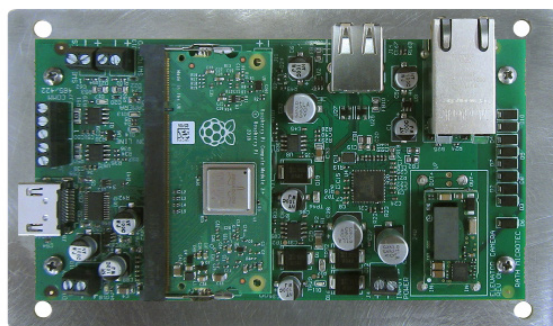
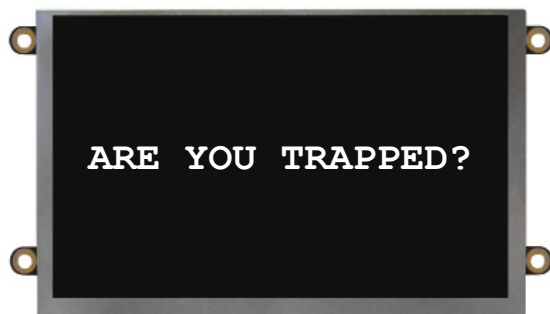




# Installation & Operations Manual



## *SmartView Visual Communication System*



Thank you for purchasing the SmartView Visual Communication System. We are the largest Emergency Communication Manufacturer in North America and have been in business for over 35 years.

We take great pride in our products, service, and support. Our Emergency Products are of the highest quality. Our experienced customer support teams are available to remotely assist with site preparation, installation, and maintenance. It is our sincere hope that your experience with us has and will continue to surpass your expectations.

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# Pre-Installation Requirements

## 1. Internet Connection:

- Routed Internet connection using DHCP  
(Network must use private IP address ranges 10.X.X.X or 192.X.X.X or 172.X.X.X)

**OR**

- Cellular modem with data (available from RATH®)

## 2. Laptop with a network connection for testing

## 3. Power Option: 2100-SVE Ethernet Extenders

## 4. SmartView Controller, SmartView Display, and SmartView Camera

## 5. YES and NO or DOOR OPEN and DOOR CLOSE buttons

# Installation

## Hardware Mounting

1. Mount the SmartView Controller in the elevator using the provided adapter plate or mounting kit.
2. Mount the Camera in the panel or ceiling of the elevator using the provided hardware. The Camera must be no more than 15 feet from the Controller.
3. Connect the Camera to the Controller using the provided USB cable.
4. Mount the SmartView Display in the elevator panel. The Display must be no more than 20 feet from the Controller.  
**Note:** Reference Appendix A for Display part numbers and window thickness.
5. Connect the Display to the Controller using the provided HDMI cable.
6. Connect the Display power output (J10) to the SmartView Display power input using the provided cable.  
**Note:** The Controller output power (J10) is only compatible with the SmartView Display.  
**Note:** For use with the CE Elite Pi Display, you must order the Display with the proper software and also the correct SmartView Controller part number. Rath Communications is not responsible for any incompatibility issues that may occur due to changes by CE. It is recommended to contact CE directly for troubleshooting display.
7. Connect the button designated for “YES” to the Controller terminal labeled “YES”.
8. Connect the button designated for “NO” to the Controller terminal labeled “NO”.  
**Note:** Use 24AWG wire minimum and 18AWG wire maximum.

## Powering Unit

### 1. 2100-SVE Ethernet Extenders

- a. Reference diagram on page 5 as a guide.
- b. Place the main injector unit and UPS in the machine room or network room.
- c. Connect the provided Ethernet cable from a routed network switch to the LAN/PoE port on the main injector.
- d. If the power LED on the main injector illuminates green after the Ethernet cable is connected, skip to step e. If the power LED does NOT illuminate, plug the included power supply into the UPS.
- e. Use an existing single pair or run a single pair of wire from the main injector unit to the remote extender unit.  
**Note:** 18AWG wire is recommended.
- f. Using the provided RJ45 adapters, wire to pins 1 and 2 and connect the adapters to the Interlink port on the main injector and Interlink port on the remote extender.
- g. Connect the provided Ethernet cable from the PoE Out port on the remote extender to the Ethernet port on the Controller Board.

**If the network switch being used for the system is POE or POE+ DO NOT connect the included power supply for the extenders.**

# Operations and Testing

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

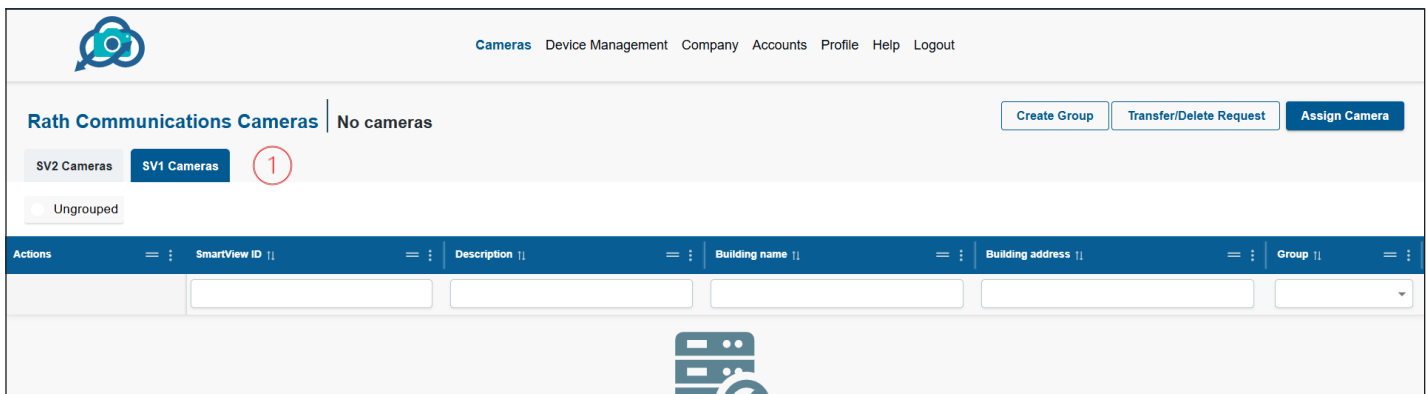
**Note:** A laptop or computer with a network connection is required for testing.

1. Navigate to <https://www.smartviewhub.com> on a web browser.
2. Log in to <https://www.smartviewhub.com> using test credentials. Login credentials are case sensitive.

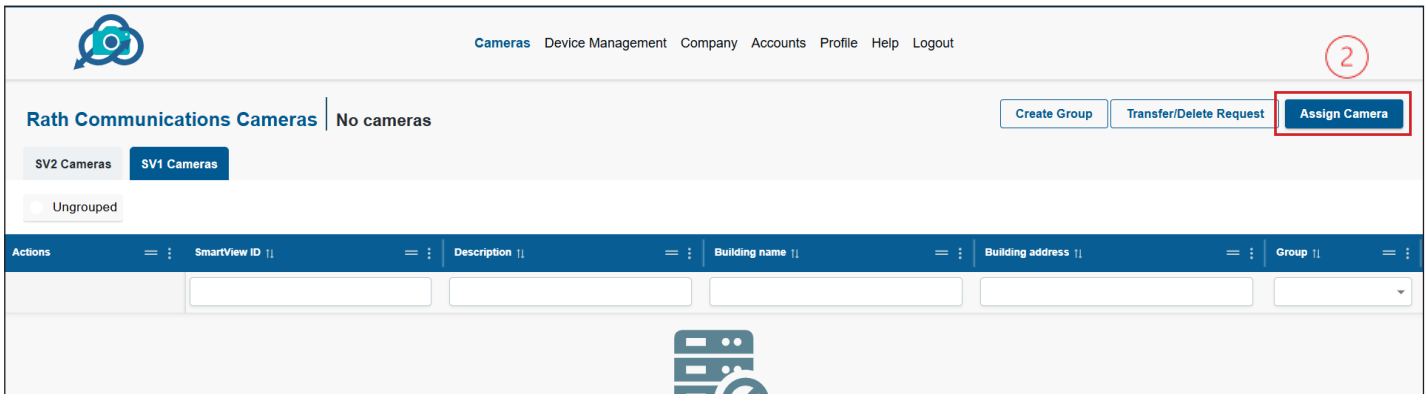
[If you do not have a SmartView Hub account, click the “Register for an Account” link under the login box and complete the registration form. Registrations may take up to 24 hours to complete. For expedited account creation, please call Rath customer service at 1-800-451-1460.](#)



3. Once logged in to [smartviewhub.com](https://www.smartviewhub.com), click the **SV1 Cameras** tab on the left side of the page.

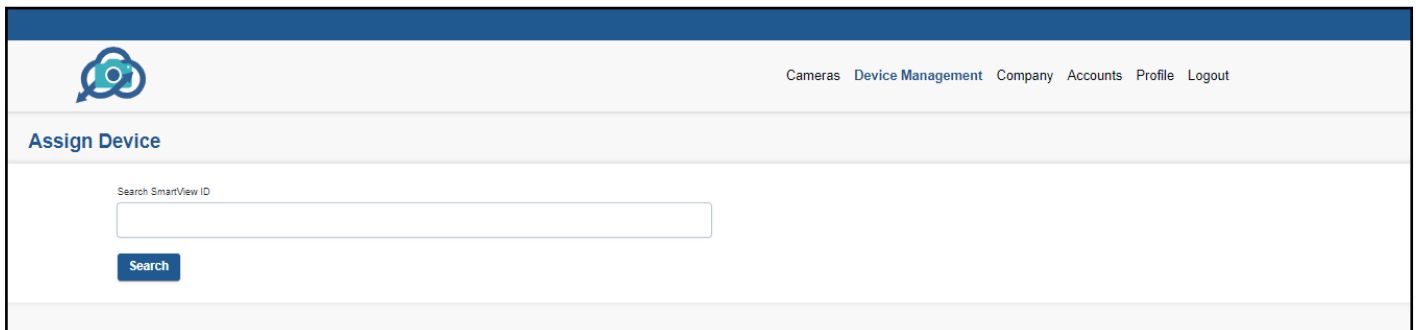


4. Once in the SV1 Cameras tab, click the **"Assign Camera"** button in the top right corner

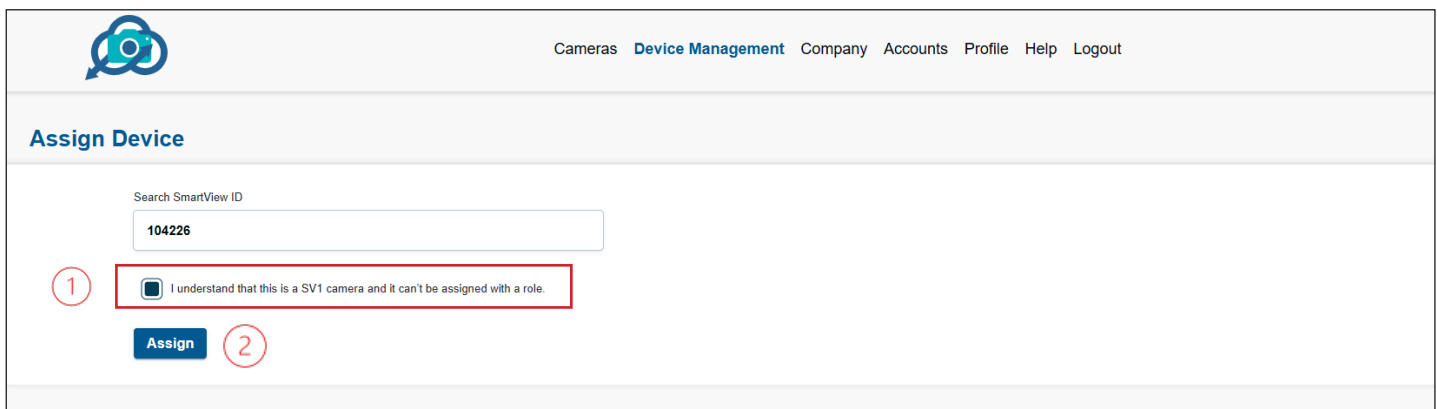


5. In the Assign Device window, enter the SmartView ID for the device you're trying to test in the Search SmartView ID field, then click the **"Search"** button.

**NOTE:** The SmartView ID is found on the back of the SmartView 1 controller board.

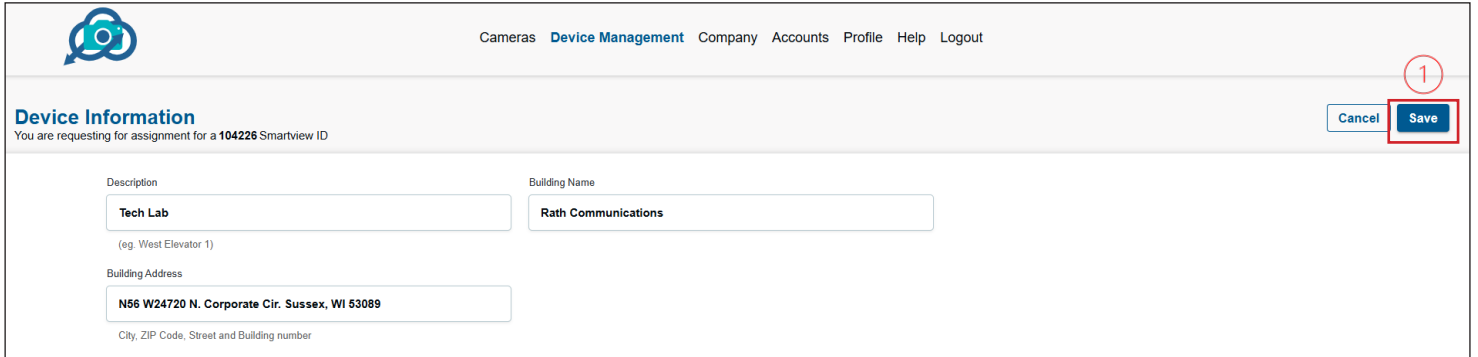


6. After search results appear, check the box next to "I understand that this is a SV1 device and cannot be assigned a role box. Then click **"Assign"**.



7. In the "Device Information" window, entire device information then click **"Save"** on the right side of the page.

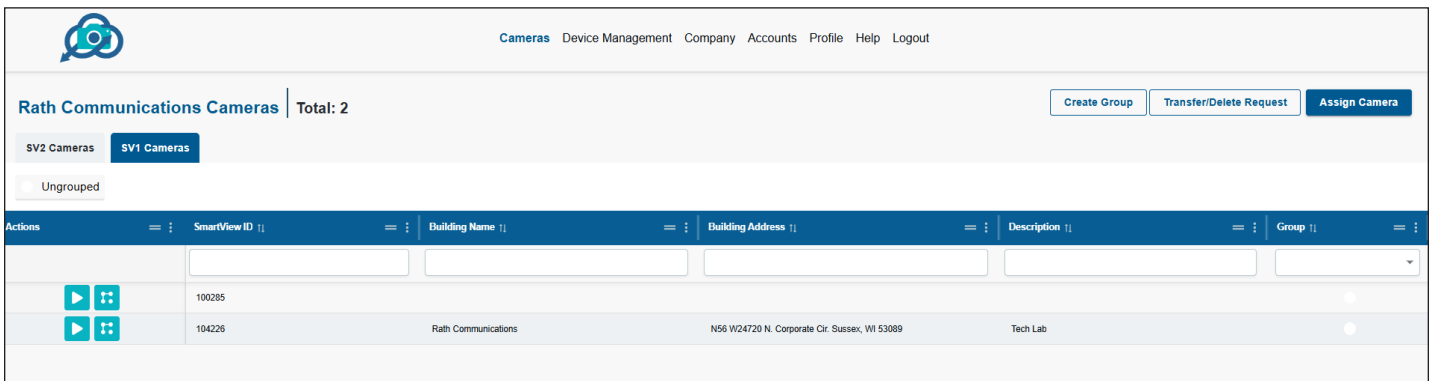
**NOTE:** Fields on Device Information page are not necessary to fill out for testing unless desired.



The screenshot shows the 'Device Information' form. At the top, there is a navigation bar with 'Cameras', 'Device Management', 'Company', 'Accounts', 'Profile', 'Help', and 'Logout'. The 'Device Information' title is on the left, and 'Cancel' and 'Save' buttons are on the right. The 'Save' button is highlighted with a red box and a circled '1'. The form contains three input fields: 'Description' with the value 'Tech Lab', 'Building Name' with the value 'Rath Communications', and 'Building Address' with the value 'N56 W24720 N. Corporate Cir. Sussex, WI 53089'. A small note '(eg. West Elevator 1)' is visible below the description field.

8. The added SmartView 1 device will automatically appear on the camera list and is ready for testing. Repeat until all SmartView devices have been added to your account.

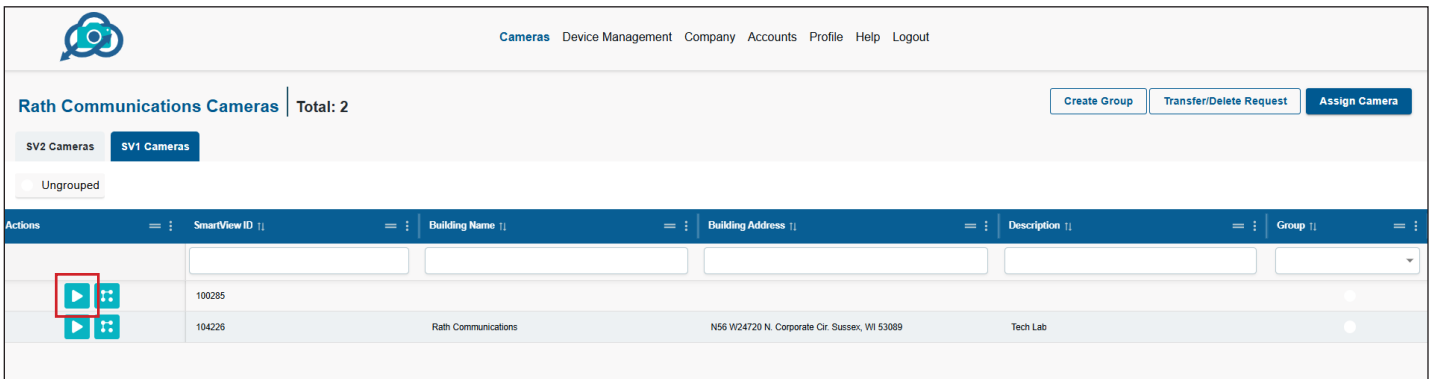
**NOTE:** To view a SmartView device, it must be added to your account.



The screenshot shows the 'Rath Communications Cameras' list. The title is 'Rath Communications Cameras | Total: 2'. There are buttons for 'Create Group', 'Transfer/Delete Request', and 'Assign Camera'. Below the title, there are tabs for 'SV2 Cameras' and 'SV1 Cameras', with 'SV1 Cameras' selected. A table lists the devices:

Actions	SmartView ID	Building Name	Building Address	Description	Group
	100285				
	104226	Rath Communications	N56 W24720 N. Corporate Cir. Sussex, WI 53089	Tech Lab	

9. After adding device to account, scroll to the right and click the "Play" button next to desired unit.



This screenshot is identical to the previous one, but the 'Play' button icon in the first row of the table is highlighted with a red box.

10. In the redirect pop-up click the **"Continue"** button to acknowledge you are being directed to the SmartView 1 viewing site.



11. The camera feed will appear in the Live Preview window.

12. Type a test message in the text box labelled "Type to Communicate with Passengers".

13. Send the message by clicking the Send button.

14. Verify the test message appears on the SmartView Display.

15. Press the "YES" or "Door Open" response button on the elevator panel. Verify the "YES" response appears on the website.

16. Press the "NO" or "Door Closed" response button on the elevator panel. Verify the "NO" response appears on the website.



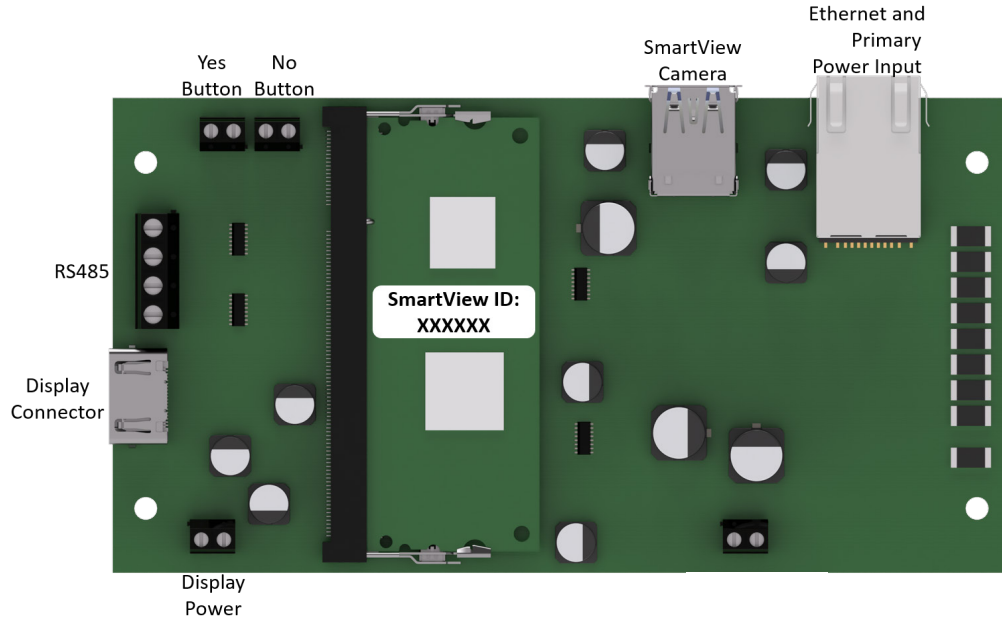
17. After all testing is complete, close out of the Live Preview window.

# Troubleshooting

Problem	Possible Cause & Solutions
The Display is blank:	<ul style="list-style-type: none"> <li>• The display will only power when the system is accessed via the SmartView Software. Follow the steps in the Operations and Testing section to verify.</li> <li>• Verify the polarity from the Display Power Port on the Smartview Controller to the display. The display is polarity sensitive.</li> <li>• Verify when accessed by the SmartView site, the Display Power Port on the SmartView controller has 5vdc.</li> <li>• Verify the HDMI cable from the controller to the display is connected and fully seated.</li> </ul>
The Software says device is offline or not connecting:	<ul style="list-style-type: none"> <li>• Verify the Controller has a routed Internet connection and a minimum of 5MB/S.</li> <li>• Verify building's network starts with an IP address of 192, 10, or 172.</li> <li>• Verify the Ethernet port on the Controller has an amber light and flashing green light.</li> <li>• Unplug the Ethernet cable from the SmartView controller and plug it into a laptop and verify web browsing capabilities on the connection.</li> <li>• In some cases, a firewall will block the SmartView device. An exception may need to be made for the device in firewall settings. Contact RATH® for the MAC address of your device if necessary.</li> <li>• Power cycle controller board by disconnecting Ethernet cable for 20 seconds then reconnect.</li> </ul>
The software says invalid SmartView ID:	<ul style="list-style-type: none"> <li>• Verify that the ID number was entered correctly into the viewing site.</li> <li>• Verify ID being entered matched ID on Smartview controller.</li> </ul>
Finding device's IP address:	<ul style="list-style-type: none"> <li>• Hold the Yes and No (or Door Open Door Closed if applicable) buttons simultaneously for 7 seconds.</li> <li>• The display will show the device's IP address and server connection.</li> </ul>
2100-SVE has no Internet in elevator car:	<ul style="list-style-type: none"> <li>• Verify the PWR, ETH, and PCL LEDs are illuminated on Main and Remote Extender.</li> <li>• Connect remote unit to main unit using a short Ethernet cable. Verify PWR and PLC light are illuminated when connected.</li> <li>• Verify wires to elevator car are on pins 1 and 2 of RJ-45 terminal connectors on the Interlink Ports.</li> </ul>
SmartView controller not communicating with CE Display:	<ul style="list-style-type: none"> <li>• SmartView controller may not have the correct software on it. Unit must be a model number 2100-SVCCE or have a serial number of G22 or later.</li> <li>• CE Display must be an Elite PI.</li> <li>• CE Display may not have correct software loaded onto it.</li> <li>• Please contact CE directly for any issues integrating SmartView.</li> </ul>
Can't log in to the SmartView Hub:	<ul style="list-style-type: none"> <li>• Verify the e-mail and password used to log in to the Hub is accurate.</li> <li>• E-mail and password is case-sensitive. Verify caps lock is not on and characters are correct.</li> <li>• Password may be incorrect and may need to be reset. Click "Reset Password" link to reset.</li> </ul>

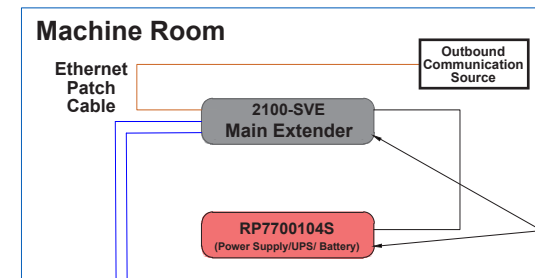


# Controller Layout



## Installation & Wiring Diagrams

### Typical Wiring with Ethernet Extenders (2100-SVE) (Must be Supplied by RATH®)

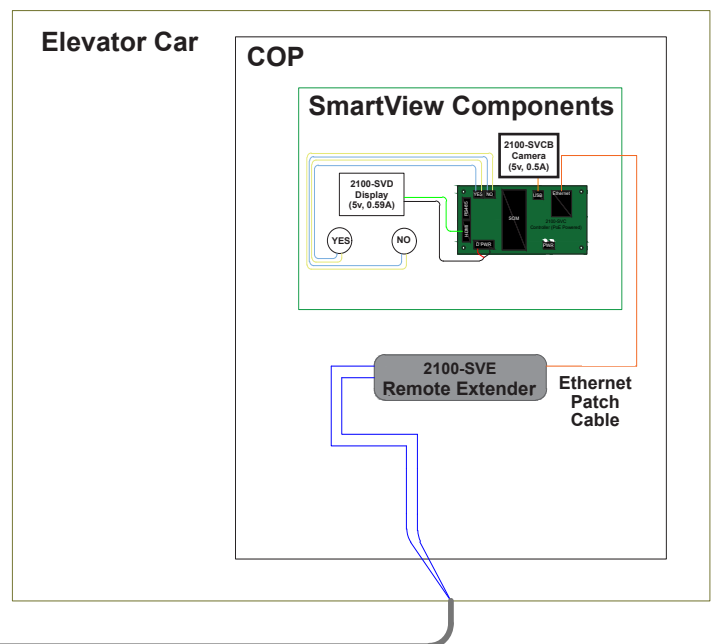


Single Pair  
Wire to pins 1 and 2 of the RJ45 connector  
Extends power and communication up to 1,600 feet

#### Notes:

- 2-wire from main Extender to remote Extender
- Ethernet Patch Cable from communication source to main Ethernet Extender
- Ethernet Patch Cable from remote Ethernet Extender to SmartView Controller

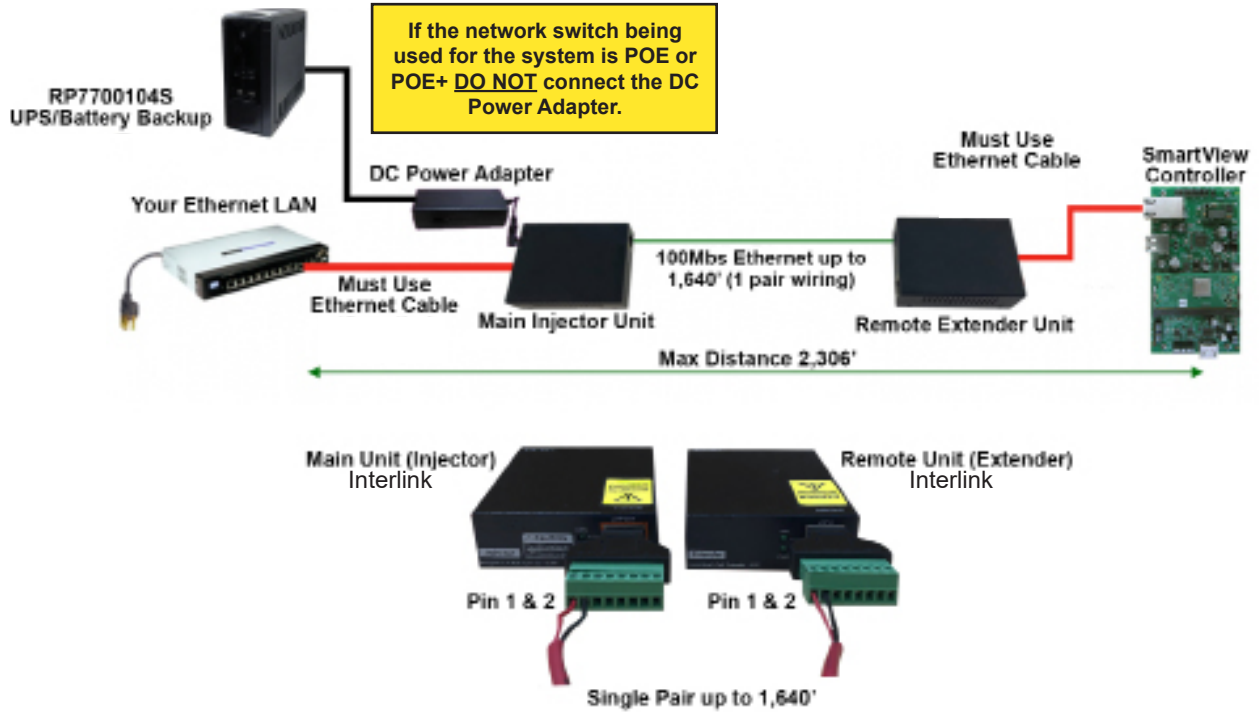
Battery backup can be done remotely.



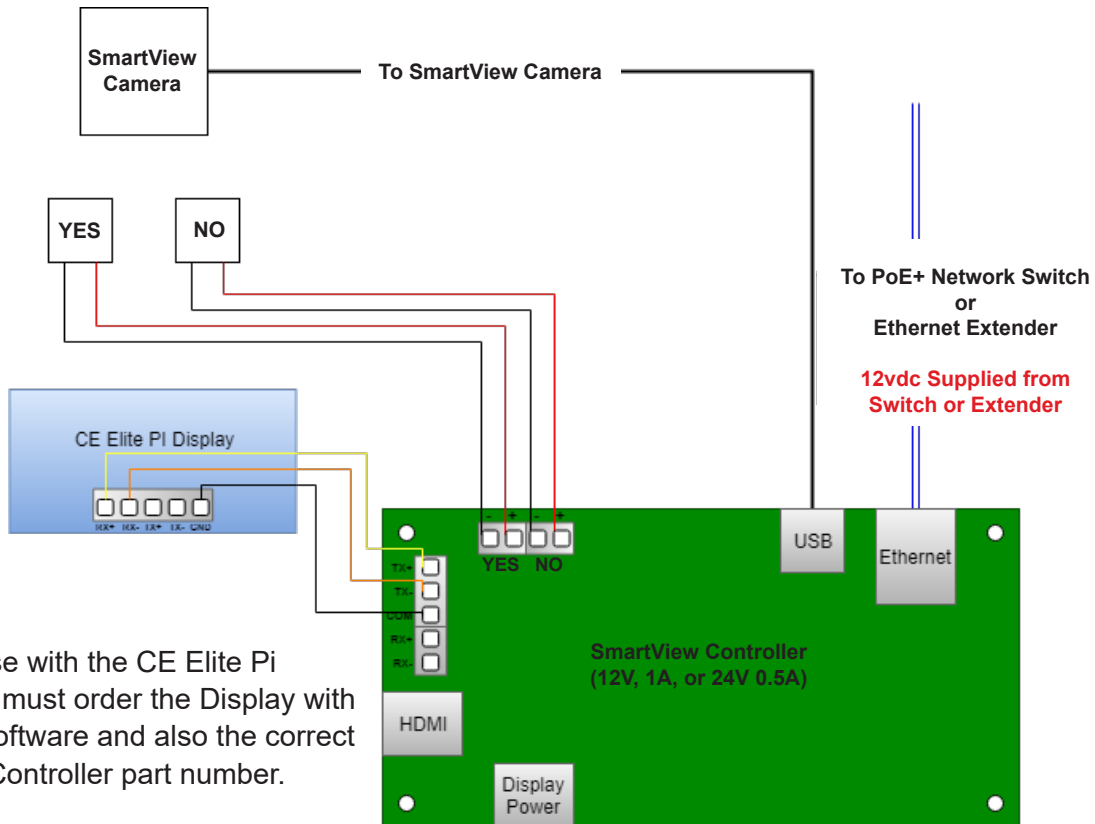
## Wiring Example (Preferred Option for Standard Travel Cable):



- **Extender Power:** Supplies 1A to the SmartView Controller
- **Extender Wiring:**
  - Extends up to 1,640 feet over single pair of wiring between Extenders (requires single pair, 18-24ga, shielded or unshielded)
  - Ethernet Patch Cable with RJ45 connectors required from network switch and the SmartView Controller to each Extender
  - Main Unit (Injector) has LAN/PoE (Internet connection) and Interlink (two wire connection)
  - Remote Unit (Extender) has Interlink (two wire connection from main unit) and LAN/PoE (Ethernet connection to SmartView Controller)



## Wiring to CE Elite Pi Display



**Note:** For use with the CE Elite Pi Display, you must order the Display with the proper software and also the correct SmartView Controller part number.

# Appendix A

## **SmartView Controller Specifications:**

- **Power Requirements:** 12v or 24v via Extender
- **Current Draw:**
  - 12v Active = 1A
  - 12v Idle = 0.5A
  - 24v Active = 0.5A
  - 24v Idle = 0.25A
- **Operating Temperature:** 32°F to 158°F (0°C to 70°C)
- **Dimensions:** 4" H x 7" W x 1.2" D

## **SmartView Camera Specifications (Powered by Controller):**

- **Power Requirements:**
  - Active = 5v, 0.12A
  - Idle = 0v, 0A
- **Operating Temperature:** 32°F to 140°F (0°C to 60°C)

## **SmartView Display Specifications (Powered by Controller):**

- **Power Requirements:**
  - Active = 5v, 0.59A
  - Idle = 0v, 0A
- **Operating Temperature:** -4°F to 158°F (-20°C to 70°C)
- **Screen Size:** 5 inches
- **Part Numbers:**
  - 2100-SVD** (0.0625" window)
  - 2100-SVDA** (0.125" window)
  - 2100-SVDB** (0.109" window)
  - 2100-SVDC** (0.078" window)
  - 2100-SVDE** (0.118" window)

# Appendix B

Example ID Table:

SmartView ID	Location/Description
10020	Elevator 1
10021	Elevator 2

ID Table:

SmartView ID	Location/Description