



OWNERS MANUAL

RC300L Controller

Version 2.52d



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Introduction

Congratulations on purchasing a Taege RC300L Controller ver2.52d! Taege Engineering, a market leading agricultural company, who pride themselves on developing market leading solutions demanded by New Zealand farmers and contractors.

Taege Engineering want you to be satisfied with your product, which has been designed and manufactured to provide years of dependable use.

By following our owner's manual (using, service, maintenance etc) the life span and the second-hand value of the machine can be extended. If you ever lend or sell this machine, make sure that the borrower or buyer gets the operator's manual, so they will also know how to properly maintain and use it. You can download additional copies of your owner's manual from www.dealer.taege.com.

Please quote your controller version when seeking advice or ordering parts.
E.g. RC300L ver 2.52d

Thank you for purchasing a Taege Controller. Taege Engineering has a policy of continuous product development and therefore reserves the right to modify the design and appearance of products without prior notice.

Quick Calibration

Taege RC300L Controller ver2.52d

1. Press the **On/Off** button and hold until the controller turns on. (Approximately one second)



2. Press the **Hopper** button to choose the hopper you wish to calibrate. (Front, Back or Insect)



3. Place the calibration tray under the sponges by moving the collector tray back.

4. Hold the **Prime** button and prime the metering system. (sponges)



The display shows the hopper being primed.

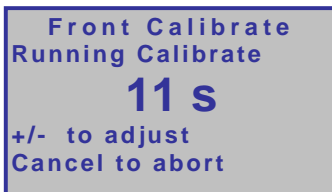
Empty the calibration tray and replace under the sponges.

5. Press the **Cal** button 4 times and you will see the following screen.



The numbers count down to 0 (zero) and the motor will stop.

20 seconds is the default setting. If you want to add more seed, keep pressing the plus button – 1 second will be added for each press of the button. This will result in more seed being collected.



6. Weigh the seed collected using the scales provided. **ENSURE THEY ARE SET TO GRAMS.**

7. Enter the weight into the computer and use the **Prime & Cal** Buttons to move the cursor left or right.



8. Use the +/- buttons to change each digit to the number you see on the scales



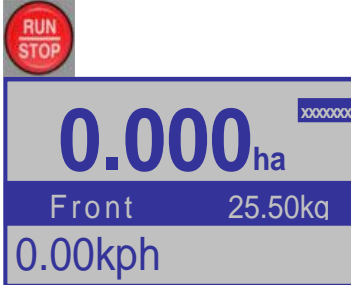
9. Press the **O.K.** button



10. Press the +/- button to increase/decrease the target seeding rate.



11. Press Run/Stop Button. You will see the following screen.



You are ready to go.

As you move, the **CURSOR** will rotate on the top right of the screen. This tells you the drill is operating. The **kph** will be displayed.

EXTRAS

Every time you press the +/- button during the 20 second countdown at calibration, one second will be added or subtracted for each press of the button. This results in more/less seed to be collected.

Calibration check

Taege RC300L Controller ver2.52d

At any time you can test calibration setting by using the following method.

1. Press **Run/Stop** to enter the **RUN** mode



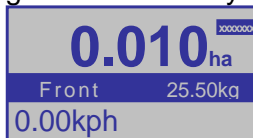
you will see something like the following screen.



2. Hold the **Area Reset** button for 3 seconds and reset the area to 0.000.



3. Place the calibration tray under the sponges on the hopper you want to test. Spin the jockey or ground wheel till you see the following screen. (This represents 100th ha).



4. **Weigh** the seed collected and you should get close to 100th of your target seeding weight. (i.e. for 25.5kg/ha seeding rate you should collect very close to 255 gm).
 - If it is within 10% use the **+/-** button to increase/decrease the target seeding rate, then repeat steps 1-4.
 - If there is a 10% + difference, recalibrate.

You are ready to start drilling.

EXTRAS

If you are testing a double hopper system you may want to turn off the hopper you aren't testing to save spilling the contents during the test. Do this by turning the lever on the gearbox to the horizontal position.

REMEMBER to change the lever back to the vertical position when finished

Before you test the calibration setting, choose the hopper and crop you want to test while still in the stopped mode.

Press the **Run/Stop** button to toggle between the run and stop mode.

Press the **Hopper** button to choose the hopper to test. (Front, Back or Insect)

Press the **Up/Down** buttons to select the crop to calibrate

NOTE: Every time you press the Area/reset button and reset the totals the data log (totals) will be altered for that crop record.

If you require the records from data log (totals) please copy these details to your note book.

Advanced calibration

Taege RC300L Controller ver2.52d

This feature is available for all individual crop settings. Your Taege technician or Taege Dealer will instruct you about this feature during the introduction to your drill. This feature enhances the calibration of grasses and small seeds and enables the operator to better match the real-time sponge roller speed to that of calibration speed.



1. Press the Cal button again  and you will see the following screen

```
Front Calibrate
Crop 1
01 EMPTY

Is this the correct
Crop -OK or Cancel
```



2. Press the Cal  button again and you will see the following screen

```
Front Calibrate
Place collection tray
under Front Hopper
(if erquired PRIME)
@ 800rpm +/-adjust
Run to start Cal
```



3. Press the +/- buttons  to **increase/decrease** to the rpm desired for this crop calibration. Each press will **increase/decrease** the calibration motor speed by 100rpm.



4.  When the calibration is saved the sample motor speed is saved.

The standard calibration speed is 600rpm.

Setting the Target Weight

Taege RC300L Controller ver2.52d

The target weight can be set and changed at any time.

1. Press the **Cal** button



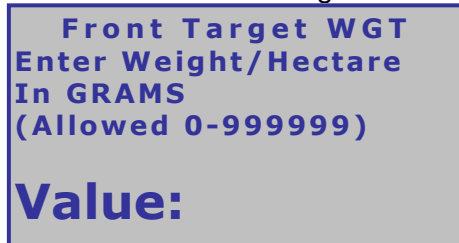
2. Using the navigate buttons scroll to



3. Press the **OK** button



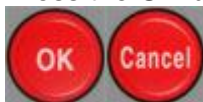
You will see the following screen.



4. Using the Prime/Cal and the +/- buttons, put in the target weight in Grams



5. Press the **OK** button and then the **Cancel** button.



The Target Weight can also be set both by pressing the +/- button



both before and after calibration in the RUN mode.

Setting the Alternate Weight

Taege RC300L Controller ver2.52d

1. Press the **Cal** button

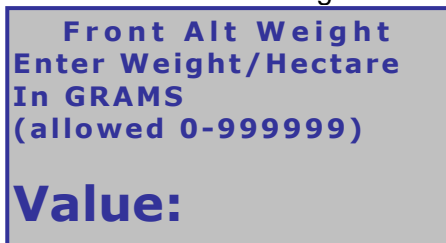


2. Using the navigate buttons scroll to **Alt Rate Weight**

3. Press the **OK** button



You will see the following screen.



4. Using the Prime/Cal and the +/- buttons, put in the alternate weight in Grams



5. Press the **OK** button and then the **Cancel** button.



The Alternate Weight can be pre-set for all crop settings and on all hoppers. It can be more or less than the Target weight. Mainly used where variable ground conditions demand different seeding rates. This setting changes the seeding rate instantly whilst on the move by pressing the PRIME button, returns to the target weight when the PRIME button is pressed again. Seeding rates can also be changed on the move simply by pressing the +/- button.

Alternate weight can be set to operate on both hoppers at the same time. When both hoppers are set and in the run mode, press the up arrow to operate and the down arrow to cancel.

Run to Empty

Taege RC300L Controller ver2.52d

1. Press the **Cal** button



2. Then use the navigate buttons




Scroll to **Run to Empty**

3. Press the **OK** button



4. You will see this screen.



5. Use the RUN/STOP button  to start and stop the selected hopper.
6. Press the **Cancel** button to return to the operating screen.

The **Run to Empty** function is used to assist the cleanout of the hopper between crops.

NO NEED TO USE A VACUUM CLEANER

WARNING: Care should be taken to keep hands away from the sponge rollers in the hopper(s) when in the 'run to empty' mode.

It is recommended that a small brush is used for final cleaning.

Name Crop

Taege RC300L Controller ver2.52d

There are 25 crop settings available for each hopper (see **Drill Configuration**). Every time the drill is calibrated, the settings are automatically saved for that hopper and for the crop number calibrated.

You can name this saved calibration setting at any time with names of up to 14 characters in length and if you are drilling the same crop again in a short time, there is no need to recalibrate and rename. Simply scroll to the crop you have saved, press '**Run**' and go drilling. You can update names simply by renaming over any saved calibration setting.

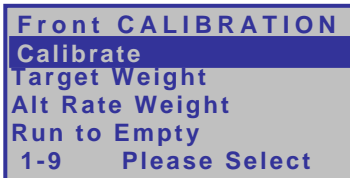
1. Turn on the unit. 
2. Press the **Hopper** button 
3. Go to the correct hopper.
4. Press the **up/down** navigate buttons to find the crop you would like to name



5. Press the **Cal** button



You will see this screen



6. Use the down navigate button to highlight



```
Front CALIBRATION
Live Calibration
Target Weight
Alt Rate Weight
Name Crop
5-9 Please Select
```

7. Press the **OK** button



8. You will see this screen.

```
! " # $ % ' ( ) * + , - . / 0 1 2
3 4 5 6 7 8 9 : ; < = > ? @ A B C D E
F G H I J K L M N O P Q R S T U V W X
Y Z [ \ ] ^ _ ` a b c d e f g h i j k
l m n o p q r s t u v w x y z { | } ~
S? 01 EMPTY
```

9. Press the **Hopper** button to delete the current name



10. Use the **navigate** buttons to move the highlighted cursor over the character needed.



11. Press the **Run/Stop** button to add each letter to the name.



12. When the name is complete press **OK** Button



13. This will save the name and the controller will return to the operating screen.

NAME HOPPER

Please follow Name Crop instructions, but in the "Name Hopper" menu

Edit Crop

Taege RC300L Controller ver2.52d

1. Press the On/Off button to turn on the controller



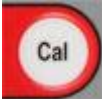
2. Press the **Hopper** button and select the correct hopper



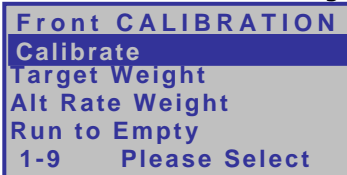
3. Press the **up/down** navigate buttons to find the crop you want to edit.



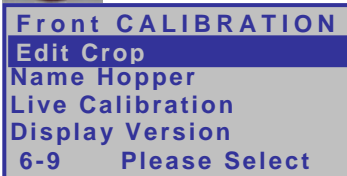
4. Press the **Cal** button



5. You will see the following screen.



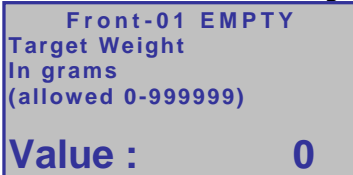
6. Use the down button to navigate and highlight Edit Crop



7. Press the **"OK"** button



8. You will see the following screen



9. Enter the target weight in grams.

10. Press the Down button



You will see the following screen.

Front-01 EMPTY
Alt Weight
In grams
(allowed 0-999999)
Value : 0

11. Enter the alternate weight in grams

12. Press the Down button



13. You will see the following screen.

Front-01 EMPTY
Sample Weight
In grams
(allowed 0-999999)
Value : 0

14. Enter the sample weight in grams

15. Press the Down button



16. You will see the following screen.

Front-01 EMPTY
Sample Pulses
(allowed 0-999999)
Value : 0

17. Enter the Sample Pulses.


18. Each of the screens shown allow you to enter calibration figures obtained either from a previous controller.

19. Press the OK button and return to the operating screen



Name Hopper

Taege RC300L Controller ver2.52d

1. Turn on the unit. 

2. Press the **Hopper** button



3. Go to the correct hopper.

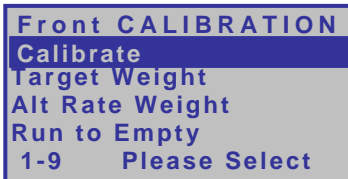
4. Press the **up/down** navigate buttons to find the crop you would like to name



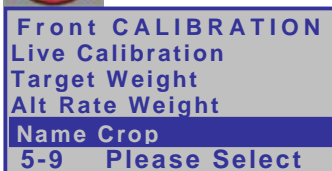
5. Press the **Cal** button



You will see this screen



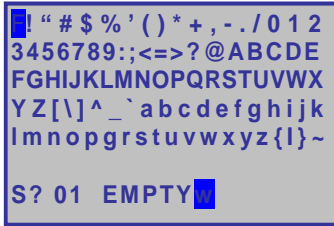
6. Use the down navigate button to highlight



7. Press the **OK** button



8. You will see this screen.



9. Press the **Hopper** button to delete the current name



10. Use the **navigate** buttons to move the highlighted cursor over the character needed.



11. Press the **Run/Stop** button to add each letter to the name.



12. When the name is complete press **OK** Button



13. This will save the name and the controller will return to the operating screen.

Calibrate Distance

With Wheel Sensor or Wheel Encoder Versions 1.03 >2.2x>2.3x>2.4x>2.5x

1. Press here in the Stopped mode to toggle between the Hopper and Area /Reset screens
2. Press and press again and hold here for 3 seconds to reset the Area/Reset totals. You will see this screen.



3. Press the Cal button



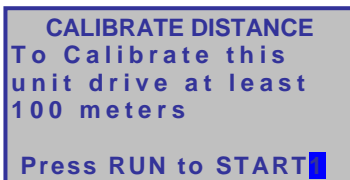
4. You will see the following screen.



5. Press the OK button and go to 7



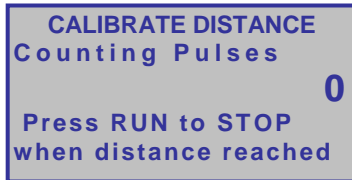
6. By selecting this screen you will see the software version of your controller.



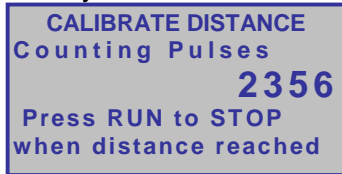
- 7.
8. Press the RUN/STOP button



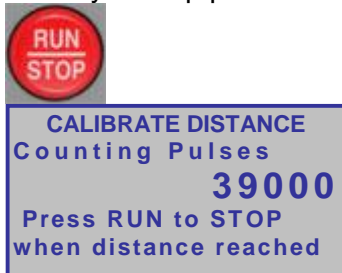
9. You will see this screen.



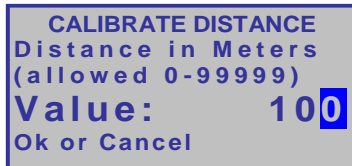
10. Drive your measured distance and the wheel count will increase until you stop.



11. When you stop press the Run/STOP button.

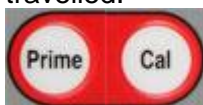


12. Enter your measured distance (usually 100m) then press the OK button.



13.

14. Use the Prime and Cal buttons to highlight the number you want to change. If the distance travelled is not 100m. Use the Increase/Decrease buttons and enter the measured distance travelled.



Press the OK button



15. When completed and return to the Distance/Area screen.

16. You may see this screen.

Calibration Error !
Entered distance or
Wheel pulse count
Too Small(<2000)
Calibration Refused !
Press any Key

17. Press any key and the Controller will return to the operating screen.

Drill Configuration

Taege RC300L Controller ver2.52d

This is where the information for your drill is set up in the controller.

1. **PRESS & Hold** the **Cancel** button and at the same time press the **Cal** button, you will enter the drill configuration menu.



2. Use the **Up & Down Navigate** buttons to scroll thru the menu. (Windows shown below.)



3. Use the **Prime and Cal** buttons and the **Increase & Decrease** buttons
4. to make any adjustments.



5. Press **OK** Button the controller will turn off.





Press **Start** Button to return to the Operating screen.



6. When you have finished entering the settings for your drill, press the OK or Cancel button.



7.  or 
8. The controller will automatically turn off. The action rewrites the memory in the controller and erases previous settings.

**Drill Configuration
Menu Page 14**

Set to 1,2 or 3
This is the number of
hoppers on your drill.

DRILL CONFIGURATION
Number of Hoppers
(1 - 2)

Value: **1**

**Drill Configuration
Menu Page 6**
Hopper Width

This is the tyne spacing
times the number of
tynes.

DRILL CONFIGURATION
Hopper Width
Enter in millimetres
(300 - 9999mm)

Value: **3510**

**Drill Configuration
Menu Page 4**

Set during distance set
up.
This is the number of
pulses from the wheel
encoder during distance
calibration.

DRILL CONFIGURATION
Distance Pulses
(200000 -380000)

Value: **350000**

**Drill Configuration
Menu Page 5**

Set during distance set
up.
This is the distance
travelled during
distance calibration in
meters.

DRILL CONFIGURATION
Distance Length
(1 - 9999m)

Value: **100**

**Drill Configuration
Menu Page 7**

Usually set to 600.
This is the speed of the
metering system during
calibration.

DRILL CONFIGURATION
Sample RPM Fast
(1 - 1499)

Value: **900**

**Drill Configuration
Menu Page 10**

Usually Set to 200
This is the time the
motor runs during
calibration in .10 sec's

DRILL CONFIGURATION
Sample Minimum count
(1 - 9999) in 1/10sec

Value: **120**

**Drill Configuration
Menu Page 11**

Usually set to 10
This is the time you can
add or subtract from the
motor run time during
calibration.
(See Calibration Page for
special use of this function)

DRILL CONFIGURATION
Sample Increment
(1 - 9999) in 1/10sec

Value: **10**

**Drill Configuration
Menu Page 12**

Usually set to 900
This is the speed of the
metering system during
prime or run to empty
operation.

Dril Configuration
Hopper Run RPM
(1 - 1499)

Value: **900**

**Drill Configuration
Menu Page 13**

Usually Set to 100
This is the setting for
the length of the
warning beep

DRILL CONFIGURATION
Key Beep Length
(1 - 999ms)

Value: **100**

**Drill Configuration
Menu Page 15**

Usually set to 5

This is the number of crops that are available as presets for the front box. Up to 25 can be saved per hopper.

DRILL CONFIGURATION
Crops Hopper 1
(1 - 25)

Value: **5**

**Drill Configuration
Menu Page 16**

Usually set to 5

This is the number of crops that are available as presets for the back box. Up to 25 can be saved per hopper.

DRILL CONFIGURATION
Crops Hopper 2
(1 - 25)

Value: **5**

**Drill Configuration
Menu Page 16**

Usually set to 5

This is the number of crops that are available as presets for the back box. Up to 25 can be saved per hopper

Drill Configuration
Crops Hopper 3
(1 - 25)

Value: **25**

**Drill Configuration
Menu Page 17**

Usually set to 250m/s

This is the motor ramp speed. Can be adjusted in 2ms increments.

DRILL CONFIGURATION
Motor Ramp Time
(1 - 9999) * 2ms

Value: **250**

**Drill Configuration
Menu Page 18**

Usually set to 0

This is the RPM speed counter. Can be adjusted. Ask your TAEGE dealer

Drill Configuration
RPM Counter

(1 - 500)

Selecting Motors

Taege RC300L Controller ver2.52d M4 & M6 motors



Press & Hold the **Cancel** button

At the same time press the **Area/Reset** button and you will enter the MAINTENANCE screen.



Use the **Up & Down Navigate** buttons



to **Select Motors** press **OK** button

Select the correct motor.

Press OK



Select the correct motor. Press **OK**



Select the correct motor. Press **OK**



The controller will return to the operating screen.

(Select motors will always ask you to select 3x motors even though you may have selected only one hopper in the setup menu.)

DO NOT CHANGE THESE SETTINGS UNLESS THE MOTORS HAVE BEEN CHANGED

Motor 1
M4 PULSE
M4 ENCODER
M6 ENCODER
1-3 Please Select

Motor 2
M4 PULSE
M4 ENCODER
M6 ENCODER
1-3 Please Select

Motor 3
M4 PULSE
M4 ENCODER
M6 ENCODER
1-3 Please Select

Maintenance

Taege RC300L Controller ver2.52d

1. Press & Hold the **Cancel** button



2. At the same time press the **Area/Reset** button



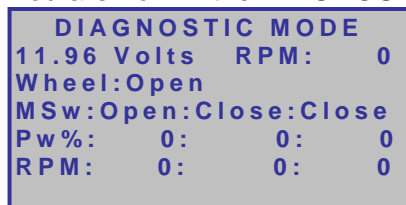
3. You will enter the MAINTENANCE screen, select Diagnostics



4. press **OK** button



5. You are now in the DIAGNOSTIC MODE and you will see the following screen.



6. Press **OK**



7. The controller will return to the operating screen

The **DIAGNOSTIC MODE** screen enables on board diagnosis of sensors, encoders and motors and assists with troubleshooting if your drill does not operate correctly. Your Taege Technician or Dealer will ask you to activate this screen, to troubleshoot in the field.

The **POWER STATUS** screen may also be requested.

Totals

Taege RC300L Controller ver2.52d

In the Operating window PRESS the OK button



You see a screen similar to the below, which is the totals window:

TOTALS	front-25
Crop: 25	EMPTY
Current:	0.000
:	0.000
:	0.000
:	0.000
Oldest :	0.000

This shows the Totals for the last 5 crop areas are stored.

The Ha totals are stored each time you reset the area for this hopper and this crop with the Area/reset button



Press the **OK** button



The controller will return to the operating screen.

The **TOTALS MODE** screen enables the operator to record the last 5 reset areas for each crop setting. The controller can retain $5 \times 25 = 125$ area totals for each hopper

Status Screens

Taege RC300L Controller ver2.52d

1. Press & Hold the **Cancel** button



2. At the same time press the **Power** button



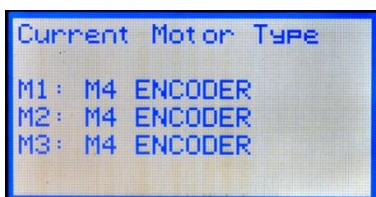
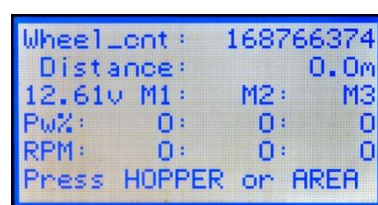
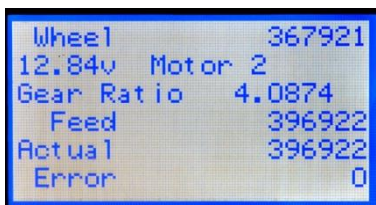
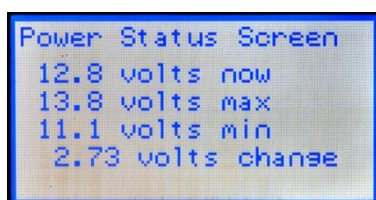
3. You will enter the Power Status Screen.

4. Use the **Up & Down** buttons to select the required screen



5. This operation can be used in either the **STOPPED** or **RUN** mode.

6. The selected screen will be inactive in the stopped mode and dynamic in the run mode.



RPM Counter for Air Seeder

Taege RC300L Controller ver2.52d

Configuration of RPM Counter – available on 3x hopper control only.

1. Press & Hold the **Cancel** button



2. At the same time press the **Cal** button



3. You will enter the Configuration Screen.

4. Use the **Up & Down** buttons



5. Select the last screen
6. Choose a number that represents twice the number of teeth on the pickup.
7. Using the secondary loom, choose the “Orange” wire to connect to the output of the RPM sensor.
8. The sensor +ve and -ve should be connected using the I/O board outputs.

Hopper RPM Speed Control

Taege RC300L Controller ver2.52d Available on ver2.52d control only.

This mode enables the operator to set the hopper motor to a constant speed. Used when an independent motor agitator is fitted or when the ground speed of the machine has been compromised.

1. Press the power button



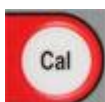
2. Press the **Hopper** button and move to the correct hopper



3. Press the **up/down** button to navigate to find that crop you wish to name



4. Press the **Cal** button and you will see the following screen



5.

Front CALIBRATION
Calibrate
Target Weight
Alt Rate Weight
Run to Empty
1-9 Please Select

6. Use the down button to highlight Name Crop



Name Crop

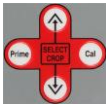
7. Press the **OK** button to see the following screen



8. Press the **Hopper** button to delete the present name



9. Use the **navigate** buttons to move the highlighted cursor over the letter you want to use



10. Press the **Run/Stop** button to add each letter to the name



11. When the name is complete press **OK** Button



12. This will save the name and the controller will return to the operating screen.

Name Crop

-RPM-

Then go to the rate and change this to the desired RPM.