



# INSTRUCTION GUIDE

FUEL LOCK

FLOW TESTING AND

PULSE RATE CALIBRATION



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## CUSTOMER SUPPORT

For warranty service, please contact your local dealer.

For product support, troubleshooting, or additional questions with your Fuel Lock device, please contact your local dealer ([www.fuellock.ca/locate-a-dealer](http://www.fuellock.ca/locate-a-dealer)) or IntraGrain Technologies Inc. at:



**[support@intragrain.com](mailto:support@intragrain.com)**



**1.833.570.7979**



**[www.fuellock.ca](http://www.fuellock.ca)**

Please scan the QR code below to view additional product supports:



## **CERTIFICATIONS**

### **FCC ID: 2AUTY-106304-V03**

Contains FCC ID: XPY1EIQ24NN; IC: 8595A-1EIQ24NN

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly Approved by IntraGrain Technologies Inc. could void the user's authority to operate the equipment.

***CAUTION: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.***

***WARNING: RADIO-FREQUENCY RADIATION EXPOSURE RISK. THIS EQUIPMENT COMPLIES WITH RADIATION EXPOSURE LIMITS PRESCRIBED FOR AN UNCONTROLLED ENVIRONMENT FOR FIXED AND MOBILE USE CONDITIONS. THIS EQUIPMENT SHOULD BE INSTALLED AND OPERATED WITH A MINIMUM DISTANCE OF 20 CM BETWEEN THE RADIATOR AND THE BODY OF THE USER OR NEARBY PERSONS. THIS TRANSMITTER MUST NOT BE CO-LOCATED OR OPERATING IN CONJUNCTION WITH ANY OTHER ANTENNA OR TRANSMITTER EXCEPT AS AUTHORIZED IN THE CERTIFICATION OF THE PRODUCT.***

## **MANUFACTURER'S WARRANTY**

### **INTRAGRAIN LIMITED ONE-YEAR WARRANTY**

IntraGrain Technologies Inc. (IntraGrain) warrants that for a period of one (1) year from the date of original purchase, this product will be free from defects in material and workmanship. IntraGrain, at its option, will repair or replace this product or any component of the product found to be defective during this warranty period. Replacement will be made with a new or re-manufactured product or component. No warranty is provided for batteries.

This warranty is valid for the original retailer purchaser from the date of initial retail purchase and is not transferable. Proof of purchase is required to obtain warranty performance.

### **WHAT THIS WARRANTY DOES NOT COVER**

This warranty does not cover normal wear of parts or any damage resulting from any of the following: negligent use or misuse of the product; damage in transport, natural disaster, improper installation or use, improper abuse or improper handling. This warranty is limited to only those manufacturing defects that were caused or allowed by IntraGrain.

### **HOW TO OBTAIN WARRANTY SERVICE**

Please contact the local dealer you purchased the product from. For additional support, please contact IntraGrain Technologies Inc. at 1.833.570.7979 or visit [www.intragrain.com](http://www.intragrain.com)

### **CONTACT US**

For support questions, troubleshooting, or help with your Fuel Lock device, please contact your local dealer for more information and assistance, or IntraGrain Technologies Inc. at [support@intragrain.com](mailto:support@intragrain.com) or 1.833.570.7979.

## **LIABILITY CLAUSES**

The following clauses describe the general liability limitations/exclusions used in our product sale agreements.

### **ASSUMPTIONS**

1. The client is defined in the agreement as “the Purchaser”.
2. IntraGrain and its authorized distributors are defined in the agreement as “the Seller”.
3. The item being sold by the Seller is defined in the agreement as “the Product”.
4. If the assumptions are incorrect, the text needs amendment to accommodate any changes in the assumptions.

### **CLAUSES**

#### **1. INSTALLATION OF PRODUCT**

The Seller highly recommends that the Purchaser obtain the services of a licensed electrician when installing the Product at the Purchaser’s premises. The Seller does not recommend that the Purchaser attempt to install the Product on their own.

#### **2. EXCLUSION OF LIABILITY**

The Purchaser acknowledges that the Seller is engaged hereunder to provide the sale of the Product only and does not guarantee any installation of the Product by the Purchaser on their premises. The Purchaser agrees that the Seller is not liable for any work performed by the Purchaser or any other person in respect of the installation of the Product on the Purchaser’s premises.

#### **3. LIMITATION OF LIABILITY**

The Purchaser and the Seller have agreed to allocate the risk and benefit of the services to be performed by the Seller hereunder. The risks have been allocated such that the Purchaser agrees, to the fullest extent permitted by law, to limit the liability of the Seller to the Purchaser for any and all actions, claims, demands, liability, losses, damages, costs, charges and expenses (including legal fees and disbursements as invoiced), so that the total aggregate liability of the Seller, its directors, officers, employees and agents to the Purchaser shall not exceed CDN\$500.00 or the Seller’s total fee for the Product provided hereunder, whichever is greater. The Purchaser and the Seller intend that this limitation of liability apply to any and all liability or cause of action however alleged or arising, unless otherwise prohibited by law.

#### **4. RELEASE AND INDEMNITY**

The Purchaser hereby releases, remises and forever discharges the Seller of and from any and all actions, claims or demands of every nature and kind whatsoever which may be made against the Seller by or through the Purchaser or by the Purchaser through any third party arising out of or in any way connected with the Product, howsoever and whenever brought or made against the Seller. The Purchaser agrees to indemnify and save harmless the Seller of and from any and all actions, claims, demands, liability, losses, damages, costs, charges and expenses (including legal fees and disbursements as invoiced) that the Seller may sustain, incur or be liable for in consequence of any and all actions, claims and demands of every nature and kind whatsoever which may be made against the Seller by any third party arising out of or in connection with the performance by the Seller of the services hereunder, howsoever and whenever sustained or incurred by the Seller.



## SAFETY

**READ AND FOLLOW ALL INSTRUCTIONS.**

**SAVE THESE INSTRUCTIONS.**

Use the Fuel Lock device for its intended use only, as described in this manual. Do not use attachments not recommended by the manufacturer.

## STANDARDS

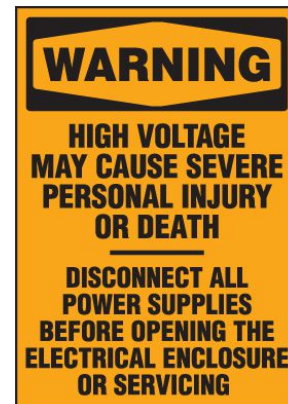
This manual will use the following standard safety terms and conventions to indicate conditions:

**WARNING: INDICATES A HAZARDOUS SITUATION RESULTING IN SERIOUS INJURY OR DEATH.**

**CAUTION: Indicates a hazardous situation which, if not avoided, could result in moderate injury and/or property damage.**

**Note: Indicates an important message not related to personal injury or property damage.**

Where there is a risk of fire, electric shock, or injury to persons the following labels shall be included:



## **SAFETY INFORMATION**

This is a professional grade product. A knowledge of electrical installation according to codes are required for proper installation and user satisfaction. We recommend that a licensed electrician perform the installation of Fuel Lock. Our warranty does not cover improper installation related problems.

***WARNING: RISK OF SEVERE INJURY FROM ELECTRIC SHOCK OR DEATH FROM ELECTROCUTION! FAILURE IN COMPLETING THE FOLLOWING COULD RESULT IN SERIOUS INJURY OR DEATH. WE RECOMMEND THAT A LICENSED ELECTRICIAN PERFORM THE INSTALLATION AND SERVICING OF FUEL LOCK.***

1. Turn off electrical power before opening the enclosure cover.
2. When closing the cover ensure wires are not pinched.
3. The enclosure box must be electrically grounded.
4. **Do not** apply power to the device until instructed to do so.
5. Perform any line and load voltage wiring in accordance with local and federal authorities and in compliance with the Canadian Electrical Code and National Building Code.
6. Make sure operating voltage, phase, and frequency nameplate ratings are identical to the job site line voltage ratings.
7. Input wiring must be properly sized for the operator's required amperage and must not exceed the nameplate ratings.
8. Use a padlock on the device to reduce the risk of injury or tampering of the unit.
9. The unit must not exceed 30 amps and 1hp pump motor rating.

## INSTALLATION FLOW TEST

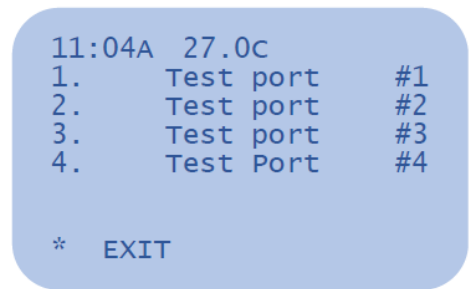
Fuel Lock devices are equipped with an on-board install/troubleshooting menu designed to assist installers and electricians with initial install and calibration of the device, as well as field troubleshooting if hardware fails during operation.

**Note: This tool does not require any App connectivity.**

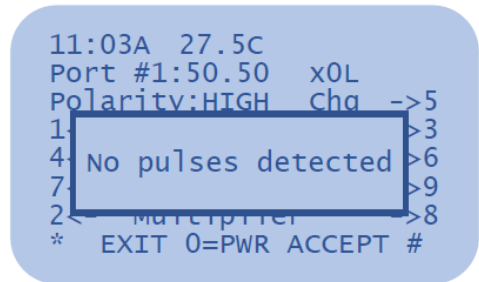
The following procedure shows the calibration of custom pulse rates, as well as the verification of third-party pulser functionality with the device.

**Note: The menu is specifically designed for installers and can be accessed by using the factory default PIN. The default PIN is 1234 if the device has not previously been connected to the mobile App.**

1. Press **\*Menu** and enter the administrator PIN to gain access.
2. Press **#**.
3. Select **#5 Install Support**.
4. Select **#1 Tank Calibration**.
5. Ensure the selected port has a pulser that is physically connected to the pulser circuit board inside the device.

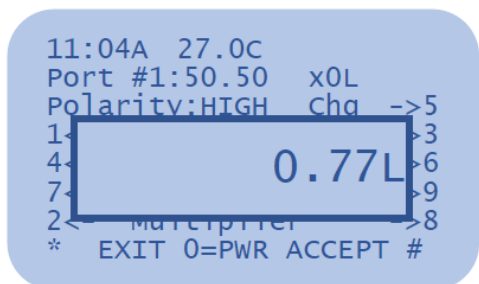


When first entering each Test Port menu, the screen will flash **"No pulses detected"**. This indicates that the pulser connected to the pulser board is not generating pulses (flow).



## TO RUN A TEST

1. Press **0=PWR** to engage power supply and turn on pumps.
2. Ensure the screen is displaying a volume count.
3. Repeat steps 1 and 2 on all ports with connected tanks (pulsers).
4. When volume data is displaying correctly for all tanks, connect the device to the App.



**Note: A "No pulses detected" message during test fill indicates a wiring or pulser issue. Refer to third-party supplier instructions.**

## SETTING A CUSTOM PULSE RATE

For custom pulse rate setting or calibration tests, these menus allows you to adjust pulse rates.

- **Ones** - toggle (1,4) on the keypad to change the one value.
- **Tenths** - toggle (4,6) on the keypad to change the tenth value.
- **Hundredths** - toggle (7,9) on the keypad to change the hundredths value.
- **Multiplier** - (8) keep the setting at **OL** unless instructed by the dealer or IntraGrain support.
- **Polarity** - (5) keep the setting at **HIGH** unless instructed by the dealer or IntraGrain support.

```
11:03A 27.5C
Port #1:50.50 x0L
Polarity:HIGH Chg ->5
1<- Flow (ones) ->3
4<- Flow (tenths) ->6
7<- Flow (100ths) ->9
2<- Multiplier ->8
* EXIT 0=PWR ACCEPT #
```

**Note: This function is for finding the desired pulse rate and does NOT get set to the Fuel Lock App. Once the desired pulse rate has been found, it can be added to the Fuel Lock App so it can take effect on the device.**

Manufactured in Canada by:



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