REPLACEMENT

ISC CAM

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INTRODUCTION

INTENT OF THE ISC CAM REPLACEMENT MANUAL

The purpose of this document is to outline the operations required to replace an Intralox® Smart Carryway (ISC) Carryway Automation Module (CAM) on Intralox equipment. Experienced personnel must perform these procedures. The procedures take approximately 30 minutes to complete.

When there is a need to upgrade from ISC CAM v1.0 to v2.0 and the ISC CAM is used in combination with a line-controller connected over ethernet, additional time is required to upgrade the PLC communication interface. See figure 3 of this document for identification of ISC CAM v1.0 and ISC CAM v2.0. ISC CAM integration documentation is available on the Intralox website. See our ISC Setup page on the Intralox website.

It is highly recommended to get in touch with Intralox Life Cycle Services before starting this process, Intralox Life Cycle Services will be able to assist during this operation.

SUPPORT DOCUMENTS

Gather the following support documents before starting the ISC CAM replacement.

Mechanical Drawing: The drawings provide the Intralox equipment dimensions and identify component positions.

Additional support documents are also required. See our ISC Setup page on the Intralox website for the following support documents:

- ISC CAM Connection diagrams
- ISC CAM Network integration Documentation
- ISC CAM Commissioning Documentation
- ISC CAM HMI Instructions

PREPARATION

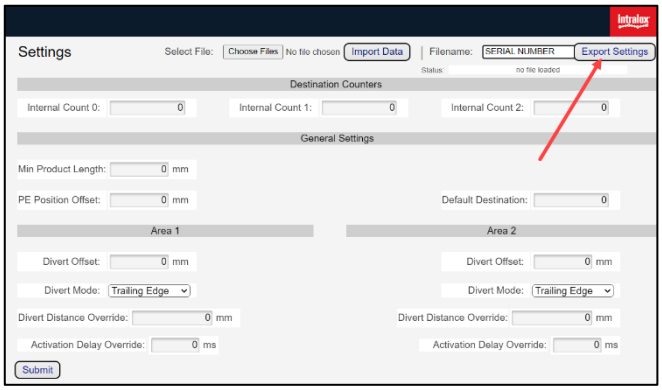
1. Gather the Connection Diagram, Network integration Documentation files and Virtual HMI (vHMI) instructions. Customers can download those files by scanning the QR code on the ISC CAM, or they can be found on the ISC CAM web page: ISC Setup.
2. Make sure the ISC CAM is powered on.
3. Connect the network cable from your laptop to a free ethernet port on the ISC CAM module. If no port is available, find another connection point available in the line and use it to establish communication with the ISC CAM.

Figure 1: ISC CAM

Use the vHMI to export the application and setting files from the installed ISC CAM. If it is not possible to access the ISC CAM. Retrieve the application and setting files from the equipment technical file or contact Intralox Customer Service.

1. ISC Service Tool: This tool, available on the ISC webpage, is used to identify the current IP address set on the ISC CAM. If you're unable to find the IP address, you can contact Intralox Customer Service for assistance.
2. Accessing the vHMI: Once you have the IP address, you can access the vHMI by opening a web browser and pasting the IP address in the browser bar.
3. Taking a Screenshots: It's important to take screenshots of the current vHMI screens. These screenshots will be used later in the "Configure ISC CAM" section to confirm that all parameters were correctly copied.
4. Exporting Settings: Go to the vHMI SETTINGS page and click on "Export settings". This will export the Application File (.apl), which contains all the specific parameters for your installation. Make sure to save this file to your computer for future reference.

Figure 3: Network cable



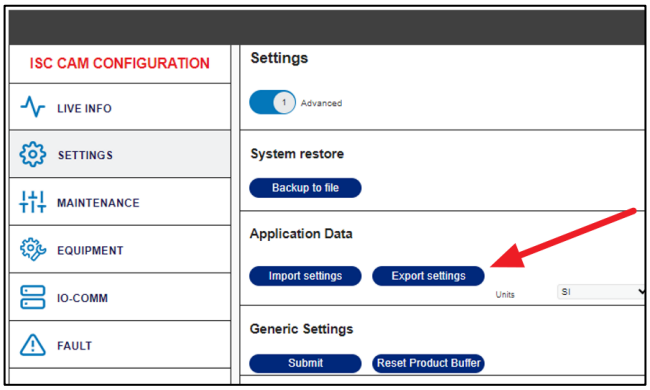


Figure 4:Export files from ISC CAM vHMI (left is v1.0, right is v2.0)

HARDWARE REMOVAL

1. Make sure that the ISC CAM is powered down.

Lockout/tagout ALL energy sources before servicing equipment.

2. Disconnect all cables from the ISC CAM:
    a. Power port,
    b. C0 to C3 ports,
    c. Network connection ports

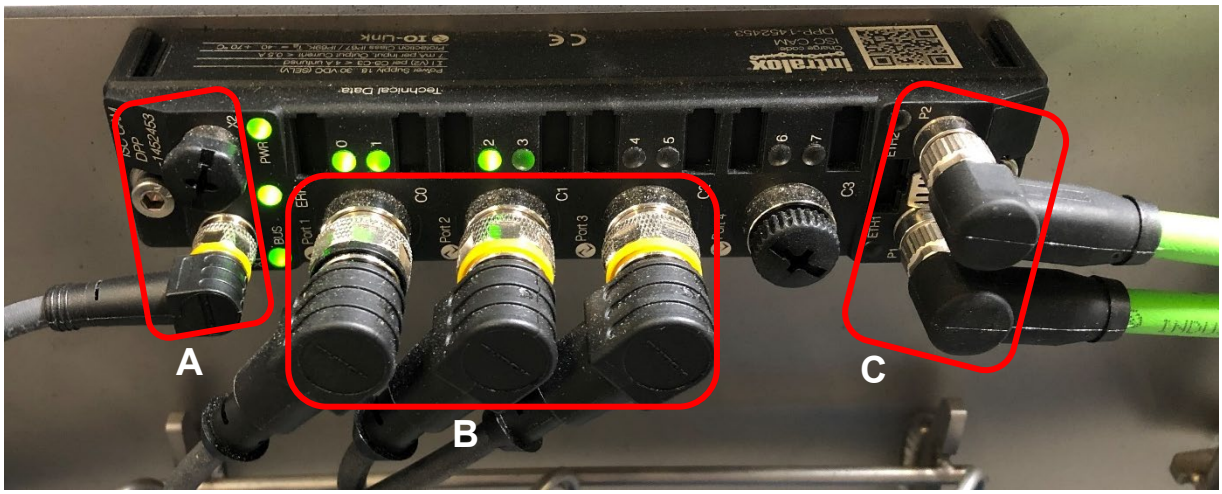


Figure 5: Disconnect all cables

3. Remove the ISC CAM by removing the two screws on either end of the module.

Figure 6: Screw locations

MECHANICAL INSTALLATION

Mount the new ISC CAM on the conveyor using the following steps:

1. Install the ISC CAM on the side panel.

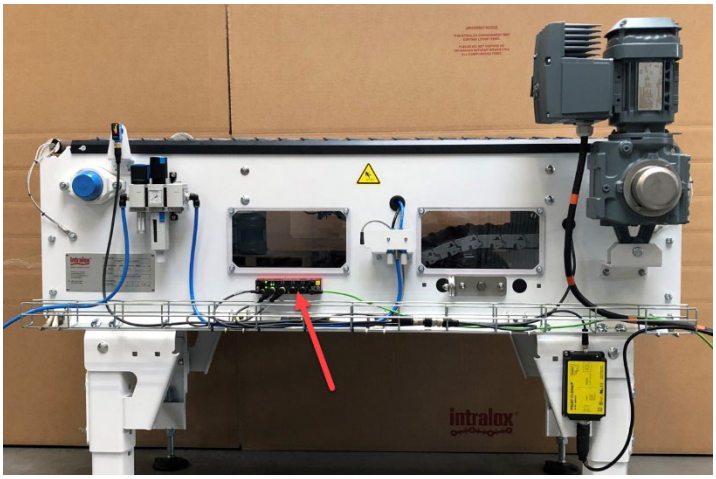


Figure 7: Install ISC CAM to side panel

2. Connect the cables to the same ports they were removed from. Refer to the connection diagram provided for your specific conveyor.
    a. All cables are color-coded, as specified in the connection diagram, to ensure correct connections. Some have colored rings on connectors and others have colored cables (e.g., green network cables).
    b. Cable connectors must be torqued properly to ensure they do not disconnect during production and to ensure proper IP rating. Refer to connection diagram for proper torque values.
    c. Install dust caps to protect any connectors that are not used.

3. Connect all cables to the ISC CAM.

Figure 8: Cable connections and color coding

CONFIGURE ISC CAM

Import and set up the configuration files in the new component.

Connect the power cable to the new ISC CAM and connect the laptop to the ISC CAM with the network cable.

Figure 9:Cable connections

1. Set the IP address, which the ISC CAM device has allocated in the line network, using the ISC Service Tool.
2. Once you have the IP address set, you can access the vHMI by opening a web browser and pasting the IP address in the browser bar.
3. **IMPORTANT:** Import two ISC CAM files in the following sequence:
    a. <Binary File> (.bin), delivered by Intralox. Ensure the serial number displayed on the ISC CAM vHMI matches the serial number on the DPE type plate.
    b. <Application File> (.apl). If possible, import the application file you saved earlier from the previous ISC CAM. If not possible, retrieve the latest application file from the DPE Technical File.
4. Use the screenshots taken from the vHMI in an earlier step to validate all the parameters are set correctly.
5. **Reboot/cycle power** for the ISC CAM.
6. Validate all cables are mounted correctly by ensuring that all LEDs flash with a green light. If any LED is red, use the troubleshooting manual to understand and resolve the issue.
    a. Please note that during the startup phase of the ISC CAM, or when the ISC is not configured yet.

NETWORK INTEGRATION

Incorporate the new ISC CAM into the network.

Establish communication between the ISC CAM and the parent device by following the Network Setup procedures in the ISC CAM Commissioning Guideline.

Please note that if you have upgraded from v1.0 to v2.0 and the ISC CAM is used in combination with a line-controller connected over ethernet, additional work may be required to integrate into the network. See figure 3 of this document for identification of ISC CAM v1.0 and ISC CAM v2.0.

Please contact Intralox Life Cycle Services for more information on this topic Intralox Life Cycle Services will be able to assist during this operation.

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