CHICK SCALE 205-A/850-A

Installation and User's Manual

Date	Version #	Change
Nov.2005	6.4	1 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

INTRODUCTION:

The **CHICK SCALE 205-A / 850A** is an electronic weighing system for live poultry.
CS205: connect up to 2 weighing plates.
CS850: connect up to 8 weighing plates.
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 plate with a normal 3-wire cable up to 800 meter long.

The **CHICK SCALE 205/850** will display the number of bird's weighted, average weight, histograms, standard deviation and CV for each separate plate.
A printer can be connected to the unit centric compatible output and a PC to its serial RS422 output.

Connection of plates to main unit:

Before connection of the system, read the instructions carefully

1. Unscrew carefully the two screws on the front panel.
2. Connect the box to the wall on a dry place.
3. Place the weighing plate in the poultry house.
   Connect the plates to the main unit connector with a 3-wire cable from each plate.
   Brown to brown, blue to blue, yellow to yellow.
4. Connect 220V cable to the 220V connector in the main unit.
5. Close the front panel with the two screws.
6. Connect the 220V cable to the main power.

ZERO AND CALIBRATION OF PLATE

1. The system has to be connected to the main power for at least 15 minutes before zero and plate calibration can be done.
2. Set the selector in "**Display**" position.
3. Select the desired plate by a pressing on **"No. of scale"** button. On the display will appear **"Select plate"**.
4. Pressing on button **"1"** will select plate 1 (2 will select plate 2).
5. Make sure that the plate is empty.
6. Set the selector to the **"Enter data"** position.
7. Press on the **"No. of scale"** button, **"Select scale"** will appear on the display.
8. Press on **"0"** button. **"Zero Calibration - Wait"** will appear for a short time on the display and then **"Press enter to store"** will appear.
9. Press the **"Enter"** button, the plate is zero calibrated.
10. Put a one-kilo weight on the center of the plate and press on the **"No. of scale"** button, **"Select scale"** will appear on the display.
    If the unit has been programmed to work with pounds then use a 2 pound weight.
11. Push on the **"9"** button, **"1 kg Calibration - Wait"** (in the pound program, **"2 LB Calibration – Wait"**) will appear for a short time on the display, then **"Press enter to store"** will appear.
12. Press the **"Enter"** button, the plate is calibrated.
13. Set the selector in **"Display"** position.
14. To calibrate other plates connected to the **CHICK SCALE,** follow steps 3-13.

Important : The accuracy of the system depends on the accuracy of the one kilo load.

Choosing a weight format

From program version 7.1 (May, 2008) it is possible to set the control unit to weigh and display either kilos or pounds. To set the unit, do as follows:

1. Set the selector to the **"Enter Data"** position.
2. Push the **"Real time"** button, **"set clock:" "xx:xx"** will appear on the display. Enter 9999 and press on **ENTER.**
3. To weigh and display in kilos enter 101. On the display will appear **"Using Kg Units"**
   To weigh and display in pounds enter 102. On the display will appear **"Using Lb Units"**
4. Push the **"ENTER"** button.
5. Return the selector to the **"DISPLAY"** position.

START UP

Before the **CHICK SCALE** can start to operate, the user must set an expected average weight of his flock.

1. Select the desired plate by a pressing on the **"No of scale"** button, then on the desired plate number.
2. Set the selector to the **"Enter Data"** position.
3. Press on the **"Average weight"** button, **"expected avr #x"** will appear on the display.
4. Enter the expected average weight through the keyboard and then press the **"Enter"** button.
5. Select the grow table for this plate. Please see “Daily Update Setting” on page 13 for details on grow tables **(Version 6.5 only)**.
6. Set the selector to the **"Display"** position.
7. Go through steps 1 to 5 for all plates connected to the **Chick Scale.**

THE PRINT AND RESET TIME

The **Chick Scale 205** is working in a 24 hour cycle. Each 24 hours, the units will make a print out if a printer is connected and reset its memory of all collected weighing information and restart automatically to weigh on the basis of the new calculated expected average weight. The print time is the same for all plates.

Set print time :

1. Set the selector to the **"Enter data"** position.
2. Push on the **"Print"** button, **"Set print time" "xx:xx"** will appear on the display.
3. Set the desired time through the keyboard.
4. Push on the **"ENTER"** button.
5. Return the selector to the **"DISPLAY"** position.

REAL TIME

The **Chick Scale** has a real time clock

1. Set the selector to the **"Enter Data"** position.
2. Push the **"Real time"** button, **"set clock:" "xx:xx"** will appear on the display.
3. Set the time by the keyboard.
4. Push the **"ENTER"** button.
5. Return the selector to the **"DISPLAY"** position.

GROW DAY

The grow day can be set separately for each plate.

1. Select the desired plate.
2. Set the selector to the **"Enter data"** position.
3. Push on the **"Day of raising"** button, **"set day : # x"** will appear on the display.
4. Enter through the keyboard the day of growth.
5. Push on the **"Enter button"**
6. Return the selector to the **"Display"** position.
7. Follow steps 1-6 for each plate.

CLEAR MEMORY

Manual clearing of memory can be done on each plate separately.

1. Select the desired plate.
2. Set the selector to the **"Enter Data"** position.
3. Push on the **"Uniformity"** button; **"Press enter to clear"** will appear on the display.
4. Push on the **"ENTER"** button.
5. Return the selector to the **"DISPLAY"** position.

The unit is ready for operation.

The **Chick Scale** has a small management program that will give the user some important calculated information.

NUMBER OF BIRDS

The users can enter in the **Chick Scale** memory the number of received birds. The system will deduct the daily entered mortality so that the user will have the number of live birds for each plate.

Important: The number of birds must be more than zero or the Chick Scale will not print out any information from that plate. (NO BIRDS will be printed)!!!

SET NUMBER OF BIRDS

1. Select the desired plate.
2. Set the selector to the **"Enter Data"** position.
3. Push on the **"no. of birds"** button.
4. Enter through the keyboard the no. of birds.
5. Push on the **"Enter"** button
6. Return the selector to the **"Display"** position.

SET MORTALITY

The users can enter each day the number of mortality. The system will accumulate the number throughout the growth period and calculate the mortality percentage.

The user has two possibilities:

A. Change each times the total number of deaths.
To set to zero press **"1"** and then **"0"** until the display is zero.

B. Add the daily mortality by pushing first the **"0"** button, and then the daily mortality.
The **"0"** button acts as a **"+"** sign.

1. Select the desired plate.
2. Set the selector to the **"Enter data"** position.
3. Push the **"Mort"** button, **set death"** **"x"** will appear on the display.
4. Enter through the keyboard, the total number of dead birds
5. Push the **"Enter"** button.
6. Return the selector to the **"Display"** position.

SET FEED

The user can enter into the **Chick Scale** memory, the accumulated feed, the system will calculate the feed conversion.

1. Select the desired plate.
2. Set the selector to the "Enter Data" position.
3. Push the **"Feed"** button; **"feed xxxx"** **"converxxxx"** will appear on the display.
4. Enter through the keyboard the total feed in kg.
5. Push the **"Enter"** button.
6. Return the selector to the **"Display"** position.

Net Name and Kilo/Pound weight usage

It is possible to hook up the unit to a central computer using the included P.C. program
It is possible to change the weight format from kilos to pounds. The default is kilos.

Net name

Each unit will need an individual "name" called Net Name. A number between 1-99 should be used.

1. Set the selector to the **"Enter Data"** position.
2. Push the **"Real time"** button, **"set clock:" "xx:xx"** will appear on the display. Enter 9999 and press on **ENTER.**
3. Enter the Net Name using the keyboard.
4. Push the **"ENTER"** button.
5. Return the selector to the **"DISPLAY"** position.

Changing the weight format from kilos to pounds.

From program version 7.1 (May, 2008) it is possible to set the control unit to display either kilos or pounds. To set the unit, do as follows:

1. Set the selector to the **"Enter Data"** position.
2. Push the **"Real time"** button, **"set clock:" "xx:xx"** will appear on the display. Enter 9999 and press on **ENTER.**
3. To weigh and display in kilos enter 101. On the display will appear **"Using Kg Units"**
   To weigh and display in pounds enter 102. On the display will appear **"Using LbKg Units"**
4. Push the **"ENTER"** button.
5. Return the selector to the **"DISPLAY"** position.

READING INFORMATION FROM THE CHICK SCALE

The number of plate button.

1. Push on the "no. of plate" button, "select scale" will appear on the display.
2. Select the desired plate through the keyboard.
   Example: Push no.1 "weight : x.xxx#1" "birds : xx"Will appear on the display.

The user will see the actual weight on the plate and number of weighing that have been count into the average weight.
The user can now push on any button and receive information from plate 1, to change to another plate, push again on "no. of scale" button, and then on the desired plate number.

AVERAGE WEIGHT

Push on the "Average weight" button "avr :x.xxx" "birds:xxx"will appear on the display. The user will see the calculated average weight and number of weighing.

UNIFORMITY

Push on the **"Uniformity"** button **"Uniformity" "std.dev x.xxx"** will appear on the display. The user will see the calculated standard deviation in grams.
Additional push on the uniformity will step the use through the uniformity table with 25 gr step in the range +500 grams around the average weight. The user will receive number of birds in each range.

DAY OF RAISING

Push on the **"Day of raising"** button, **"dayxx "avrx.xxx"** will appear on the display.
The user can receive the average weight of each growth day by pushing the **"Day of raising"** button.
The **Chick Scale 205-A** will remember up to 100 days for each plate.

REAL TIME

Push on **"Real Time"** button. **"time:xx.xx" "print:xx.xx"** will appear on the display.
The user will receive the real time and preset print time.
The clock and memory have a battery back up in case of power failure.

PRINT

The **Chick Scale** will give an automatic print out each day.
The user can choose two different manual print modes.
Print mode 1 will activate the printer and give the daily print out.
Print mode 2 will activate the printer and print a graph of the average weight through the whole growth period (100 day back).

The memory will not be reset.

Push the **"print" button**, **"print mode x"** will appear on the display.
A push on 1 will give the daily print out.
A push on 2 will give the average graph.

NUMBER OF BIRDS

Push on **"no of birds"** button**"chickens"xxxxx** will appear on the display.
The user will see the number of birds remaining in the house.

MORTALITY

Push on **"mort"** button **"deathxxx" "prcntxx.x%"**will appear on the display
The user will see the total number of dead and the calculated percentage.

FEED

Push on **"feed"** button **"feedxx.xxx" "conver.x.xx"** will appear on the display.
The user will see the total quantity feed used in the house and the calculated feed conversion.

RESET OF AVERAGE GROWTH TABLE

When the growth day is changed, the average growth table is reset.

SOFTWARE

The software program is included with each unit.

MAINTENANCE

The **Chick Scale** has a 10-year's battery back up for its memory. The unit will zero its plate automatically.
Do not clean the plate during growing period.

CLEANING OF PLATE

1. Disconnect the plate from the main unit.
2. Open the two screws on the top of the plate carefully.
3. Remove the plate from the plastic box.
4. The plate can be cleaned with hot water and soap.
5. The plastic box can be cleaned with a moisture cloth.

CHANGE OF PROGRAM TYPE

There are 4 types of programs in the **Chick Scale 205-A**

901 - Broiler
902 - Pullets (broiler breeder, 0-22 weeks)
903 - Heavy breeders (22 weeks and up)
904 - Turkey

Note: It is very important to set the correct type of program according to your flock to get accurate results.

To set the program type, do as following:

1. Set switch in **"Enter Data"** position.
2. Push the **"Real Time"** button.
3. Enter **9998**
4. Push **"Enter"**, the display is **"Set Type Code:"**
5. Push **1** for broiler, **2** for pullets, **3** for breeder, **4** for turkey.
6. Push **"Enter"** again.
7. Set the switch back to **"Display"** position.

Plate Error

1. **"Plate error"** appears on the display. Check the following;
A. Plate is not connected to the main unit. Check the connection.
B. Plate is out of order. Try to connect another plate. If plate error will disappear - plate is out of order.
C. Plate error remain check cable to main unit, if OK, then inside fuse chip is blow out.
D. If all plate show plate error, replace inside fuse.
Important: If the fuse is blow out, one of the cables going to the plate may be shorting.

Notes on P903, heavy breeder program:

In the heavy breeder program, the user can disable the **Chick Scale 205-A** to take birds into its average calculation in the feeding period and after in the digestion period.

It is recommended to set the end time at the feeding start and the print time 4-5 hours later. The **Chick Scale 205-A** will remember its average weight until the print time.

SET END TIME

After you set the print time, the display is:
PRINT at xx:xx
END at xx:xx
Simply enter the end time and press **"Enter".**

Important: The **Chick Scale 205-A** will not take any birds into its average calculation between the end time and print time.

AVERAGE OF FEMALE BIRDS

To receive a correct average weight of the female it is important to separate the female from male.
Since the different in weight between them changes according to age, it is important that the user will be able to change the upper percentage that permits female birds to go into the female average weight.

SET THE UPPER PERCENTAGE

1. Put the switch in the **"Enter"** position.
2. Press the **"Uniformity"** button twice.
3. Enter the percentage through the keyboard.
4. Press **"Enter".**

ChickScale Daily update Setting:

This part is applicable for version 6.4 and up. The version number is displayed on the ChickScale just after system turns on,

If you would like to interfere with the default weighing system in order to make corrections in the calculating of the average weight, it is possible to do so as explained below.
When the birds large and heavy the lighter ones will be more active thus causing the average weight to be less than it really is. It is possible to compensate for this by using the daily update chart.
The ChickScale will add a daily gain to the current average weight according to a programmable table.
It is also possible to set a factor, which is used in order to correct the average weight when the birds are big.
The table has 5 rows containing 3 columns. The first column is the maximum average weight, the second column is the daily gain and the third column is the correction factor.

The default setting is as follows.

Row	Weight	Daily Gain	Factor
1	0.180	20	1.00
2	0.500	50	1.02
3	1.000	70	1.03
4	1.750	85	1.05
5	15.000	100	1.06

This means:
From weight 0 to 180 gr, the daily gain is 20 gr per day, and the correction factor is 1.00
From 180 gr to 500 gr, daily gain is 50 gr per day and factor is 1.02
And so on.

If you feel the expected average weight is to low then in crease the “Daily Gain”.
If you feel the average weight is lower than it should be increase the “Factor”.

Version 6.4:
In order to change this table, enter 59.999 as expected weight. This will start at table location 1. Enter each parameter, every time you press enter, you will move to the next parameter until all is set.
Move the ENTER/DISPLY switch to DISPLAY mode to exit table programming.

Version 6.5:
In version 6.5, it is possible to set 3 different grow tables. Each plate can be associated with one table. This is done by setting the expected average, and after pressing “ENTER” the system will ask for the grow table.
In order to change the grow table 1 enter 60.001 as expected weight. For grow table 2 enter 60.002, and for grow table 3 enter 60.003.
Please use this table with caution!!