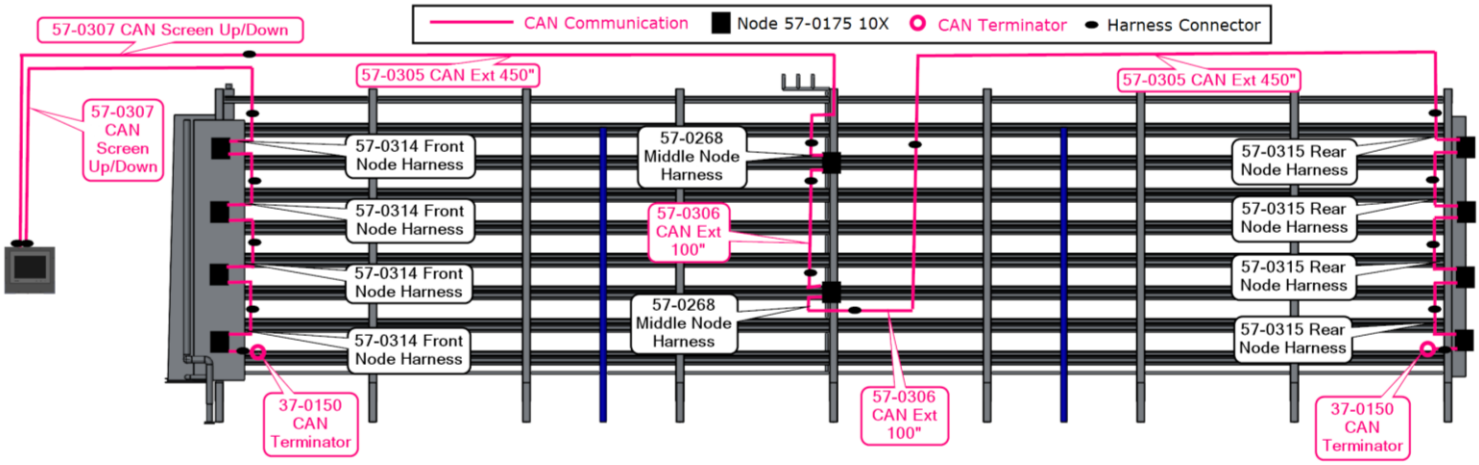
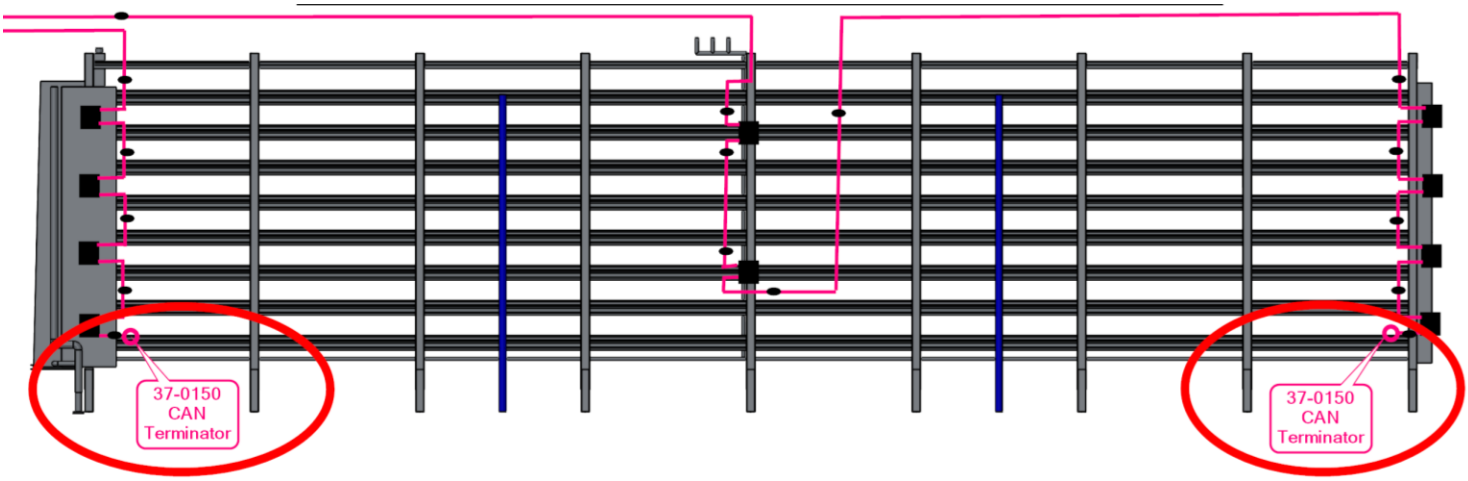
Isolating CAN Connection Failure

CAN Wiring Diagram



Locate the two CAN Terminators



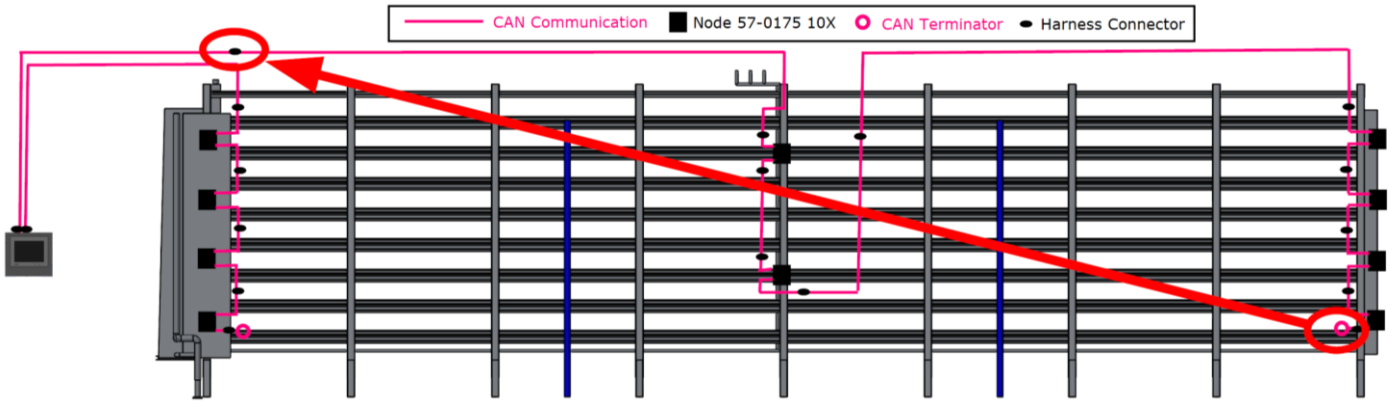
Test CAN Terminators

- Option 1 – Plug into a different operating system
- Option 2 – Test for 120-ohm ± 10 resistance

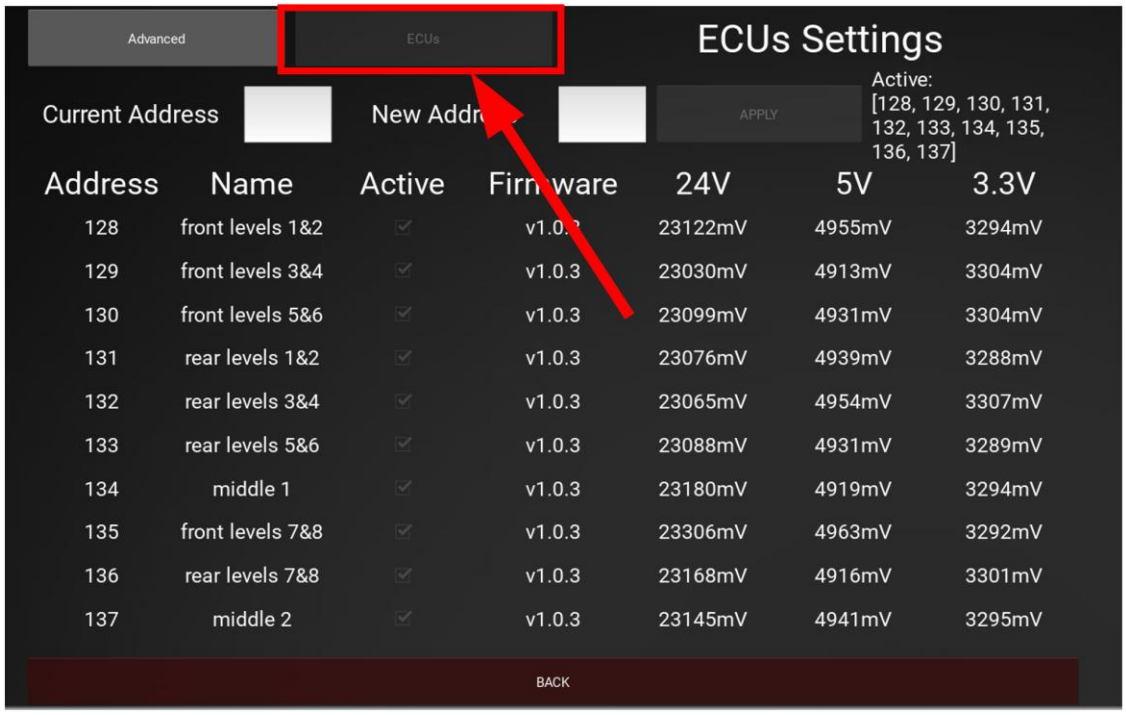
If a faulty terminator is found, replace it with a new one. If not, continue.

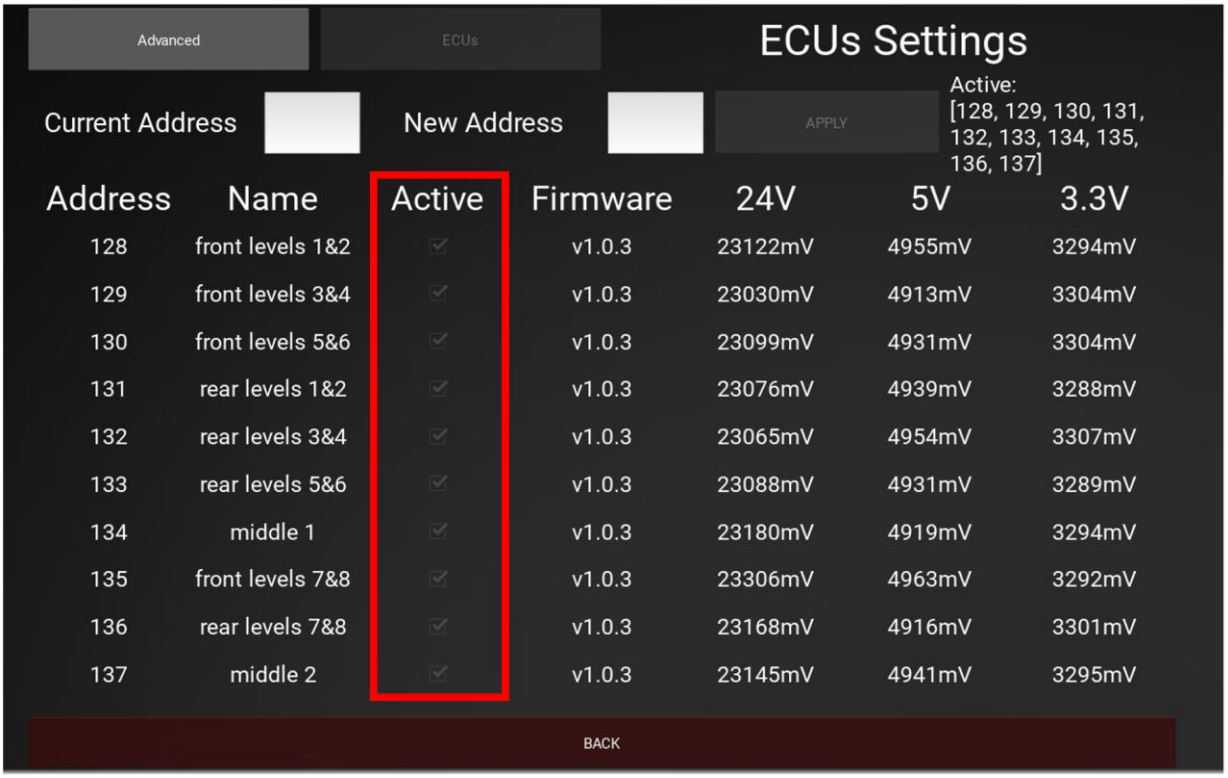
Isolating Harness Connection Failure Locations

- Move the terminator from the rear of the system to the extension from the screen leading to the rear of the system.

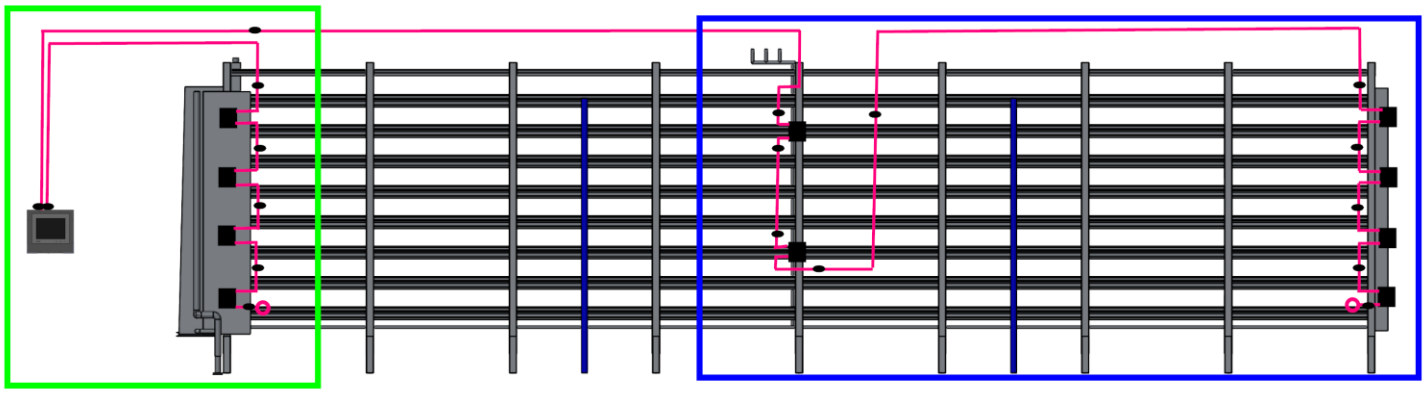


- After the Terminator is in place, enter  "Settings."
- Go to the ECU's Tab

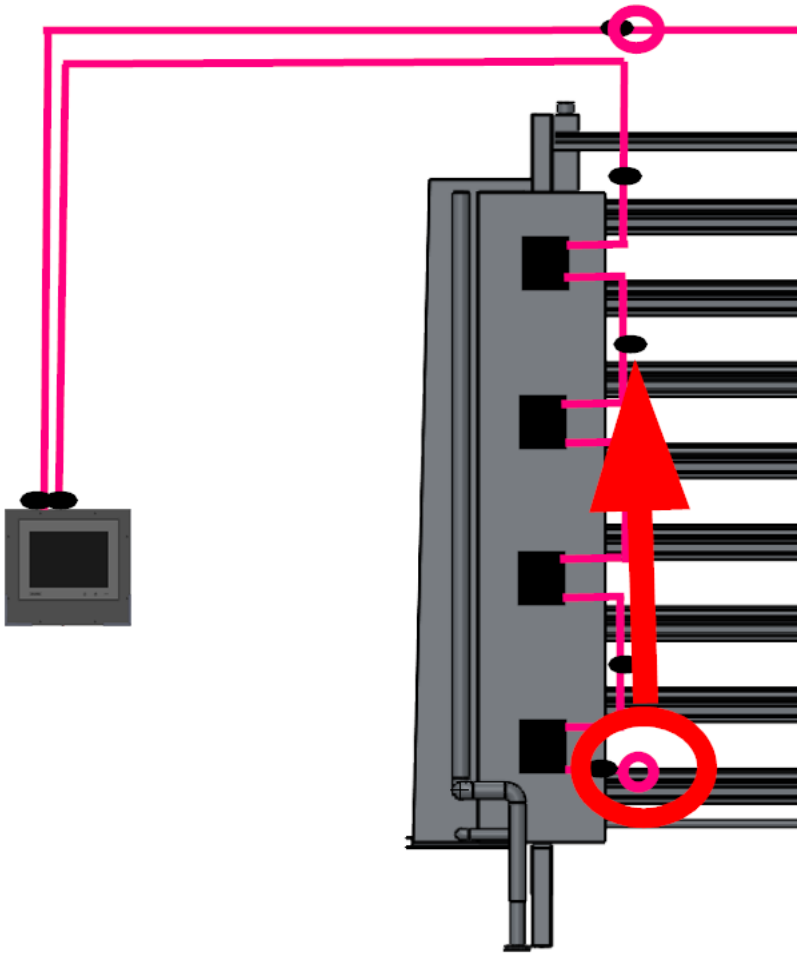




- View the “Active” column to ID any ECUs that have come online
  - If the front ECUs are online, the failure is on the rear of the system in BLUE. Skip to the page labelled BLUE
  - If no ECUs are online, the failure is in front of the system in GREEN. Skip to the page labeled GREEN.

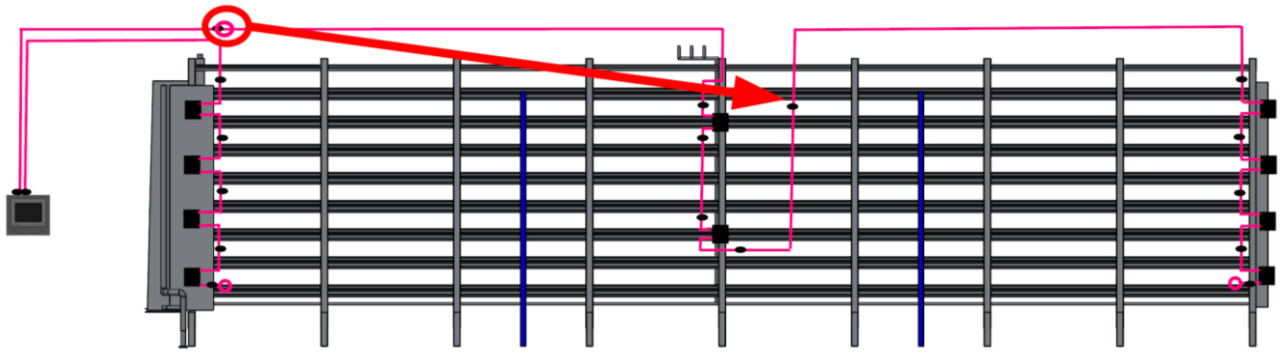


“If the front ECUs are offline, the failure is behind the Terminator.” GREEN



- Move the Terminator from the bottom of the front nodes to connector between the 3rd and 4th node
- View the “Active” column to ID any ECUs that have come online
    - If the front ECU is online, the failure is behind the Terminator. Move the terminator down the table past one node at a time and check if the ECU’s have gone offline. When they do, the issue is in the wiring covered by the last jump.
    - If no ECUs are online, the failure is between the Terminators
        - This can include connections between the screen and the front ecus.
        - You can rule out the front 4 ECU by moving the rear terminator back to its original position (this wire run has already been ruled out as the problem) and moving the front terminator above the front 4 ECU. If the ECUs come online, the issue is in the front 4 node harness. If not, the Issue is in the connectors leading to the screen.

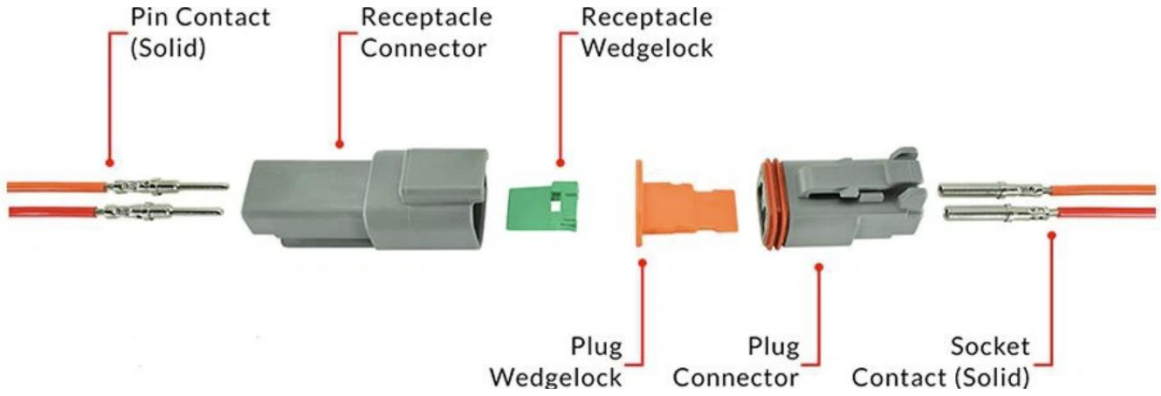
“If ECUs are online, the failure is behind the rear Terminator” BLUE



- Move Terminator to behind the middle nodes.
- View the “Active” column to ID any ECUs that have come online
    - If any ECUs are online, the failure is behind the Terminator. Move the terminator past each rear node one at a time and check if the ECUs have gone offline. If they do, the issue is located within the wiring covered by the most recent jump.
    - If no ECUs are offline, the failure is in the middle of the machine. Move the terminator FORWARD past each middle node one at a time and check if the ECUs have come online. When they do, the issue is in the wiring covered by the last jump.

Once the wiring fault location has been established, disconnect low current power by flipping the switch at the HMI and proceed to disassemble and inspect each connector in the target section. Confirm that no water has infiltrated into the connectors and check the crimp location for damaged wiring (e.g., crimp has sheared through the wire).

If the connector cannot be disassembled, push each wire into the connector to ensure the contact is latched. Tug firmly on the wire to ensure it is solidly gripped by the crimp and does not pull out of the connector.



If water is found within a connector, dry off the connector and clean off any corrosion present. Then apply some dielectric grease to the contacts and reassemble the connector. Ensure all connector water seals are installed on the connectors.

If a broken wire is found, a new contact will need to be crimped onto the wire and the connectors reassembled.