



SIERA.AI

S3 Quick Start Guide

Getting started with S3

For Support reach us at

P: +1 (512) 817 0702 | E: support@siera.ai | Hours: M-F 9 am - 6 pm US CST

Outline

1. Introduction

- 1.1. What is S3?
- 1.2. Components

2. Installation

- 2.1. Gateway
- 2.2. Sensor
- 2.3. Power Harness
- 2.4. Harness Connections

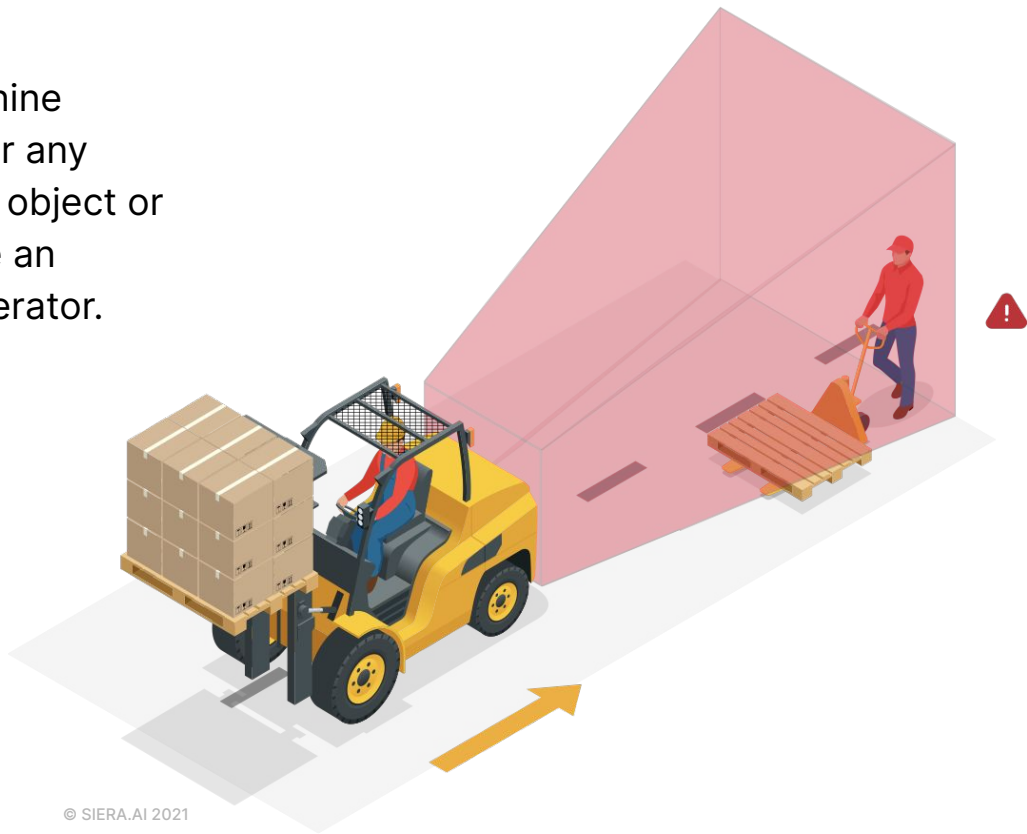
3. Using S3

- 3.1 Setup
- 3.2 Operator Login
- 3.3 Inspection
- 3.4 End Shift
- 3.5 Alerts & Warnings
- 3.7 Customizing S3
- 3.6 Special Considerations

INTRODUCTION

What is S3?

The **SIERA.AI Safety System S3** is a machine vision solution that constantly monitors for any obstructions around the vehicle. When an object or person comes within the defined distance an audible and visual alarm will notify the operator.



INTRODUCTION

Components



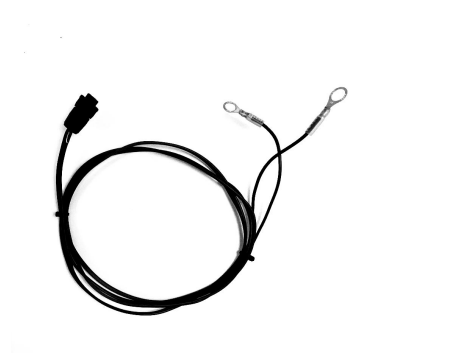
Gateway

The gateway is the main part of the S3 System. It holds the brains of the system. The gateway is also equipped with the touchscreen, acting as the user interface for checklists and alerts.



Sensor

The sensor is the “eyes” of the system. It detects objects and pedestrians. The sensor connects to the Gateway via the sensor harness.



Power Harness

The power harness provides power to the entire S3 system. It connects the vehicle battery to the Gateway.

INSTALLATION

Gateway

The Gateway should be mounted on the vertical bars in front of the operator.

The touchscreen should be easily accessible to the driver, while being out of the way of any moving components and remaining inside the vehicle.



The gateway is mounted to the vehicle using a clamp and adjustment arm seen above.

INSTALLATION

Sensor

The sensor should be mounted on the back side of the vehicle pointing away from the vehicle. This way, the sensor can detect what is happening in the operator's blind spot. The sensor is preferably mounted to the overhead guard.

See the next slide for proper orientation and angle calibration.



Warning: The sensor should be mounted in a safe spot that is out of the way of any moving parts and protected from external impact.



The sensor is mounted using a similar clamp to the gateway and can be adjusted using the mounting arm and the key (seen below).



Orientation/Calibration

The sensor has an orientation arrow on each side. If the sensor is upside down, it will not detect pedestrians properly. Orientation arrows should be pointed towards the ceiling.

Upon start up, the system will calibrate at any angle that is set. If the camera's orientation is changed drastically during operation, it will need to be restarted to properly recalibrate.

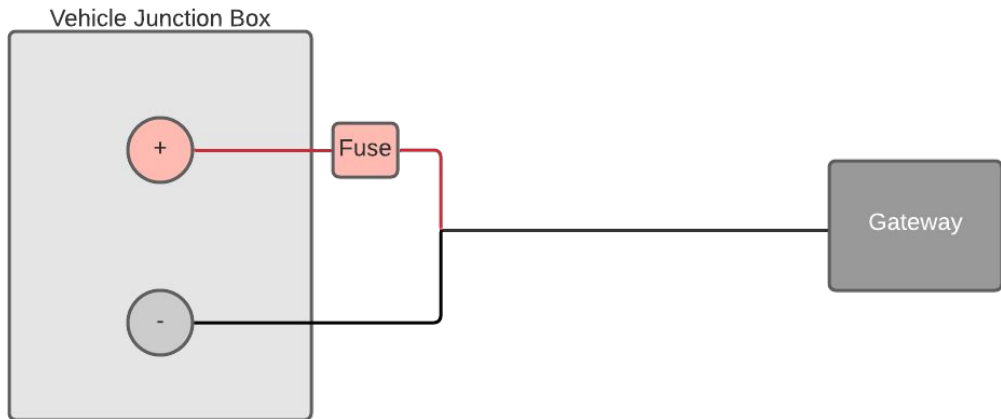


INSTALLATION

Power Harness

The power harness should be installed on the appropriate positive/negative posts.

The harness will come with an extension that can be used if the vehicle requires extra length of cable.

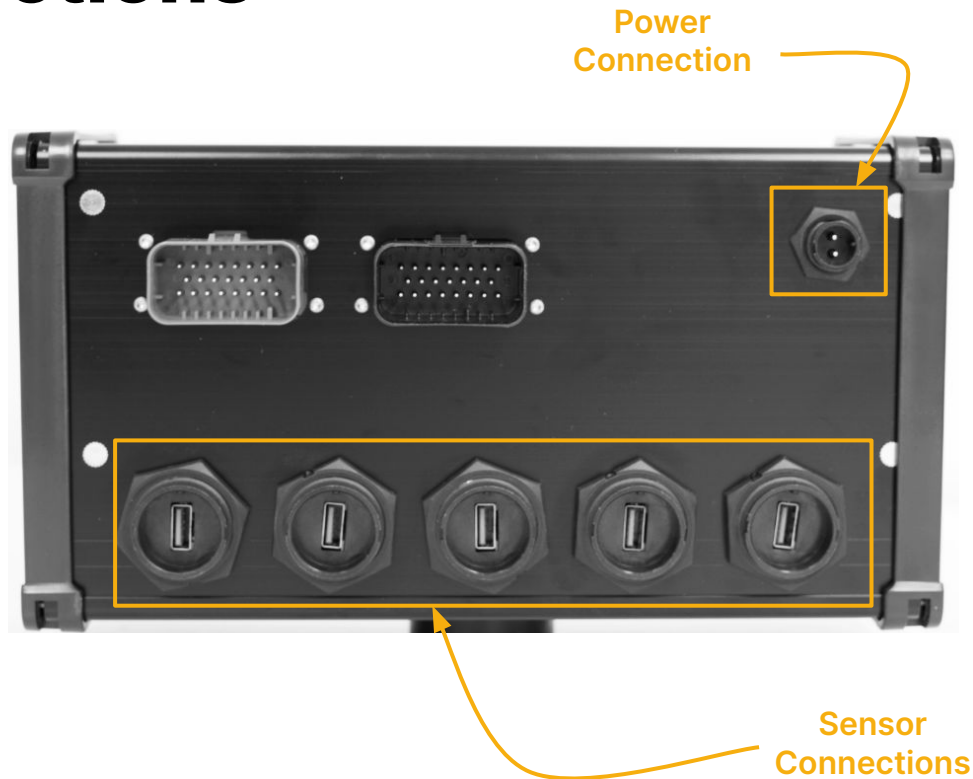


Warning: The system is only compatible with lifts that have either a 12 or 24 volt battery. For 36V-60V batteries please use the provided DC-DC converter. For higher than 60V batteries please contact us for support.

INSTALLATION

Harnessing Connections

Once the sensors, gateway, and power harness are mounted onto the vehicle they will be connected via locking connector according to the diagram to the right. Be sure to twist lock the connectors in place and ensure the harnessing is out of the way of any moving parts.

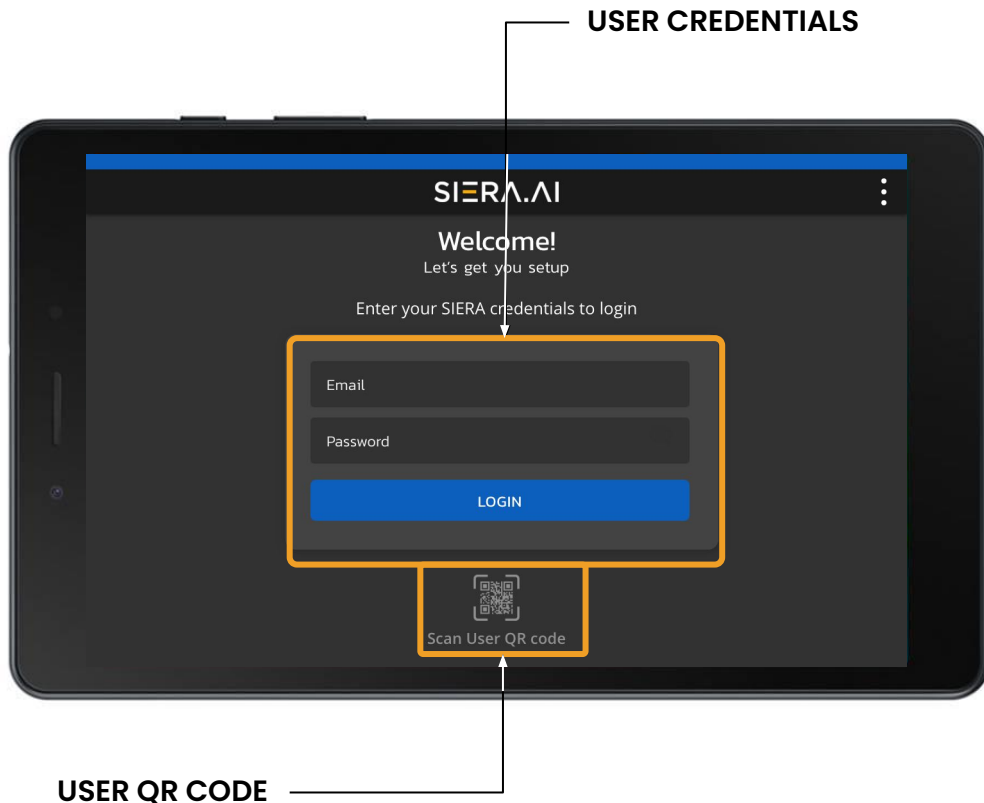


Setup

Assign S3 to an Asset

An administrator authorization is required here. You can authorize with your **login credentials** or you can also **scan your dedicated user QR code**. After login, select the worksite and asset for this device.

Note: If you do not have a SIERA.AI account, please contact your customer success representative.

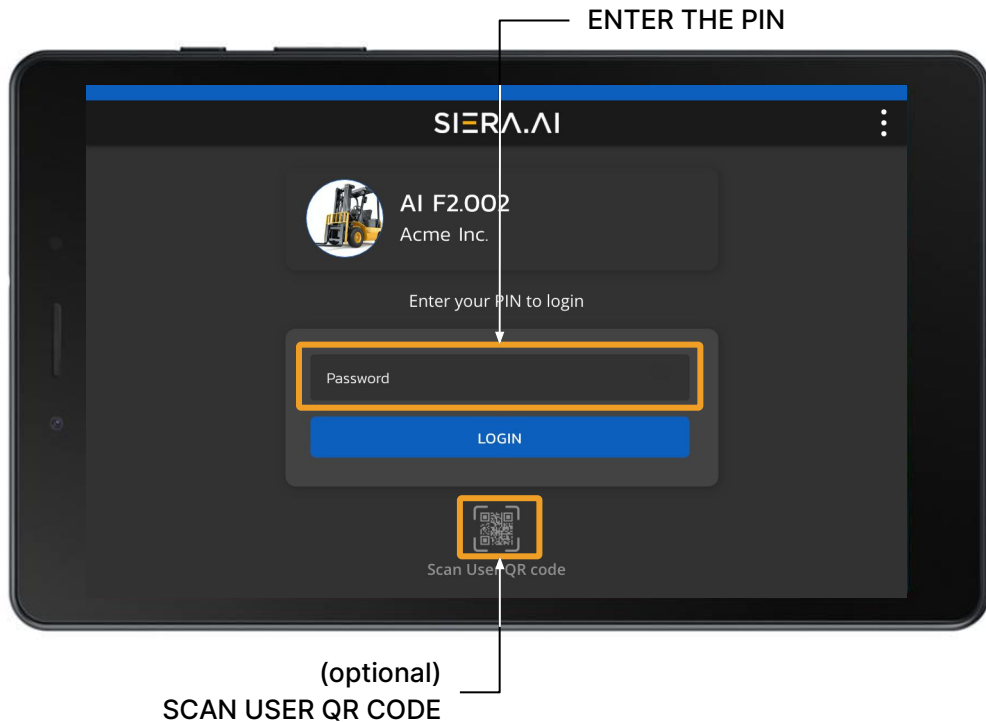


USING S3

Operator Login

To Login

1. **Enter Your PIN**
(or you can Scan User QR Code)
2. Click **Login**



USING S3

Inspection

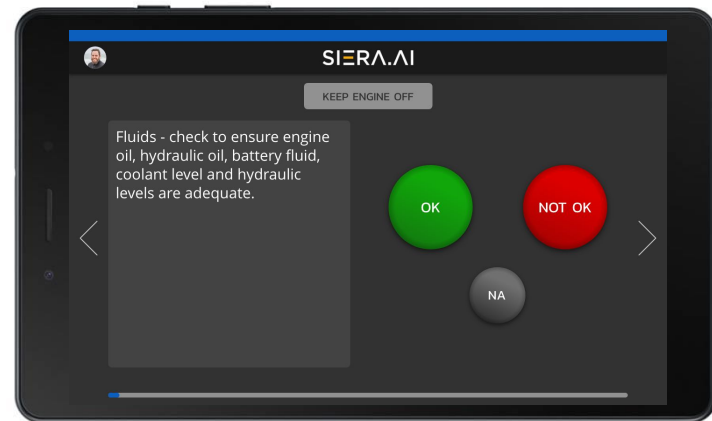
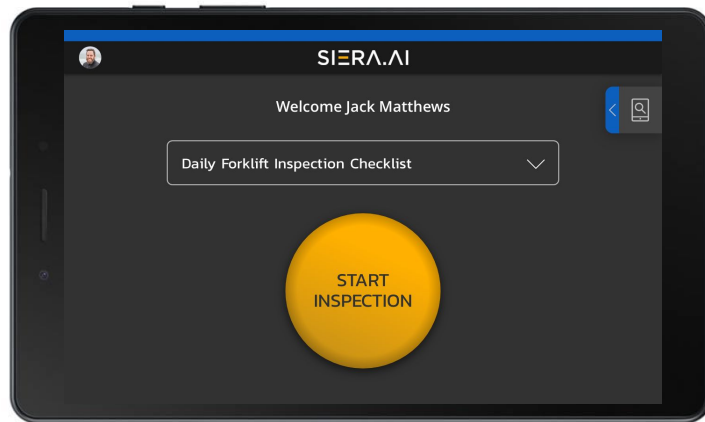
To Start an Inspection

1. Click **Start Inspection**
2. Tap ONE answer for question
 - a. **Thumbs Up** (OK)
 - b. **Thumbs Down** (Not OK)
 - c. **N/A** (Not Applicable)

Once the inspection is completed successfully. You can drive the vehicle.



Warning: S3 has a 90 second boot up time. It may take a brief moment for the system to detect objects after completing the inspection.



USING S3

End Shift

1. Tap “**End Shift**”
2. On ending the shift, the screen will go back to the ‘start-shift’ screen.
3. The next user can now login and begin their shift.



Note: Once the user completes their shift, they **must** click on the ‘End Shift’ button.

USING S3

Alerts & Warnings

The sensor will show a different visual warning for pedestrians or objects. The default settings will warn drivers of objects within 750mm and pedestrians within 2000mm.



OBSTACLE ALERT



PEDESTRIAN ALERT

USING S3

Customizing S3

To Change S3 Settings:

1. Click **System Settings**
2. Click **S3 Settings**
 - a. Change camera detection zone settings for each camera

[CLICK HERE TO READ ARTICLE ON HOW TO CHANGE CAMERA SETTINGS](#)

System Settings Tab

S3 Settings Tab

The screenshot displays the SIERA.AI Dashboard interface. On the left, a sidebar menu lists various system settings, with 'System Settings' highlighted. The main content area shows the 'S3 Settings' tab selected, which is part of the 'System Settings' section. The 'S3 Settings' tab is further divided into three sub-tabs: 'Camera Location', 'Camera Preferences', and 'Near-Miss Detection'. The 'Camera Location' sub-tab is currently active, showing a top-down view of a forklift with labels for 'FRONT', 'RIGHT', 'LEFT', and 'REAR'. A blue checkmark is visible on the 'REAR' side of the forklift. The interface also includes a 'Reset to default' button and an 'UPDATE' button. The footer of the dashboard contains the copyright information: '© SIERA.AI 2021' and 'Proudly Built in Austin, TX. Copyright 2022. Stocked Robotics, Inc. dba SIERA.AI'.

Special Considerations

Lighting

The system will *not work* in outdoor daylight. The system may be impacted if strong daylight is introduced indoors.

Water & Dust

The components shall *not be sprayed down* with water nor left outdoors. The system can handle moderately dusty environments.

Maintenance

If dust builds up, simply wipe away when needed on the Gateway. The *sensors should be wiped down often* if in a dusty environment, dust build may reduce the sensor effectiveness.