Taege RC300 controller ver2.40

Operators Manual

QUICKSTART CALIBRATION
Taege RC300 controller ver2.40

1. Press the On/Off button.

turns the controller on.

2. Press the Hopper button to choose the correct hopper

(Front, Back or Insect)

3. Press the Up/Down buttons

To select the correct crop to calibrate (1-25)

4. Press the +/- button

to increase/decrease the target seeding rate.

5. Place the calibration tray under the sponges by moving the collector tray.
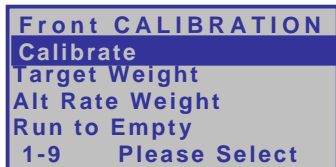Press the Prime button

This primes the metering system. The dispay shows the hopper being primed.
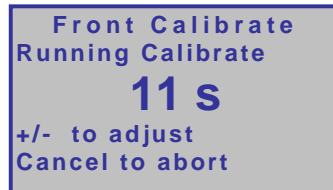Empty the calibration tray and reposition under sponges.

6. Press the **Cal** button

you will see the following screen.

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

7. Press the **Cal** button 3x times

And you will see the following screen.

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

(Every time you press the **Increase/decrease** button

One second will be added or subtracted for each press of the button so more/less seed is collected
The numbers count down to 0 (zero) and the motor will stop.

8. Weigh the seed collected using the scales provided (grams.)
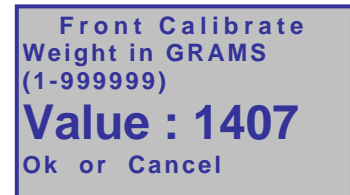
9. Use the **Prime** & **Cal** buttons

To high light the number you want to change

10. Use the increase or

decrease buttons
and enter the weight.

```
Front Calibrate
Weight in GRAMS
(1-999999)
Value : 1407
Ok or Cancel
```

Press **O.K.** button and then the **Cancel** button

To return to the operating screen

11. Press Run/Stop

and you will see the following screen.

```
0.000ha          xxxxxxx
Front        25.50kg
0.00kph
```

You are ready to go.

As you move, the **CURSOR** will move up & down on the screen this tells you the drill is operating and the **kph** will be displayed.

CALIBRATION
Taege RC300 controller ver2.40

1. Press the ON/Off button.

This turns the controller on.

2. Press the Hopper button to choose the correct hopper

(Front, Back or Insect)

3. Press the UP/Down buttons

select the correct crop to calibrate (1-25)

4. Press +/- buttons to increase/decrease the target seeding rate.

5. Place the calibration tray under the sponges by moving the collector tray
Press and hold the Prime

button this primes the metering system. The screen shows the hopper being primed.
Empty the calibration tray and reposition under sponges

6. Press the Cal button you will see the following screen

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

7. Press the Cal button again and you will see the following screen (advanced calibration go to next page)

```
Front Calibrate
Crop  1
01 EMPTY

Is this the correct
Crop –OK or Cancel
```
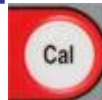
8. Press the Cal button again and you will see the following screen

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

9. Press the Cal button again

and you will see the following screen

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

Every time you press the Increase/decrease buttons

while this number is counting down **1 second** will be **added/subtracted** from the count so that **more/less** seed is collected. The numbers will count down to 0 and the motor will stop. You will see the following screen

```
Front Calibrate
Weifgt in GRAMS
(1-999999)
Value          0
Ok or Cancel
```

10. Weigh the seed collected using the scales provided (grams.)

11. Use the **Prime** & **Cal**

buttons and highlight the number you want to change.

12. Use the increase or

decrease buttons and enter the weight.

```
Front Calibrate
Weight in GRAMS
(1-999999)
Value : 1407
Ok or Cancel
```

Press **O.K.** button and then the **Cancel** button

To return to the operating screen.
(Calibration invalid) see TROUBLESHOOTING

13. Press Run/Stop and you will see the operating screen

```
0.000ha          xxxxxxx
Front            25.50kg
0.00kph
```

You are ready to go.

As you move the **CURSOR** will move up & down on the screen this tells you that the drill is operating and **kph** will be displayed.

ADVANCED CALIBRATION
Taege RC300 controller ver2.40

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 erquired 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. TOO CHECK THE SPONGE ROLLER SPEED PRESS THE PRIME BUTTON.
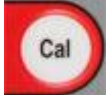
When the calibration is saved the sample motor speed is saved. The standard calibration speed is 900rpm.

4

Setting the Target Weight
Taege RC300 Controller ver2.40

The Target weight can set and changed at any time.
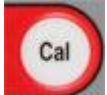
Press the **Cal** button

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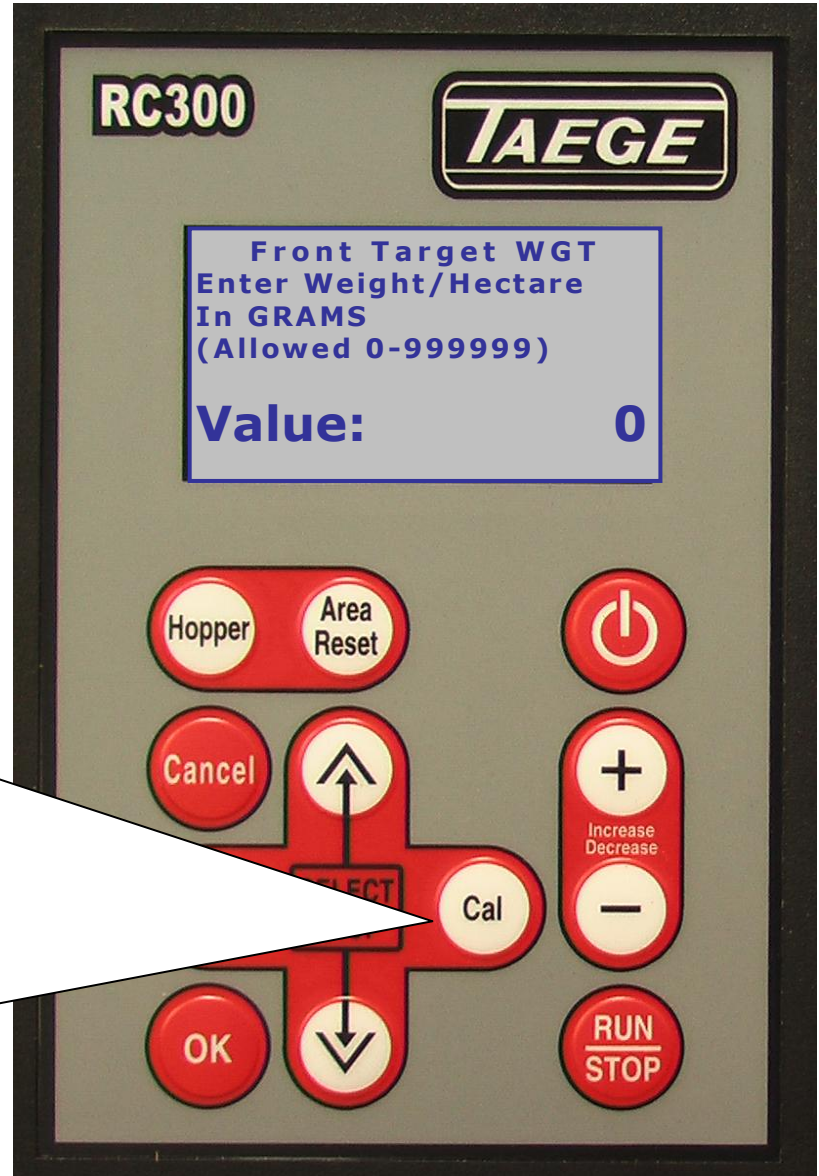**Target Weight**

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.

RC300 **TAEGE**

Front Target WGT
Enter Weight/Hectare
In GRAMS
(Allowed 0-999999)

Value: 0

Hopper   Area Reset

Cancel   Cal   Increase Decrease +/−

OK   RUN STOP

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 RC300 Controller ver2.40

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.

RC300 **TAEGE**

Front Alt Weight
Enter Weight/Hectare
In GRAMS
(allowed 0-999999)

Value:

Hopper   Area Reset

Cancel

Prime   SELECT CROP   Cal

OK

Increase Decrease + −

RUN STOP

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

Run to Empty
Taege RC300 Controller ver2.40

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.

RC300

TAEGE

Front RUNOUT
Press
RUN/STOP to Toggle
    Or Cancel

The **Run to Empty** function is used to assist the cleanout of the hopper between different 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). It is recommended that a small brush is used for final cleaning.

Name Crop
Taege RC300 Controller ver2.40

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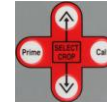
6. Press the **OK** button And you will see the following screen.

```
!"#$%'()*+,-./012
3456789:;<=>?@ABCDE
FGHIJKLMNOPQRSTUVWX
YZ[\]^_`abcdefghijk
lmnopqrstuvwxyz{l}~

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 and then the Cancel 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 RC300 Controller ver2.40

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 then the "Cancel" button to return to the operating screen.

Name Hopper
Taege RC300 Controller ver2.40

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

1. Press here to turn on the unit.

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.

```
Front CALIBRATION
Calibrate
Live Calibration
Target Weight
Alt Rate Weight
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.

```
!"#$%'()*+,-./012
3456789:;<=>?@ABCDE
FGHIJKLMNOPQRSTUVWX
YZ[\]^_`abcdefghijk
lmnopqrstuvwxyz{l}~

S? 01  EMPTYW
```

7. Pree the **Hopper** button to delete the current 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 and then the **Cancel** 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

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.

> **Reset
> Area in
> 3>2>1**

3. Cal button

You will see the following screen.

> **Distance/Area Menu**
> **Calibrate Distance**
> **Display Version**
>
> **1-2 Please Select**

Press **OK** button

Go to **5.**

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

> **Distance/Area Menu**
>
> **Display Version**
> **1-2 Please Select**

5.

> **CALIBRATE DISTANCE**
> **To Calibrate this unit drive at least 100 meters**
>
> **Press RUN to START**

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

You will see this screen.

> **CALIBRATE DISTANCE**
> **Counting Pulses**
> **0**
> **Press RUN to STOP**
> **when distance reached**

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

> **CALIBRATE DISTANCE**
> **Counting Pulses**
> **2356**
> **Press RUN to STOP**
> **when distance reached**

8. When you stop press the

Run/STOP button.

> **CALIBRATE DISTANCE**
> **Counting Pulses**
> **39000**
> **Press RUN to STOP**
> **when distance reached**

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

press the **OK** button.

> **CALIBRATE DISTANCE**
> **Distance in Meters**
> **(allowed 0-99999)**
> **Value: 100**
> **Ok or Cancel**

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**/D**ecrease**

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.

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

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

DRILL CONFIGURATION
Taege RC300 Controller ver 2.40
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.

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

or

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 3**
*Usually set to 1000
This is the number of
pulses produced by one
revolution of the wheel.*

DRILL CONFIGURATION
Wheel Pulses
(1 – 9999)

Value: 1000

**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 900.
This is the speed of the
metering system during
calibration.*

DRILL CONFIGURATION
Sample RPM Fast
(1 – 1499)

Value: 900

**Drill Configuration
Menu Page 8**
*Usually set to 200
This is the speed of the
metering system slow
down at end of
calibration..*

DRILL CONFIGURATION
Sample RPM Slow
(1 – 1499)

Value: 200

**Drill Configuration
Menu Page 9**
*Usually Set to 10
This is the point at
which the metering
system slows down
during calibration.*

DRILL CONFIGURATION
Sample Decelerate
(1 – 9999) in 1/10sec

Value: 10

**Drill Configuration
Menu Page 10**
*Usually Set to 120
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 1200
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*

Dril 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

SELECTING MOTORS

Taege RC300 Controller V2.40 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 operaing 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

```
MAINTENANCE
Diagnostics
Factory Reset
Totals Reset
Select Motors
1-5    Please Select
```

```
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 RC300 Controller ver2.40

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 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.

```
RC300                    TAEGE

      MAINTENANCE
Diagnostics
Factory Reset
Totals Reset
Select Motors
 1-4    Please Select
```

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.

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Dealer

Phone

TOTALS

Taege RC300 Controller ver2.40

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 5x25=125 area totals for each hopper