

ANUBIS COMMENTARY UNIT



MISSION APPENDIX

21.04.2022

Contents

COMMENTARY UNIT MISSION APPENDIX.....	3
SWITCHING ON MERGING+ANUBIS.....	4
Add products and features with MLM.....	5
COMMENTARY UNIT MISSION LAUNCH.....	7
THE COMMENTARY UNIT MISSION.....	9
OVERVIEW.....	9
MISSION SCHEMATIC.....	10
COMMENTATORS.....	11
MONITORING.....	12
ON-AIR.....	13
TALKBACK.....	14
MUTE.....	15
PREAMPS.....	16
EFFECTS PROCESSING.....	17
PHYSICAL BUTTONS.....	18
WEB INTERFACE.....	19
Tablets Remote Access - Using the Anubis IP Address.....	23
I/O CONNECTIONS.....	24
I/O Connectivity to a Computer.....	26
SETTINGS.....	27
REST API.....	30
Identify Me – Device Location.....	31
TROUBLESHOOTING.....	32
FOR MORE INFORMATION.....	33

COMMENTARY UNIT MISSION APPENDIX

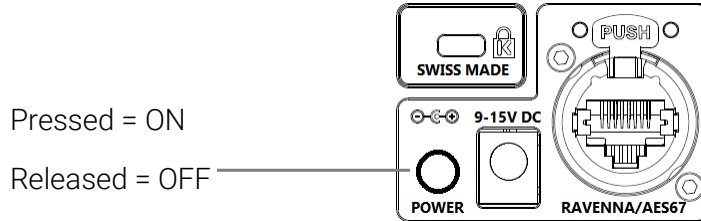
This appendix comes as a supplement to the Anubis User Manual and is intended to take you through the ANUBIS+COMMENTARY UNIT mission in detail. We encourage you to first familiarize yourself with MERGING+ANUBIS User Manual prior to reading this appendix.

To ensure the safe operation of your Anubis, please read the instructions, important safety information and warnings carefully before installation and use.

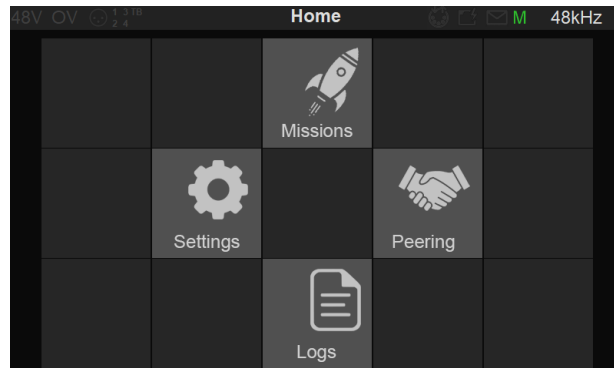


SWITCHING ON MERGING+ANUBIS

1. Press the switch on the unit's rear panel next to the DC input, as shown on the Back-Panel figure.



2. The Anubis Soft buttons will light up orange when the unit initiates the boot-up sequence, the TFT display will follow soon after. During this time the unit will perform a series of self-test and initialization routines.
3. Once the Anubis TFT display shows the Home page, the unit is ready for use.
Note: To turn OFF Anubis, press the POWER button to the released state.



Add products and features with MLM

Some specific Products (Missions or Features) will require a valid License Activation key prior to operations. Contact your Merging Local Sales Partners to purchased or get trial activation key. Once you have received your key code enter this one into your Anubis from the **Merging License Manager**.

Available Anubis Product and Features page [TBC https://confluence.merging.com/XXXX](https://confluence.merging.com/XXXX)

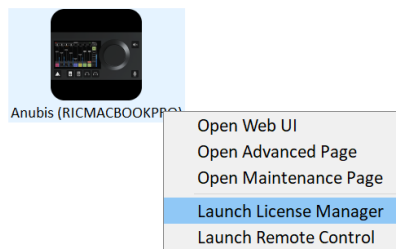
Steps to add a Product License with MLM

Requirements:

- A MERGING+ANUBIS connected in RAVENNA/AES67 to your system (mac or PC)
- A valid product licenses key code
- One of Merging latest application (MAD, VAD, ANEMAN, MTDDiscovery)
- The latest Anubis Firmware version

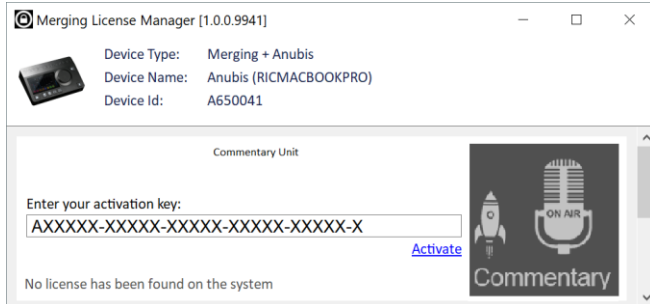
Procedure:

1. Connect your Anubis to your system
2. Open one of Merging's applications: MAD, VAD, ANEMAN or MTDDiscovery.
3. Right click on the discovered Anubis icon and select "Launch License Manager"



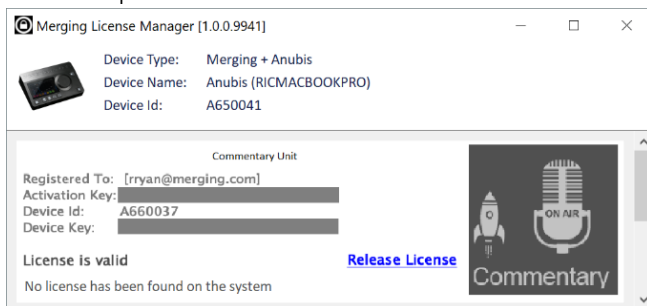
4. This will open the Merging License Manager from which you can enter the activation key of the Product feature you wish to activate.

In the example here we will activate the Commentary Unit.



5. Enter the received key code you have received for the Product Feature. It should look as such AXXXXX-XXXXX-XXXXX-XXXXX-XXXXX-X
Enter this code in the activation field and press the Activate entry line

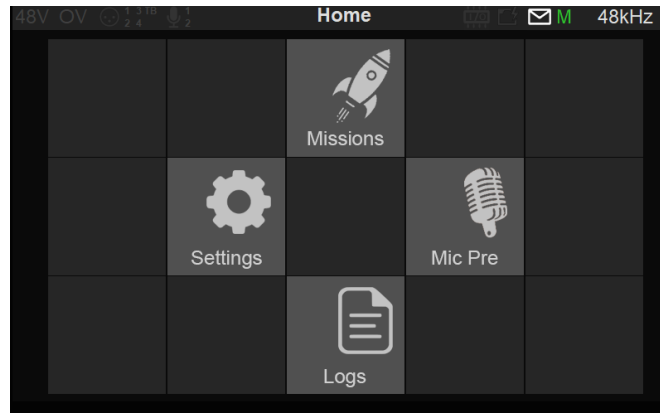
6. This will activate the Product (Commentary Unit in this example) and make this one available on that specific Anubis.



*Note: A given activation key code can only be activated on one Anubis at the time.
You can Release a License to activate it on another Anubis device at any time*

COMMENTARY UNIT MISSION LAUNCH

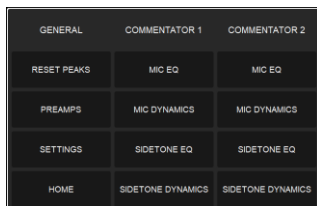
The Anubis Home page provides access to the Settings and Preamps pages and the Logs (messages).



The Anubis Home page can, at all times, be accessed by a long press on the Anubis Home button.

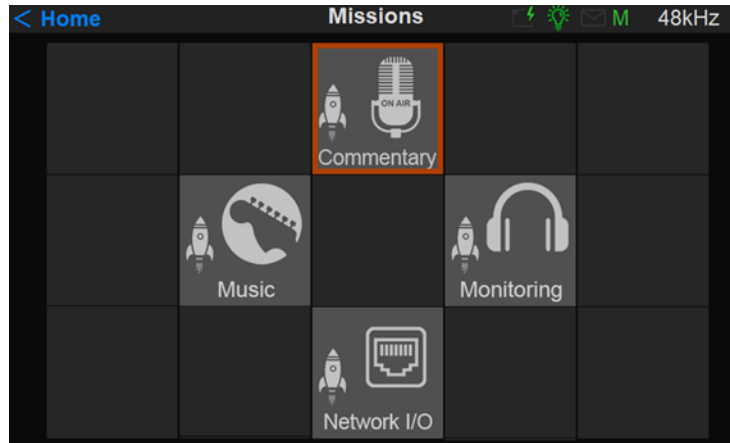


When in the Commentary Unit Mission, a long press on the Anubis Home button first displays a menu allowing access to the Home section or the Settings directly.



Then enter the Missions page by pressing the Missions icon

Load the Mission you plan to use. The Commentary Unit Mission, Music and Monitoring Mission are currently available. This Guide focuses on the Commentary Unit Mission.



If you do not see the Commentary Unit Mission icon, make sure you are on the latest Anubis Firmware (1.3.0b and above required) and you entered the Commentary Unit Mission license, please see the MLM section above.

Once the Commentary Unit Mission is selected and launched the Main Page will be displayed and is ready for operation.



THE COMMENTARY UNIT MISSION

The main function of this unit is to provide access to a combined microphone-headset for the broadcast of commentary or communication with a studio or facility. The unit provides several operational possibilities and customization, which will vary in relation to the technical and operating criteria forecast for each event.

OVERVIEW

The Commentary Unit Mission allows for one single or two Commentators to comment on events On-Air, separately or mixed together, with optional EQ and Dynamics processing, while monitoring up to two mono Intercoms, eight stereo programs and each-others sidetones, with the possibility of muting their own voice temporarily and optionally talking to up to four separate talkback channels.

One single or both commentators can be displayed and operated on the local ANUBIS unit Touch Interface, while at the same time be displayed and operated on one or more remote Web Interfaces.

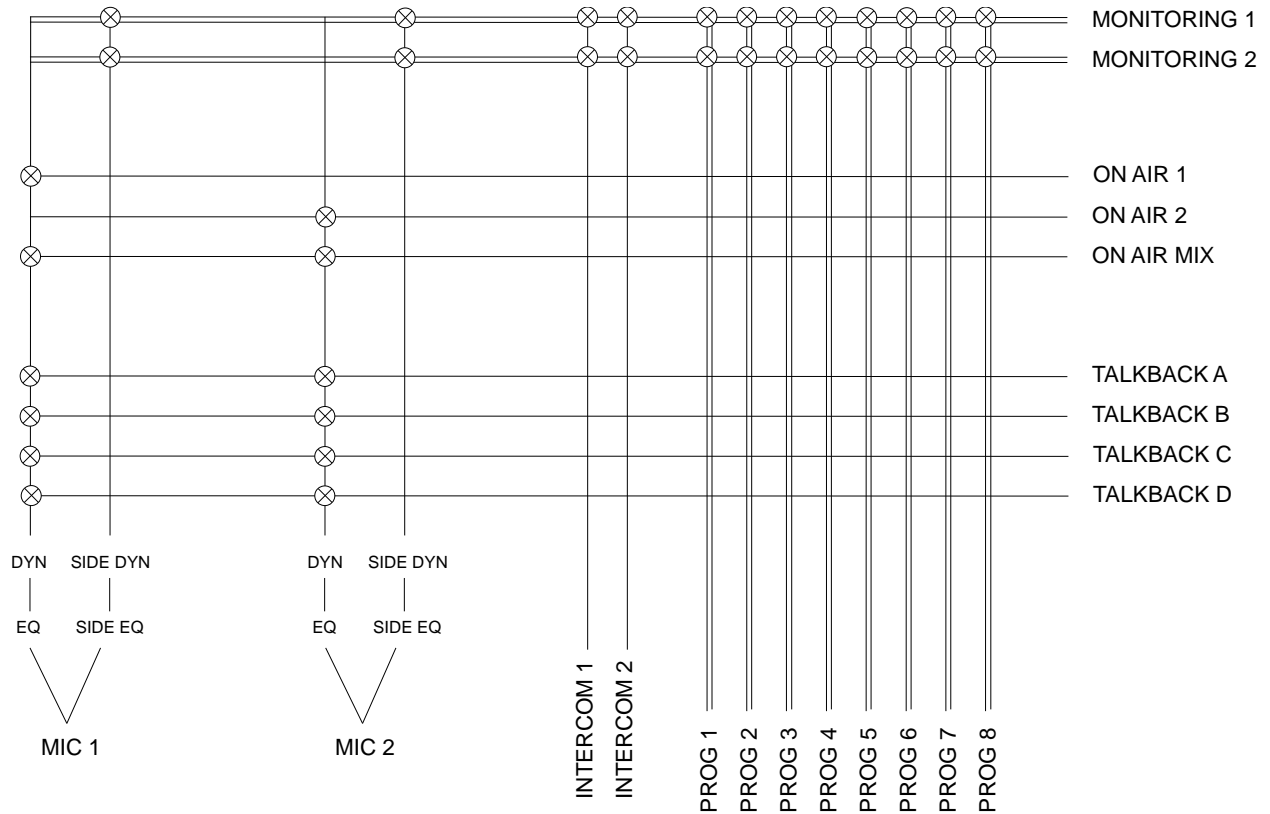
The user interface can be entirely customized to show or hide, rename, lock and configure any of the Intercoms, Programs, Sidetones controls, and Mute, Talkback and On-Air buttons.

The mission can also be controlled either by the local Touch Display of the ANUBIS unit, a remote Web Interface, GPI/O commands and a Web Sockets based REST API.



MISSION SCHEMATIC

Below an overview of the Mission signal flow in the schematic for your reference when reading this manual.



Please find below under I/O Connection how to patch the related I/O found in this schematic either internally or externally.

COMMENTATORS

The Commentary Unit mission supports **Single** or **Dual** commentator mode



- **Commentator 1:**
 - Is always **Enabled and Visible** on the ANUBIS touch screen.
 - Can use **Mic 1** (default) or **Built-in Mic** as input for On-Air, Talkback and Sidetone.
 - Selection of Mic 1 or Built-In Mic input is performed in the Commentary > Commentator 1 section in the settings.

- **Commentator 2:**
 - Can be **Enabled and Visible** on the touch screen, in this case both Commentators are accessible on the touch screen.
 - Can be **Enabled and not Visible** on the touch screen, in this case the touch screen only displays Commentator 1 and Commentator 2 is accessible through the Web Interface (see Web Interface section below) or remote control (see REST API section below).
 - Can be **Disabled** (and therefore not Visible, default). These options can be set in the Commentary > Commentator 2 section in the settings.
 - Always uses **Mic 2** as input for On-Air, Talkback and Sidetone.

MONITORING

Each Commentator has access for its own **Monitoring** to:

- 2 Intercoms (Mono)
- 8 Programs (Stereo)
- Its own Sidetone
- The Sidetone of the other Commentator (if enabled)
- A Monitoring Level



- **Gain Level** of each of the above parameters is accessible by a **short touch** on its rotary control and turning the main ANUBIS wheel or operating the displayed popup window. By default, the maximum level of these controls is 0dB, the option of setting the maximum level to 6dB or 12dB is available in the Monitoring section in the settings.
- **Pan or Balance** of each of the above parameters is accessible by a **long touch** on its rotary control and turning the main ANUBIS wheel or operating the displayed popup window. A small arrow will display on the top left or top right side of the rotary control if the pan is not centered.
- If none of the on-screen rotary controls are selected, then the ANUBIS wheel controls **Commentator 1 Monitoring** level.
- Only 6 Programs in single commentator mode or 3 Programs in dual commentator mode are visible on screen, additional Programs can be accessed by **touching and scrolling** the Programs rotaries row.
- Any of the **Sidetones, Intercoms and Programs** rotaries for each commentator can be **displayed** or **hidden**, depending on relevance for the each of the commentators, in the Commentary > Commentator 1/2 > VISIBILITY section in the settings.
- Any of the **Intercoms and Programs** rotaries can be **renamed** in the Commentary > NAMES section in the settings. The names will be the same for both commentators.
- All rotaries display a **single LED meter** at its bottom, to simply show activity and overload, from black (no signal), green (below -18dB), orange (below -6dB) and red (above -6dB).

ON-AIR

Each Commentator can be set to **On-Air** mode by pressing its own dedicated **On-Air button**.



- When enabled its Mic input is then sent to both its dedicated **On-Air output** and to the **On Air Mix output** where both commentators are mixed together. (See Mission Schematic above).
- The **On-Air** button can be **locked**, separately for the each of the commentators, depending on relevance, in the Commentary > Commentator 1/2 > LOCK section in the settings. In this case **the Commentator is always On-Air**.
- If the **Mute** or any of the **Talkbacks** for a given Commentator is enabled, then:
 - Its Mic is **removed** from both **On-Air** and **On-Air Mix** outputs
 - The On-Air button turns to **grey**
 - The physical button mapped to On-Air **blinks**
- A **long press** on the On-Air button enlarges it to cover the full screen
 - In this case the On-Air button **affects both Commentators** On-Air (if enabled)
 - Another long press when the button is maximized **restores it to its default size**



TALKBACK

The Commentary Unit offers **4 channels of Talkback** named **A, B, C, D**.

- Each Commentator can talk to any of the 4 channels by pressing the dedicated **Talk buttons**. When any of the Talk buttons are enabled, the commentator is **removed** from the **On-Air** and **On Air Mix** outputs.
- The **4 Talk** buttons are available in **single** commentator mode, while only **2 Talk** buttons are visible in **dual** commentator mode.



- Any of the Talk buttons for each commentator can be set to **Latch** (default for Talk) or **Press/Release** in the Commentary > Commentator 1/2 > LATCH section in the settings.
- Any of the Talk buttons for each commentator can be **displayed** or **hidden** depending on relevance to each of the commentators in the Commentary > Commentator 1/2 > VISIBILITY section in the settings.
- Any of the Talk buttons can be **renamed** in the Commentary > NAMES section in the settings. The name will be the same for both commentators.
- If any of the **Talkbacks** for a given Commentator are enabled, then:
 - Its Mic is **removed** from both **On-Air** and **On-Air Mix** outputs
 - The On-Air button turns to **grey**
 - The physical button mapped to On-Air **blinks**



MUTE

Each Commentator has a **Mute** button that **removes** him from the **On-Air** and **On-Air Mix** outputs when pressed.

- The Mute button can be set to **Latch** or **Press/Release** (default for Mute) in the Commentary > Commentator 1/2 > LATCH section in the settings.
- The Mute button can be **locked** depending on the relevance to each of the commentators in the Commentary > Commentator 1/2 > LOCK section in the settings.
- The Mute button can be **renamed** in the Commentary > NAMES section in the settings. The name will be the same for both commentators.
- If the **Mute** for a given Commentator is enabled then:
 - Its Mic is **removed** from both **On-Air** and **On-Air Mix** outputs
 - The On-Air button turns to **grey**
 - The physical button mapped to On-Air **blinks**



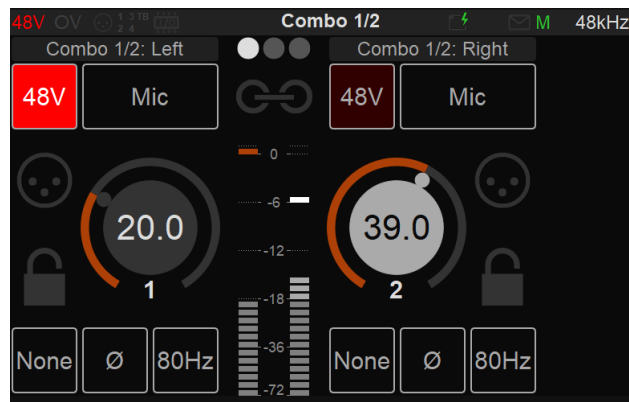
PREAMPS

The preamps for the Mic 1, Mic 2 and Built-In Mic inputs can be adjusted in the preamp settings.

- The preamp settings are accessible in the Home button menu

GENERAL	COMMENTATOR 1	COMMENTATOR 2
RESET PEAKS	MIC EQ	MIC EQ
PREAMPS	MIC DYNAMICS	MIC DYNAMICS
SETTINGS	SIDETONE EQ	SIDETONE EQ
HOME	SIDETONE DYNAMICS	SIDETONE DYNAMICS

- Preamp settings



Please find additional information about Preamps in the Music Mission Appendix.

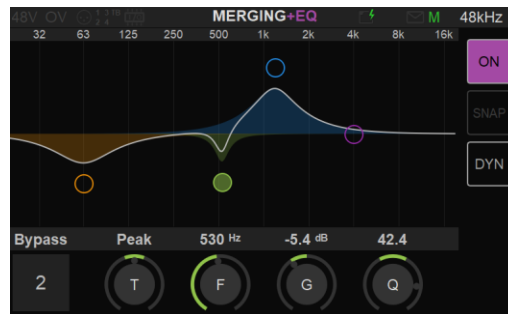
EFFECTS PROCESSING

Each Commentator can both have:

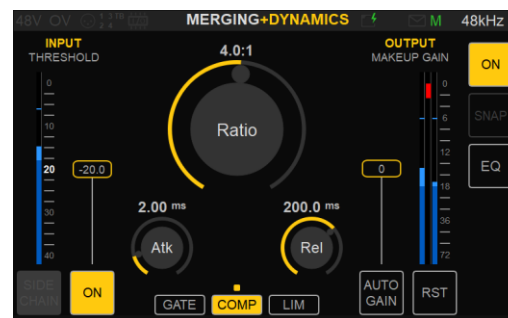
- a 4 bands parametric EQ and a full Dynamics section
 - on both their Mic and Sidetone path separately
- Each effect setting is accessible from the Home button menu

GENERAL	COMMENTATOR 1	COMMENTATOR 2
RESET PEAKS	MIC EQ	MIC EQ
PREAMPS	MIC DYNAMICS	MIC DYNAMICS
SETTINGS	SIDETONE EQ	SIDETONE EQ
HOME	SIDETONE DYNAMICS	SIDETONE DYNAMICS

- 4 band parametric EQ



- Gate, Compressor, Limiter sections Dynamics



Please find additional information about EQ and Dynamics in the Music Mission Appendix.

PHYSICAL BUTTONS

The ANUBIS unit **physical buttons** can be mapped to any of the **On-Air, Mute** or **Talkback** functions for the commentator.

- The mapping can be changed in the Buttons section in the settings.

Device	Function
Speaker A	C1: TALK A
Speaker B	C1: TALK B
Headphone 1	C2: MUTE
Headphone 2	C1: TALK D
Mic	C1: ON AIR
Mute	C1: MUTE

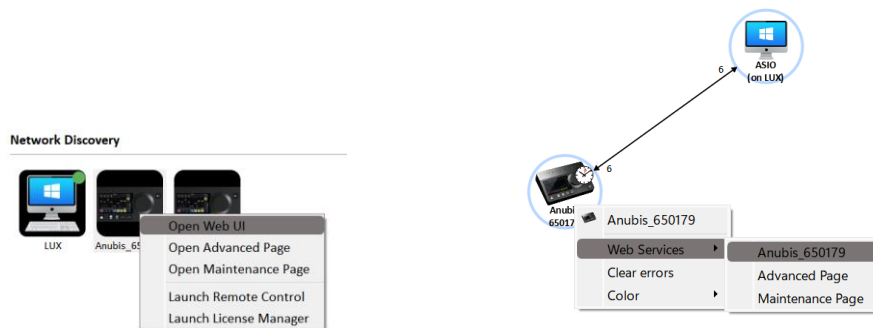
The **default mapping** is:

- Home (long push): Menu (can't be remapped)
 - Speaker A: Commentator 1 Talkback A
 - Speaker B: Commentator 1 Talkback B
 - Headphone 1: Commentator 1 Talkback C
 - Headphone 2: Commentator 1 Talkback D
 - Mute: Commentator 1 Mute
 - Mic: Commentator 1 On-Air
- The **main ANUBIS rotary wheel** behavior can also be adjusted:
 - **OFF**: The wheel is totally disabled
 - **SELECTION**: The wheel only affects the selected rotary control, if any
 - **SEL+MON1**: The wheel affects the selected rotary control, if any, or Commentator Monitor output if no rotary control is selected (default behavior)

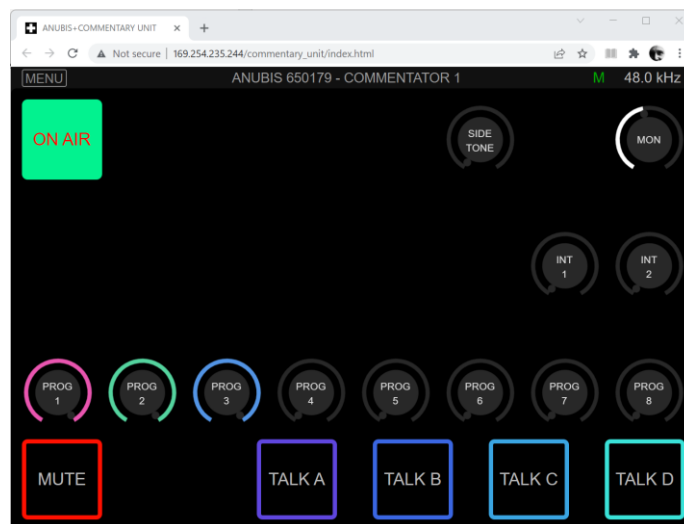
WEB INTERFACE

The Commentary Unit **Web Interface** can be accessed on any Web Browser by:

- Typing the **IP Address** of the ANUBIS unit in the URL bar (please find additional information about access with an IP address on the next section Tablet Remote Access below)
- Right clicking and selecting the proper menu on the **discovered ANUBIS unit** on either:
 - **ANEMAN** on Mac and PC
 - **MT Discovery** on Mac and PC
 - **MAD** on Windows
 - **VAD** on PC

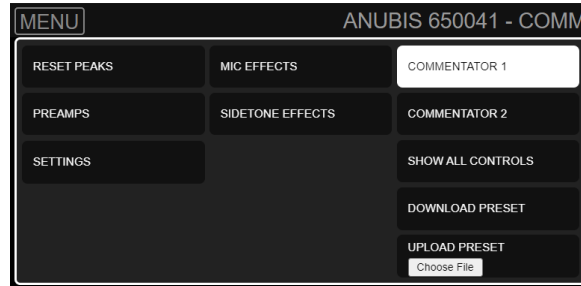


The Commentary Unit Web Interface will display and exactly mimic the ANUBIS unit touch screen display, while offering extended functionalities. Please refer to the touch interface described above for most operations; information about the specific features of the Web Interface follows below.



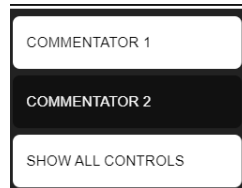
Commentator selection:

The Commentary Unit Web Interface only displays **one commentator at a time**. To access both commentators, please open them in two different browsers tabs or windows. If Commentator 2 is enabled then the displayed commentator can be selected in the **Web Interface menu**:



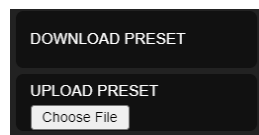
Advanced remote control:

While the Commentary Unit Web Interface exactly mimics the ANUBIS unit touch screen, it can bypass the hiding of rotaries and buttons and display all controls for easy configuration of the unit remotely by a system administrator. This is option can be selected in the **Web Interface menu**:



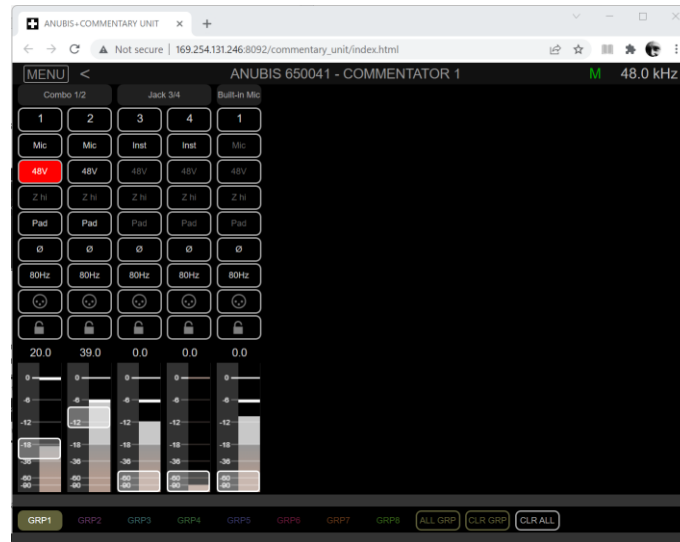
Preset loading and saving:

The current entire state of the Commentary Unit can be downloaded or uploaded as a preset file from the **Web Interface menu**:



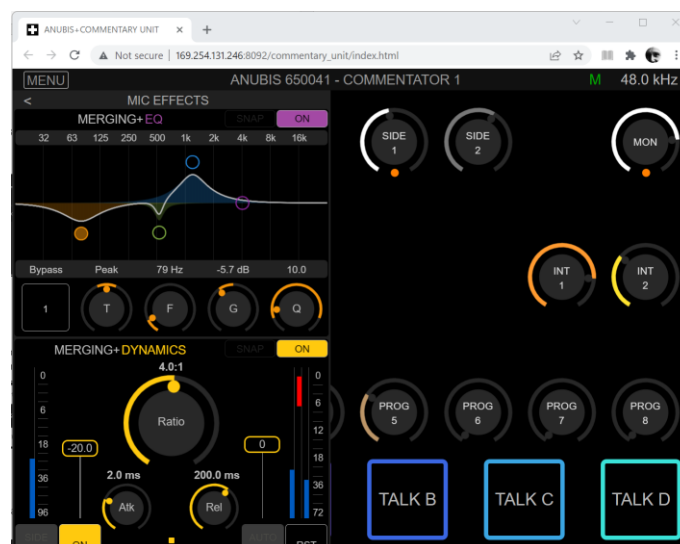
Preamps:

Preamps settings can be accessed on the Web Interface through the **Web Interface menu**:



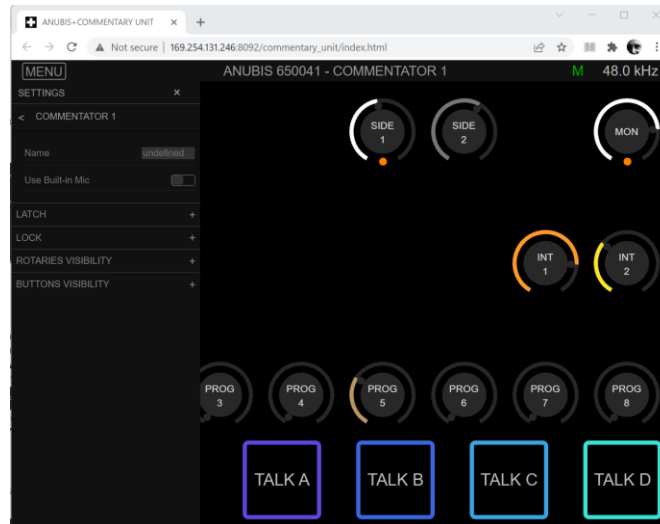
Effects processing:

Effects processing parameters can be accessed on the Web Interface through the **Web Interface menu**:



Settings:

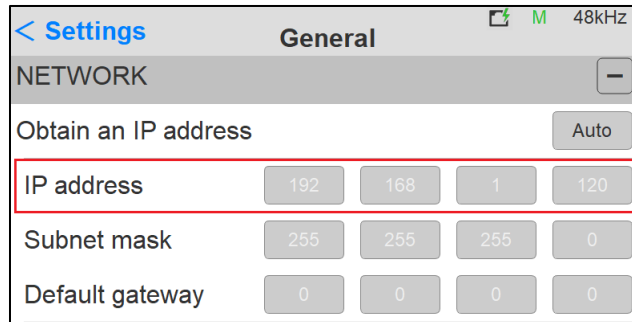
All Commentary Unit settings can be accessed on the Web Interface through the **Web Interface menu**:



Tablets Remote Access - Using the Anubis IP Address

Connect your Anubis to your network while making sure that it has a direct connection to a Wi-Fi Access Point.

Find the Anubis IP address under Settings > General into the Network IP address entry



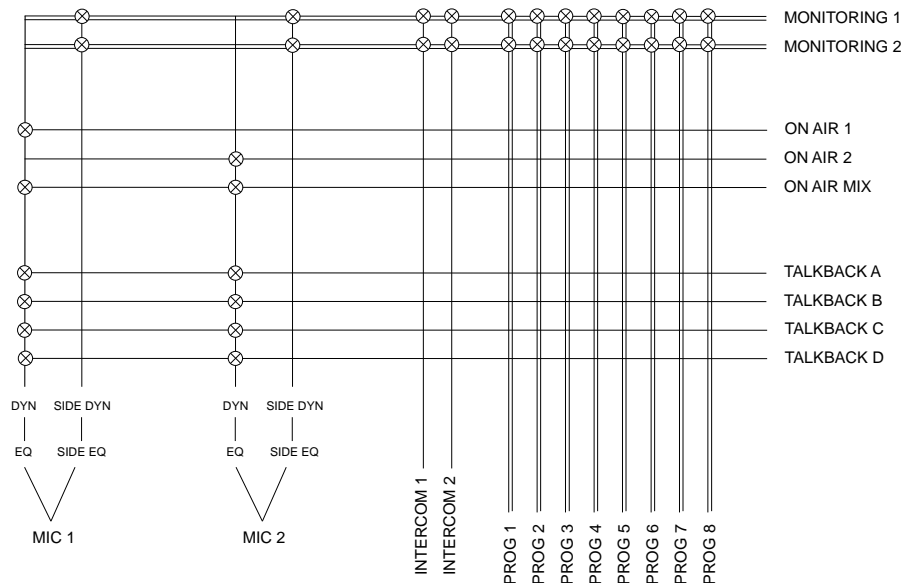
Type your Anubis IP address in the web browser and press enter to open the Remote Web User Interface



I/O CONNECTIONS

The Commentary Unit Mission is a network audio dedicated mission. All I/O connections and routing, even internally, are patched using ANEMAN.

Please find a summary of the available Inputs and Outputs of the Mission in the schematic below:



- By default, **Mic 1 is internally patched to Commentator 1 Mic Input**, it can be changed to the Built-In Mic input in the Commentary > Commentator 1 section in the settings.
- **Mic 2 is always internally patched to Commentator 2 Mic Input**, it cannot be changed.
- By default, **Commentator 1 Monitoring is internally patched to Headphone 1**, it can be repatched using ANEMAN.
- By default, **Commentator 2 Monitoring is internally patched to Headphone 2**, it can be repatched using ANEMAN.
- The **4 Talkback outputs**, the **2 On-Air outputs** and the **On-Air Mix output** are available as sources in ANEMAN for being patched from, either internally (to one of Analog outputs for instance) or externally **to another RAVENNA/AES67 device**.
- The **2 Intercom inputs** and the **8 Program inputs** are available as destinations in ANEMAN for being patched to, either internally (from one of the Line inputs for instance) or externally **from another RAVENNA/AES67 device**.

I/O Connection example:

In the example below:

- The two Monitoring outputs are patched to the internal Headphone 1 and 2, as default
- Talkback 1 & 2 and On-Air 1 & 2 are sending to a connected computer on the network
- Intercom 1 & 2 and Programs 1 & 2 are receiving from a connected computer on the network

The screenshot displays a software interface for audio routing. It features a central routing matrix and two side panels representing the connected devices: ASIO (on LUX) and Anubis_650179.

ASIO (on LUX) Connections:

- CONNECTIONS TO >>>** (Right side):
 - ASIO Input 1
 - ASIO Input 2
 - ASIO Input 3
 - ASIO Input 4
 - ASIO Input 5
 - ASIO Input 6
 - ASIO Input 7
 - ASIO Input 8
 - Audio Device (9-16)
 - Audio Device (17-24)
- CONNECTIONS FROM >>>** (Left side):
 - ASIO Output 1
 - ASIO Output 2
 - ASIO Output 3
 - ASIO Output 4
 - ASIO Output 5
 - ASIO Output 6
 - ASIO Output 7
 - ASIO Output 8
 - Audio Device (9-16)
 - Audio Device (17-24)

Anubis_650179 Connections:

- Physical Inputs:** Combo 1/2 - 1, Combo 1/2 - 2, Jack 3/4 - 3, Jack 3/4 - 4, Built-in Mic - 1.
- Commentary Unit Outputs:** MON 1 - L, MON 1 - R, MON 2 - L, MON 2 - R, TALK 1, TALK 2, TALK 3, TALK 4, ON AIR 1, ON AIR 2, ON AIR MIX.

Routing Matrix:

Device	Physical Outputs	Network Inputs
ASIO (on LUX)	XLR 1, Jack 3	COM
	Headphone 1 - Left	PRG 1
	Headphone 1 - Right	PRG 2
	Headphone 2 - Left	PRG 3
	Headphone 2 - Right	PRG 4
	COM - 1	PRG 5
	COM - 2	PRG 6
	L	PRG 7
	R	PRG 8
	R	PRG 8
Anubis_650179	MON 1 - L	COM
	MON 1 - R	COM
	MON 2 - L	COM
	MON 2 - R	COM
	TALK 1	COM
	TALK 2	COM
	TALK 3	COM
	TALK 4	COM
	ON AIR 1	COM
	ON AIR 2	COM

I/O Connectivity to a Computer

Anubis being a network audio interface, users wishing to use ANUBIS with a system application running on a computer, such as a DAW, will first need to establish the I/O network stream connections between ANUBIS and their system's Merging Driver.

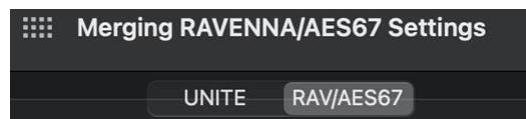
1. The first requirement is having the Merging drivers installed: **MAD** (Windows) or **VAD** (MacOS).

<https://confluence.merging.com/pages/viewpage.action?pagelId=45449231>

Note: Users running Pyramix MassCore do not require a driver.

2. Once the driver is installed and running, users should open the MAD or VAD Panel.

3. It is recommended to use the **RAV/AES67** mode within the Driver panel.



4. The Commentary Unit mission brings flexibility for more complex AoIP setups with multiple devices, it is then recommended to use ANEMAN.

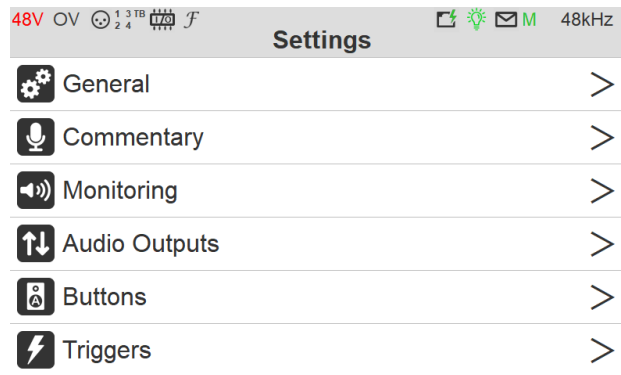
Note: The Anubis Commentary Unite Mission does not support UNITE

More details on ANEMAN can be found in our database here

<https://confluence.merging.com/display/PUBLICDOC/ANEMAN+-+Quick+Connection+Guide>

SETTINGS

The Commentary Unit Mission **Settings** are accessible through a long push on the Home button then selecting the Settings menu.



~*

- The **General Section** offers general settings such as sampling rate, clocking, network settings, etc... Details on this section can be found in the Music Mission or Monitoring Mission Appendixes.
- The **Commentary Section** allows:
 - Configuring both **Commentators options**:
 - **Enabling/Displaying** Commentator 2
 - **Mic Input** option for Commentator 1
 - **Naming** both the Commentator
 - **Latch** options
 - **Lock** options
 - **Visibility** options
 - **Naming of all common controls**: Intercoms, Programs, Talkbacks, Mute and On-Air

- The **Monitoring Section** allows configuring various monitoring options:
 - **REF Level**
 - **DIM Level**
 - Monitoring, Sidetones, Intercoms and Programs **Maximum Level** on the user interface rotaries
 - **Programs Dimming**
 - This allows choosing when a Program is dimmed if the dimming occurs on both Ears, only the Left Ear or only the Right Ear.
 - **Talks Dimming**
 - If enabled, the Programs are automatically dimmed when any Talkback button is pressed, for a given Commentator
 - **Talks Splitting**
 - If enabled, the Programs and the Sidetones are split to both different Ears when any Talkback button is pressed, either Programs on the Left Ear and Sidetones on the Right Ear or vice-versa depending on if PROGS/SIDES or SIDES/PROGS is selected.
 - **Talks Boosting**
 - An additional Gain can be selected for sending the Mic to the Talkbacks when any Talkback button is pressed.
 - It can be a positive or negative Gain.
 - **ON AIR Cut Monitor 1**
 - If enabled, Commentator 1 Monitor output gets muted when On-Air. This is typically for Studio applications when the Monitor output is connected to speakers that need being muted when going On Air to avoid leaking in microphones.
 - **ON AIR Cut Monitor 2**
 - If enabled, Commentator 2 Monitor output gets muted when On-Air. This is typically for Studio applications when the Monitor output is connected to speakers that need being muted when going On Air to avoid leaking in microphones.

- The **Audio Outputs Section** allows for modifying settings of the Audio Output stage of all output I/O. Details on this section can be found in the Music Mission or Monitoring Mission Appendixes.
- The **Buttons Section** allows for mapping the ANUBIS unit physical buttons to the Commentators On-Air, Mute and Talkback functionalities. Please find detail about this section in the **PHYSICAL BUTTONS** paragraph above.
- The **Triggers Section** allows for defining GPI/O and MIDI mapping to the Commentators On-Air, Mute and Talkback functionalities
- Any other settings details can be found in the Music Mission or Monitoring Mission Appendixes.

REST API

ANUBIS offers a REST API through Web Sockets or CometD for bidirectional remote control.

The entire user interface functionalities as well as additional “hidden” features, for instance Program Dimming, are accessible through this API, for a deeper integration with broadcast orchestrators or consoles.

Please contact your sales representative or Merging directly for more information about this API.

Identify Me – Device Location

The Identify me feature is available to locate a device over a network. If you have multiple network interfaces over a network, you might at some point identify one of them.

The identified device will then blink so that you can locate it.

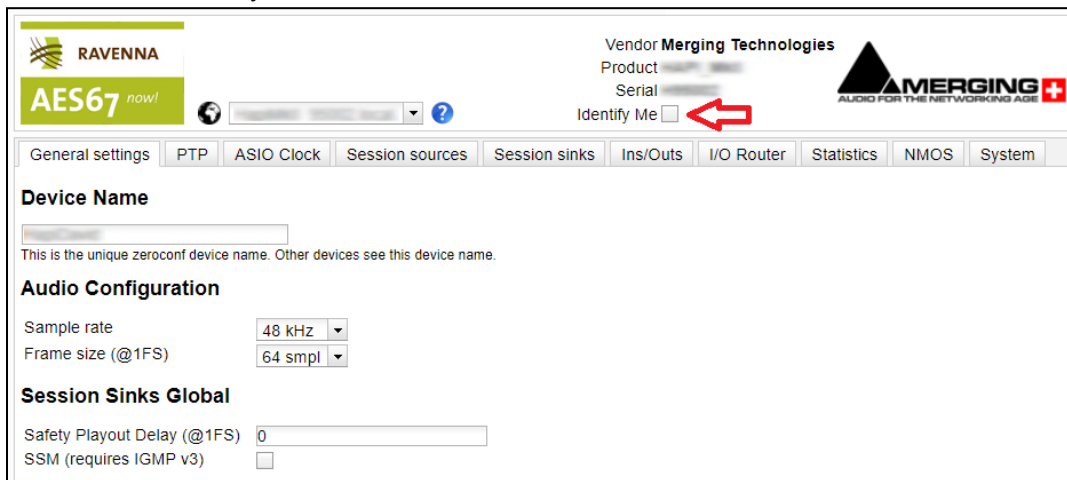
Procedure

1. Open the Anubis advanced pages.

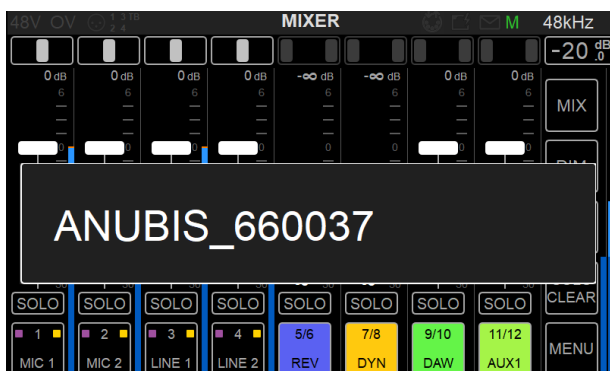
This can be done from the Driver (MAD or VAD) or from MTDDiscovery by Mouse+Right clicking on the Anubis icon.

2. Once the advanced pages are open go to the top right of the page

3. Check the Identify Me box



4. This will identify the Anubis and make the Anubis Home button blink and display a dialog on the TFT.



You have now identified an Anubis over the network.

TROUBLESHOOTING

In progress.

PROBLEM	POSSIBLE CAUSE	SOLUTION
Anubis		

FOR MORE INFORMATION

MERGING+ANUBIS WEBSITE

<https://www.merging.com/anubis>

MUSIC+MISSION FAQ

<https://confluence.merging.com/pages/viewpage.action?pageId=86212659>

MERGING+ANUBIS Knowledge Database, FAQs and Tutorials

<https://confluence.merging.com/display/public/doc/MERGING+ANUBIS>

MERGING+ANUBIS Downloads

<https://www.merging.com/anubis/download>

MERGING+ANUBIS USE CASES

<https://confluence.merging.com/pages/viewpage.action?pageId=60031175>

MERGING SUPPORT

support@merging.com

MERGING YouTube CHANNEL

https://www.youtube.com/channel/UCR5q_dlb9dYnXTrVDWMshgw