Chick Scale 205-A /850-A

Installation and User's Manual

Program changes

Date	Version #	Change
Nov.2005	6.4	Expected weight table added
Dec.2005	6.5	Expected weight table increased to 3 tables
May 2008	7.1	Change weight format from kilos to pounds in net name
Jan 2010	7.2	Update User's Manual
April 2013	7.4	Update User's Manual

This manual may contain mistakes and printing errors.
This controller contains default parameters.
These are only default parameters and must be adjusted to fit your needs.
We accept no liability for technical mistakes, printing errors, or their consequences.

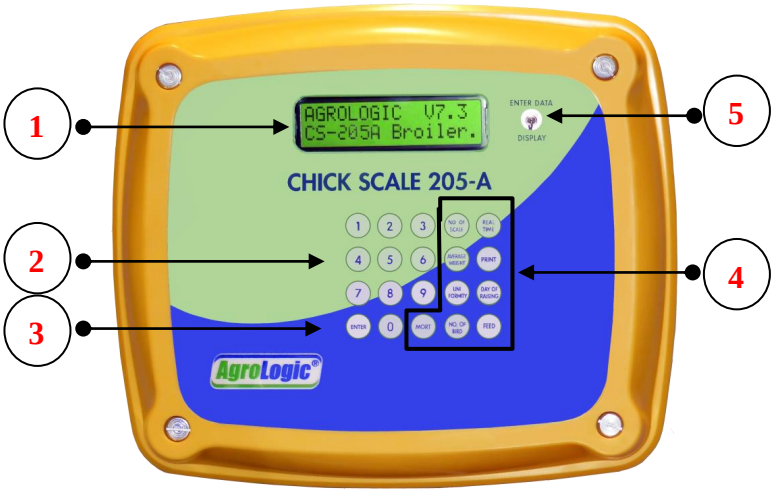
Introduction:

The **CHICK SCALE 205-A / 850A** is an electronic weighing system for live poultry.
CS205: connect up to 2 weighing platforms.
CS850: connect up to 8 weighing platforms.

The main unit is the heart of the system. All data input and output are done through the main unit.
The main unit is connected to each platform with a normal 3-wire cable up to 800 meter / 2500 feet long.

The **CHICK SCALE 205/850** will display the number of birds weighed, average weight, histograms, standard deviation and CV for each platform.
The unit can be connected to a central computer for central viewing of all information.

Front Panel



1. Main display screen.
2. Numerical keyboard.
3. Enter key: used to store parameters into memory.
4. Shortcut keys: used as shortcuts to parameter and programing screens.
5. Display Selector: used to enter the programming mode.

Main Screen

AGROLOGIC V7.4
CS-850A Broiler

When first powering up the unit, the AgroLogic logo, program version number and current weighing program will be displayed on the screen. To return to the Main screen from another screen, press once on the **ENTER** key.

Recalling Information

To recall information, set the Program selector to the **Display** position. Use any of the nine shortcut keys to bring up parameters.

Quick Setup Table

Step	Key	Sector position	Parameter
Define bird program	RealTime	Enter data	Enter as time 9998 then enter then chose program type. Enter 1 for broilers, 2 for pullets and 3 for breeders.
Set time.	Real time	Enter data	Enter current time
Select weight format	Real time	Enter data	Enter as time 9999 then enter. Enter Net name as 101 for Kg / 102 for pounds
Select platform	No Of Scale	Display	Chose which platform to setup
Grow day	Day Of Raising	Enter data	Enter current grow day
Number of Birds	No Of Birds	Enter data	Enter number of housed birds
Expected weight	Average Weight	Enter data	Enter expected weight for one bird
Zero calibration	No Of Scale	Display	Chose plate, move selector to **Enter data**, Press again of No Of Scale key. Enter 0 as plate number to start zero calibration.
Full weight calibration	No Of Scale	Display	Chose plate, move selector to **Enter data**, place 1 kg on platform. Press again of No Of Scale key. Enter 9 as plate number to start weight calibration.

Shortcut key description

1. Enter key 

Use the **Enter** key to store values to the unit's internal memory after making changes.

- The control unit comes with a built in battery for back up of all values in the event of a power failure.

2. No Of Scale key 

When the **Display selector** is in the **Display** position, use this key to choose one of the platforms.

- Press on the **No Of Scale** key, **Select Scale** will appear.

Select Scale:

- Use the numerical keyboard to select the desired platform. On the display will appear, the current bird weight on the platform, platform number chosen and how many birds have been weighted over the last 24 hours, (see Reset Time on page 11).

Weight: 0.100 #1 ← Platform
Birds: 5

2.1 Zero / Full Calibration

When the **Display selector** is in the **Enter Data** position, use the **No Of Scale** key to make platform Zero and Full calibration (see pages 17 & 18).

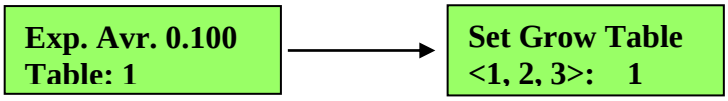
3. Average Weight key 

3.1 Expected Average Weight

When the **Display selector** is in the **Display** position, pressing on this key will bring up the average weight and how many bird weights have been used to calculate this average weight.

3.2 Expected Average Weight Grow Tables

When the **Display selector** is in the **Enter Data** setting, pressing on the **Average Weight** key will bring up the **Expected Average Weight.** Enter the new expected average weight then press enter. The Set Grow Table will appear.



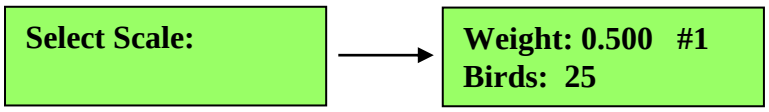
Enter which table you would like to use, and then press **Enter**.

Different tables can be used for different platforms.

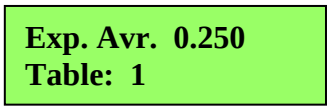
3.3 Expected Average Weight Table

To enter and program a table, do as follows;

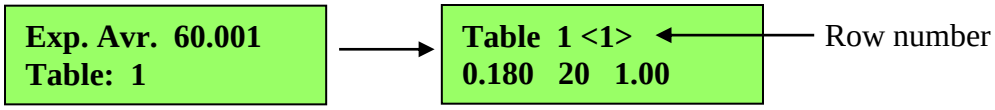
Set the **Display selector** to the **Display** position.
Press on the **No of scale** key, then on the desired platform number.



Set the **Display selector** to the **"Enter Data"** position.
Press on the **Average weight** key.



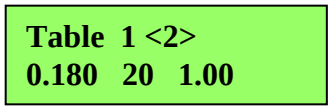
To enter **Table 1**, enter **60001** as the **Exp Avr** and then press **Enter** to store.



You have now entered Table 1, row 1.
The second line displays three values. The first value is the **Until weight**, second value is the **Daily weight increase** and the third value is the **Factor**.

- Enter the new **Until weight** then press **Enter**.
- Enter the new **Daily weight increase** then press on **Enter**.
- Enter the new **Factor** then press on **Enter**.

Table 1, row 2 will appear. Continue to program rows 2-5 in the same way.



To enter **Table 2**, enter **60002** as the **"Exp Avr"** weight. Program table 2 the same way you programmed table 1.

To enter **Table 3**, enter **60003** as the **"Exp Avr"** weight. Program table 3 the same way you programmed tables 1 & 2.

Be sure to program all 5 rows.

Default parameters for Expected Weight talbes.

To reset the tables to factory default parameters, enter 55555 as the Expected weight.

For more information on the Expected Average Weight Tables see page 14.

4. Uniformity key 

When the **Display selector** is in the **Display** position, press on this key to see the current calculated **CV** and **STD** deviation.

CV: 59% #1
STD Dev: 0.750

Platform

- The CV is displayed in percent.
- The STD deviation is displayed in grams / ounces .
- Each additional press on the **Uniformity** key will scroll through the uniformity table with steps of 25 gram / 0.88 ounces. The uniformity table is proximity 500 grams / 17.5 ounces around the average weight. Also displayed is the number of birds in each weight range.

Birds: 4 #1
1.050 – 1.099

Platform

4.1 Clear Data From Memory

When the **Display selector** is in the **Enter Data** position, this key is used to clear all stored data from the controller's memory. You must clear each platform individually.

Press Enter
To Clear!

5. Number Of Birds key 

When the **Display selector** is in the **Display** position, press on this key display number of birds housed for current platform.

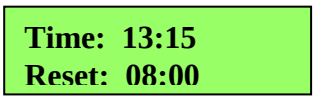
When the **Display selector** is in the **Enter Data** position, this key is used to enter the number of chickens housed for current platform.

5.1 Set Number Of Birds

Enter here the current amount of housed chickens using the numerical key board then press on the **ENTER** key to store into memory.

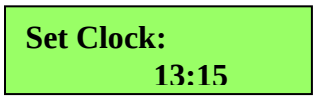
6. Real Time key 

When the **Display selector** is in the **Display Data** position, this key is used to display the current time and Reset Time (see Print / Reset Time below).



6.1 Set Clock

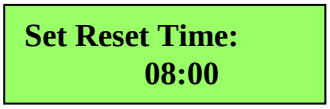
When the **Display selector** is in the **Enter Data** position, this key is used to program the current time of day. The time format is a “military” format (24 hour clock).



Enter the current time of day. Press on the **ENTER** key to store into memory.

7. Print key / Reset Time 

When the **Display selector** is in the **Enter Data** position, this key is used to set the **Reset Time**.



The **Chick Scale** works in 24 hour cycles. Every 24 hours, the unit will reset all daily information and increase the grow day by one. This time is called **Reset Time**.
At **Reset Time** the unit will clear its daily memory and start collecting information over the next 24 hours. The current average weight at **Reset Time** is used as the expected average weight for the following grow day.

Enter the Reset Time, then press on the **ENTER** key to store into memory.

 Reset time is common for all platforms

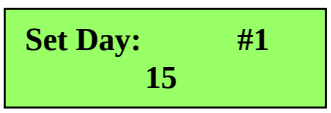
8. Day Of Raising key 

When the **Display selector** is in the **Display Data** position, this key is used to display grow day, average weight and number of birds weights used to calculate the average weight.
The information displayed is for the current chosen platform. Using the **Day Of Raising** key you can scroll through previous grow days to recall average weights.

Each additional press on the **"Day Of Raising"** key will scroll to the previous day and display the average weight for that day. The Chick Scale unit stores information for up to 100 day for each platform.

8.1 Scroll Average Weights / History

When the **Display selector** is in the **Enter Data** position, this key is used to set the current **Grow Day.** Each platform can have a different grow day.



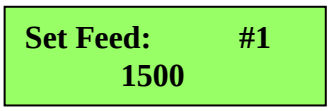
Enter the new grow day, then press on the **ENTER** key to store into memory.

9. Feed key 

When the **Display selector** is in the **Display Data** position, this key is used to display total feed consumption and calculated feed conversion.

9.1 Set Feed Consumption

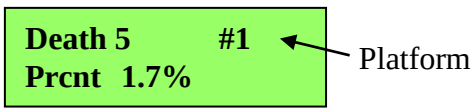
When the **Display selector** is in the **Enter Data** position, this key is used to enter the daily feed consumption.



Enter here the feed consumption then press on the **ENTER** key to store into memory.

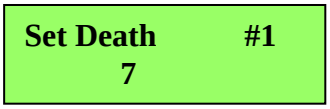
10. Mortality key 

When the **Display selector** is in the **Display Data** position, this key is used to display total mortality and calculated mortality in percentage for the platform.



10.1 Set Death

When the **Display selector** is in the **Enter Data** position, this key is used to enter the daily mortality.



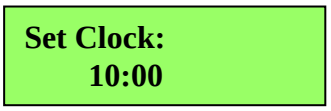
The total mortality is updated each day at Reset Time.

Weight Format

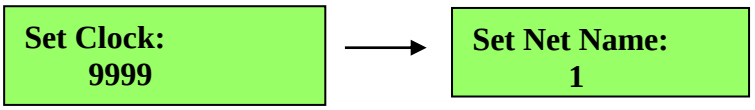
From program version 7.1 (May, 2008), it is possible to set the control unit to work in either Kilogram or Pound format.

Set the **Display selector** to the **Enter Data** position.

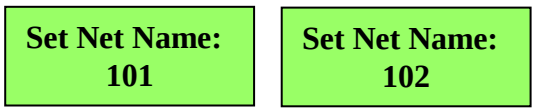
Press on the **Real time** key, **Set clock** will appear.



Enter as the time **9999** then press on the **Enter** key. **Set Net Name** will appear.



To use the **Kilogram** format, enter **101** as the Net Name. Press on the **ENTER** key to store.
To use the **Pound** format, enter **102** as the Net Name. Press on the **ENTER** key to store.



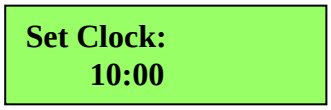
When finished, return the **Display selector** to the **Display** position.

Change Program Type

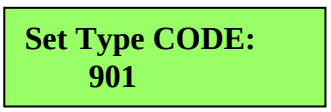
There are for built in weighing programs in the **Chick Scale** unit:
901 – Broiler.
902 - Pullets (broiler breeder, 0-22 weeks). Does not contain cutoff percent and start stop weighing times as found in the heavy breeder 903 program.
903 - Heavy breeders (22 weeks and up).
904 – Turkey (not supported at present).

Set the **Display selector** to the **Enter Data** position.

Press on the **"Real Time"** key.



Enter in the time slot "**9998"** and press **Enter. Set Type Code** will appear.



Press **1** for broilers, **2** for pullets & **3** for breeder.
Push **"Enter"** to store the information.
Note: For accurate results you must set the program for the type of birds you are growing.

Expected Average Weight Table.

- Version 6.4 contains only one daily expected weight table.
- Version 6.5 and up contain three daily expected weight tables.

The version number is displayed on the ChickScale display when the system is powered up.

The **ChickScale** unit has 3 weight increase tables (version 6.5 and higher) that help the **ChickScale** calculate the average weight. The user can program each table with different parameters. Each platform can be assigned a different table. By entering the proper weight range and daily weight increase the **ChickScale** will be able to give a very accurate picture of the current average bird weight in the house.
These tables are used to compensate for the different growing rates for the different strains of birds.
Note: To correctly set the table parameters it is important to know the expected weight increase of your particular strain of birds. A weight increase chart may be obtained from your integrator.

How the table works.

The table contains 5 rows; each row contains three values that must be entered by the user.

Until Weight (Kg)	Daily Weight Increase(Kg)	Multiplier
0.160	0.018	1.0
0.308	0.030	1.0
0.534	0.045	1.0
1.015	0.060	1.0
2.200	0.080	1.0

Until Weight Column:
The values entered here are the end of the weight range and are in Kg's.
For example: In the first row the value 0.160 was entered. It means that the rest of the values in this row correspond to a weight range of 0 Grams to 160 Grams.
In the second row the value is 0.308. It means that the rest of the values in this row correspond to a weight range of 161 Grams to 308 Grams. The remaining rows work in the same way.

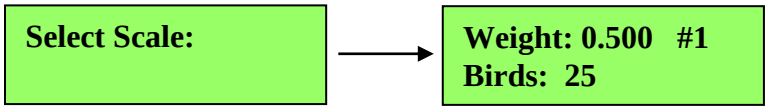
Daily Weight Increase Column
The daily weight increase in Kg's for each weight range is entered here. The Daily Weight Increase is the amount that is added to the average weight at reset time and the result then becomes the new **expected** average weight.

Multiplier Column:
To compensate for the fact that small birds are being weighed more than bigger birds the values in this column are used to correct the displayed average weight. The correction is done at reset time. The calculated **average** weight time is multiplied by this value and the result becomes the new average weight shown on the main display.

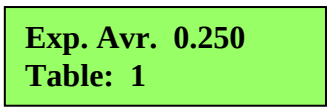
Setup tables per platform

Chose which table is to be used for each platform.

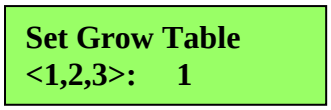
Set the **Display selector** to the **Display** position.
Press on the **No of scale** key, then on the desired platform number.



Set the **Display selector** to the **"Enter Data"** position. Press on the **Average weight** key.



Enter as expected weight 6001 and then press enter.



Chose which table you want to use for the platform.

Mortality

There are several ways to add mortality.
1.0 Enter once a day or make changes during the day.
1.1 To enter once a day, use the **Mort** key (see Mortality key on page 12).
1.2 To make changes in the daily mortality, first you have to erase the previously entered mortality. Press on the **Mort** key. Move the **Display selector** to **Enter Data.** Enter 1 then 0 until the mortality reading is 0. Now enter the new mortality and press on **Enter** to store.

2.0 **ADD** mortality throughout the day.
Enter your mortality using the **Mort** key. If during the day you want to **ADD** on to the previous mortality, follow the same steps. In this case the value **0** acts like a + sign.
Example: in the morning you had 10 dead birds. Place the **Display selector** in the **Enter Data** position. Press on the **Mort** key and enter 10 as mortality. Press **Enter** to store.
Later in the day you collected 5 more dead birds and want to add this to the previous 10. Place the **Display selector** in the **Enter Data** position press on the **Mort** key. Press on 0 then enter the new mortality. Press on **Enter** to store. You will now have 15 as the current daily mortality.

Net Name

It is possible to hook up the unit to a central computer using the included P.C. program Each ChickScale control unit needs to have an individual name, called "**Net Name**" to be recognized by the P.C program.

Move the Display selector to the **Enter Data** position. Press on the **Real Time** key.

Set Clock:
08:25

Enter as the new time 9999, then press on **Enter** to store.

Set Net Name:
1

Enter the controller's Net name. Press on **Enter** to store.

Zero And Full Calibration Of Platforms

The platforms must be calibrated in order for them to operate properly.
The unit should be connected to the main power supply for at least 15 minutes before calibration is started.

★ Please do not use mobile phones near the platform during calibration.

Zero calibration - Tare

First you must Tare the platform.

Be sure that there is nothing on the platform.

Move the Display selector to the **Enter Data** position. Press on the **No Of Scale** key.

Select Scale:

Enter 0 as platform number. The zero calibration will start.

Zero Calibration **Wait…..**

When the Zero calibration is finished, press on **Enter** to store to memory.

Press Enter **To Store**

The platform has now been zero calibrated.

.

Full weight calibration per platform

Before birds can be weighed, the Chick Scale must “learn” to weigh.
You will need a 1kg / 2lb weight for this.

★ The accuracy of the system depends on the accuracy of the weight used for calibration.

Place a 1kg / 2lb weight on the platform.

Move the Display selector to the **Enter Data** position. Press on the **No Of Scale** key.

Select Scale:

Enter 9 as platform number. The weight calibration will start.

1kg Calibration **Wait….**

When the weight calibration is finished, press on **Enter** to store to memory.

Press Enter **To Store**

The platform has now been calibrated according to a known weight.

Breeder 903 Program

Start and End Times

In the breeder and pullet programs you can setup a time period for the weighing and calculating of the average weight. Its best not want to weigh the birds after feeding as this affects the average weight.

Set Start and End Times

Move the Display selector to the **Enter Data** position. Press on the **Print** key.
Enter the Start and end times for the weighing process. Press on **Enter** to store.

Reset At: 16:00
End At: 08:00

Reset time is the **start** time for the weighing process.
End time is the **end** time for the weighing process.

The **Chick Scale** will not take any birds into its average calculation between the Reset and End times.

The times are common to all platforms.

Cut Off

In the breeder house you have both male and female birds flocked together. To receive a correct average weight for the female birds, you must set an upper weight limit for the female birds. The **Cut off** is a percentage set above the female average weight. Any bird weighed above this percentage will be considered to be a male bird.
Example:
Female average weight = 2.000 kg.
Cut off = 30%
Any bird that weights more than 2.600 kg will be considered a male bird.
Since the weight difference of the female and male birds changes according to age, it is important to adjust the **Cut Off** percentage accordingly.

Set the Cut Off

Move the Display selector to the **Enter Data** position. Press on the **Uniformity** key.

Enter To Clear, **Again – Hi Cut.**

To exit this screen, press on **Enter**.
To enter a new **Cut off** percent, press again on the **Uniformity** key.

High Cut (%) #1 **30**

Enter the new **Cut off** percent then press Enter to store.

Platform Error

If **Platform error** appears on the display. Check the following;

- ✓ Platform is not connected to the main unit. Check the connection.
- ✓ Platform is out of order. Try replacing the platform with a working platform.
- ✓ If after connecting a working platform, you still receive the **"Platform error"** message, check the following:
  - Check to see that the fuse on the main board is not blown out. If the fuse is blow out, one of the platform cables may be causing a short.
  - Check all cable connections including the cable running to main unit.

Maintenance

The **Chick Scale** has a 10-year's battery backup for its memory.

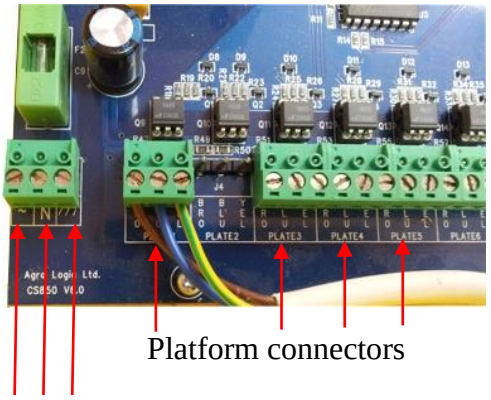
Do not clean the platform during growing period. The unit will zero its platform automatically.

End of batch platform cleaning;
The platform can be cleaned with hot water and soap.

Installation:

- Connect the Main control unit to the wall in a dry place.
- Place the weighing platforms in the poultry house.
- Open the front panel.

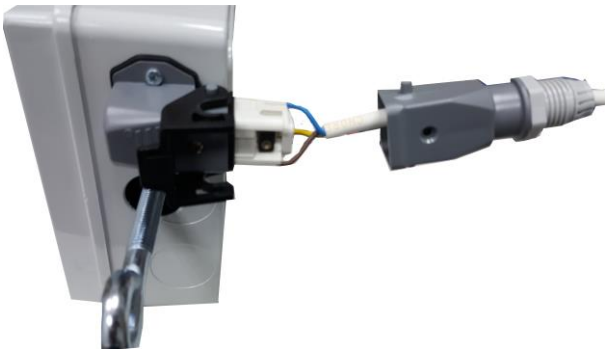
  For easy installation the green connections can be removed from the board. Carefully pull up to remove.
  - Run a 3 wire cable from each platform to the main unit.
  - Connect Platform 1 to the Platform 1 connectors. Brown wire to Brown input, Blue wire to Blue input and Yellow wire to Yellow input.
- Connect the 220VAC power supply to the power supply connector.
- Close the front panel.



HG20 Hanging Platform

Run a 3 cable wire from the CS205/850 main unit to the HG20 hanging platform plug.

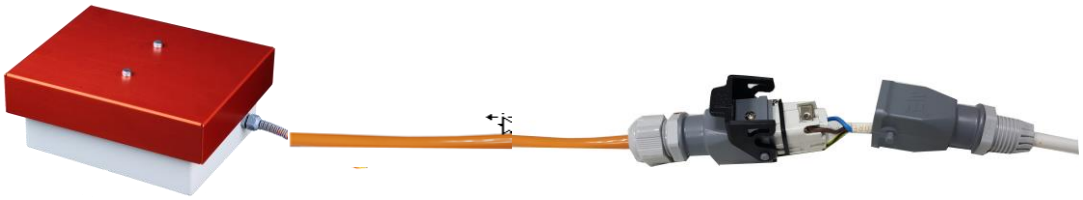
CS205/805	HG20 Plug Pins
Brown	1
Yellow	2
Blue	3



PP20 Floor Standing Platform

Run a 3 cable wire from the CS205/850 main unit to the PP20 floor standing platform plug.

CS205/805	PP20 Plug Pins
Brown	1
Yellow	2
Blue	3



PC Communications

Main unit AG Box USBAG Box