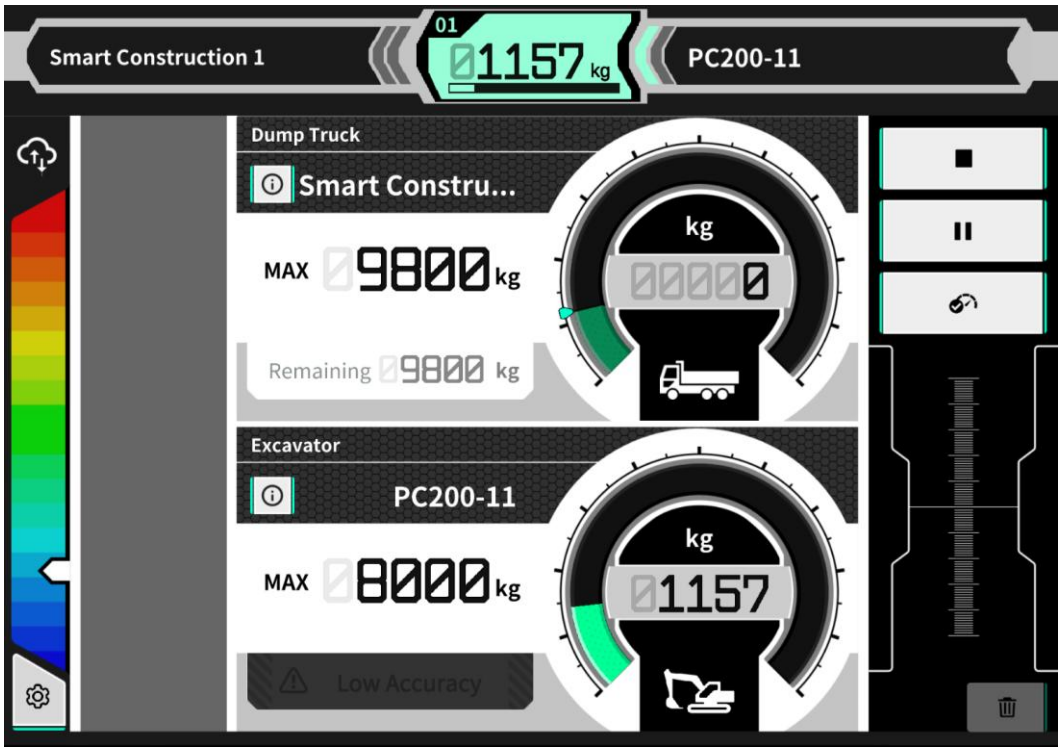
Payload
Boom up speed indicator

Introduction

This function is an indicator that visualizes the boom-up speed during loading with payload.
By aligning the boom-up speed during loading with that recorded during unloaded calibration, this indicator serves as a reference to help stabilize payload accuracy.
Note: This function does not guarantee payload accuracy.



【Attention】
This function is available in tablet app version 1.0.12 or later.
If you are using an older version, please update the app.

01

Chapter

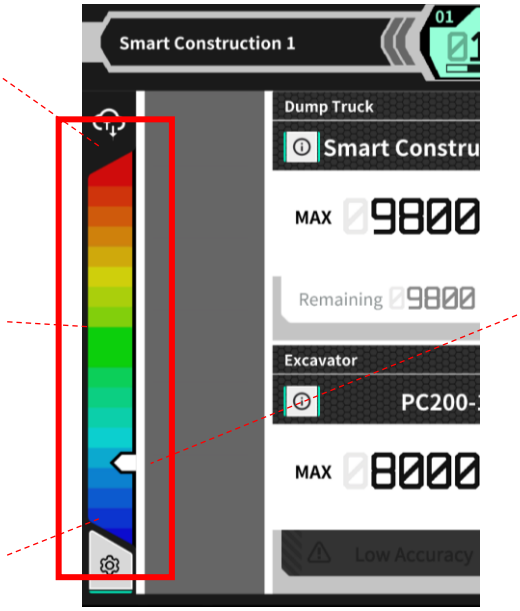
Screen Description

1.1 Screen Description

Upper Limit：
Center＋5deg/sec

Center：
Boom-up speed during unloaded calibration [deg/sec]

Lower Limit：
0



White Bar：
Real-time boom-up speed during loading

No bar	The bar is in the center	The bar is above center	The bar is below center
			
Before start loading	Same as the boom-up speed during unloaded calibration	Faster than the boom-up speed during unloaded calibration	Slower than the boom-up speed during unloaded calibration

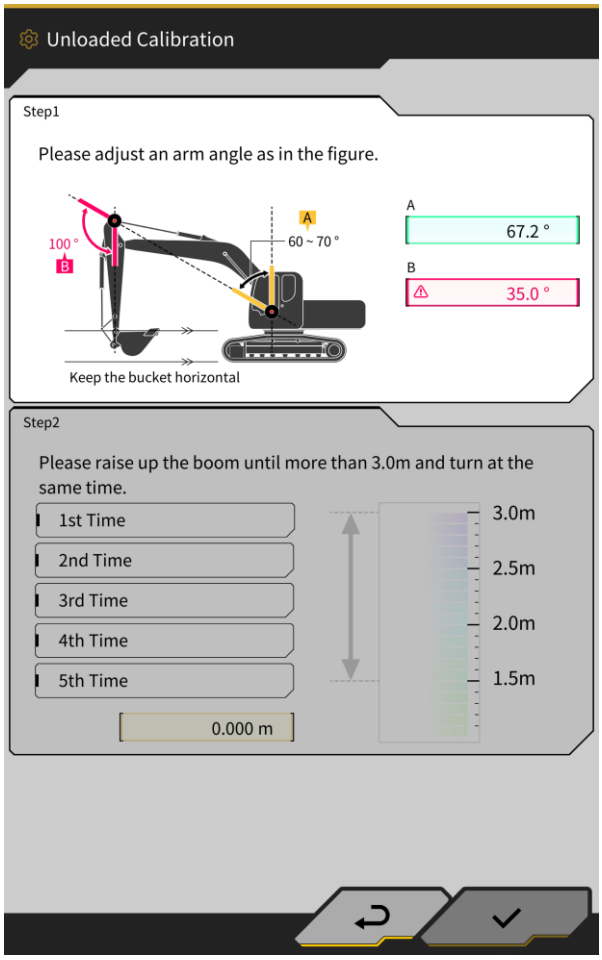
02

Chapter

How to use

2.1 Unloaded Calibration

When you perform unloaded calibration using tablet app version 1.0.12 or later, the boom-up speed at the time of unloaded calibration is saved in the bucket file.
If you are using a bucket file that has already performed unloaded calibration with version 1.0.12 or later, the boom-up speed indicator function will be available on the payload screen.

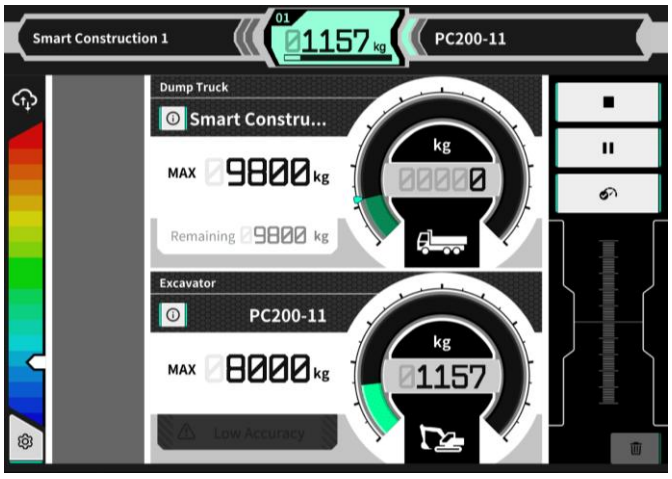


During unloaded calibration (5 sets of swing + boom-up), please make sure to raise the boom smoothly.
If the boom is raised or stopped abruptly, the boom-up speed may not be calculated correctly.

2.2 Loading

If you are using a bucket file that has performed unloaded calibration with tablet app version 1.0.12 or later, the speed indicator will automatically activate on the load meter screen when loading starts.

1. Select a truck and start loading.
2. Excavate with the bucket, then raise the boom and swing.
3. White bar of the indicator will move up and down according to the boom-up speed.

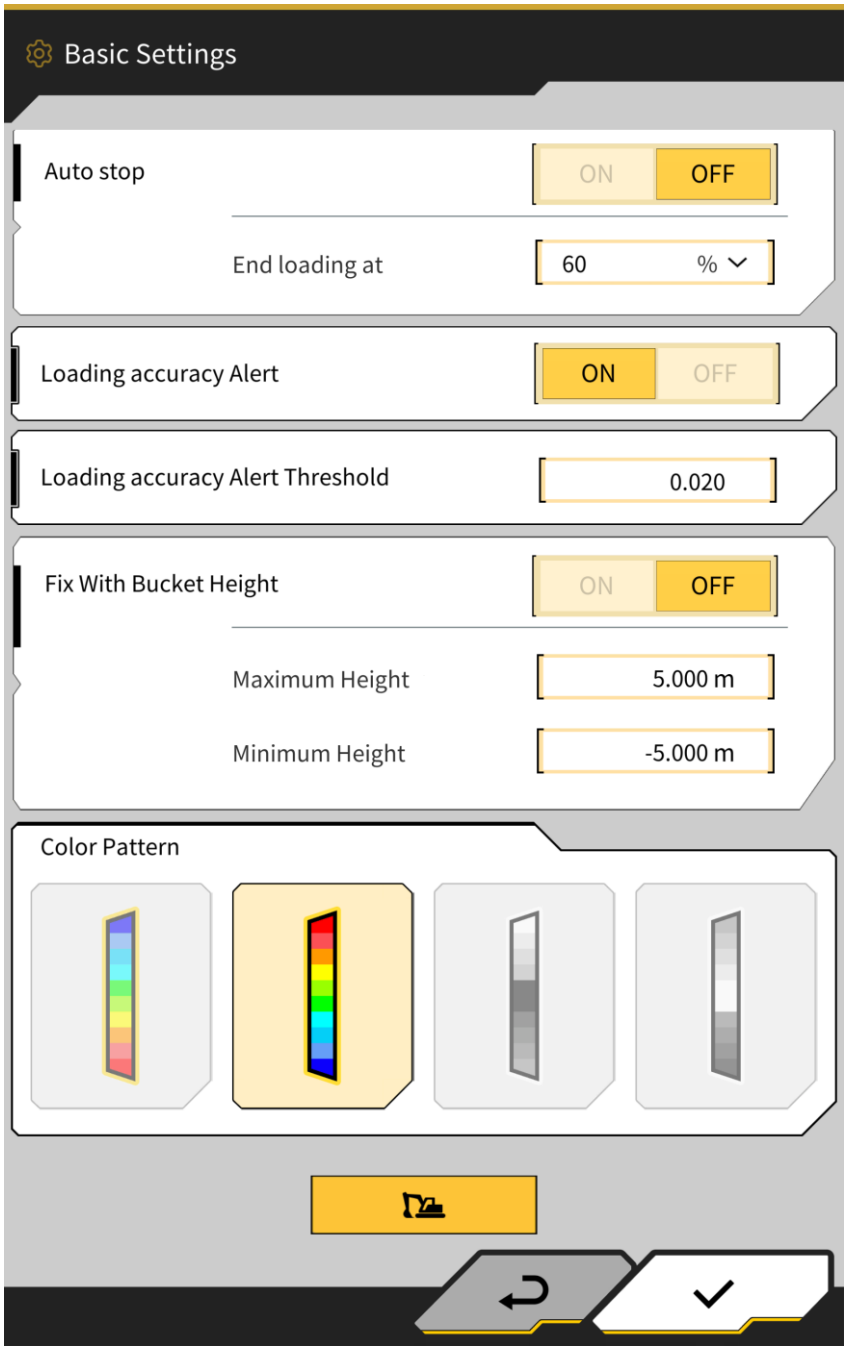


If you try to keep the bar within approximately ±4 segments from the center (as shown in the image: from ▮ to ▮), the payload accuracy tends to be more stable.
However, please note that this is only a guideline.
A green speed indicator does not necessarily mean good payload accuracy, and a red/blue speed indicator does not necessarily mean bad payload accuracy.

If unloaded calibration has not been performed, the white bar will not be displayed and the speed indicator will not function.

2.3 Change color pattern

The color pattern of the speed indicator can be changed from the payload basic settings (⚙ → Basic Settings). There are four types available.



03

Chapter

Q&A

3.1 Q&A

Q. The speed indicator bar is unstable
A. Please try to keep the boom-up speed steady during loading—operate the boom smoothly.
Since the boom-up speed is calculated from the boom IMU values, abrupt movements or sudden stops will cause the indicator bar to become unstable.

Q. The speed indicator bar is not displayed
A. Please check that you are using a bucket file that has performed unloaded calibration with tablet app version 1.0.12 or later.
The boom-up speed at the time of unloaded calibration is saved in the bucket file and used as the center value for the speed indicator.

Q. How is the boom-up speed during unloaded calibration calculated?
A. During unloaded calibration, the system prioritizes data from smooth boom-up operations to calculate the boom-up speed.
Data from abrupt acceleration or sudden stops are less likely to be used in the calculation.

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