



# **Taege RC300L Controller ver2.50**

## **Operators Manual**

- 1. Contents**
- 2. Quick Calibration**
- 3. Calibration Check**
- 4. Advanced Calibration**
- 5. Setting the Target Weight**
- 6. Setting the Alternate Weight**
- 7. Run to Empty**
- 8. Name Crop**
- 9. Edit Crop**
- 10. Name Hopper**
- 11. Calibrate Distance**
- 12. Drill Configuration 1**
- 13. Drill Configuration 2**
- 14. Selecting Motors**
- 15. Maintenance**
- 16. Totals**
- 17. Status Screens**

# QUICK CALIBRATION

## Taege RC300L Controller ver2.50

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. Press the **Up/Down**  
buttons to select the crop  
to calibrate (1-20)



4. Place the calibration tray under  
the sponges by moving the  
collector tray.

5. 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.

6. 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.



Front Calibrate  
Running Calibrate  
**11 s**  
+/- to adjust  
Cancel to abort

7. Weigh the seed collected using  
the scales provided.  
(Ensure they are set to grams.)



Front Calibrate  
Weight in GRAMS  
(1-999)  
Value :9999)  
**1250**

### 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.

8. Use the **Prime & Cal**  
Buttons to highlight the  
number, you want to change.  
(The cursor will move left  
& right)



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



10. Press the **O.K.** button



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



**0.000**ha XXXXXXXX  
Front 25.50kg  
**0.00kph**

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




**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.


# CALIBRATION CHECK

## Taege RC300L Controller ver2.50

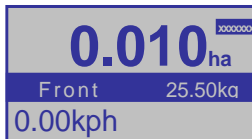
At any time you can test calibration setting by using the following method.

1. Press **Run/Stop**  to enter the **RUN** mode and 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 100<sup>th</sup> ha)



3. **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**



### 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.**

### 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

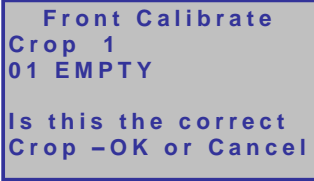


# ADVANCED CALIBRATION


## Taege RC300L Controller ver2.50

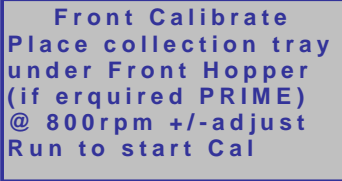
This feature is available for each and every crop setting. Your Taege technician or Taege Dealer will instruct you about this feature during the introduction to your drill. This feature enhances the calibration of grasses and small seeds and enables the operator to better match the real time sponge roller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

7. 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

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



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

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.




When the calibration is saved the sample motor speed is saved. The standard calibration speed is 600rpm.

# Setting the Target Weight Taege RC300L Controller ver2.50


The Target weight can set and changed at any time.

Press the **Cal** button





Using the navigate buttons scroll to **Target Weight**


Press the **OK** button





You will see this screen. Using the Prime/Cal buttons



and the +/- buttons



put in the Target Weight in Grams.  
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 Taeye RC300L Controller ver2.50

Press the **Cal** button




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


Press the **OK** button




You will see this screen.  
Using the Prime/Cal buttons



And the +/- buttons



Put in the Alternate Weight in Grams.  
Press the **OK** button.




The Alternate Weight can be preset 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 ver2.50

Press the **Cal** button




Then use the navigate




buttons and scroll to

**Run to Empty**

Press the **OK** button



You will see this screen.  
Use the RUN/STOP button



to start and stop the selected hopper  
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 ver2.50

Twenty-five crop settings are available for each hopper (see **Drill Configuration**). Every time you calibrate the drill, the settings are automatically saved for that hopper and for the crop number you have 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 period of 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.** Press here  to turn on the unit.


**2.** Press the **Hopper** button  And go to the correct hopper.

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

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

```


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

**5.** Use the down navigate button  to highlight **Name Crop**

```

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





**6.** Press the **OK** button  And you will see the following 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
    
```

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

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

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

When the name is complete press **OK** Button  This will save the name and the controller will return to the operating screen.

**NAME HOPPER**  
Uses the same method but in the "Name Hopper" menu



# Edit Crop

## Taege RC300L Controller ver2.50

1. Press here  to turn on the controller.

2. Press the **Hopper** button



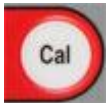
and select the correct hopper.

3. Press the **up/down** navigate



buttons to find the crop you want to edit.

4. Press the **Cal** button



and you will see the following screen.

```

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


5. Use the down navigate



Button and highlight

```

Front CALIBRATION
Edit Crop
Name Hopper
Live Calibration
Display Version
6-9 Please Select
    
```


Press the **"OK"** button  and you will see the following screen

```

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

Enter the target weight in grams.




Press the "Down" button  and you will see the following screen.

```

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


Enter the alternate weight in grams

Press the "Down" button  and you will see the following screen.

```

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

Enter the sample weight in grams


Press the "Down" button  and you will see the following screen.

```

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

Enter the Sample Pulses.


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

Press the **"OK"** button  and return to the operating screen.

# Name Hopper

## Taege RC300L Controller ver2.50

Name Hopper is available for each hopper (see **Drill Configuration**).

1. Press here  to turn on the controller.

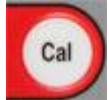
2. Press the **Hopper** button



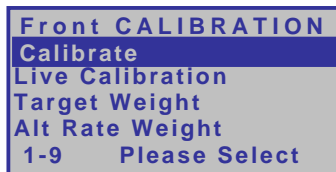
and go to the correct hopper.

3. Press the **Hopper** button to navigate to the correct hopper you wish to name.

4. Press the **Cal** button



and you will see the following screen.

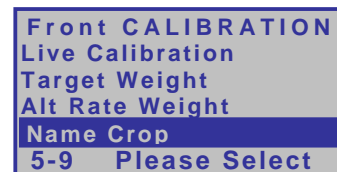


5. Use the down navigate



Button to highlight

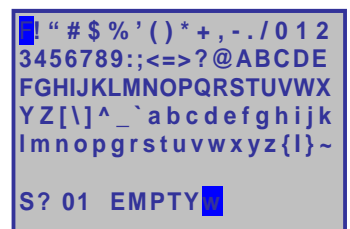
Name Crop



6. Press the **OK** button



You will see the following screen.

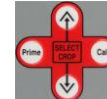


7. Press the **Hopper** button



several times to delete the current name.

Use the **navigate** buttons



to move the highlight over the letter you want to use then press the **Run/Stop** button



Add each letter to the name.

When the name is complete



press **OK** Button

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. **Cal** button



You will see the following screen.

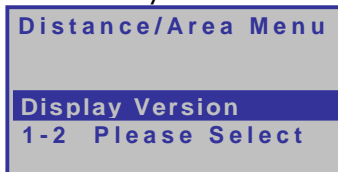


Press **OK** button

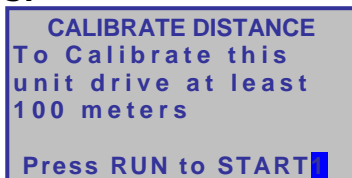


Go to **5**.

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



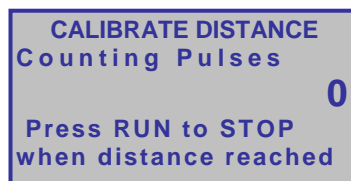
5.



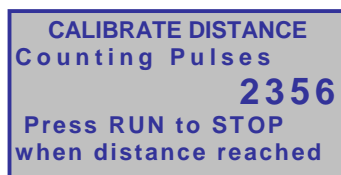
6. Press the **RUN/STOP** button



You will see this screen.



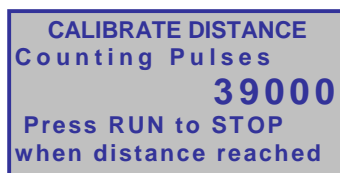
7. Drive your measured distance and the wheel count will increase until you stop.



8. When you stop press the



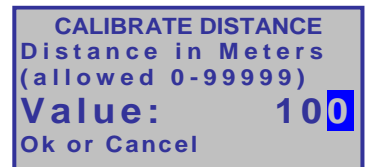
**Run/STOP** button.



9. Enter your measured distance (usually 100m) then



press the **OK** button.



10. 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

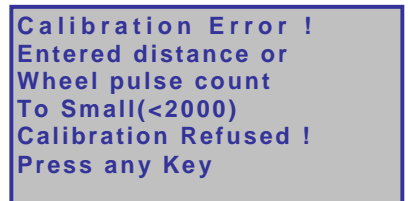


and enter the measured distance travelled. Press the **OK** button



When completed and return to the Distance/Area screen.

You may see this screen.






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

# DRILL CONFIGURATION


## Taege RC300L Controller ver2.50

This is where the information for your drill is setup in the controller


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

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

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

Press **O.K.** Button  the controller will turn off.



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

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



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.

Drill 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 ver2.50 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 ver2.50

Press & Hold the **Cancel** button



At the same time press the



**Area/Reset** button you will enter the MAINTENANCE screen.

**Diagnostics**

press **OK** button



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

```
DIAGNOSTIC MODE
11.96 Volts  RPM:  0
Wheel:Open
MSw:Open:Close:Close
Pw%:  0:  0:  0
RPM:  0:  0:  0
```



**OK**

The controller will return to the operating screen.



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

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

**Dealer**

# TOTALS

## Taege RC300L Controller ver2.50

In the Operating window PRESS



the OK button

You see a window similar to this

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

This is the TOTALS window

Totals for the last 5 crop areas are stored here.

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



And 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 SCREEN

## Taege RC300L Controller V2.50

Press & Hold the **Cancel** button



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



You will enter the Power Status Screen.

Use the **Up & Down** buttons



To select the required screen

This operation can be used in either the **STOPPED** or **RUN** mode. The selected screen will be inactive in the stopped mode and dynamic in the run mode.

```
Power Problem
10.24 Volts Supply 12.53V
Check Plus & Battery
Press OK or Cancel
```

```
Power Status Screen
12.8 volts now
13.8 volts max
11.1 volts min
2.73 volts change
```

```
Wheel 367921
12.83v Motor 1
Gear Ratio 2.8424
Feed 273538
Actual 273538
Error 0
```

```
Wheel 367921
12.84v Motor 2
Gear Ratio 4.0874
Feed 396922
Actual 396922
Error 0
```

```
Wheel 367921
12.85v Motor 3
Gear Ratio 0.0000
Feed 0
Actual 0
Error 0
```

```
Wheel_cnt: 168766374
Distance: 0.0m
12.61v M1: M2: M3
Pw%: 0: 0: 0
RPM: 0: 0: 0
Press HOPPER or AREA
```

```
Current Motor Type
M1: M4 ENCODER
M2: M4 ENCODER
M3: M4 ENCODER
```