 15

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Video Channel

- Video Power
- Scrambling Mode NEW 19
- Video Brightness NEW 19
- Headphone Level

Overlapping Channels-Off NEW 19

GCS SETTINGS

Joystick Settings

- Flight Mode - Gaz Left
- Drive Mode NEW 23
- Test Joysticks NEW 23
- Joysticks Calibration NEW 23
- Joystick Dead Zone

Motor Shutdown Button NEW 23

Overlay Pages NEW 23

Calibrate Battery NEW 25

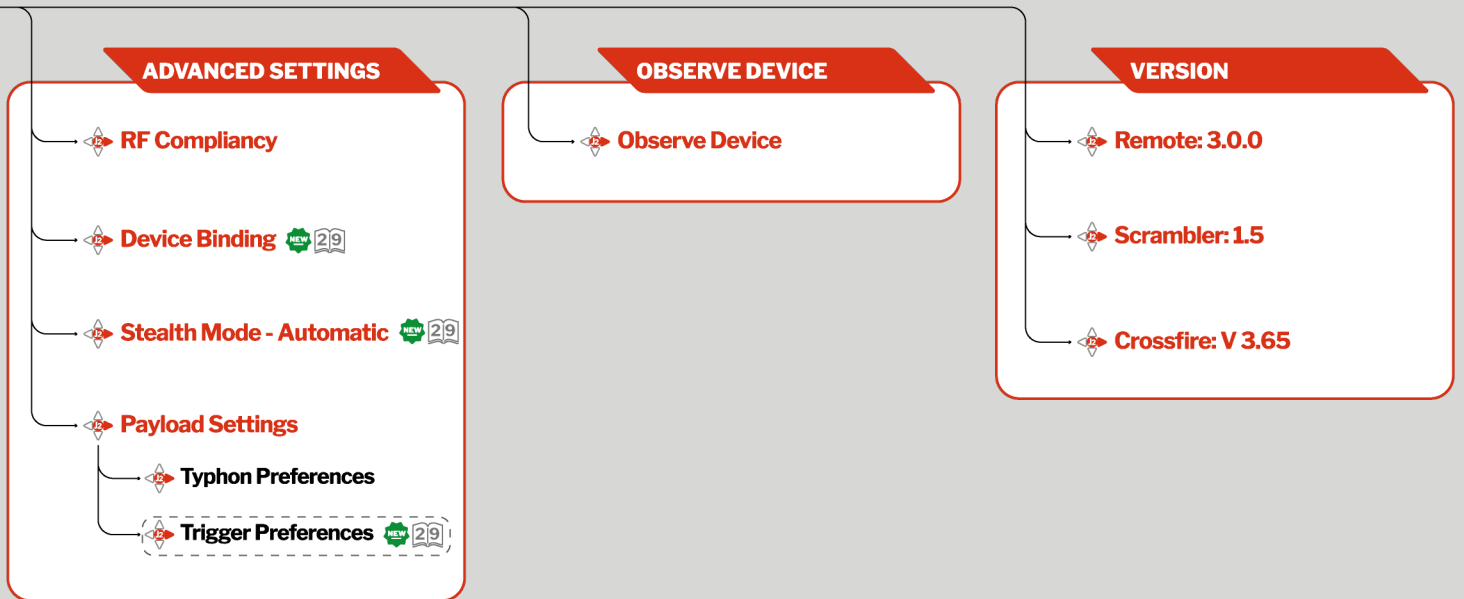
GCS LED Brightness

Firmware Management NEW 25

- SD Card Upgrade
- Erase Settings & Reboot
- Erase Everything & Reboot
- Reboot
- Read license file NEW 25
- Lock for shipping NEW 25

Once an unmanned vehicle (Loki | Sigyn) is selected:

- Its own « Command Action » menu is displayed as the first menu entry of the GCS MkI
- The « Device Settings » menu is strictly limited to the features of that device



SKY-HERO | GCS MIKII

MENU STRUCTURE | Odyssey V3.0.0
SUMMARIZED VERSION | UNBOUND DEVICE

FOREWORD

This add-on guide to the Sky-Hero Tactical System User Manual, provides details of all of the new features included in the new Odyssey version V 3.0.0 for the GCS MkII. The new features increase the capabilities and options of our unified indoor tactical recon robots system. It gives an overview of the new remote control software, based on a new menu display structure with default settings, it also includes quick steps and tips to get started.

We strongly recommend that in order to make the most of your first tactical deployment, you read the following information and instructions thoroughly before carrying out your next air / ground operation. Doing so will help ensure your safety and prevent damage to related components and devices.

This new release introduces a lot of new functionalities and new options for the GCS MkII itself and for the related unmanned vehicles as well -both drones Loki MkI, Loki MkII and the rover Sigyn MkI.

Upgrade your system components to the new Odyssey firmware V 3.0.0

In order to benefit from all the new features presented in this additional guide, it is essential that all the components are updated to the latest firmware version. Please check the currently installed version in the GCS MkII menu - under Version / Remote. If version 3.0.0. is not displayed, perform the update or contact your local distributor or the Sky-Hero team if you do not have the appropriate firmware.

- Note 1 : all custom settings and dedicated bindings will be lost after upgrading.
- Note 2 : the system will now check compatibility with configured devices and either warn or refuse to connect/bind to a device with the wrong version. Only GCS 3.0.0, Sigyn 1.0 and Loki 3.0.0 firmware will work together. Future upgrades (V 3.x.x) of Odyssey firmware for devices and controller (except for the Loki MkI) will remain compatible.

Using this Add-on Guide

- ⚠ **Read it fully and carefully at least once** | It provides important advice on the installation, use and safety of the system and its components.
- ⚠ **Keep this guide for future reference** | Make sure tthat it is always located with your Sky-Hero devices, so that your teams are fully informed about the new functionality and features
- ⚠ **Proper upgrading ensures the stability of the system and associated unmanned devices** | Stay alert for updates which will be notified directly to you by Sky-Hero or via your local distributor.

Disclaimer

In order to ensure safety and to successfully operate your Sky-Hero Unified Indoor Tactical Recon Robots System, please abide by the supplemental operating instructions and procedures within this Add-on Manual. Failure to abide by the instructions in our documentation, means that Sky-Hero will assume no responsibility for any product damage or loss - direct or indirect or legal during use, and will not provide warranty service. Never modify your products by using any unauthorized component or any method that is not required in Sky-Hero official description.

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SET-UP
KEY STAGES

DEVICE
SETTINGS

AUDIO/VIDEO
SETTINGS

GCS
SETTINGS

ADVANCED
SETTINGS

OBSERVE &
VERSION

BUTTONS
BEHAVIOUR

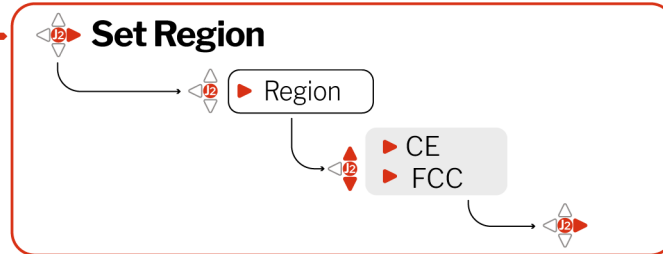
GCS INFO
ON SCREEN



SET-UP KEY STAGES

SET-UP KEY STAGES

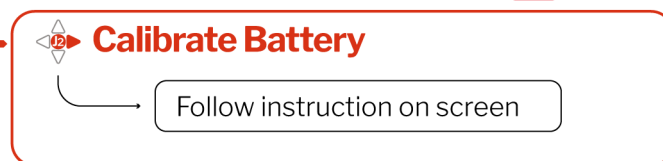
On GCS Start-up

1 Mandatory Setup Stage

GCS Settings

2 Mandatory Setup Stage

GCS Settings

3 Recommended Setup Stage

Three key steps have been introduced into the configuration of the new version (V3.0.0) of the tactical system, this is in order to not only meet the legal standards of the country of use but also to ensure that you get the best possible experience from this unmanned tactical system. These initialisation stages require particular attention by the operator, prior to deployment of the system and operation of vehicles. It is essential that they are properly configured prior to the first use. The 3 key-stages to system initialization that need to be adjusted to guarantee the best performances for your operations are; Set Region, Joystick Calibration and Calibrate battery. They are described in detail further below :



NEW | Set Region

GCS System Initialisation

This setting configures the frequency and power limits of both UAV/UGV control and video signal in compliance with the regulations of the country of operation (CE | FCC). Once the area of use is determined, it is recorded along with the corresponding power level of the video and control signals. To change the region of use, it is necessary to reset the GCS MkII using the «Erase Everything and Reboot» option found in the controller menu: GCS Settings / Firmware Management / Erase Everything and Reboot.

However, you have the opportunity to change the defined region setting to the «OPEN» mode (Advanced Settings / RF Compliancy / Control | Video) in order to increase the general performances of your system. Please refer to your local regulations before applying these changes as in the «Open» mode, all video frequencies are available for both CE and FCC regions. Also the signal strength for the control of unmanned devices can be increased beyond the defined standards.



«Set Region» is mandatory before using anything else



NEW | Joystick Calibration

GCS Settings / Joystick Settings / Joystick Calibration

First and foremost, the joystick calibration is required to be able to operate the UAV/UGV. Secondly, although all components have been accurately installed and tested when the GCS MkII is assembled, slight mechanical differences may occur. To get the most accurate control possible, it is strongly recommended to calibrate the joysticks before the first use.

The same applies thereafter, with time and wear, the neutral and maximum values of the GCS joystick may change and recalibration will be necessary.

Please refer to the «GCS Settings» section in this add-on guide to learn more.



«Joystick Calibration» is required in order to actually operate any vehicles



NEW | Calibrate Battery

GCS Settings / Calibrate Battery

In order to have the best estimate of the remaining battery percentage available for the GCS MkII, it must be calibrated during system initialization. The remote control will only display the exact percentage once the battery has been calibrated, otherwise no indication will be displayed (« - - - % » will be shown on the top right corner of the GCS MkII screen). This configuration step is highly recommended once the system is activated for the first time. However, It is also advised that the battery be calibrated from time to time, (due to its natural degradation over time) so that its accurate capacity is always known.

Please refer to the «GCS Settings» section of this supplementary guide for information on how to perform this calibration step.



«Calibrate Battery» is optional, but but it must be performed in order to see the battery estimation



DEVICE SETTINGS

Loki Mk2

Button Allocation

- ▶ A - Takeoff / Landing
- ▶ B - Turtle or Happy Dog
- ▶ C - Motor Shutdown
- ▶ J1 - Toggle Front LED
- ▶ J2 - Floor Mode
- ▶ L - Wind Compensation
- ▶ R - Enable hovering
- ▶ L+J1 - Toggle Video Boost
- ▶ L+J2 - Toggle device sleep
- ▶ L+R - Toggle device sleep
- ▶ R+J1 - Nothing
- ▶ R+J2 - Nothing
- ▶ R+L - Nothing NEW

Apply your selection for each button or combination:

Nothing	Toggle angle boost	Turtle or Happy Dog	Flat Trim
Arm payload (L)	Wind compensation	Takeoff / landing	Enable hovering
Thrown take off	Toggle Front LED	Toggle video boost	Toggle device sleep
Floor Mode	Toggle Bottom LED	Toggle push-to-talk	Motor Shutdown

Drone Angle

- ▶ Drone 1 - Normal (9 deg)
- ▶ Drone 2 - Normal (9 deg)
- ▶ Drone 3 - Normal (9 deg)
- ▶ Drone 4 - Normal (9 deg)

Normal (9 deg) | High (13 deg) | Low (6 deg)

- ▶ Drone 1 - Boost - 15 deg
- ▶ Drone 2 - Boost - 15 deg
- ▶ Drone 3 - Boost - 15 deg
- ▶ Drone 4 - Boost - 15 deg

6 to 30 degrees | 15 degrees by default

- ▶ Drone 1 - React Mode - Off NEW
- ▶ Drone 2 - React Mode - Off
- ▶ Drone 3 - React Mode - Off
- ▶ Drone 4 - React Mode - Off

On | Off

LED Brightness

▶ Front

0% to 100% | 0% (disabled) by default

Disabled | (Active)

▶ Bottom

0% to 100% | 50% (auto) by default

Auto | (Active)

Quick Takeoff - Off NEW

- ▶ On
- ▶ -> Off

Once a Loki MkII is selected, the «Device Settings» menu is strictly limited to the features of that device.

NEW | Button Allocation Combinations

Device Settings / Loki Mk2 / Button Allocation

In addition to the 7 unique action buttons, 6 more configurable button combinations have been added to provide additional quick shortcuts to increase the number of quick actions. These combinations are the combination of two buttons used simultaneously to perform the desired action previously defined. In practice, these combinations are based on the initial selection of a top button (L or R) with a 2nd button as shown here. For a button combination to achieve its intended purpose, the first defined button (L/R) must be held down (1 sec.) until the overlay screen appears. Once the overlay screen is displayed, press the second defined button to perform the desired action.

It is advisable not to associate critical actions/functions with these 6 button combinations. Note that when associating button L to the «Arm payload» mode and a connected payload component, the combinations based on this button are disabled.

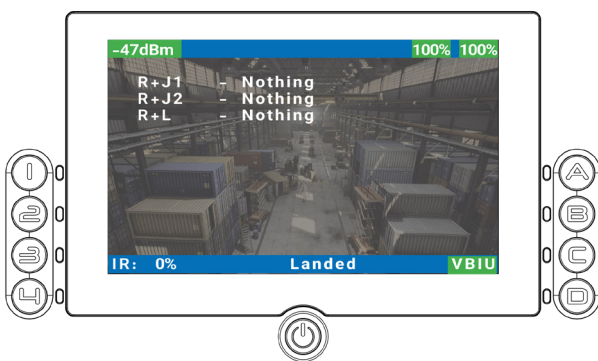


FIG. Overlay screen | Combinations with R button

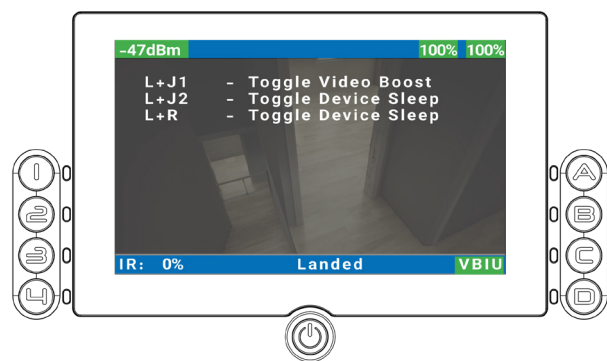


FIG. Overlay screen | Combinations with L button

NEW | React Mode defined by drones

Device Settings / Loki Mk2 / Button Allocation

To allow more freedom in the choice of flight angles of the various associated drones, the «React Mode» can now be selected on a per-drone basis.

NEW | Quick Takeoff

Device Settings / Loki Mk2 / Quick Takeoff

The new «Quick Takeoff» mode allows you to start spinning the motors in advance, so that you can quickly takeoff when needed. The motors start turning while the drone is still on the ground and then the drone waits for an action to be taken on the flight control joystick, either upwards to initiate takeoff, or downwards to switch off the motors. The A button associated with a conventional take-off and landing will only offer the latter option, once «Quick Take-Off» mode is activated.

Loki Mk1 NEW

Button Allocation NEW

▶ A - Takeoff / Landing	▶ L+J1 - Nothing
▶ B - Turtle or Happy Dog	▶ L+J2 - Nothing
▶ C - Motor Shutdown	▶ L+R - Nothing
▶ J1 - Nothing	▶ R+J1 - Nothing
▶ J2 - Nothing	▶ R+J2 - Nothing
▶ L - Nothing	▶ R+L - Nothing
▶ R - Nothing	

Apply your selection for each button or combination:

Nothing | Takeoff / landing | Toggle push-to-talk | Motor Shutdown

Sigyn Mk1 NEW

Button Allocation NEW

▶ A - Nothing	▶ L+J1 - Nothing
▶ B - Nothing	▶ L+J2 - Nothing
▶ C - Motor Shutdown	▶ L+R - Nothing
▶ J1 - Nothing	▶ R+J1 - Nothing
▶ J2 - Nothing	▶ R+J2 - Nothing
▶ L - Nothing	▶ R+L - Nothing
▶ R - Nothing	

Apply your selection for each button or combination:

Nothing | Toggle Upper LED | Toggle Bottom LED | Toggle push-to-talk | Switch Camera | Toggle device sleep | Motor Shutdown

Turn Speed NEW

0% to 100% | **80%** by default

Max Speed NEW

0% to 100% | **100%** by default

Top LED Brightness NEW

0% to 100% | **0%** by default

Disabled | (Active)

Front LED Brightness NEW

0% to 100% | **0%** by default

Disabled | (Active)



Once a Loki Mk1 or a Sigyn Mk1 is selected, the «Device Settings» menu is strictly limited to the features of that device.

NEW | Loki Mk1 compatible

[Device Settings / Loki Mk1](#)

From now on, the current GCS MkII controller can be combined with the Loki Mk1. Thanks to this compatibility mode, 1st and 2nd generation UAVs can now be combined at the same time and controlled via a single, state-of-the-art remote control. Consequently, a new configuration menu has been associated with this vehicle. It should be noted that the associated video channel must be configured manually. No telemetry information is available for the Loki. Concerning the information generated natively by the Loki MKI, it remains exactly the same to the ones displayed on the original remote control of the 1st generation Loki.

NEW | Button Allocation

[Device Settings / Loki Mk1 / Button Allocation](#)

The Loki Mk1 also has the button allocation system, just like the Loki MkII. However, it should be noted that while all button combinations (similar to the Loki MkII) remain available, the functionality associated with this first generation drone is limited to the onboard technology.

NEW | Sigyn Mk1 compatible

[Device Settings / Sigyn Mk1](#)

As a unified tactical system, like all the drones in the Sky-Hero range, the Sigyn Mk1 is also listed in the GCS menu, which not only allows it to be operated but to also adapt its whole functionality set. Functionality such as the allocation of buttons for specific actions, as well as its speed of movement or rotation, as described below.

NEW | Button Allocation

[Device Settings / Sigyn Mk1 / Button Allocation](#)

As with the Loki Mk1 and Loki MkII, all the buttons on the Sigyn Mk1 can be configured as desired, either by direct action buttons (1 button) or by a combination of these (L/R + another button). Note that dedicated quick actions made especially for the rove can be defined here as quick action, such as the switch camera or the lighting of the upper and lower LEDs.

NEW | Max Speed

[Device Settings / Sigyn Mk1 / Max Speed](#)

This feature allows you to increase or decrease the speed of the Sigyn robot. Adapting the speed of movement goes hand in hand with near silent movement - ideal for some specific mission scenarios.

NEW | Turn Speed

[Device Settings / Sigyn Mk1 / Turn Speed](#)

The rotation of the drone is managed by the left joystick (J1). This parameter changes the manual rotation speed.

NEW | Top and Front LED Brightness

[Device Settings / Sigyn Mk1 / Top-Front LED Brightness](#)

This parameter offers the possibility of modifying the intensity of the Sigyn's IR LEDs, whether they are the front IR LEDs or those on the top and bottom of the device



AUDIO-VIDEO SETTINGS

AUDIO/VIDEO SETTINGS

Video Channel

- ▶ Device 1 - A1 - 5865 MHz
- ▶ Device 2 - A3 - 5825 MHz
- ▶ Device 3 - A5 - 5785 MHz
- ▶ Device 4 - A7 - 5745 MHz

A1 5865MHz | A2 5845MHz | **A3 5825MHz**
 A4 5805MHz | **A5 5785MHz** | A6 5765MHz
A7 5745MHz | A8 5725MHz

Extended to SH Channels in Video OPEN mode

Video Power

- ▶ Device 1 - 1
- ▶ Device 2 - 1
- ▶ Device 3 - 1
- ▶ Device 4 - 1

0 | 1

Additional power level 2 | 3 in Video OPEN mode

Scrambling Mode

On | Off | **Invert** ^{NEW}

Video Brightness ^{NEW}

0% to 100% | **50%** by default

Headphone Level

0% to 100% | **20%** by default

Overlapping Channels - Off ^{NEW}

- ▶ On
- ▶ -> **Off**

Additional menu entry in Video OPEN mode

NEW Scrambling Mode : Invert

Audio / Video Settings / Scrambling Mode / Invert

In 2.12 firmware version, these settings offer the possibility to only activate or deactivate the scrambling system. Scrambling is achieved by swapping parts of image randomly to make the image unrecognizable without the matching descrambling algorithm. This advanced scrambling mode is activated when the settings are ON. It implies a faster degradation and a shorter range of the video signal. To overcome this drawback, a mode, called INVERT, is now selectable. In this case, the video signal wave is simply inverted. The result is a less complex and effective scrambling, but it offers the benefit of combining scrambling with better reception of the video feed over longer distances.

NEW Video Brightness

Audio / Video Settings / Video Brightness

The «Video Brightness» setting offers the same options as the previously named «Screen Brightness» setting. Only the name of this feature has been changed to be more accurate with respect to its effective purpose.

NEW Overlapping Channels

Audio / Video Settings / Overlapping Channels

Now, with this new feature, all supported video channels (A | E | SH) are all accessible regardless of your initial region selection. This new entry in the Audio/Video Settings menu only appears when the OPEN mode is activated. This new feature was mainly developed to allow units to use complementary third-party receivers with very limited video reception frequencies.

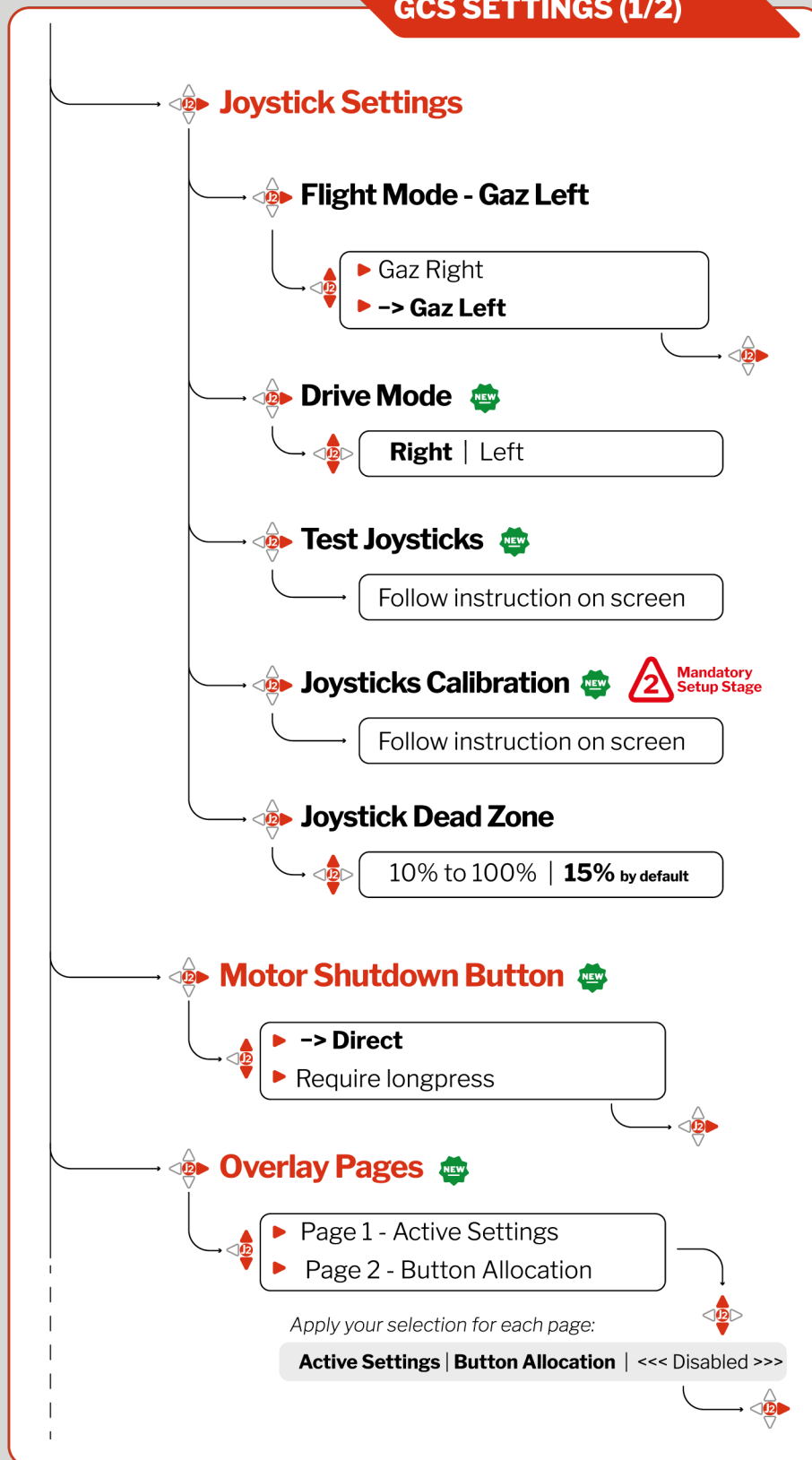
When using several robots simultaneously with the same remote control, it is still important not to select different channels with similar frequencies (e.g. SH 24-5769 Mhz and A6-5765 Mhz) as they could overlap with each other. This could result in a more degraded or even erroneous video return, as the receiver may then display the video of another robot associated with another GCS remote control.

It should be noted that once the scrambling mode is activated, these third-party viewing screens, irrespective of the frequency chosen, will not be able to decrypt the received video feed.



GCS SETTINGS

GCS SETTINGS (1/2)



NEW | Drive Mode for Sigyn Mk1

[GCS Settings / Joystick Settings / Drive Mode](#)

The Drive Mode specific only to the Sigyn robot allows the manual directional commands to be allocated to the left or right Joystick of the remote control. Once the joystick is chosen, this selection will be applied to all Sigyns associated with the remote control used.

NEW | Test Joysticks

[GCS Settings / Joystick Settings / Test Joysticks](#)

Mainly developed for troubleshooting purposes, this parameter allows you to test the correct operation of each joystick. In order for this option to work correctly, it is first necessary to perform the important step of calibrating the joysticks.

NEW | Joystick Calibration

[GCS Settings / Joystick Settings / Joystick Calibration](#)

The calibration of the control joysticks is one of the 3 key steps, along with the choice of the region and the calibration of the battery, which should ideally be carried out before using the various connected vehicles. The calibration of the joysticks compensates for any original mechanical differences and thus avoids any impact when controlling the various connected devices.

NEW | Motor Shutdown

[GCS Settings / Motor Shutdown](#)

The shutdown of the engines of both the Loki MkI/MkII and the Sigyn MkI is now configurable. The button allocated to this action can now respond to a single press or a long press (1.5 sec.) to trigger the effective shutdown of the vehicles' motors. This second option has been designed for the eventuality of a control handling error in the field. In the event of an operating error, it ensures that the engines are not accidentally and uncontrollably switched off.

NEW | Overlay pages

[GCS Settings / Overlay Pages](#)

2 screens superimposed on the broadcast video image are accessible for each selected device and specific to the settings assigned to each of them. To access these overlay screens, you must press the button associated with the device (1-4) to see overlay screen 1 and press the same button a second time to see overlay screen 2. The overlay 1 screen will display by default to all «Active settings». The overlay 2 screen defaults to the details of the buttons allocated to the selected device. You are free to change this by default selection. You can also disable either or both overlay screens.

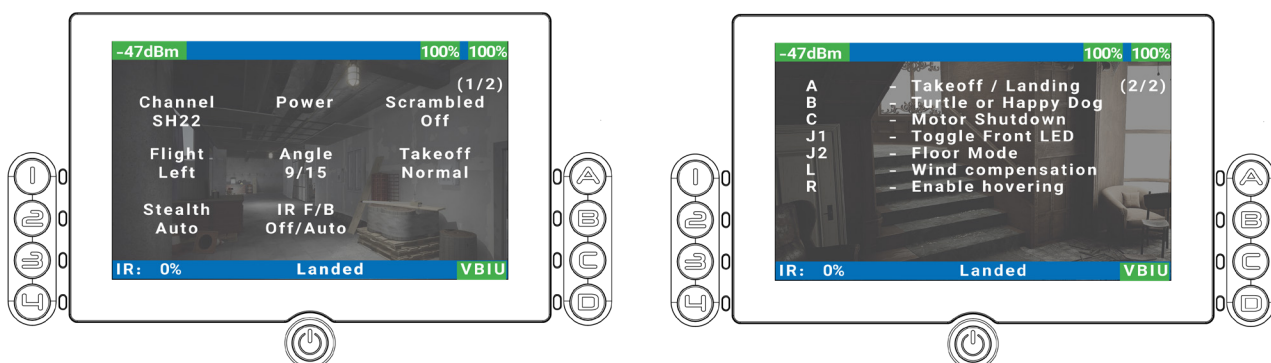


FIG. Overlay screen - Active Settings


FIG. Overlay screen - Button Allocation

GCS SETTINGS (2/2)

 **Calibrate Battery**   **Recommended Setup Stage**

Follow instruction on screen

 **GCS LED Brightness**

 0% to 100% | **70%** by default

 **Firmware Management** 

 **SD Card Upgrade**

Follow instruction on screen

 **Erase Settings and Reboot**

 **Erase Everything and Reboot**

 **Reboot**

 **Read license file** 

Follow instruction on screen

 **Lock for shipping** 

Follow instruction on screen

NEW | Calibrate Battery

GCS Settings / Calibrate Battery

The calibration of the GCS MkII battery is one of the important stages in the initialization of the system (however it is not essential for device operation). This feature accurately calibrates the displayed GCS battery level. It ensures that the battery level - displayed in the upper right corner of screen) shows the most accurate estimate of the remaining battery charge. The GCS must be fully charged (2.5 hours if fully depleted) before performing this calibration. The charge level is indicated by the LED on the bottom edge of the GCS next to the USB-C connection. Wait for the LED to turn green. Once the LED is lit in the expected color, unplug the charger and wait 5-10s seconds before starting calibration. Once selected simply confirm (right joystick/2 to the right) to start the calibration. Once done, the battery percentage is displayed by replacing --- % with 100%. If your GCS has never been used, it is necessary to fully charge the GCS battery, as it is delivered with a charge level between 30% and 60% (to avoid its degradation before the first use).

NEW | Read License File

GCS Settings / Firmware Management

This function is exclusively linked to the use of the trigger payload. The use of the latter requires an associated license, the upload of which into the GCS will unlock all of the associated functionality found in Advanced Settings/Payload Settings/Trigger Preferences. To install the license, the SD card including it must be inserted into the associated reader on the bottom edge of the GCS. Select then «Read license file, the included «license.txt» file is read by the GCS system. Once installed, the associated trigger payload settings are then accessible, and the system is fully functional.

NEW | Lock for Shipping

GCS Settings / Lock for Shipping

This feature gives users the opportunity to block all the functions of the GCS MkII in the context of transportation (sending devices to distributors for maintenance/repair), storage (protecting devices from any undesired use by third parties). If you need to personally unlock it, request the specific unlocking sequence from your local distributor or the Sky-Hero team



ADVANCED SETTINGS

ADVANCED SETTINGS

RF Compliancy

▶ Control - CE/FCC

CE/FCC | Open

▶ Video - CE/FCC

CE/FCC | Open

Device Binding

- ▶ 1 - None
- ▶ 2 - None
- ▶ 3 - None
- ▶ 4 - None

- ▶ Loki2, Sigyn
- ▶ Loki1 with ARM low
- ▶ Loki1 with ARM medium

Stealth Mode - Automatic

- ▶ -> Automatic
- ▶ Off

Payload Settings

Typhon Preferences

Trigger Mode - Single

- ▶ -> Single
- ▶ Multi

Trigger Preferences

- ▶ None
- ▶ 100g top
- ▶ 100g back

Additional Menu entry once Trigger System is linked to a connected device, regardless of the license

NEW | Device Binding

Advanced Settings / Device Binding

In relation to the support of the Loki MkI and Sigyn MkI robots via the GCS, the device association menu integrates the entire Sky-Hero range. Because of their integrated system, the Loki MkII and Sigyn MkI are combined. The Loki MkI has a second association setting for the type of lower frame, either Arm Low (grey lower frame) or Arm Medium (black lower frame). Once the choice of devices and/or configuration has been made, the association with the device on the chosen button is automatic.

When no device is selected the list of bound devices and their channel will be shown.



FIG. Displayed screen of bound devices and channels

NEW | Stealth Mode

Advanced Settings / Stealth Mode

Once the stealth mode is activated, it causes all the internal LEDs - mainly related to maintenance and debugging - of the the Loki MkII and Sigyn MkI to be switched off. These LEDs go out automatically after 10 seconds once the mode is activated. There is one exception however, one internal LED of the Loki MkII (located into the lower frame front left side) remains lit. This is because this LED associated with the hardware is directly hardwired to the power lines. Note that this feature does not apply to the Loki MkI.

NEW | Trigger Preferences

Device Settings / Payload Settings / Trigger Preferences

This hidden menu is available when you have connected to a device that has a trigger payload connected. Once the license (refer to GCS Settings / Firmware Management / Read license file) is executed, the menu allows the use of this new breaching option with the appropriate payload. A pop-up submenu then offers to choose the location of the tactical charge, either no charge or a 100 gram charge placed above or behind.



OBSERVE DEVICE & VERSION

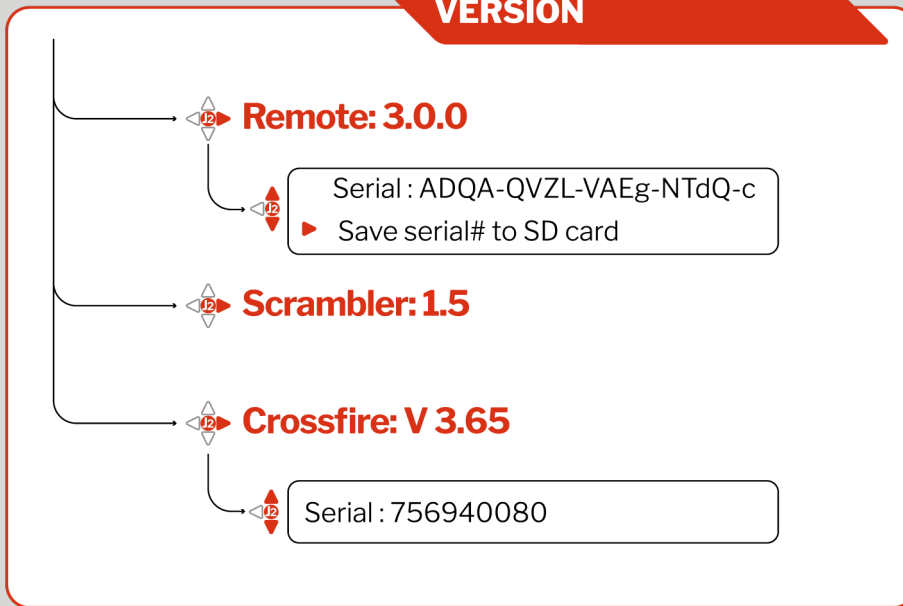
OBSERVE DEVICE


Observe Device

A1 5865MHz	A2 5845MHz	A3 5825MHz
A4 5805MHz	A5 5785MHz	A6 5765MHz
A7 5745MHz	A8 5725MHz	

E1 5705MHz	E2 5685MHz	E3 5665MHz
E5 5925MHz	E6 5905MHz	E7 5925MHz
E8 5945Mhz		

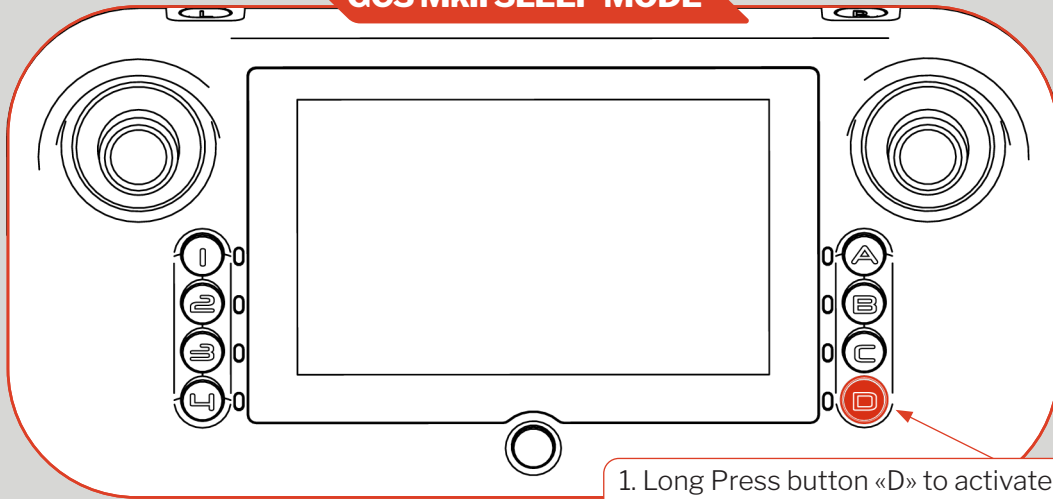
SH10 5251MHz	SH11 5288MHz
SH12 5325MHz	SH13 5362MHz
SH14 5399MHz	SH15 5436MHz
SH16 5473MHz	SH17 5510MHz
SH18 5547MHz	SH19 5584MHz
SH20 5621MHz	SH21 5658MHz
SH22 5695MHz	SH23 5732MHz
SH24 5769MHz	SH25 5806MHz
SH26 5843MHz	SH27 5880MHz
SH28 5917MHz	SH29 5954MHz
SH30 5991MHz	

VERSION



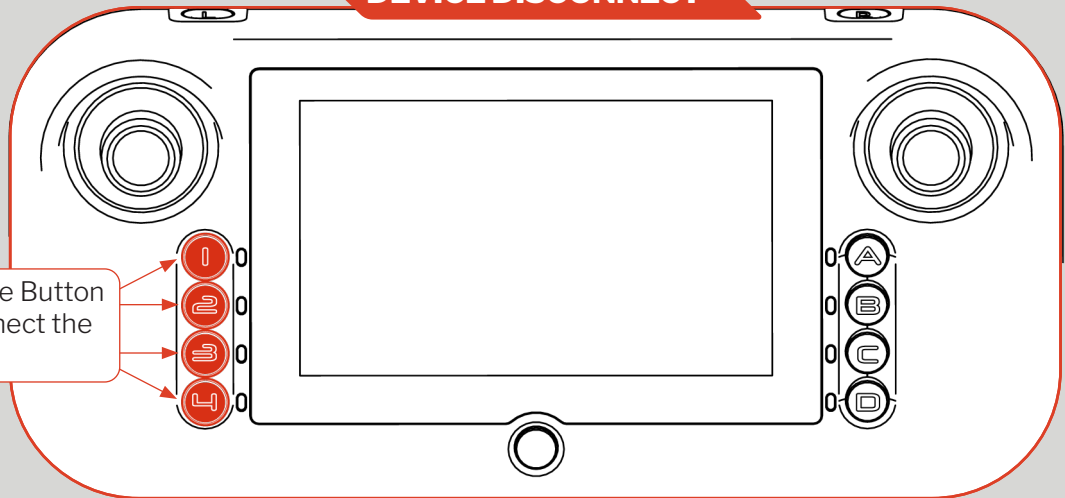
BEHAVIOUR OF GCS BUTTONS

GCS MkII SLEEP MODE



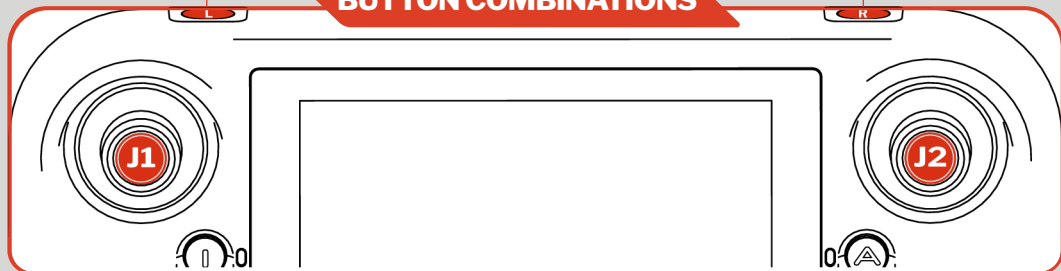
1. Long Press button «D» to activate Sleep Mode
2. Long Press button «D» to deactivate Sleep Mode

DEVICE DISCONNECT



Long Press the active Button 1 / 2 / 3 / 4 to disconnect the selected device

BUTTON COMBINATIONS



L Button* as Master:

- Quick action 1 | Press L then press R
- Quick action 2 | Press L then press J1
- Quick action 3 | Press L then press J2

* L Button not combinable in Arm Payload mode

R Button as Master:

- Quick action 4 | Press R then press L
- Quick action 5 | Press R then press J1
- Quick action 6 | Press R then press J2

In this new version of the GCS MkII V3.0.0 firmware, the behaviour of certain buttons and associated actions have been adapted but also added to facilitate a generic and tactical set of operational manipulations.

NEW | GCS MkII Sleep Mode

The GCSMkII Sleep Mode activation has been modified. This feature allows the remote control to be put to sleep with minimal power consumption from both, UAV/UGV and GCS. When in Sleep Mode, the display is off and the LED on the Menu button (D) is lit in yellow. When you wake up the controller, the display will show the screen detailing the list of associated unmanned devices and corresponding button (1-4). Note that you do not return to the last selected menu entry.

The «Sleep Mode» can now be activated with a long press on the D button instead of pushing both joysticks down inward position for 3 seconds. Please note that the «Sleep Mode» will be allowed if the device is connected to a moving device (e.g. in flight). To recover normal operation and reconnect immediately to your device, please repeat the same process.

Please refer to the diagram on the left for the operation of the button.

NEW | Disconnection of bound devices

In order to disconnect any bound devices, a long press on the active device button (1-4) will simply disconnect the associated unmanned vehicle. Disconnecting means cutting off all signal transmissions (video | audio | control) between the GCS MkII and the paired device(s).

Please refer to the diagram on the left for operation of the buttons.

NEW | Quick actions button combinations

As explained before in the section «Device settings», a set of 6 new button combinations has been developed to provide the operator with a greater number of quick actions. These combinations are achieved by combining the L and R buttons with each other or independently with the buttons on each of the two joysticks (press the joystick).

The possible combinations are the following ones : L+R, L+J1, L+ J2, R+L, R+J1, R+J2 These additional button combinations can be customised and linked to the corresponding feature set of the device(s) used. Note that when associating button L to the «Arm payload» mode and a payload component, the combinations based on this button are disabled.

Please refer to the diagram on the left for the handling of the buttons.



INFO ON GCS MKII SCREEN

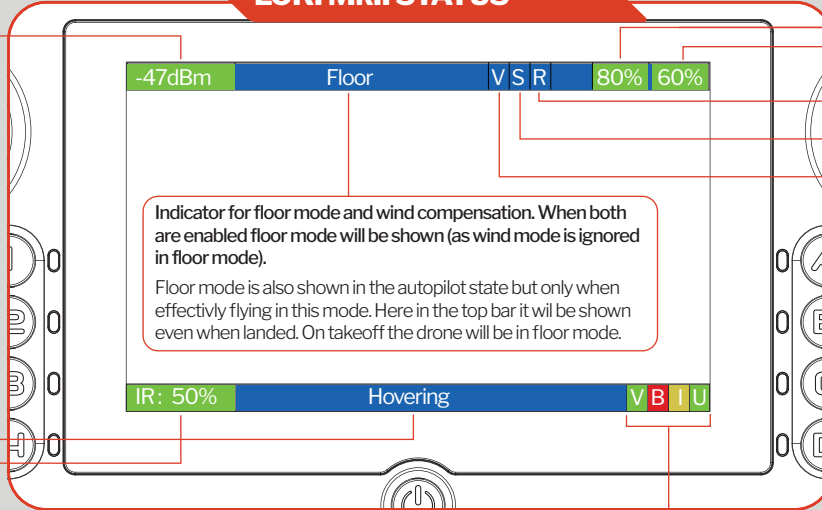
LOKI MkII STATUS

Quality of the control signal.
The closer to 0dBm, better it is. Turns yellow when the signal is weak (< -76dBm) and red when the signal is bad (< -93dBm)

Autopilot state:

- Landed
- Hovering
- Alti
- Gaz
- Floor
- ...

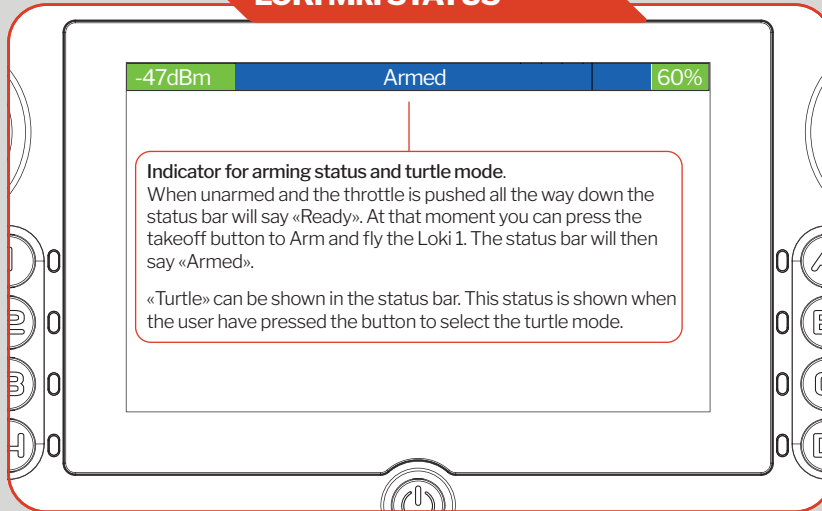
Brightness of the bottom IR LEDs.
Blue when 0% and green when > 0%



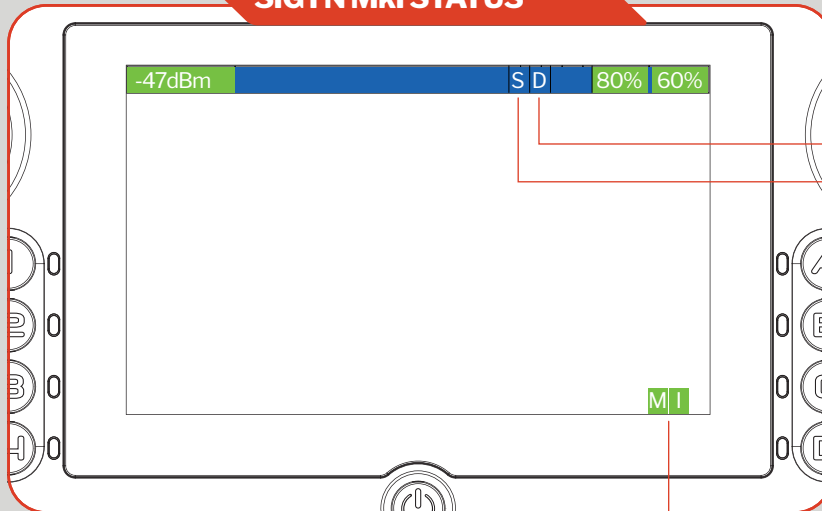
- Device Battery Power Level
- GCS Battery Power Level
- R : React mode enabled
- S : Tilt angle boost enabled
- V : Video boost enabled

Sensor states. Green when ok, yellow when invalid and red when defective.
V = vertical camera
B = barometer
I = IMU
U = ultrasound

LOKI MkI STATUS



SIGYN MkI STATUS



- S : Stealth mode enabled
- D : Active camera is the rear back, downward facing camera
- Sensor states.** Green when ok, yellow when invalid and red when defective.
M = motors
I = IMU

The information displayed on the GCS MkII screen specific to unmanned vehicle telemetry has been slightly adapted for greater clarity.

NEW | All Devices - Quality level of video reception

The data related to the quality of video reception (left and right) has been removed

NEW | Loki MkII - Displayed Status

The IR LED power level notification now only displays the status of the bottom IR LED power level which is information provided via telemetry. The power level of the front IR LED has been removed from the GCS screen itself as it is determined by directly adjusting the power by selecting the correct option located in Loki Mk2 Settings / LED Brightness or Sigyn Settings / Top | Front LED Brightness . This status as well as the status of the bottom IR LED can always be found in the Overlay - Active Settings page (see GCS Settings / Overlay pages).

Refer to the diagram on the left for an overview of the different states that can be displayed when using the Loki MkII.

NEW | Loki MkI - Displayed Status

Refer to the diagram on the left for an overview of the different states that can be displayed while using the Loki MkI.

NEW | Sigyn MkI - Displayed Status

There is no footer displayed on the GCS MkII screen when operating with the Sigyn MkI (this is in order to have a better view of the floor and possible «drops» e.g. stairs).

Refer to the diagram on the left for an overview of the different states that can be displayed while using the Sigyn MkI.



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