

Installation & Operations Manual

SmartView 2 Modular







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Pre-Installation Requirements

Required (Not Included):

• Machine Room Unit (Part Number: 7100) and

Included Components:

- 24vdc Plug-in Transformer
- Terminal Connectors
- WIFI Dongle
- 110vac Battery Backed-up Power Source
- (RATH Part Number: RP7700104S)
- External USB camera (RATH Part Number: 2100-SVCF)
- Mounting Hardware
- 1 Pair shielded or unshielded wire (18AWG required)
- Routed Internet Connection (See Page 18 for full list of requirements)

- Ethernet Cable to connect hardware to Internet connection
- Small screwdriver
- Drill
- Mobile device, Laptop, or PC for programming
- Yes/No or Door Open/Closed buttons
- Protective Display Cover
 - For .118" Panels: RP0007-258
 - For .156" Panels: RP0007-259

Required (Included):

- Elevator Unit (Part Number: 7200M)
- Terminal Connectors



Up to three SmartView 2 systems can be installed on one RP7700104S.

Wiring Diagram

Installing SmartView 2 Modular Visual System

Machine Room Unit

1. Mount machine room unit in desired restricted access location using appropriate mounting hardware (See mounting template on page 16). **Unit cannot be mounted more than 61/2 feet (78 inches) off the ground.**

NOTE: PLEASE WAIT UNTIL ALL CONNECTIONS ARE MADE BEFORE TURNING ON POWER TO UNIT.

2. Identify positive and negative "POWER" terminals on machine room unit for terminating connections.

INPUT POWER IS POLARITY SENSITIVE, FAILURE TO VERIFY POLARITY MAY CAUSE DAMAGE TO UNIT.

- 3. Using provided plug-in transformer, plug green 2-pin terminal on the end of the transformer into the "POWER" port on machine room unit.
- **NOTE:** If installing multiple Machine Room units each unit needs its own plug-in transformer, they cannot be daisy-chained.
- 4. Use an existing single pair of 18AWG or run a single pair of 18AWG from the machine room unit to the elevator unit. Strip back and expose 1/4" of wire on individual conductors. Connect the wire pair to the two-pin terminal connector then plug it into "PLC" port on machine room unit.

Maximum distance limitation from Machine Room unit to Elevator unit is 1000 ft.



5. Plug an Ethernet cable from the routed Internet connection into "ETH IN" port on the machine room unit.



Routed Internet Connection



Elevator Unit

- 1. Place the protective display cover in the display cut-out in the elevator panel.
- NOTE: The display cover has protective plastic on the front and back that should be removed before installation.
- 2. Mount the elevator unit over the display cover in the elevator panel and secure using appropriate mounting hardware.
- 3. If not already mounted, mount the external USB camera in the desired location.
- 4. Wire either "YES" or "DOOR OPEN" button to the "YES" button screws on the 8-pin green terminal connector.
- 5. Wire either "NO" or "DOOR CLOSED" button to the "NO" button screws on the 8-pin green terminal connector.
- 6. Plug the 8-pin terminal connector into the "BUTTONS" port on elevator unit.
- 7. Plug USB Cable from external USB Camera into "USB2" port on elevator unit.
- 8. Strip back and expose 1/4" of wire on individual conductors of the 18AWG wire pair ran from machine room unit.
- 9. Connect the single pair of wires ran from the "PLC" connector on the machine room unit to the green two-pin terminal connector verifying the positive and negative on the elevator unit matches the machine room unit. Plug the terminal connector into the "PLC" connector the elevator unit.

Maximum distance limitation from Machine Room unit to Elevator unit is 1000 ft.



Powering on System

DO NOT HAVE THE WIFI DONGLE PLUGGED IN WHEN POWERING ON THE SYSTEM

- 1. Once all connections have been made, plug the provided plug-in transformer into a battery backed up 110vac power supply then turn on 110vac power. Once power is applied, the power LED will turn on.
- 2. After approximately 3 to 5 minutes and unit has fully booted, LEDs on unit should be illuminated as follows:
 - + POWER Solid Green
 - + STATUS Flashing Green
 - + INTERNET Solid Green
 - + TEL IN Solid Red
 - + CAR PHONE Yellow to start, once unit is accepted in setup, LED should change to green

*If LEDs don't show correct state see chart below for detailed LED overview.

- 3. When power is applied to the machine room unit, the screen on the elevator unit should illuminate and start the boot process. When the boot process is complete, the screen will turn off.
- **NOTE:** If a new firmware has been released in the time period between shipment from the manufacturer and installation, the elevator unit will show an updating message on the screen. The status LED on the Machine Room unit will also be cycling between, green, orange, and red. **The update needs to be completed before the rest of the installation can be performed.**
- 4. After elevator unit boots and machine room LEDs are ready, press and hold response buttons (YES/NO or DOOR OPEN/CLOSED) for 7 seconds. When the screen turns on, verify on the screen next to "SVHub" the system shows "Connected". If it does not, the device may have network issues. See page 13 for troubleshooting.



If the STATUS LED is cycling between green, orange, and red, it is updating.

Programming the System



The SmartView 2 hardware configuration settings can be programmed either locally with an Ethernet cable (not provided), or over WIFI. Follow steps below for desired option.

WIFI:

- 1. Plug the WIFI Dongle into the USB2 port on the Machine Room unit. The dongle will be active for 10 minutes after it is plugged in. After 10 minutes, the WIFI turns off for security purposes. To restore signal, remove dongle, wait 30 seconds, then plug it back into the USB2 port.
- 2. On PC, Laptop, Tablet, or Smart Phone connect to WIFI network named "sv2_MR_hotspot_xxxxxx"

NOTE: Each unit has it's own unique network name. The same network will not work for every unit.

- 3. Open a web browser and type in http://smartviewconfig.com
- **NOTE:** Some web browsers my attempt to automatically correct the URL. You may need to type in http://smartviewconfig.com to navigate to the site.

Local:

- 1. Disconnect routed Internet connection from "ETH IN" port.
- 2. Wait for Internet LED on Machine Room unit to change from **GREEN to RED** (approximately 30 seconds).
- 3. Connect Laptop or PC to "ETH OUT" port on the machine room unit using an Ethernet cable.
- 4. Open a web browser and navigate to http://smartviewconfig.com

NOTE: WIFI on PC needs to be disabled if programming through local connection.

Programming:

1. You will be prompted to log in to the configuration portal- log in to the configuration page using the following credentials:

Username: smartview2 Password: password

NOTE: These login credentials will only work when logging into the unit for the first time.

- 2. For security reasons you will be prompted to update the username and password, this can be changed at a later date if desired. Password must be at least 5 characters long and contain 1 lowercase letter, one uppercase letter, one number, and one special character. Write down what username and password has been changed to.
- **NOTE:** If user name or password is forgotten the device will need to be reset using the reset button on the machine room unit. See page 12 for detailed reset instructions.

art View 2	
Update Login	
Update username and password, if they are the default credentials you must do this to continue	
Username	
Password	
Update	

- 3. After clicking "update", a login box will pop up. Log in again with new credentials.
- 4. After logging in, the home page will appear. The home page will show Online status for both the machine room unit, as well as the elevator unit and MAC address information for the system.
- 5. If this is the first time logging into the unit, the elevator unit will need to be accepted by the system. On the home page under "**Device waiting for pairing**" click "**Accept**". System will not work until pairing completed.
- **NOTE:** This step will only need to be performed upon initial set-up. If already paired, this can be skipped.

DEEODE	Smart View 2		=
BEFORE	C RATH	SmartView 2	JANUS
	Welcome to Smart View 2 "rathtest" Device: MACHINE ROOM Comparing: Device: 64:5F0:150:CC:46 Concept Decline Refresh page for latest Car phone status	Home	
AFTER	Smart View 2	SmartView 2	JANUS
	Welcome to Smart View 2 "rathtest" Device: MACHINE ROOM Device: ELEVATOR: E4:5F01:50:CC:46	Home	

6. Click the "Menu" icon in top right corner of the screen and in the drop-down, click "Settings".

Home		
Settings		
Static Ip		
Startup		
Update Login		
Elevator Camera		
RATH	SmartView 2	JANUS
RATH	SmartView 2	JANUS
Vecome to Smart Vex 2 "rathtest" Device: MAICHINE ROOM © ©	SmartView 2	JANUS



- 7. Click Advanced Settings at the bottom of the page
- 8. When the settings page opens, enter the address of the building and the elevator number in the **"Address"** and **"Elevator Name"** field.
- 9. If using dedicated Yes / No buttons, click drop down under "**Button Instructions**" and select correct option in drop-down menu.
- 10. If buttons being used with system are normally closed instead of normally open, click drop down under **"Button Configuration"** to select desired state.
- **NOTE:** All other settings can remain unchanged as they are only for the RATH 7200 car phone unit with built-in emergency phone and cannot be used with the 7200M.
- 11. Click "SAVE" when complete
- 12. If using the WIFI dongle for programming, disconnect it from the Machine Room unit. If using the local hardwired connection, disconnect the programming device from the "ETH OUT" port and reconnect the routed Internet connection. Wait for the Internet LED on the Machine Room unit to change from **RED to GREEN** (approximately 30 seconds).
- **NOTE:** Leaving the dongle in the unit may result in a security vulnerability. RATH by AVIRE is not responsible for any damage caused by a security breach due to the dongle not being removed from the unit.

Smart View 2	Answer after 1st ring
Oettingen	Ring Timeout ③
Settings	00:30
* Indicates required field. Phone Number 1 ③	Speech Timeout ③
	03:00
Phone Number 2 ③	Carphone Relay Mode ⑦
Phone Number 3 ⑦	LED
	Carphone Volume ③
Phone Number 4 💿	
	Button Instructions Displayed On Screen ③
Phone Number 5 ⑦	Door Open and Door Close buttons
Address * ®	Location Message ③
Memco	TTS - Text To Speech
Elevator Name * ③	Location Message Length ③
Janus 123	14
Smartview Id ③	Button Configuration ③
Enable Annunciator ③	NO (normally open)
Active State For Alarm Filter ⑦	
	Save
Use Alarm Filter 😈	
button on the carphone will NOT trigger a call if the	
state matches the 'Alarm Filter Active State' setting	Basic Settings
activate a call	
	Factory Reset Settings

Setting Up the Machine Room Unit for a Static IP

By default the RATH SmartView 2 system is set to obtain an IP address automatically through DHCP. If the network requires it, the device can be set up with a Static IP address using the following instructions. The device will need to be connected through DHCP before a static address can be assigned to it if connecting through an Ethernet connection. If using WIFI dongle, DHCP is not necessary.

- 1. While in configuration screen, click "Static IP" from menu in top right corner.
- 2. In Static IP screen click "Add New Static IP"

	Static IP
This page enable	s the IP address of the ethernet interfaces to be set as static
Static IP not set	

- 3. Leave interface field on ETH2/ETH IN.
- 4. Type in desired IP address into "IP" field.
- 5. Click drop-down icon under "Subnet Mask" field and click desired option.
- **NOTE:** If subnet provide is not in the correct format it is recommended to refer to CIDR chart on the right to help find the correct option.
- Enter desired gateway into "Gateway" field.
- 7. Enter desired DNS servers into remaining fields.
- 8. Click "Save" to store settings.

Sta	atic IP
This page enables the IP ac to be s	ddress of the ethernet interface set as static
Static IP not set	
Add New Static IP 오 Interface	
ETH2/ETH IN	~
IP	
Subnet Mask	
/24	~
Gateway	
DNS[1]	
DNS[2]	
DNS[3]	
DNS[4]	



Verify Installation



- 1. While still on the configuration page, click "**MENU**" icon in top right-hand corner.
- 2. Click "Startup Tests"
- 3. Verify all applicable hardware tests passed.
- 4. If all tests passed, exit out of configuration page and continue on to testing the system. If any of the tests failed, see page 13 for troubleshooting.

Smart Vier					=
		Sta	rtup Tests		
	Test Name	Result	Message	Device	
	Greenphy for motorroom	Pass	Hardware tests passed.	Motorroom	
	Motorroom leds	Pass	Hardware tests passed.	Motorroom	
	Motorroom audio ic	Pass	Hardware tests passed.	Motorroom	
	Time since last test				
	Motorroom: 9 hours, 46 minutes and 36 seconds.				
	Carphone: N/A.				
	Power cycle the device to redo the tests (dev only: run installation_tests.py again).				

Testing the Video

- 1. Click on the "**Menu**" icon in the top right corner.
- 2. Click "Elevator Camera", a live view from the camera will appear.
- 3. On the camera feed page, make sure majority of the elevator floor is visible. If not, the camera angle may need to be adjusted. Use the adjustment knob on the back of elevator unit to re-position camera.



To perform full system testing, you will need to login to https://www.smartviewhub.com using your installer account. If you do not have an installer account, please go to http://www.smartviewhub.com and click "Request an Account" under the login window. Accounts may take up more than one business day to create- we recommend setting up an installer account in advanced of an install. Once your account has been created, you will have access to the system on your account for up 30 days. After 30 days, the unit is automatically deleted. You can re-add it to your account one additional time if testing was not completed within the 30 day period.

Restoring Device

DO NOT HAVE THE WIFI DONGLE PLUGGED IN WHEN RESTORING ON THE SYSTEM

The SmartView system has the ability to be restored to factory settings. This will remove any saved data and replace them with defaults.

Reset can be done using one of the following methods:

To perform a hard reset on the device using the Reset Button: Press and hold "Reset" button on machine room unit for 20 seconds. All LEDs on Machine Room unit should turn off then cycle between red, yellow, and green. Please wait 3 minutes for unit to fully reset.

To perform a soft reset on the device using the Configuration Page: Navigate to "Settings" section on configuration page. Click "Advanced Settings" then scroll down. Click on "Factory Reset Settings".

*Resetting through configuration page will not reset username or password settings, that must be done using the reset button.



Speech Timeout ⑦	
03:00	~
Carphone Relay Mode ③	
LED	~
Carphone Volume ⑦	
	•
Button Instructions Displayed On Screen ⑦	
Door Open and Door Close buttons	~
Location Message ⑦	
TTS - Text To Speech	~
Location Message Length 💿	
14	~
Button Configuration ⑦	
NO (normally open)	~
Save	

Basic Settings

Factory Reset Settings

Page 12

Troubleshooting



Problem	Possible Cause & Solutions
The Internet light on the machine room unit is always RED or will not stay GREEN:	 Verify network has an Internet speed of at least 5MB/s. Make sure IP Address machine room unit is pulling is not the same as another device on the network. Verify there is not another router or gateway on the network with the same IP addresses. Verify unit has a valid Internet connection going to it. Verify network plugged into "ETH IN" connector not "ETH OUT" Verify WIFI dongle is not connected to unit.
Car Phone LED always RED or YELLOW:	 Verify polarity of machine room unit matches elevator unit. Verify car phone was accepted in setup page. See page 8 for instructions for how to accept unit. Verify wires are seated into the 2-pin terminal connectors properly from the PLC connector on the Machine Room unit to the PLC connector on the elevator unit. Verify distance between machine room unit and elevator unit doesn't exceed 1000' ft. Verify 24vdc on PLC connector on elevator unit.
Status light on machine room unit solid GREEN or OFF:	 Unit may need to be power cycled due to script not starting properly. Disconnect input power from machine room unit for 10 seconds then reconnect. Verify input power is 24vdc. If unit getting under or over powered it can prevent script from running. Verify unit has a valid network connection.
No Power LEDs on the Machine Room unit:	 Verify 24vdc on power connector Power is polarity sensitive on machine room unit, verify positive and negative match label on unit. Verify wires terminated tightly on to two-pin connector Verify plug-in transformer being used is not being shared amongst any other devices.
The Display is blank or elevator unit appears unresponsive:	 The display will only power when the system is accessed via the SmartView viewing site and during boot process. Verify connection from machine room unit to elevator unit. Polarity is important. See page 4 and 5 for polarity labels. Verify PLC Connector on elevator unit has 24vdc on it. Verify 18ga wiring seated properly in 2-pin terminal connector.
Elevator unit calls out or displays IP Address on screen as soon as power is applied:	 Buttons connected to device may be Normally Closed instead of normally open. Verify buttons set to correct configuration on configuration page. Verify buttons change state properly when pressed as button may be shorted out.
Can't connect to device through WIFI Dongle:	 Disconnect from network then attempt to re-connect. Verify computer connected to "sv2_MR_hotspot_xxxxxx" network and didn't revert back to another network. If programming multiple devices, make sure the number at the end of the sv2_MR_hotspot matches what was originally used during set up. Each unit has it's own network name. The same network will not work for all units. Verify device being used doesn't have any administrative restrictions keeping it from connecting. Verify web browser navigating to http://smartviewconfig.com, not https address. Unit may be updating. While updating, accessing smartviewconfig.com is disabled. Wait for update to complete then try to access the site again.

Troubleshooting Cont.

Problem	Possible Cause & Solutions
Can't get to smartviewconfig.com on computer or mobile device:	 If using WIFI dongle, make sure device is connected to the correct network. If it has been longer than 10 minutes from dongle initially being plugged in, it has timed out. Unplug dongle and reconnect restore signal. If using a hardwired computer, make sure device is connected to the "ETH OUT" port. Verify unit isn't connected to a WIFI connection as well as the hardwired connection. If using a hardwired computer, make sure the routed Internet connection is removed from the "ETH IN" port and the Internet LED on the machine room unit is RED. Unit may be updating. While updating, accessing smartviewconfig.com is disabled. Wait for update to complete then try to access the site again.
User name or password to log into local setup page isn't working:	 Verify username and password being entered matches what was originally configured. Verify caps lock not on. Follow steps on page 12 to reset unit. This will reset username and password.
Elevator Unit frozen on "Updating" Screen (see below): Updating	 If three dots next to "Updating" are cycling, update is still in progress. Update may take up to 15 minutes to complete. If three dots are frozen or stuck on a single dot, the update failed. Power cycle the machine room unit for unit to start process again. Verify Internet speed isn't slower than 1MB/s. Updates may take up to an hour if network is slow or receiving interruptions. Verify WIFI dongle is not connected while updating.
Monitoring company cannot add unit to their account:	 Verify unit isn't already associated with another account. SmartView 2 units can only be added to one account for security reasons. Verify account hasn't been suspending due to billing or abuse. Verify a company administrator is the one adding the unit to the account. Only administrators have this privilege.
Smartviewhub.com says device is offline or not connecting:	 Verify the Machine Room unit has a routed Internet connection and a minimum speed of 1MB/S. Unplug the Ethernet cable from the machine room unit and plug it into a laptop and verify web browsing capabilities on the connection. Verify network has capability of handing out a DHCP address for device. If the network requires a Static IP address, please see instructions on page 10 to change the device settings. In some cases, a firewall will block the SmartView device. An exception may need to be made for the device in firewall settings. Follow the instructions on Page 3 to log into the system. Once logged in, the MAC addresses for the Machine Room unit and Elevator unit will be on the home page. Try to power cycle the machine room unit by removing power for 10 seconds then re-connecting. Verify the routed Internet connected to system Verify the network requirements on page 18 are enabled on the network. SmartView 2 requires inbound and outbound access. Verify the hardware is not updating. If it is in the process of updating, normal operation on the system will not work. Verify the device has a valid IP address and connection to the hub by pressing and holding the Yes and No (or Door Open / Door Closed if applicable) buttons connected to the elevator unit display will show the device's IP address and server connection.

Monitoring Setup



Compatible Internet Browsers: Google Chrome, Mozilla Firefox, Microsoft Edge, or Safari

Before getting access to the viewing site the monitoring company or personnel handling the monitoring must set up an account for the viewing site https://www.smartviewhub.com. It is recommended your

monitoring company registers before inspection. Accounts can be set up by navigating to https://www. smartviewhub.com on a web browser and clicking "Request an Account" under the login window. New accounts may take up to 2 business days to create. Once an account has been created, follow the steps below to access SmartView 2 systems.

- 1. Navigate to https://www.smartviewhub.com
- 2. Click "Request New Account" button on under the login window on the home screen.
- 3. Viewing site will then redirect to an account creation form.
- 4. After account creation steps are completed (user agreement is signed and payment method is provided), the monitoring site admin can log in to SmartView Hub using provided login information.
- 5. Once logged into the viewing site, click "Add Cameras" to link cameras to the account. To add a camera, you will need the SmartView ID number for the unit.

NOTE: Cameras can be linked to one primary monitoring account and one secondary account.

- 6. Once all cameras are added, click "Play" icon next to desired unit to access video.
- 7. A new tab will open on web browser showing video feed from elevator unit.
- 8. Type test message in "Messages" box, then click send.
- 9. Verify message displays on elevator unit.
- 10. On display in the elevator, the passenger will be prompted on what buttons to use for response (Yes/Door Open or No/Door Closed), verify both buttons function.
- 11. Verify button responses come in correctly on viewing site.
- 12. Once all functionality tested, close out of window and repeat steps 7-11 for any additional cameras.

For complete instructions for viewing site, please see the SmartView Hub User Guide.

Mounting Templates



Elevator Unit (7200M) Panel Cut-out Dimensions



Appendix



Machine Room Unit:

- **Power Requirements:** 24vdc, 1.66A amps. Power supply for unit must be a UL rated power supply with a current rating of 1.66A or greater
- Current Draw: Active = 1A Idle = 0.5A
- Operating Temperature: 32°F to 104°F (0°C to 40°C)
- Dimensions: 4.25" H x 6.10 " W x 1.73" D

Elevator Unit (Powered by Machine Room Unit):

- Power Requirements: 24vdc
- Current Draw: Active = 0.28A Idle = 0.19A
- Operating Temperature: 32°F to 104°F (0°C to 40°C)
- Dimensions: 3.72" H x 5.59" W x 1.77" D

Maintenance

It is recommended for the SmartView 2 be tested monthly to verify operation. If elevator unit is in need of cleaning, use a soft dry cloth. It is not recommended to use solvent or spray cleaners.

Safety

- Do not expose to liquids or excessive humidity. The SmartView 2 system is an indoor device and is not waterproof.
- Do not expose the phone to fire.
- Do not try to modify the phone.
- Do not use the phone in hazardous areas.

FCC Disclaimer

This device complies with Part 68 and Part 15 of the FCC rules. Operation subject to the following two conditions: (1) This device may not cause harmful interference and (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Reg. No: AW7TE01A7200 Ringer Equiv: 0.1A

Certifications

• UL 62368-1 / ASME 17.1

Data Usage:

• Ethernet In Port: Active = 40 KB/s Idle = 364 bytes/s

Network Requirements

Before installing a SmartView 2 system on-site, the following ports will need to be open for outbound traffic for the system's basic functionalities. Failure to set up the network properly will result in registration issues and delays in installation time.

Addresses or Protocol	On Port	Data Packet Type	Usage
DNS	53	TCP / UDP	Standard port for DNS name resolution.
HTTPS	443	TCP / UDP	Standard port for HTTPS communication.
ICMP	Not Applicable	Not Applicable	The Internet Control Message Protocol (ICMP) - used for reporting errors and performing network diagnostics.
NTP	123	TCP / UDP	Standard port for the Network Time Protocol (NPT).
HTTP	80	TCP / UDP	Standard port for HTTP communication – recommended for Cloudflare services and needed for internal tests and webserver access

For detailed network security associated with the system or questions about the information mentioned above, please contact RATH by AVIRE at 1-800-451-1460 or emailing rath-janus@avire-global.com





N56 W24720 N. Corporate Circle • Sussex, WI 53089 | 800-451-1460