

---

**To:** All Distributors, Regional Sales Managers, and National Sales Manager

**From:** LabriePlus

**Model:** ALL WITH IFM MULTIPLEX

**Subject:** Field Installation of an Updated IFM Program with IFM Maintenance

---

In the past a kit was released to connect a Windows-based PC to the Labrie IFM multiplex control system for diagnostic and updated program installation purposes. This kit, LabriePlus part number SERV01208, included the following:

- IFM System Connection Harness 159545
- PC-USB to Labrie Harness Adapter Cable ELC01470
- instructional CD-ROM 153245\_R4.

The instructional CD-ROM also contained IFM's Download program, which is what has traditionally been used to input program updates to Labrie units. However, with some of the most recent Windows updates certain stability issues have been identified between the Download and the CANfox adapter (ELC01470).

An alternative program, IFM Maintenance, can also be used to load updated program to Labrie units. Maintenance has been known to be much more stable with the most up-to-date Windows OS.

To support the utilization of IFM Maintenance the installer files have been added to the "Distributor Library" section of the LabriePlus technical website, contact your local distributor for a copy of the installer files.

Additionally, the following pages contain updated software installation procedures utilizing Maintenance.

Please contact the LabriePlus Service Department at **(800) 231-2771 (US)** or **(877) 452-2743 (CAN)** for questions or further information



IFM Control System Programming:  
Field installation of an updated program with  
IFM Maintenance



## Tools Required:

A laptop PC running IFM maintenance- available for download in distributor library at: <https://manuals.labrie.plus>

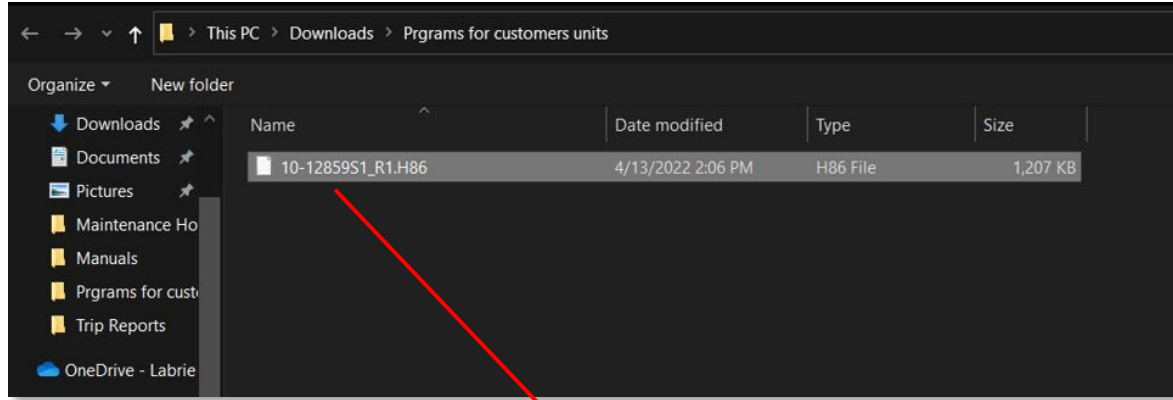
P/N 159545 Programming Harness x1  
PC-USB to Labrie Harness CAN adapter P/N ELC01470 x1





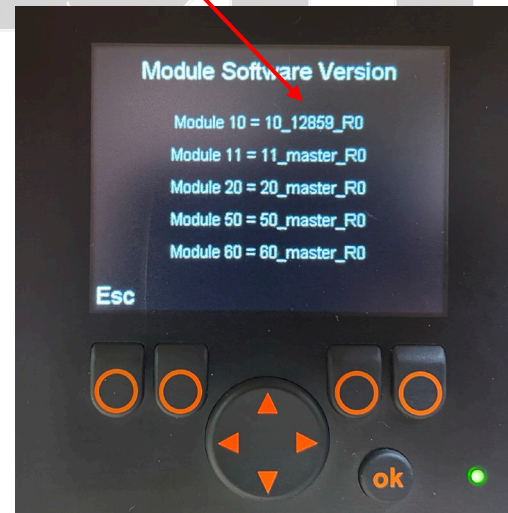
Preparing to install the new  
program

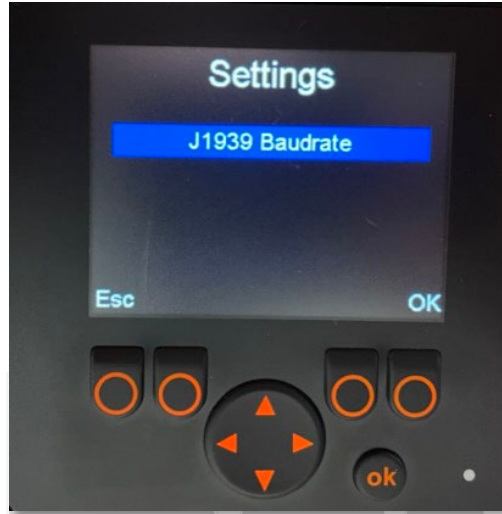
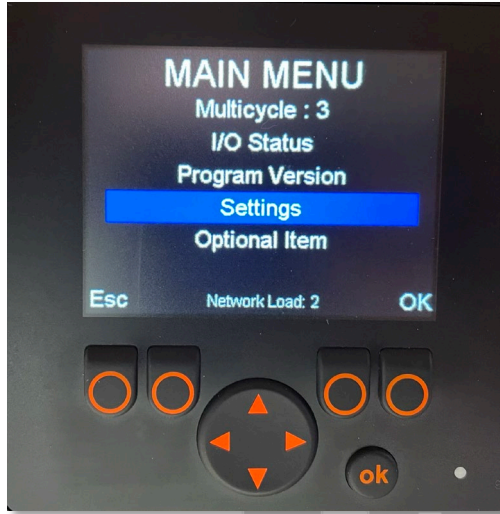
Being by testing unit for functionality of all features. Recording and/or addressing any possible deficiencies avoids confusion or concern once a new program is installed.



Using the Labrie display screen, access the “Program Version” menu to verify that the new program matches the existing truck program.

**Note:** it is normal for revision iteration to increase, but the first five digits of the existing program should match the new program.





Using the Labrie display screen, access the “J1939 Baudrate” menu to verify current J1939 Baudrate setting.

Possible values are 250 Kbps or 500Kbps. A photograph of the display is the easiest way to remember the current value. An incorrect J1939 Baudrate setting will prevent the Labrie pump from engaging and can cause chassis communication errors.

**Note:** Baudrate is stored within the Labrie program memory. Installing a new program resets this memory to default, meaning that units with a Baudrate setting of 500Kbps will need to have the setting changed back after a new program is installed.

The background features a large, stylized logo for 'Laborie Plus'. The word 'Laborie' is in a light gray, sans-serif font, and 'plus' is in a light blue, italicized, sans-serif font.

# Using the IFM “Maintenance” Program



## Before moving to the laptop:

Connect the 159545 Programming Harness to the ELC01470 CAN adapter, then connect the cable assembly to an unused laptop USB port and the unit's diagnostic port



**Typical location**

NOTE: a dust cap may need to be removed

**Once at the laptop:**

Double click on the MAINTENANCE icon  
to open the program

labrie*plus*



## User Configurations



BasicSystem CAN (Default) ▾

## AddIn Administration



ecomat mobile

## First Steps Wizard - Step 1 of 3

Which Controller do you want to access?

ecomatController



R360 System



Basic System

☒ Show this Wizard on every application start

Cancel

**When MAINTENANCE starts up, the “First Steps Wizard” will automatically run**

**To complete Step 1 select “R360 System”**

## User Configurations



BasicSystem CAN (Default) ▾

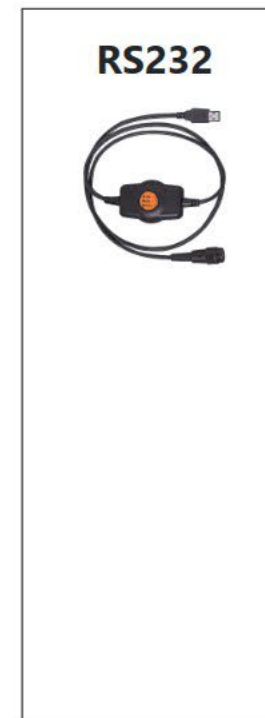
## AddIn Administration



ecomat mobile

## First Steps Wizard - Step 2 of 3

Which Interface do you want to use?

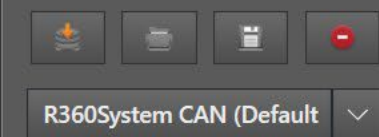
☒ Show this Wizard on every application start

Back

Cancel

To complete Step 2  
select "CAN" interface

## User Configurations



## AddIn Administration



▼ ecomat mobile

▼ CAN

R360System

Settings

▶ System Information

▶ Software

CSV Editor

About

## First Steps Wizard - Step 3 of 3

... done.

Now you should be able to communicate with your device.

Browse through the AddIns menu and explore its functionalities:  
You may f.e. switch to the 'Load' dialog in order to do a firmware update or to up -and download applications ...

## Settings

## ▼ System Information

Identity

## ▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

CSV Editor

About

**Once MAINTENANCE  
has detected the CAN  
adapter the “First Steps  
Wizard” will  
automatically transition  
to Step 3 and can be  
closed**

☒ Show this Wizard on every application start

Close

*NOTE: If the “First Steps  
Wizard” fails: check the  
connection of the CAN  
adapter to the USB port*





Process ID 13112

User language successfully changed.

10:26:22 2023-04-04







### User Configurations



R360System CAN (Default) ▼

### AddIn Administration



▼ ecomat mobile

▼ CAN

R360System



## R360System

Release-V03.05.00.386390.0

R360System - Settings

### Settings

#### Mode

- ☐ Expert Mode
- ☒ Compatibility Mode ⓘ

#### PC Interface

Node ID 127 Baudrate 125

#### Device Interface

Node ID Baudrate 125 KBit/s Apply

#### Application Password

Password ⓘ

Settings

► System Information

► Software

CSV Editor

About

Process ID 13112

Next select the “Settings” menu. Within “Settings” select “Expert Mode”. A Warning banner will pop up. Click “OK” to close this Warning banner.

### Warning







Any liability claims for the loss or damage of hardware or software or data due to direct or indirect errors or destruction as well as for costs (inclusive of telecommunication costs) incurred in the context of or due to the expert mode are expressly excluded.

5074

OK





Cancel

### User Configurations



R360System CAN (Default) ▾


### AddIn Administration



▼ ecomat mobile

▼ CAN

R360System



Settings

▶ System Information

▶ Software

CSV Editor

About

Process ID 13112

## R360System

Release-V03.05.00.386390.0

R360System - Settings

### Settings

Mode

☒ Expert Mode

☒ Compatibility Mode ⓘ

PC Interface

Node ID 74

Baudrate 250 ▾ KBit/s

Device Interface

Node ID

Baudrate 125 ▾ KBit/s

Apply

Application Password





Password

ⓘ

Ensure Node ID is set to "74" and Baudrate is set to "250 Kbit/s"





NOTE: Node ID is set by manually entering the numerical value, whereas Baudrate is input via a dropdown menu

### User Configurations



R360System CAN (Default) ▾


### AddIn Administration



▼ ecomat mobile

▼ CAN

R360System



### CR0303 V05.00.04

Settings

▼ System Information

Identity

Error Memory

► Software

CSV Editor

About

Process ID 13112

## R360System

Release-V03.05.00.386390.0

R360System - Identity

### Identity

Update

### Device Information

Order Number	CR0303
Software Version	V05.00.04 100610
Hardware Version	V00.00.02
Manufacturer	ifm electronic gmbh
Application State	Running


Next, drop the “System Information” menu down and select “Identity”. Once in the “Identity” screen click “Update” communication with the unit will occur and the “Device Information” should populate

Once communication has been established and the “Device Information” is populated we can move on to working with the unit program




Note that loading a new program to a unit overwrites the existing version in the unit. If there are any compatibility issues with the new program, or if the changes made were not what was desired, it is impossible to revert to the old version, **unless** this version is uploaded to the installer's computer first.

### User Configurations



R360System CAN (Default) ▾

### AddIn Administration



▼ ecomat mobile

▼ CAN

R360System

**CR0303** V05.00.04

Settings

▼ System Information

Identity

Error Memory

▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Load

### Load Software

To R360System

From R360System

Open File ...

Import File ...

Save File as ...

☐ All

Load

Stop

**To save a copy of the current program version: drop the “Software” menu tab down and select “Load”**

## User Configurations



R360System CAN (Default) ▼

## AddIn Administration



▼ ecomat mobile

▼ CAN

R360System



CR0303 V05.00.04

Settings

▼ System Information

Identity

Error Memory

▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Load

## Load Software

To R360System

From R360System

- ☐ RuntimeSystem
- ☒ Application
- ☐ MemoryRetainData
- ☐ VarRetainData
- ☐ FileFlash
- ☐ DataFlash
- ☐ UserFlash
- ☐ EEPROMData/FRAM

☐ All☒ Check CRC

Load

Stop

Next, select "From R360System" and check the "Application" box only. Next, click "Load"

## User Configuration



R360System CAN (De

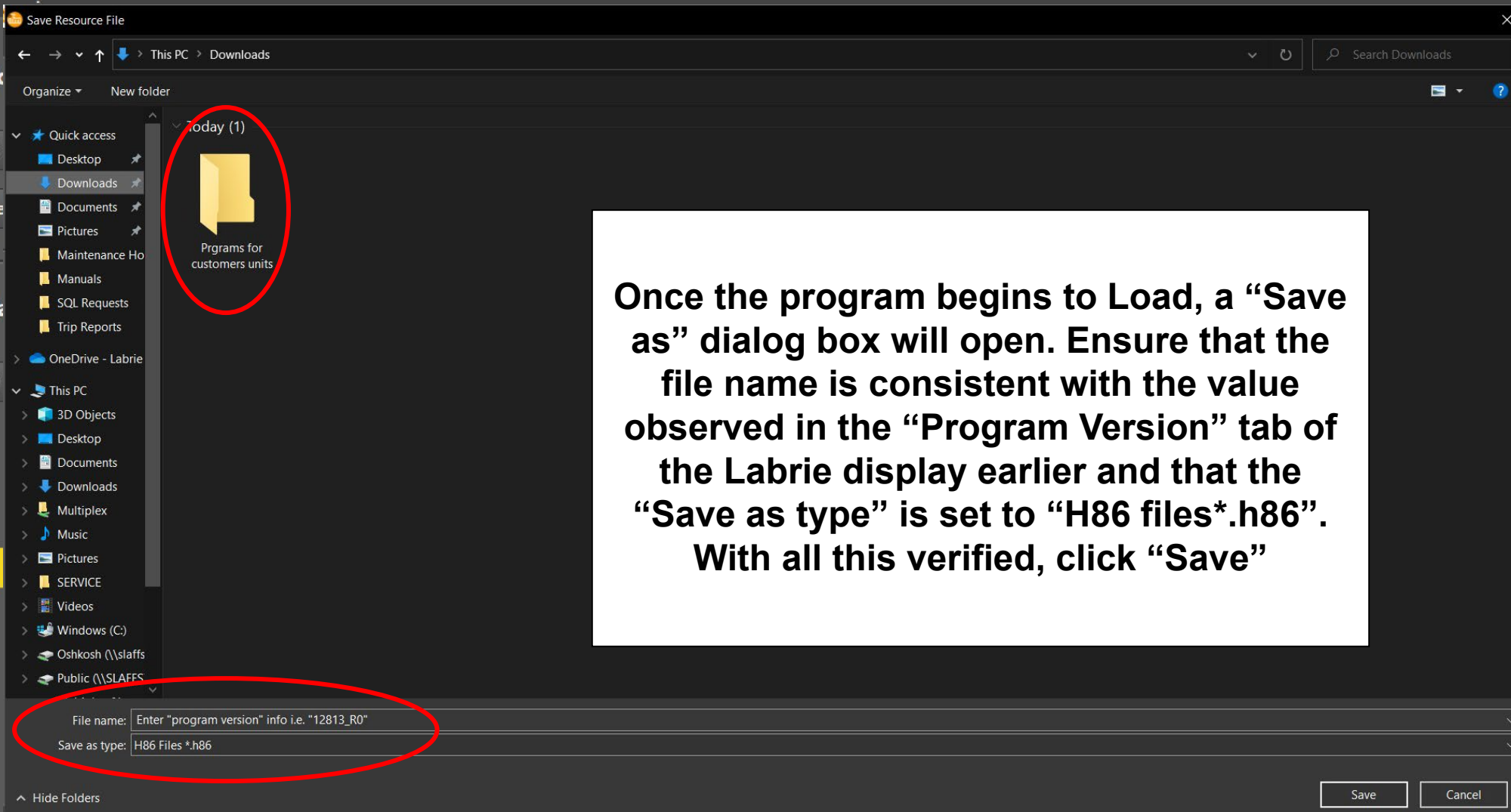
## AddIn Administra



▼ ecomat mobile

CAN

R360System



Once the program begins to Load, a “Save as” dialog box will open. Ensure that the file name is consistent with the value observed in the “Program Version” tab of the Labrie display earlier and that the “Save as type” is set to “H86 files\*.h86”. With all this verified, click “Save”

CSV Editor

About

Process ID 13112


Load

Stop

Connection terminated.


10:32:42 2023-04-04

### User Configurations



R360System CAN (Default) ▾

### AddIn Administration



▼ ecomat mobile

▼ CAN

R360System

**CR0303** V05.00.04

Settings

▼ System Information

Identity

Error Memory

▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Load

### Load Software

To R360System

From R360System

### Information



Upload successful for Application

4104

OK

☐ EEPROMData/FRAM☐ All☒ Check CRC

Load

Stop

**With the current program version uploaded to the installer's computer we can proceed with installation of the new program version. Click "OK" to close the Information dialog box**



### User Configurations

R360System CAN (Default) ▼

### AddIn Administration

▼ ecomat mobile

▼ CAN

R360System

**CR0303** V05.00.04

Settings

▼ System Information

Identity

Error Memory

▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Load

### Load Software

To R360System

From R360System

Open File ...

Import File ...

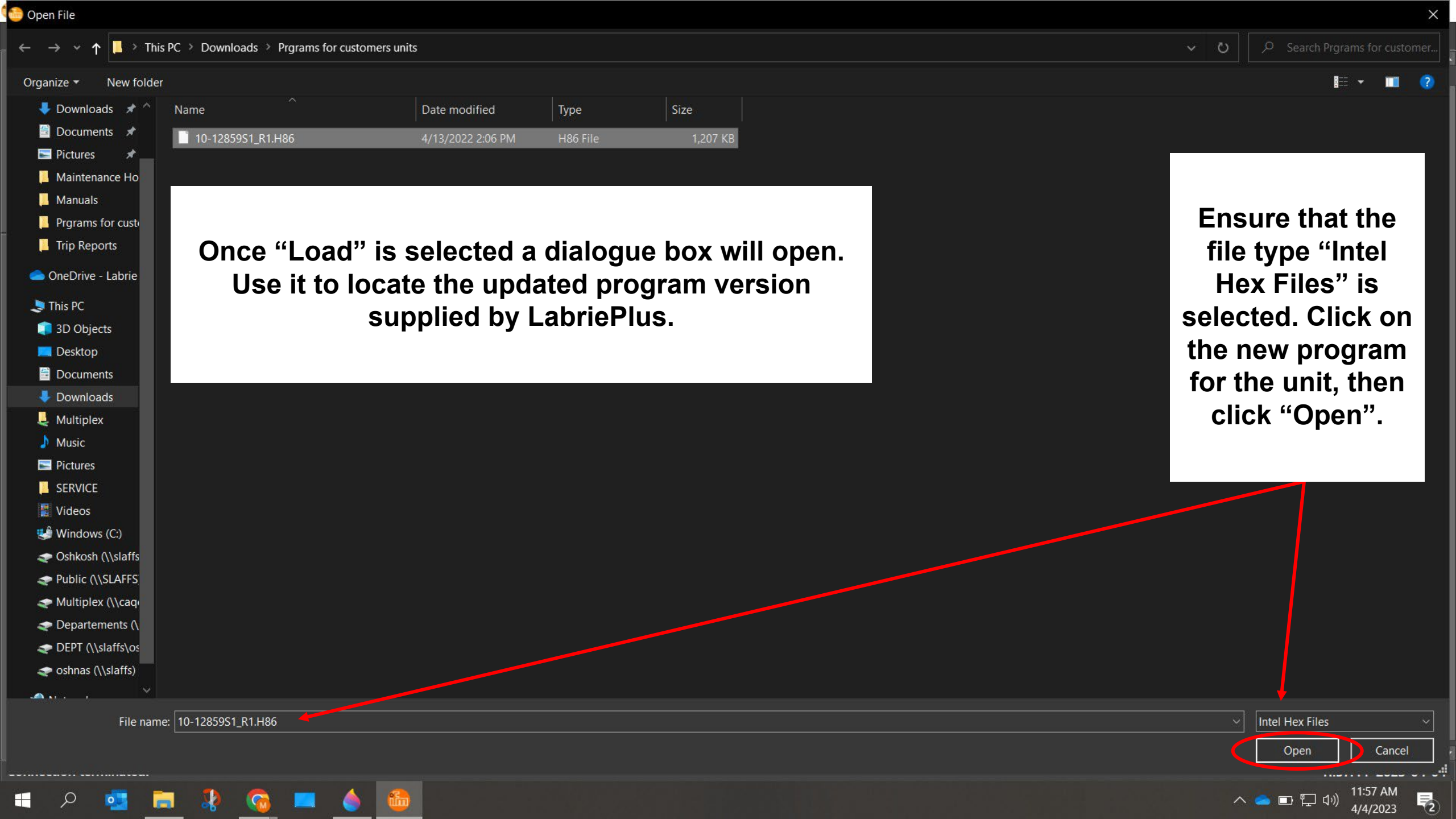
Save File as ...

☐ All

Load

Stop

To install the new program, change back to the "To R360System" tab and click "Open File"



Once "Load" is selected a dialogue box will open.  
Use it to locate the updated program version  
supplied by LabriePlus.

Ensure that the  
file type "Intel  
Hex Files" is  
selected. Click on  
the new program  
for the unit, then  
click "Open".

File name: 10-12859S1\_R1.H86

Intel Hex Files

Open

Cancel

## User Configurations



R360System CAN (Default) ▾

## AddIn Administration



## ▼ ecomat mobile

## ▼ CAN

R360System

**CR0303** V05.00.04

Settings

## ▼ System Information

Identity

Error Memory

## ▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Load

## Load Software

To R360System

From R360System

Open File ...

Import File ...

Save File as ...

☒ Application

CR0303

☒ All


Load

Stop

Check the  
“Application:  
box, then click  
“Load”. The  
Loading  
process will  
now start  
automatically




### User Configurations



R360System CAN (Default) ▾

### AddIn Administration



▼ ecomat mobile

▼ CAN

R360System

**CR0303** V05.00.04

Settings

▼ System Information

Identity

Error Memory

▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Load

### Load Software

To R360System

From R360System

#### Warning



Application Download will erase FileFlash, DataFlash as a consequence of this, all Symbol Configurations in memory will be lost! Do you want to proceed?

4191

Yes

No

Load

Stop

**“Yes” must be selected within the Warning dialog box for the Loading of the new program to continue**

Note that while Downloading a new program into a unit, the Node 10 status light will stay solid green, and the Node 11 (display screen) and Nodes 12-15 (button packs) will shut off completely.

## User Configurations



R360System CAN (Default) ▾

## AddIn Administration



▼ ecomat mobile

▼ CAN

R360System



CR0303 V05.00.04

Settings

▼ System Information

Identity

Error Memory

▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Load

## Load Software



To R360System

From R360System

## [R360System] Success



Download successful for selected segments.

6010


OK

Load

Stop


Click "OK" when  
download is  
complete

### User Configurations



R360System CAN (Default) ▾

### AddIn Administration



▼ ecomat mobile

▼ CAN

R360System

**CR0303** V05.00.04

Settings

▼ System Information

Identity

Error Memory

▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Commands

### Commands

#### Reset

Warm



Cold



Source



#### IEC Application

Start

Stop

Delete

Run I/O module




#### Bootloader

Switch to Bootloader Mode

Switch to Runtime System Mode


To complete the installation, change to the "Commands" tab and click "Start"

### User Configurations



R360System CAN (Default) ▾

### AddIn Administration



▼ ecomat mobile

▼ CAN

R360System

**CR0303** V05.00.04

Settings

▼ System Information

Identity

Error Memory

▼ Software

Load

Commands

Support

PLC Information

Symbol Configurations

System Data

Memory Settings

Memory Display

CSV Editor

About

Process ID 13112

R360System - Commands

## Commands

Reset

Warm



Cold



IEC Application

Start

Stop



### Information



The IEC application is running.

5083

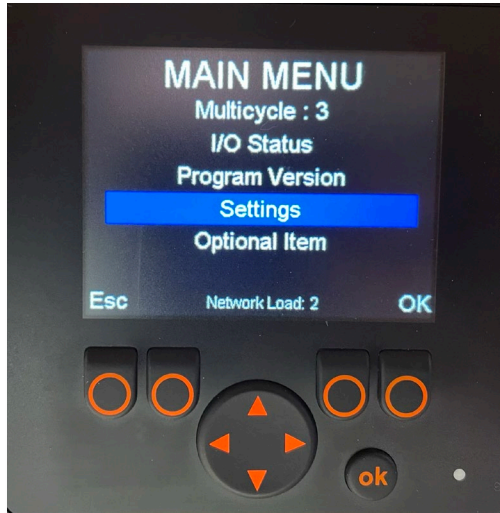
OK

Switch to Runtime System Mode

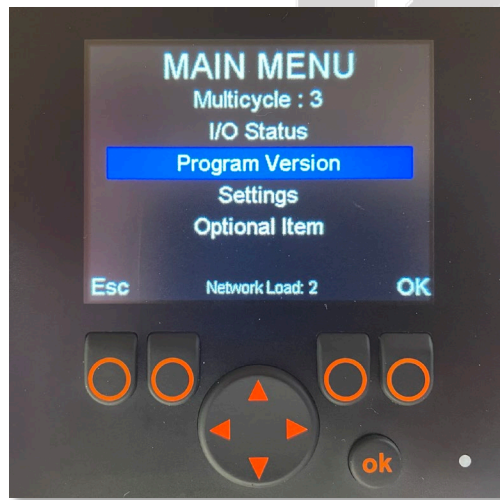
After “Start” is selected a dialog box will be populated indicating that the new program is running. Click “OK” to close this. We can now transition back to the unit to verify the correct Program version and Baudrate setting

Once the program is running, the button packs and display will come back online, and function can be tested.





Using the Labrie display screen, access the “J1939 Baudrate” menu to verify current J1939 Baudrate setting reflects what was recorded in previous steps. If necessary, change accordingly.



Also using the Labrie display screen, access the “Program Version” screen to ensure that the program now matches that which was supplied to the installer by LabriePlus.

Test unit for functionality of all added features, as well as previously enabled functions. Successful testing will enable the unit to return to service.



Contact your LabriePlus Field  
Service Representative with any  
questions or for assistance