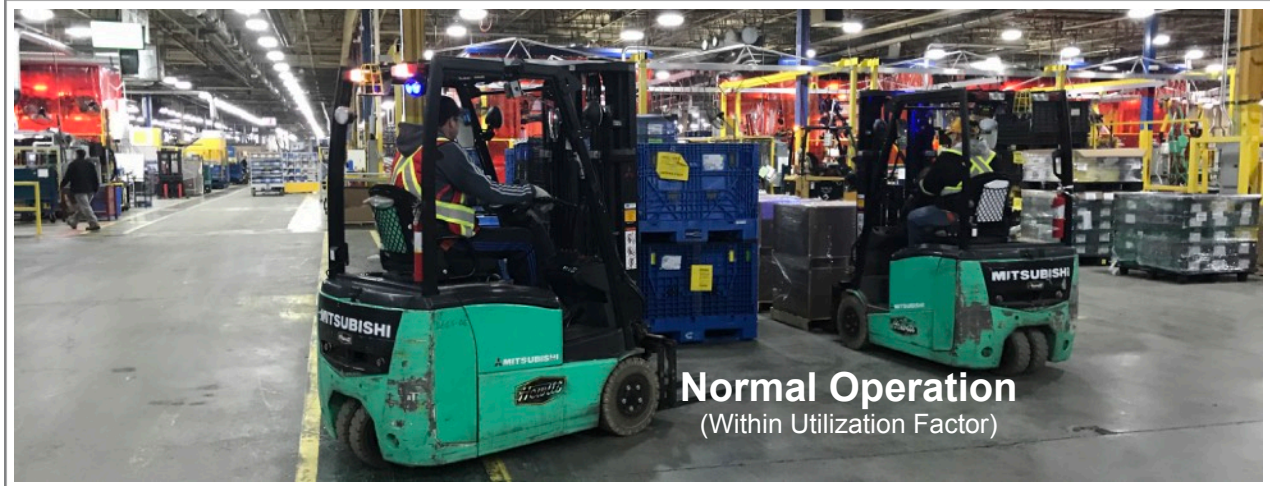
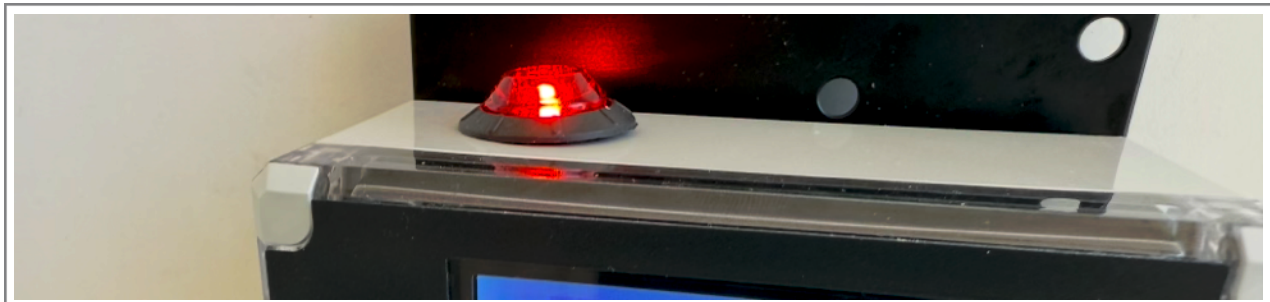


Material Handling Vehicle Automatic Operational Idling & Downtime Recorder



Installation, Setup & Operator Usage Manual



System Application

This **FeedBack** recording system is most economical solution for lift truck fleets to eliminate the root causes of lost productivity. The individual vehicle operational idling /downtime managed against historical information is frustrating and inefficient. FeedBack utilizes a proprietary software algorithm (**Utilization Factor**) by collecting vehicle actual raw operational information and has ability to consolidate that data and deliver it in real time to operator and to the operational management in away that is useful to improve operational efficiency. The FeedBack recorder is the industry only lift truck fully automatic AUDIO / VISUAL notification monitoring system shown to operator in real time of the actual operational idling status / downtime events.



Safety

Always disconnect the vehicle battery while installing any of the OSHAX systems or any other electronic product. Route the cable where they will be protected. Use commonly accepted install practices for after market industrial vehicle electronic devices. The installation of the systems should only be performed by an acknowledged lift truck dealer technician or end user electro and hydraulic technical installer.

Here are two acceptable methods of making a wire connections:

- * Soldering your connections (recommended)
- * Crimp connectors (with the use of the proper crimping tool)

Regardless of the method you choose, ensure that the connection is mechanically sound and properly insulated. Use high quality electrical tape and shrink tubing where necessary.

This product is connected directly to the vehicle's ignition switch 12 to 55 V DC.



Note: Standard **FeedBack-1** system does not have to be calibrated during the system installation into vehicle.

Electro-Magnetic Compatibility

CE conformity to EC directive 89/336 (EMC) by application of harmonized standards: Interference stability EN 61000-6-2 and EN 61326-1 interference emit EN 61000-6-3, EN 61326-1 for the pressure transducer.

FeedBack Series

Our policy is one of continuous improvement and the information in this document is subject to change without notice. Check that software version displayed on LCD If applicable for your application.

Overview of components

The standard **FeedBack-1** system consist of digital indicator with keypad, USB port, Audio / Visual alert, wiring harness, hydraulic pressure transducer and mounting brackets.

Pressure Transducer

Install hydraulic pressure transducer 1/4"-18 NPT male port between lift control valve and lifting cylinder(s)

Audio / Visual Warnings

The standard FeedBack comes with Audio / Visual alert warning to prompt operator to input valid ID#, initiate OSHA safety check session *and during* unidentified idling, justified operational downtime tasks and optional impact detection.

Electrical Connection

Power supply

- Orange wire Ignition switch + (12 to 48 VDC)
- Brown wire - Battery negative

Pressure transducer

- RED wire, connect to red wire of the pressure transducer cable
- BLACK wire, connect to black wire of the pressure transducer cable
- WHITE wire, connect to white wire of the pressure transducer cable

Selecting the mounting location for FeedBack

Mount the indicator in front of the operator. Digital indicator should be mounted on solid metal surface (dashboard, upper railing, side railing, etc.). Use mounting bracket to fasten the system to the vehicle body.

FeedBack Hardware



- Digital indicator with LCD display
- Pressure transducer with cable
- Keypad operator input
- Mounting bracket
- External Audio / Visual alert (*Mounted on top of the indicator housing*)
- * *Optional Impact module*

Standard Recording

- Real Time clock
- Vehicle ID#
- Operator ID#
- Log In time
- Safety check (Default every 8 hours)
- Safety check start time
- Total time taken to complete safety session
- Automatic recording of all unidentified time events (*No operator input required*)
- Five identified operational downtime tasks time events (*Operator input required to select valid downtime*)
- Recorded sessions are in CSV format

Daily Safety Check Session (*Default factory set is every 8 hours*)

All FeedBack are supplied with default daily safety check of 8 hours. (*Start time is 7:00 AM*)

Note: *When ordering system can be set up for default daily safety check every 12 or 24 hours.*

Default Operator ID# (Factory set)

All FeedBack are supplied with one default operator ID# number **111**. With power connected to the system the LCD will prompt to input valid operator ID#. The installation technician can input default ID# **111** for ID# and press **“Enter key”** to initiate system set up.

Setup & Management Menu

With LCD display showing **Date / Time** you are ready to use **management menu**. Press **F** key and press number **9**. Input password **521**. Use **< >** keys to scroll for functions that apply for your system configuration. Follow the LCD instruction, use **“EnterKey”** to confirm set up and use **F** key to exit management set up menu.

Set Vehicle ID#

Maximum input number for vehicle ID# are 3 digits (1 to 999) and press **“Enter Key”** to confirm.

Date / Time Set Up

In the event that **Date / Time** needs to be changed in the management menu use **< >** arrow scroll key to SET CLOCK shown on LCD display. Change **AUTO** to **MANUAL**. **Note: The AUTO is used with RF Base Station.**

- Follow the LCD instruction and press **“Enter key”** to confirm setting.

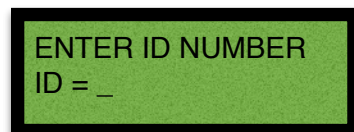
The cursor will automatically move to the next item to be changed (Month, Day, Year, Hours, Minutes, Seconds)

- Use left and right arrow to change the value

- Press **“Enter key”** to confirm setting

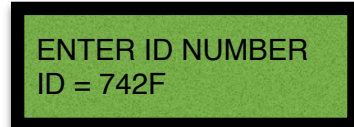
How to Program Operator ID#'s for Vehicle Access Control

FeedBack system allow up to 250 different users in any combination of a 3 digit ID# code (1 to 999)

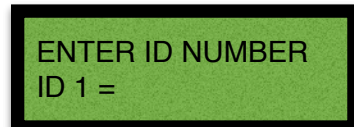


1. Turn power on to the system.

The LCD display will show 'IVDT, Software version and Serial number', after a brief period of time the prompt will default to ENTER ID NUMBER.

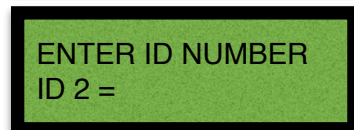


2. Enter **742F** and then press the **“Enter key”** to start the procedure of the input mode to create valid operator ID#'s.



3. LCD display will prompt to input first authorized operator ID number

4. ID 1 = _



5. Input into the system any number, maximum 3 digits and press **“Enter key”**

6. The LCD will automatically advance to the next operator ID number to be inputted into the system

7. ID 2 = _

8. Input into the system second authorized operator ID number and press **“Enter key”**.

Note: You can input up to 250 valid operators ID#s.

- When entering in the system your last valid operator ID#, press **“Enter Key”** and press **“F” key** to complete programming

- Every time you enter **742F** into the system to delete, update, change, etc. the LCD display will show the first valid ID# previously entered. By pressing **“Enter key”** you can scroll and see all valid ID#'s in the system.

Operational Guide

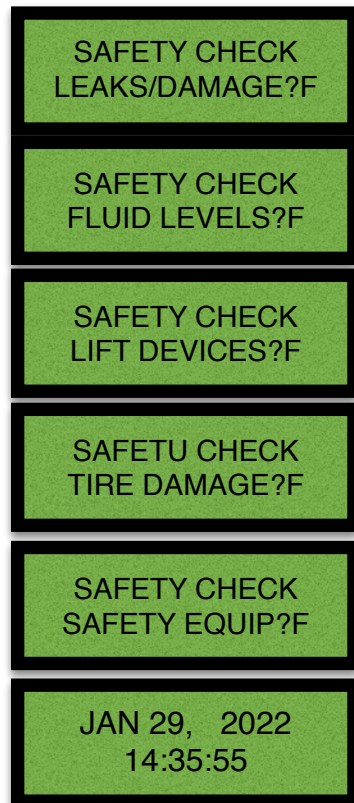
Turn power on (Ignition switch)

- **External Audio / Visual alert will be activated** and LCD display will show software version, serial number and will prompt the operator to enter valid ID#

- **Audio / Visual alert will stay on until valid operator ID# is inputed in the system and OSHA / Pre-shift safety check session is done.**

F Represent Fail

P Represent Pass



Use < > arrow key to toggle F to P if valid and press **“Enter Key”**

Use < > arrow key to toggle F to P if valid and press **“Enter Key”**

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Use < > arrow key to toggle F to P if valid and press **“Enter Key”**



JAN 29, 2022
14:35:55

Operational Idling / Downtime Events

With LCD display showing **Date / Time** the FeedBack is collecting raw operational information, analyzing data and making comparison to the actual operational utilization factor.

DOWNTIME
UNIDENTIFIED

Should the operational utilization factor be exceeded the system will **automatically record** and show the operator on LCD display the **UNIDENTIFIED** event and AUDIO / VISUAL alert will be activated and stay on until next operational cycle.

Important

With LCD display showing “**UNIDENTIFIED**” event the operator has 5 seconds to use arrow key < > to scroll and select one of the five **valid operational downtime reasons** and to press “**Enter Key**” when selected.

(5 seconds applies for time duration while each arrow key is being activated)

DOWNTIME
14:52:18

After 5 seconds should operator not to identify a valid operational downtime reason system **will record** operational downtime as **UNIDENTIFIED**.

Jan 29, 2022
15:02:44

As soon system detects normal vehicle operation cycle the LCD display will show Date/ Time and AUDIO / VISUAL alert will be deactivated. System is analyzing raw operational data and making comparison to the actual operational utilization factor.

