



Load Assurance

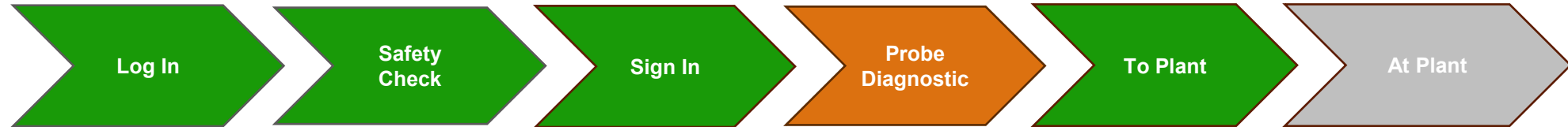
End User Training.

Agenda

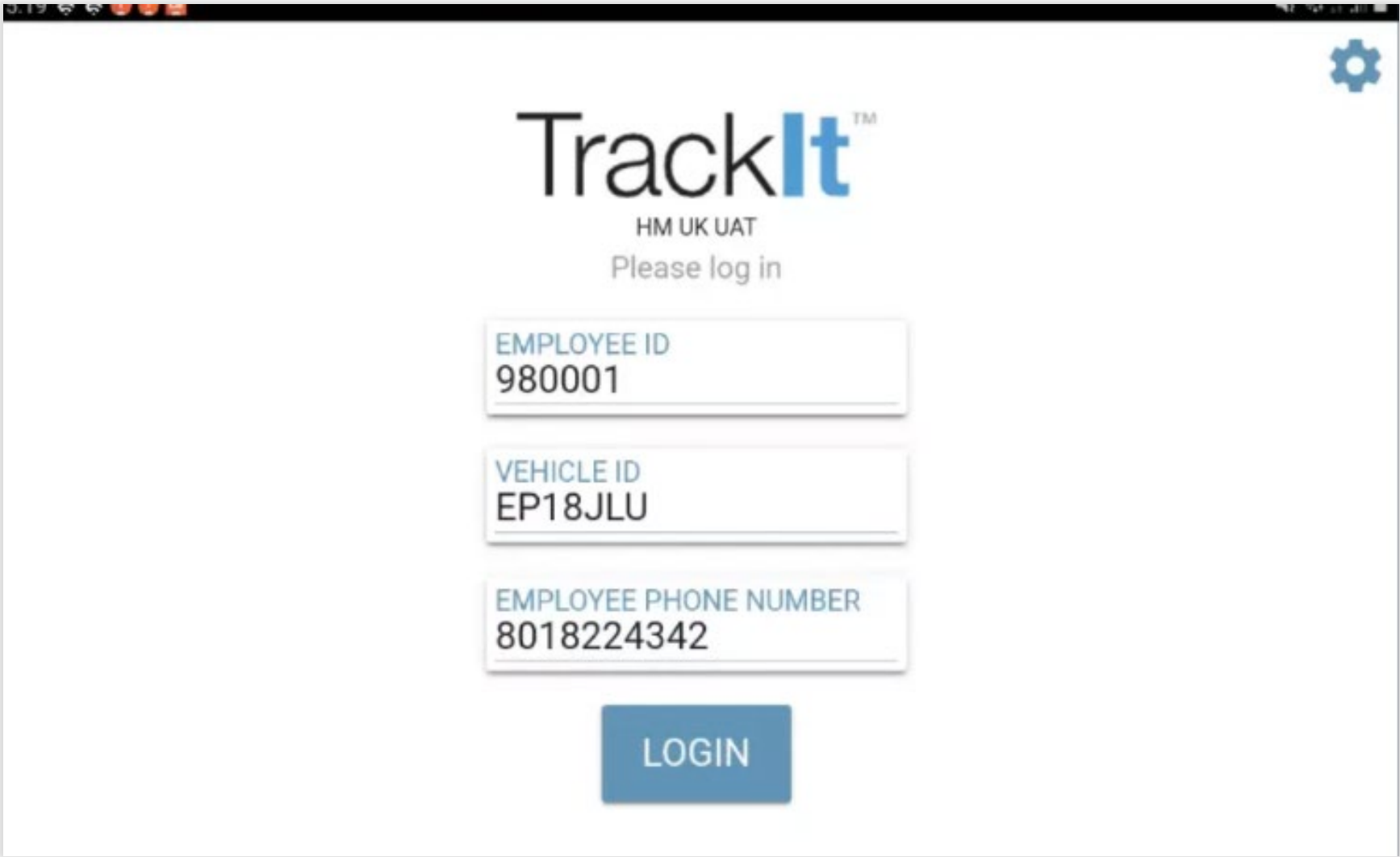


- Status Overview
- Tablet Examples
- Status Questions
- Reb Bar: Configuration
- Application Overview
- Product Overview
- Driver Training

Statuses: Load Assurance



Status: Log In



The screenshot shows a mobile application interface for 'TrackIt'. At the top right is a gear icon for settings. The main heading is 'TrackIt™' with 'HM UK UAT' and 'Please log in' below it. There are three input fields: 'EMPLOYEE ID' with the value '980001', 'VEHICLE ID' with the value 'EP18JLU', and 'EMPLOYEE PHONE NUMBER' with the value '8018224342'. A blue 'LOGIN' button is at the bottom.

TrackIt™
HM UK UAT
Please log in

EMPLOYEE ID
980001

VEHICLE ID
EP18JLU

EMPLOYEE PHONE NUMBER
8018224342

LOGIN

Status: Safety Check



Select Yes or No

Select Yes or No

Select Finish when done

Question 1 of 2

VEHICLE OK?

YES

NO

Question 2 of 2

I WILL CHECK BEFORE
UNLOADING THE AREA IS
SAFE

YES

NO

BACK

Question Verification

EDIT

VEHICLE OK?
Yes

EDIT

I WILL CHECK BEFORE UNLOADING THE AREA IS SAFE
Yes

FINISH

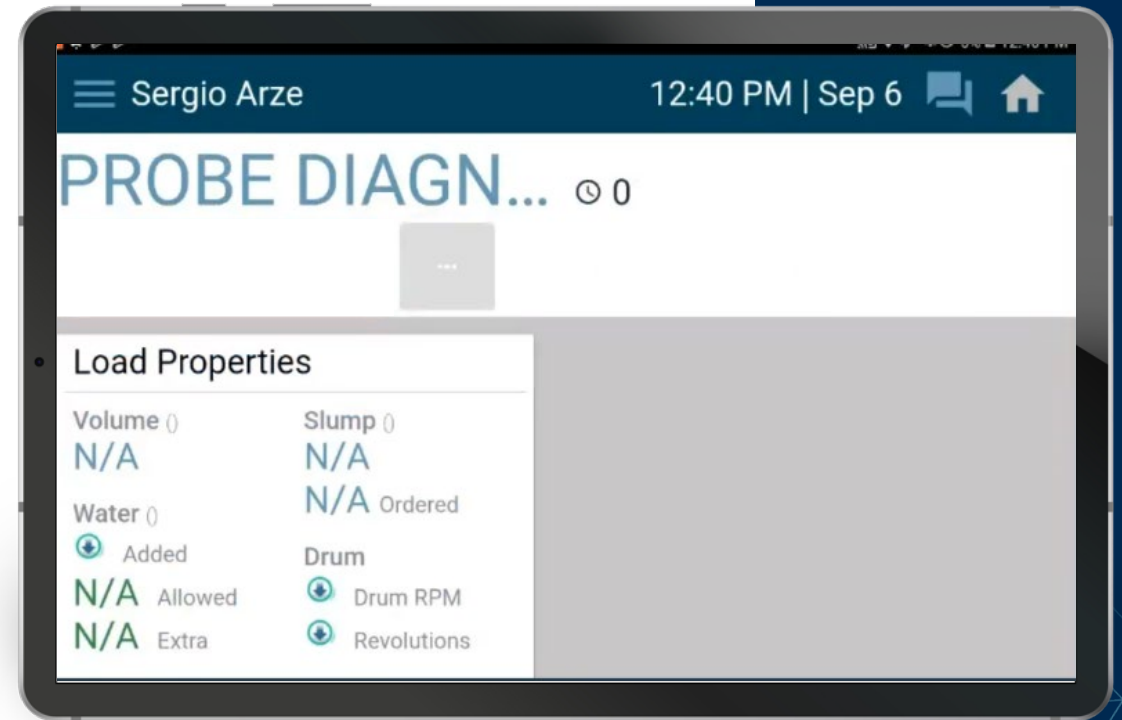
Status: Sign In

- When the driver is approved to sign in, the status *Probe Diagnostic* will automatically trigger



Status: Probe Diagnostics

- Each time a driver begins to use a Load Assurance enabled vehicle; the probe diagnostic test must be run before going to In Service status.
- If the probe has a failure (Stuck in Concrete, Build Up, etc...) then it will be known before the vehicle receives its first load of the day.
- This will 'flag' the vehicle in reporting so that the probe data is not trusted, and maintenance can be alerted to fix the condition of the probe as soon as possible.



Status: To Plant

 Sergio Arze

12:41 PM | Sep 6

To Plant 1

Load Properties

Volume ()

N/A

Water ()

0 Added

N/A Allowed

N/A Extra

Temperature (C)

18

Slump ()

N/A

N/A Ordered

Drum

3.0 Drum RPM

13 Revol...

Status: At Plant

 Sergio Arze-Test

 17:11 | Sep 7   

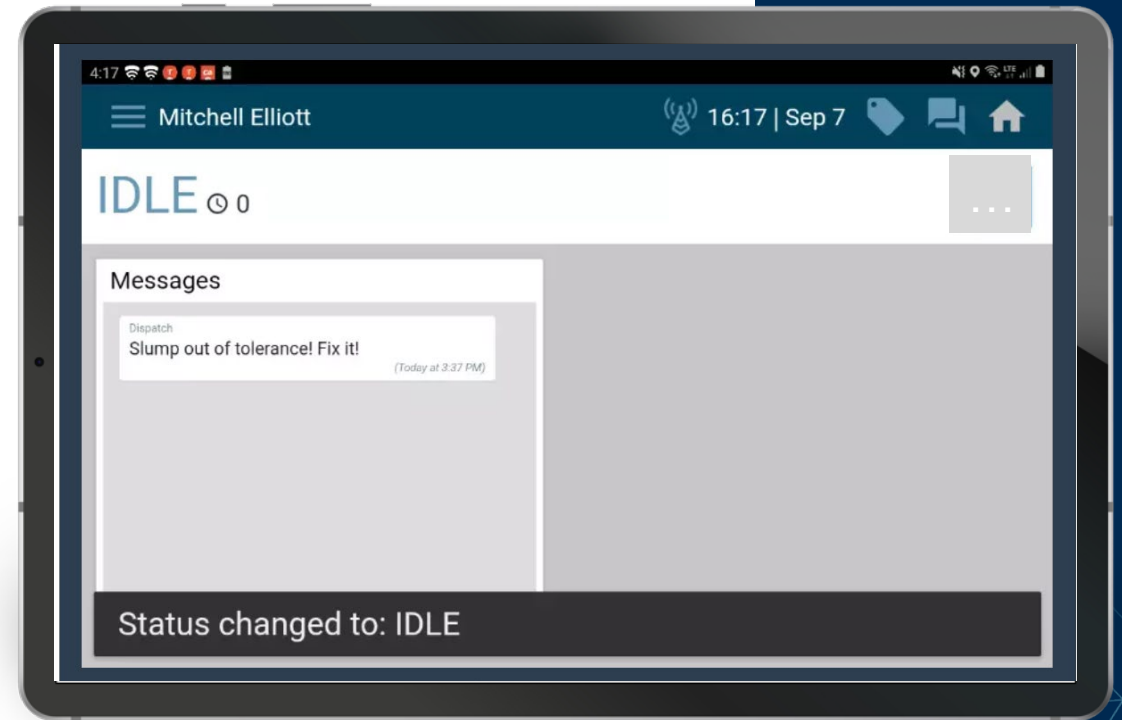
AT PLANT  1

BREAKDOWN 

Load Properties

Volume ()	Slump ()
N/A	N/A
Water ()	N/A Ordered
0 Added	Drum
N/A Allowed	3.0 Drum RPM
N/A Extra	41,732 Revol...
Temperature (F)	
68	

Status: Idle



Status: Waiting for Loading

Sergio Arze-Test

17:12 | Sep 7

WAITING FOR LOA...

🕒 0

Ticket: 109767

Customer

Eagle Constructionxxxxyy

Dest

1999 Forward Blvd

Target Slump

165

Dest Descr

1999 Forward Blvd

Job

Interface Technologies

Ticket #

109767

Load Properties

Volume ()

N/A

Slump ()

N/A

Water ()

0

Added

N/A

Allowed

N/A

Extra

Drum

3.0

Drum RPM

20

Revol...

Temperature (C)

18

Loading

Sergio Arze-Test

17:27 | Sep 7

LOADING

🕒 0

Ticket: 109767

Customer
Eagle Constructionxxxxyy

Dest
1999 Forward Blvd

Target Slump
165

Dest Descr
1999 Forward Blvd

Job
Interface Technologies

Ticket #
109767

Load Properties

Volume ()
N/A

Water ()
0 Added

N/A Allowed

N/A Extra

Temperature (C)
18

Slump ()
N/A

165 Ordered

Drum
3.0 Drum RPM

20 Revol...

Loaded

Sergio Arze-Test

17:28 | Sep 7

LOADED

🕒 0

Ticket: 109767

Customer
Eagle Constructionxxxxyy

Dest
1999 Forward Blvd

Target Slump
165

Dest Descr
1999 Forward Blvd

Job
Interface Technologies

Ticket #
109767

Load Properties

Volume (m³)
4.94

Slump (")
N/A

Water (l)
1 Added

165 Ordered

0 Allowed

Drum

N/A Extra

0.0 Drum RPM

218 Revolutions

Temperature (C)
20.0

Fully Mixed

 Sergio Arze-Test

 17:23 | Sep 7   

FULLY MIXED 0

Ticket: 109767	Load Properties
Customer Eagle Constructionxxxxxy	Volume (m³) 4.94
Dest 1999 Forward Blvd	Slump (mm) 165 
Target Slump 165	165 Ordered
Dest Descr 1999 Forward Blvd	Water () 0 Added
Job Interface Technologies	N/A Allowed
Ticket # 109767	N/A Extra
	Drum 3.0 Drum RPM
	1 Revolutions
	Temperature (C) 20.0

Status: To Site

 Sergio Arze-Test

 17:13 | Sep 7   

TO SITE  0



Ticket: 109767

Customer
Eagle Constructionxxxxyy

Dest
1999 Forward Blvd

Target Slump
165

Dest Descr
1999 Forward Blvd

Job
Interface Technologies

Ticket #
109767

Load Properties

Volume (m³)
4.94

Slump (mm)
165  0

Water ()
0 Added

165 Ordered

N/A Allowed

Drum
3.0 Drum RPM

N/A Extra

80 Revolutions

Temperature (C)
20.0

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16

Status: Waiting for Unloading

 Sergio Arze-Test

17:13 | Sep 7



WAITING FOR UNL...  0

UNLOADING 

Ticket: 109767

Customer
Eagle Constructionxxxxyy

Dest
1999 Forward Blvd

Target Slump
165

Dest Descr
1999 Forward Blvd

Job
Interface Technologies

Ticket #
109767

Load Properties

Volume (m³)	Slump (mm)
4.94	165 
Water ()	165 Ordered
0 Added	Drum
N/A Allowed	3.0 Drum RPM
N/A Extra	218 Revolutions
Temperature (C)	
20.0	

Unloading

☰

Sergio Arze-Test

📶

17:14 | Sep 7

🏷️

💬

🏠

UNLOADING ⌚ 0

FINISH UNLOADI... ⋮

Ticket: 109767

Customer

Eagle Constructionxxxxyy

Dest

1999 Forward Blvd

Target Slump

165

Dest Descr

1999 Forward Blvd

Job

Interface Technologies

Ticket #

109767

Load Properties

Volume (yd³)

3.0

Water (gal)

12 Added

0 Allowed

0 Extra

Temperature (°)

63

Slump (°)

N/A

Current

6.0

Ordered

Drum

-2.0

Drum RPM

212

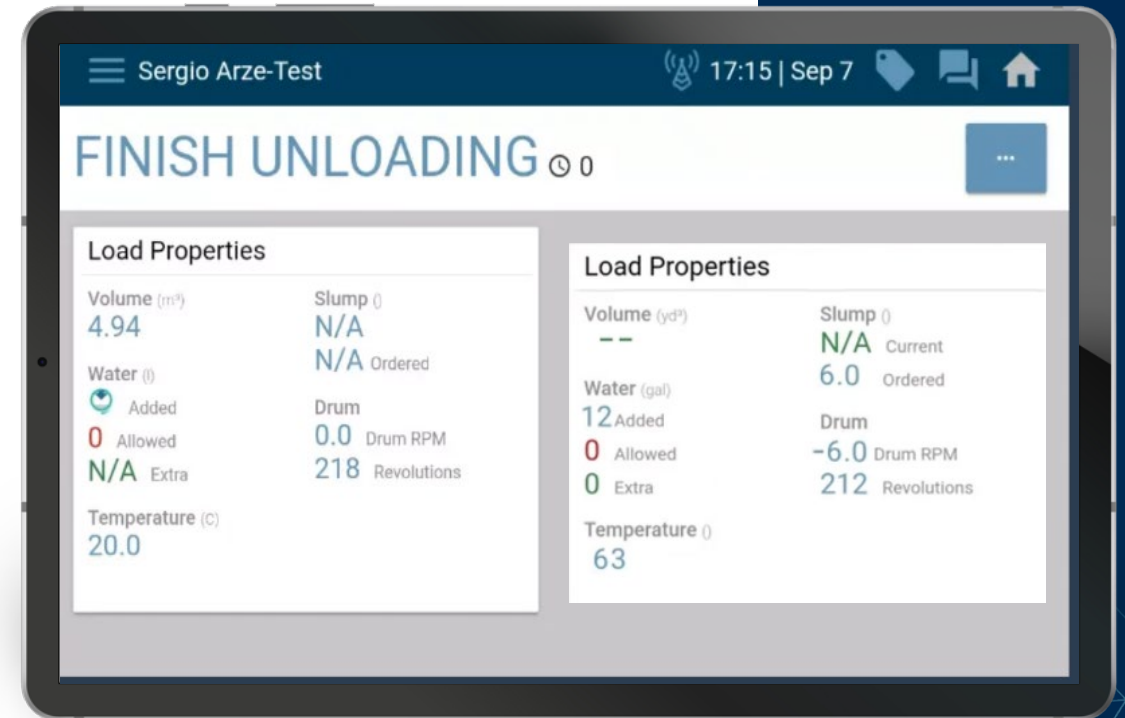
Revolutions

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18

Status: Finish Unloading

- The Finish Unloading status will automatically trigger if there are no leftovers and then Mobile Ticket will Automatically display
- If the Driver has leftovers, the driver will need to manually select Finish Unloading for mobile ticket to display



Mobile Ticket – Driver Experience

Ticket #2720001239

Water Material / Service Returned Material Finalize

Mix	Delivery Load	Loaded Order	Status	Time
KJ2016	10 m³		Finish Loading	05:13 PM (CET)
			Arrive Site	05:15 PM (CET)
			Start Unload	05:15 PM (CET)
			Finish Unload	05:15 PM (CET)

Loading/Unloading Points

Driver Comment
Great Service

LIST 13 / 255

Unloading Method
Crane

Driver Instructions
Test Test Test

Add Material/Service

Material / Service * Quantity

Plasticizer Added 15 Liters

Concrete on Truck Time (CET)

10 Cubic Meters 5:16 PM

☐ Driver Did Not Add

Demo User 10:10 | Sep 16

Ticket #6657675 Water Material / Service Returned Material

Mix ID/Description : C30T055GBS38P2 / C30T055GBS38P2
Loaded Qty : 5 m³

Concrete on Truck
3 Cubic Meters

Reason
Returned Concrete

☐ No Rest Quantity

mt.develop.commandalkon.io v4.0.1

Demo User 10:10 | Sep 16

Finalize

languages-en-US

Mix	Delivery Load	Order	Activity	Quantity	On Board	Reason
C30T055GBS38P2	5 m³	30 m³	Water Added	1 Liter	2 m³	CUSTOMER REQUESTED
			RETARDER	1 Bag	2 m³	CUSTOMER REQUESTED
			Returned Concrete		3 m³	Add Material

Loading/Unloading Points

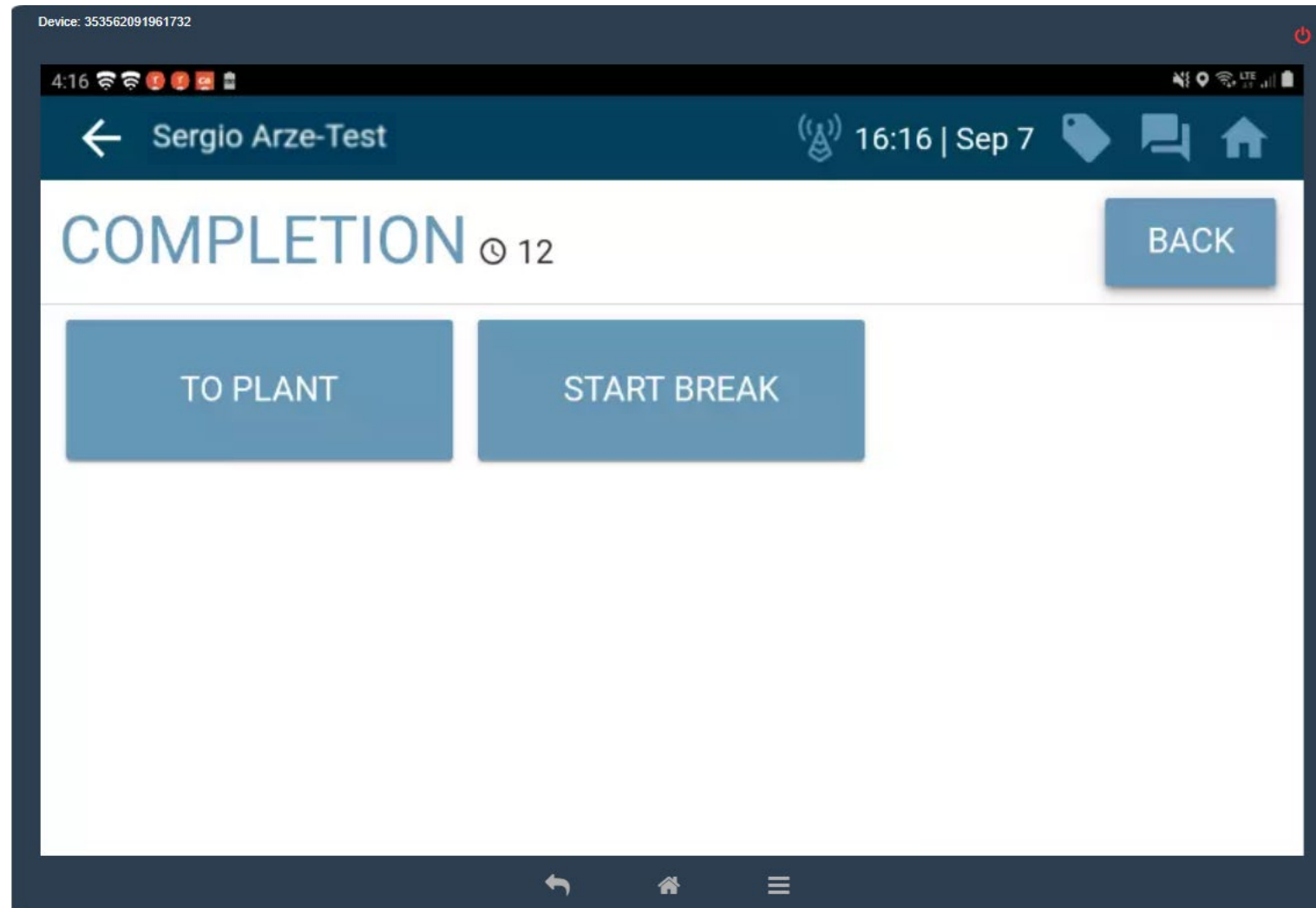
Status (CET)

- 04:31 PM Finish Unload
- 04:13 PM Start Unload
- 03:56 PM Arrive Site
- 03:23 PM Left Plant
- 03:20 PM Finish Loading

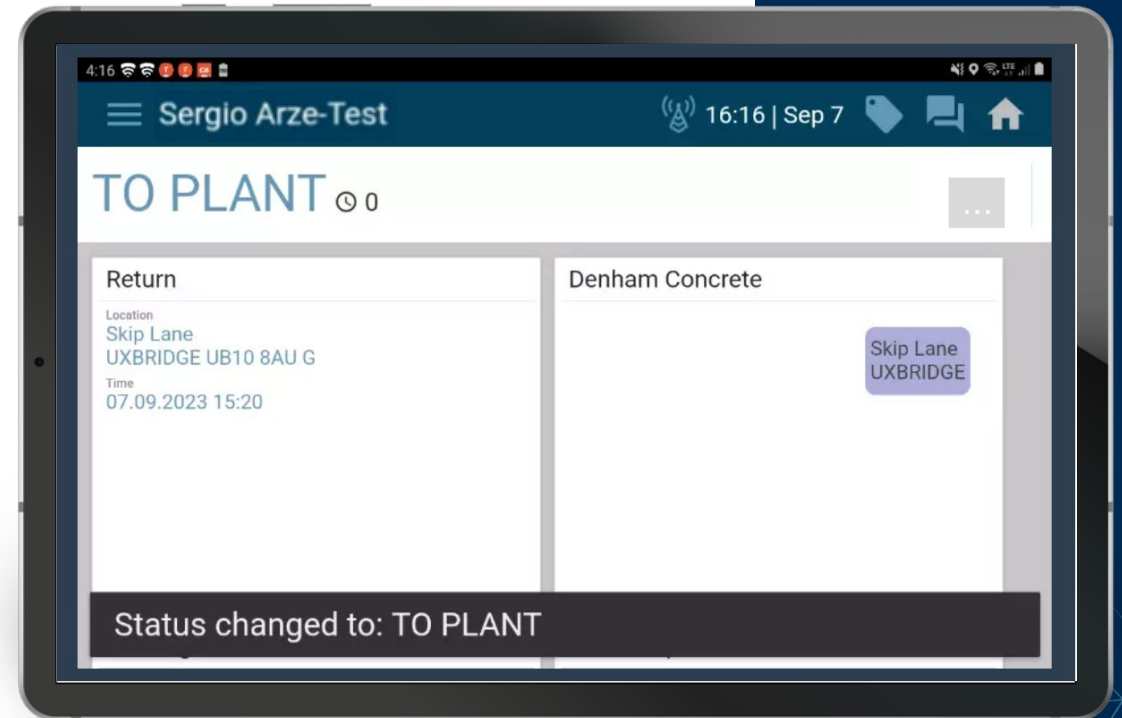
Driver Comment
USE 2nd Gate

Customer Comment

Status: Completion

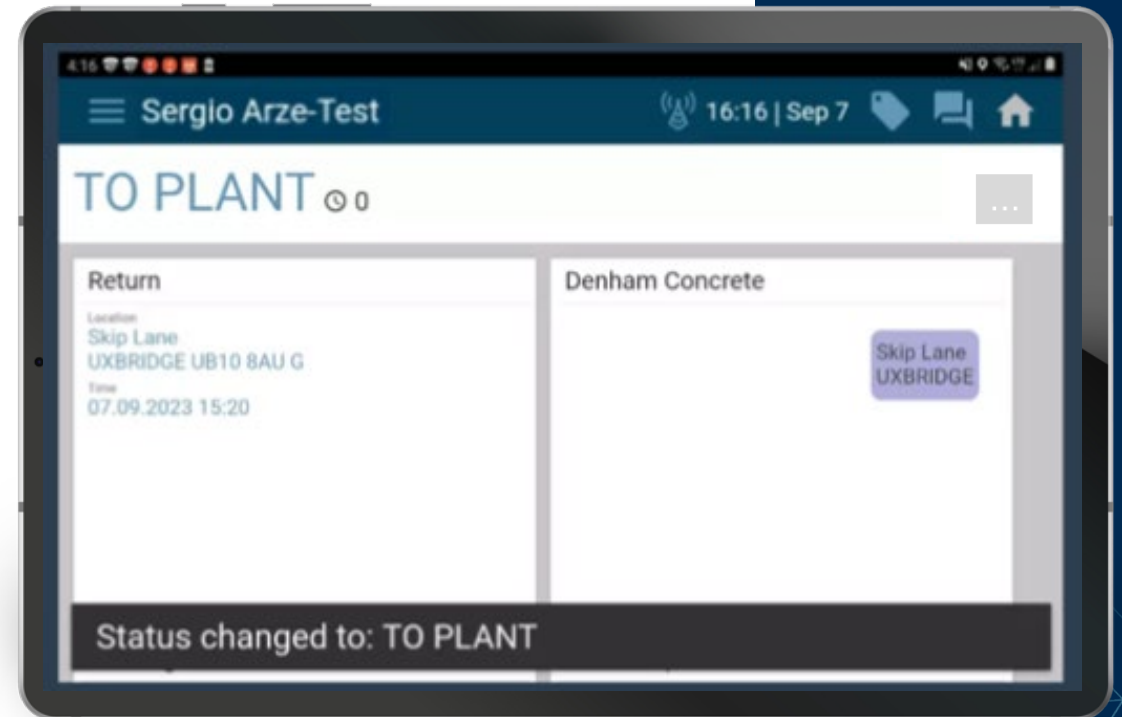


Status: TO Plant (Return Run)

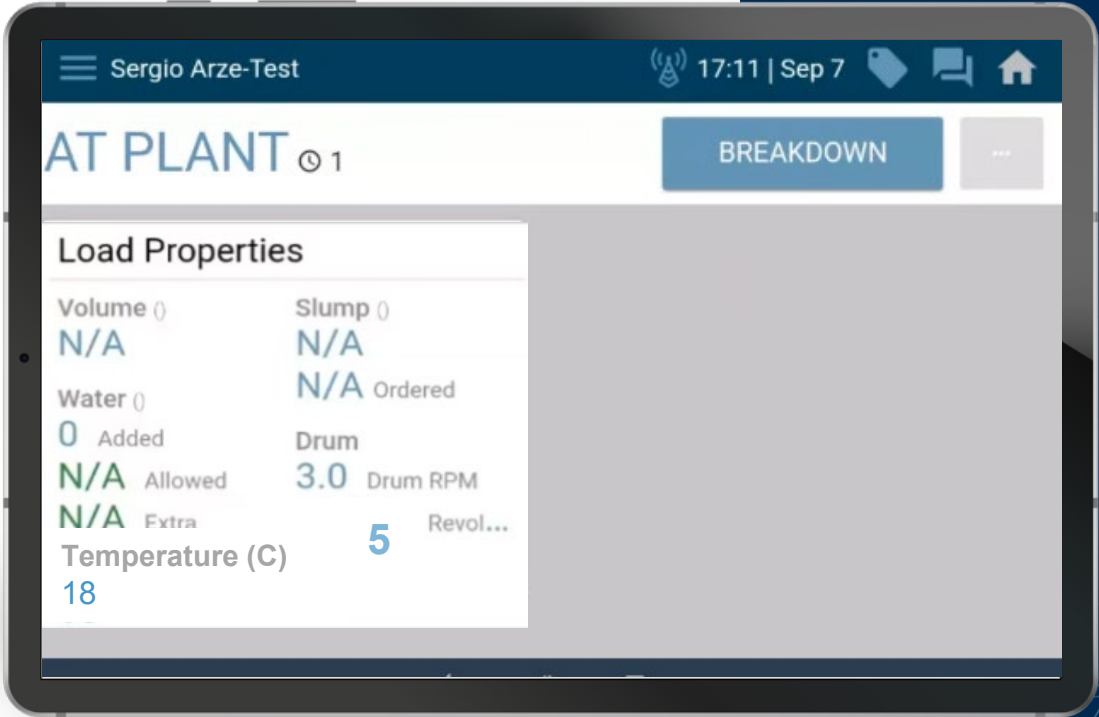


Status: To Plant (Home Run)

- After completing your Home Run, Make sure to leave the solar panel positioned on Top



Status: At Plant



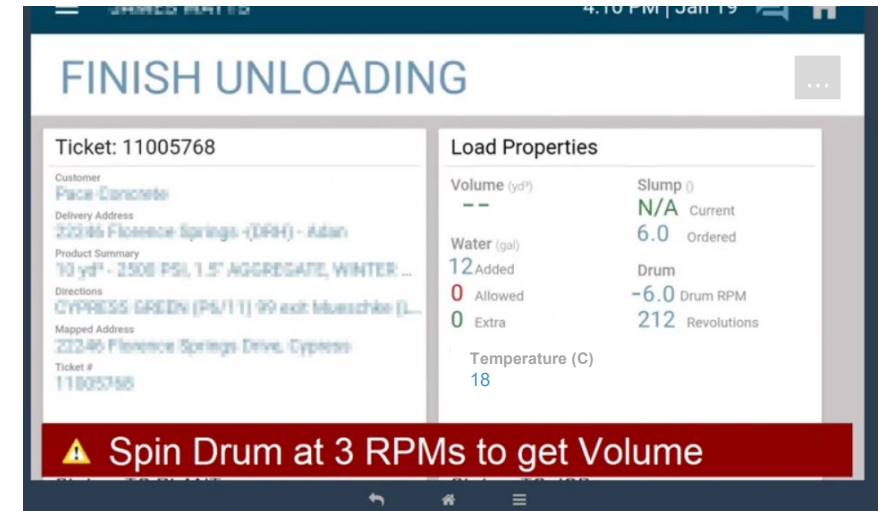
Status: Status Questions

Examples: Heidelberg

Cadman Assmc ▾					Add New Question +	
Order	ID	Status	Question	Ans. Type		
1	16	19 Post Trip (Cadman Assmc)	Please enter your hour meter	A number without a decimal(*0)	✎	✕
2	21	19 Post Trip (Cadman Assmc)	Is your Solar Panel pointed up?	List of answers	✎	✕
1	17	21 Equipment Failure (Cadman Assmc)	CALL DISPATCH	List of answers	✎	✕
2	18	21 Equipment Failure (Cadman Assmc)	HAVE YOU CALLED DISPATCH?	List of answers	✎	✕
1	19	47 Break (Cadman Assmc)	MAKE SURE DISPATCH IS AWARE OF YOUR BREAK	List of answers	✎	✕
1	20	51 Lunch (Cadman Assmc)	MAKE SURE DISPATCH IS AWARE OF YOUR LUNCH BREAK	List of answers	✎	✕
1	22	99 LEFTOVER (Cadman Assmc)	How many yards do you have leftover?	A number with a decimal(00.00)	✎	✕

Red Bar Configurations

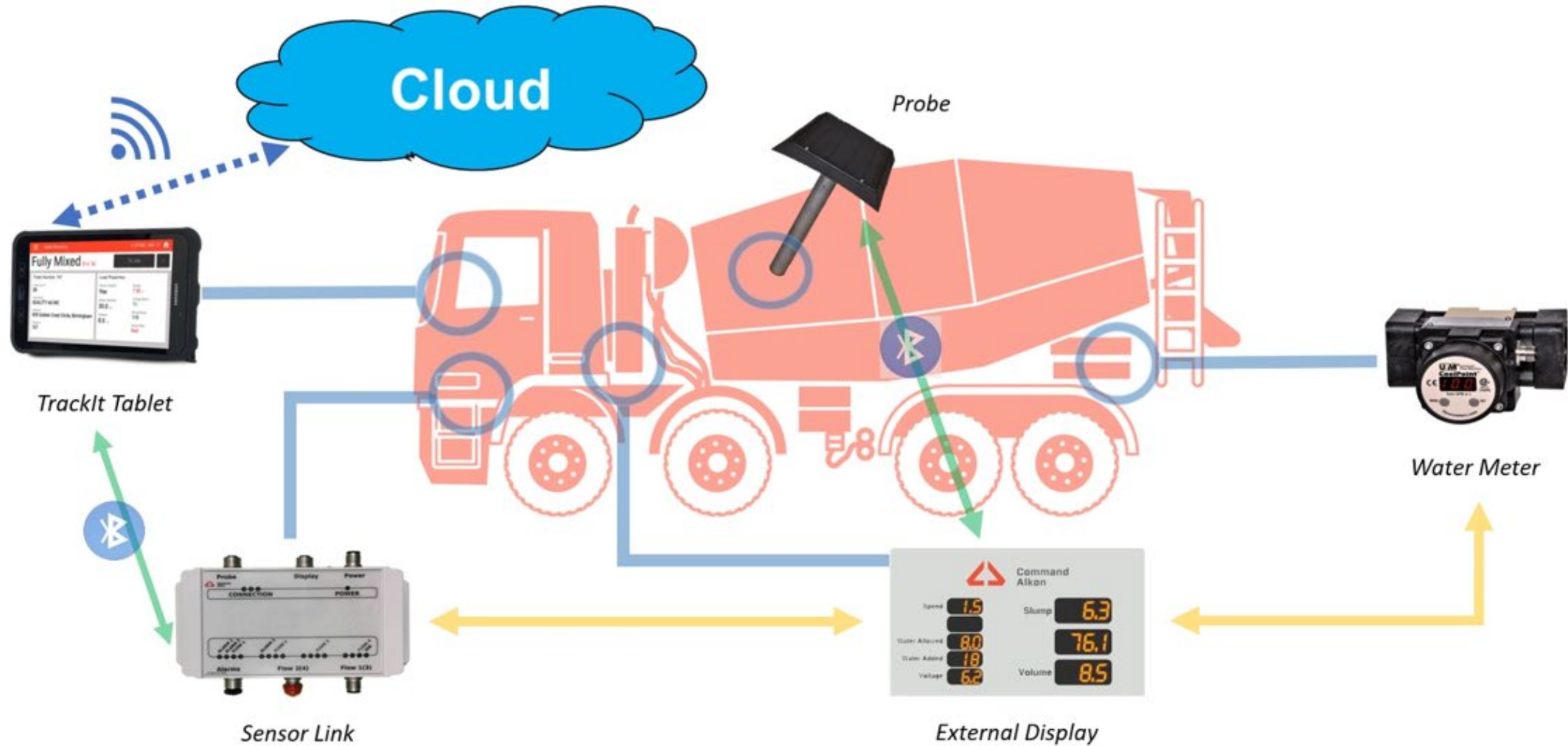
- Red bar alerts guide the drivers through the driver procedure for Load Assurance



Examples: Heidelberg

Name	In Use	Max Occurrence	Notify Dispatch	Notify Email	Is Active
Driver Guide - At Job: Slow drum	yes	50	False	False	True
Driver Guide - Fully Mixed, Slow Drum	yes	50	False	False	True
Driver Guide - Loaded: Calculating Fully Mixed	yes	50	False	False	True
Driver Guide - Loaded: Speed up Drum for mixing	yes	50	False	False	True
Driver Guide - Probe Cal Speed	yes	50	False	False	True
Driver Guide - Slump Obtained	yes	50	False	False	True
Driver Guide - To Job, Slow Drum	yes	50	False	False	True
Driver Guide- Measure Leftover	yes	50	False	False	True
Driver Guide- Probe Calibration	yes	50	False	False	True

Application Overview



Product Overview



Product Overview: Sensor



Product Overview: Control Unit



Product Overview: Solar Panel

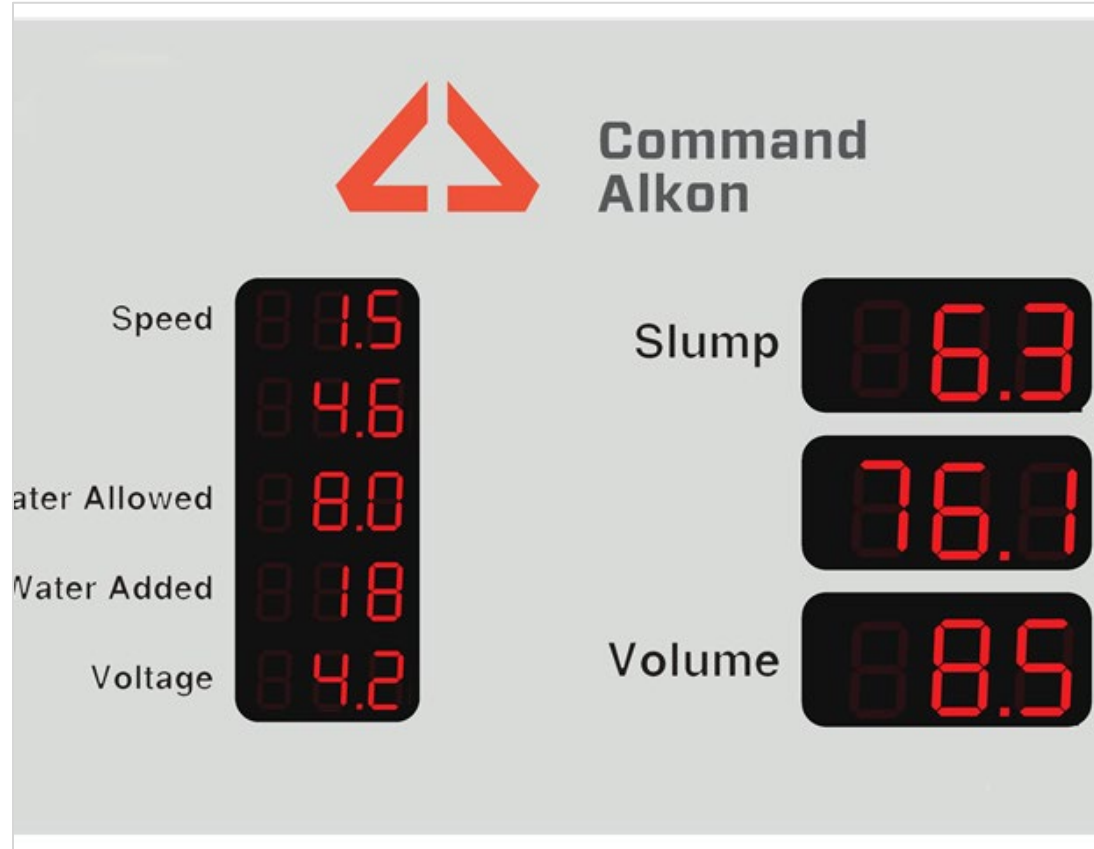


Product Overview: Hardware Installed



Product Overview: Display

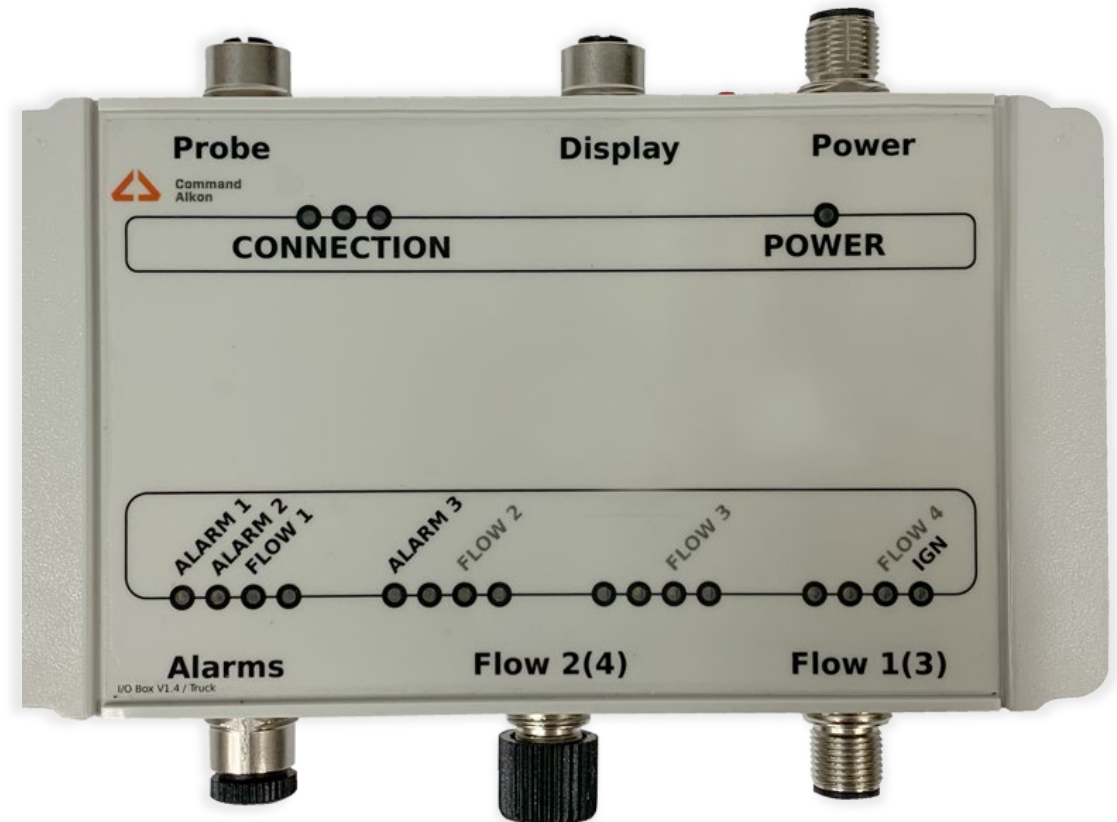
Display Example



Display Installed



Product Overview: Sensor Link





Driver Training

Driver Training: Probe Diagnostics



< 10 Turns

< 3 RPM

At the beginning of a shift the probe needs to be calibrated.

1. First login, complete safety check, and sign in.
2. Then spin the drum in the charging direction for 10 turns under 3rpm
3. After the Probe completes 10 turns, it is calibrated and ready to go

Driver Training: After Loading

LOADING

①



>+10 RPM

After loading, increase drum speed to at least 10 RPM until the **Fully Mixed** status displays.



▼ **Fully Mixed** ▼

②



< 3 RPM

Once the load is fully mixed, wait 3 to 5 rotations with drum speed of less than 3 RPM until a slump reading appears.



③



X 30 Turns

If adding water or chemicals to the mix after reaching Fully Mixed, combine new additions at mixing speed for 30 revolutions, then obtain another slump reading.



Complete your company's internal process if the slump falls out of acceptable range.

Driver Training: Fully Mixed



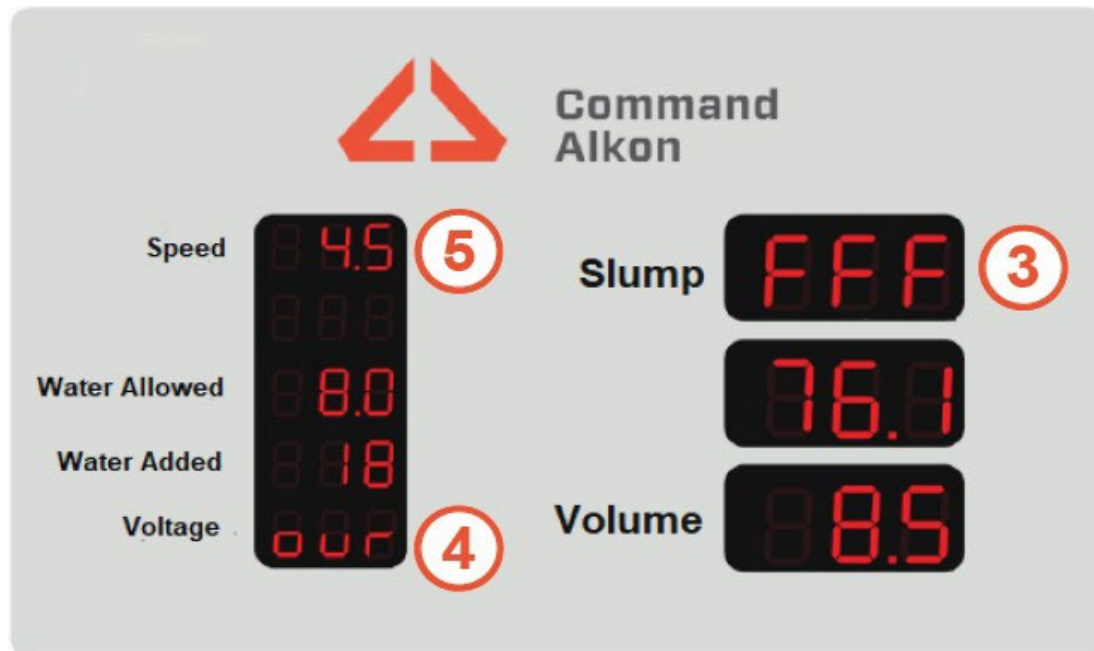
① This status means the concrete is uniformly mixed.

② In the **Fully Mixed** status, slump measurements are enabled by reducing drum speed to less than 3 RPMs, ideally 2.5 RPMs.

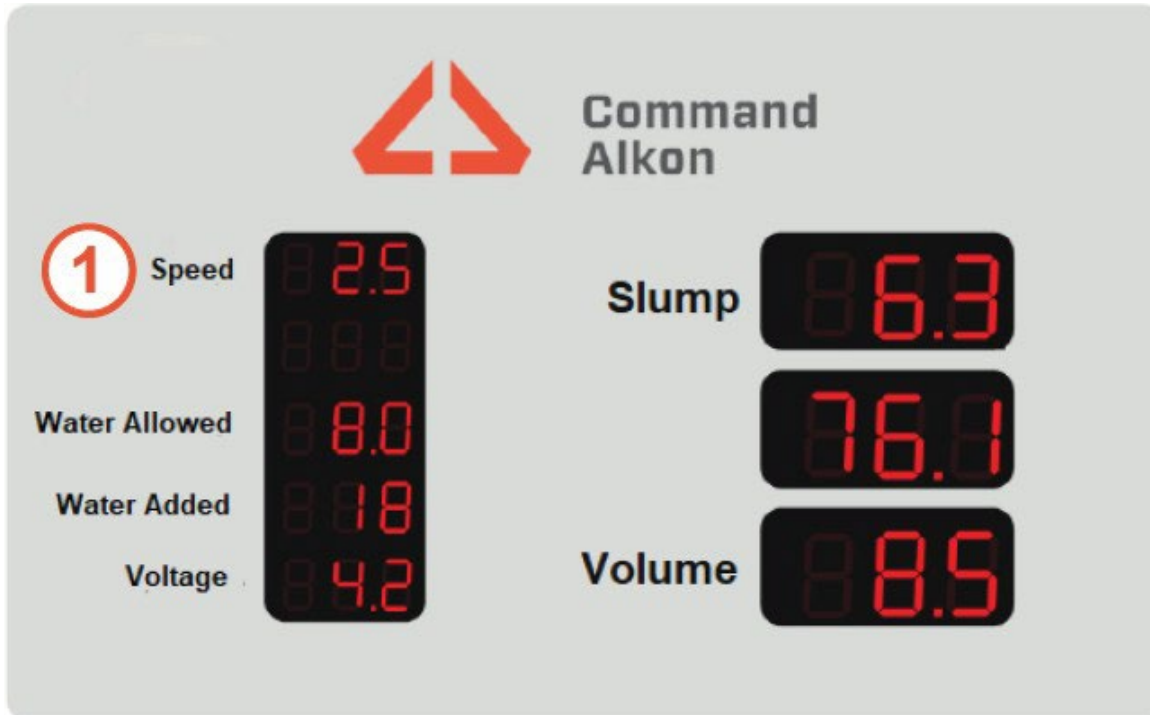
③ FFF will appear here when concrete is fully mixed. A countdown will also appear in the **Voltage** window.

④ our in the **Voltage** window means the slump is overmixed. This displays when the countdown timer for the slump reaches zero (0).

⑤ FFF and our disappear when the Speed is less than 3 RPMs.



Driver Training: Speed



① The **Speed** displays drum revolutions per minute (RPM).

② A negative speed shows drum RPMs while unloading.

③ For optimal slump readings, the drum RPM should be 2.5 for a minimum of two (2) minutes or four (4) revolutions.



②



③

Driver Training: Slump Reading



① Read the slump measurement here.

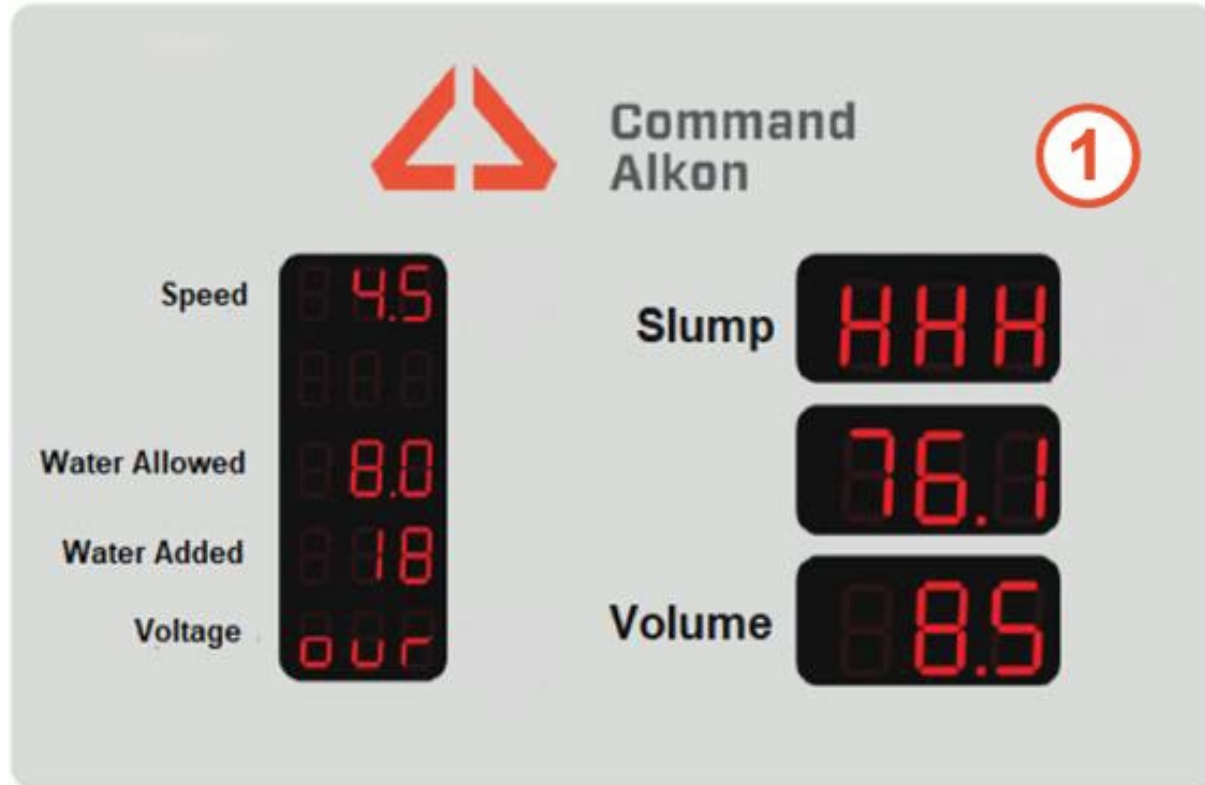
② Measure the slump when the drum speed is between 0.5 and 3 RPMs.

③ If you have a blinking slump value, check to see if the slump is out of tolerance.



Complete your company's internal process if the slump falls out of acceptable range.

Driver Training: Slump – Above Calibration



- Read the slump measurement here. ①
- The slump is above the calibration table, HHH will appear.



Complete your company's internal process if the slump falls out of acceptable range.

Driver Training: Slump – Below Calibration



- Read the slump measurement here. ①
- The slump is below the calibration table, LLL will appear.



Complete your company's internal process if the slump falls out of acceptable range.

Driver Training: Water Allowed

Load Properties

Volume (yd³)

5.8

Water 0

10.5

Added

2

N/A

Allowed

3

0

Extra

Temperature (F)

77.9

Slump (in)

7.00

Current

8.75

Ordered

Drum

2.5

Drum RPM

1

Revolutions

Water Allowed

8.0

1

Water Added

8.18

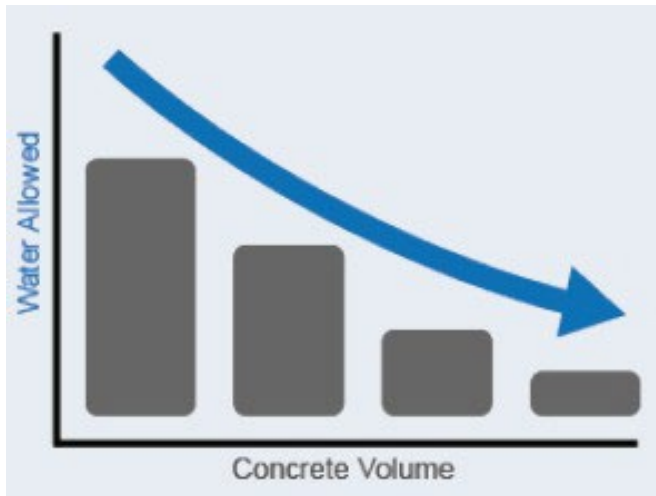
2

1 **Water Allowed** is the maximum water quantity that can be added to the load, based on the load ratio. This value decreases as Water Added increases.

2 **Water Added** shows total water quantity added measured by the flow meter.

3 **Extra Water** represents water added once the Water Allowed value is exceeded.

Driver Training: Water Allowed Continued



Water Allowed 8.0

Water Allowed 0.0



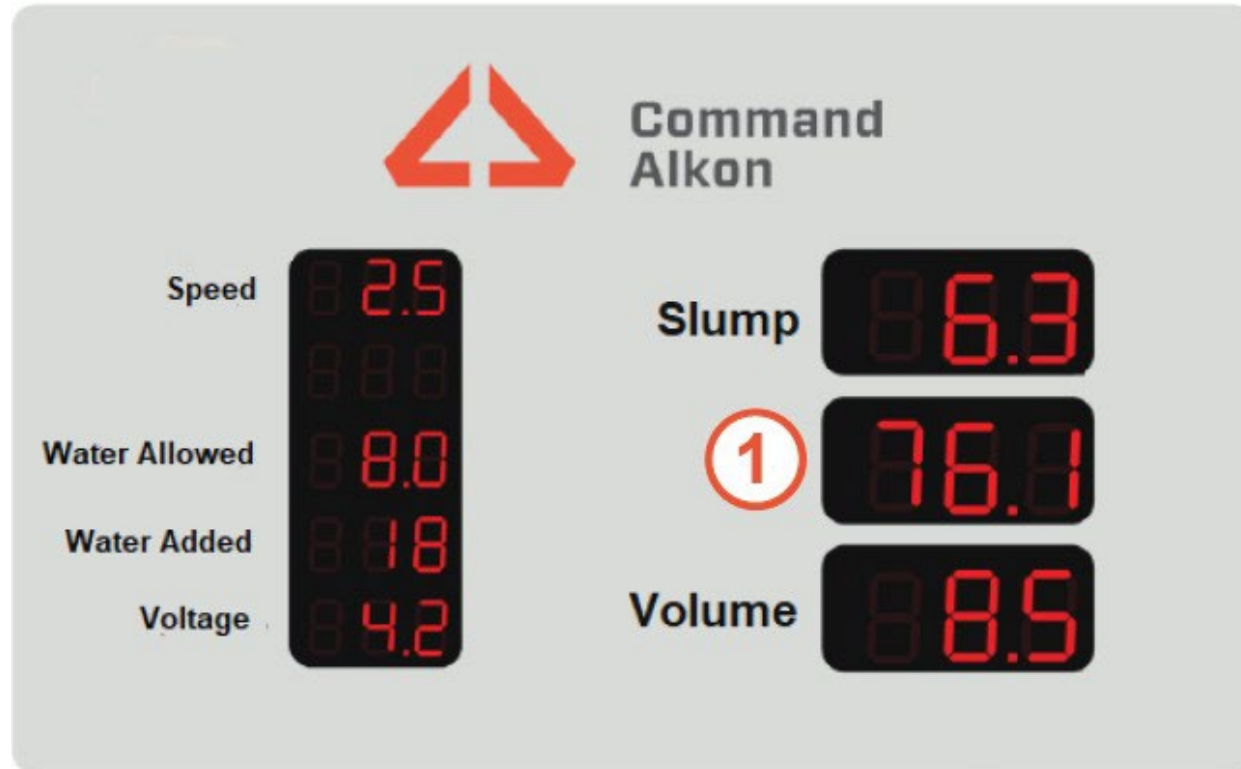
X 30 Turns > +10 RPMs

① Water Allowed reduces as the volume of concrete decreases during a pour.

② When Water Allowed reaches zero (0) and excess water is added, the value will blink to indicate Extra Water has been added.

③ After adding water and remixing the load, a 30-turn countdown starts in the **Voltage** window and on the Load Properties card as soon as the drum speed is over 10 RPMs. **Complete 30 turns prior to registering a slump value or pouring.**

Driver Training: Temperature

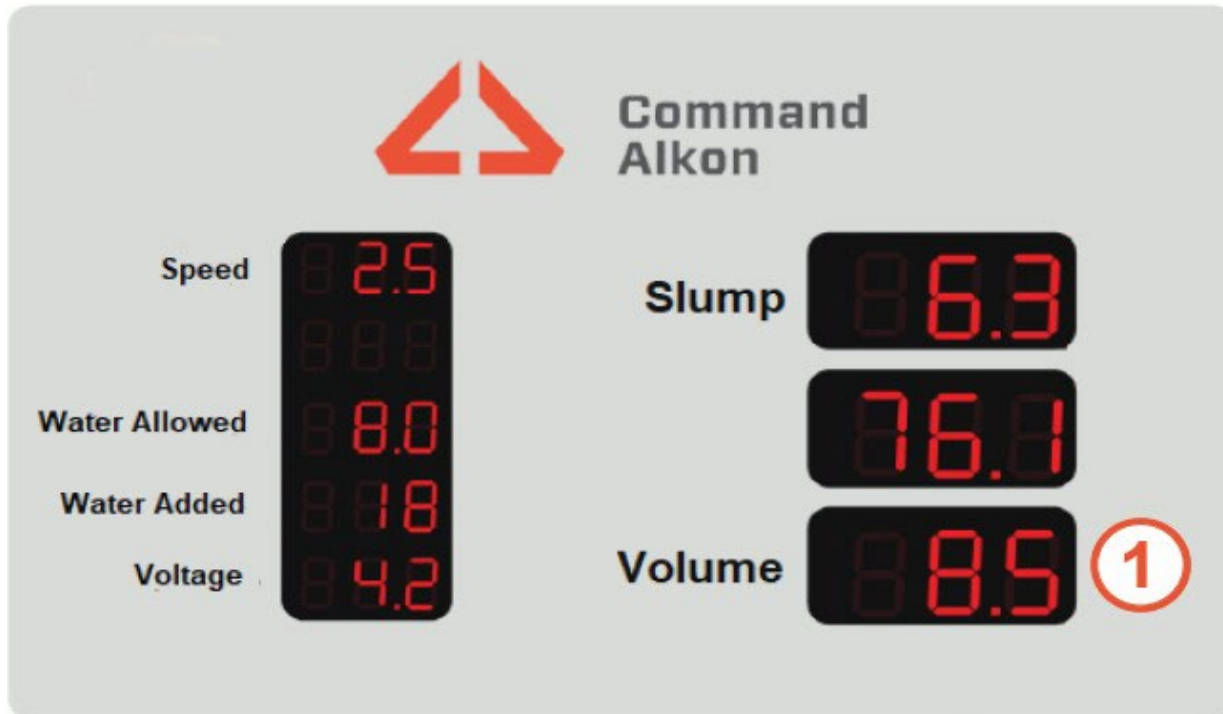


- 1 The **Temperature** is the concrete temperature at the time of the probe reading.
- 2 A blinking temperature indicates the concrete temperature is above or below batch specifications.



Complete your company's internal process if the Temperature falls out of acceptable range.

Driver Training: Volume



- 1 This window indicates concrete volume loaded per ticket.

If the volume is blinking when the truck is parked, the COMMANDassurance system did not receive a volume from COMMANDbatch and is currently measuring.
- 2
- 3 If the volume window is empty, the drum is empty or the volume is less than one (1) cubic yard.



Driver Training: Unloading



① The Status Unloading is triggered after 0.19 m³ has been unloaded

Driver Training: Finished Unloading

Finished Unloading

①



▼ Finished Unloading ▼

②



> -6 RPMS



③



Finished Unloading Can trigger in 3 different ways:

①

When the Volume is “0”, drum empty

Volume

888

②

Spinning the drum to at least negative -6 RPM

Speed

-6.3

③

A truck speed of >15 MPH or a truck leaving the Site's hotspot

Driver Training: Returned Volume

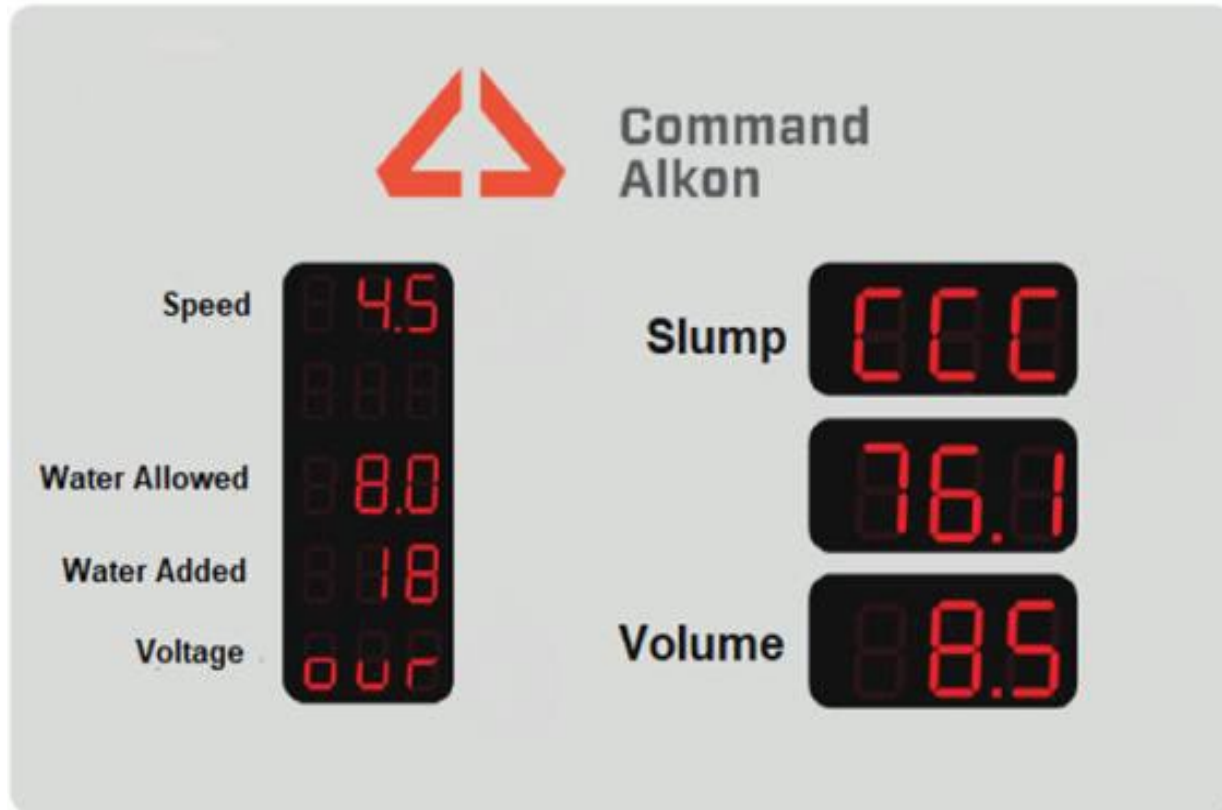
Calculating Returned Volume



When the driver has volume left over:

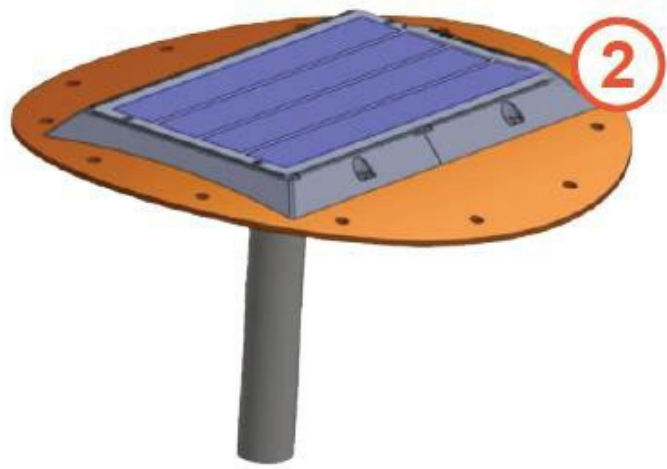
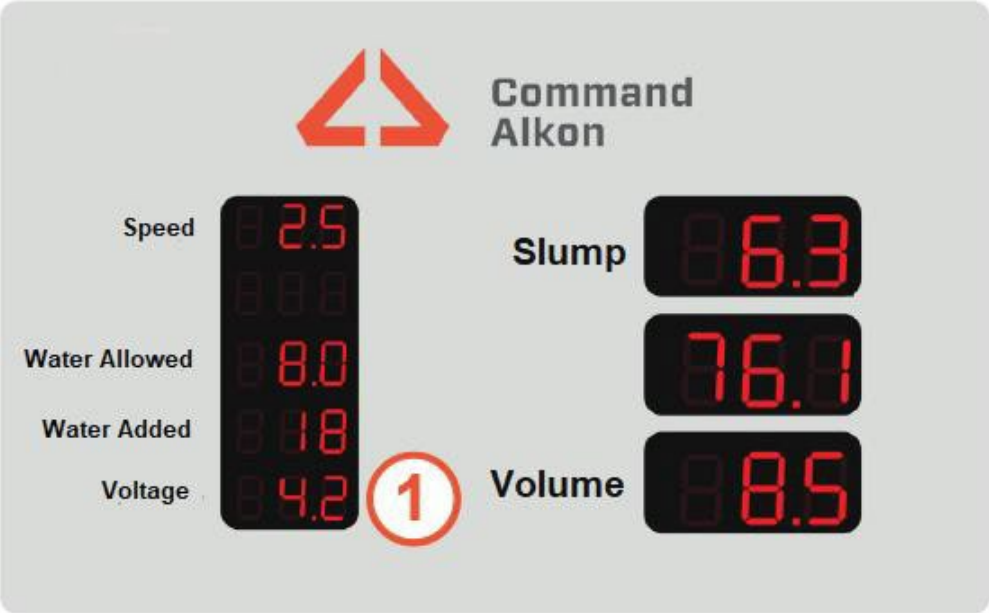
1. Find level ground
2. Spin the drum in the charging direction under 3 RPM
3. Once the Sensor finishes calculating the returned volume, the volume will display on the tablet and on the external display

Driver Training: Stuck In Concrete/Failure



1. Do Not position the solar panel on the side or bottom of the drum when the truck is not in use.
2. The probe will suffer concrete buildup, which prevents accurate measurements and requires tedious cleanup.
3. If the probe does not have concrete buildup and the CCC is shown, this could be an indication of an internal failure and a replacement would be needed.

Driver Training: Voltage



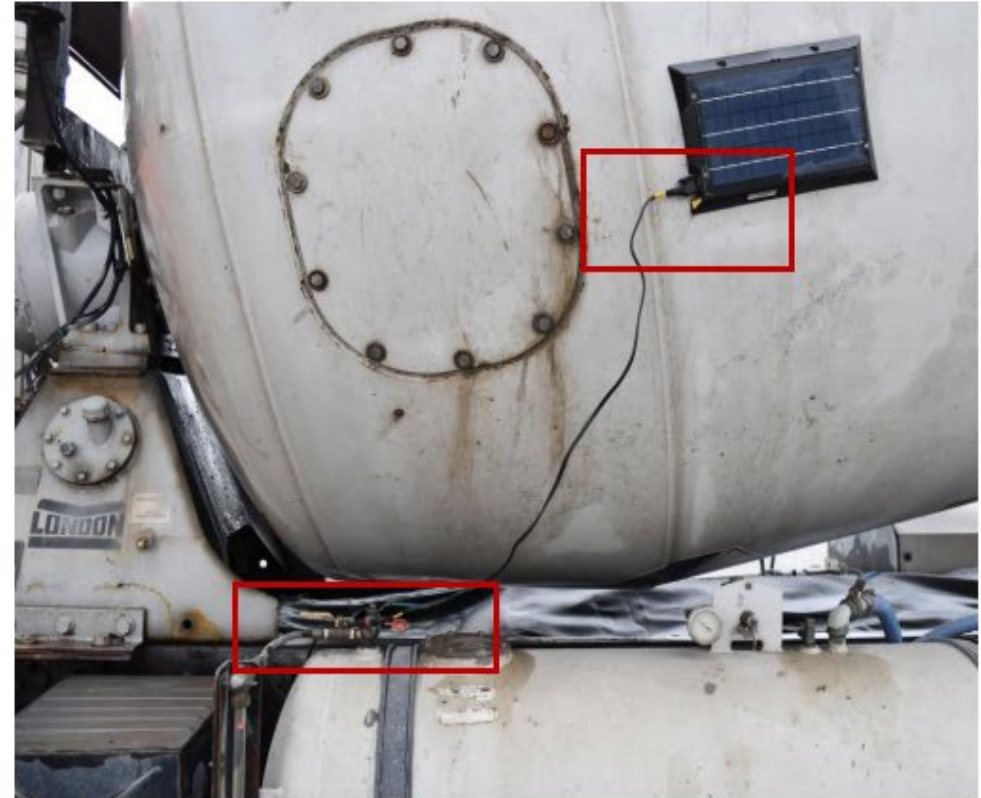
- ① The battery **Voltage** for the solar panel.
- ② The solar panel on the outside of the barrel is attached to the probe and supplies it with voltage.

	VOLTAGE	PANEL STATUS
GOOD	3.9 – 4.2	Generating voltage, in a good position
MEDIUM	3.6 – 3.8	Check battery level daily
LOW	3.4 – 3.5	Working, but may need manual charge

Driver Training: Power Management

To keep the battery charged:

- Park truck with solar panel up
- Use the charging cable when needed



Driver Training: Probe Positioning



Do not position the solar panel on the side or bottom of the barrel when the truck is not in use.



The solar panel will not receive direct sunlight and charge the probe efficiently.



The probe will suffer cement buildup, which prevents accurate measurements and requires tedious cleanup.

Position the solar panel with the probe at the top of the drum when the truck is not in use.



The solar panel can charge with direct sunlight to produce voltage for the probe.



Leftover cement in the drum will fall away from the probe and prevent excessive buildup and tedious cleanup.