



Hosted by Robert Schulz

# Enhance Your Expertise

Kidde HDT

# Our COVID-19 Policy

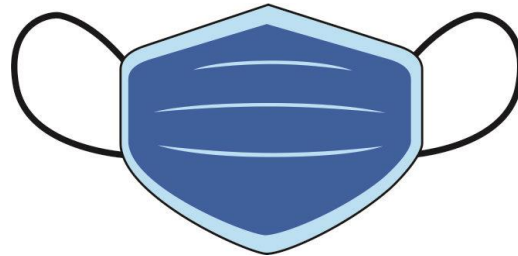
## FOLLOW THESE GUIDELINES

### WASH HANDS OFTEN



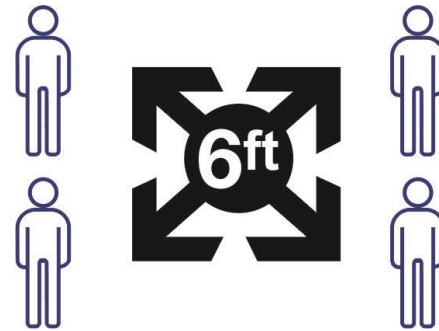
Wash your hands with soap and water for at least 20 seconds or use alcohol based hand sanitizer.

### WEAR A MASK



Students and trainers are required to wear masks at all times within our facilities. Masks are available.

### SOCIAL DISTANCING



Please adhere to Social Distancing Guidelines and stay at least 6 feet away.

### STAY HOME



Students with a sniffle or cold should NOT attend. Your class will be rescheduled at no additional charge.

*Thank you for your cooperation.*

# KI-HDT

The Kidde Handheld Diagnostic Tool (HDT) is a compact and easy-to-use unit featuring a touch screen to manipulate, test, and monitor the loop in the field using live data in real time.

- The HDT is ideal for verifying new projects, troubleshooting existing installations, or testing retrofits
- It can be used to initialize the device loop before connecting to a control panel, or it can be used for diagnosis and troubleshooting after loop connections are made to the controller






# MyEddie web address change



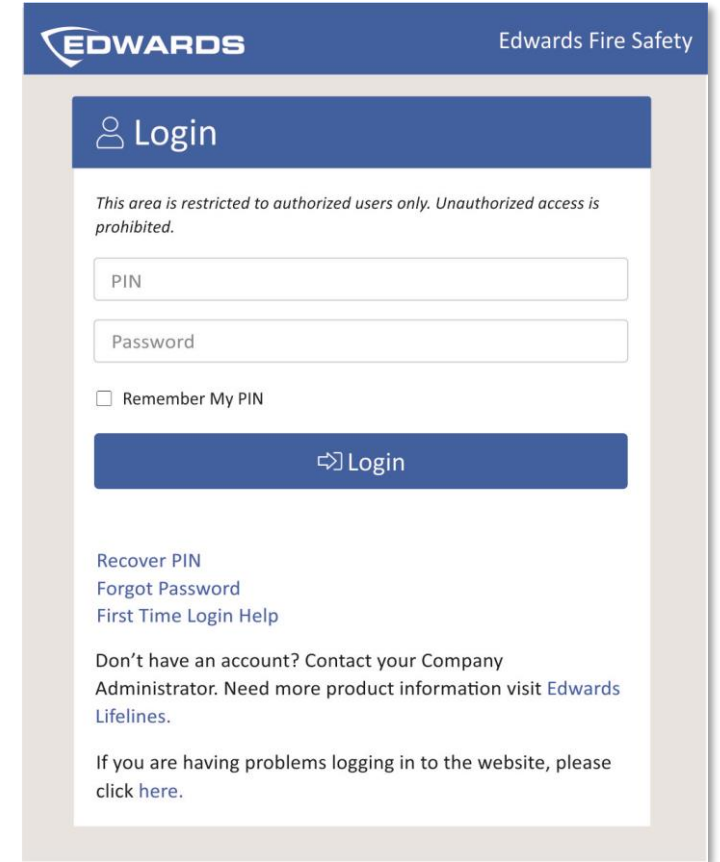
## What does this mean?

The new URL for MyEddie is <https://myeddie.edwardsfiresafety.com> instead of <https://myeddie.edwardsutcfs.com>.

-  Bookmark the new address
-  Share the new address with your team and colleagues
-  Update your records with the new URL

If you have any questions or need clarification, please contact the Edwards Sales Operations team at [edwards.fire@carrier.com](mailto:edwards.fire@carrier.com).

Scan the QR code  
to visit the new address



# Topics

---

- Loop initialization
- Loop restoration
- Map analysis
- Dirty level analysis
- Detector or module maintenance
- Single device diagnostics
- Loop history

# Search for HDT

## Products



### KI-HDT

Handheld Diagnostic Tool

#### Current Pricing

Available Quantity: 144

#### Future Pricing

MSRP/Trade Price:

Effective Date: 9/1/2021

Sale Price:

▷ [Media](#)

▷ [Key Features](#)

# Files on MyEddie

[Home](#)[Account](#)[Products](#)[Resources & Training](#)[External Links](#)[Log Out](#)

## Media

All Media

Name

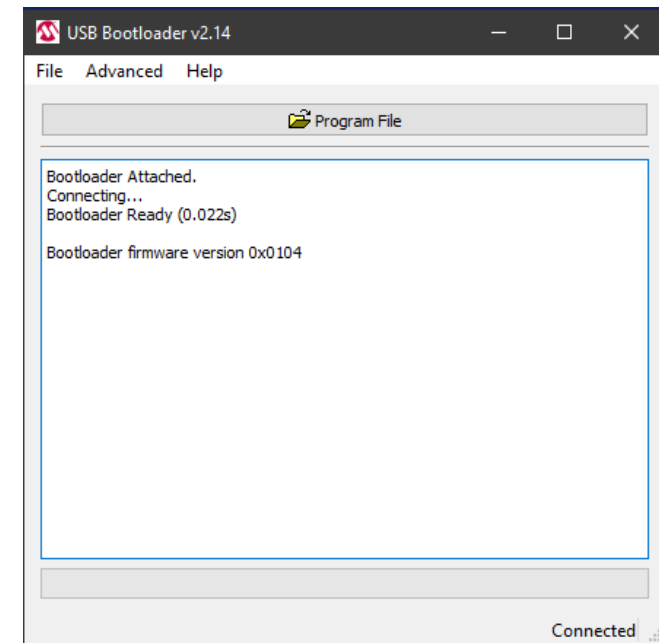
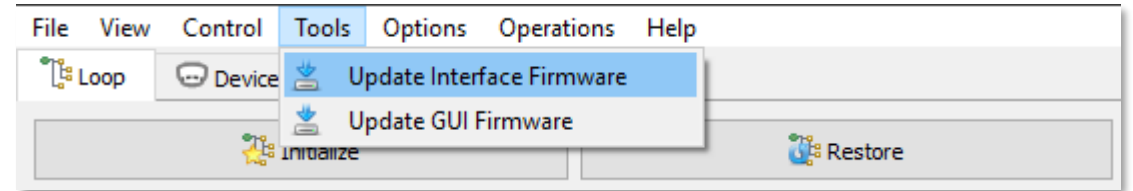
hdt

Active Media

Name	Description	Type	Last Updated	
KI-HDT Map Fault Diagnostics Application Guide	3102693 R001	Manuals	8/12/2020	<a href="#">Download</a>
KI-HDT Firmware, Interface	7351013 V1.28	Software	8/12/2020	<a href="#">Download</a>
KI-HDT Software, Computer	7351009 V1.8	Software	8/12/2020	<a href="#">Download</a>
KI-HDT/SIGA-HDT Firmware, Display	7350892 V132	Software	8/12/2020	<a href="#">Download</a>
KI-HDT V1.80 Release Notes	3102633 R002	Software Release Notes	8/12/2020	<a href="#">Download</a>
KI-HDT User Guide	3102576-EN R001	Manuals	5/4/2018	<a href="#">Download</a>
KI-HDT Signature Handheld Diagnostic Tool	3102575-EN R001	Installation Sheets	5/4/2018	<a href="#">Download</a>

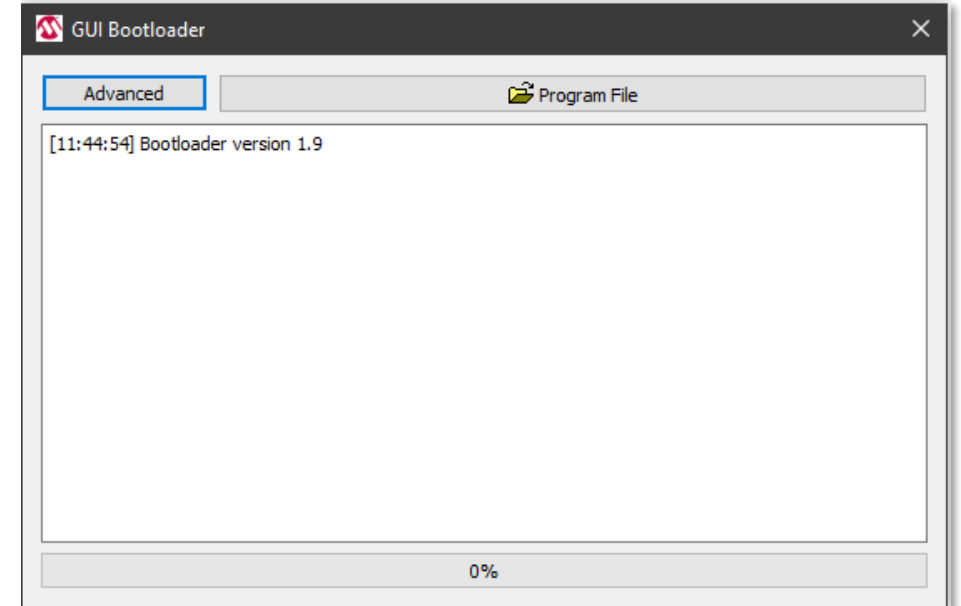
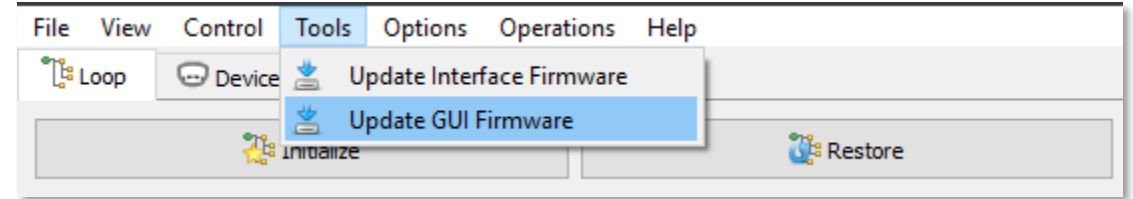
# Update KI-HDT

1. Install KI-HDT Computer Software
2. Connect USB cable to computer and KI-HDT with either supplied cable or a Micro-USB connection
3. Start Signature Diagnostics software
4. Update Interface Firmware
5. Select Program File button to browse to and select HEX file
6. When update is complete, KI-HDT will reboot



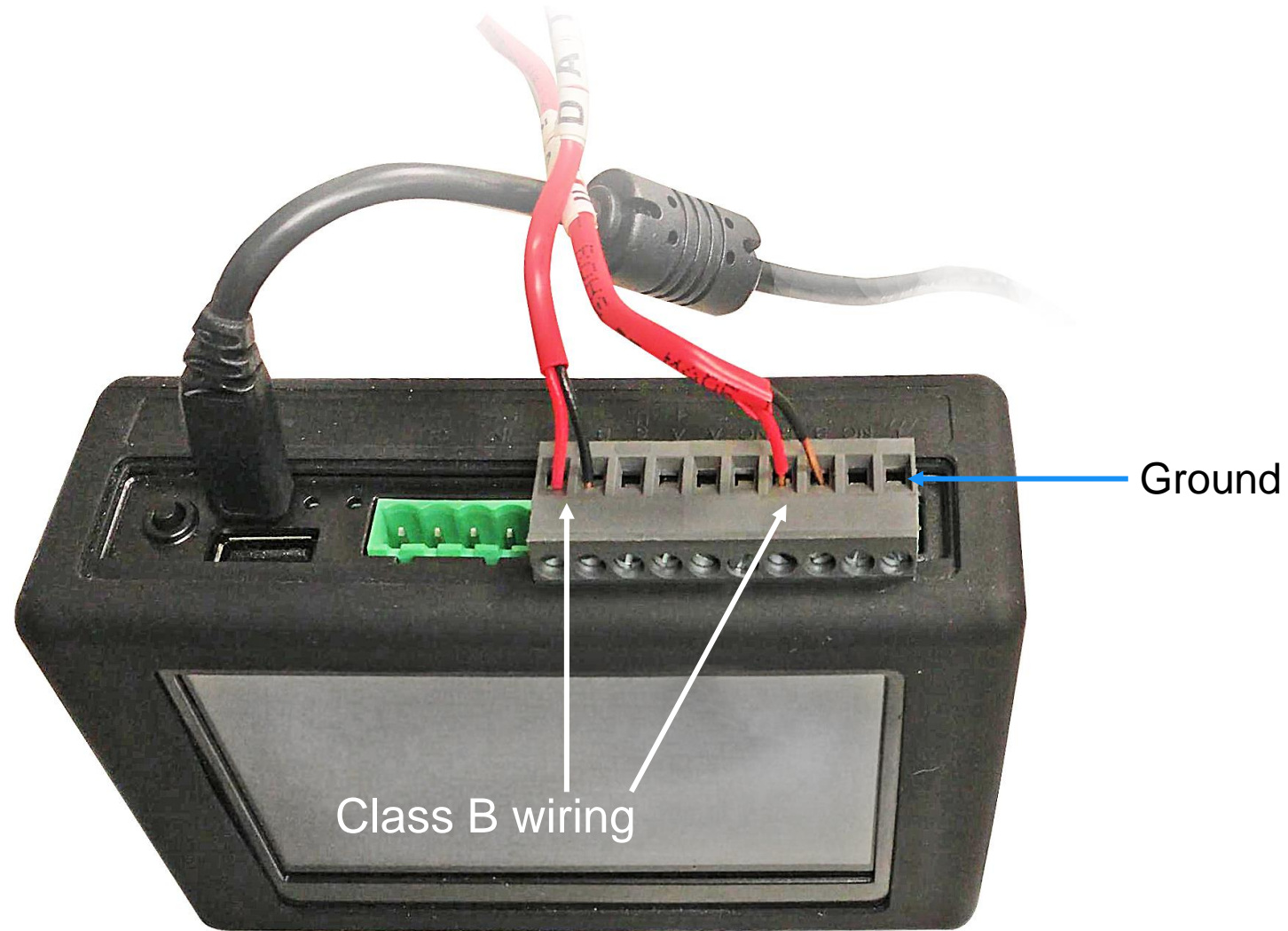
# Update KI-HDT

1. Update GUI Firmware
2. Select the Program File button to browse to and select the HEX file
3. The HEX file will update and the KI-HDT should reboot



# Wire connections

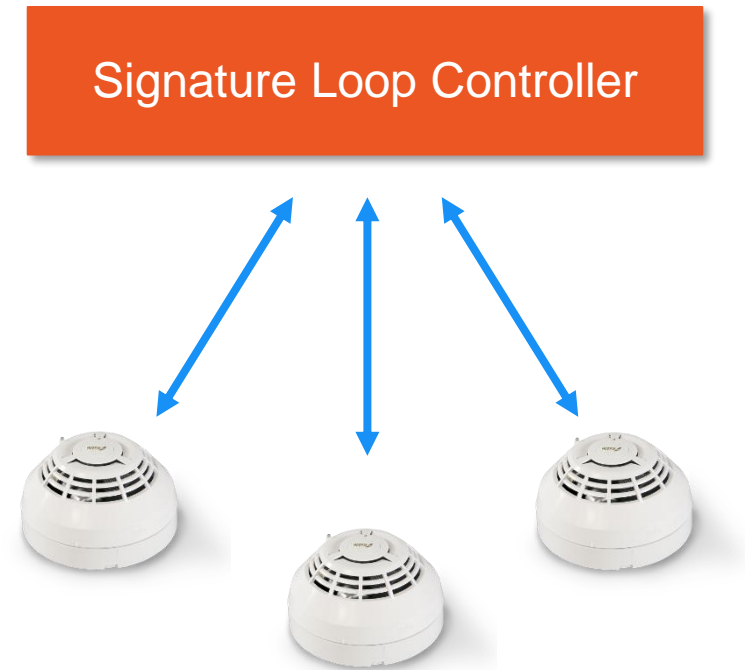
---



# Mapping

# Identify devices on the data loop

- The Signature Loop Controller asks for the highest serial numbered device in a New Start condition
- All Signature devices are shipped with a New Start Bit Set
- The Loop Controller communicates with each device until the device in a New Start condition with the highest serial number is determined



# Identify devices on the data loop

- When the device with the highest serial number is identified, the Loop Controller resets its New Start Bit and assigns the device a short address
- The Loop Controller repeats this process for the next highest serial numbered device in a New Start Condition
- The Loop Controller continues this process until there are no devices in a New Start condition
- The Loop Controller has identified all devices in its circuit

Signature Loop Controller

1

2

3

4

5

6

# Loop Controller develops path list

- When mapping is disabled, this is how the map displays
- All devices are in a straight line
- The Loop Controller knows what is on the circuit, but does not know the device's relationship with the other devices

	0	1	2	3	4
0	 = 15 = = 2051 = = IPHS = = 0 = L4_COMPRM_SMK9 SMOKE	 6 8744 HRS 0	 9 8515 HRS 0	 = 4 = = 9315 = = IPHS = = 0 = L8_SMK SMOKE	
1	 = 26 = = 8176 = = PHS = = 0 = L3_ELEV_SMK SMOKE	 = 10 = = 8755 = = IPHS = = 0 = L6_SMK SMOKE	 = 21 = = 6874 = = IPHS = = 0 = L4_COMPRM_SMK3 SMOKE	 3 2655 IPHS 0	
2	 = 13 = = 5264 = = PHS = = 0 = L5_ELEV_SMK SMOKE	 1 7705 PHS 0	 = 24 = = 7415 = = PHS = = 0 = L4_ELEV_SMK SMOKE	 = 5 = = 6838 = = PHS = = 0 = L8_ELEV_SMK SMOKE	
3	 = 8 = = 6050 = = PHS = = 0 = L7_ELEV_SMK SMOKE	 = 11 = = 3611 = = PHS = = 0 = L6_ELEV_SMK SMOKE	 = 2 = = 8919 = = IPHS = = 0 = L9_SMK2 SMOKE	 = 12 = = 8759 = = IPHS = = 0 = L5_SMK SMOKE	

# Loop Controller develops path list

---

- A Path List is a list of all the devices located along the shortest electrical path between a selected device and the Loop Controller
- The Loop Controller calls each device, asking it to draw current and tracks the device's response back to the Loop Controller

Signature Loop Controller

1

2

3

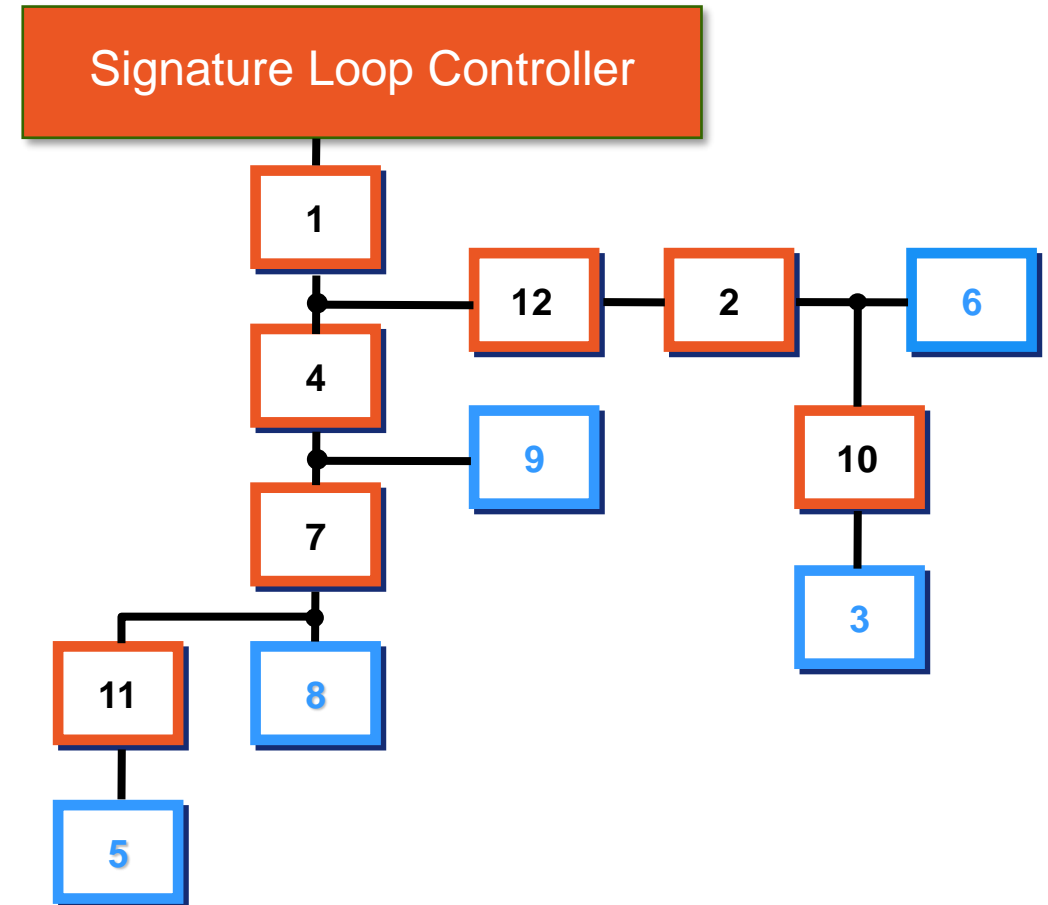
4

5

6

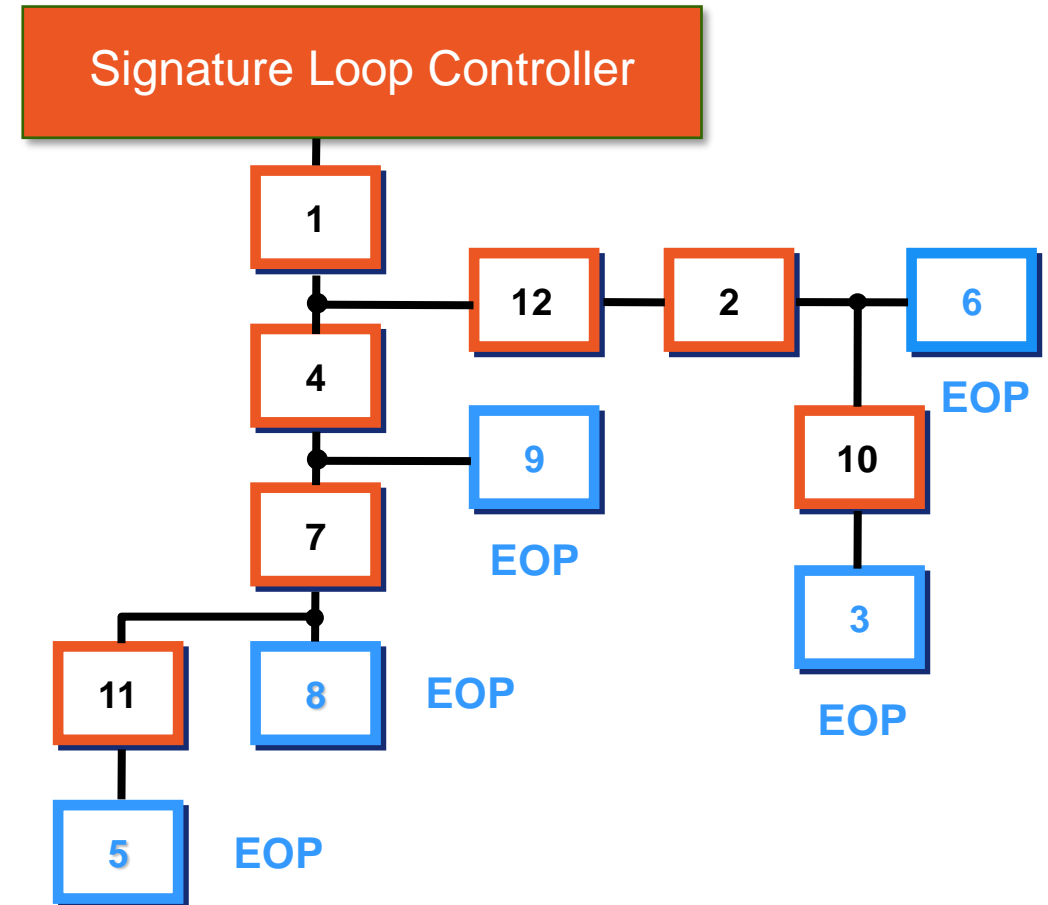
# Signature Path List

- The Loop Controller performs this task by making each device, in turn, draw current
- When a voltage drop is sensed at the device's dropping resistor, it responds to the Loop Controller in the electrical path
- With a completed Path List, the Loop Controller begins to see the relative locations of each device on the Loop



# Signature Path List

- The Loop Controller identifies the End-of-Path (EOP) Devices
- An EOP device is the last device on a branch
- Devices farthest from the Loop Controller on any given electrical path



# Signature Path List

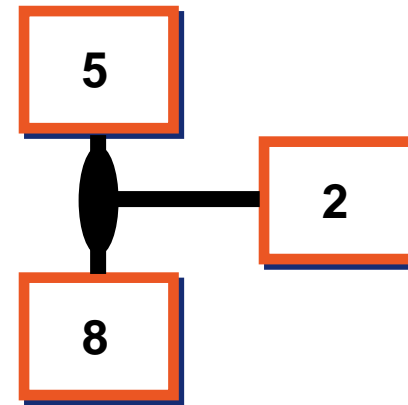
---

A Signature Path List is a list of the series and branch connections along the shortest electrical path between each EOP device and the Loop Controller

A series connection is a single, untapped wire between two devices



A branch connection is a simple T-tapped wire between three devices



# Map Fault Causes

# Causes of Map Faults

---

- Loose wire connections on detector bases, module terminals, at the SLC card, or at a T-tap
  - Ensure connections are secure and the wire at a terminal is mechanically stable
  - Loose connections cause contact resistance variations due to temperature changes, and this results in an intermittent connection
- Over-tightening a detector base onto the back box, causing it to warp, resulting in bad or intermittent connections with the detector head
- Replacing like devices in a SLC that has been left balanced
- Replacing devices with models that differ from the ones removed
- Adding new devices onto an existing SLC
- Rewiring an existing SLC

# Causes of Map Faults

---

- More T-Taps in the SLC than the maximum allowed for the system
- Resistance or capacitance in the field wiring in excess of that supported by the system
- Electrical noise or induced voltage
- Reversed polarity: connecting the SLC+ wire to the device SLC- terminal
- Corrosion on the detector base's spring clips, the detector head's contacts, or on the wire ends or screw terminals
- Dust or contaminants between the spring clips and contact
- Bent spring clips on the detector base
- Screw terminals that are loose or too tight
- Defective devices