OPERATION MANUAL

INSIGHT HEALTH LOCK

Carefully read this manual before using unit .

1. IMBERA INSIGHT-HEALTH LOCK & CIR CONTROLLER OPERATION OVERVIEW

Imbera's new lnsight-Health lock controller is a mechanical and electronic locking system that helps ensure optimal food safety at the point-of-purchase, by preventing access to food that is potentially not safe to consume, when temperatures exceed T.MAX for periods in excess of NAMA food safety regulations.

NAMA guidelines for temperature probe, uses internal cooler/freezer air temperature for lock controller operation.

• Imbera INSIGHT solution uses a thermal mass surround for the temperature probe, to replicate internal product temperature for lock controller operation (Thus reducing potential for unintended locking events, due to dramatic air temperature variances during normal unit operation for consumer door openings, or cabinet refill events).

NAMA Timer guidelines designed to ensure that locking will occur, should food exceed 41°F/0°F by more than 15mins, per event.

• Imbera Insight lock, logic has extended timers to allow cabinets to cool down to T.Max, provided refrigeration system is cooling down, in order to prevent unintended locking events.

INSIGHT LOCK Operating Logic	NAMA T.MAX temperature	NAMA Timer STD	INSIGHT Extended timer (Enabled provided cabinet is cooling)	INSIGHT Total Time	Refrigeration Cut-In Temp	Refrigeration Cut-Out Temp
COOLER G319	41° F (5° C)	30 Mins	(+45+60+60) 165 Mins	195 Mins	44.6° F (7° C)	32° F (0° C)
FREEZER VFS24	0° F (-18° C)	75 Mins	(+45+60+60) 165 Mins	240 Mins	0.4° F (-18° C)	5.8° F (-18° C)

Table 1. INSIGHT LOCK Cooler/Freezer timer & temperature logic:

During a loss of AC power, the door will lock, and will unlock when power is restored, provided T.Max temperatures have not been exceeded, according to INSIGHT timer logic.
INSIGHT Lock can also be used as an intelligent lock timer, for location specific operating hours, using the APP (Mid 2021 Software & Firmware Revision)
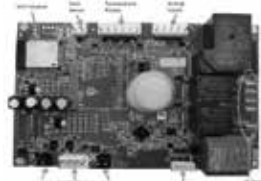All cabinets can be locked and unlocked independent of health timer using the APP.

CIR WIRELESS CONTROLLER

CIR Controller temperature logic ensures that if there is a temporary loss of AC power, the cooler/ freezer will lock within 2 minutes of AC power loss. Cooler/Freezer will automatically unlock when power resumes, provided T.Max has not been extended (Thus saving operators from performing a manual unlocking location visit).

CIR controls all refrigeration & locking logic functions (Both coolers and freezers)
CIR has a battery that must be replaced every 2 years as specified on label (Part # 3066040)
9 volt non-rechargeable battery.

In order to replace the battery please following the next steps:
1. Remove the front grill with a screwdriver.
2. Locate the battery on the right side of the cabinet base.
3. Disconnect the battery connector.
4. Replace it and connect the connector to the new battery.
5. Place the front grill back to the unit with a screwdriver.

CIR Controller functionality – Cir wireless is a cooling control that additionally controls the door lock to avoid get access to product which could be compromised in high temperatures.
Cir wireless send alerts about cooling cycle and lock status through Wi-Fi interface to central server. The real time clock allows to know date and time of reported events and keep the lock state after a power failure.

The following controller board schematics detailed the functionality

6. Once connected to WiFi, operating data is automatically transmitted to Imbera Link portal, and allows operators to remotely lock & unlock the INSIGHT Lock, and monitor a number of core refrigeration and other operating functions.

Primary Alarms and functions reporting:

• Locking events (NAMA lock function)- Start, duration and end data records.
• Temperature T.MAX and T. MIN records (Temperature recorded every 10 minutes)
• Door open/close- Start, duration and end data (Complete door opening record)
• Real Time Clock monitors power supply interruption (Start, duration and end data records).
• Geolocation allows operators to track asset IP locations.

See separate IMBERA LINK operator instructions for detailed operator portal instructions.

7. LOCK TEST FOR HEAL INSPECTOR

Inspector can lock & unlock the cabinet using smart device Bluetooth & CIR WIRELESS APP.

8. OPERATING GUIDELINES AND REDUCED UNINTENDED LOCKING

Optimal operational processes and user education will help to ensure refrigeration effectiveness, food safety and reduced locking events from occurring. These events have a negative impact for both users and operators (No access to product / operator site visit to service device)

1. Pre-chill all products to correct temperatures before filling unit.

2. Ensure the door is fully closed, properly aligned and only opened for the shortest time possible. Educate customers to use equipment efficiently, and only open doors briefly to conduct purchase. (Avoid holding door open for extended periods)

3. Refill the cooler/freezer well in advance of normal operating hours.

4. After each refill, lock should be locked & unlocked with the App, to enable extended timers, and reduce unintended locking events.
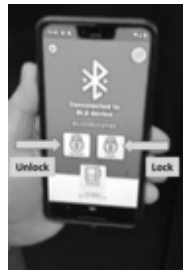
2. Open APP and enable Bluetooth function. Smart device will automatically scan for INSIGHT Lock devices IP codes within immediate vicinity. Dependent upon smart device, lock controller should be within range from 6 to 20 ft. Each lock has a unique SOFTEL IP code that will be displayed on smart device

(Note; SOFTEL Code label & unique IP code is located inside cabinet, next to Imbera serial label)

3. Lock & Unlock cabinet, as desired using SOFTEL IP code.

Note. It is recommended that after each cabinet refill, that operator locks & unlocks the cabinet, to engage extended timers (This will allow the cabinet to cool down to normal operating temperatures, below T.Max without creating an unintended locking event)
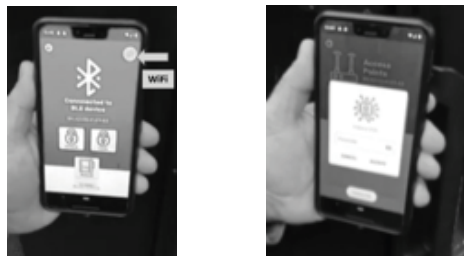
4. Softel Bluetooth FOB wireless remote control is available from Imbera as an option for operators that do not have smart devices. FOB remote Bluetooth device locks & unlocks the cabinet in the same manner, sending a command through Bluetooth to the controller to open or close the lock according to the press button.

- Number of buttons 4
- Function button 1 Open lock
- Function button 2 Close lock
- Function button 3 Reload Mode
- Function button 4 Not used
- Power = One CR-2032 battery (Coin Type)
- Material Plastic ABS Black
- Dimensions 69.85 x 34.80 x 17.53 mm

IMBERA LINK - INSIGHT LOCK WiFi capability, allows operators to remotely monitor smart controller & Locking functions, via the Intelligent Refrigeration Controller (CIR) offering operators real-time monitoring and control of their commercial coolers/freezers and INSIGHT Locks, through WiFi connectivity.

5. Connect to WiFi via APP

2. DISPLAY CONTROL SUMMARY

If your unit has a Temperature display, Temperature display F - Shows return air temperature, for compressor cut-in and cut-out functionality (This temperature does not represent product temperature. Please check manual internal thermometer, or Insight Lock temperature via Imbera Link portal, for replicated product temperature).
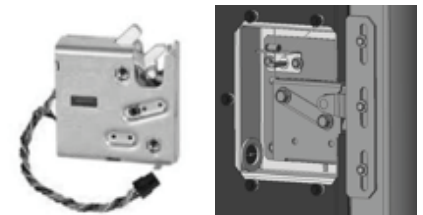
Display signal codes	Indicates	What to do?
P	Door open	Close the door
-U	Low voltage	Wait until the power supply is restored
U	High voltage	Wait until the power supply is restored
C	Compressor working more than 24 hours continously	Report it to service center
H	No signal of the temperature sensor	Report it to service center
F	Freezing temperature reached	Report it to service center
A	Cooling deficiency	Report it to service center

3. SOUTHCO LOCK MECHANISM (R4-EM-R73-161)

Note that Southco lock default position, is Locked when it's not powered up.

Emergency Internal Lock release mechanism is provided inside of cabinet. The lock has an emergency internal opening mechanism, as required by UL. If for any reason, someone is trapped inside the unit, they can simply press the unlock button and push door open to be released.
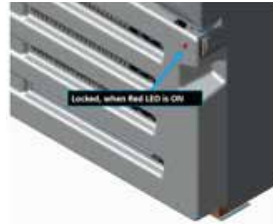
Cooler = Southco lock is Flush-mounted outside the cabinet, but countersunk inside insulation foam, for a zero profile fit

Freezer = Southco lock is mounted externally, and plastic cover protrudes 35mm / 1 1/4 inches. Maximizes required cabinet insulation properties, without excess condensation.

Red LED Lock status indicator is located on the grill – LED is ON when locked.

Locked, when Red LED is ON

4. INSTALLATION SET UP

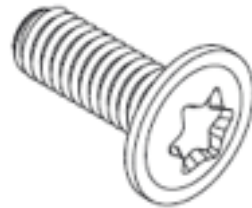**INSTRUCTION VIDEO:**
https://youtu.be/ZUazZ566Ae0

Use leveling feet to ensure that cabinet is installed correctly, and lock mechanism is aligned to ensure correct function.

• Cooler/Freezer should be levelled at the front door sider of the cabinet (Left to Right)

• Cooler/Freezer should have a slight backward lean to help ensure reliable door closing and reliable internal refrigeration operation for condensate drainage.

Should cabinet levelling feet not allow for sufficient lock & latch alignment for unobstructed door closing, the lock latch on the door is adjustable.

Door lock latch can be adjusted vertically for alignment with the lock, by loosening the 3 screws, and securing them again (with a T25 torx phillips head screwdriver), when latch & lock are aligned.
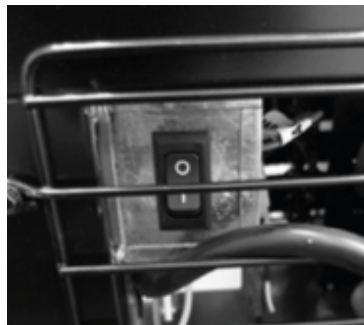

DO NOT adjust lock on cabinet. Must be performed by qualified Imbera service agent. Warranty will be avoided if altered.
The Lock ON / OFF switch must be switched to the (1) ON position, to enable the health lock & timer function, when the cooler/freezer is installed.

• NOTE; When new coolers or freezers are supplied by the manufacturer, the lock storage switch will be in the (0) OFF position, and the lock will remain unlocked until locking function is enabled. This is to allow operators to open the door when cabinet is not powered on, to setup the cabinet prior to installation.

The health lock function & timers will not operate, if the switch is in the (0) OFF disabled mode.
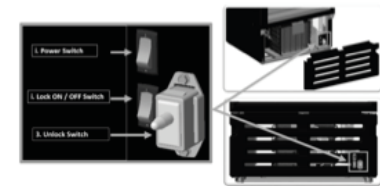

5. CONTROL SWITCHES

Early Insight lock models, have 2 control switches on the cabinet
• Power Switch – Power switch for whole cabinet, is located behind the front grill, to allow technical service access when installed in store (Eliminates the need to moving the cabinet to access main supply power cord).

• Lock On/ OFF switch – This switch is used to enable or disable the Locking & Health Timer functions. Located on the back of the cabinet, with access through the rear rodent grill in the refrigeration compartment

3 control Switches will be located behind the front grill, for ease of installation and service functions (Mid-2021 Firmware & Relocation Revision).

Diagram below shows the location and function of 3 switches. All 3 switches are located away from consumers to avoid tampering, but immediately behind the front grill, to allow operators & technicians frontal access for ease of service.

1. Power Switch
2. Lock ON / OFF Switch
3. Unlock Switch

Power Switch – Power switch for whole cabinet, is located behind the front grill, to allow technical service access when installed in store (Eliminates the need to move cabinets, to access main supply power cord).

Lock On/ OFF switch – This switch is used to enable or disable the Locking & Health Timer functions. Located on the back of the cabinet, with access through the rear rodent grill in the refrigeration compartment (Keeps lock in open position, while cabinet in not powered)

Unlock button – Temporarily Unlocks cabinet, during power outages, for servicing function, as the APP & FOB cannot operate without power supply (Mid-2021 Firmware Revision).

6. LOCK OPERATING INSTRUCTIONS
(Use APP or FOB, to connect to lock controller via Bluetooth & for connection to WiFi)

Lock Control via Bluetooth – During normal operation, use the CIR WIRELESS APP (available for Android and IOS), or Softel Bluetooth FOB device to unlock (Cabinet Power must be on for lock functionality).
• Operators manually lock and unlock cabinet via APP and enabled Bluetooth.
• APP also connects controller to WiFi for Google cloud connectivity.

1. Download SOFTEL CIR APP onto smartphone or tablet (available in google play and app store)

SCAN AND DOWNLOAD THE APP
App Store
Play Store