Snap-on

L5 Connect™ ATC Operation Guide

Version 2.0

Houston, Cody L
10-20-2022

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SAFETY INFORMATION

For your safety, read this manual thoroughly before the installation of the equipment.

Installation is intended to be performed by properly trained technicians. The safety messages presented here are reminders to the installer to exercise extreme caution during installation and training on the system.

There are many variations in procedures, techniques, tools, and parts for installation due to varied shop configurations. Because of the vast versatility of installation, the manufacturer cannot possibly anticipate or provide advice or safety messages to cover every situation. It is the technician's responsibility to be knowledgeable of the equipment to be installed. It is essential to use proper service methods and perform installation in an appropriate and acceptable manner that does not endanger your safety, the safety of others in the work area, the end-user, or the equipment being serviced.

It is assumed that, prior to the installation of the system, the operator has a thorough understanding of Automated Tool Control Systems in general. In addition, it is assumed they have the proper hand and power tools necessary to perform the installation, operation, and training in a safe manner.

These safety precautions should always be followed, including:

1. Read all instructions.
2. Care must be taken as burns can occur from touching hot parts.
3. Do not operate power tools or equipment with a damaged power cord or if the equipment has been dropped or damaged until it has been examined by a qualified serviceman.
4. Do not let the cord hang over the edge of the table, bench, or counter or come in contact with hot manifolds or moving fan blades.
5. If an extension cord is necessary, a cable with a current rating equal to or more than that of the equipment should be used. Cords rated for less than the equipment may overheat. Care should be taken to arrange the cable so that it will not be tripped over or pulled.
6. Always unplug equipment from the electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
7. Let equipment cool entirely before putting it away. Loop cord loosely around equipment when storing.
8. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids, such as gasoline.
9. Adequate ventilation should be provided when working on operating internal combustion engines.
10. Keep hair, loose clothing, fingers, and all parts of the body away from moving parts.
11. To reduce the risk of electrical shock, do not use it on wet surfaces or exposed to rain.
12. Use the device only as described in this manual. Use only the manufacturer's recommended attachments.
13. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact-resistant lenses. They are NOT safety glasses.
14. Know and understand the proper operating procedures for all power tools used.
15. If the equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
16. Danger: Mirror could have sharp edges, be careful of cuts along the edge of the glass when cleaning!!!

IMPORTANT!! SAVE THESE INSTRUCTIONS

DO NOT DISCARD!!

WARNING!

SAFETY INSTRUCTIONS
IMPORTANT!! SAVE THESE INSTRUCTIONS

Risk of electrical shock.

- Do not operate equipment with a damaged power cord or if the equipment has been dropped or damaged until it has been examined by a qualified service person.
- If an extension cord is necessary, a cable with a current rating equal to or greater than that of the equipment should be used. Lines rated for less present than the equipment can overheat.
- Unplug equipment from the electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.
- Do not expose the equipment to rain. Do not use it on wet surfaces.
- Plug the unit into the correct power supply.
- Do not remove or bypass the grounding pin.
- Do not use a replacement main power cord that does not meet the power rating of the original cable. SJTW 18/3 105ºC, 10', 10A/125-240~VAC

Contact with high voltages can cause death or severe injury.

Risk of electrical shock. High voltages are present within the console unit.

- Service on the unit must be performed by qualified personnel.
- Do not open any part of the control shelf other than the noted areas.
- Turn the power switch off and unplug the unit before servicing.

Contact with high voltages can cause death or severe injury.

Units can tip or strike you.

- Do not open more than one loaded drawer at a time.
- Keep children away
- Close lid and lock drawers and doors before moving.
- Apply brakes on locking casters when not moving unit.
- Do not step in or on drawers.
- Secure units together with fasteners.
- Read the instruction manual.

Tipping of storage unit or unit striking you can cause injury.

Unit's edges can cut or pinch.

- Do not pull unit; push to move.
- Wear gloves when lifting by edges.
- Keep feet and fingers clear of edges when stacking hanging or moving units.

Unit's edges can cause injury.

Do not dispose a landfill.

- The unit contains electronics that must be disposed of within the bounds of EN 50149.
- Dispose of lithium-ion batteries (where applicable) in accordance with local laws.
- For more information, call 1-800-424-9300 for North America or 1-703-527-3887 for International.

SAVE THESE INSTRUCTIONS

Table of Contents

Introduction 6
Device Overview 7
Optical Toolbox 7
RFID Cabinet 8
General Instructions 9
Basic Operation 10
Toolbox Issue / Return 10
RFID Cabinet Issue / Return 15
How to Retrieve Diagnostic Data 19
Home Screen 20
Toolbox 20
RFID Cabinet 21
Home Screen Layout 22
Service Connection Indicator 22
Device Status Bar 23
Battery & Power Status 24
Tool List 26
Drawer Status Indicators 27
User Status Frame 28
Tool Properties 29
Info Tab 29
Issued Tab 30
Status Tab 30
Maintenance Tab 32
Tool Settings Tab ( ) 33
Main Menu 36
Inventory 37
Device Status 40
Info Tab 40
Status Tab 41
Maintenance Tab 41
Audit (Requires Login) 42

Creating a Custom Audit 42
Assigning a Custom Audit 45
Performing an Audit on the Toolbox 46
Viewing Audit Results 49
I/T Settings 50
Network Setup 51
System Changes 52
Troubleshooting 53
Lock: Diagnostics 53
Calibration 55
Retrain Drawer (Requires Login) 56
Archive Image Diagnostics 57
About 60
Volume 61
Advanced Features (Advanced License Required) 62
FastFlag 62
ZoomID 63
Setting Up an ATC Device 64
Connecting to a L5 Connect™ Service 64
Defining Drawer Heights on an Optical Toolbox 67
Calibrating the Optical Toolbox 68
The Calibration Strip 68
Toolbox Calibration Process 69
Importing Toolbox Foam Files 75
Drawer Training on Toolbox 77
Pallet Training 80
RFID Catalog & Accessories 81
RFID Tags 81
Starter Kits 84
Handheld Scanners 85
Heat Shrink Tubing and Silicone Tape 86
Epoxy Applicator 87
RFID Tag Installation - BEST PRACTICES 88

Specifications 90
Electrical Specifications 90
Optical Toolbox (AC) and RFID Cabinet 90
Optical Toolbox (Battery) 91
Dimensions and Weight 92
54” Toolbox 92
36” Toolbox 92
RFID Locker 92
Battery Safety Instructions 94
L5 Connect™ Device Models 99

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Introduction

Thank you for your purchase of a L5 Connect™ ATC Device. This guide will help you in getting to know your new product. In no time, you will become an expert in utilizing and maintaining your new Device.

Your new L5 Connect™ Device is just a tiny part of a much larger system. To fully utilize your new product, you will need to connect it to a L5 Connect™ Service. Information about L5 Connect™ products can be found in the **L5 Connect™ Administration Guide**.

This guide's first section will introduce you to your device and some essential operation and maintenance tips to keep your Device in working order for many years to come.

The following sections will cover how to set up and use your Device for the first time, as well as an in-depth look into the interface, functions, and features of your Device.

Although this is guide is a detailed walkthrough of the L5 Connect™ ATC Device software, we understand you may have questions. If you feel lost or don't understand the content at any time, please get in touch with Snap-on® Technical Support.

Phone: **1-800-272-2033**

E-mail: **TECHSUPPE@snapon.com**

Our technical support agents are standing by, ready to assist you with any questions or issues you may have.

Once again, thank you for your purchase, and welcome to the L5 Connect™ family.

NOTE: This Guide was written with software version 9.2.31.0 and some screens and features described in this guide may appear differently than in the version you may be using.

Device Overview

Optical Toolbox

The L5 Connect™ Optical Toolbox works at the speed you do. A user opens the box, gets the tools, and goes to work. Other systems require additional steps to scan or log activity. We do it automatically, so you don't waste time, and you don't need to depend on other measures to ensure accurate results.

Advanced Technology that Makes Tracking Tools Simple

With advanced digital imaging technology and proprietary software, the Toolbox scans the tool drawer and records which tools are removed and replaced in real-time. So, you know where everything is always at without slowing the technicians for even a second. The system is also aware of broken tools, allowing you to replace or repair them right away. It's tool control that works hard to keep technicians working at their best.

Features and Benefits

- No individual tool scanning required
- No RFID tags to install or replace
- No limit on tool size – If it fits in the drawer, it works
- Intuitive touchscreen interface
- Audible voice confirmation of tool removal and replacement
- Automatic locking
- Audio feedback on issued and returned tools and alerts
- 10.1" Widescreen 16:9 LED Resistive touchscreen
- Optional Black Powder Coated Paint top vs. Stainless Steel
- Dual wireless antennas for improved connectivity
- Hardware – 64-bit processors with 8GB RAM
- Uninterruptable power supply – 30 minutes of backup power

AC and Rechargeable Platforms available:

- 36" single bank roll cab, approximate capacity 450 tools
- 54" single bank roll cab, approximate capacity 750 tools
- 6, 7, and 8 Drawer mobile and Stationary
- Custom drawer configurations available
- Stainless or Black Powder coated tops

Features and Specifications

- One year Manufacturer's warranty
- One, Two, and Three-year Manufacturers Contracts Available
- Unlimited number of assigned users
- Networking through Ethernet or wireless

RFID Cabinet

The L5 Connect™ RFID Cabinet provides automated asset tracking to irregularly shaped items, like extension cords, tools kitted in plastic or fabric carrying cases, and personal protective equipment. In addition, the RFID Cabinet makes tracking large and awkward-sized tools and assets easy.

Features and Benefits

- The RFID Cabinet powered by advanced RFID technology and proprietary software can track Critical Industry workplace assets in real-time.
- Track serialized items like torque wrenches, multi-meters, micrometers, and more.
- Heavy-duty metal shelves with foam bear the weight of larger tools and assets
- Onboard AC power strip allows for secure recharging and storage of power tools
- Intuitive touchscreen interface
- Audible voice confirmation of tool removal and replacement
- Automatic locking
- Audio feedback on issued and returned tools and alerts
- 10.1” Widescreen 16:9 LED Resistive touchscreen
- Dual wireless antennas for improved connectivity
- Hardware – 64-bit processors with 8GB RAM
- Uninterruptable power supply – 30 minutes of backup power

Specifications

- One year Manufacturer’s warranty
- One, Two, and Three-year Manufacturers Contracts Available
- Unlimited number of assigned users
- Networking through Ethernet or wireless
- Available in a variety of colors

General Instructions

Regular operation requires common sense care of the L5 Connect™ Device. Below are some specific dos and don'ts to follow.

Do	Don't
• **Close drawers in a normal fashion** • **Clean tools before replacing into foam cutouts** • **Keep toolbox clean** • **Respect the ATC system for what it is intended to do for you** • **When touching the touch screen do so with clean hands** • **Keep touch screen clean** • **Use only your fingers on the touch screen** • **Keep box locked when not in use** • **Logout when not present at the box** • **Lock wheels when in use** • **Make sure all drawers are closed before moving box** • **Only move box with attached handle**	• **Slam drawers closed** • **Place objects into drawers that do not have cutouts** • **Allow the foam to get dirty** • **Use in the rain or in wet conditions** • **Reach inside drawer to retrieve tools beyond camera view** • **Place tools directly onto foam, place tools in their cutout** • **Modify cutouts** • **Plug unit into a voltage source other than that specified** • **Strike or beat on box** • **Attempt to open the box top** • **Plug any device into box USB ports** • **Step onto or into open drawers** • **Turn off power switch before shutting down the ATC system through the touch screen interface first** • **Expose toolbox to direct sunlight, the toolbox should not be positioned in such a way that sunlight can hit the drawers. Sunlight may cause incorrect drawer scans which can result in Incorrect or Wrong tool errors.**

MAINTENANCE

Clean the mirror using a microfiber lens cleaning cloth. If the mirror surface is dusty, then use the microfiber cloth with water. Only once or twice a year use Isopropyl Alcohol. Cleaning too frequently with ISO Alcohol can result in damage to the reflective surface. The use of any other chemical on the mirror will result in a voided warranty!

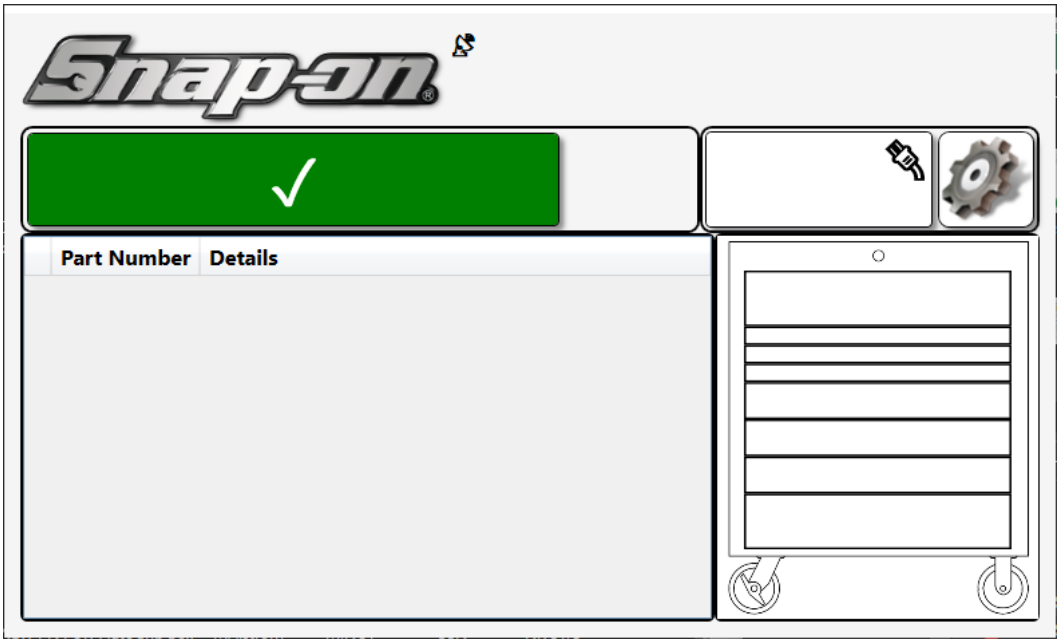
- Wipe down dot strips inside each drawer, make sure there are no obstructions on the strips.
- If the screen requires cleaning, spray window cleaner on a soft lint-free cloth and wipe down, making sure no liquids drip into the edges of the screen. Do not spray any cleaner directly onto the touch screen.

Basic Operation

The ATC Devices are designed for ease of use and quick response. The devices truly "***Work at the Speed of Work***." The following is a standard flow of how to issue and return tools from an ATC Device.

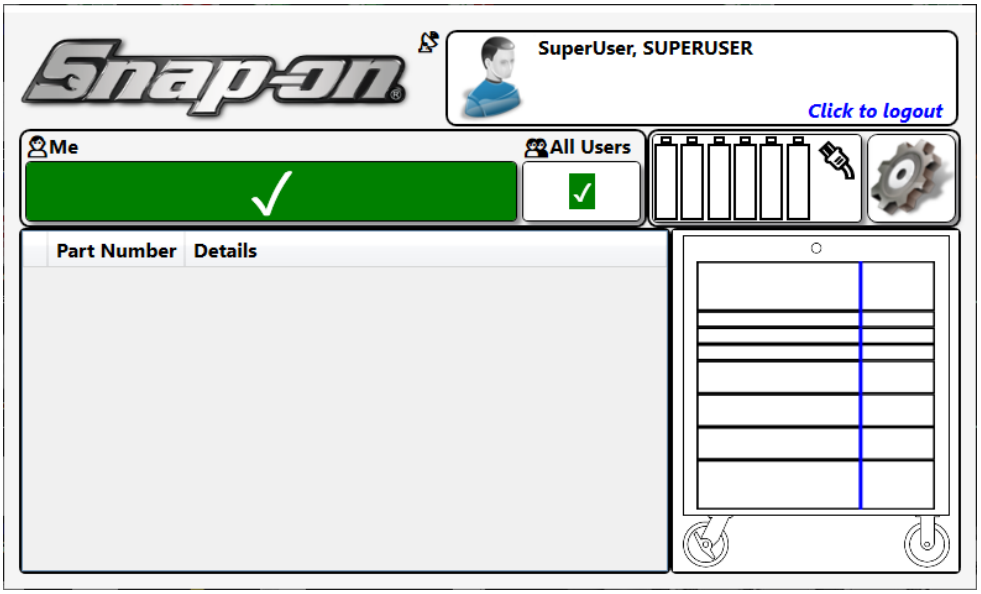
Toolbox Issue / Return

If you have access to a toolbox, verify that no other user is logged into the device.



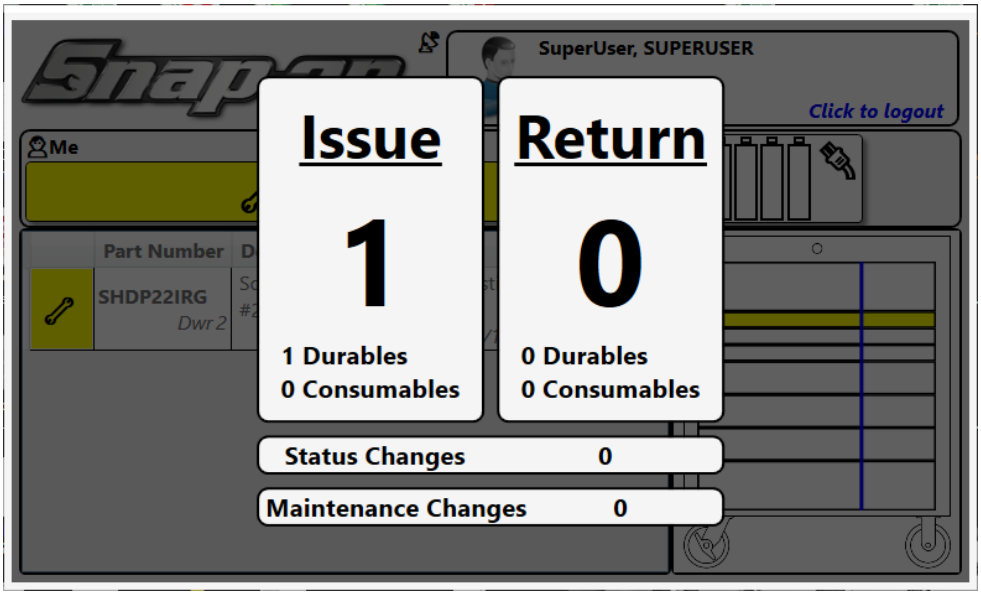
Wave your badge near the card reader on the front of the toolbox

If you have permission to access this box, it will log you in and unlock.

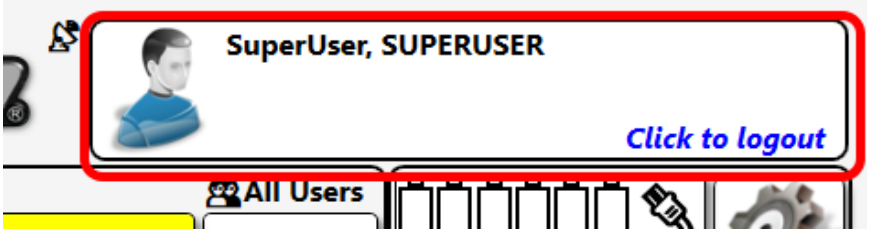


Select the drawer that contains the tool you wish to retrieve and open it. Once opened, find the tool you want and take it out of its pocket. The system will display the current drawer that is open.

Once you have retrieved your tool, close the drawer, and the system will issue the tool to you.

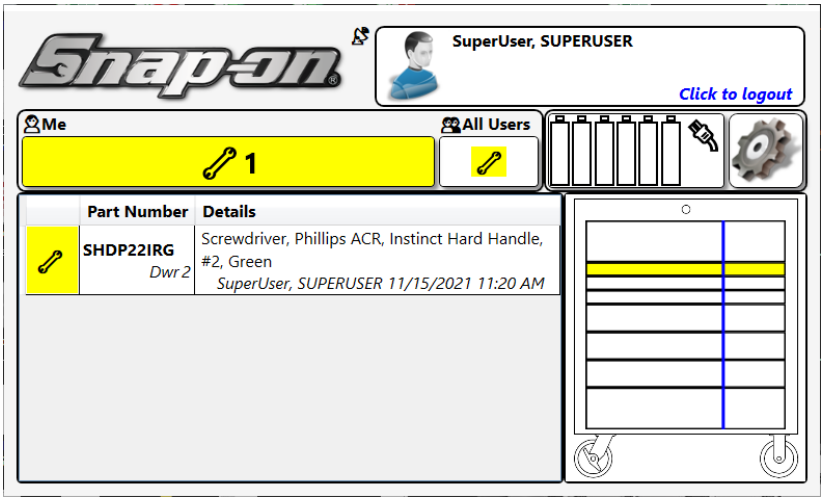


You can tap the screen to clear the summary. To log out, tap the User frame in the top right corner of the screen.

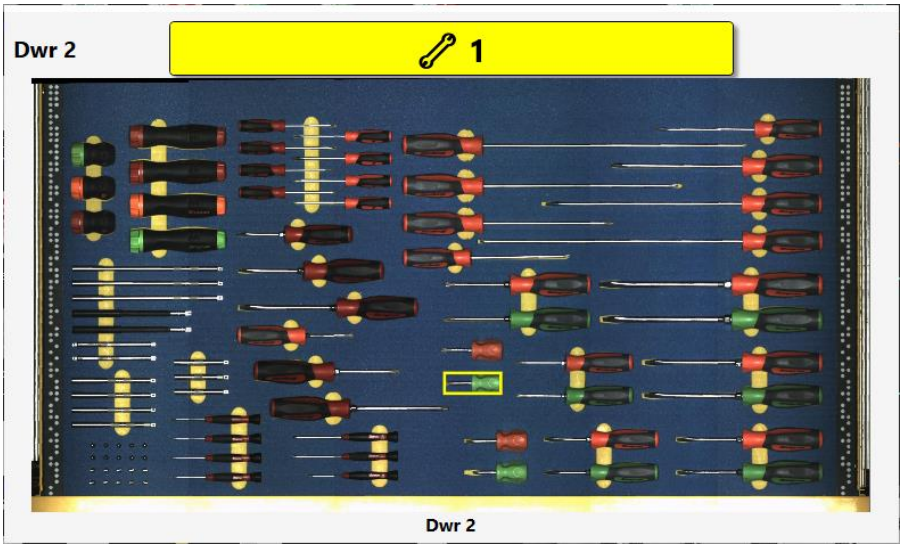


To return a tool, you will follow a similar process, first wave your badge to log in

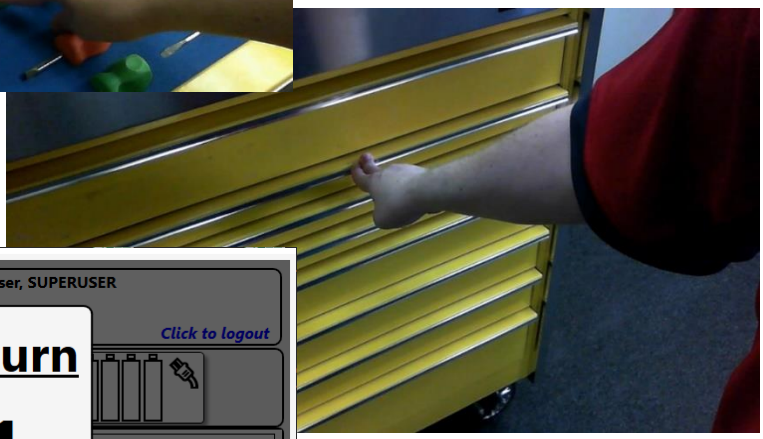
When the system logs you in, the screen displays a list of tools issued to you and their status. It will also show the drawer from which the tool came.

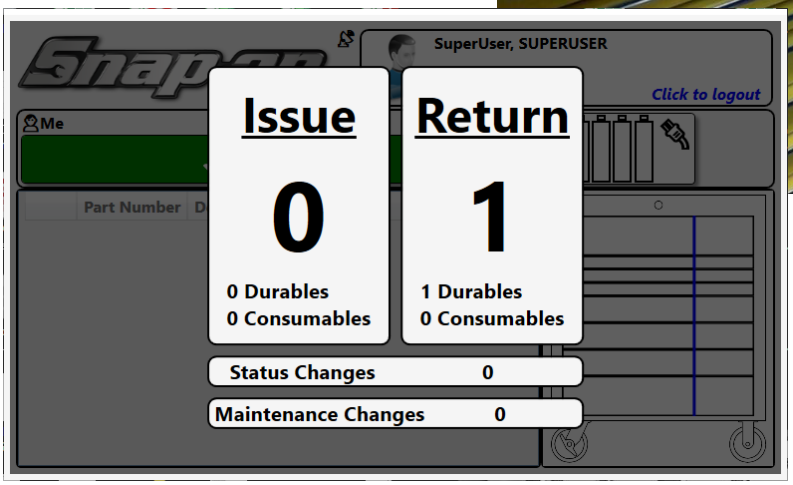


To return the issued tool, open the drawer it belongs to, the screen displays an image of the drawer, and the tool's assigned pocket is outlined with a blinking box.

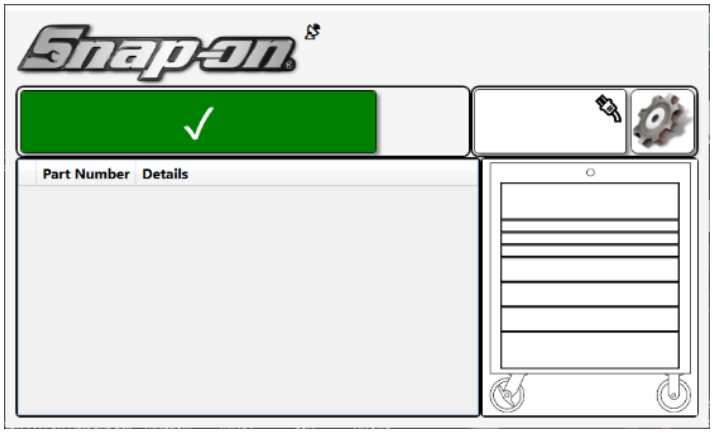


Place the tool in its assigned pocket, then close the drawer. A summary of the transaction will display on the screen.





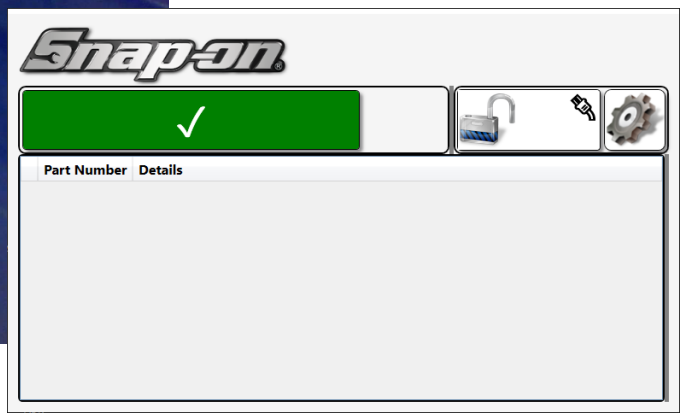
Tap the summary to clear it, then tap the user frame to log out.



RFID Cabinet Issue / Return

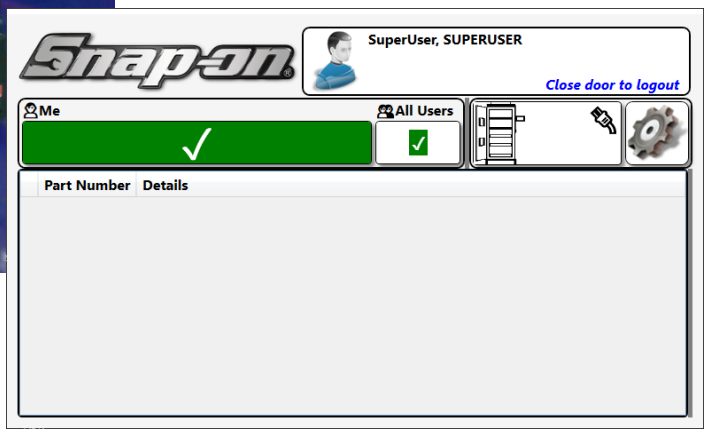
The RFID Cabinet has a slightly different process to issue and return tools. Yet, like the Toolbox, all access is granted by waving the badge of an authorized user near the card reader on the right side of the cabinet.

If you are an authorized user, wave your badge in front of the reader. You will hear the clicking sound of the door unlocking. This is represented on the screen with the padlock icon.

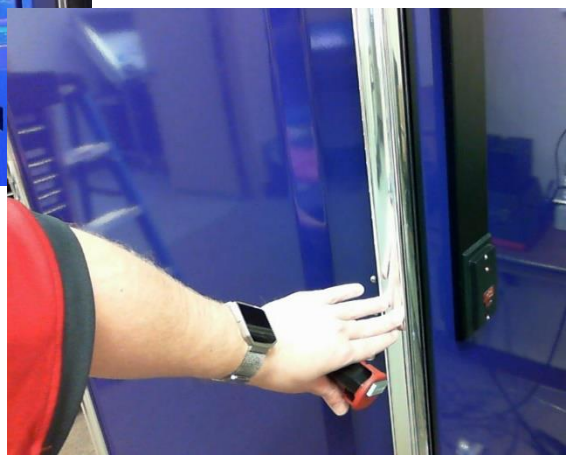


When you open the door, the system will log you in. You will notice that the padlock icon has now changed to show that the door is open.

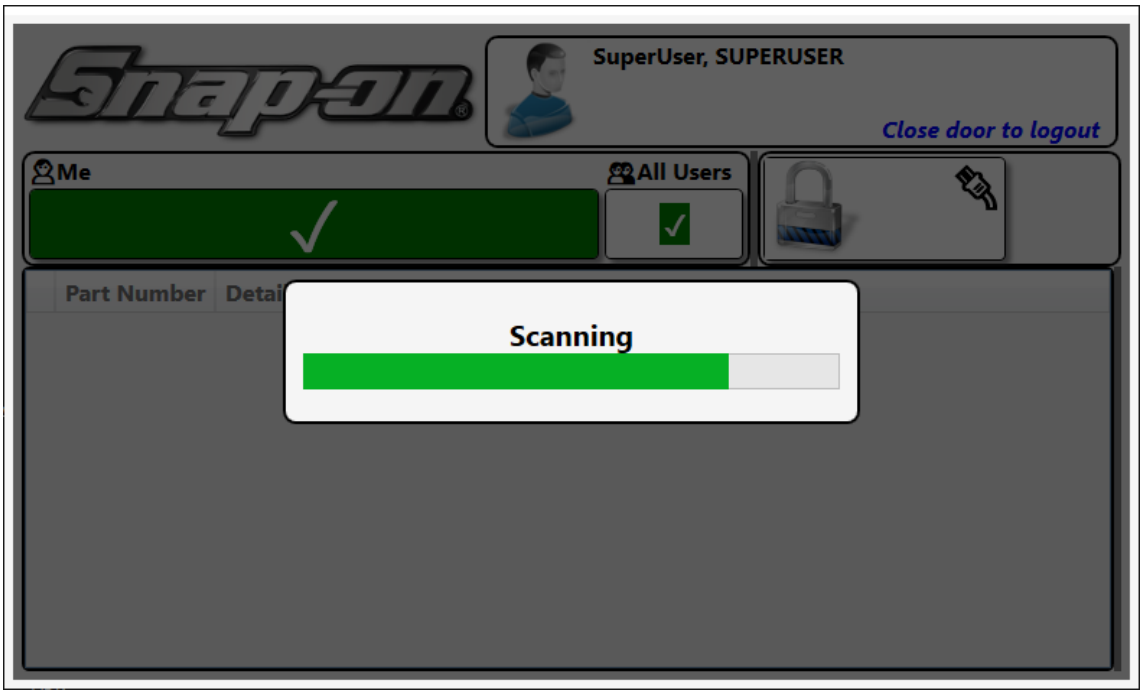
NOTE: Sometimes the door may not unlock properly. This may be due to pulling on the door before the locking mechanism engages. Please make sure to wait for the click of the lock before you pull on the door.



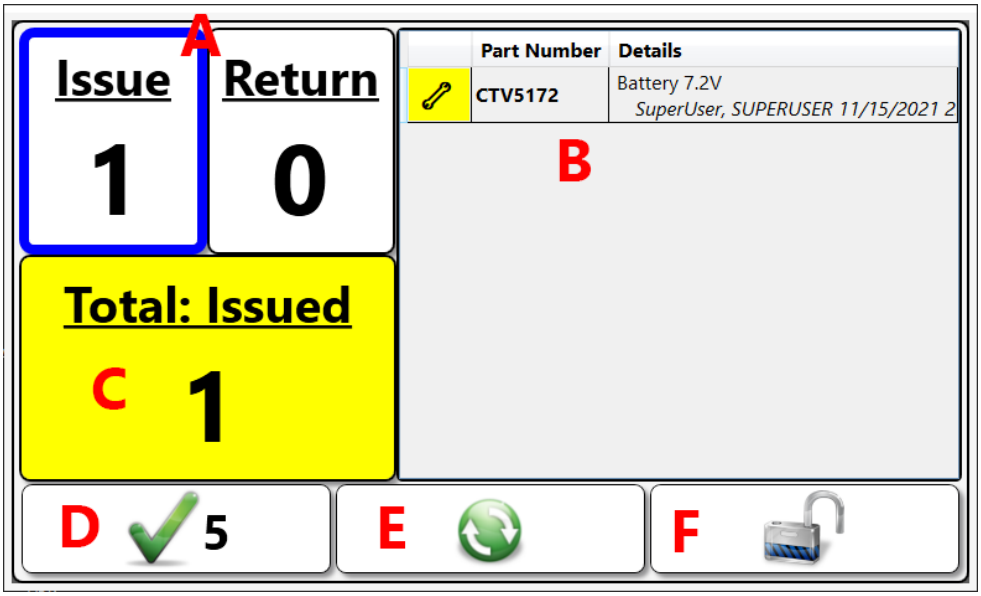
Find the tool you want and remove it from the RFID Cabinet, then close the door.



When the door is closed, the system will then perform an RFID scan and issue the tool that you removed.

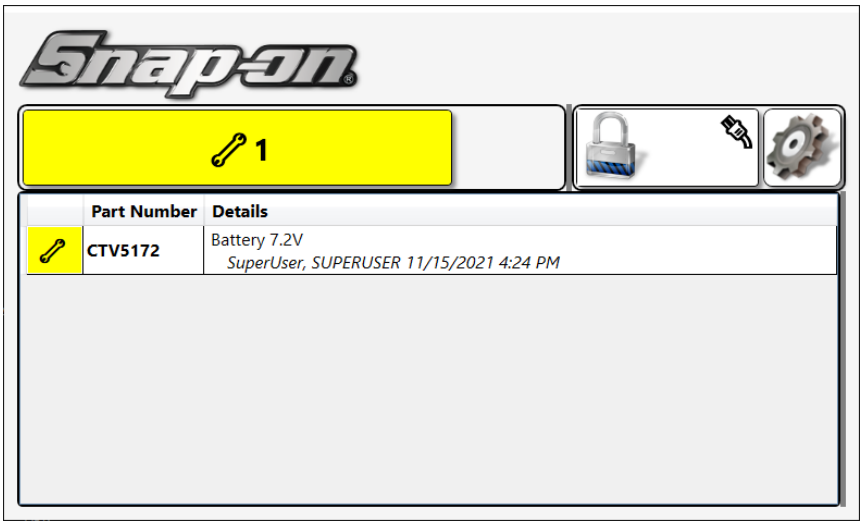


You will then be presented with the session summary screen.



- **A.** Transaction Summary – These are the number of items that you are being issued or have returned. You can tap each to toggle the List of Tools (**B**).
- **B.** List of Tools – This is the list of the currently selected tools. You can toggle it to show the list of tools being issued and tools being returned by tapping one of the options of the Transaction Summary (**A**).
- **C.** The number of Issued tools this session – Displays the number of tools that are being issued to the user.
- **D.** Confirm – Confirms and completes the transaction. If no input is made in 5 sec, this is automatically executed.
- **E.** Rescan – Forces the RFID Cabinet to rescan for RFID Tags.
- **F.** Unlock the door – Aborts the transaction and unlocks the door.

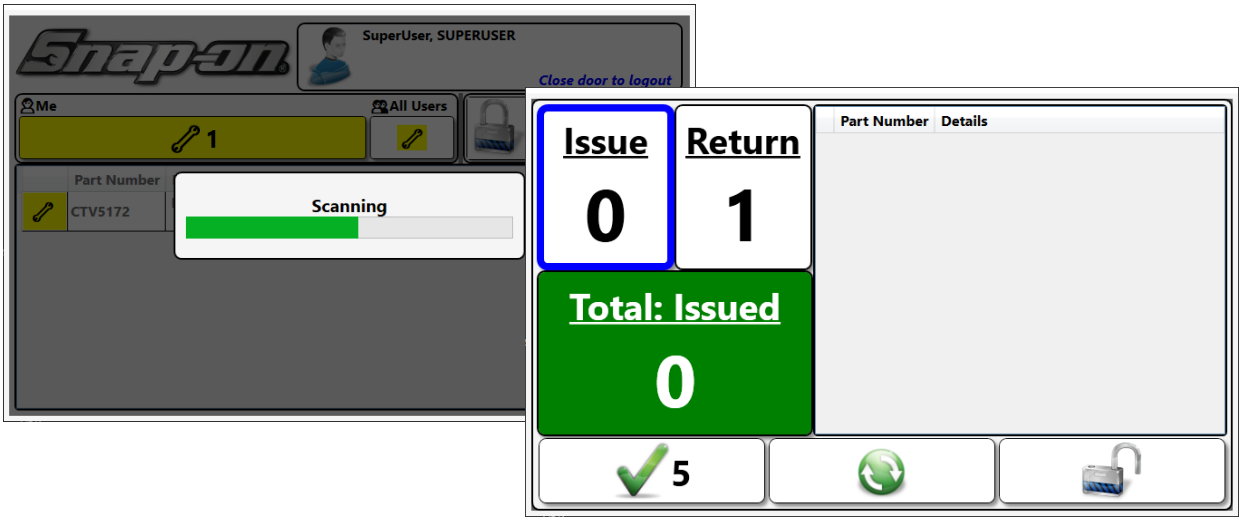
If you either tap the Confirm button or wait 5 sec, the tool will be issued to you, and the locker will return to the home screen.



To return a tool, swipe your card to unlock the door.

Then open the door and replace the tool. Close the door so that the RFID Cabinet can perform a scan.

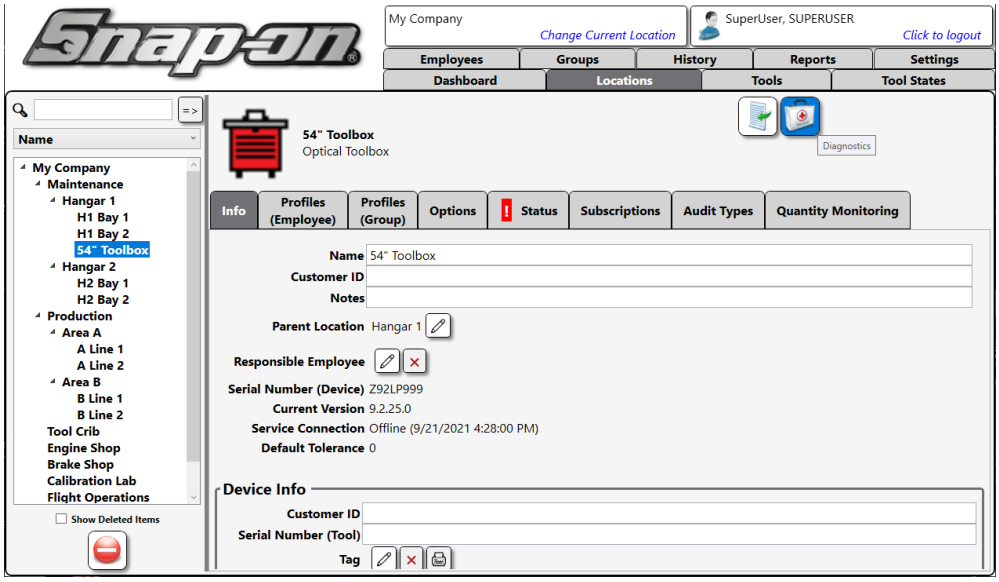
Wait for the scan to complete and confirm that the tool is returned.



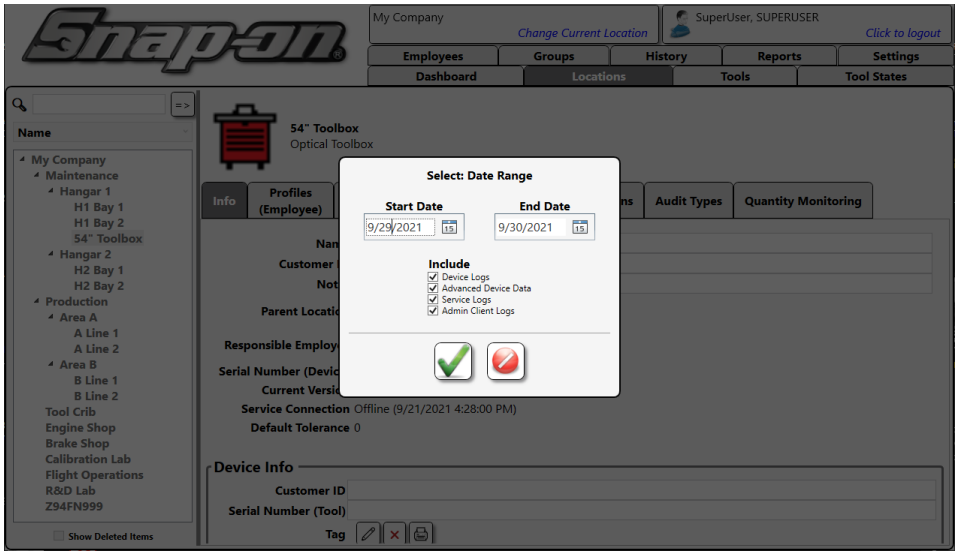
How to Retrieve Diagnostic Data

You may be asked by Technical Support to retrieve log files from your L5 Connect™ Device. If the Device is online and communicating with the L5 Connect™ Service, then log into the Admin Client and go to the Locations Tab.

Select the Device you want to pull diagnostic data from and click on the Diagnostics button



Select the time range you want to review and click the Green Check



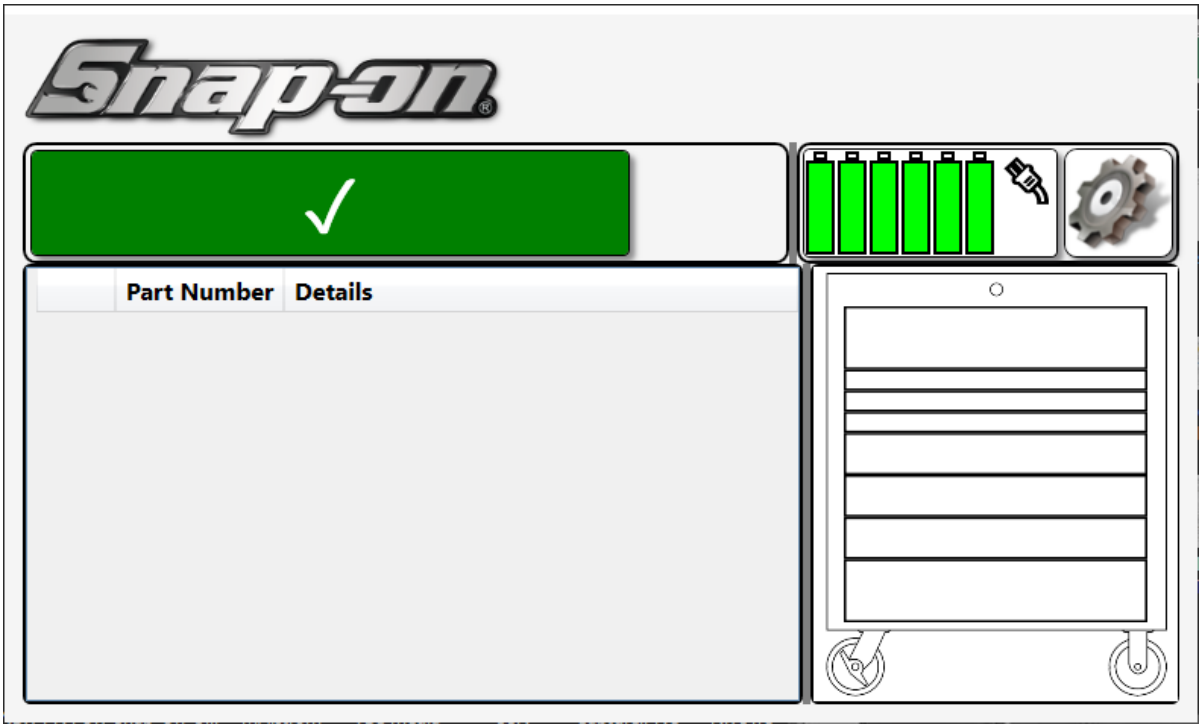
The system will prompt you for a location to save the .zip file containing all the diagnostic data.

Home Screen

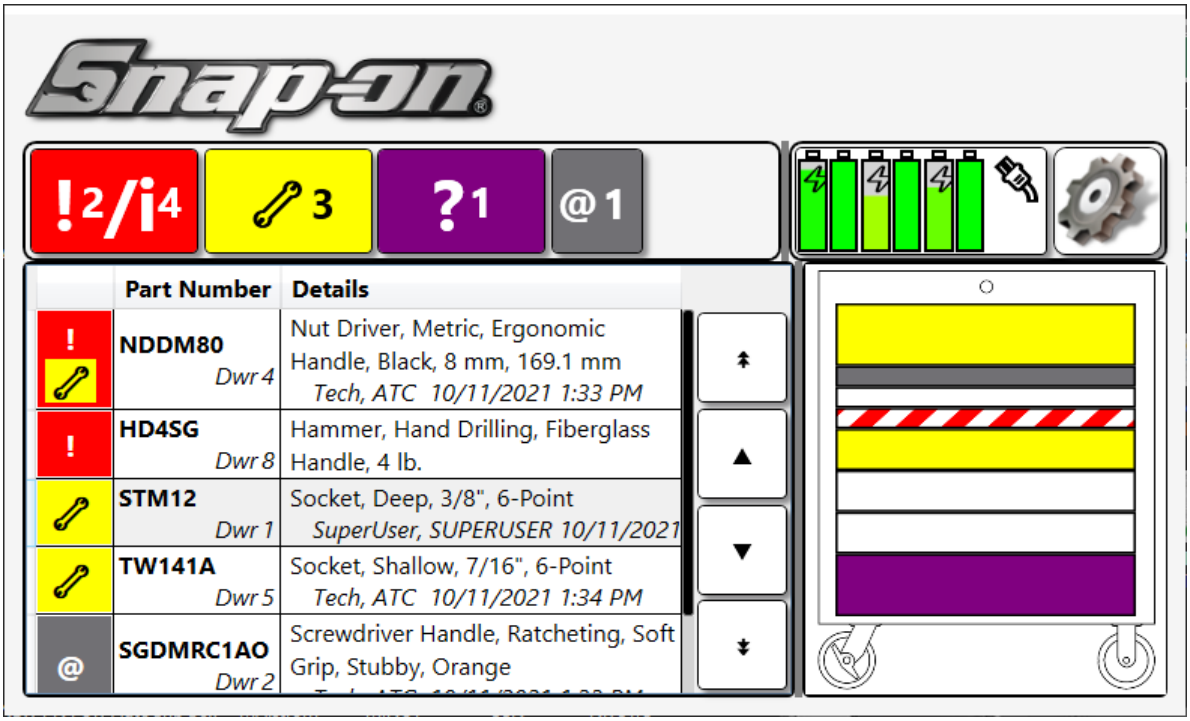
The Home Screen is used to display at a glance the status and condition of the Toolbox and cabinet.

Toolbox

When the Toolbox is operating correctly and all tools present, the home screen will look like this:

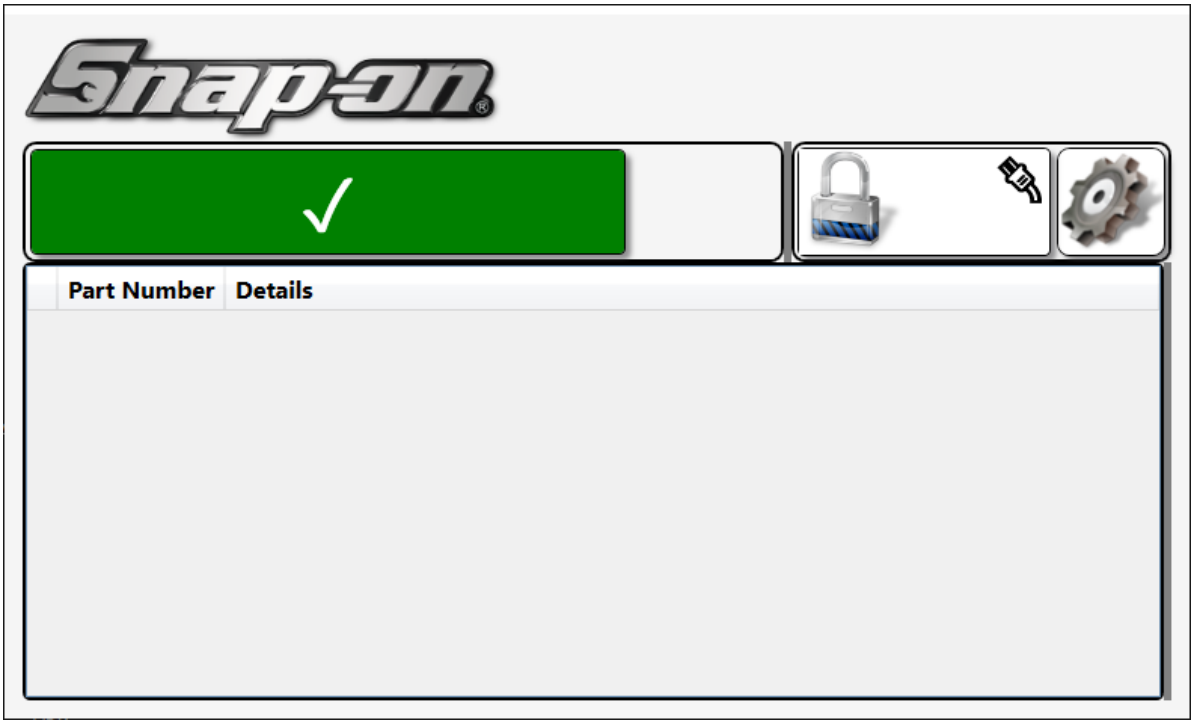


Toolbox home screen with statuses applied to tools for several different users and batteries charging:

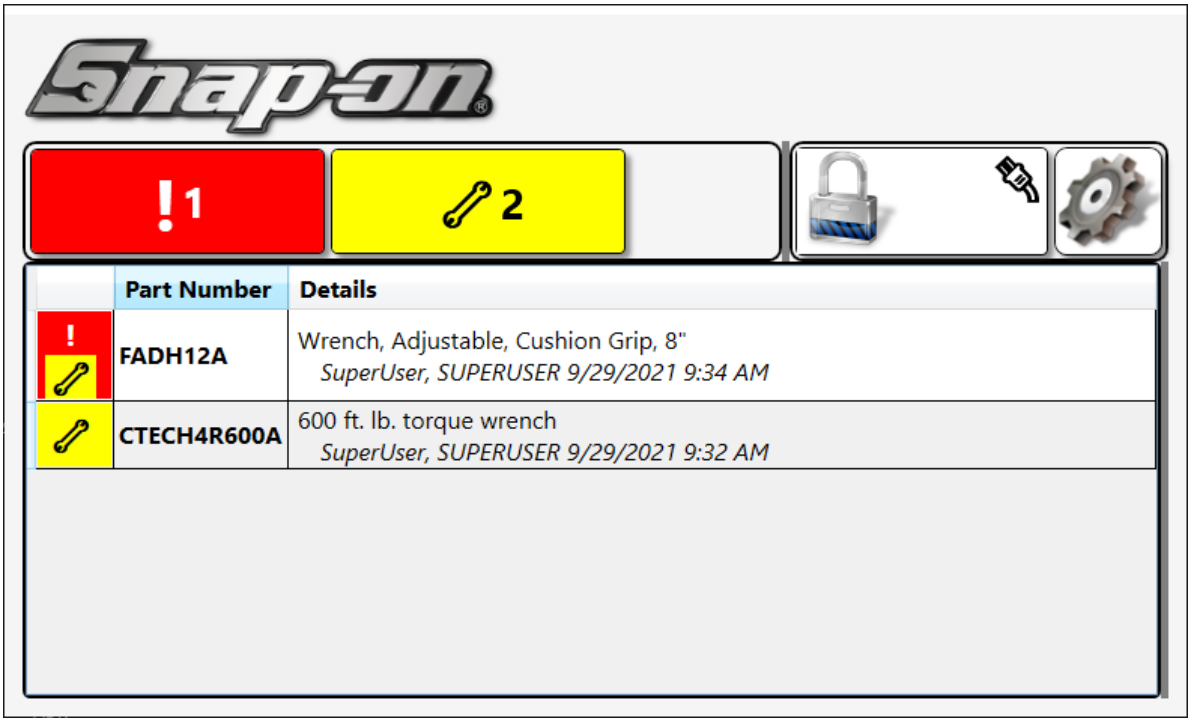


RFID Cabinet

When the RFID Cabinet is operating correctly and all tools present, the home screen will look like this:

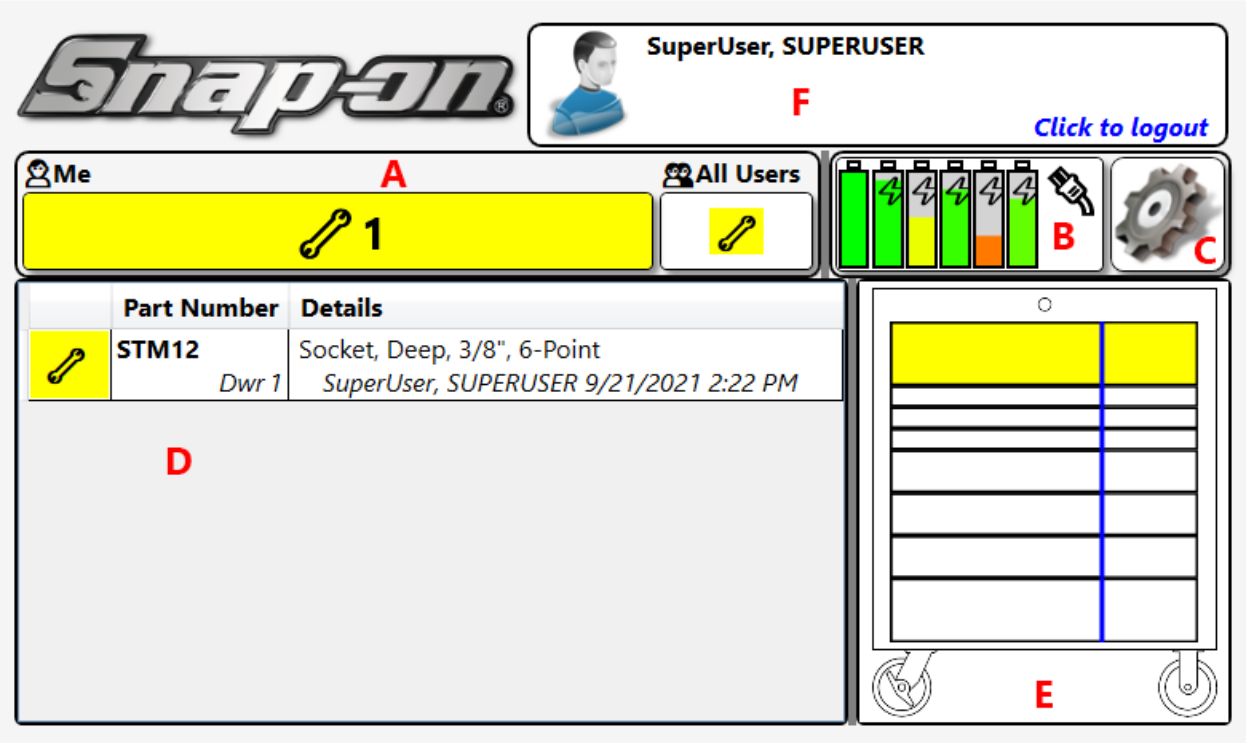


RFID Cabinet home screen with statuses applied to tools for several different users:



Home Screen Layout

The following section will go over each of the components of the home screen and explain their function.



A – Device Status Bar – Quick view of the status of Tools and Device

B - Battery & Power Status – Status of power and batteries

C - Main Menu – Administrative Functions

D – Tool List – List of tools issued and tools with statuses

E - Drawer status (Toolbox Only) – View of tool status by drawer

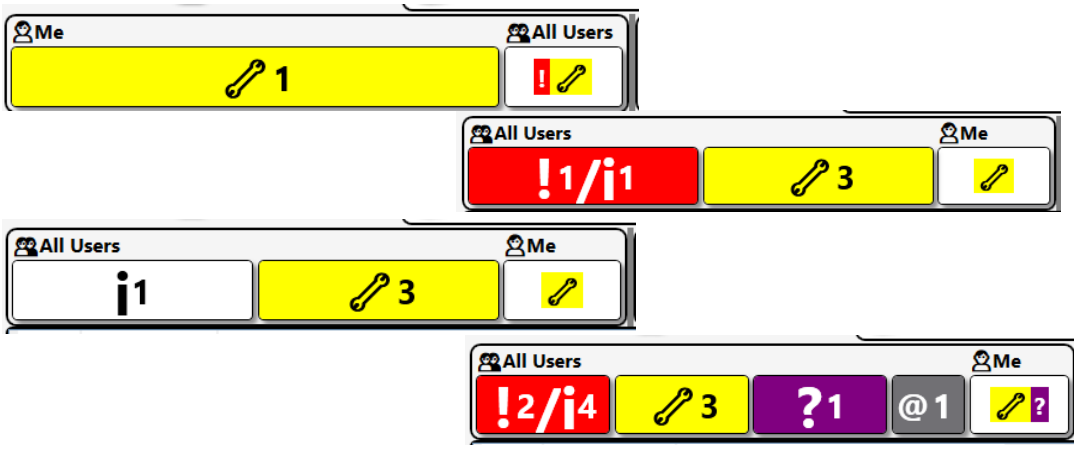
F – User Status Frame – Displays the currently logged in user

Service Connection Indicator

If a device is connected to a L5 Connect™ service and is communicating correctly, you will see the following icon near the Snap-on® logo:

Device Status Bar

This section displays the number of tools with statuses applied to them and the number of issued tools. You can switch between the currently logged-in user and all users by tapping the All Users button.



Yellow represents the number of currently issued tools.
Red ! represents the number of tools with an alert status.
White i represents the number of tools with a status that is not an alert.
Purple represents the number of tools that need to be confirmed
Grey represents the number of tools that are managed out of the box (out for repair, etc.)

You can also tap on any of these numbers and bring up the tool inventory screen with a quick filter already applied.

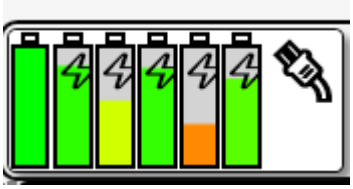
If the status bar displays **green** with a checkmark, all tools are accounted for, and there is nothing wrong with the Device.
If the status bar shows a **Red** Flag Icon, it means there is an issue with the ATC Device and needs to be addressed.

All Tools Accounted For, No Issues with Device

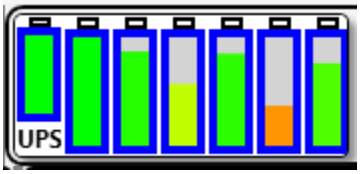
ATC Device Issue

Battery & Power Status

This section displays the status of the external batteries on a Toolbox if present. The system will show when the device is plugged into AC power or when it is running off battery power.

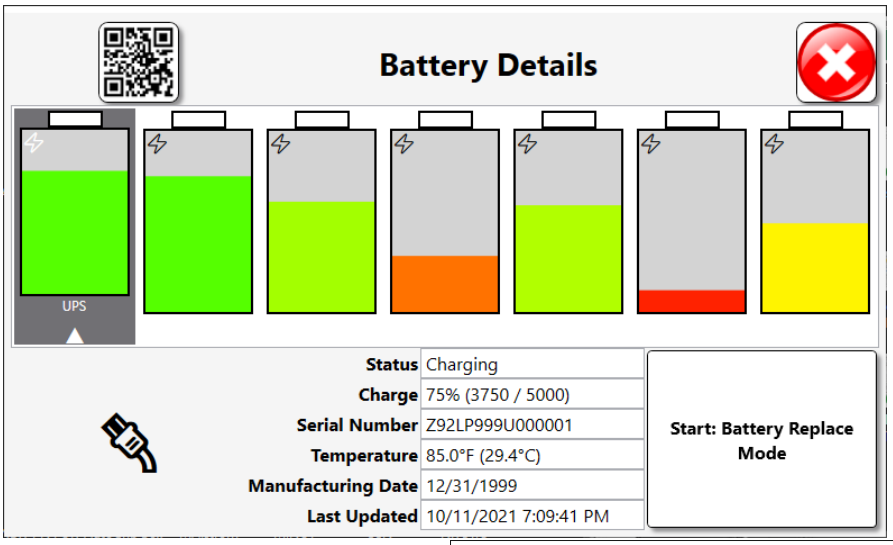


Device plugged into AC power and charging.

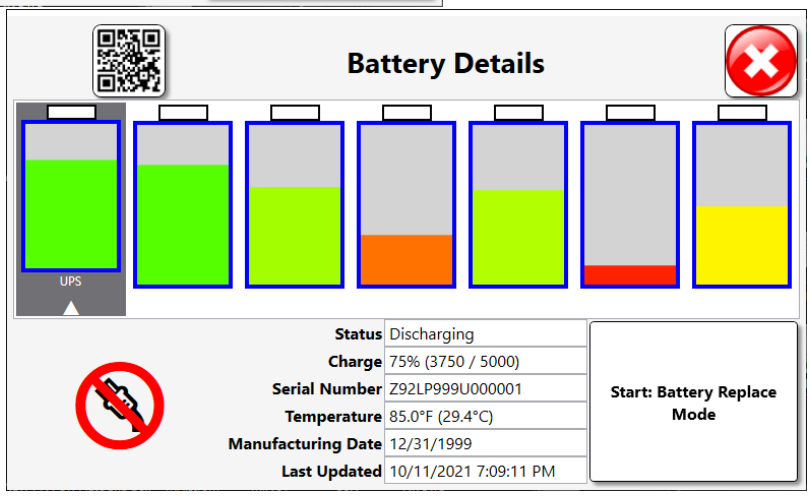


ATC Device running on battery power.

You can tap this section to bring up the Battery Status Screen:



Plugged into AC power

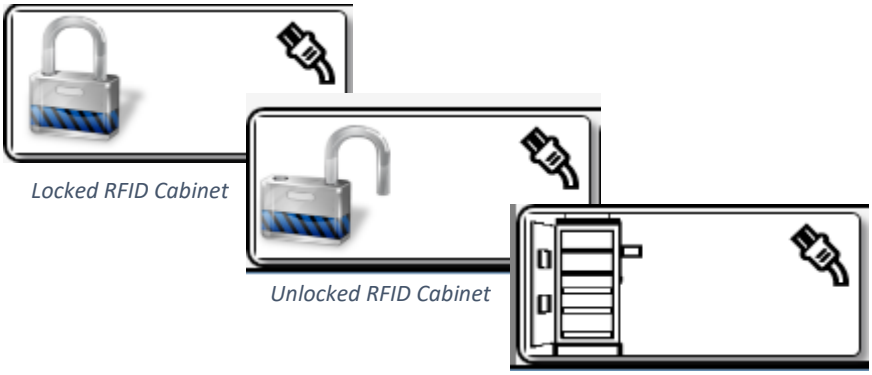


Running on Battery Power

ATC Devices are equipped with an internal UPS battery. This battery will provide power until the unit can be properly shut down if the device suddenly loses external power.

To replace a battery, tap on the **Start: Battery Replace Mode** Button. When done, tap the button again to end replacement mode.

On an RFID Cabinet, the battery display is slightly different. It will display the AC Power status and the Door Lock status. When you log into the cabinet, the icon will change to show the door unlocked and ready to open. When you open the door, the system will display an open-door icon.

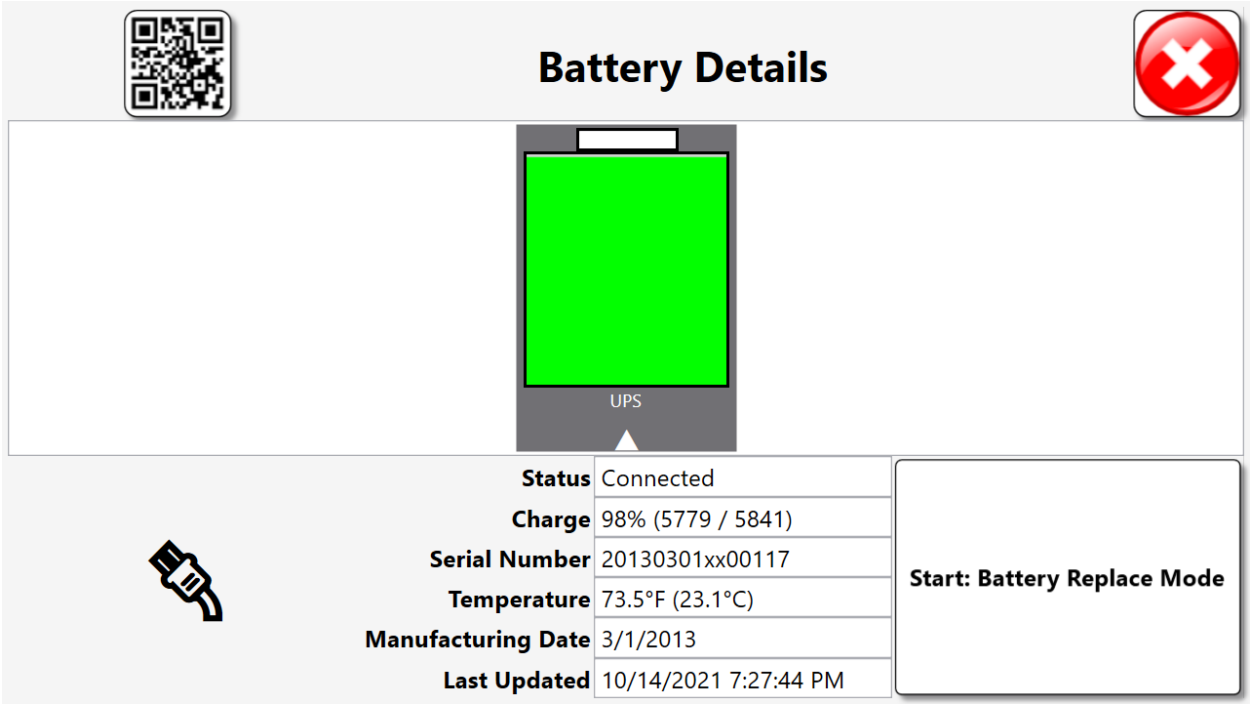


Locked RFID Cabinet

Unlocked RFID Cabinet

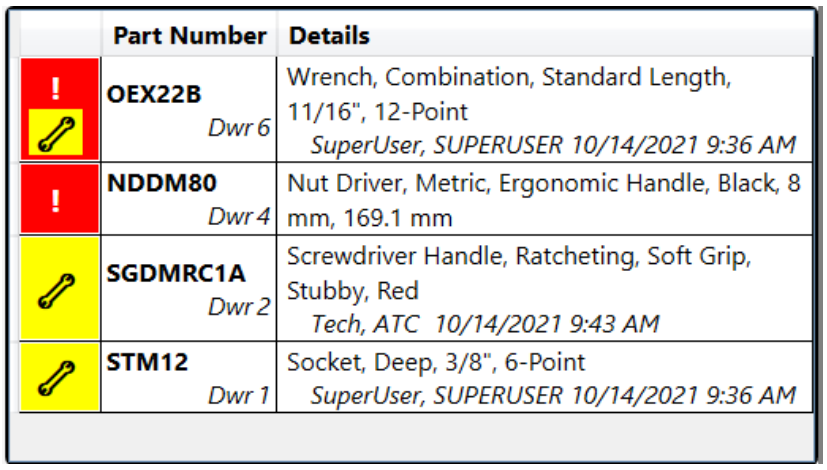
RFID Cabinet w/ door open

Also, since there is only a single internal UPS battery in an RFID Cabinet, the Battery Status screen looks a little different as well.



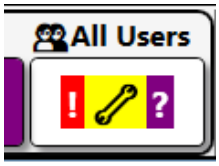
Tool List

This section displays all tools that are currently issued or have an alert status applied to them.



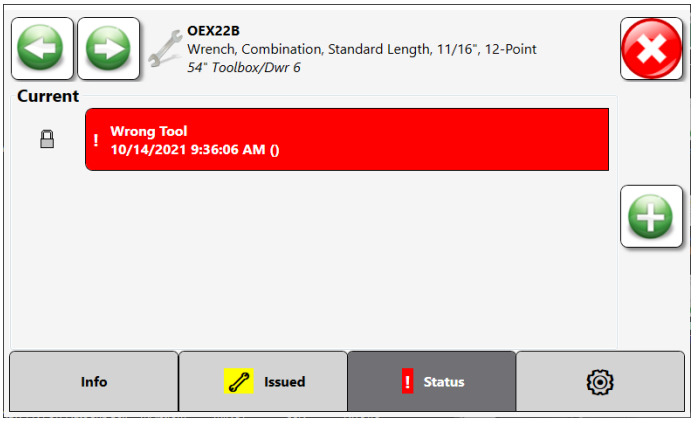
Yellow means that the tool is currently issued.
Red means that the tool has an Alert applied to it.

When a user logs into the Device, the tool list will only display the tools issued to that user. By pressing the All User button, you can change the list to show issued tools and tools with alert status for all users.



Pressing the All Users button will switch tool list view

You can long-press a tool in the list to access the tool properties.



Tool Property Screen after long press of tool in list

Drawer Status Indicators

This section shows the Toolbox drawers that have tools with statuses. There are four different status colors for a drawer.

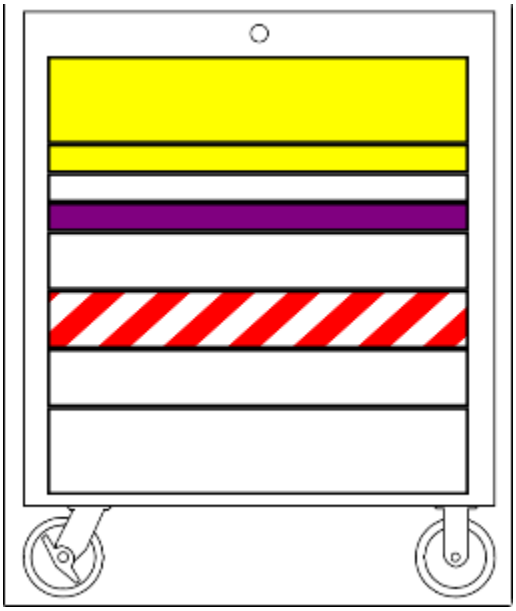
 - Represents that there is an issue with the drawer (bad scan, etc.)

 - Represents that a tool has been issued from the drawer

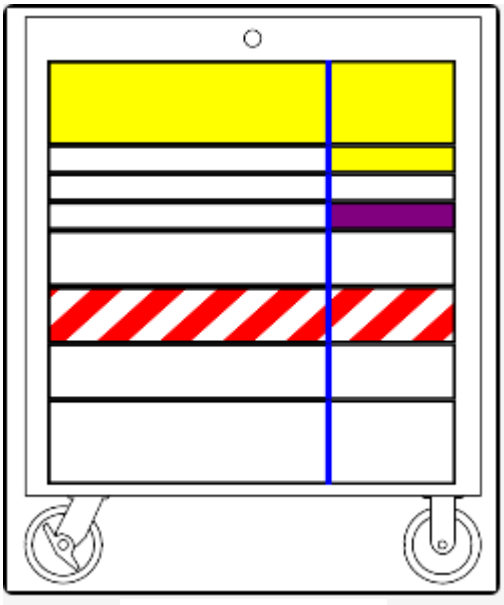
 - Represents that a tool needs to be confirmed present in the drawer

 - Represents that there is a tool with an Alert status in the drawer

When logged in, a blue line separates the drawer status based on the current user (to the left of the blue line) and all users (to the right of the blue line).



User is NOT logged into Toolbox



User is logged into Toolbox

Left <- of Blue Line: Current User Drawer Status, Tools issued from Drawer 1 & Tools with Alert statuses in Drawer 6.

Right -> of Blue Line: All Users Drawer Status, Tools issued from Drawer 1 & 2, Tools that needs to be confirmed in Drawer 4, and Tools with Alert statuses in Drawer 6.

User Status Frame

Displays the currently logged-in user, their profile image, and the work location if they selected one.

A – Name & Title – Displays the name & title of the currently logged-in user.

B – Work Location – Displays the currently selected work location. Users are prompted to choose a work location when they log into the system.

C – User Profile Picture – Displays the profile picture of the currently logged-in user. If a picture is not set for the user, a default image will be displayed (shown above).

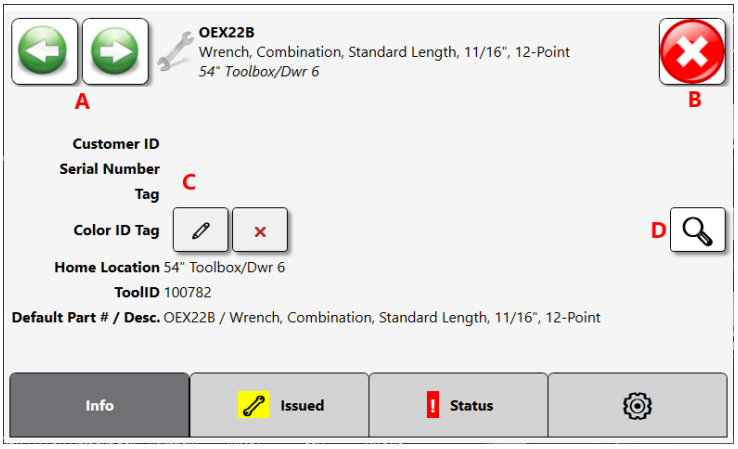
D – Logout Button – Tapping this button will end the current session and log the current user out of the system.

Tool Properties

The tool Properties screen allows you to view detailed information and modify properties of the selected tool in the Device.

Info Tab

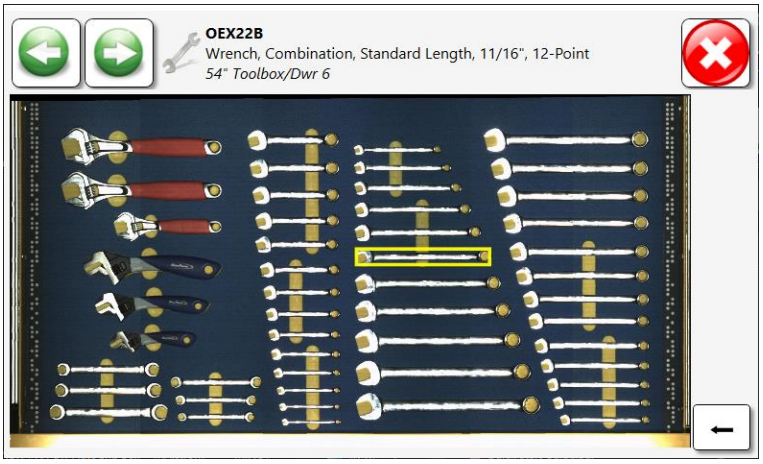
The info tab displays the properties of the selected tool. Except for the Color ID Tag, all data is static and is defined with the L5 Connect™ Admin Client.



A – Navigation Buttons – These buttons allow you to move to the previous/next tool in the current list
B – Exit Button – This button will return you to the previous screen
C – Tool Properties

- **Customer ID** – a unique alphanumeric number set by the user to ID the tool instance
- **Serial number** – the serial number of the physical tool the instance is being created for
- **Color ID Tag** – The ZoomID® tag associated with this tool
- **Tag (RFID Cabinet only)** – RFID Tag assigned to the tool
- **Home Location** – The device name and drawer #(if Toolbox) where the tool is located.
- **ToolID** – An internal number the system uses to track this specific tool instance
- **Default Part# / Desc.** – The Master Tool that this tool instance is associated with

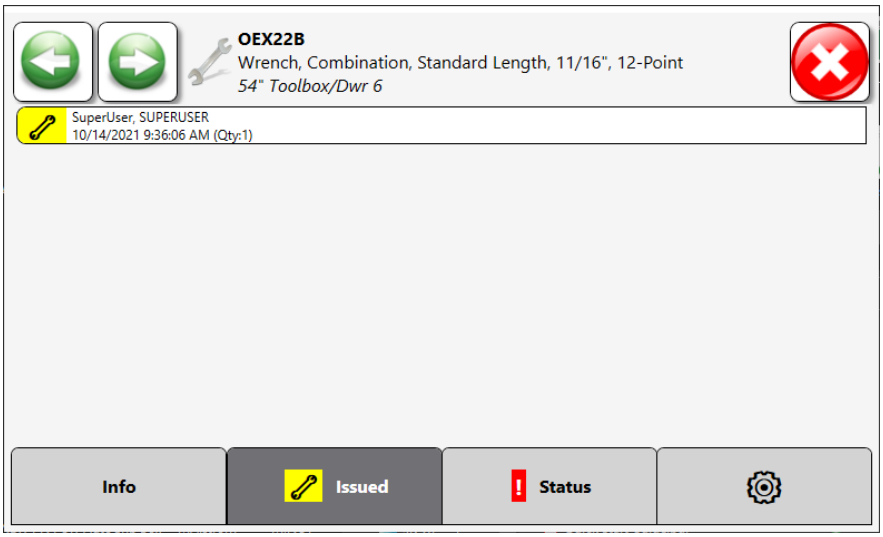
D – Locate Tool (Toolbox only) – This button will display where the tool is located in the drawer.



Locate Tool Screen Highlighting the tool in the drawer.

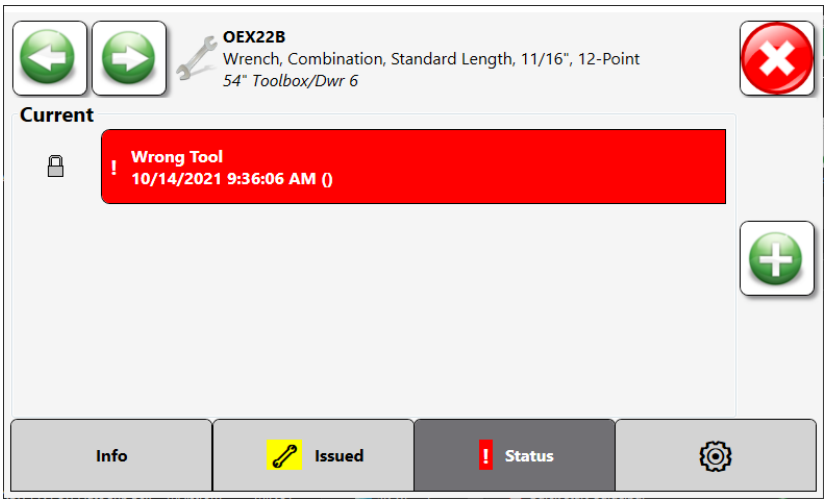
Issued Tab

If a tool is issued to a user, this tab will display the information of whom the tool was issued to and when it was issued. If a work location were assigned during the issue, it would also show here as well.



Status Tab

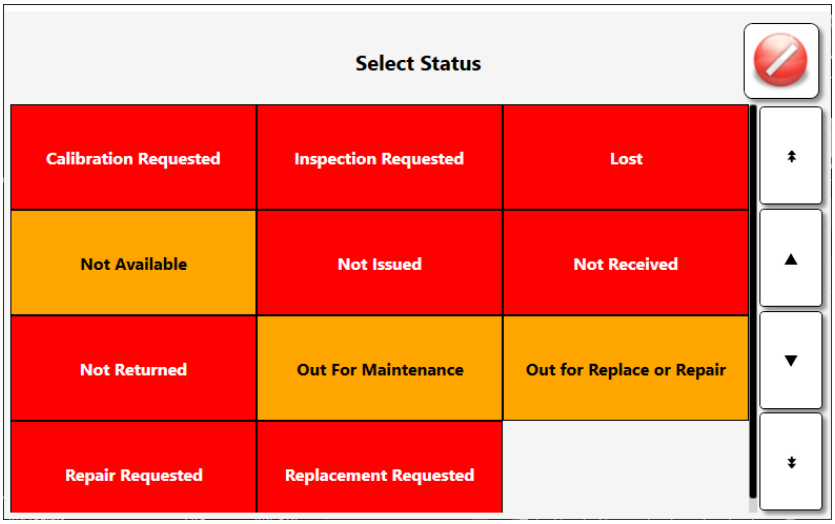
This tab will display any status applied to a tool.



Note: some status are automatic and cannot be manually added or removed.

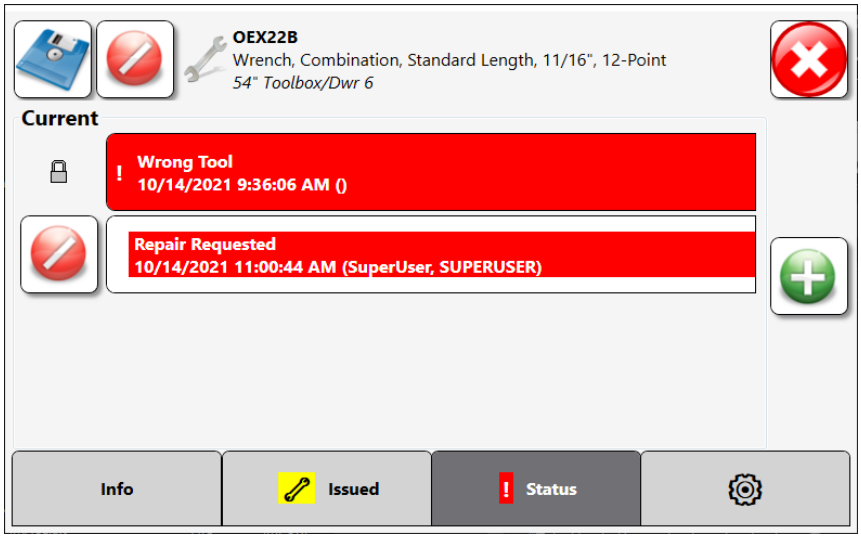
If you are logged in with a user with permissions, you can add/remove statuses to the tool. To add a status to the tool, tap on the  button.

You will be displayed a screen of status types that can be applied.



If you do not want to apply a status to the tool, tap the button to return to the previous screen.

Once you have selected a status, you will be returned to the previous screen, where the new status is displayed.



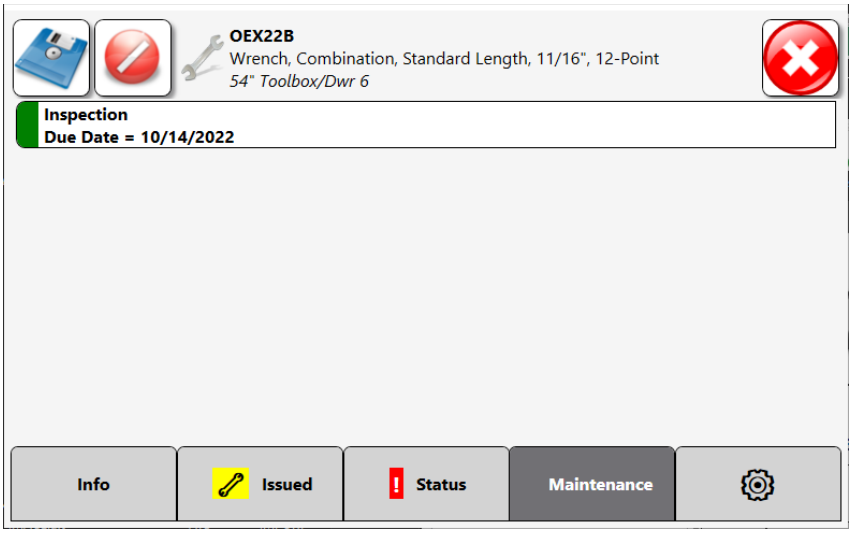
To **clear status** from a tool, press the button to the **LEFT** of the status.

To **apply the status** to the tool, press the button.

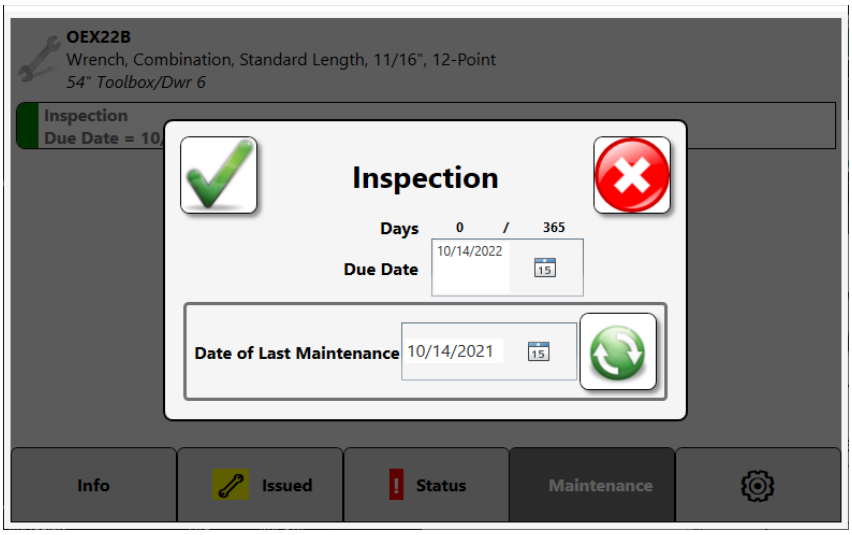
To **cancel all changes** to the tool, press the button at the **TOP** of the screen.

Maintenance Tab

This tab is hidden unless a tool has a maintenance type associated with it. It will display the maintenance type and the Due date of that maintenance. Maintenance Types are defined and set on the Master Tool within the L5 Connect™ Admin Client.



You can long-press the maintenance type to change the dates.



The **Days** are set by the Maintenance Type in the L5 Connect™ Admin Client.

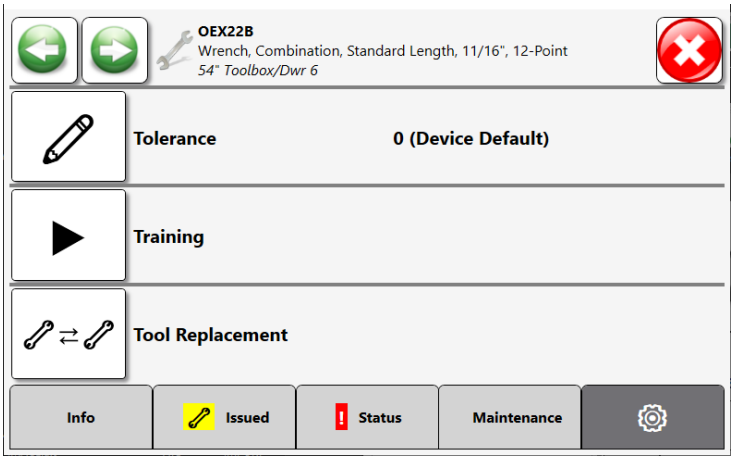
The **Due Date** is calculated based on the number of **Days** and the **Date of Last Maintenance**.

You can manually set the **Date of Last Maintenance,** or you can press the button to select the date to the current system date.

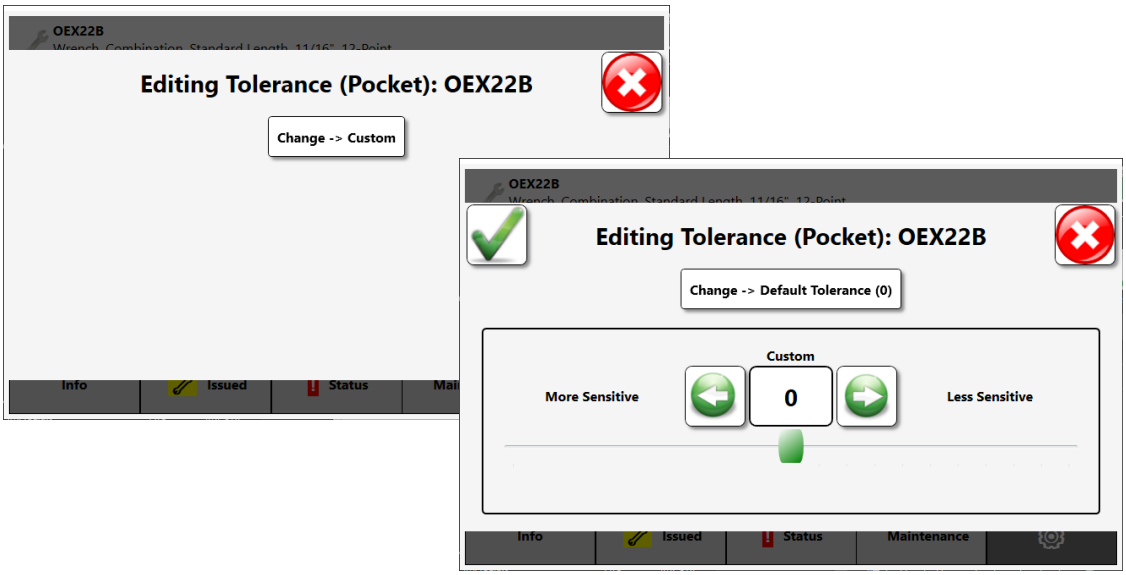
More information about maintenance types can be found in the **L5 Connect™ Administration Guide**.

Tool Settings Tab ( )

This tab is only present when a tool is assigned to a pocket in a toolbox. This tab gives you access to Toolbox-specific settings for the tool.



Tolerance – allows you to set the detection sensitivity for the tool. This can also be set on the MASTER TOOL in the L5 Connect™ Admin Client (See Admin Guide).



To move from the default setting, tap the **Change -> Custom** button.

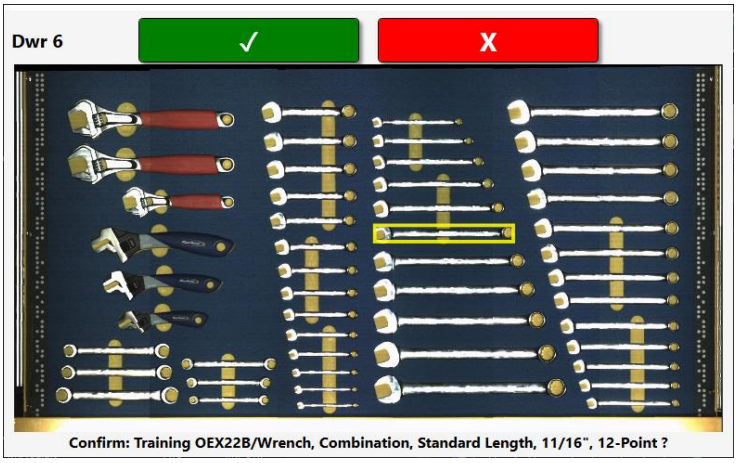
To restore back to the default setting, tap the **Change -> Default Tolerance (0)** button.

When a tool is being incorrectly detected, set the tolerance to the Right and Less Sensitive. This is useful for tools with cables or loose elements that can be in a different position each time the tool is returned.

If a tool is not being detected, set the tolerance to the Left and More Sensitive. This is useful for small tools that are hard for the cameras to see.

Tap the ✅ button to save the changes.

Training – If a tool is having detection issues and a change to tolerance does not fix the problem, you may need to retrain the tool signatures. Pressing this button will perform a single tool retrain. You will be asked to confirm that you want to retrain the tool.



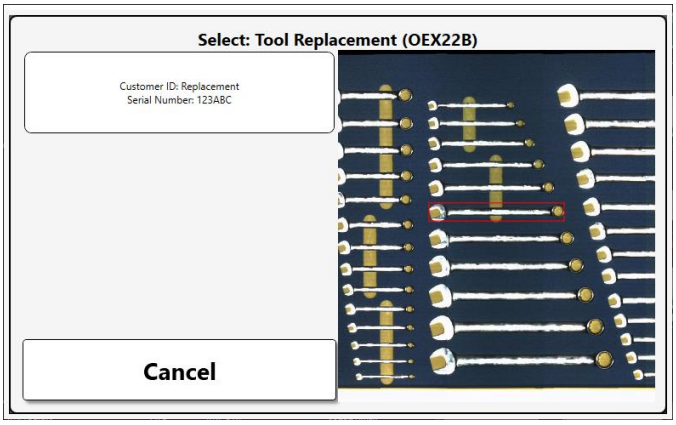
By tapping on the green checkmark, you will be instructed on the process to retrain the tool. Follow the voice prompts to complete the process.

Tool Replacement – When a tool becomes unrepairable or lost, and a replacement is put in the pocket. You will need to swap the instance of the original with the instance of the replacement.

The first step is performed at the L5 Connect™ Admin Client, where the instance of the replacement is created. See the L5 Connect™ Administration Guide on how to create tool instances.

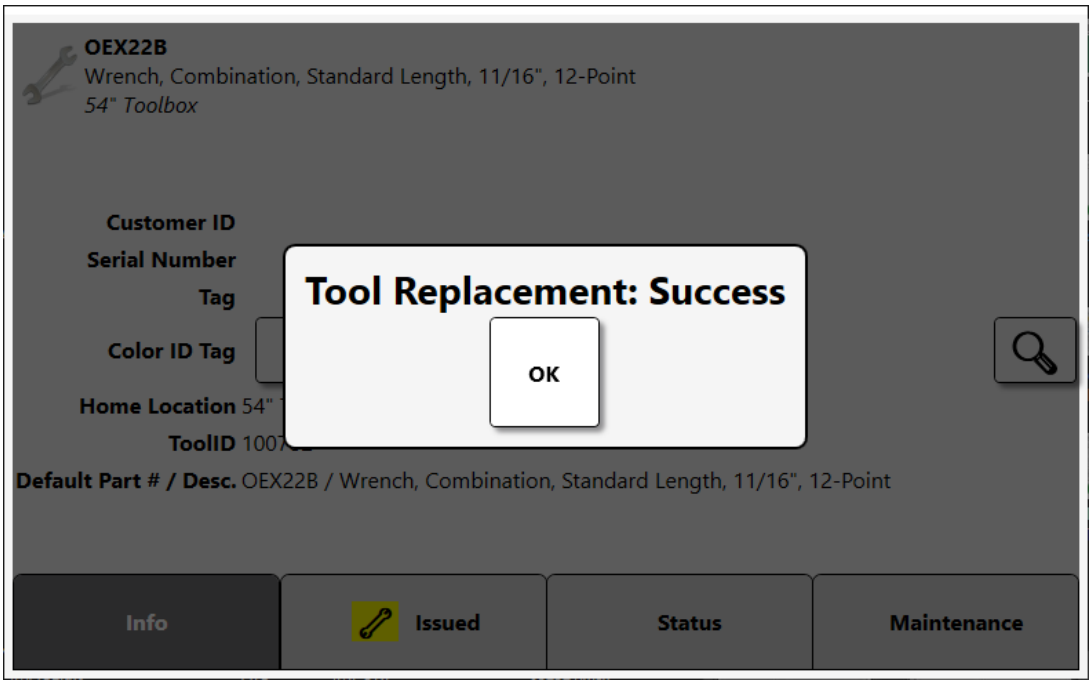
Once the instance for the replacement is created, and its home location is set to the Toolbox, tap the Tool Replacement button on the Toolbox.

The tool swap screen will display and list available instances of the tool that can be swapped with the original.



The avalible instances will list all of the properties associeted to it to help identify the tool. (see info tab, Tool properties)

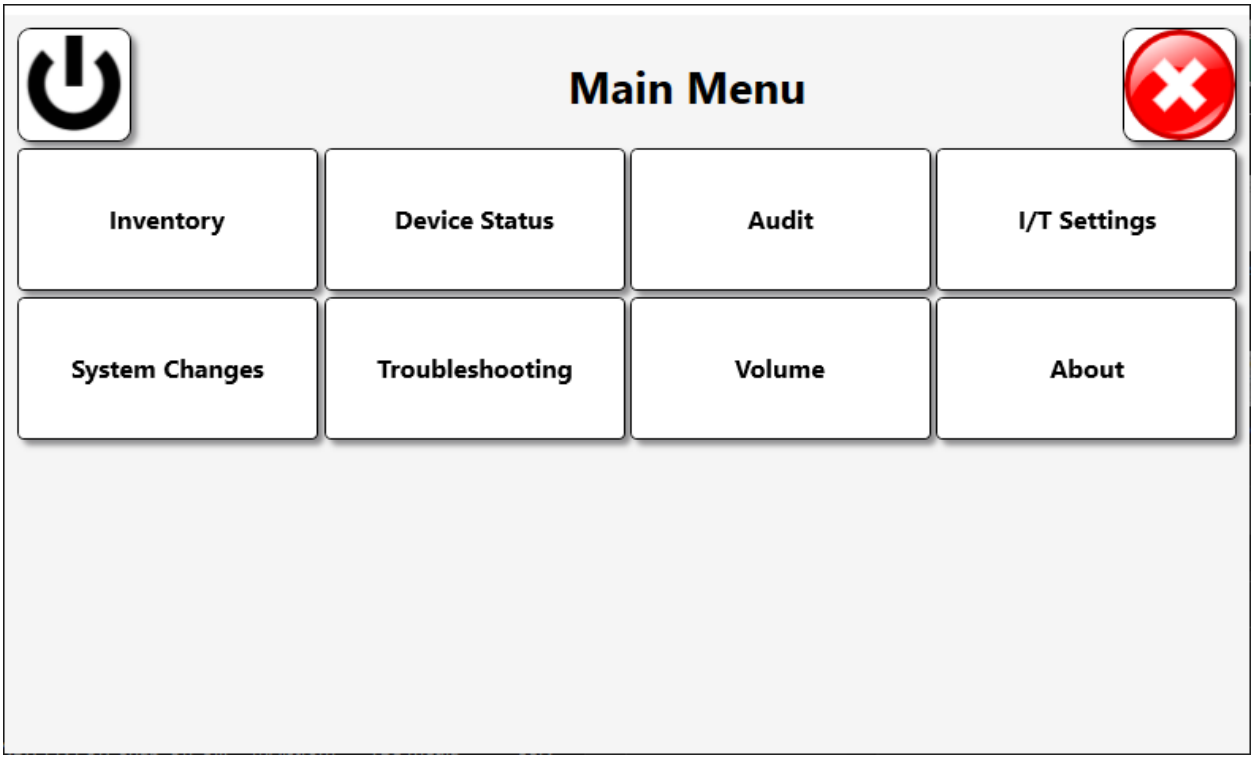
Once you have located the instance you want to swap with the original, tap on it, and you will get the following screen.



The new tool has now replaced the original in the pocket. Back in the L5 Connect™ Admin Client, you can move the original tool to a new location or delete it from the system if you are scrapping it.

Main Menu

The Main menu is used to access the advanced administrative functions of the Device.



The following is a simple description of each of the buttons in the Main Menu. We will go into depth for each item listed here:

Inventory – Lists all known tools assigned to the Device. Can use filters to narrow the search for a specific tool.

Device Status – Displays information about the Device and Status Type if applied to the Device.

Audit – Allows the user to perform a custom audit on the Device. **(Requires Login)**

I/T Settings – Allows access to IT-related Functions.

System Changes – Allows a user to make changes to the device settings.

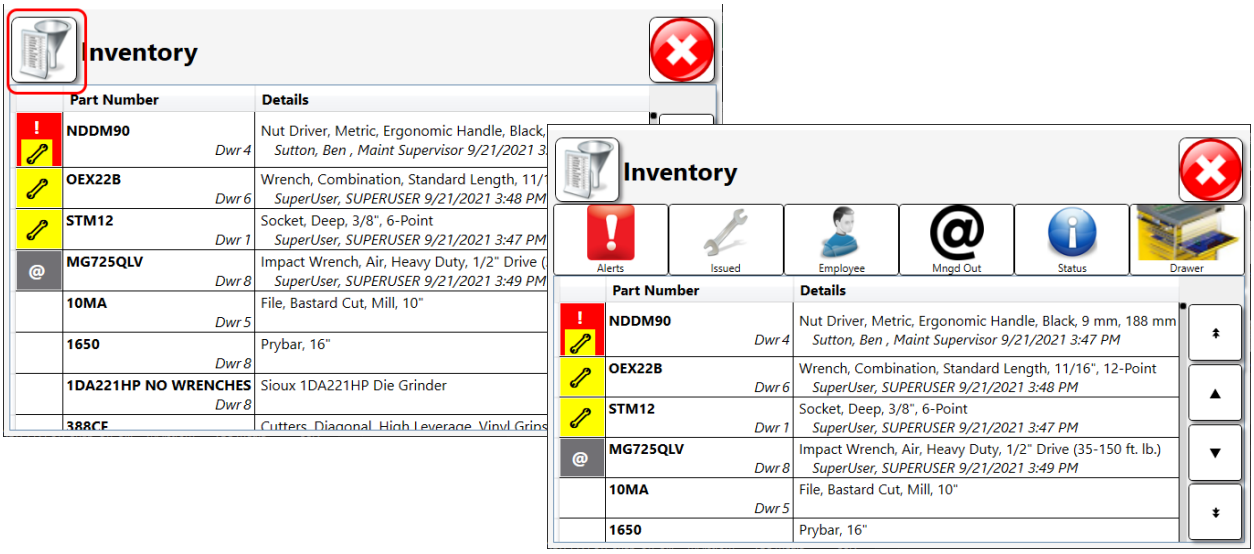
Troubleshooting – A set of tools to diagnose and correct issues with the Device.

Volume – Change the volume of the audio feedback voice. **(Requires Login)**

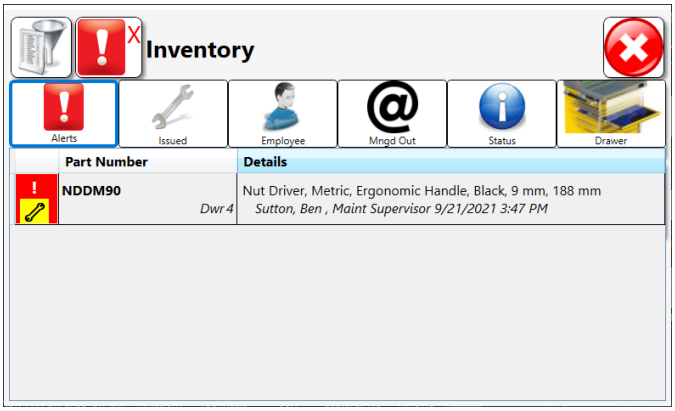
About – Displays Information about Device and Service.

Inventory

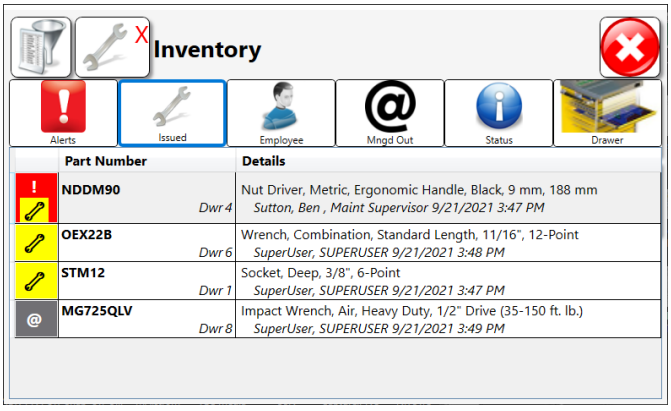
The inventory screen displays all known tool instances that have been assigned to the Device. If the tool has been assigned to a pocket in a drawer, the drawer # will be listed in the part number column. You can filter the list based on several criteria. To access the filters, simply press the show filters button:



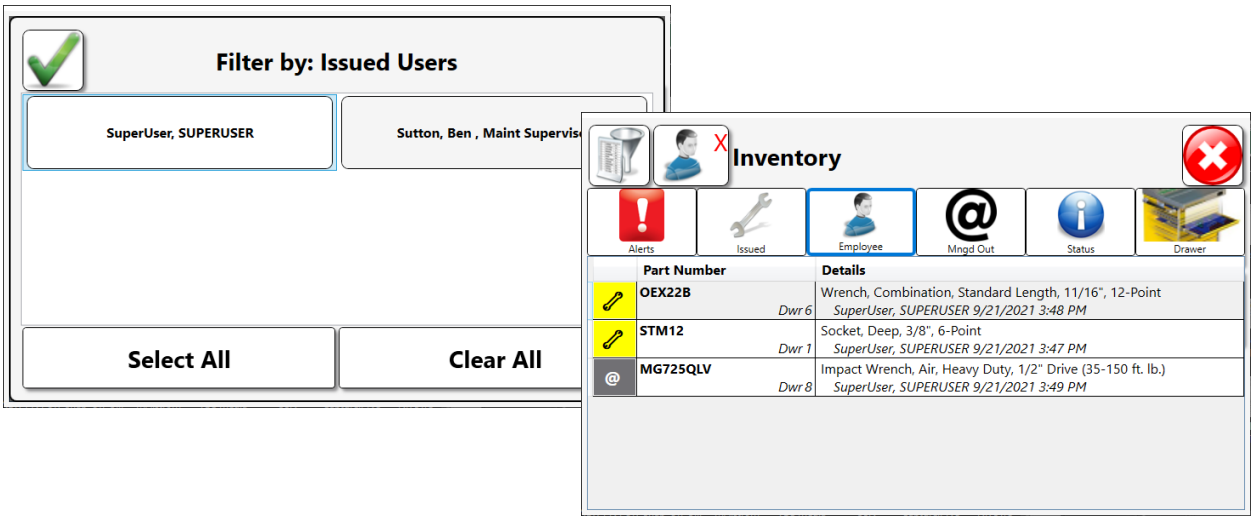
Alerts: This Filter will hide any tool that doesn't have an Alert status applied to it.



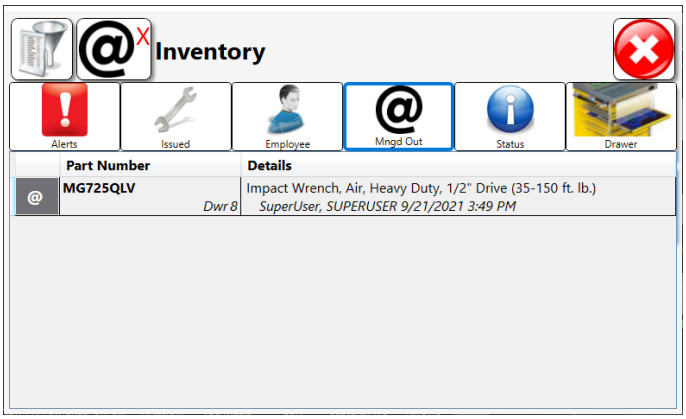
Issued: This filter will only show tools that have been issued to a user.



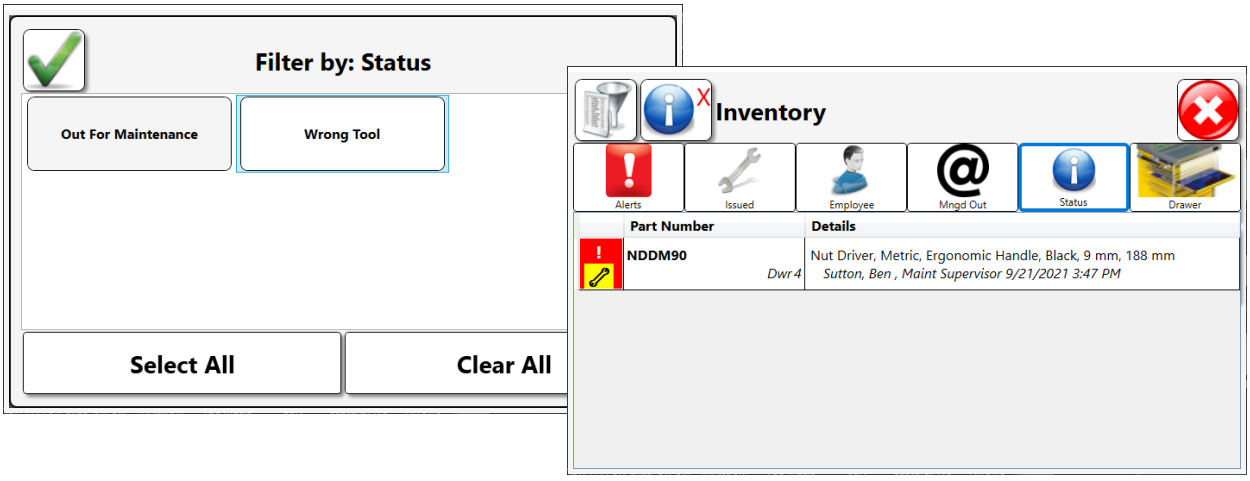
Employee: You can use this filter to only show tools that are issued to a particular employee. Select the user you want to filter by then click on the green checkmark.



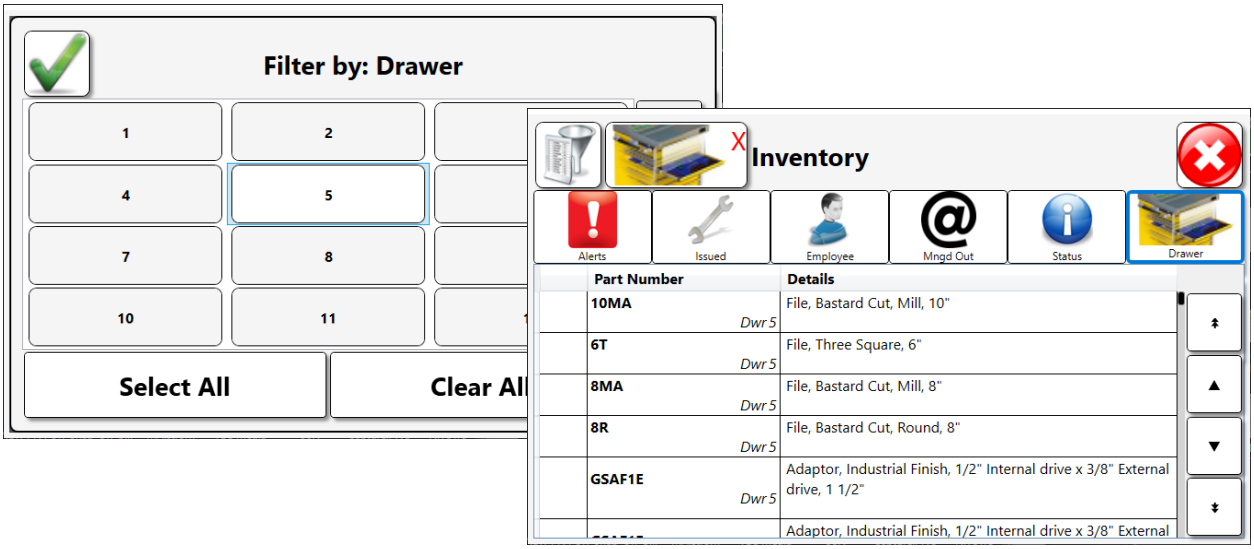
Mngd Out: Only show tools that have the Managed Out status applied.



Status: List tools that have a status applied to them. You can filter by a single status or several status types.

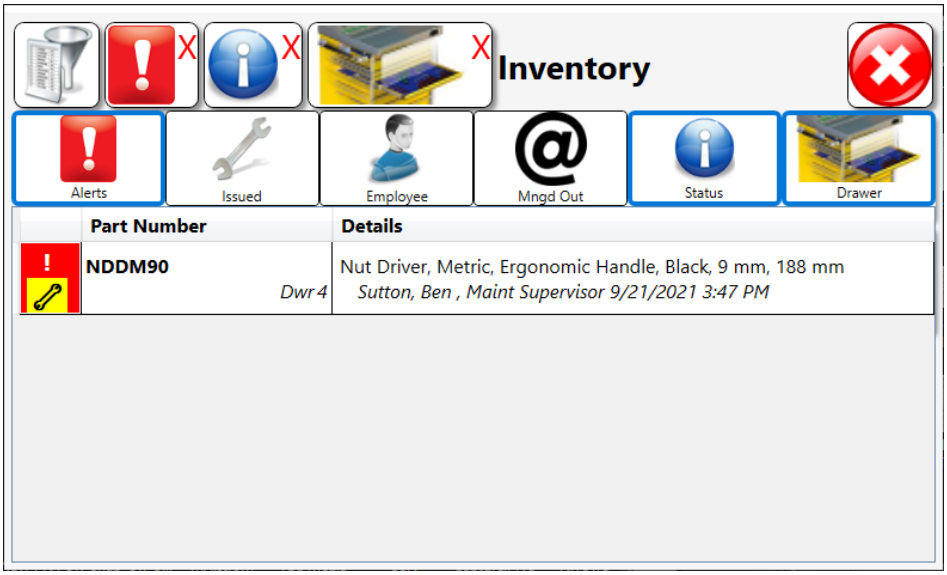


Drawer: List all tools in a particular drawer or set of drawers.



Multiple Filters:

You are not limited to just one filter at a time. You can apply several filters at the same time:



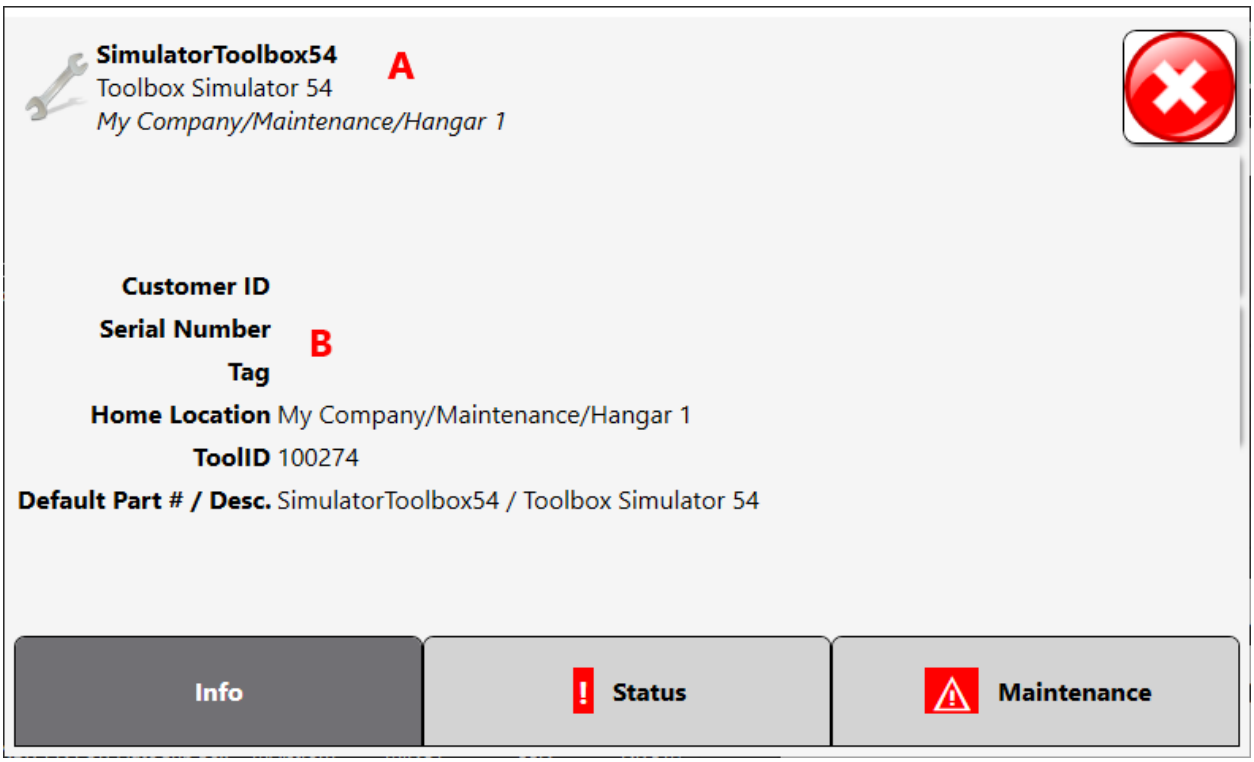
Remember, when applying multiple filters only tools that meet ALL of the filters will be displayed.

As you can see here, we have applied the Alert, Status (Wrong Tool), and Drawer (4) filters. The only tool in the Toolbox that meets all these filters is the nut driver issued out to Ben, the Maint Supervisor.

Device Status

The Device Status screen displays detailed information about the device, such as device type, location, and any Statuses or Maintenance applied to it.

Info Tab



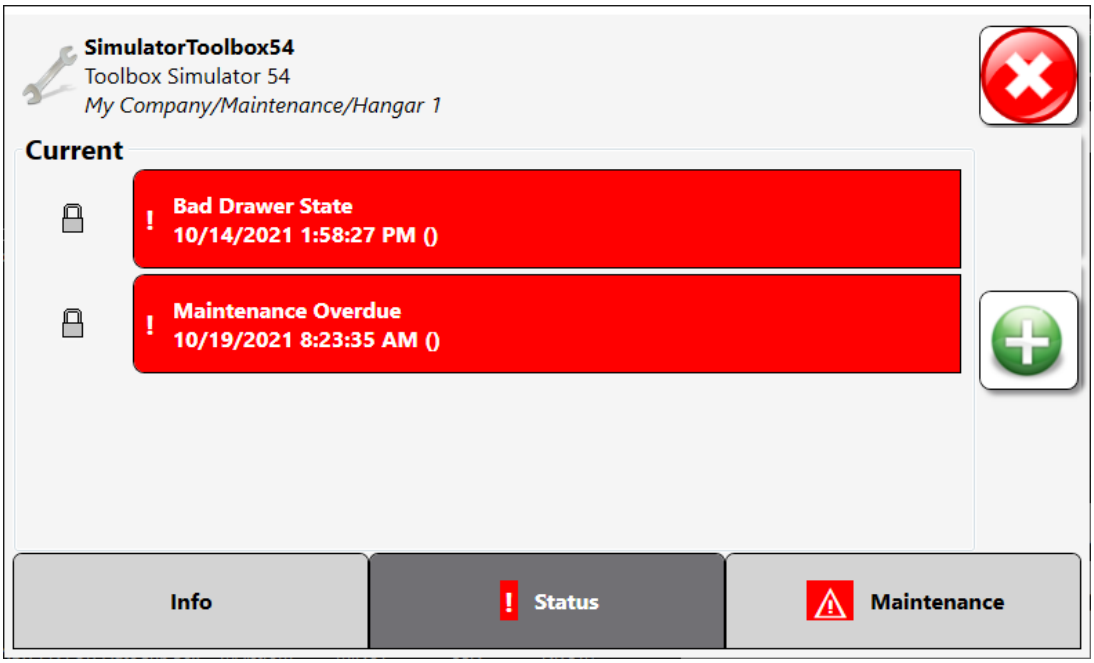
A. Displays the Device Part Number, the Description of the Device, and the Location.

B. Displays detailed data from the L5 Connect™ Service

- **a. CustomerID** – customer provided ID number
- **b. Serial Number** – Customer Optional Serial Number
- **c. Tag** – Barcode assigned to Device
- **d. Home Location** – Location of the Device
- **e. ToolID** – internal ID
- **f. Default Part#/Desc.** – Part Number and Description of Device

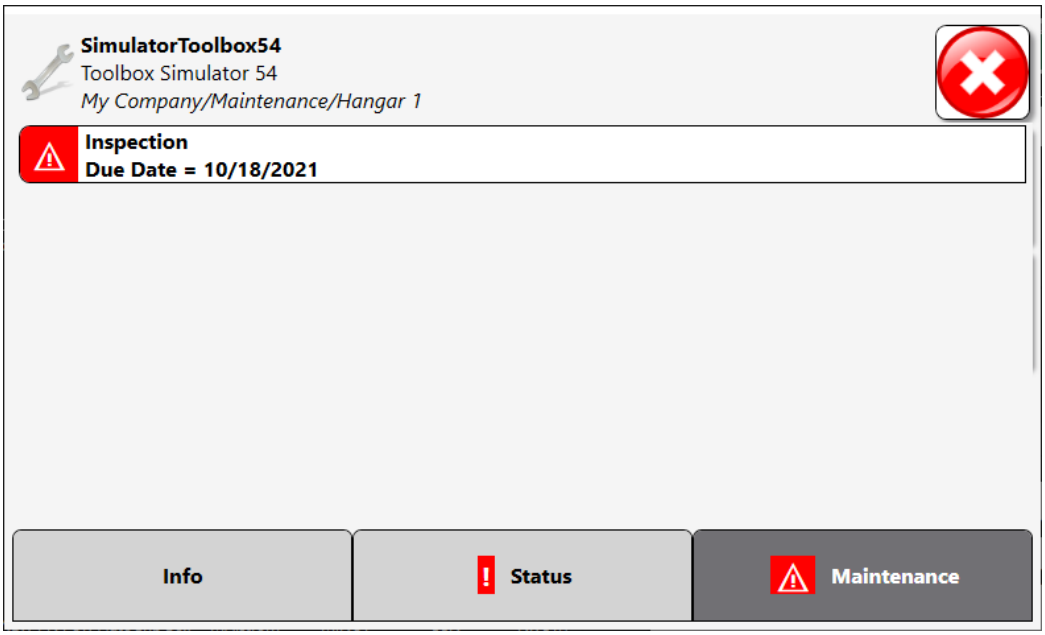
Status Tab

Displays any status currently applied to the device



Maintenance Tab

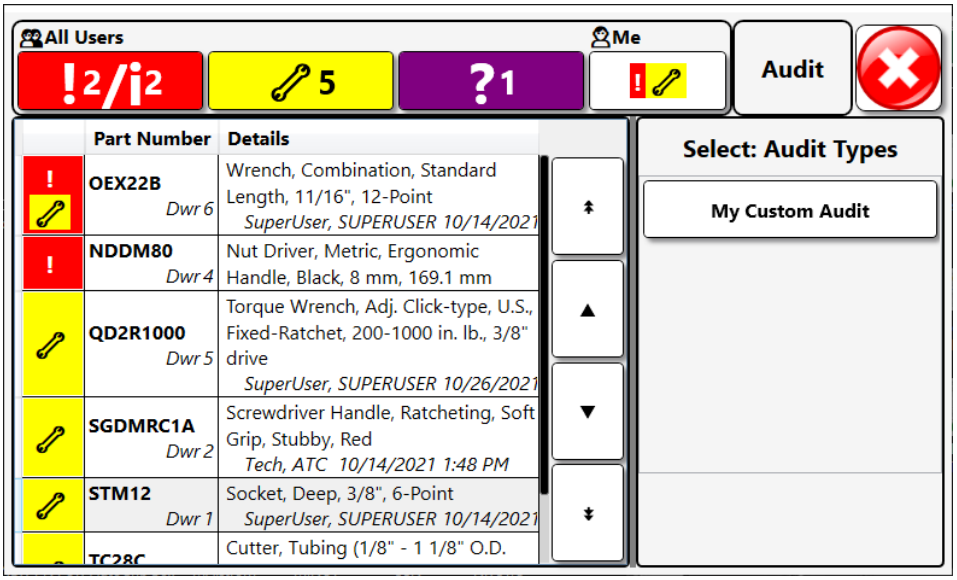
Displays any maintenance alerts applied to the Device.



Note: If there are not any maintenance types applied to the device, this tab is hidden.

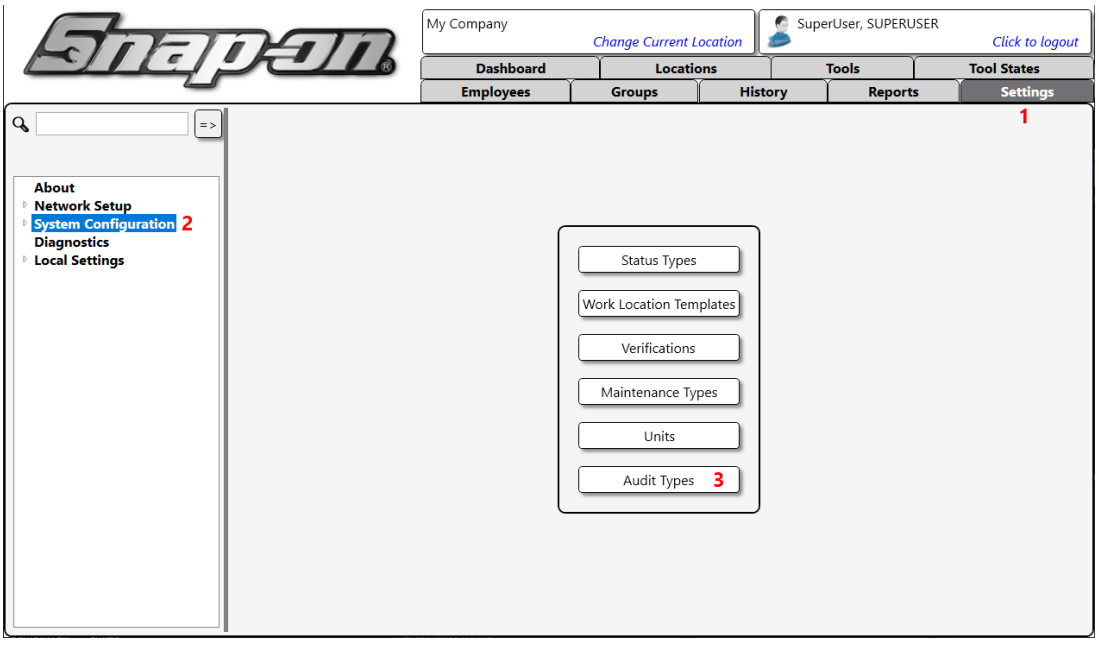
Audit (Requires Login)

The audit screen allows you to perform any custom audit on the Toolbox.



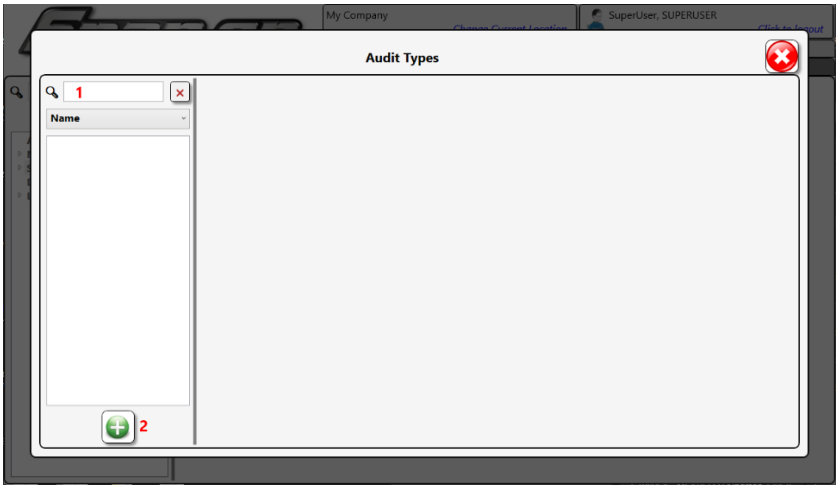
Creating a Custom Audit

Before you can perform this Audit, it must be created and assigned to the Toolbox via the L5 Connect™ Administration Client:



1. Log into the L5 Connect™ Administration Client and go to the Settings Tab
2. Click on the System Configuration from the menu on the left
3. Click on Audit Types

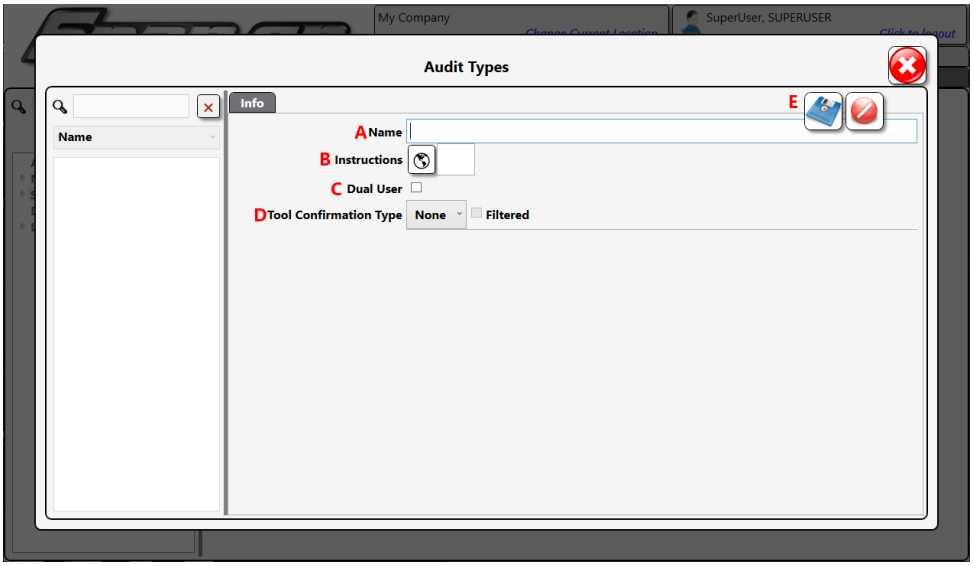
This will display the Custom Audit Types screen.



Audit Types are not reserved. All audit types listed here are globally shared and can be assigned to any device in the system

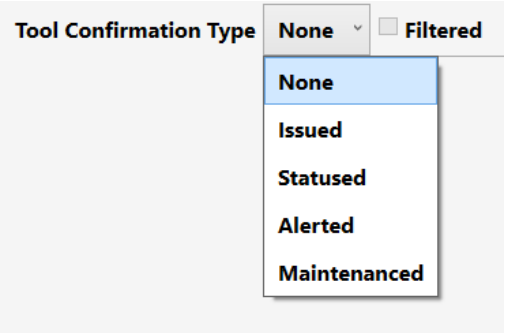
1. You can use the search bar to filter the list for a specific audit.
2. You can tap this button to create a new Audit Type.

When you tap on the button, the Create new Audit Type tab will display.



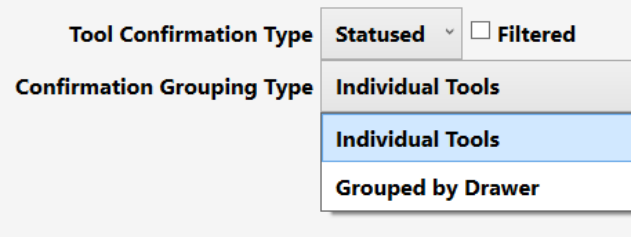
A. This is the name of the Audit. It will show up in the Audit Type List and on the Toolbox when assigned.
B. These are the instructions that are displayed to the user during the Audit on the Toolbox.
C. If you want to have a second auditor verify the Audit, you will check this box. When checked, the Toolbox will require two different users to start and end the Audit on the Toolbox.
D. If you want to Audit only specific tools that are in a particular state, you can set it here.
E. Save & Cancel buttons.

Tool Confirmation Type



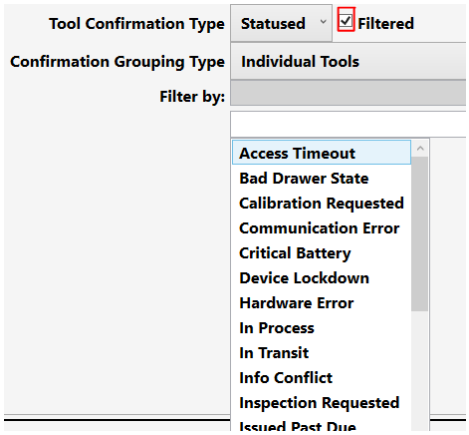
Issued – will only have you audit tools that are currently issued.
Statused (**Filter Allowed**) – will only audit tools that currently have a status applied. This can be filtered further by selecting a specific or a group of a specific status. When filtered, the system will display only tools with the statuses you selected for the Audit.
Alerted – will only audit tools that have an alert status applied.
Maintenanced (**Filter Allowed**) – will only audit tools that currently have an overdue maintenance status applied. This can be filtered further by selecting a specific or a group of specific maintenance types. When filtered, the system will display only tools with the maintenance types you selected for the Audit.

Once you have selected the Confirmation Type, you can then choose how the Audit will group the tools.



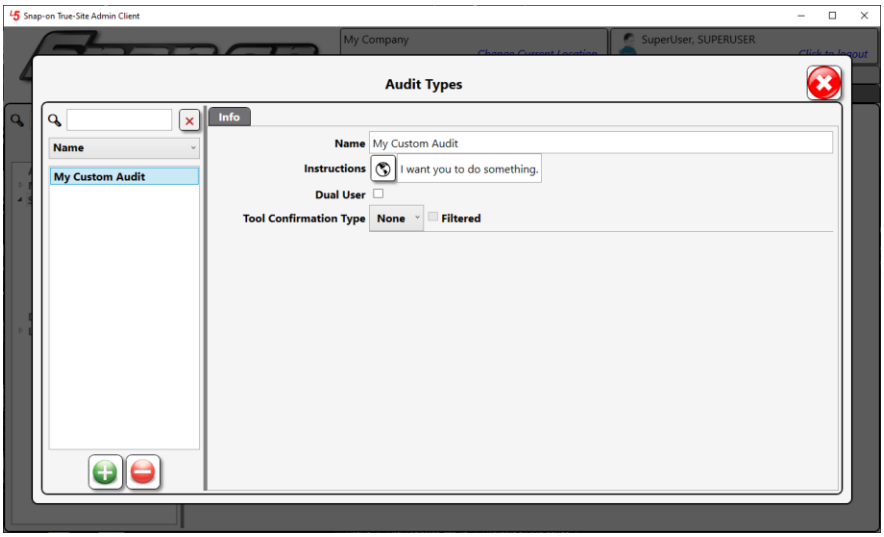
Individual Tools – will have the user audit each tool that meets the Confirmation Type, one at a time.
Grouped by drawer – will have the user audit the tools by drawer, allowing multiple tools to be audited at the same time.

The filter allows you to narrow the Confirmation Type down even further.



Assigning a Custom Audit

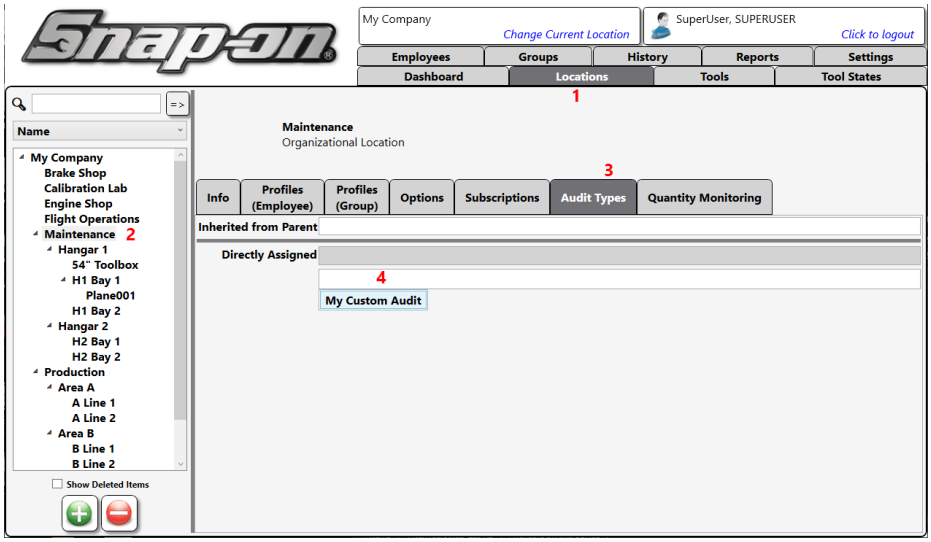
Once you have saved your new audit type, it will show up in the Audit Type List on the left side.



You can now assign this audit type to a toolbox. You can assign audit types directly on a device, or you can assign it to a location, and all devices in that location will have the Audit assigned.

To assign the Audit, you must

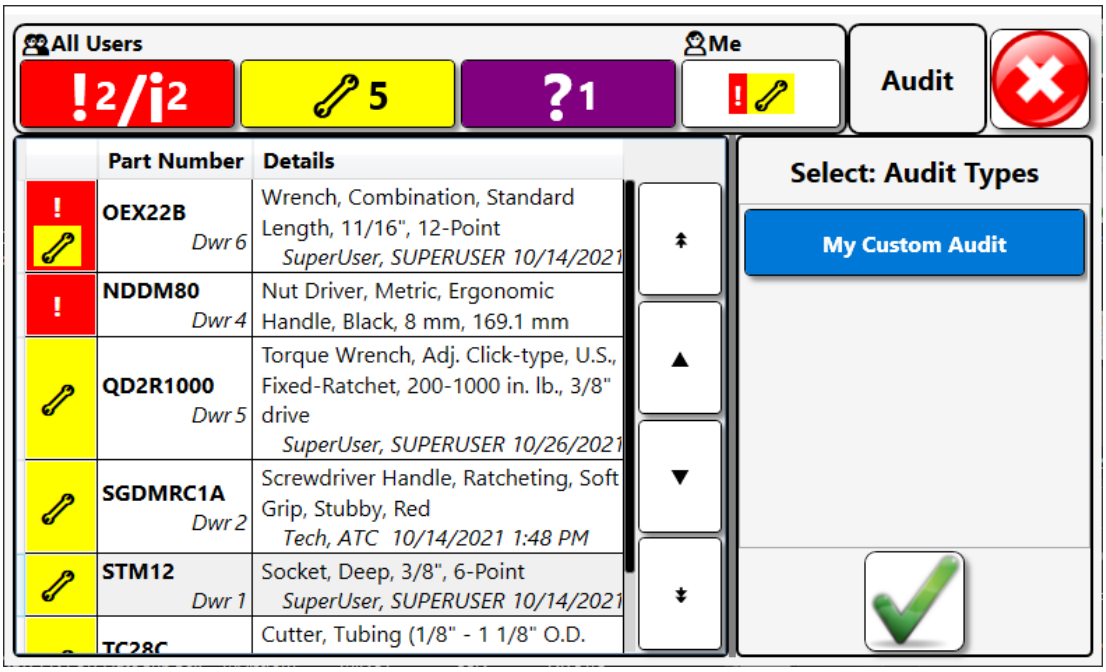
1. Go to Locations Tab
2. Select the Toolbox or location where you want the Audit to be available.
3. Go to the Audit Types Tab
4. Select the audit type you want to assign. You will need to mouse over the white box to display the list of available audit types.
5. Click the Save Button in the upper right to apply the audit to the box.



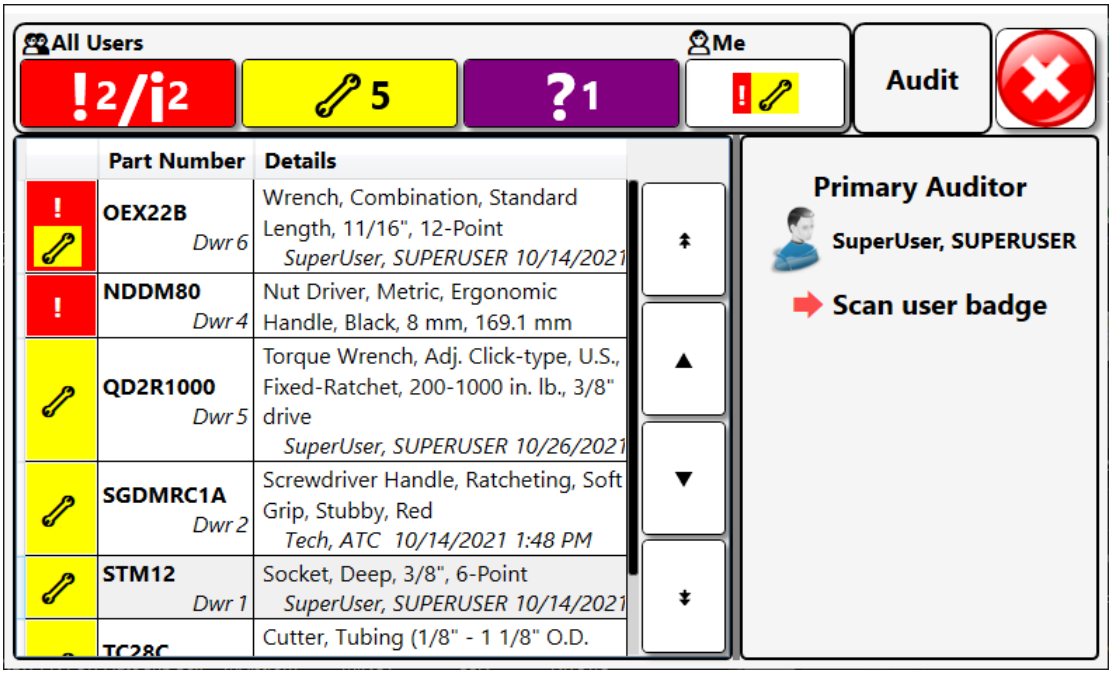
Once you have selected and saved the audit type, it will be available from the audit screen on the Toolbox.

Performing an Audit on the Toolbox

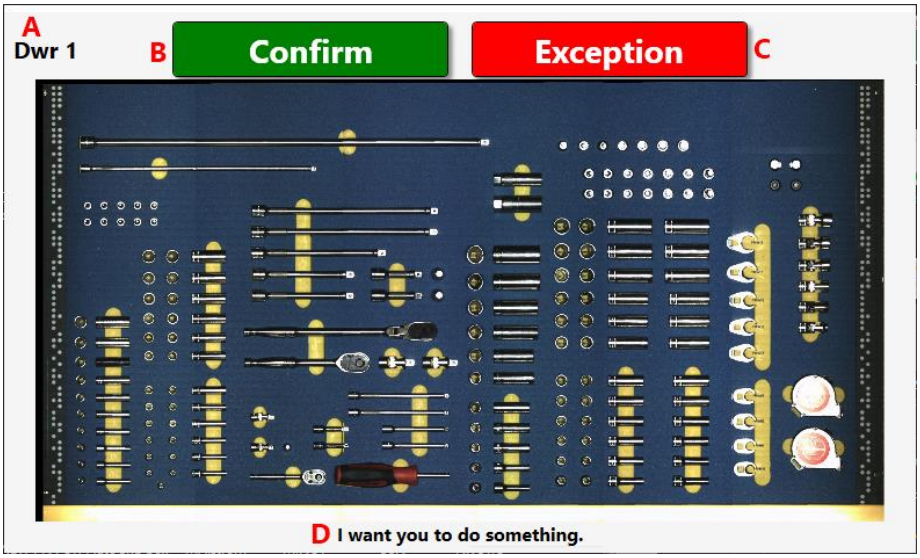
When you enter audit mode, you will see a list of available audits you can perform on the right side. Select the Audit you want to perform and tap the green checkmark.



The system will ask for the badge of the auditor. If Dual User is enabled on the Audit Type, a second user will also need to swipe their badge to begin.

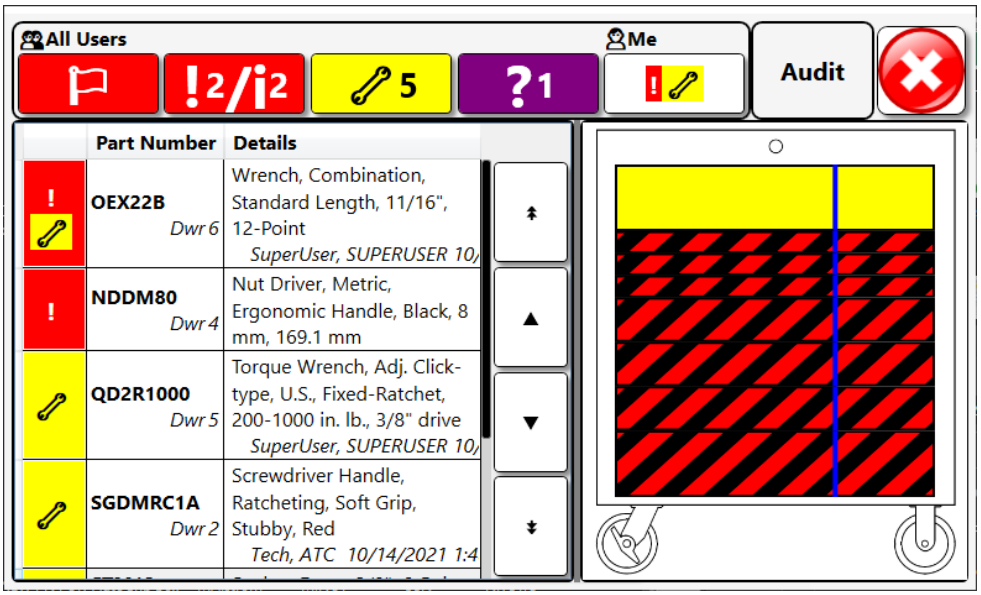


The system will then display all the drawers with a **RED** and **BLACK** banner to indicate that the Audit has not been performed on the drawer. Open one of the drawers, and you will be presented with the Audit Confirmation Screen.

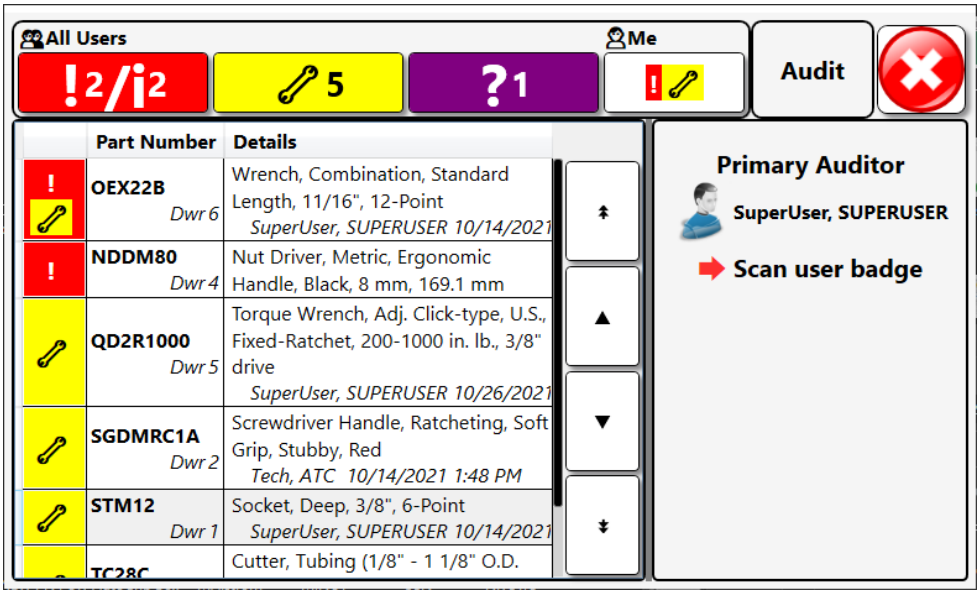


- **A. Drawer ID** – Current Drawer that is being Audited
- **B. Confirm Button** – Confirms Audit Pass or an action such as cleaning was performed, you would tap this button.
- **C. Exception Button** – If an item failed the Audit or the action such as cleaning was not performed for some reason, you would tap this button.
- **D. Audit Instructions** – Displays what the user needs to do or check.

Perform the task or check that the instructions (**D**) describe, tap either the Confirm (**B**) or Exception (**C**) button to mark if the task or check was completed successfully, then close the drawer. The RED and Black bar is then removed from the drawer.



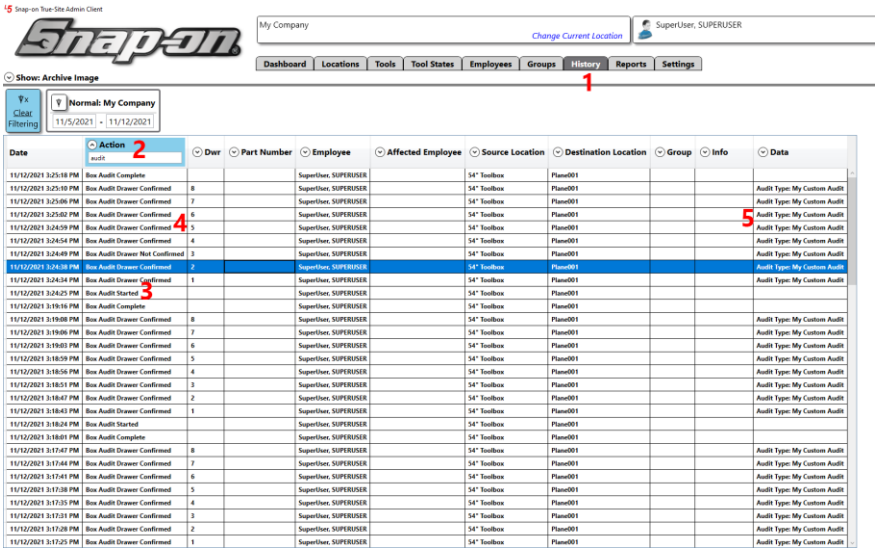
Repeat this task until you have completed all drawers. When you close the last drawer, the system will then ask the auditor to swipe their badge to complete the Audit. Remember, if Dual User is enabled on the Audit Type, it will ask for a second user to swipe their badge to complete the Audit.



Once the auditor has swiped their badge, the system will complete the Audit and preset the success message on the screen.

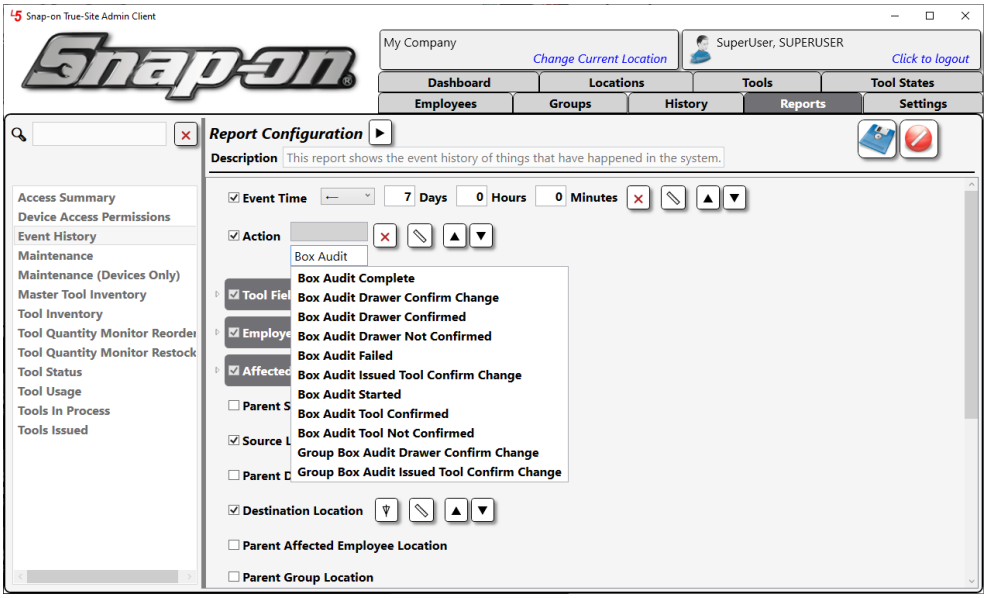
Viewing Audit Results

After you have completed the Audit on the Toolbox, you can view the results of the Audit in the L5 Connect™ Admin Client.



1. Log into the L5 Connect™ Admin Client and go to the History Tab
2. Filter the Action Column to **Audit**
3. The Action **Box Audit Start** is the beginning of an Audit on a toolbox, and **Box Audit Complete** is the end of the Audit.
4. Each drawer result will be listed between the Start and Complete actions.
5. The Name of the Audit that was being performed will be listed in the Data column.

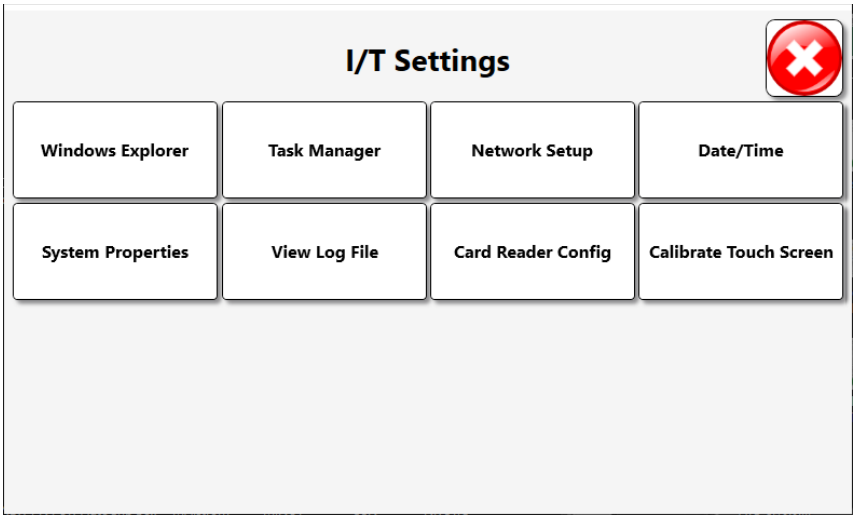
To generate an audit report, you will need to create a custom Event History report.



For more information on reporting custom reports, see the Reports section in the L5 Connect™ Administration Guide

I/T Settings

These settings allow the user to change the system configuration for the device, such as network and date/time settings. You must be logged into the system as an Employee with permission to access these functions. (See Profiles and Permissions in the L5 Connect™ Administration Guide).



Windows Explorer – This button will bring up the Windows File Browser.

Task Manager – This button will launch the Windows Task Manager

Network Setup – This button will open the Network Setup Menu.

Date/Time – This button will bring up Windows Date & Time Settings

System Properties – This button will launch Windows System Settings

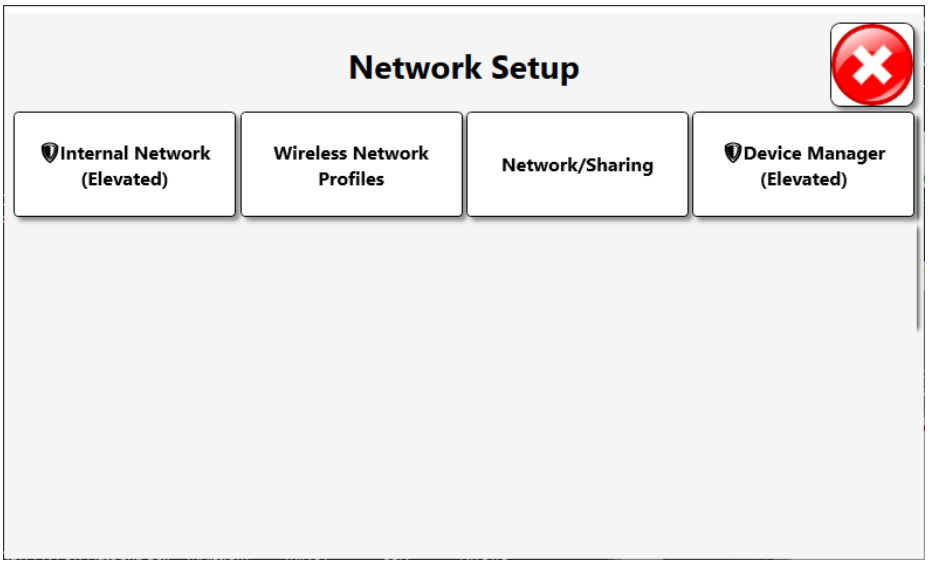
View Log File – This button will bring up the directory that contains all the log files for the Device.

Card Reader Config – This will launch a utility that is used to configure the badge scanner on the Device.

Calibrate Touch Screen – This will launch a utility that will allow a user to calibrate the touchscreen.

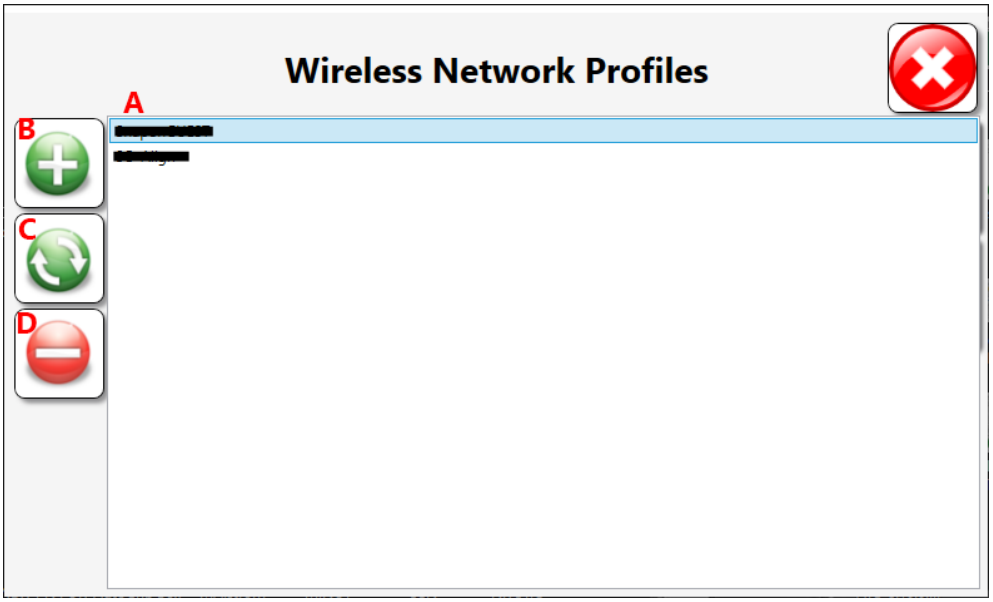
Network Setup

This screen allows the user to change network-related settings.



Internal Network (Elevated) – This button will set the internal network for communication with the hardware inside of the Device. **DO NOT ACTIVATE THIS UNLESS INSTRUCTED BY TECHNICAL SUPPORT!**

Wireless Network Profiles – This button will launch the Wireless Profile Manager. This screen will list all the known wireless profiles that have been added to the Device.

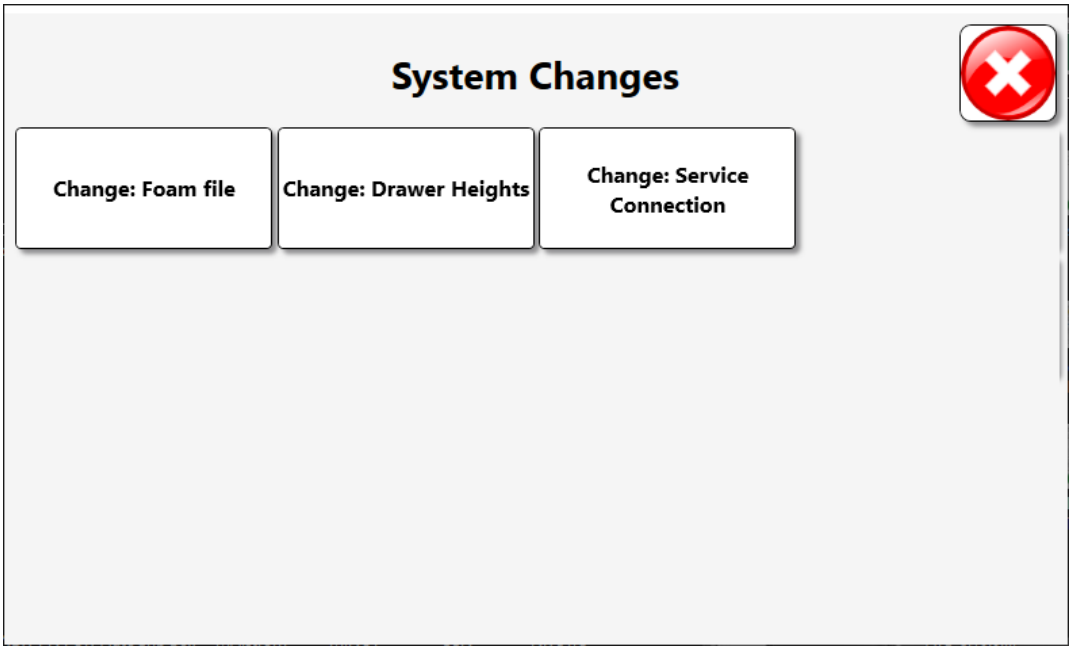


- **A.** Profile List
- **B.** Add Profile
- **C.** Refresh Profile List
- **D.** Delete Selected Profile

Network/Sharing – Launches the Windows Network and Sharing Center
Device Manager – Launches the Windows Device Manager

System Changes

The System Changes screen grants access to functions that modify the ATC settings of the Toolbox.



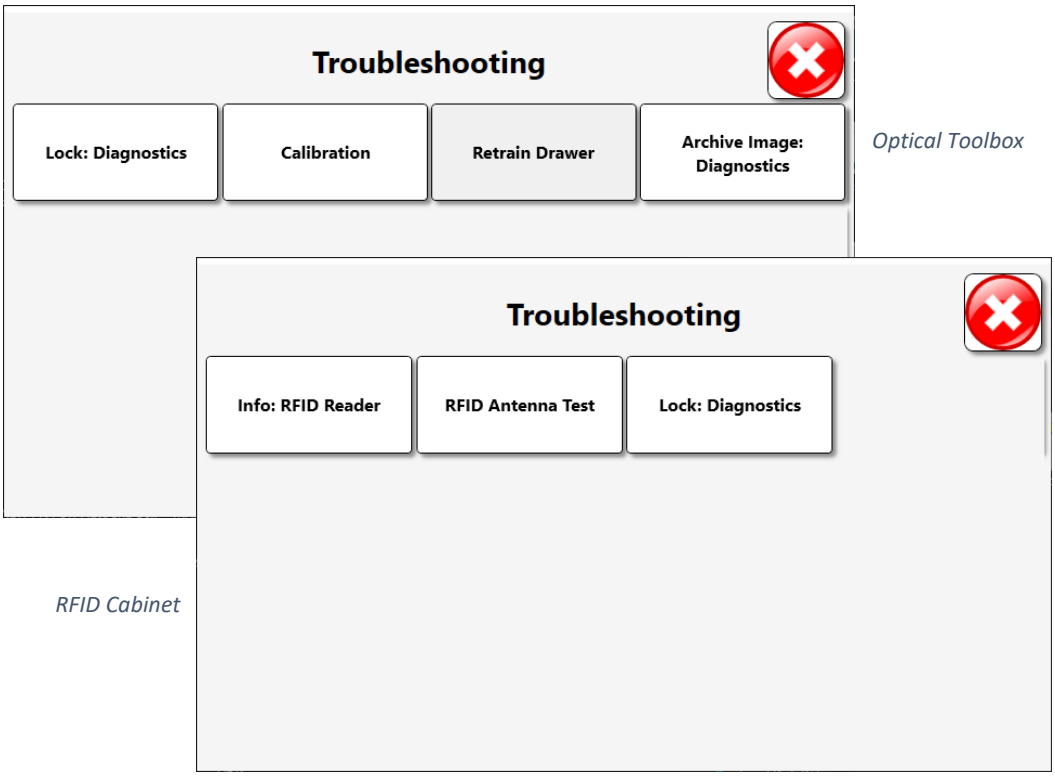
Change: Foam file (Requires Login) – If the layout of a drawer changes and a new foam file is issued, you will use this to replace the old drawer foam file with the new one. You will need to upload the foam file to the Toolbox via the L5 Connect™ Administration Client. **(See Importing Foam Files & Drawer Training)**

Change: Drawer Heights – This allows you to define the drawer layout of the Toolbox. **(See Defining Drawer Heights)**

Change: Service Connection – If you need to move the Device to a new L5 Connect™ service, you will use this function to do so. **(See Connecting to a L5 Connect™ Service)**

Troubleshooting

The troubleshooting page grants access to functions that assist in diagnosing issues with the Toolbox. This page is different depending on the device you are using.

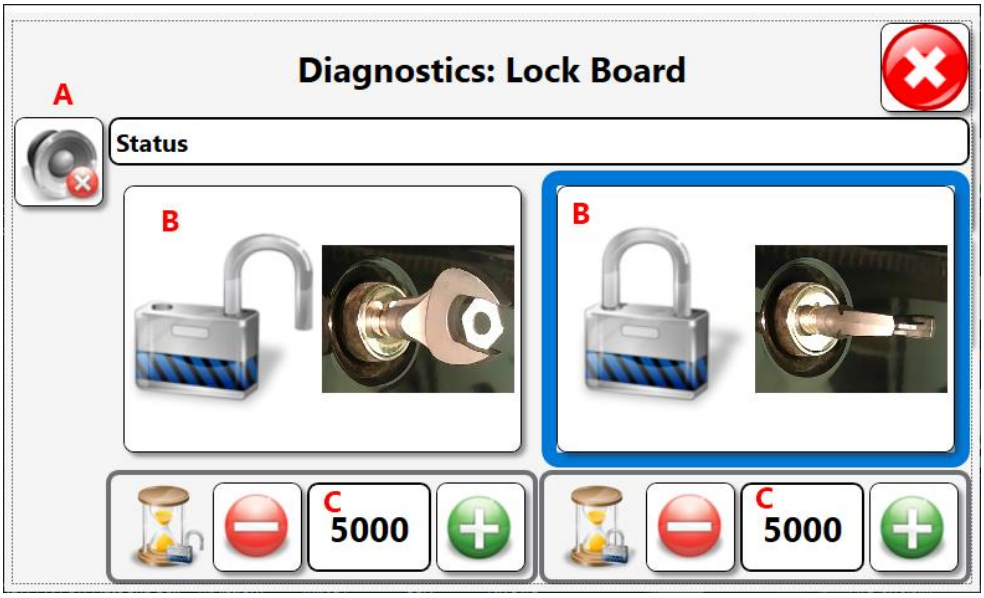


Optical Toolbox

RFID Cabinet

Lock: Diagnostics

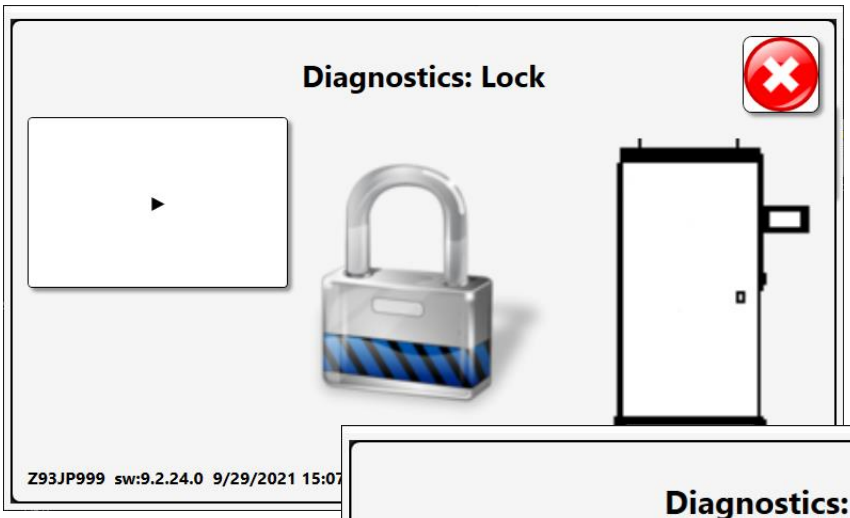
This screen allows the user to test the locking mechanism.



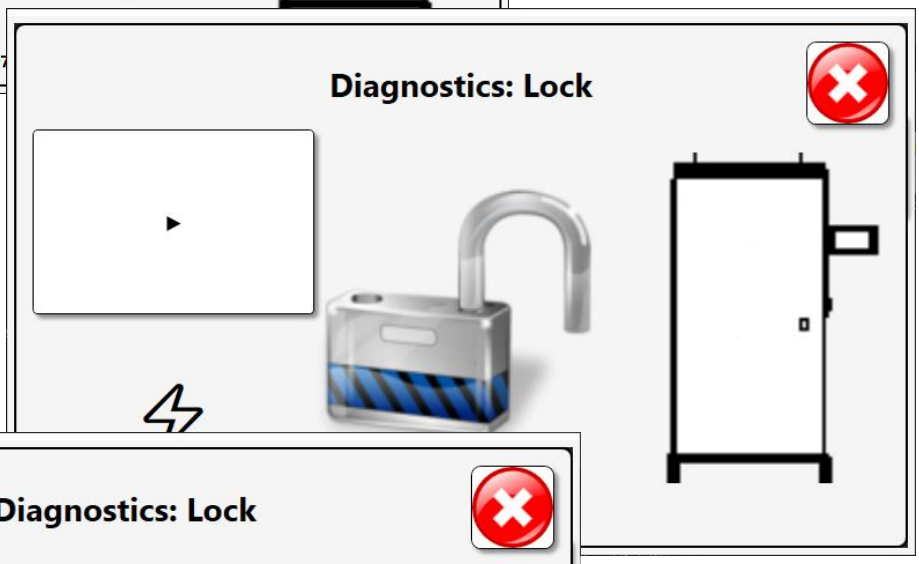
Toolbox Lock Diagnostics Screen

A – Test Audio Prompt: Will play audio prompt of current lock status until muted
B – Lock Status: The blue border displays the status of the lock (unlocked or locked). Tapping one or the other will set the lock into that state.
C – Lock Time Delay **(Do not modify unless instructed by Technical Support)**

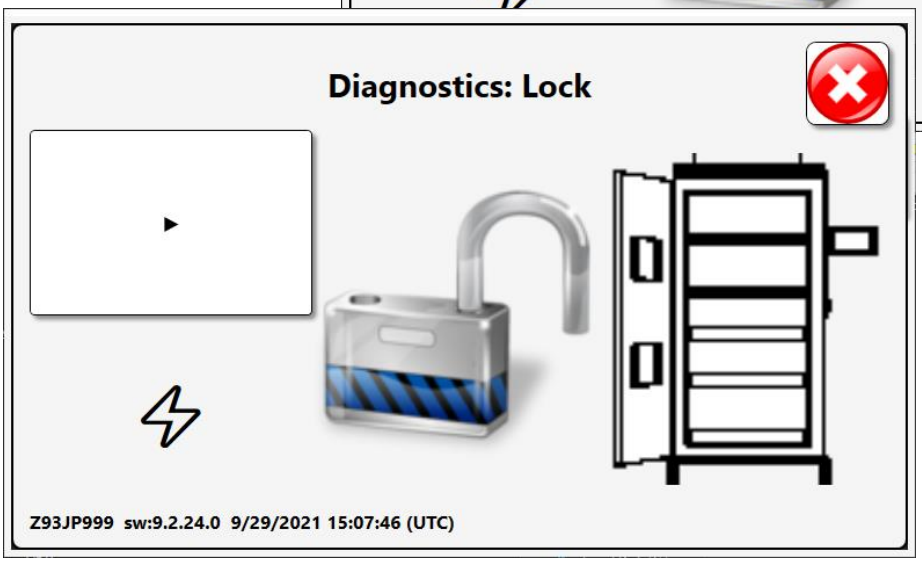
The lock diagnostic screen looks different for the RFID Cabinet. Tapping the ▶ button will begin the test.



Locked with door shut



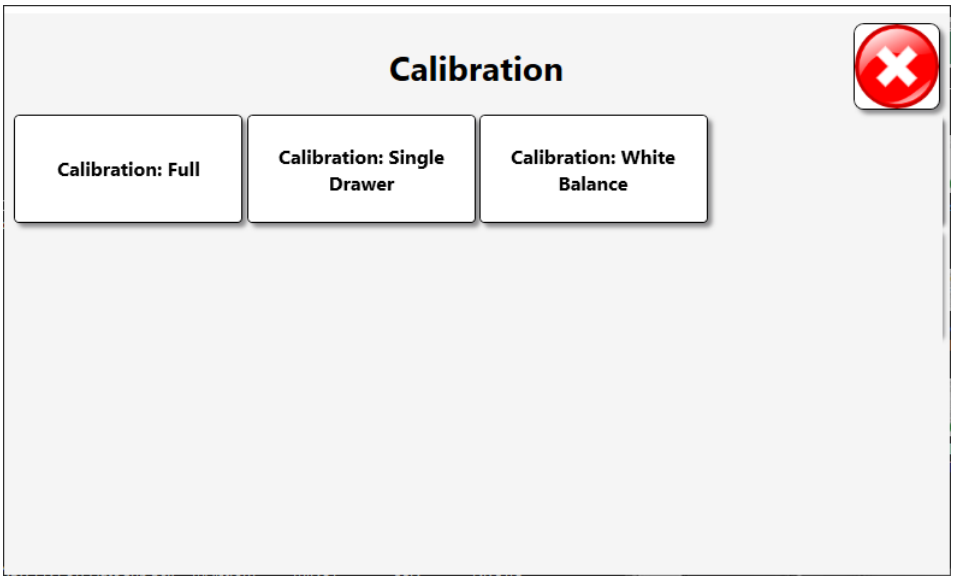
Unlocked with door shut.



Unlocked with door open.

Calibration

This screen allows a user to recalibrate the cameras in an optical toolbox. When calibration is performed, the cameras in a toolbox are aligned, focused, and color values are defined.



DO NOT PERFORM A CALIBRATION UNLESS INSTRUCTED BY SNAP-ON TECHNICAL SUPPORT!!

There following are the types of calibrations you can perform:

Full – This mode will take the user through the complete calibration process of the entire box, including the alignment and white balance of each drawer.

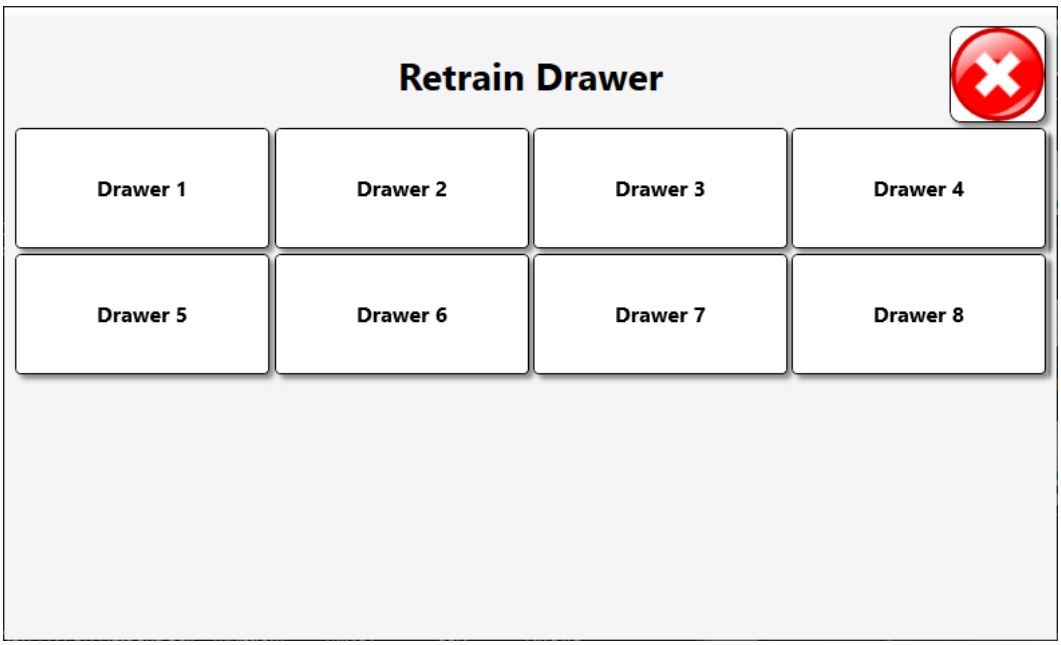
Single Drawer – This is like full except that it only performs all of the calibrations on a single drawer that the user specifies.

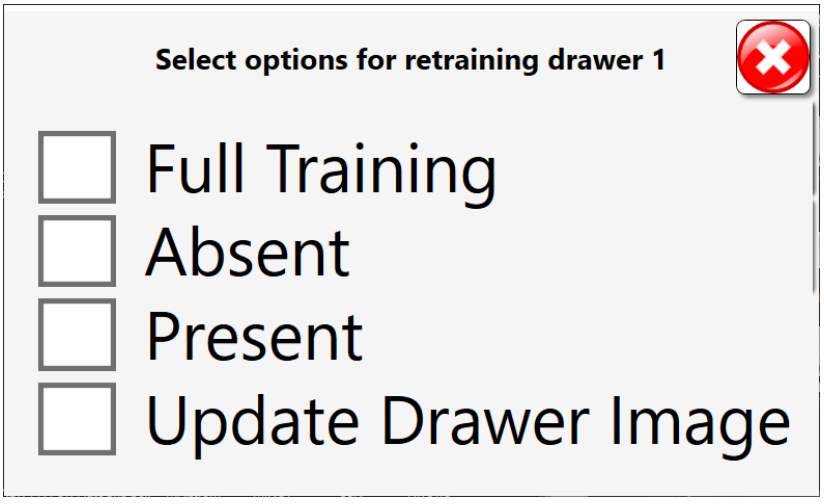
White Balance – This will only perform the white balance calibration. White Balance is used to define the RGB values for the camera so that the detection of color is correct.

Retrain Drawer (Requires Login)

This screen allows a user to retrain an entire drawer with the existing foam file. This is normally done when there are tool detection issues with a specific drawer.

Select the drawer you want to retrain, and the system will ask you what type of training you want to perform:

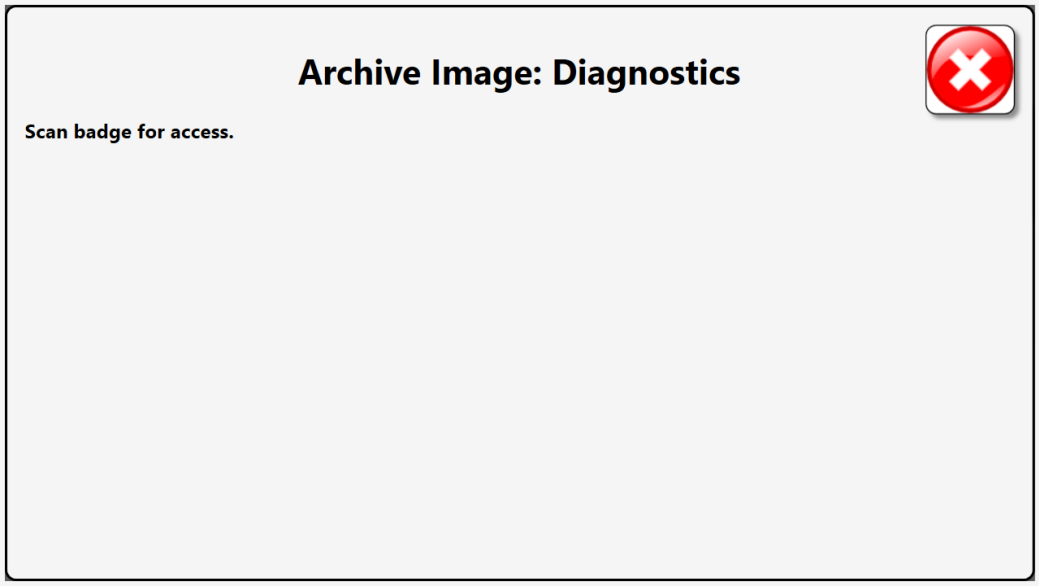




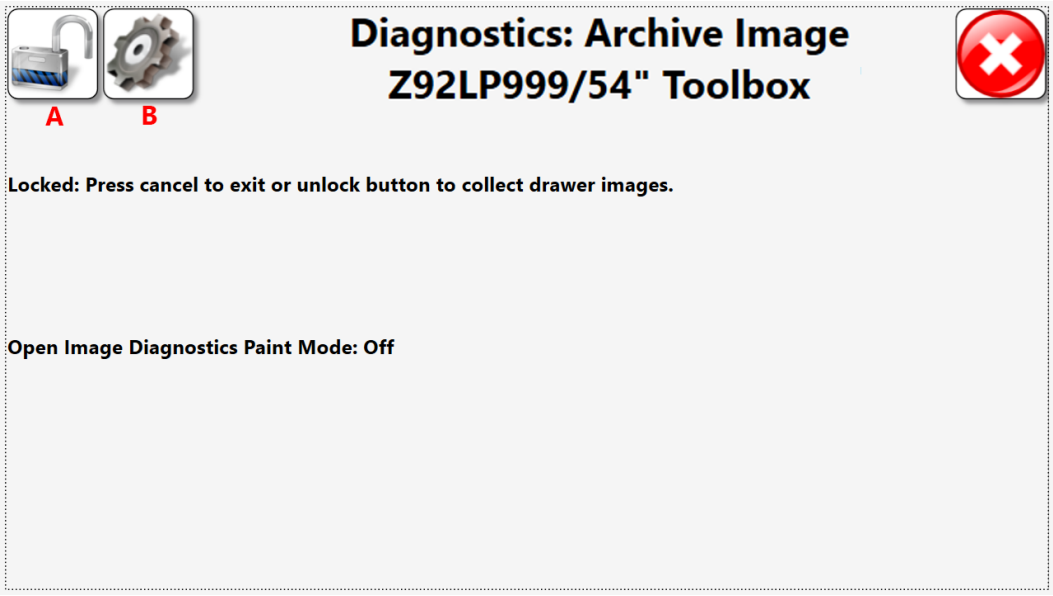
Full Training – Performs full training. This gives the best results.
Absent – Trains the Drawer without tools in the pockets.
Present – Trains drawer with tools in the pockets.
Update Drawer Image – Doesn't perform any training. It just updates the drawer image displayed in UI.

Archive Image Diagnostics

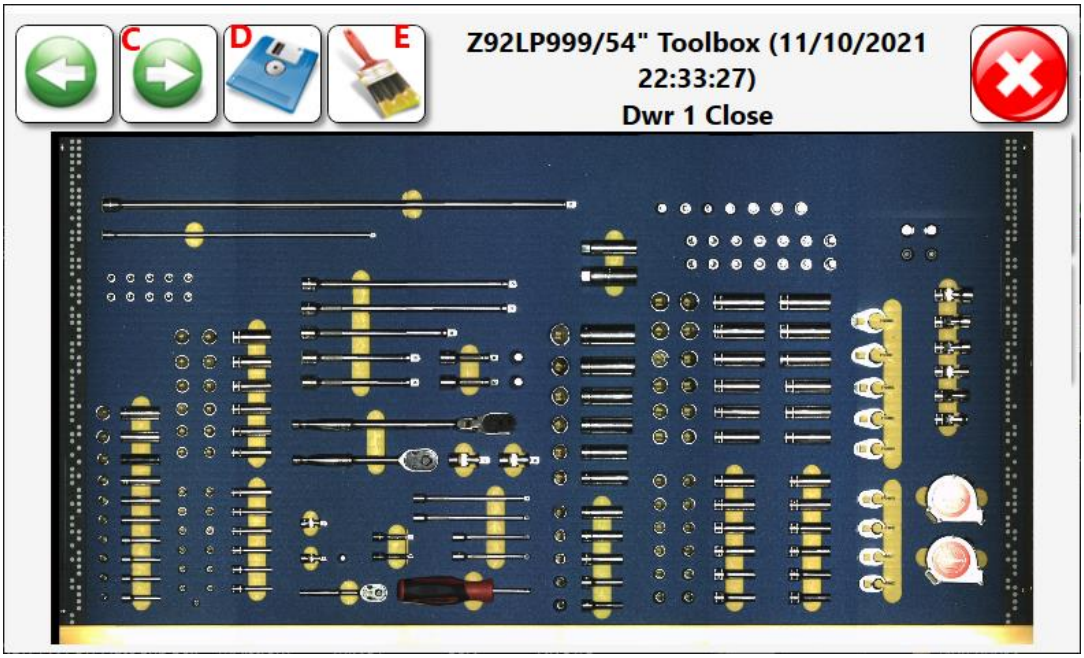
This function allows the user to create a live archive image to diagnose any camera or stitching problems. It creates a drawer image as you open and close a drawer then displays that image to you. You can then save that image to a USB device for further troubleshooting.



You will need to swipe your badge that is associated with an account that has permissions to use this function. To generate an image, unlock the Toolbox by tapping the lock button (**A**), then open and close the drawer that you want to generate an image. Once you close the drawer, tap the lock button to lock the Toolbox.

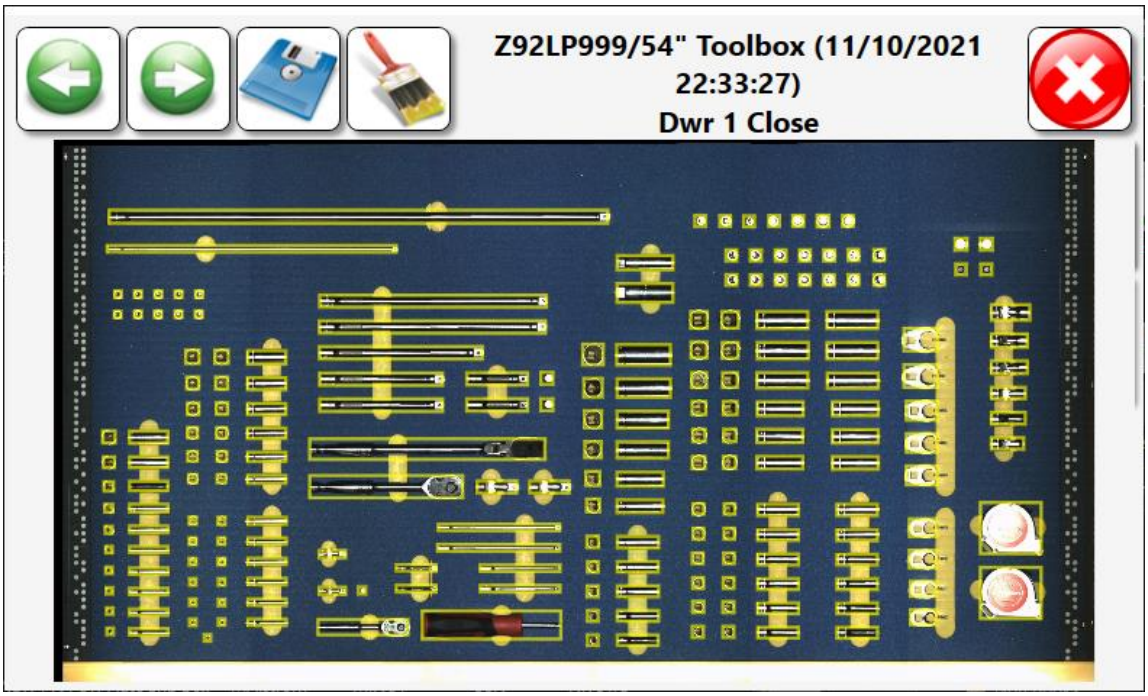


Once the toolbox locks, you will be presented with the image diagnostic screen.

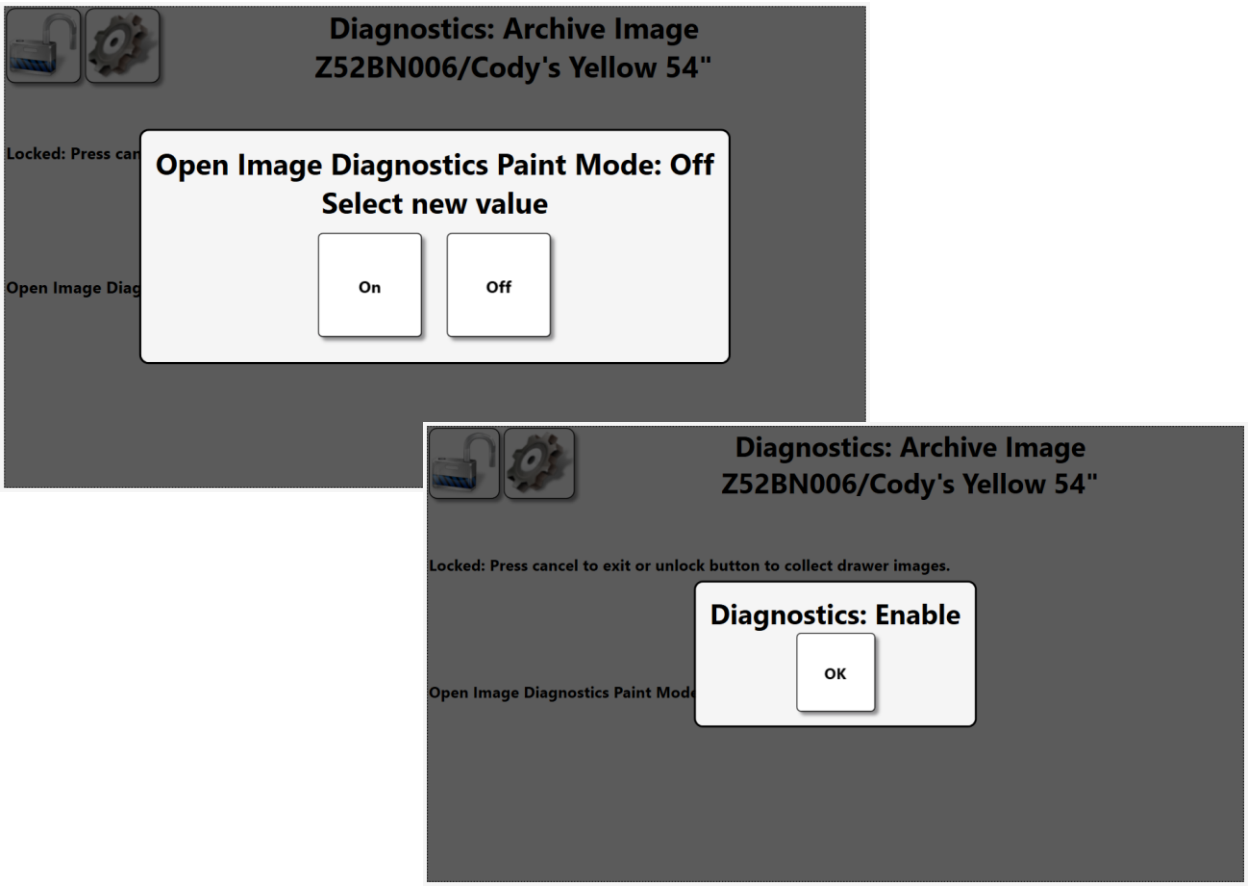


You can navigate between the open and closed images using the navigation buttons (**C**). If you would like to save the current image to a USB device, you can tap on the save button (**D**). If you would like to see the ROI zones for each tool in the drawer, you can tap on the Paint ROI button (**E**).

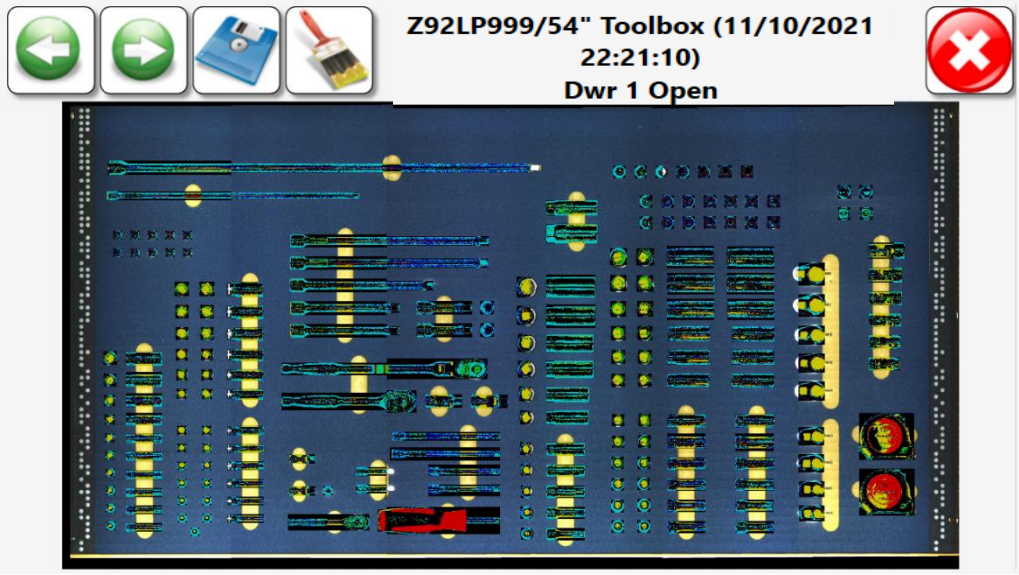
When displaying ROI, the screen will draw blinking squares to represent where the camera is looking for a tool in each pocket.



If you are having issues with the Toolbox detecting a ZoomID that you have applied to a tool, you can user Image Diagnostics Mode (**B**). This mode allows you to view Color information to diagnose ZoomID detection issues.



When this mode is enabled, all open drawer images will have a color overlay applied:

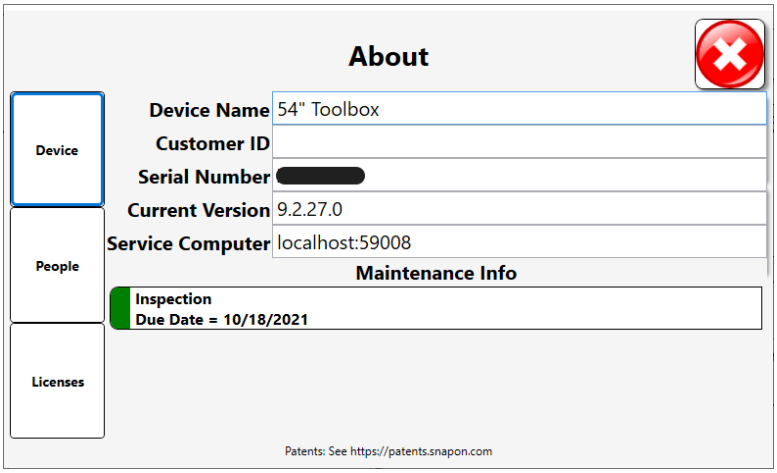


About

The about screen displays Device-specific information as well as last known user and advanced feature availability.

There are three tabs on the About Screen:

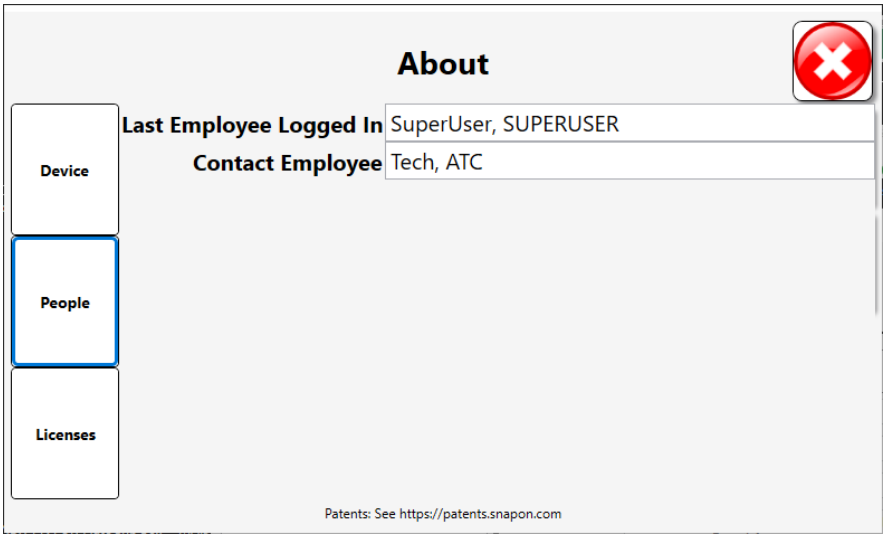
Device – This tab displays information about the Device. This data is read-only and can be changed in the L5 Connect™ Admin Client. This tab also displays any Maintenance Types and the Due Date if one has been applied to the Device.



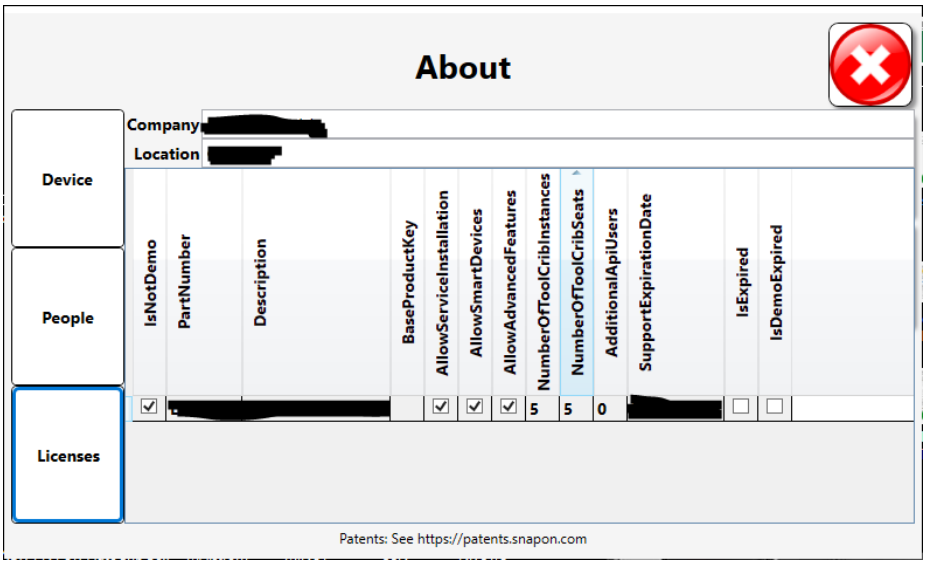
To apply a Maintenance to a device, you will need to define it with the master tool of the device. You can do this on the tool tab of the L5 Connect™ Admin Client.

Device Name – The friendly name of the Device.
Customer ID – A unique ID number set by the user.
Serial Number – The Serial Number of the Device is hard-coded and doesn't change.
Current Version – The current version of software the system is running.
Service Computer – The hostname or IP of the L5 Connect™ service this Device is connected.

People – The people tab displays the last logged-in user and the employee whom users need to contact if there are any problems with the box.

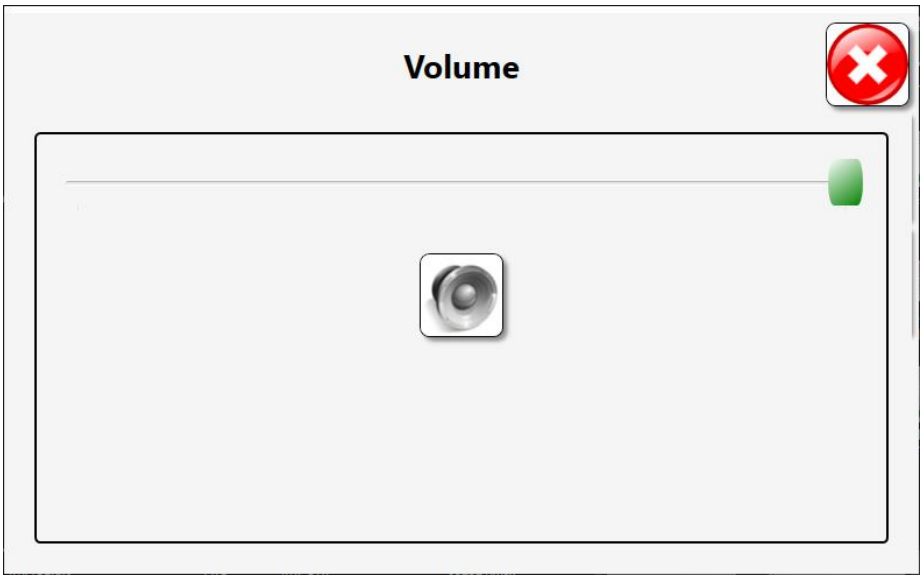


Licenses – This tab will display the current license that has been applied from the service to the device.



Volume

This setting allows you to change the volume of the system audio. Moving the slider to the left <- will reduce the volume. You can press the button to play an audio sample to test the sound and volume.



Advanced Features (Advanced License Required)

The following are two accessories you can purchase to enhance your L5 Connect™ Device.

FastFlag

The FastFlag Andon Light provides visual feedback of a toolbox status in real-time. This accessory is attached to the ATC Device and powered by the USB ports on the back of the Device.

The following chart explains what the different color lights and patterns mean:

Condition	Red Light	Yellow Light	Green Light	Blue Light
UNLICENSED	BLINKING	BLINKING	BLINKING	OFF
UNLOCKED	OFF	BLINKING	OFF	OFF
DISCONNECTED FROM SERVICE	BLINKING	BLINKING	OFF	OFF
ALERT ACTIVE	BLINKING	OFF	OFF	OFF
TOOL ISSUED	OFF	ON	OFF	OFF
ALL GOOD	OFF	OFF	ON	OFF
CUSTOM STATUS	OFF	OFF	OFF	BLINKING or ON

ZoomID

If you have multiple tools of the same type in a toolbox, but you need to keep track of specific "Serialized, Certified and Calibrated" assets, then Zoom ID allows you to assign a specific tool to a pocket and will only allow that tool to be returned to that pocket.

These Tags are read/scanned by the Toolbox cameras like a barcode. Each Tag has a unique color and number sequence with 65,104 unique Tag Codes available.

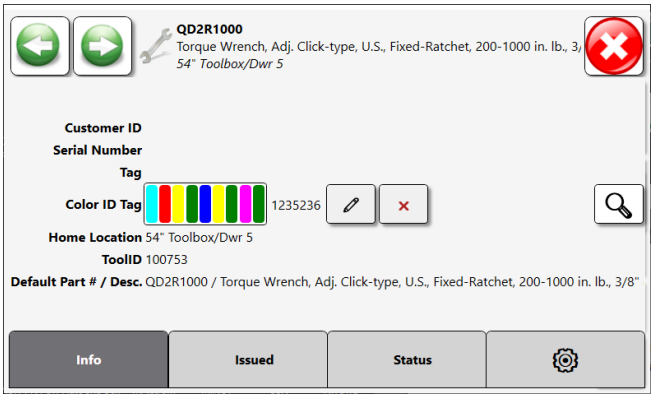
Each color represents a digit (1-6)

- Red
- Yellow
- Green
- Cyan
- Blue
- Magenta

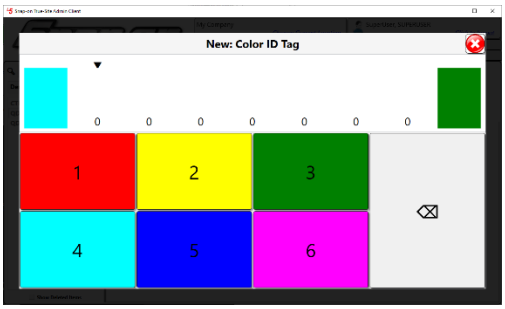
The Tag will always start with Cyan and end with Green.

The Tags adhere directly to the tool without interfering with the tool fit or function and are sold in Sets based on Consumption.

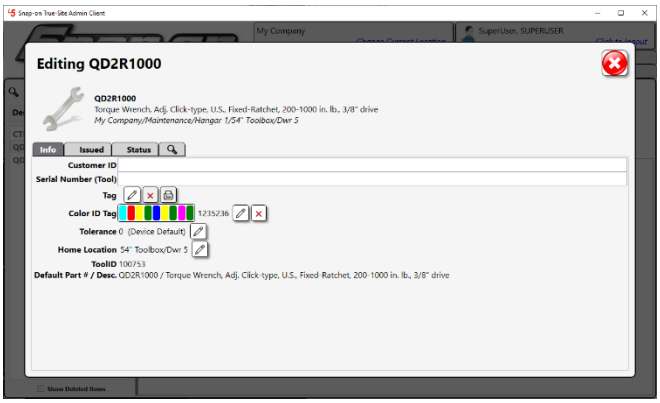
The Tag is assigned to the tool during training and can be modified in the tool instance properties.



Tool Properties from Toolbox (view only)



Color Tag Edit from Admin Client



Tool Properties from Admin Client

Setting Up an ATC Device

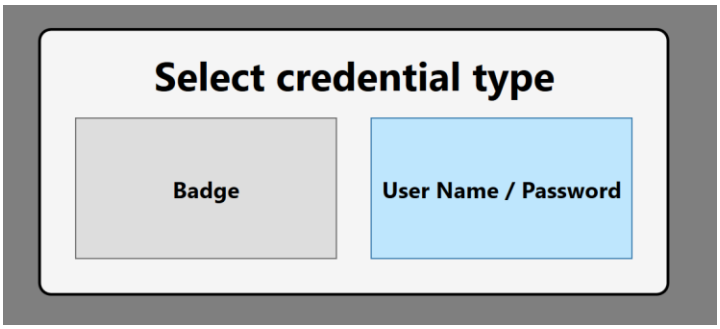
Before you can use an Optical Toolbox, you must configure it. The following are the procedures needed to complete a full setup of a brand new toolbox.

!!! Drawer Height, and Calibration is done during manufacturing and should not be performed in the field without instruction from Technical Support!!!

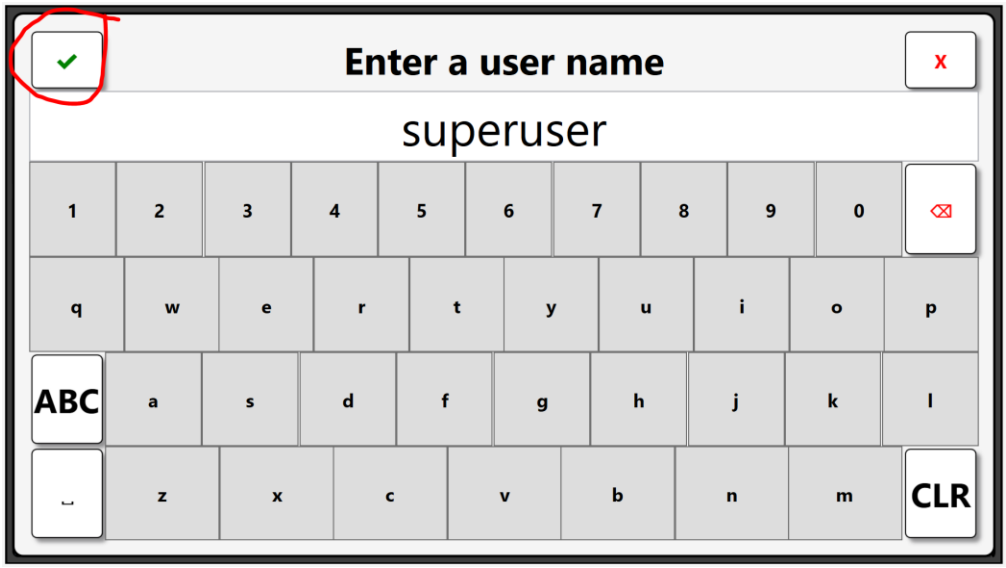
Connecting to a L5 Connect™ Service

You must connect your new Device to a licensed L5 Connect™ service. This requires the Device to be connected to a network in which it can communicate with the service.

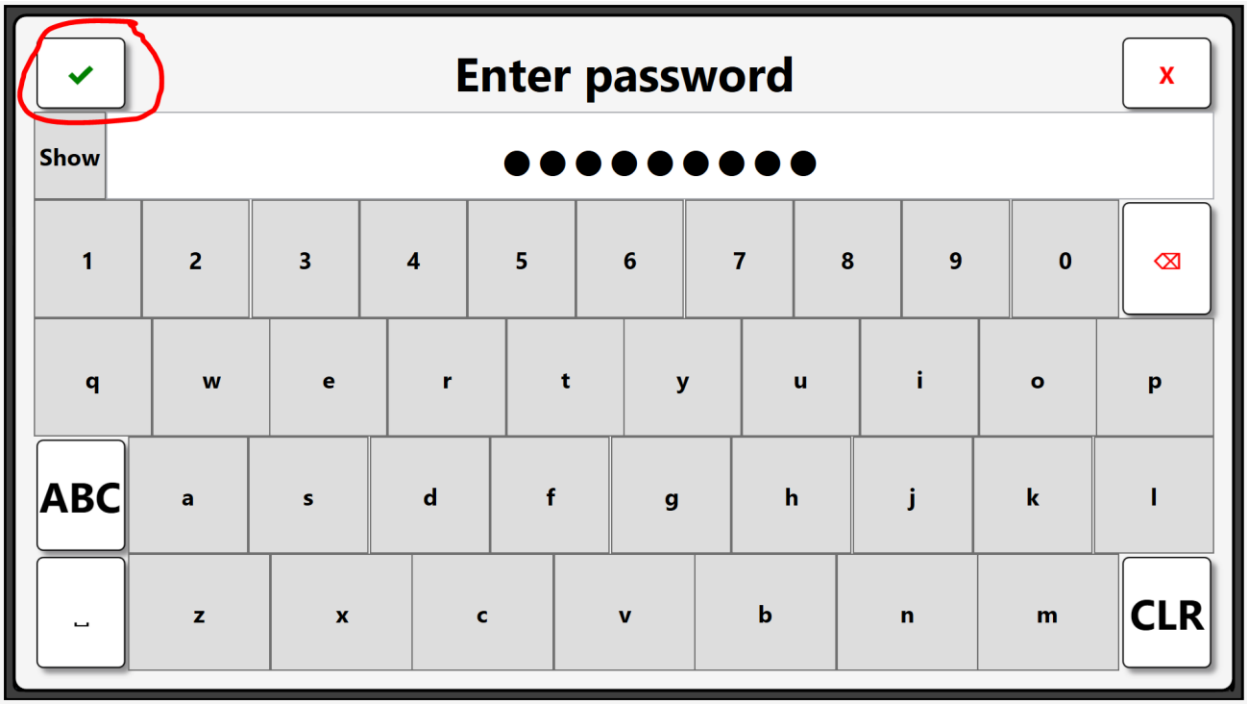
You can join either by badge scan or username and password. We are going to use the username and password method. Select **Username / Password**. A valid username and password with permissions to add devices is required for this method.



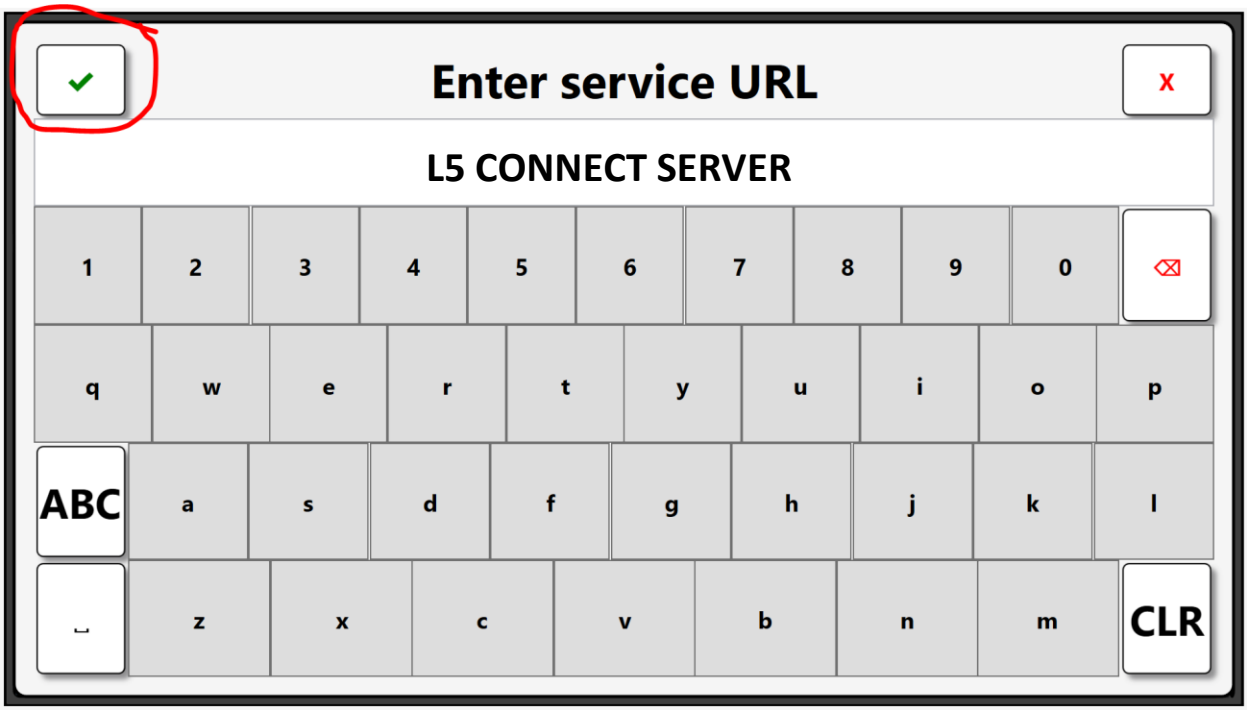
Enter your username; for our purpose, we are going to use the default **superuser** account. Click on the green checkmark on the left to continue.



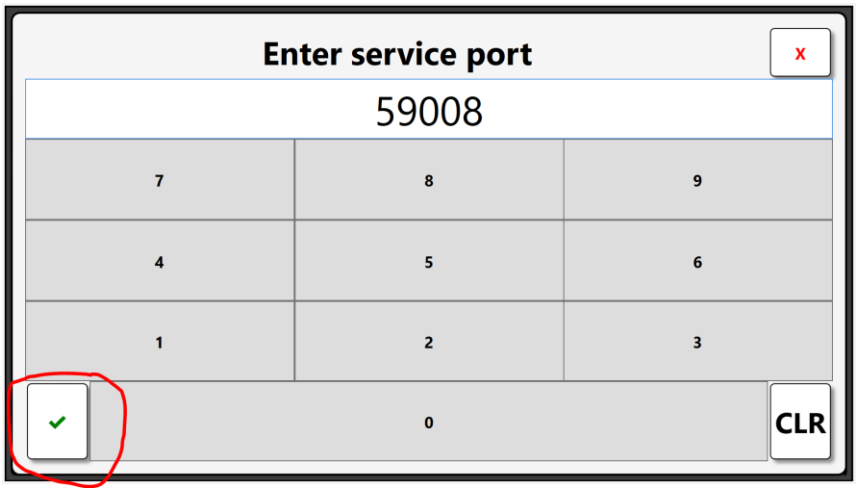
Enter your password; for our purpose, we are going to use the default **superuser** account. Click on the green checkmark on the left to continue.

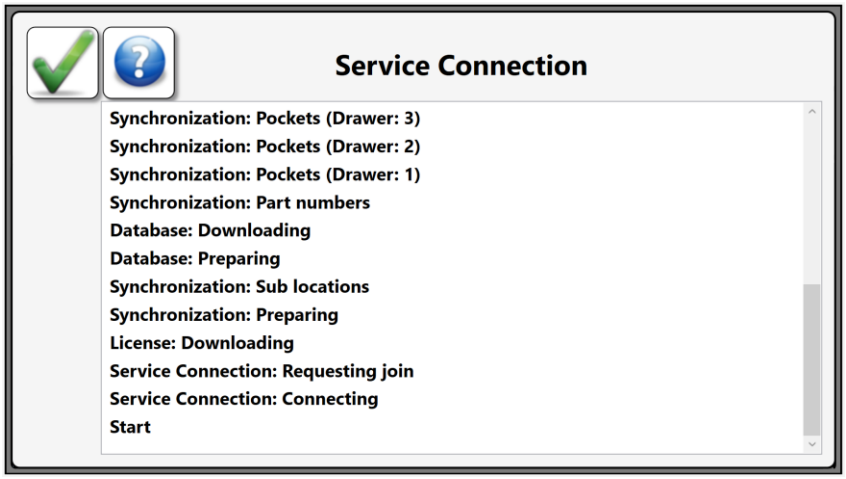


On the next screen, input the hostname or IP of the L5 Connect service PC and then click on the Green Checkmark. **NOTE: The Server name shown here may not match the one in your environment. Please verify your server's hostname or IP and input it here instead of what is displayed.**

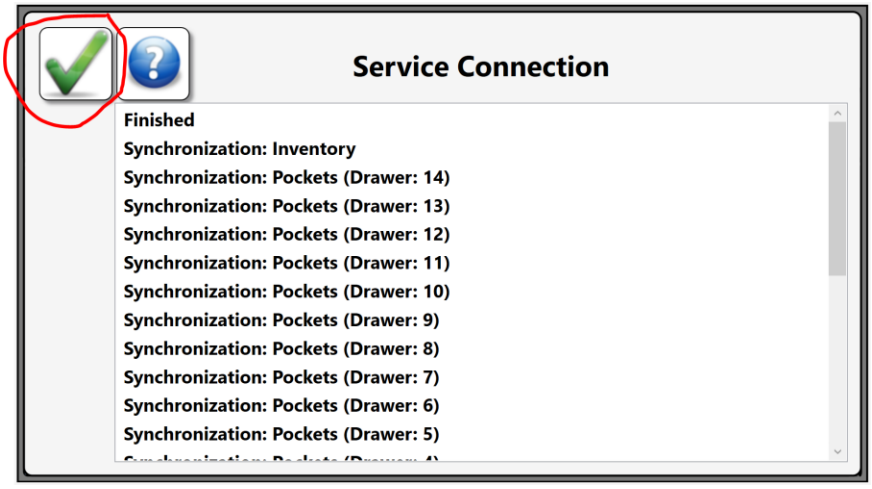


On the next screen, input the service port that your service is running on. For our purpose, we are going to use the default port of **59008.**





Click on the green checkmark to finish.



Defining Drawer Heights on an Optical Toolbox

By default, the system sets the drawer heights to the 8 standard option, but if the drawer layout for the Toolbox is different, the user can change the drawers of the Toolbox to different sizes using this function. You will need to log in with the appropriate permissions to access this function. There are three options available:

8 Standard – This setting will auto-set the drawer heights to the standard drawer layout using 8 drawers.
7 Standard – This setting will auto-set the drawer heights to the standard drawer layout using 7 drawers.
Custom – This setting will allow the user to define the size of each drawer. Tapping on a drawer size will add it to the layout, while the button will remove the drawer's bottom first. The top drawer cannot be 2".

Calibrating the Optical Toolbox

For the Toolbox to properly detect tool signatures, the cameras must be calibrated. The purpose of calibration is to tell the toolbox cameras how to stitch an audit image together for each drawer in the Toolbox. Tool calibration is done during manufacturing, but there may be instances when you need to recalibrate.

There are only two valid reasons to perform a calibration

1) Poorly stitched audit images
2) Something in the imaging system was moved or replaced
    - Camera(s)
    - Mirror
    - Drawer foam
    - Drawers rearranged
    - Dot strips
    - ATC chassis

DON'T recalibrate for replacing

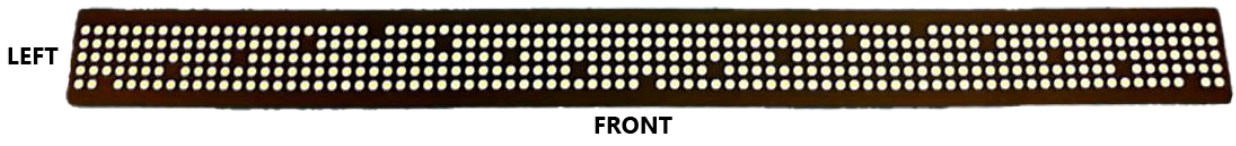
- Motherboard or hard drive
- Lock board or lock
- Badge scanner
- Monitor
- LED strip

! WARNING !

You must retrain any drawer you calibrate, so make sure you need to calibrate first!

The Calibration Strip

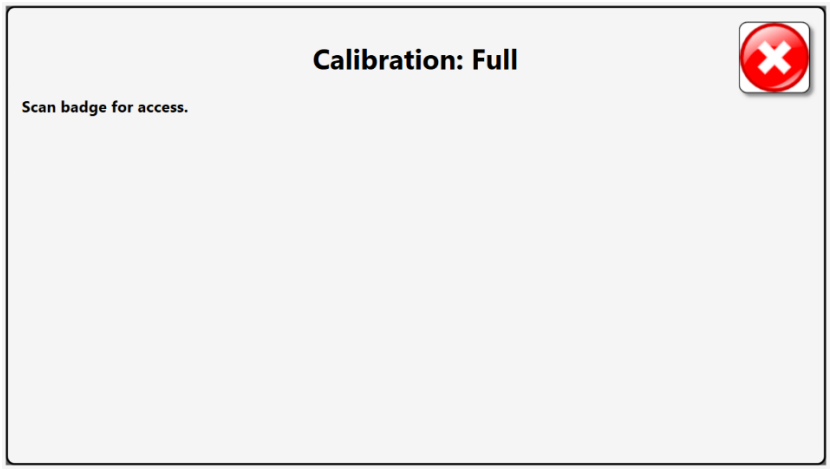
The calibration strip is a piece of metal covered in white dots and should be included with your Toolbox. This is the primary tool used to calibrate your cameras. It is recommended to store the Calibration Strip in a safe and secure location to ensure that it does not go missing.



Toolbox Calibration Process

To begin the calibration process, go to **Main Menu** -> **Troubleshooting** -> **Calibration and** tap **Calibration: Full** to start a full calibration of the toolbox. More information about the different types of calibrations can be found in the Main Menu section of this guide.

You will be presented with a screen that will require you to wave your badge in front of the Card Scanner on the front of the Toolbox. If you have permission, the system will proceed with the calibration.

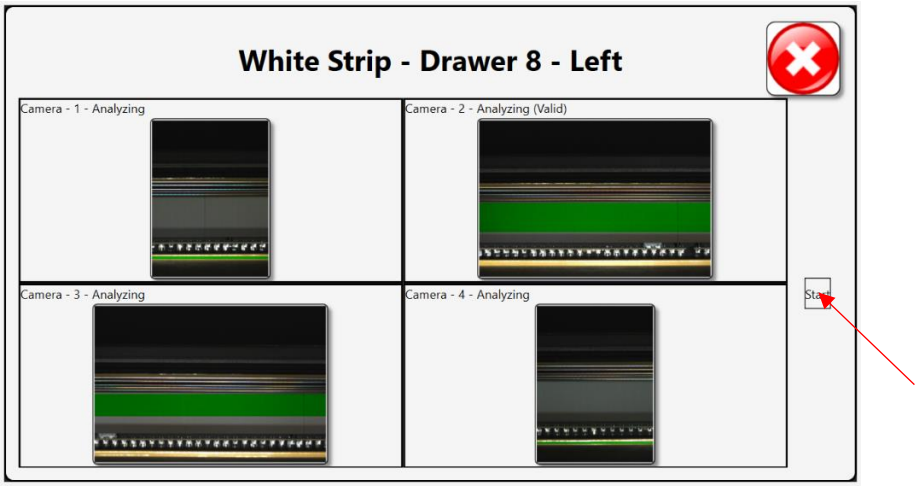


Phase 1 – White Strip

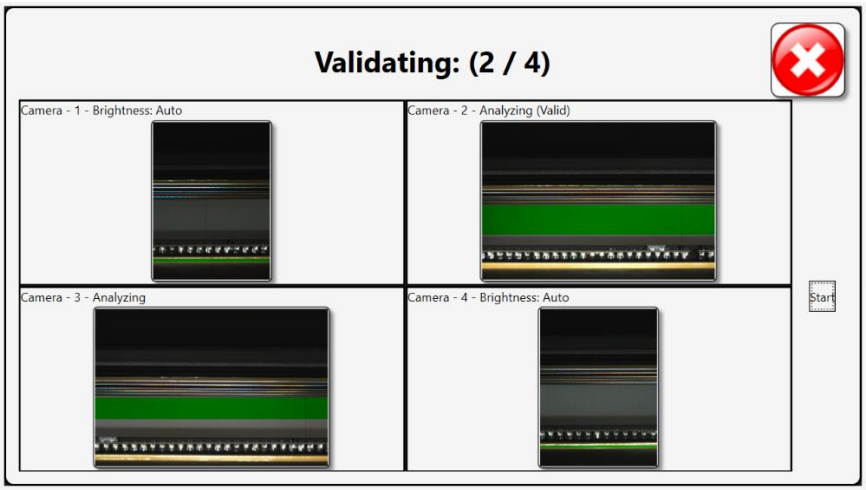
The white strip phase vertically aligns the cameras to the drawer. Starting with the bottom drawer, open the drawer and place a white no-glossy material within the band of light. In the image below, small stacks of printer paper slightly overlapped are used. You may use any white material. The whiter the material, the better so long as it fills the band of light. The white strip needs to lay a flat as possible. You may need to remove some tools from their pockets to ensure it lays flat.

The system will create a green overly when it detects the white color of the material correctly.

When you have the white material in place, tap the **START** button on the right side of the screen.



This will begin the validation process. The system will adjust the cameras to get the best image possible.



Once all four cameras have been validated, you will need to validate the Right Side if you are calibrating a 54” Toolbox.

For a 36” Box, the system will only need to validate once as it will do all 4 cameras at the same time.

For a 54” Box, the system will validate the Left side first, then the right.

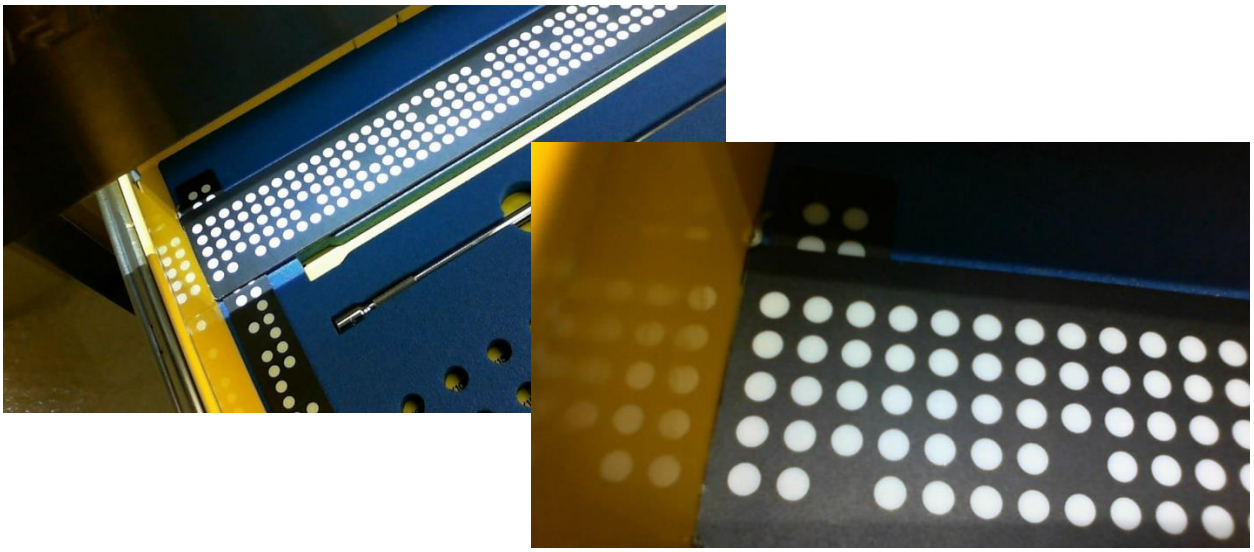
The system will repeat this process for drawers 2 & 1. Repeat the same steps, and when the White Strip phase completes, the system will then move to the Drawer Alignment Phase.

Phase 2 – Drawer Calibration

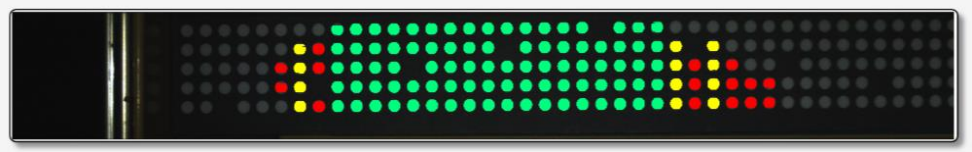
During the next phase, several different adjustments are made utilizing the calibration strip. The system first performs a Horizontal Alignment which defines the left and rightmost boundaries of the drawer. Next, it performs a White Balance, which sets the RGB color profile values for consistent color in all the cameras. This is needed for ZoomID Color Tags. Then the cameras are de-warped & synced so that all cameras can work together to make a single image.

Starting at drawer one, place the calibration stick on the left side of the drawer in the band of light as shown in the image below:

Verify that the calibration strip is oriented the correct way and that it is set flush against the drawer's side and is laying as flat as possible. Like with the white strip, you may need to remove some tools:

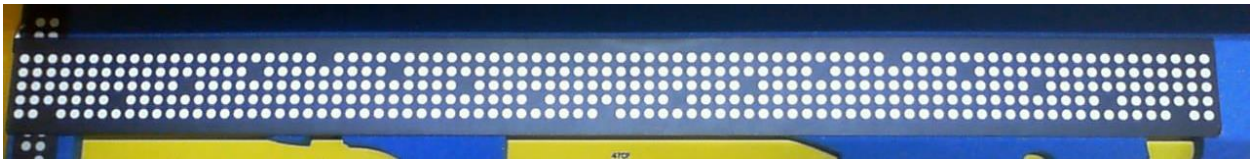


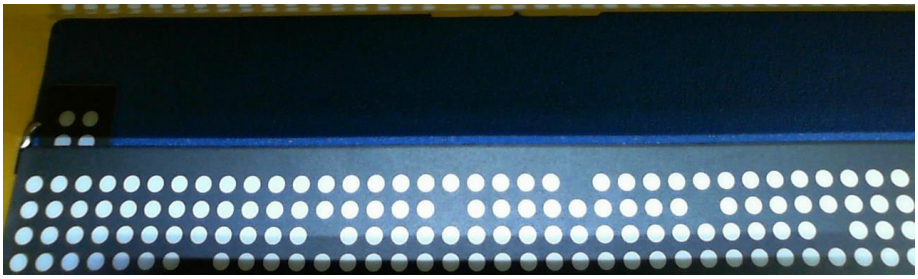
When you place the calibration strip in place, the system will overlay the white dots with color to let you know if the calibration stick is in a good position



GREEN – This indicates that everything is OK
YELLOW – This indicates that the system is not seeing the expected pattern.
ORANGE – This indicates that the system sees a collection of dots but they don't fit the pattern.
RED – This indicates that the system can see the dot but cannot locate the other dots around it.

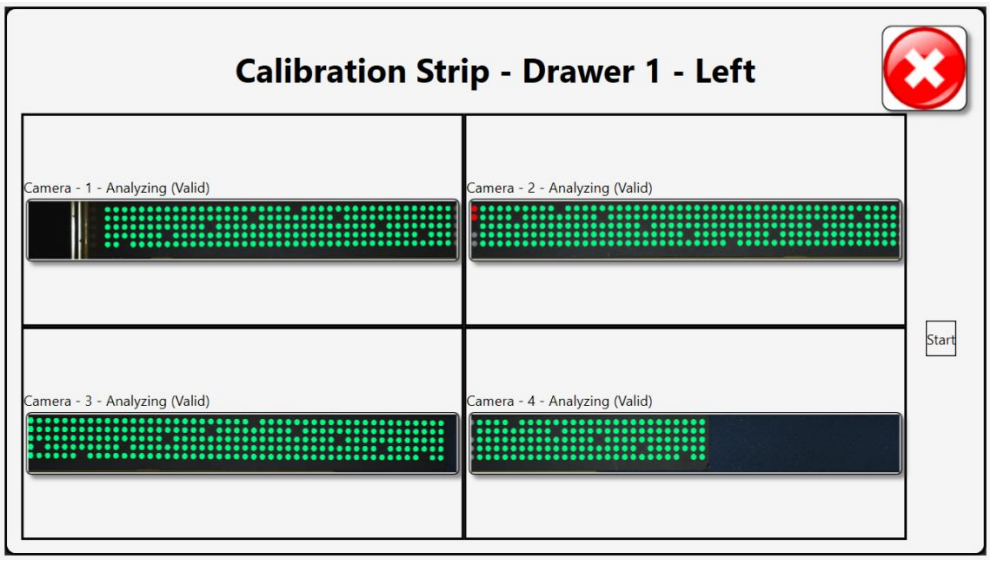
If you have any Yellow or Red, adjust the calibration strip by moving it up or down in the light band till all are green. A good rule of thumb is to place the calibration strip with a small line of light above it:



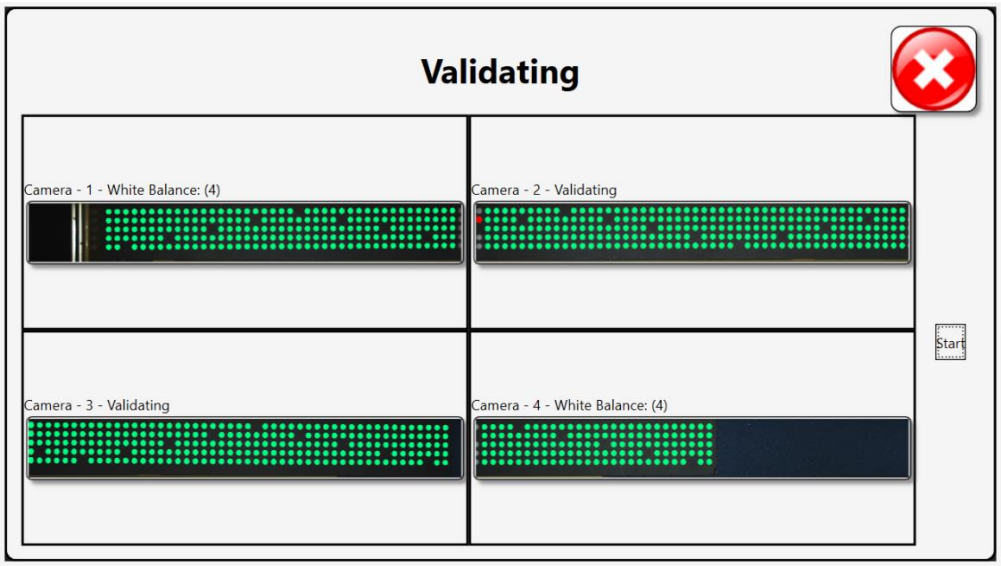


You may not be able to achieve “all green” before starting the detection process since the exposure may need to be adjusted. Instead, you should adjust the strip until the top and bottom rows of dots are visible and the number of green dots is maximized. The auto-exposure during the analyzing process will then adjust to find any required non-green dots. If the auto-exposure adjustments do not fully reveal the dot pattern to the system, the color patterns displayed during the process should show the cause of the failure.

When you have the calibration strip in a good position, and all dots will turn green. If the dots on the far edge do not turn green, that is OK. The system will adjust for those.

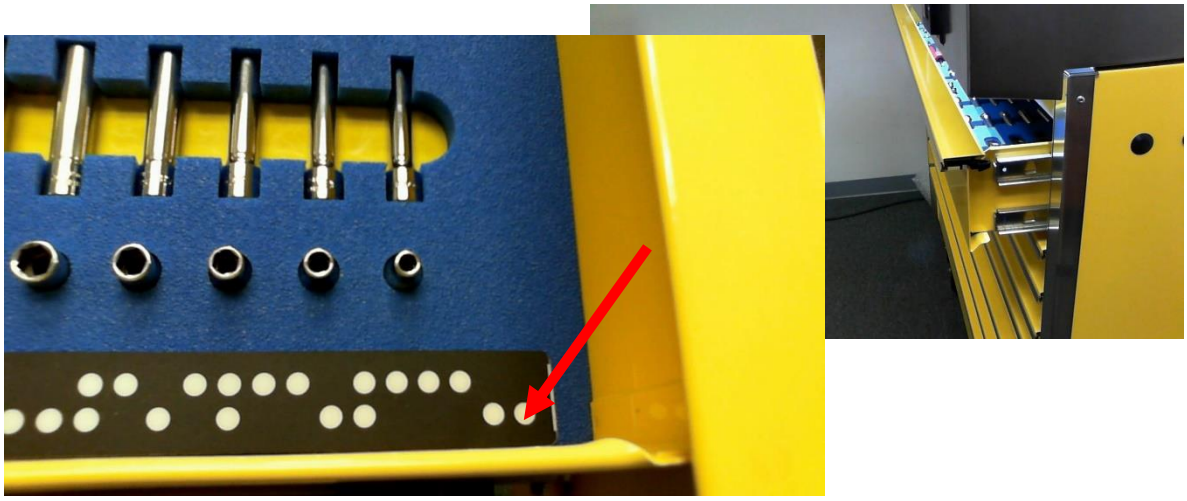


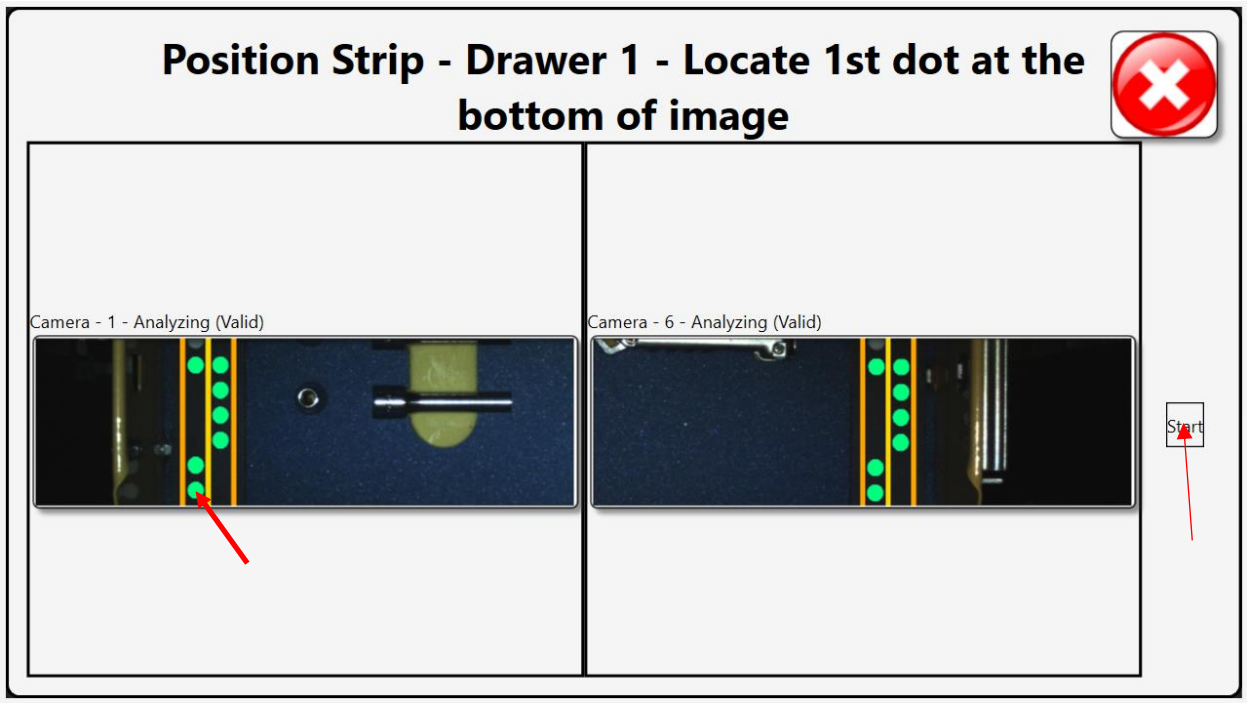
Once in position, tap the **START** button on the right side of the screen. This will begin the calibrations. Please be patient, as this process can take a few minutes to complete.



If you are calibrating a 54” top, when left side validation is complete, you will need to move the strip to the right side of the drawer and validate again like with the White Strip.

Once validation is complete, you will need to define the bottom-most dot on the drawer. Align the drawer, so the dot closest to you is at the bottom of the view on the screen. Then tap the **START** button on the right.





Once the system validates, it will then apply all the adjustments. This could take a few seconds. The system will then ask you to repeat this process for each drawer in the Toolbox. Once you have finished all the drawers, the system will restart and write the new calibration data to the cameras.

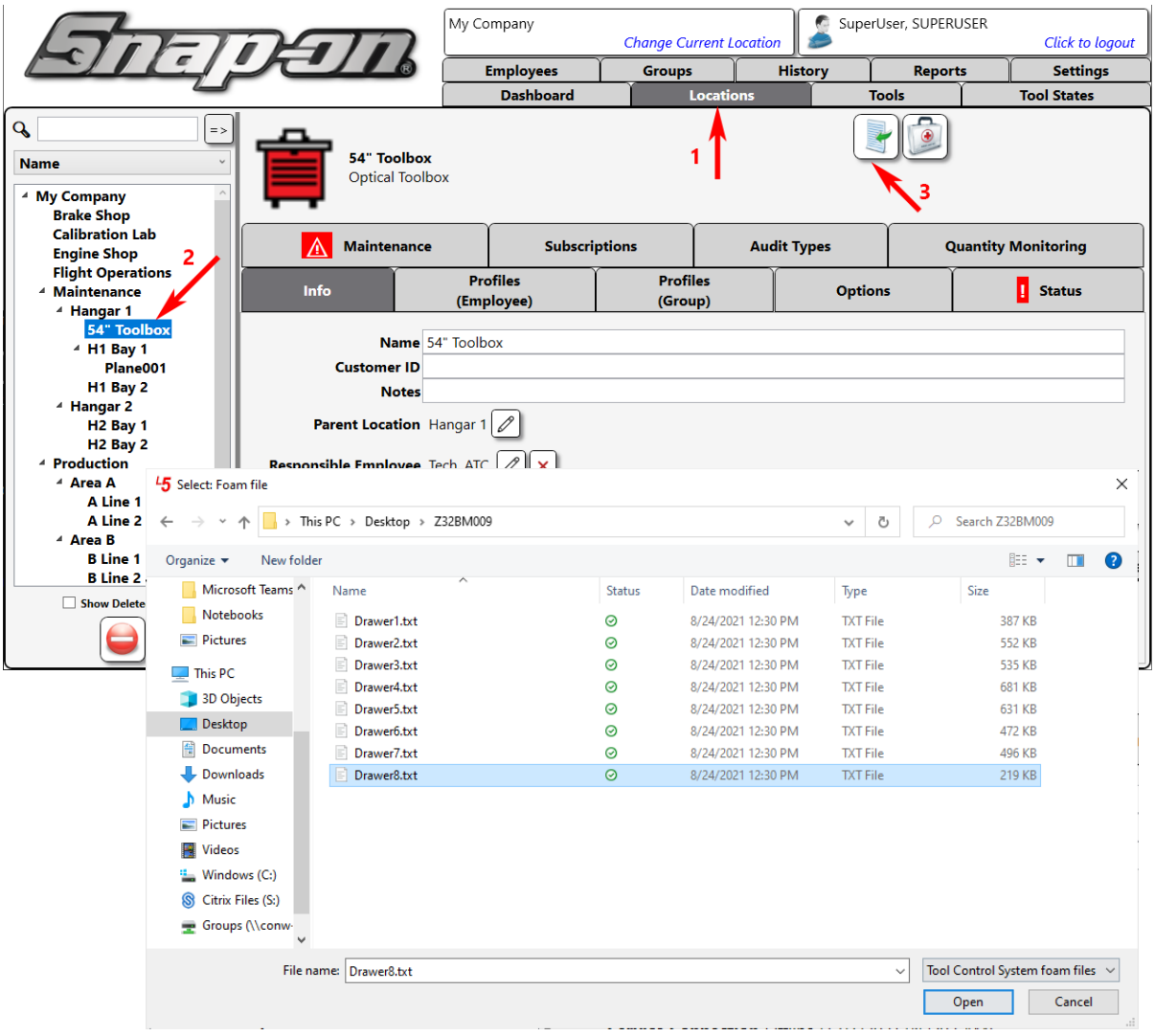
Remember, if a calibration is performed, you will need to retrain the drawers.

Importing Toolbox Foam Files

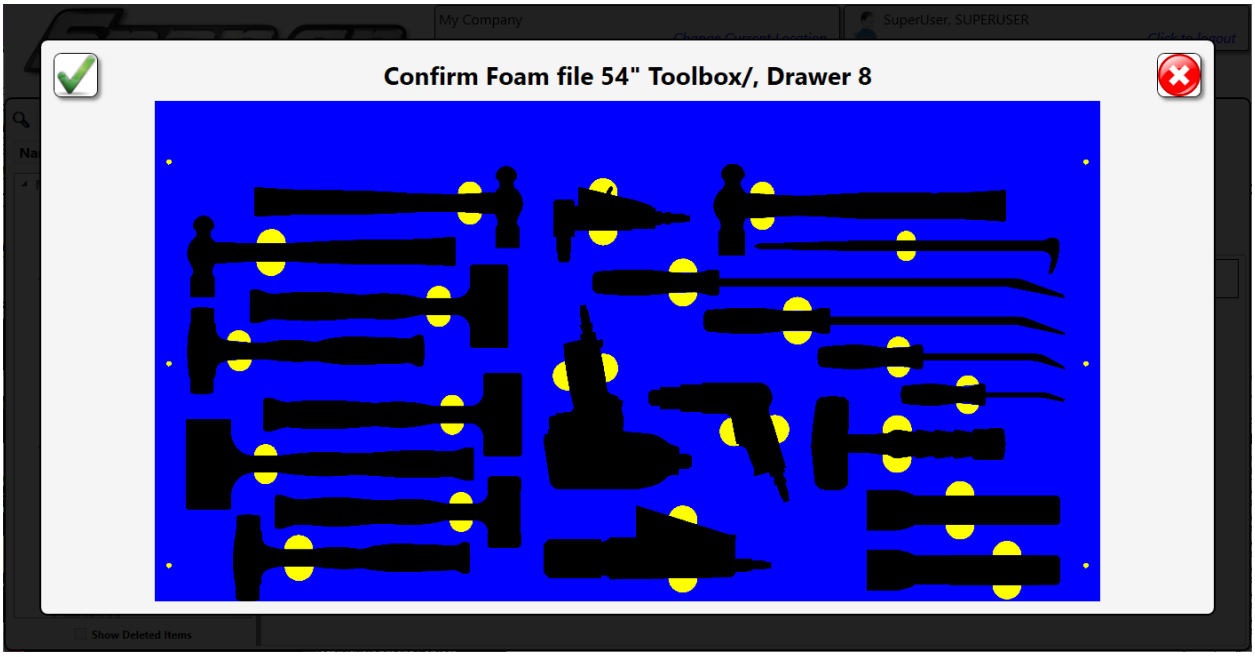
To use the Toolbox, you will need to train it to detect the tools within it. We do this by utilizing a Foam File that tells the Toolbox where to look to find the tool in the drawer. You will need to import the foam file to the Toolbox.

From the L5 Connect™ Admin Client:

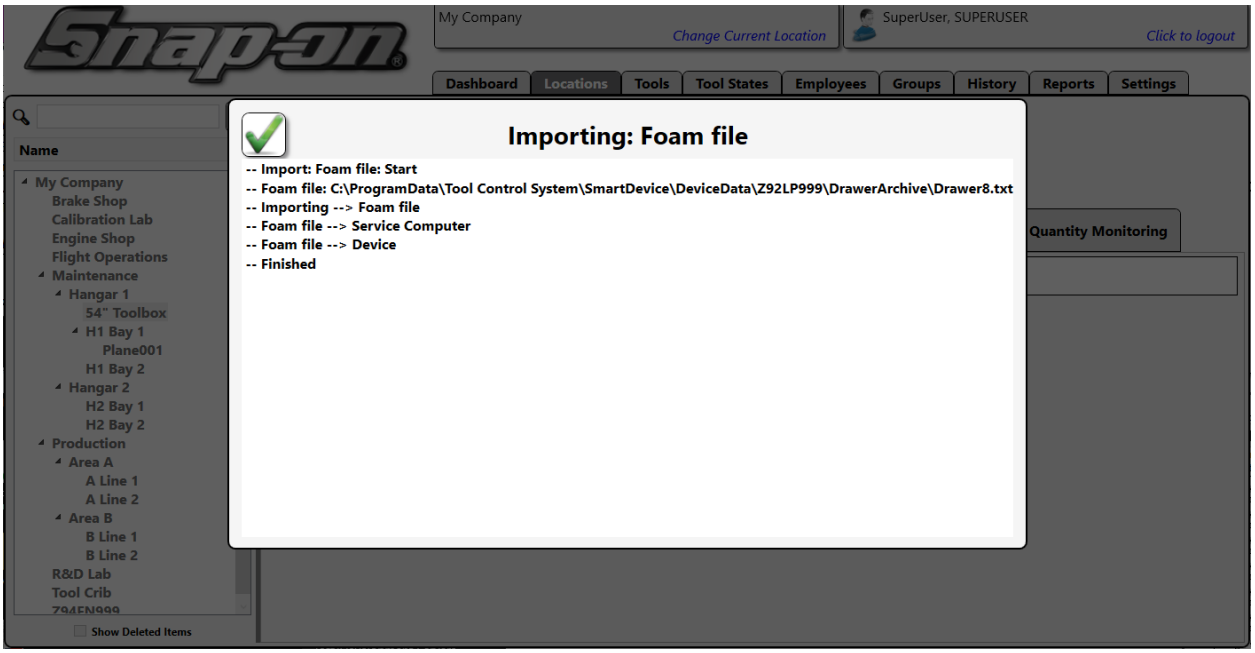
1. Go to the locations Tab
2. Select the Toolbox you want to upload the new foam files to
3. Click on the import foam file button
4. Browse to the file and click Open



You will then be asked to confirm that the foam file is correct.



After you confirm the foam file, it will then get uploaded to the Toolbox.



NOTE: You can only import one foam file at a time.

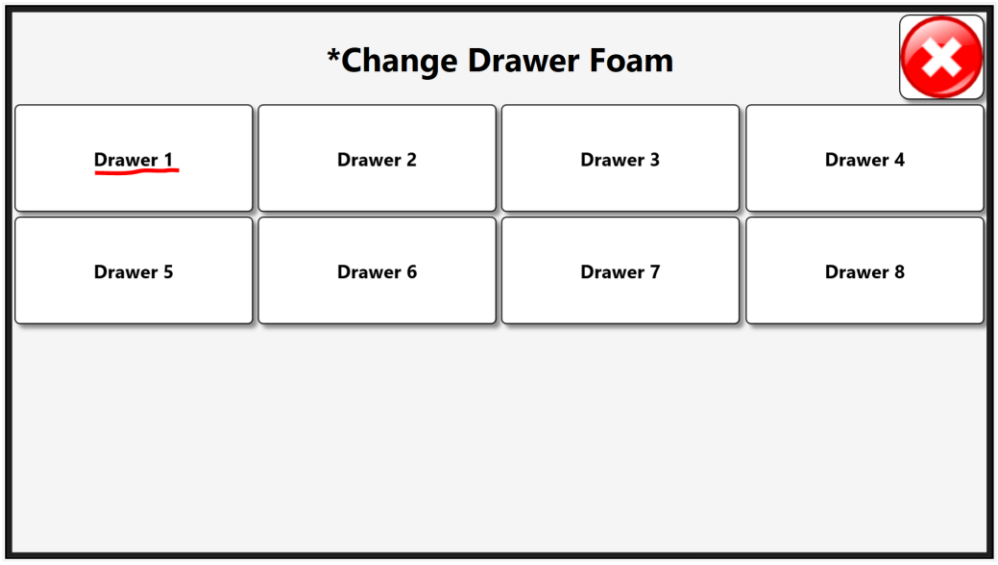
Drawer Training on Toolbox

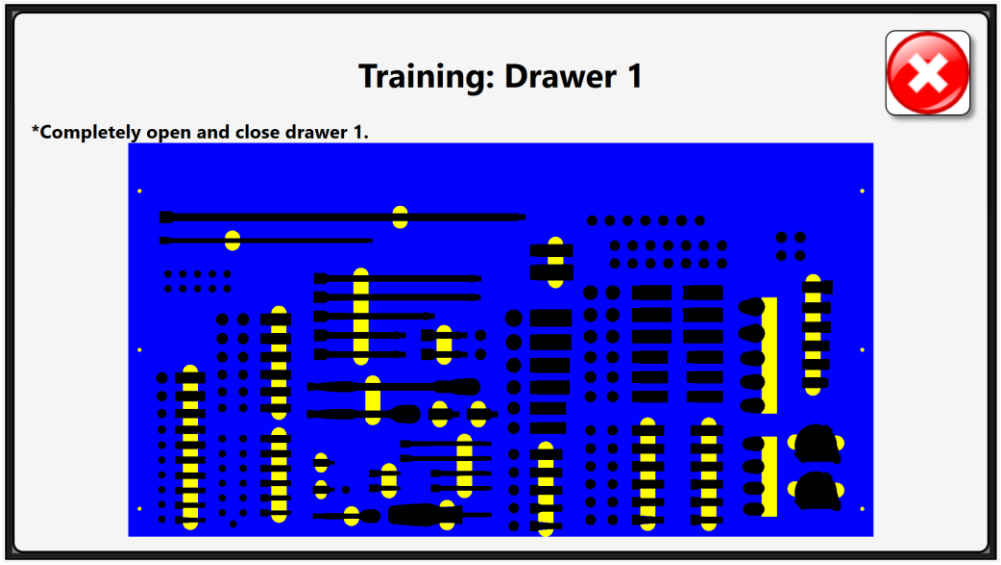
Once you have uploaded all the Foam Files, you can begin training the drawers. You will need to be logged into the Toolbox with permissions to perform this action.

Go to the **Main Menu -> System Changes-> Change: Foam File**. Select which drawer you want to train. We are going to start with drawer 1.

When you first start the training process, you will be provided an audit image of what the cameras see when it is opened and closed. If there are any abnormalities or defects in the image, you may need to recalibrate or take other actions to clear the image.

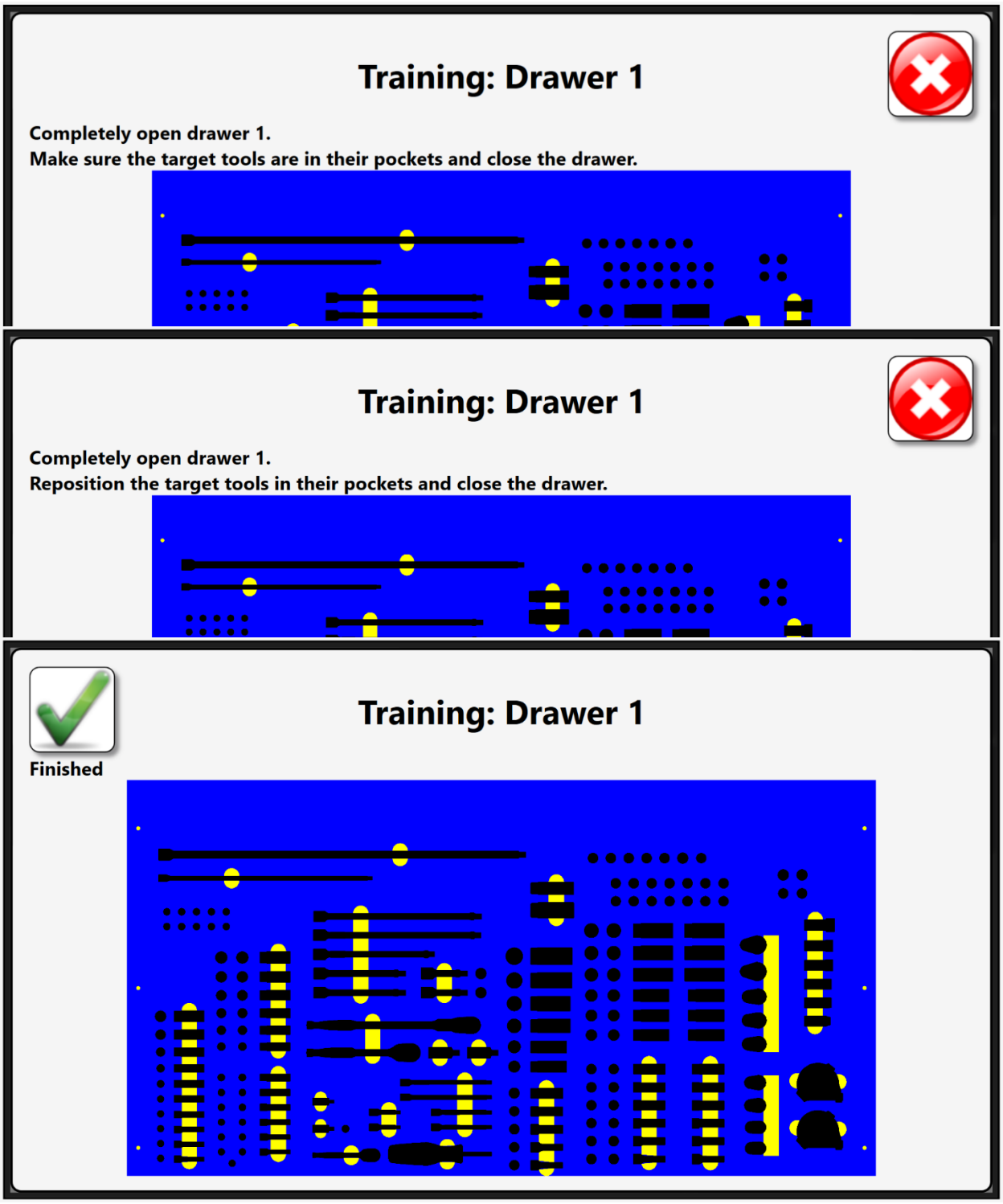
NOTE: Follow the on-screen and audio prompts to complete drawer





Make sure you follow the on-screen and audio instructions. It is easy to get distracted or in a hurry and get the training sequence out of order.

When the system asks you to reposition the tools in the pocket, it is asking you to sit the tool in the three most common ways. This is extremely important in that tools that could have different color signatures depending on how they are sitting in the pocket.

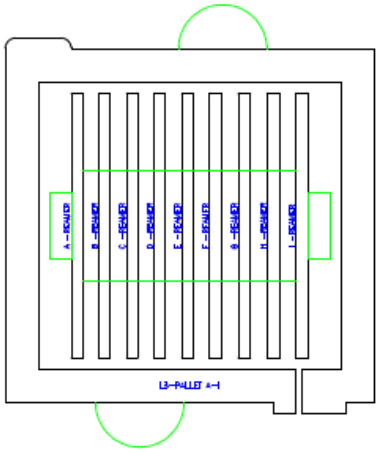


After you, complete Drawer 1, follow the same steps to train the rest of the drawers. Once drawer training is complete, the device will be ready for use.

Pallet Training

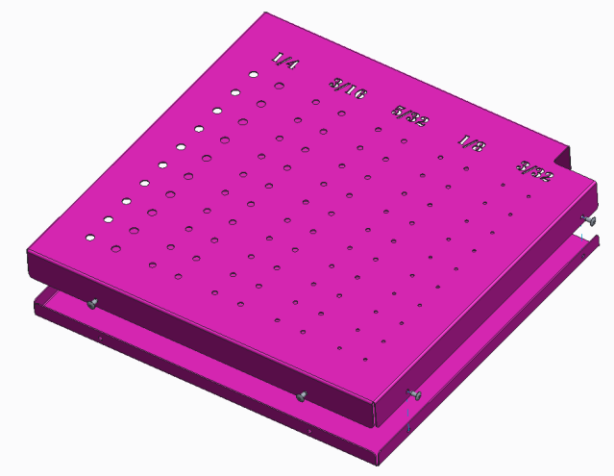
ATC Toolboxes offer a quick way to issue and return complete tool sets. These are called pallets and during drawer training there are some extra steps that need to be taken. When you perform a High Accuracy training on a drawer that contains a pallet in the foam file, you will need to do the following:

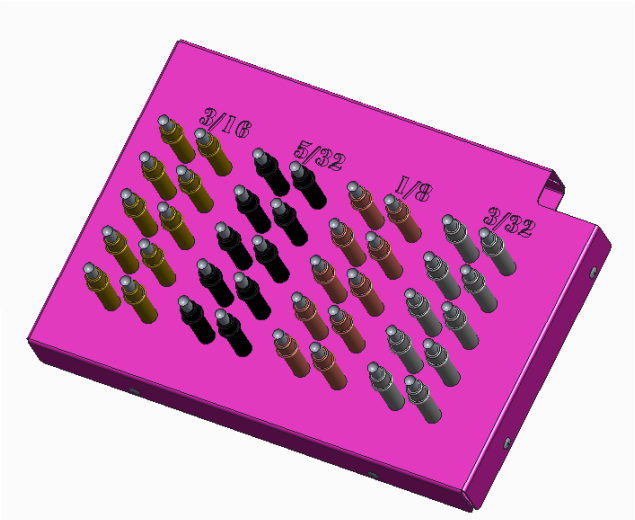
1. Open drawer and remove all tools and foam pallets.
2. Close drawer.
3. Open drawer and replace the empty pallets only. All tools, including ones that go in the pallet remain out of the box.
4. Close drawer.
5. Open drawer and replace all tools.
6. Close drawer.
7. Open drawer and reposition all tools.
8. Close drawer.
9. Open drawer and reposition all tools again.
10. Close drawer.



CLECO Pallet

The CLECO Pallet is a special Pallet used to store CLECO fasteners. Unlike regular pallets, these are made of metal without any foam and the CLECO fasteners attach directly to the pallet. To train a CLECO pallet, follow the same training steps as a regular pallet.





RFID Catalog & Accessories

The following sections cover the RFID Tags and Accessories used in the RFID Cabinet.

RFID Tags

To order tags, call 1 877 740-1900

For Technical Assistance, call 800 272-2033

TAG–RFID SM–HID–82

Snap-on Part Number

3-00807A (US)

Dimension:	1.5” x 0.51” x 0.2”
	38 x 13 x 4 mm
Chip:	Impinj Monza R6 Global
Frequency:	860-960 MHz
Read Range:	Up to 3m (9.8 ft)
Material:	Industry Grade Polymer
Operating Temp:	-40° to +185 °F

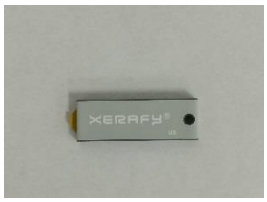
Kits Available:

10 piece kit – PN L5A0331J50B (US Only)

Recommended Usage: Metallic and non-metallic surfaces, Electronic Equipment & Devices, Power Tools, Power tool batteries, and chargers.

Note: This Tag should be the first choice when applying tags for use with the US ATC locker.

TAG – RFID XE DT 2



Snap-on Part Number

3-00607A (EU)

Dimension:	1.5” x 0.51” x 0.16”
	(38 x 13 x 4 mm)
Chip:	Impinj Monza 4E
Frequency:	ETSI 866-868 MHz (EU)
Read Range:	Up to 4.5 m (14.8 ft)
Material:	Industry Grade Polymer
Operating Temp:	-40° to +85°C

Kits Available:

10 piece kit – PN L5A0331J59A (EU Only)

Recommended Usage: Metallic and non-metallic surfaces, Electronic Equipment & Devices, Power Tools, Power tool batteries, and chargers.

Note: This Tag should be the first choice when applying tags for use with the EU ATC locker.

LABEL – RFID: 3.8 in x 0.50 in

Snap-on Part Number

3-00207A

Dimension: 3.8” x 0.5”
Chip: Higgs-4
Frequency: 860 – 960 MHz
Read Range: 3 – 6 ft. Varies With application
application Material: TT
Printable White Film with General purpose permanent adhesive
Operating Temp: -40°F to +158°F

Kits Available:

100 piece kit – PN L5A0331J51A

Recommended Usage: Non-metallic surfaces, books, tote bags, plastic tools, non-electronic items. It does not work on batteries, battery chargers, drill bodies, etc

TAG – WF-SM-22 Foam

Snap-on Part Number 3-01007A

Dimension: 4" x 1.38" x .14”
Chip: Impinj
Frequency: 860 – 960 MHz
Read Range: Up to 15 ft.
Operating Temperature:- -40°F to +168°F

Kits Available:

10 Piece Kit – PN L5A0331J65A

Recommended Usage: Identification Labeling, High-Value Asset Labeling, Warehouse, Asset Marking & Tracking, Vehicle/Fleet Marking.
The passive response provided by this Tag can be hampered by metallic surfaces. However, it can be used in applications where the tagged object moves as it is very flexible and durable.

Note: This Tag does not work when placed on or near metal surfaces.

- **If this Tag is used, TOOL PLACEMENT IS CRITICAL**
  - **Direct line of sight with antennas is required**
  - **The Tag must be isolated from metal tools and the metal walls of the locker**

Tag – WF-SM-85

Snap-on Part Number 3-00907A

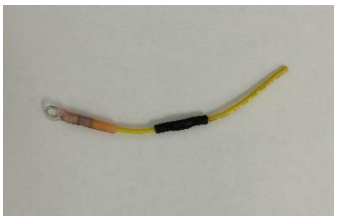
Dimension:	3.54" x 0.97" x 0.12" 90 x 25 x 3 mm
Chip:	Alien Higgs 3
Frequency:	866-928 MHz (Global)
Read Range:	Up to 40’
Material:	Fiberglass
Operating Temp:	-40°F to 302°F

Kits Available:

10 Piece Kit – PN L5A0331J64A

Recommended Usage: High-Value Asset Labeling, Metal Mount, Asset Marking & Tracking, High Temperature, Tools Tracking, IT.
The strong, rigid body is sealed to protect the Tag from impact, water, and any chemicals it may come in contact with.

TAG – RFID, SM WIRE WITH LOOP



Snap-on Part Number 3-00507A

Dimension:	6" x 0.125"
Chip:	Alien® Higgs® 3, 480 Bits
Frequency:	860 ~ 960 MHz
Read Range:	5” to 20’
Material:	Insulated Metal Wire
Operating Temp:	-40ºF to 400ºF -40ºC to 200ºC

Kits Available:

10 piece kit – PN L5A0331J54A

Recommended Usage:
Harsh Environment, High-Temperature applications. It can be attached to a wide variety of items

- **Use when**
  - **If there is not an area on the tool available to attach a tag**
  - **The tool needs to be flexible**
- **Do not attach directly to tools with metallic surfaces or interiors**

Starter Kits

L5A0331J62B Rev. B Tag Starter Kit – North America		
Qty	**PART NO.**	**DESCRIPTION**
2	L5A0331J50B	KIT-RFID TAG, WF– SM – HID – 82
1	L5A0331J51A	KIT – RFID LABEL, 3.8 in x 0.5 in
1	L5A0331J54A	KIT – RFID TAG, WIRE WITH LOOP
1	L5A0331J56A	TUBING, HEAT SHRINK, 0.75 in ID, BLK
1	L5A0331J57A	TUBING, HEAT SHRINK, 1.0 in ID, BLK
1	8-11632A	ADHESIVE – RFID TAG, LT 401
1	5-12040A	TAPE – SELF FUSING SILICONE, 20 ft.

L5A0331J63A Tag Starter Kit – Europe / UK		
Qty	**PART NO.**	**DESCRIPTION**
2	L5A0331J59A	KIT– EURFID TAG, XE DT 2
1	L5A0331J51A	KIT – RFID LABEL, 3.8 in x 0.5 in
1	L5A0331J54A	KIT – RFID TAG, WIRE WITH LOOP
1	L5A0331J56A	TUBING, HEAT SHRINK, 0.75 in ID, BLK
1	L5A0331J57A	TUBING, HEAT SHRINK, 1.0 in ID, BLK
1	8-11632A	ADHESIVE – RFID TAG, LT 401
1	5-12040A	TAPE – SELF FUSING SILICONE, 20 ft.

Handheld Scanners

L5A0331J20A – SCANNER KIT HANDHELD RFID

- Zebra Technologies DS9908R
- DS9900 Series Corded Hybrid Imager
- 1D/2D Barcode, RFID reader, USB Powered
- DS9908-SR00004ZZWW Scanner
- Includes CBA-U21-S07ZBR Shielded USB Cable
- RFID USB Kit, Black, Standard Range
- For use in all global regions programmable via barcode
    - setup manual TL5A0331J20A

Heat Shrink Tubing and Silicone Tape

Material	Polyolefin
Color	Black
Shrink Ratio	2:1
Operating Temperature	-67 to 230°F (-55 to 110°C)
Voltage	600 Volts Max.
Flame Retardant	No
RoHS 2011/65/EU	Yes
Specification	SAE-AMS-DTL-23053/4, Class 2
Agency Approvals	E-157227
Manufacturing Origin	

Part Number	Description	Length	Material
L5A0331J55A	Tubing - Heat Shrink, 0.5 IN ID, BLK	6 feet	Adhesive Lined Polyolefin
L5A0331J56A	Tubing - Heat Shrink, 0.75 IN ID, BLK	6 feet	Adhesive Lined Polyolefin
L5A0331J57A	Tubing - Heat Shrink, 1.0 IN ID, BLK	6 feet	Adhesive Lined Polyolefin
L5A0331J58A	Tubing - Heat Shrink, 1.5 IN ID, BLK	6 feet	Adhesive Lined Polyolefin
5-12040	TAPE – SELF FUSING, SILICONE	20 feet	Cured Silicone rubber with 25% Sinusoidal Fiberglass substrate

Tag Adhesive and Epoxy

Part Number	Description	Amount	Material	Usage
8-11632A	Adhesive - RFID Tag, LT-401	20 g	Cyanoacrylate Instant Adhesive	Surface Insensitive Not recommended for tags with adhesive backing
8-11732A	Adhesive - RFID Tag, LT-454	20 g	Cyanoacrylate Instant Adhesive	Surface Insensitive gel for porous or absorbent materials Not recommended for tags with adhesive backing
8-11832	Epoxy - RFID Tag, LT E-00CL	50 ml	2 Part Epoxy Resin	Additional Tag Protection when Heat Shrink tube or silicone tape cannot be used
8-12132	Epoxy - RFID Tag, LT E-05MR	50 ml	2 Part Epoxy Resin	Additional Tag Protection when Heat Shrink tube or silicone tape cannot be used

Epoxy Applicator

Part Number	Description	Usage
8-11932A	Mixer - Epoxy, Gun Manual, 50 ml 2:1	Applicator gun for 50 ml two-part epoxy
8-12032A	Element Pack- Mixer, 0.25" ID x 6.02" L	Pack of twenty mixer tubes for 2 part epoxy applicator gun.

RFID Tag Installation - BEST PRACTICES

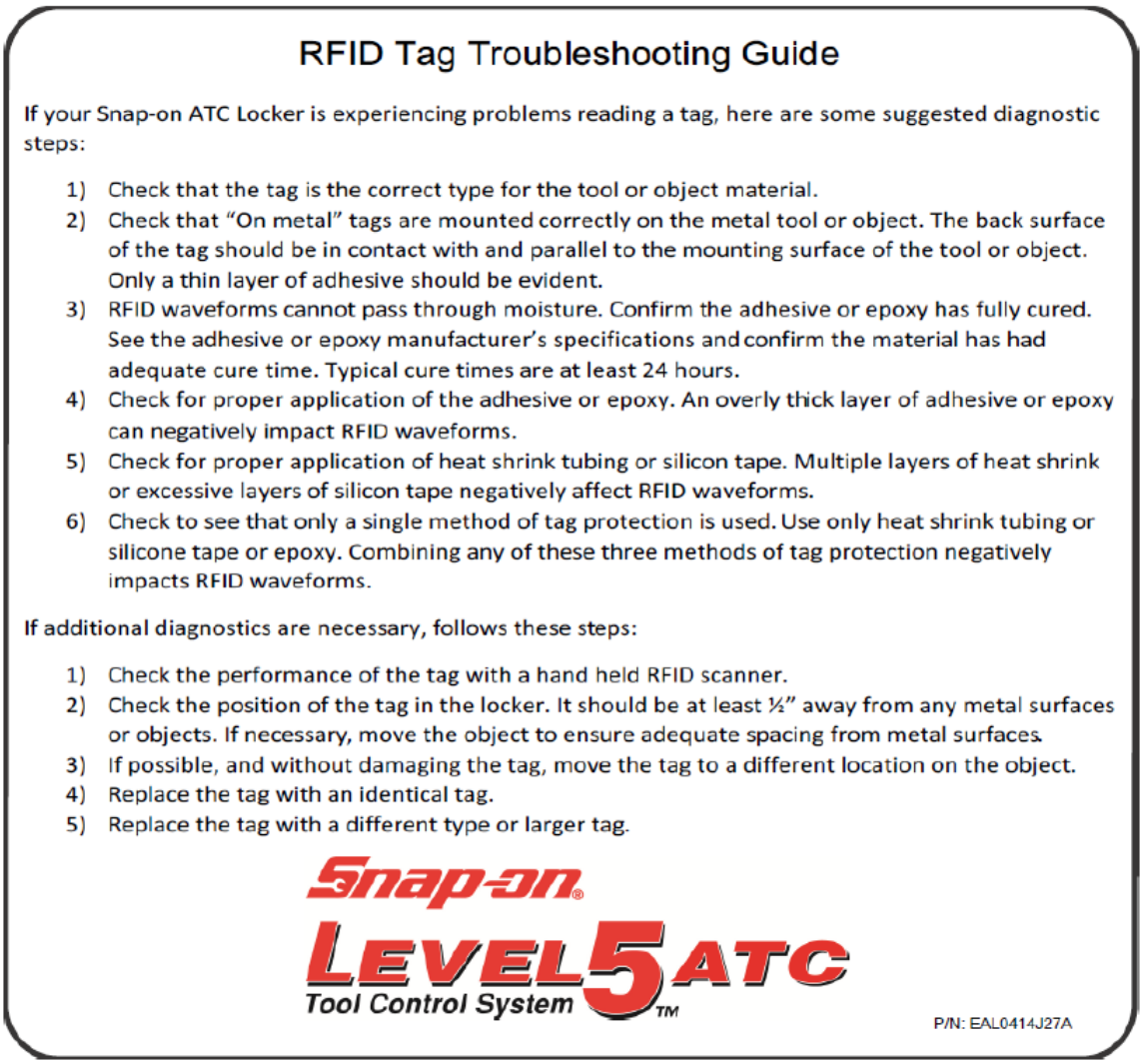
The proper performance of your Snap-on RFID Locker depends on many factors. One of the most important of these is the proper mounting of the Tag to the asset. The process to correctly mount tags to assets consists of these steps:

1) Tag selection, positioning, and initial performance confirmation
2) Cleaning
3) Tag application and readability
4) Tag protection
5) Confirming readability

1) Tag selection and positioning
    a. Proper tag selection depends on the type and configuration of the asset to be tagged.
    b. For metal assets, use a metal mount tag
    c. For other asset materials, non-metal mount tags or RFID labels can be used
    d. Tags should be located in areas where they do not interfere with the usage of the asset and where the material in the asset does not interfere with the performance of the Tag.
    e. Properly locating the tags on assets may be an iterative process. The Tag can be temporarily fixed to the asset and checked for readability. Use the North American Scanner 3-18906A or the International L5A0331J61A – RFID Scanner to confirm the readability of the Tag
    f. If the readability of the Tag is less than expected, move the Tag to another location on the asset and reconfirm readability, or use a different type of tag.
2) Cleaning
    a. Remove contaminants such as dirt, grease, oil, or wax from the surface of the object.
    b. Use a solvent appropriate for the surface, such as isopropyl alcohol, acetone and follow directions on the label.
    c. Wipe the object dry. Allow at least 5 minutes of drying time.
3) Tag Application and Readability
    a. Once the tag location is selected and is cleaned, adhesive-backed tags are applied by peeling the protective layer from the adhesive, positioning the Tag in the selected location, and applying firm pressure to the Tag for about 10 seconds to ensure proper adherence.
    b. The paper decal tags may be applied the same way

c. For tags without the adhesive layer, apply a drop of the cyanoacrylate adhesive to the asset at the appropriate location and apply the Tag. Apply light but firm pressure to the Tag for 5 to 10 seconds to ensure a good bond

4) Tag Protection
   a. In many cases, it is desired to protect the Tag from damage or loss by applying a protective layer. Depending on the application, Snap-on provides Epoxy, heat shrink tubing, and silicon tape. It is important to remember that tag performance can be degraded by applying too thick a layer of the protective material.
5) Confirming readability
   a. As mentioned in items 1e and 1f:
      i. Use the North American Scanner 3-18906A or the International L5A0331J61A – RFID Scanner to confirm the readability of the Tag
   b. If the readability of the Tag is less than expected, move the Tag to another location on the asset and reconfirm readability, or use a different type of tag.



RFID Tag Troubleshooting Guide

If your Snap-on ATC Locker is experiencing problems reading a tag, here are some suggested diagnostic steps:

1) Check that the tag is the correct type for the tool or object material.
2) Check that "On metal" tags are mounted correctly on the metal tool or object. The back surface of the tag should be in contact with and parallel to the mounting surface of the tool or object. Only a thin layer of adhesive should be evident.
3) RFID waveforms cannot pass through moisture. Confirm the adhesive or epoxy has fully cured. See the adhesive or epoxy manufacturer's specifications and confirm the material has had adequate cure time. Typical cure times are at least 24 hours.
4) Check for proper application of the adhesive or epoxy. An overly thick layer of adhesive or epoxy can negatively impact RFID waveforms.
5) Check for proper application of heat shrink tubing or silicon tape. Multiple layers of heat shrink or excessive layers of silicon tape negatively affect RFID waveforms.
6) Check to see that only a single method of tag protection is used. Use only heat shrink tubing or silicone tape or epoxy. Combining any of these three methods of tag protection negatively impacts RFID waveforms.

If additional diagnostics are necessary, follows these steps:

1) Check the performance of the tag with a hand held RFID scanner.
2) Check the position of the tag in the locker. It should be at least ½" away from any metal surfaces or objects. If necessary, move the object to ensure adequate spacing from metal surfaces.
3) If possible, and without damaging the tag, move the tag to a different location on the object.
4) Replace the tag with an identical tag.
5) Replace the tag with a different type or larger tag.

Snap-on
LEVEL 5 ATC
Tool Control System™

P/N: EAL0414J27A

Specifications

The following section covers the technical specifications of the L5 Connect™ Devices.

Electrical Specifications

Optical Toolbox (AC) and RFID Cabinet

Optical Toolbox:

- AC Input: 100-240~, 3A Max, 60-50 Hz (+10%/-6%), 1-Phase.

RFID Cabinet:

- Americas / Japan:
- AC Input: 100-120~, 15A, 60 Hz (+10%/-6%), 1-Phase.
- EU / Asia / Oceania
- AC Input: 220-240, 10A, 50 Hz (+10%/-6%), 1-Phase

Connect to a grounded (Earthed) electrical outlet using a detachable cord set. The electrical outlet must be readily accessible. The maximum cord length is 3 meters.

Power Supply Rating:

- AC Input: 100-240~, 4-2A, 60-50 Hz. 1-Phase

Environmental Operating Specifications:

- Indoor Use Only
- Temperature Range: 0-55 °C
- Humidity Range: Maximum relative humidity 80 % for temperatures up to 31 °C, decreasing linearly to 50 % relative humidity at 40 °C
- Altitude Range: 0-2000 Meters
- Pollution Degree: 2
- Overvoltage Category: II
- Ingress Protection: IP20

Sound Pressure Level:

- On the drawer (operator) side @ 1 meter distance = 59.4 dBA
- On the back side @ 1 meter distance = 62.5 DBA

Optical Toolbox (Battery)

Optical Toolbox w/ External Batteries:

- AC input: 100-240~, 5-3A, 60-5 Hz.(+10%/-6%), 1-Phase.

Connect to a grounded (earthed) electrical outlet using a detachable cord set. The electrical outlet must be readily accessible. The maximum cord length shall be 3 meters.

Power Supply Rating:

- DC Output: 300W Max, 19VDC, 16.67A

ENVIRONMENTAL OPERATING SPECIFICATIONS:

- Indoor Use Only
- Temperature Range: 0 - 50°C.
- Humidity Range: Maximum relative humidity 80% for temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C.
- Altitude Range: 0 - 2000 Meters
- Pollution Degree: 2
- Overvoltage Category: II
- Ingress Protection: IP20

Sound Pressure Level:

- On the drawer (operator) side @ 1 meter distance = 59.4 dBA
- On the back side @ 1 meter distance = 62.5 DBA

Dimensions and Weight

54” Toolbox

- 54.14” Wide
- 33.04” Front to Back
- 57.80” Tall
- 550 lbs. (No Tools)

36” Toolbox

- 35.50” Wide
- 33.04” Front to Back
- 56.30” Tall
- 450 lbs. (No Tools

RFID Locker

- 36” Wide
- 33.11” Front to Back
- 75.23” Tall
- 550 lbs. (No Tools)

! WARNING !

Only use Snap-on battery P/N: **2-04805A**.

The use of any other battery will void the manufacturer's warranty and could potentially damage the unit and/or inflict bodily harm. Batteries should only be charged by placing the batteries in a toolbox with the AC plugged into an electrical outlet or with an approved Snap-on Battery Charger model **L5A0298J21A**.

Battery Classification and Type

4.1 Battery Classification - SANYO Lithium-Ion Battery
4.2 Battery Type - 4UR18650A-3

Items		Specifications	Notes
5.1 Rated Capacity (Minimum)		5850 mAh	1290mA discharge at 20° C
5.2 Nominal Capacity (Minimum)		6000 mAh	1290mA discharge at 25° C
5.3 Nominal Capacity (Typical)		6300 mAh	Reference only
5.4 Nominal Voltage		14.4V	1290mA discharge at 25° C
5.5 Discharge End Voltage		12.0V	
5.6 Charging Current (Std.)		3.0V	0 ~ +45° C
5.7 Charging Voltage		16.44 +0.12/-0.12V	
5.8 Charging Time (Std.)		3.0 hours	Approx
5.9 Continuous Discharge (Max)		6.0A	0 ~ +60° C
5.10 Internal Resistance		less than 160Ω	AC Impedance 1 kHz
5.11 Weight		less than 920 g	
5.12 Operating Temperature	Charge	0 ~ +45° C	
	Discharge	-20 ~ +60° C	
5.13 Storing Conditions	less than 1 month	-20 ~ +50° C	Percentage of recoverable capacity 80% *
	less than 3 months	-20 ~ +40° C	
	less than 1 year	-20 ~ +20° C	

*Percentage of recoverable capacity = (Discharge time after storage / Initial discharging time) x 100. The discharging time is measured by the discharge current of 1290mA until 12.0V of end voltage after the battery is fully charged at 25º C.

Battery Safety Instructions

Prohibited actions

The battery contains flammable objects such as organic solvents. If the battery is mishandled, it may cause fire, smoke, or an explosion, and the battery's functionality will be seriously damaged. Please read and check the following prohibited actions.

! Danger !

Immersion

"Do not immerse the battery in a liquid such as water, seawater, or soda."

If the protection circuit in the battery is exposed to liquid, the battery cannot be protected and may catch on fire, smoke, explode, or generate heat by the unexpected electrical load.

High temperature

"Do not use or place the battery near fire, a heater, or a high temperature (more than 80°c)."

The battery's polyolefin separator may get damaged from the heat and could cause an internal short circuit. This may cause the battery to catch on fire, smoke, explode, or cause heat generation.

Charger and charge condition

"Do not use unauthorized chargers."

If the battery is charged under unacceptable conditions (for example: outside of restricted temperature ranges, over-voltage, or over current with unauthorized chargers), the battery may catch on fire, smoke, explode, or generate heat.

Reverse polarity

"Do not force a reverse-charge or a reverse-connection."

The battery has the correct polarity. If the battery doesn't fit easily, please check the battery's orientation and do not force it into the battery compartment. If the battery is forced to attach to a Device with reversed polarity, the battery may catch on fire, smoke, explode, or generate heat.

Direct connection

"Do not connect the battery with ac plug (outlet) or car plugs."

The battery requires a specific charger. If the battery connects with the outlet directly, the battery may catch on fire, smoke, explode, or generate heat.

Inappropriate use with other equipment

"Do not adapt the battery to unspecified applications. "

If the battery is used for unspecified applications or systems, the battery may get damaged or catch on fire, smoke, explode, or generate heat.

Incineration and heat

"Please keep the battery away from heat and fire."

The battery materials will get damaged and may catch on fire, smoke, explode, or generate heat.

Short-circuit

"Do not apply a short-circuit. "

Do not connect positive (+) and negative (-) terminals with conductive material. Do not carry or store the battery with metal objects (such as wire, necklace, or hairpins). If the battery is in a short circuit, an excessively large current will flow and may catch on fire, smoke, explode, or generate heat.

Impact

"Avoid unnecessary impact to the battery."

An unnecessary impact may cause the battery to leak, generate heat, smoke, catch on fire or explode. Also, the protection circuit may break, and that will lose the function of the battery's protection system.

Penetration

"Do not penetrate with a nail or strike with a hammer."

The battery cell may get destroyed or damaged. And the battery's protection circuit may get damaged and cause an internal short-circuit. Additionally, the battery may catch on fire, smoke, explode, or generate heat.

Soldering

"Do not directly solder the battery."

The insulator could melt, or the gas release vent might get damaged from the heat. Additionally, the battery may catch on fire, smoke, explode, or generate heat.

Disassemble and reconstruction

"Do not disassemble the battery."

If the protection circuit gets damaged, the battery will not be protected. Then, the battery may catch on fire, smoke, explode, or generate heat.

Charge near high temperatures

"Do not charge the battery near high temperatures."

If the battery is charged near high temperatures, the battery may not be able to charge due to the activation of the protection circuit. In these conditions, the protection circuit may break, and the battery may catch on fire, smoke, explode, or generate heat.

! Warning !

(1) Ingestion

"Keep away from infants."

The battery should be kept away from infants. In case of swallowing the battery, see a doctor immediately.

Storing

"Do not put the battery in the microwave or other cooking appliances."

The battery may catch on fire, smoke, explode, or generate heat due to the heat or the electrical impact from the microwave.

Mixed-use

"Do not mix the battery with other batteries."

The battery should not be used with other batteries having a different capacity, chemistry, or manufacturer. Do not connect with other batteries or mix with other batteries. The battery may catch on fire, smoke, explode, or generate heat.

Rust, changing color, and deformities

"Do not use abnormal batteries."

Please stop using the battery if there are noticeable abnormalities such as abnormal smell, heat, deformities, or discoloration. The battery may have a defect and may catch fire, smoke, generate heat or explode if used continuously.

Charging time

"Stop charging if the charging process cannot be finished."

If the battery cannot finish the charging process within the specified time, please stop the charging process. The battery may catch on fire, smoke, explode, or generate heat.

Leakage

"Do not use a leaking battery near flames."

If the battery or liquid leaking from the battery has a pungent odor, the battery should be kept away from flames. The battery may ignite and explode.

"Do not touch a leaking battery."

If the liquid leaking from the battery gets into the eyes, it will cause significant damage. If the leaking liquid gets into your eyes, please flush your eyes immediately with pure water. Please consult a physician immediately. If the liquid remains in the eyes, it will cause significant damage.

Transport

"Pack the battery tightly during transport."

To prevent short-circuit or damages, please tightly pack the battery into a case or a carton box.

! CAUTION !

Use under direct sunlight

Do not use or leave the battery in excessive heat, such as in a car under direct sunlight. The battery may catch on fire, smoke, explode, or generate heat. Also, it might also deteriorate the battery's characteristics and life.

Static electricity

The battery pack has a protection circuit. Do not use the battery where it generates static electricity (more than 100V) that might damage the protection circuit. If the protection circuit is broken, the battery may catch on fire, smoke, explode, or generate heat.

Charging temperature range

The charging temperature range is regulated between 0°c and 45°c. Do not charge the battery out of the specified temperature range. Otherwise, it may cause heat generation, leakage, or serious damage. Also, it might cause deterioration of the battery's characteristics and battery life.

Manual

Please read the manual before use. Please save the manual for future reference.

Charging method

Please read the charger's manual for the proper charging method.

First-time use

Please contact the supplier if the battery has an unusual odor, heat generation, or rust during the initial use.

Use by children

Parents must explain how to use the system and the battery. Please check back periodically to ensure children are using the system and the battery correctly.

Inflammable materials

Please keep the battery away from flammable materials during the charge and the discharge. It may catch on fire, smoke, explode, or generate heat.

Leakage

If an electrolyte leak from the battery comes into contact with the skin or clothes, immediately flush it with water. Otherwise, it may cause skin irritation.

Insulation

If lead wires or metal objects come out from the battery, please seal, and insulate them completely.

Otherwise, the battery may cause a short circuit and catch on fire, smoke, explode, or generate heat.

Recycle

Please recycle the battery according to local rules or regulations after use.

L5 Connect™ Device Models

OPTICAL TOOLBOXES

L5A0298J30B - KIT ATC 36IN AC3B SST

L5A0298J31B - KIT ATC 54IN AC3B SST

L5A0298J32B - KIT ATC 36IN BTRY3B SST

L5A0298J33B - KIT ATC 54IN BTRY3B SST

L5A0298J35B - KIT ATC 36IN AC3B BLK

L5A0298J36B - KIT ATC 54IN AC3B BLK

L5A0298J37B - KIT ATC 36IN BTRY3B BLK

L5A0298J38B - KIT ATC 54IN BTRY3B BLK

RFID CABINETS

L5331J00B - L5 ATC LOCKER NA

L5331J01B - L5 ATC LOCKER UK

L5331J02B - L5 ATC LOCKER EU

L5331J03B - L5 ATC LOCKER IN

L5331J04B - L5 ATC LOCKER CN

L5331J05B - L5 ATC LOCKER JP

L5331J06B - L5 ATC LOCKER TH

L5331J07B - L5 ATC LOCKER KR

L5331J08B - L5 ATC LOCKER SG

L5331J09B - L5 ATC LOCKER AU

L5331J10B - L5 ATC LOCKER BA

L5331J11B - L5 ATC LOCKER AB

L5331J12B - L5 ATC LOCKER IL

L5331J13B - L5 ATC LOCKER ID

L5331J14B - L5 ATC LOCKER MY

USA
Snap-on Industrial
Automated Tool Control Group
309 Exchange Avenue
Conway, Arkansas 72032
Customer Service Number 1-800-272-2033
Fax: (501) 450-1585

Snap-on Tools International LLC
2801 80th Street
Kenosha, WI 53143
For General Inquiries 262-656-5200

Southeast Europe - Middle East
(SEEMEA) Division
PO Box 65 033
Athens 15410, Greece
Tel: +30 210 6724828
Fax: +30 210 6725754
E-mail: snap_mead@ath.forthnet.gr

United Kingdom
Industrial Sales Division - Snap-on Tools
Telford Way
38a, Telford Way, Kettering
Northants NN16 8UN, England
Tel: +44 (0) 1536 413904
Fax: +44 (0) 1536 413874
E-mail: industrialuk@snapon.com

Snap-on Tools (Australia) Pty LTD
National Distribution Centre
Unit 6/110 Station Road
P.O. Box 663
Seven Hills, NSW 1730 Australia
Tel: (61) 2-9837-9100
Fax: (61) 2-9624-2445
E-mail: sots.webmasters@snapon.com

Snap-on Industrial Belgium & Luxembourg Division
SNA Germany GmbH
Auf dem Huls 5
40822 Mettmann
Germany
Tel: +32 - (0) 14-231967
Fax: +32 - (0) 14-232627
E-mail: industrial.be@snapon.com

Snap-on Industrial Germany Division
SNA Germany GmbH
Auf dem Huls 5
40822 Mettmann
Germany
Tel: +49-(0) 2104-950-911
Fax: +49-(0) 2104-950-999
E-mail: indus.germany@snapon.com

Snap-on Industrial Netherlands
SNA Germany GmbH
Auf dem Huls 5
40822 Mettmann Germany
Tel: +31-(0)20-5682664
Fax: +31-(0)20-5682660
E-mail: industrial.nl@snapon.com

Snap-on Tools Italia S.r.l
Via Bizet, 43/45
20092 Cinisello Balsamo (MI), Italy
Tel: +39 02 66 04 53 70
Fax: +39 02 61 29 78 15
E-mail: indus.italia@snapon.com

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