



InsightRT1 start up instructions

POWERING ON THE InsightRT1

Standard Box version: toggle/rocker switch (top right).

Hard Case version: red power button (lower right).

INTERNET CONNECTIVITY SETTINGS

Ethernet Cable:

An Ethernet cable (aka Cat5 cable) from a cellular router modem can be used. If the cable is active there will be no configuration necessary. The InsightRT1 will auto recognize and initiate the Internet connection.

WIFI:

Press the SYSTEM button on the home page and then press WIFI. Establish a Wi-Fi connection by selecting an available network, entering the network password, and pressing CONNECT.

STREAM NAME

The system comes with a preconfigured stream name. The stream name can be changed by pressing INFO and entering a new Publish Stream Name.

VIDEO CONNECTION

Power on the video source (drone) and connect the HDMI output on the controller to the InsightRT1 HDMI 'IN' port.

To check the format of the connected source video, press SYSTEM, press SOURCE VIDEO, and then press REFRESH:

- Mode indicates the detected resolution/frame rate (example: '1080p59.94').
- Color Space indicates the detected color format (example: 'RGB').

Note regarding YUV video sources:

It is not uncommon for video sources to be YUV.

If Mode or Color Space is not detected, the source video might be in YUV format. Try checking the Force YUV box and then pressing REFRESH.

Press the back arrows (<<) at the top left corner of the page to return to the home page. If the source video is compatible with the InsightRT1, it will be displayed in the video preview window on the right.

Glossary of messages in the video preview window:

INITIALIZING (flashing yellow):	Initializing the stream
ENCODING (flashing green):	Streaming live video
NO NETWORK (red):	No Internet connection detected
NO VIDEO INPUT (red):	No source video detected
STREAM DISCONNECTED (red):	The stream disconnected from the ingest server

REMOTE VIEWING

When the unit is shipped, AMV provides a view page URL link along with an administrator username and password. **This username and password should not be given out to other users.**

Login to the AMVision secure webpage using Chrome (Safari on iOS only) and enter the administrator username and password.

Any InsightRT1 systems assigned to the account will be listed by stream name in the tool bar near the top of the page.

Initial Setup in the Browser by the Administrator

Creating New Users

You must be an Admin to create or edit users.

There is no restriction on the number of users.

To create new users:

Click the “Actions” button at the top right of page.

Click “User Management” and then “Add New User” to open the “Add User” popup window.

Fill in the information.

There are three types of users:

- Admin (full access to system),
- Viewer Plus (can make changes to stream settings)
- Viewer (can only view streams)

Passwords can only contain letters, digits, and the following special characters:

! # \$ % & ' * + - = ? ^ _ ` { | } ~ @ . []

Passwords must satisfy *all* of the following requirements:

- Minimum of 8 characters long
- Have at least one uppercase letter
- Have at least one lowercase letter
- Have at least one number
- Have at least one special character

Do not forget to grant Stream Permissions by checking the boxes next to the stream names of the InsightRT1 units the user will be allowed to view.

Click “Submit”. If any errors are found, a popup notification will prompt for corrections. If everything is entered correctly, a success notification will be displayed

Note: If no Stream Permissions boxes are checked, the user will not see any InsightRT1 units listed when they login.

The View Page User Interface:

A row of stream selector boxes showing the stream names assigned to InsightRT1 units is displayed at the top of the page.

Stream selector status indicators:

- 'ENCODER OFFLINE' (red text): The InsightRT1 unit is not online.
- 'ENCODER ONLINE' (green text): The InsightRT1 unit is online but is not streaming.
- Selector box is solid green: The stream is live and clicking the box will open a video player on the page below.

Remote control of InsightRT1 stream settings is available from the view page by clicking the Stream Settings button at the bottom of the video player pane. The Update Stream Settings popup provides options to change the stream name, bitrate, resolution, and frame rate.

Only Admin and Viewer Plus users can make changes using the Update Stream Settings popup.

If the video is not streaming smoothly (e.g. it is "choppy" or very slow), try adjusting the stream settings parameters:

Bitrate:

The first option to try is reducing the bitrate.

There are four bitrate presets available:

- 2,000 Kbps
- 1,000 Kbps
- 500 Kbps
- 250 Kbps

Frame Rate:

If problems still persist at 250 Kbps, decrease the frame rate. Standard motion video is 30 frames per second. Decreasing the frame rate will reduce video bandwidth and will help facilitate streaming when cell coverage is bad.

Frame Dimensions:

Lowering the resolution also helps to reduce video bandwidth, but it decreases video quality. Use this as a last resort when cell coverage is really weak.

Usually, the Incident Commander will be in charge of the video stream settings. However, whoever is most in need of real time situational awareness should control the video stream. For example, if a SWAT team is viewing live from a drone posted overhead and command changes the stream for their needs, SWAT may lose the stream if they do not have a quality Internet connection or cell coverage.

Please feel free to call Michael Collins 310-922-0478 or Barry Moore 817-239-9777 for more instructions.

All Mobile Vision provides 24/7 tech support.

The phone number is on the login page of the provided view page URL.

It can also be displayed by clicking on the INFO button on the InsightRT1 home page.