

## ECM12



Program Version 1.3B

Manual Reversion	Log
01/03/2012	First edition
02/04/2013	Add manual egg change
04/08/2013	Add RS485 diagram
13/11/2014	Update counter numbers

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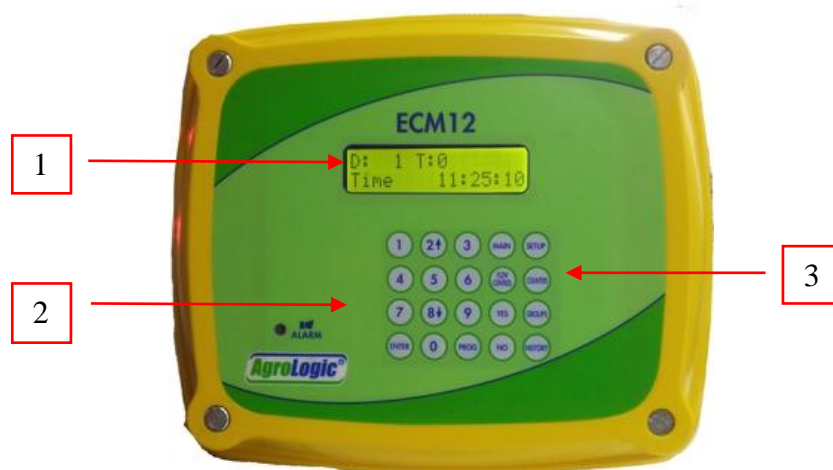
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### **Features**

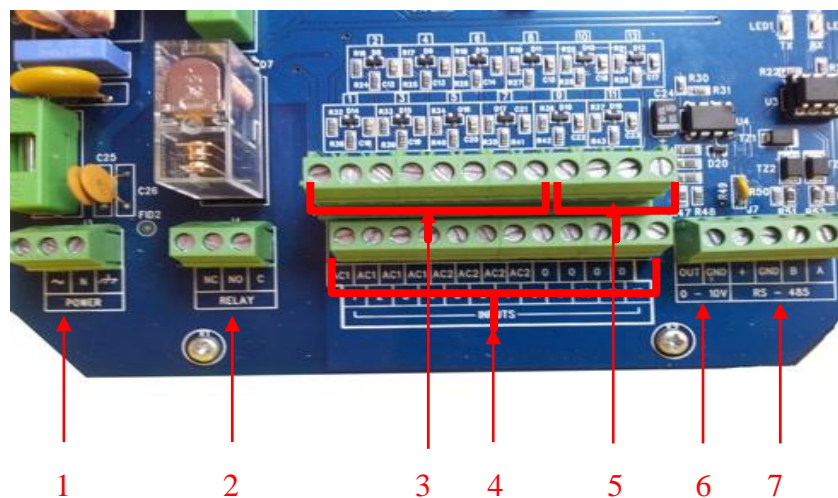
- 2 x 16 Lighted liquid crystal display (LCD).
- 20 keys keyboard.
- 1 relay of 2 Amps
- 12 digital inputs.
- 4 Pair - 12ACV outputs
- 1 (0-10V) output.
- Output for PC communication.

### **Front Panel**



1. 2x16 lighted liquid crystal display.
2. Keyboard.
3. Shortcut keys.

## Main board



- 1= 230VAC power input.
- 2= 1 2amp relay. Not currently supported.
- 3= 4 pairs 12VAC outputs.
- 4= 12 Digital inputs.
- 5= 4 common ground.
- 6= 1 (0-10V) output.
- 7= Output for computer communications.

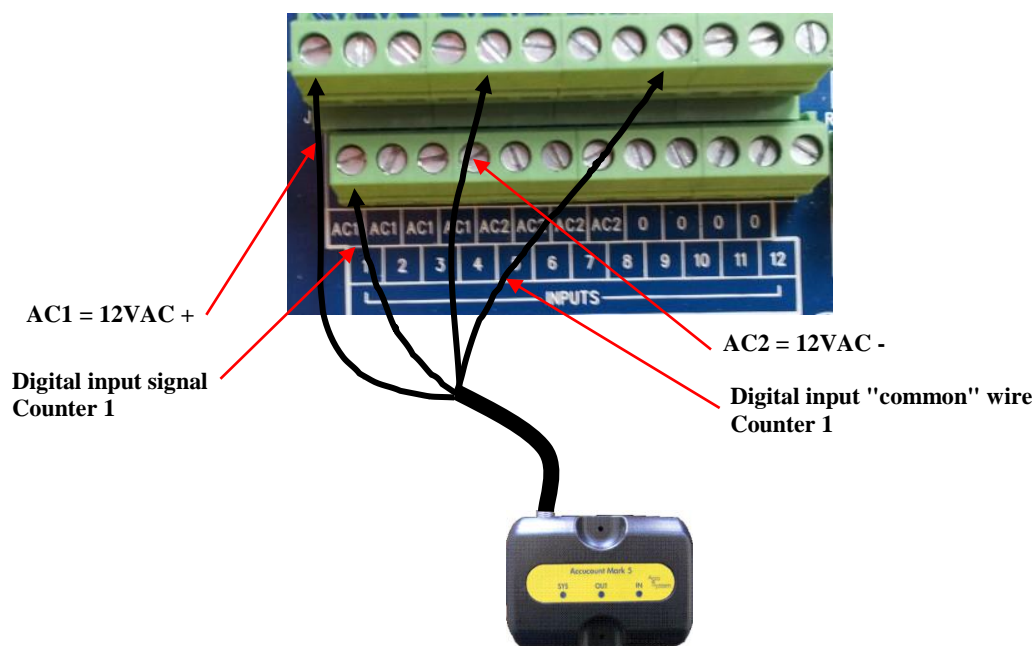
## Installation

### Main power supply



Connect the 230VAC main power.

### Counter connections



Connect up to 12 Accucount Mark 5 egg counters to the ECM12 unit. Connect the egg counter + wire to the AC1 output. Connect the egg counter common wire to AC2. Use digital input 1 for counter 1 signal wire and 0 for the common wire.



If you are connecting more than 4 counters of the N series, you will need to supply the counters with an external 12VAC power supply.

## Keys



Press once on the *Main* key to return to the main screen.



Use the *Setup* key to enter the setup menu.



Use the *Counters* key to bring up the counter screen.



Use the *Groups* key to bring up the groups menu.



Use the *History* key to bring up the history menu.



Use the *Yes* and *No* keys to program.



Use the *Prog* key to start programming.



Use the *Enter* key to save newly entered values.



Use the number 2 & 8 keys to scroll through sub menus.

## Screens



### Main Screen

D: 1	T: 100
Time	14:25

The Main screen displays the current grow day, total number of eggs counted today and the current time.

The unit will return to the Main screen after 30 seconds if no programming is taking place.

### Setup Screen 1



[1] D:	1
Set Time:	14:25

[1] = represents the current setup screen number. There are a total of 8 setup screens.

D: = current grow day.

Set Time: = the current time.

To change the grow day, press once on the *Prog* key. The grow day will start to blink.


Using the keypad, enter the new grow day. Press on the *Enter* key to store the new value.

To change the grow day, press once on the *Prog* key. The cursor focus will be on the grow day value and will start to blink. Using the keypad, enter the new grow day. Press on the *Enter* key to store the new value.



The cursor focus will move to the Time display. Enter the new time using the keyboard. Press on the *Enter* key to store any changes.

### Setup Screen 2


[2]	Reset Time
	23:59

From setup screen 1, press once on the 8 key with the down arrow . This will take you to Setup 2 screen.

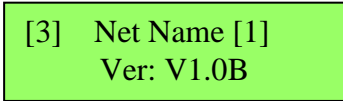
This screen contains the *Reset Time*. Reset time is the time of day in 24-Hours format in which the daily total egg count is saved to the history table. The grow day is also incremented at this time.

To change the *Reset Time*, press once on the *Prog* key . The reset time will start to blink. Using the keypad, enter the new time. Press on the *Enter* key to store the new value .

To return to Setup 1 screen, by press once on the 2 key with the up arrow.

To return to the Main screen, press on the *Main* key .

## Setup Screen 3



[3] Net Name [1]  
Ver: V1.0B

From setup screen 1, press twice on the 8 key with the down arrow. This will take you to Setup 2 screen.

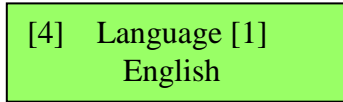
This screen contains the *Net Name and program version number*.

Net Name; this number identifies each ECM12 on the PC communication network (each ECM12 must have a different number).

To set the *Net Name*, press once on the *Prog* key. The *Net Name* number will start to blink. Using the keypad, enter the new *Net Name*. Press on the *Enter* key to store the new value.

The default value is 1.

## Setup Screen 4



[4] Language [1]  
English

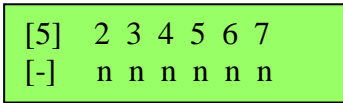
From setup screen 1, press three times on the 8 key with the down arrow. This will take you to Setup 4 screen.

This screen is used to setup the screen language.

At this time only English is supported.

Setup screens 5 & 6 are used to setup the Agrologic special "*Counter Subtraction Mode*". It is now possible to install more than one counter on a central conveyer that is being feed by different tiers or houses. All the counters on the central conveyer will count all the eggs but using the Agrologic *Counter Subtraction Mode* allows each counter to subtract the previous counters total. See *Counter Subtraction Mode* diagram.

## Setup Screen 5



*Counter Subtraction Mode*

[5] 2 3 4 5 6 7  
[-] n n n n n n

From setup screen 1, press five times on the 8 key with the down arrow. This will take you to Setup 5 screen.

To setup the *Counter Subtraction Mode*, you must program each counter with a y or an n. y means the counter is included in the *Counter Subtraction Mode*. n means it's not included.

The first counter in the line of counters should always be setup with an n.

To change from n to y, press once on the *Prog* key. The first letter in the second line will start to blink. To change to y press once on the Yes  key, for n use the No  key. Press on the *Enter* key to store the new setting.



Example; counters 1-3 are installed on a central conveyer. Each counter receives eggs from its own house.

In this case setup screen 5 should be programmed with counters 2 & 3 with a y. Note that counter 1 is not included because it is the first counter.

[5]	2	3	4	5	6	7
[-]	y	y	n	n	n	n

The eggs from house 1 pass under counters 1, 2 & 3.

The eggs from house 2 pass under counters 2 & 3.

The eggs from house 3 pass only under counter 3.

Let's say that from house 1 500 eggs come out and pass under counter 1. Counter one will record 500 eggs. Coming out of house 2 is 300 eggs. Counter 2 will count both its eggs (300) and the 500 from house 1 for a total of 800. Counter 2 will deduct the 500 counted at counter 1 to leave a recorded amount of 300 eggs.

Coming out of house 3 is 200 eggs. Counter 3 will count both its eggs (200) plus 500 from house 1 and 300 from house 2 for a total of 1000 eggs. Counter 3 will then deduct the total of counters 1 & 2 (800) to arrive at a total recorded amount of 200 for counter 3.

#### Setup Screen 6

[6]	8	9	10	11	12
[-]	n	n	n	n	n


From setup screen 1, press six times on the 8 key with the down arrow. This will take you to Setup 6 screen. Setup counters 8-12 as explained above.

#### Setup Screen 7

[7]	Clr Curr	[n]
	Clr History	[n]

From setup screen 1, press six times on the 8 key with the down arrow. This will take you to Setup 7 screen.

Use this screen to clear 24 hour information and all history information.

To clear all current 24 hour information press once on the *Prog* key. The [n] will start to blink. To clear, press once on the *Yes*  key. The [n] will change to [y] and remain blinking. Press on the *Enter* key to store.

## Setup Screen 8



[8] Protocol [0]  
Bin 2400

This screen sets up the communication protocol speed. This function is not currently supported.

[0] = 2400 text

[1] = 9600 text

[2] = 2400 binary

[3] = 9600 binary

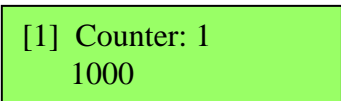
Default [0] = 2400 text

## Flow control Screen





This function is not currently supported.

## Counters Screen





[1] Counter: 1  
1000

This screen displays counter 1 current egg count.

Use the  or  keys to scroll through all 12 counters.

It is possible to manually add eggs to the current counter.

Press on the *PROG* key , the current number will flash. Enter the new number then press on the *ENTER* key  to store the new number.

## Groups Screen



[1] Group 1 - 3  
3500

This screen is used to setup egg counters into groups and display their total.

A *Group* is made up of 2 or more egg counters. The amount displayed is the total amount of eggs counted of all the egg counters set in the group. Up to 6 groups of counters can be setup.

Example; in the above screen we can see that we are in the first Group screen [1] and have setup egg counters 1, 2 & 3 into a group. Each counter will count individually the eggs passing under it, but the total amount displayed here will be the total amount of all three counters. To see the amount of each individual counter, use the *Counter Screen*.

To setup the egg counters into a group, press once on the *Prog* key. The first number will blink. Using the keyboard enter the number of the first counter in the group and press on *Enter*. The cursor focus will move to the second number, and will blink. Enter the number of the last counter in the group. To store press on the *Enter* key again.


number will start to blink. Using the keypad, enter the new *Net Name*. Press on the *Enter* key to store the new value.

To set up more *Groups*, use the  or  keys to scroll through all 6 groups.

## History Screen





The ECM stores history for 6 days. You can see history for individual counters or groups of counters.

To call up history for individual counters, first press on the *Counters*  key. Return to the History screen. On the screen you will find the history screen number out of six.

Counter number out of 12 and the total egg count for that day.

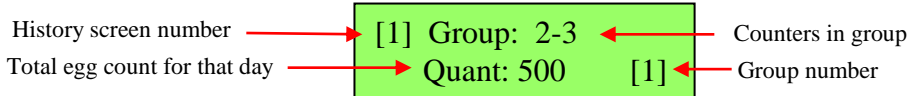
## Counter History

History screen number → [1] Counter: [ 1] ← Egg counter number  
Total egg count for that day → Quant: 500



To scroll through the 6 days of history for the current counter use the 2  and 8  keys.

To change which counter is being shown, press on the *Prog* key. The counter display number will start to blink. Use the keyboard to change the counter number. Press on the *Enter* key to store.

## Group History

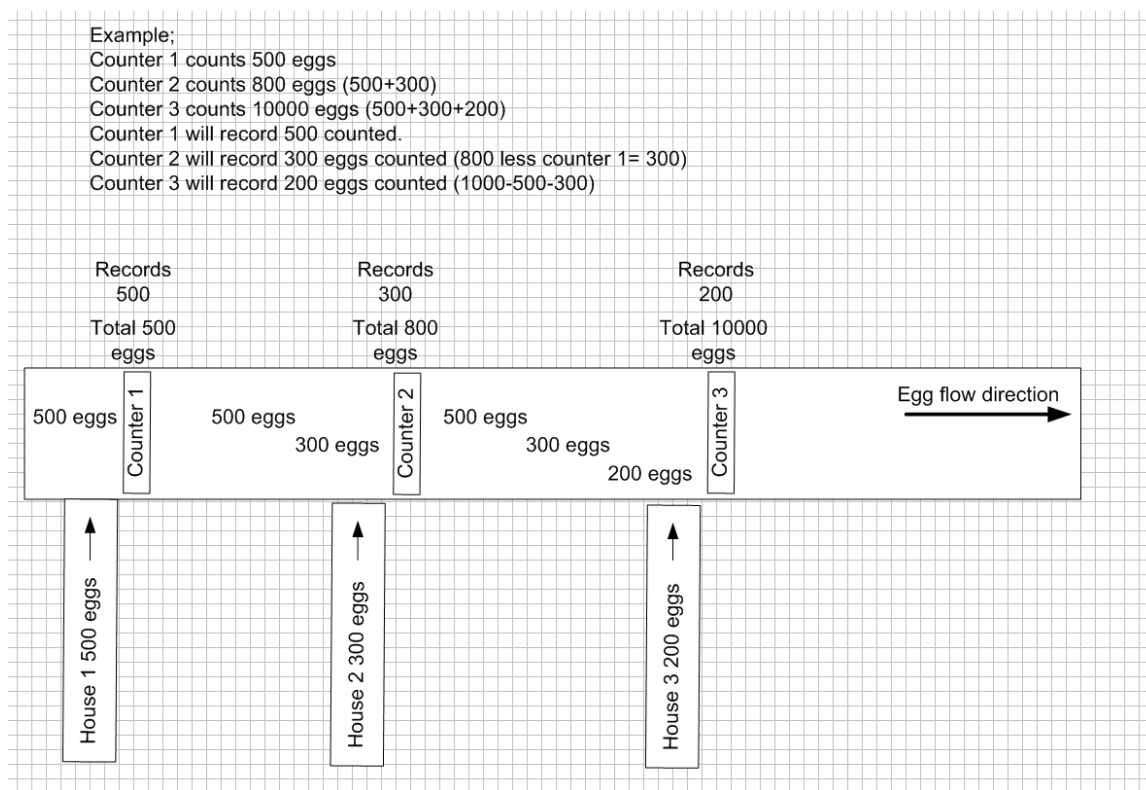


To call up history for *Groups* or counters, first press on the *Groups* key. Return to the History screen. On the screen you will find the history screen number out of six, counters in group, total egg count for the current group and the group number.

To scroll through the 6 days of history for the current *Group* use the 2  and 8  keys.

To change which *Group* is being shown, press on the *Prog* key. The Group number display number will start to blink. Use the keyboard to change the group number. Press on the *Enter* key to store.

## Diagram for the Counter Subtraction Mode



## RS 485 Communication setup

