

**COUNTY-S EVO**  
**REFERENCE MANUAL**  
software release 2.x

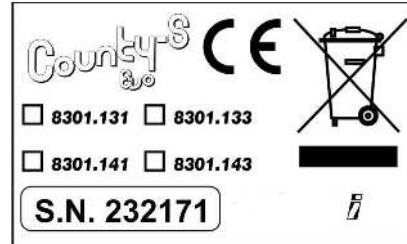


## EC CONFORMITY

Units 8301.131, 8301.133, 8301.141 and 8301.143 conform to EC directives **EMC - 2014/30/UE** , **LVD - 2006/95/CE**, the following harmonized standards are in use EN 60335-1:2002-2006, EN 61000-6-1, EN 61000-6-3

A weighted sound pressure <70dB (A)  
A weighted sound power < 85dB (A)

Rear sign:



## SAFETY INSTRUCTIONS

Attach first the power cord to the counter and then into an appropriate AC outlet.

The counter shall be connected to an electrical system having ground connection.

**ATTENTION:** the rotating parts of the unit can be dangerous if should come in contact with wear loose clothing, jewellery or long hair. Wear protective hair covering to contain long hair.

## WARRANTY

This unit is guaranteed against all defects due to faulty materials and workmanship, within 12 months from the date of purchase.

A use not conforming to what specified might be dangerous to the safety of the operator and may damage the unit.

In such circumstances the manufacturer is relieved of any liability and the warranty itself will decay.

## REPAIR

Repairs have not been attempted by anyone other than authorized repair distributors.

Do not try to repair the unit by yourself.

**ATTENTION:** Dangerous voltage is present inside the unit.

## Environment protection



Separate collection. This product must not be disposed of with normal household waste.

Should you find one day that your product needs replacement, or if it is of no further use to you, do not dispose of it with household waste. Make this product available for separate collection.

Separate collection of used products and packaging allows materials to be recycled and used again.



Re-use of recycled materials helps prevent environmental pollution and reduces the demand for raw materials.

Local regulations may provide for separate collection of electrical products from the household, at municipal waste sites or by the retailer when you purchase a new product.

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## TECHNICAL FEATURES

<i>model</i>	<b>8301.131</b>	<b>8301.141</b>	<b>8301.133</b>	<b>8301.143</b>
Power Supply	230V/25W	115V/25W	230V/25W	115V/25W
Empty Pocket Check	NO	NO	YES	YES

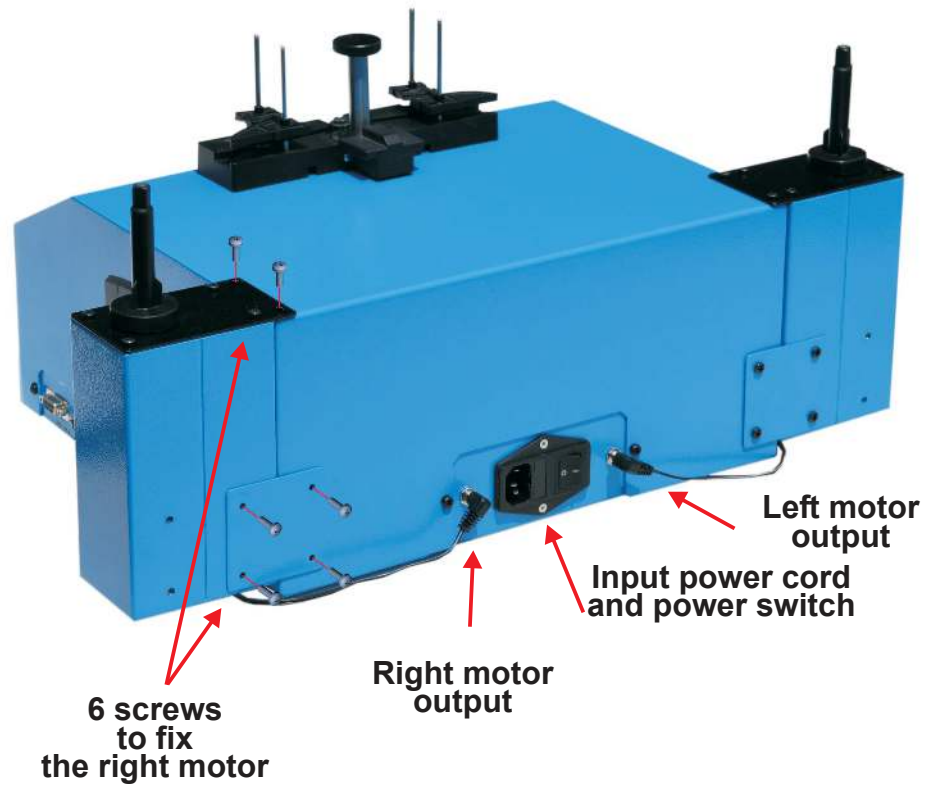
Counting: . . . . . up to 999999pcs , 6 digits 22mm height  
 Max. counting speed: . . . . . 220 pcs/sec (1 comp per hole)  
 Pitch (holes per component): . . . . . from 0.5 to 99  
 Maximum tape height: . . . . . 56mm  
 Maximum reel diameter: . . . . . 400mm (standard configuration)  
 . . . . . 650mm (with 8301.150 reel supports)  
 Display: . . . . . blue LCD with led backlight  
 . . . . . 160x104 pixel, visible area 74x46mm  
 Adjustable speed control  
 Step by step mode (1 component at a time)  
 Empty pocket check (optional)  
 Barcode reader input  
 Serial connection for label printer or PC  
 Selection of the operator  
 (10 operators can be memorized with 8 alphanumerical chars everyone)  
 Internal clock (1 week backup)  
 Datalogger that stores the last 500 counting data  
 (in each record are stored: date and time, operator, count, barcode).  
 The records can be viewed on the counter display or transferred to a PC.  
 Memory storage for subtotals  
 2 side handles for easy transport.  
 Dimensions: . . . . . 525 x 340 x 250(H) mm  
 Weight: . . . . . 9,5 Kg  
 Power consumption: . . . . . max.25W

### OPTIONS

**8301.150.** . . . . . SUPPORT FOR REEL WITH DIAMETER>400mm  
**8301.155.** . . . . . BARCODE READER  
**8301.095.** . . . . . THERMAL LABEL PRINTER  
**8301.096.** . . . . . THERMO-ADHESIVE LABEL ROLL

## SET-UP

### HOOKING REWIND MOTORS



Screw the 2 groups using the 6 motor mounting screws (in the photo is shown the fixing of the right motor)

Connect the motor cable to the corresponding output close to the power input socket.

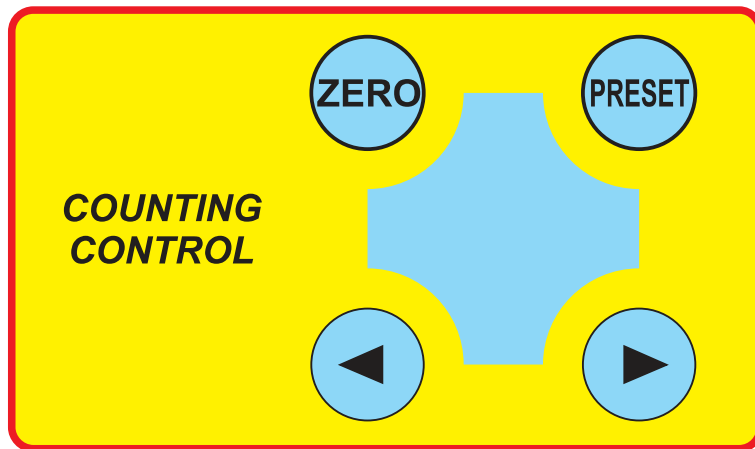
### CONNECTING TO PRINTER AND BARCODE READER





# KEYBOARD

## COUNTING CONTROL

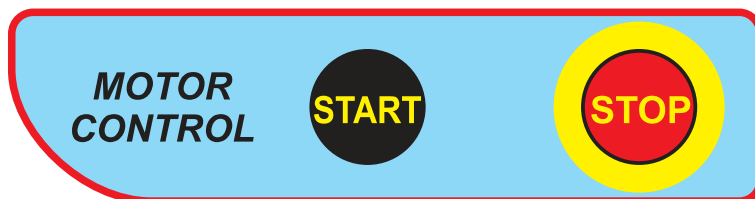
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- ZERO** CONFIRM STARTING POSITION TO START COUNTING (TOTALIZER MODE)  
pressed when the first component is in correspondence of the reference LED located on the counting head.
- PRESET** CONFIRM PRESET STARTING POSITION TO START COUNTING (PRESET MODE)  
pressed when the first component is in correspondence of the reference LED located on the counting head.
-  LEFT DIRECTION (REWIND MODE)  
set counting or rewinding direction to LEFT
-  RIGHT DIRECTION (REWIND MODE)  
set counting or rewinding direction to RIGHT

## MOTOR CONTROL

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- START** ENABLE MOTION  
push to start the engine
- STOP** DISABLE MOTION  
pressing it will stop the motors

## TAPE MOVE CONTROL

---



**SLOW MOVING TO THE LEFT**  
when the machine is ready for counting or rewind :

- If pressed briefly moves the tape of a component left
- If held longer advances the tape very slowly to the left until another key is pressed

when the machine is in a special function:  
(SETTINGS MENU or CONTROL MENU)

passes to the previous menu



**SLOW MOVING TO THE RIGHT**  
when the machine is ready for counting or rewind :

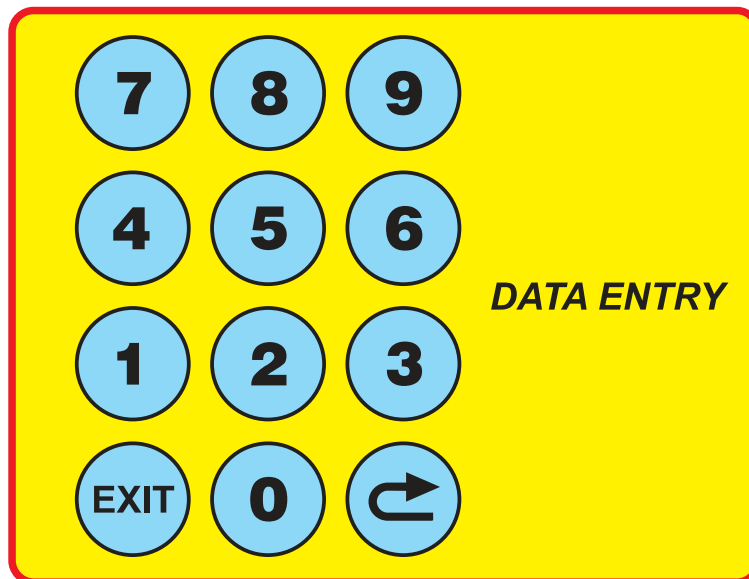
- If pressed briefly moves the tape of a component right
- If held longer advances the tape very slowly to the right until another key is pressed

when the machine is in a special function:  
(SETTINGS MENU or CONTROL MENU)

passes to the next menu

## DATA ENTRY

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**0-9**

KEYS FOR DATA ENTRY

**EXIT**

EXIT, to exit from a special function

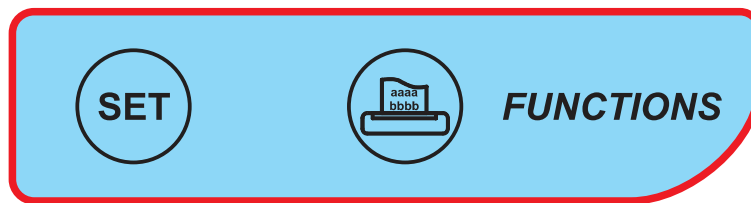


**FORWARD POSITION**

move to the next data entry position when pressed in a special function .

## SPECIAL FUNCTIONS AND PRINTING

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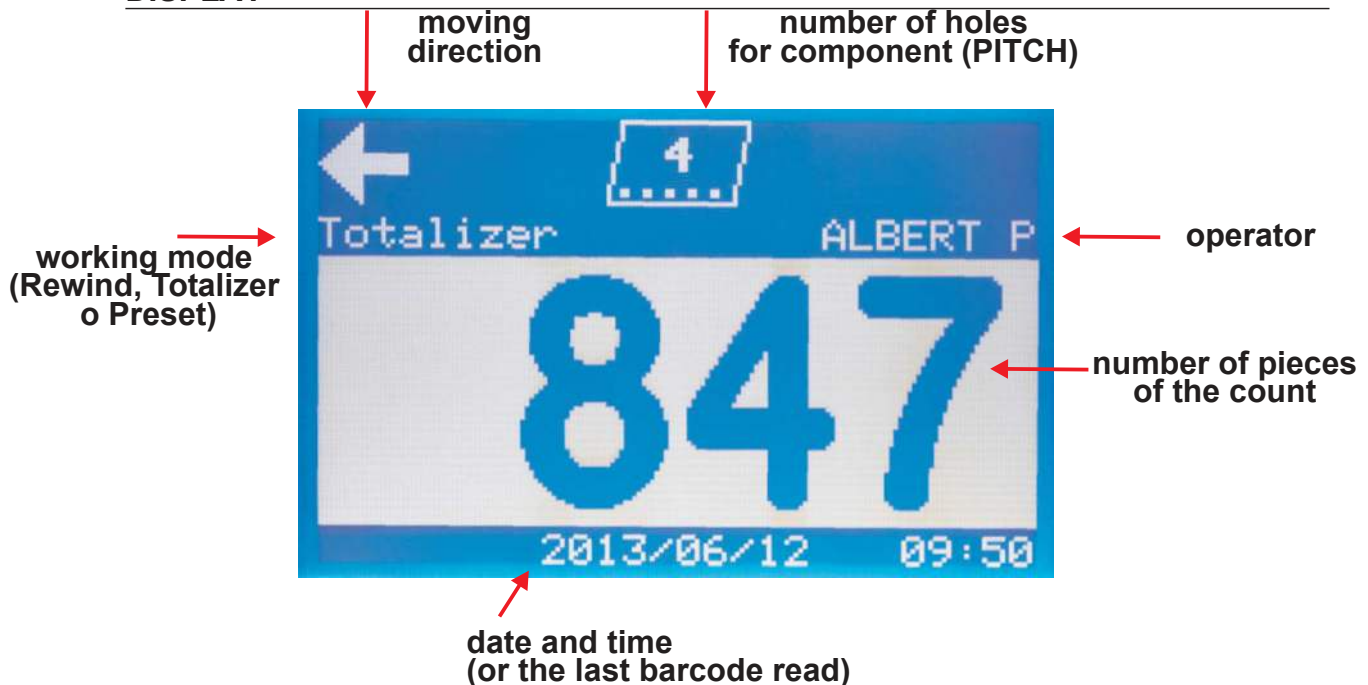


**SET** ENTER THE SPECIAL FEATURES  
when pressed allows access to the "CONTROL PANEL"  
if held longer than 6 seconds allows access to the "SETTINGS PANEL"

**PRINT** PRINT  
When pressed print on the external printer a label containing the counting  
informations.

## DISPLAY

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# OPERATIVE INSTRUCTIONS

## POWER ON

---

Turn on the counter( ON/OFF switch on the rear side).

## SETTING THE NUMBER OF HOLES PER COMPONENT

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Select the number of holes per component by pressing SET and accessing the "CONTROL PANEL". "PITCH" menu will be displayed .

Use the data entry keys to input the number of holes per component (01 to 99) and then press EXIT

The new value indicating the number of holes per component is displayed in the top center of the display.

**NOTE:** for 0402, 0201 and 01005 component size settings see page 11.

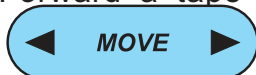
## INSERTING THE TAPE AND POSITIONING

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Insert the tape and attach it on the central wheel drive.

Adjust the height of the guide.

Forward a tape either manually or by means of the move keys





until the tape is not positioned where desired.

The  keys:

- If pressed briefly feed the tape on the left or on the right of one hole only
- If pressed for a longer time feed the tape on the left or on the right at a very slow speed until you press another button

## TOTALIZER MODE

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Select the counting direction (if not corrected)  or 

On the head will turn on the LED that indicates the counting direction, from now on we will call it "reference LED".

Insert the tape and position it so that the first component reaches the reference LED (see section on "Inserting the tape and positioning").

Press "ZERO" to confirm the start of counting. Attach the tape in the reel for storing the counted components by stopping and restarting the motor (key "START", "STOP").



Press the "START" button and wait for the end of the count of components.

At the end of the tape, the motor stops automatically.

Place the last component on the reference LED (see section "Inserting the tape and positioning").

## PRESET MODE

---

Select the counting direction (if not corrected)  or 

On the head will turn on the LED that indicates the counting direction, from now on we will call it "reference LED".

Insert the tape and position it so that the first component reaches the reference LED (see section on "Inserting the tape and positioning").

Set the number of components to be counted:

Press and hold the "PRESET" key until you see "Set Preset", enter the desired component number and press "EXIT"

If the PRESET value is the same of the one used previously, is sufficient to press briefly the PRESET key to recall it.



Press the "START" button and wait for the end of the count of components.

The motor stops automatically to the number of components that was presetted.

In the case that the tape ends before reaching the set number, the motor stops.

## REWIND MODE

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Select the REWIND direction by pressing  or 


Press the "START" button and wait for the end of the rewind.

## CONTROL PANEL MENU

To access the control panel press the "SET" button, the following screen appears:



### CHANGING THE MENU

Use  to move through the 5 menu

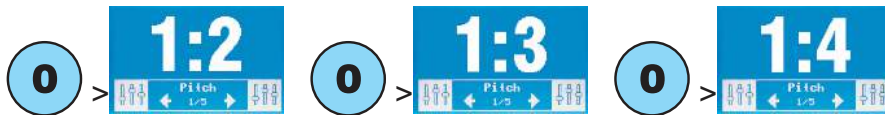
### PITCH MENU

"0-9" to enter the number of holes per component.

"EXIT" to exit the menu and save the data.

0402, 0201 and 01005 COMPONENT SIZE

Repeatedly press the "0" key until the desired value will be reached.



### PRESET MENU

"0-9" to enter the PRESET value.

"EXIT" to exit the menu and save the data.

### OPERATOR MENU

"0-9" to enter the identification number of the operator.

NOTE: operators must first be stored in the "OPERATORS MENU" of the settings panel.

"EXIT" to exit the menu and save the data.

### MEMORY MENU

"0" to do a "MEMORY CLEAR"

"2" to do a "MEMORY +"

"EXIT" to exit the menu.

E.P. CHECK MENU ( only for County-S EVO with EMPTY POCKET CHECK)


read the dedicated chapter at page 16 of this manual.

## SETTINGS PANEL MENU

To access the control panel press and hold the "SET" button for about 5 seconds, the following screen will be shown:



### CHANGING THE MENU

Use  to move through the 6 menu

### OPERATORS MENU

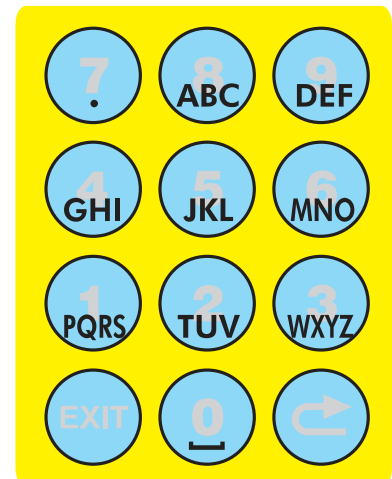
"0-9" when the pointer is in the column "index number" to select the code to be changed

"0-9" coded as in the picture aside, when the pointer is in the column "operator name" to enter 8 alphanumerical characters.



to advance by one position

"EXIT" to exit the menu and save the data.



### MENU DATE/TIME

"0-9" to set time and date



to advance by one position

"EXIT" to exit the menu and save the data.

### MENU PC/PRINTER

"0" to connect to a PC

"1" to print on 8301.090 printer

"2" to print on 8301.095 printer (label dim. 57.15 x 50.8mm)

"3" to print on 8301.095 printer (label dim. 76.2 x 50.8mm)

"4" to print on 8301.095 printer (label dim. 57.15 x 30mm)

"5" to print on 8301.095 printer (label dim. 76.2 x 19,05mm)

"EXIT" to exit the menu and save the data.

## BARCODE MENU

barcode type:       **"0"** = barcode OFF  
barcode type:       **"1"** = code39  
barcode type:       **"2"** = code128

barcode width:       **"0"** "narrow"  
barcode width:       **"1"** "normal"  
barcode width:       **"2"** "large"

## DATALOGGER MENU

**"2"** NEWER       (to display a more recent record)

**"8"** OLDER       (to display an older record)

**"EXIT"** to exit the menu.

NOTE: If there are no records stored the screen appears blank.

## MAXSPEED MENU

**"1-9"** to set the maximum counting speed.

**"EXIT"** to exit the menu and save the data.

## BARCODE AND LABEL PRINTING

It's possible to connect the counter to a barcode reader (8301.155)  
Access in the "settings panel" to the "BARCODE" menu and select the code39 or code128 and the print width desired (see section on "Settings Panel Menu").

It's possible to connect the counter to a printer (8301.090 or 8301.095)  
Access in the setting panel to "PC / PRINTER" menu and set the desired printer (see section on "Settings Panel MENU").

During each counting session, in "Totalizer" or "Preset", when you read a barcode with the barcode reader, the associated text is visible in the lower part of the screen, instead of the date and time.

To print the label and finish the counting job press PRINT. When PRINT is pressed a new record is added in the data logger of the counter. The added record contains the following informations: date and time, operator, count, barcode.



### CHANGING NUMBER TO BE PRINTED

If the number on the display need to be changed simply keep pressed "STOP" key while stepping number UP/DOWN with the "MOVE" arrows.



## CONNECTION TO A PC

It's possible to connect the counter to a PC with the Windows operating system XP/2000/Vista/7/8.

Access in the settings panel to "PC / PRINTER" menu and set "0" to connect to a PC (see section on "Settings Panel Menu").

Connect a serial cable RS232 output to a PC with an RS232 interface. If the PC does not have a RS232 interface use an USB output of the PC with a USB to RS232 adapter cable.

Start the freeware program "EVO MANAGER". The software requires no installation and to start it just click on the executable file (evo\_manager.exe).

With the program EVO MANAGER you can work in 3 modes:

### CUSTOM LABEL PRINTER

Press the PRINT button on the County-S EVO to print the label on a printer connected to the PC

### SENDKEYS

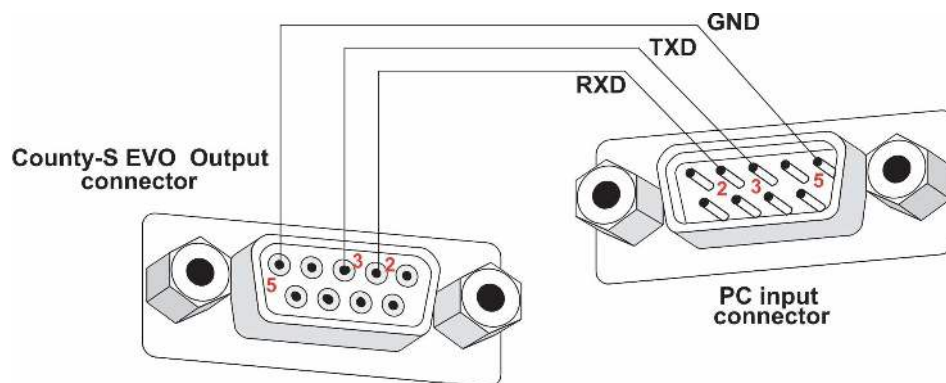
Open the desired program (eg Microsoft Excel) and place the cursor in the right position. Press PRINT on County EVO-S to send the input to the program: target program will receive inputs as from a keyboard.

### DATALOGER

Turn on the County-S EVO holding the PRINT key.

Press "Import" to import on a table all the records of the last 500 works performed. This table can be exported in a common spreadsheet (eg Microsoft Excel).

### CONNECTION TO THE RS232 PORT OF THE PC



### CONNECTION TO THE USB INPUT OF THE PC



Use a RS232 to USB adapter.




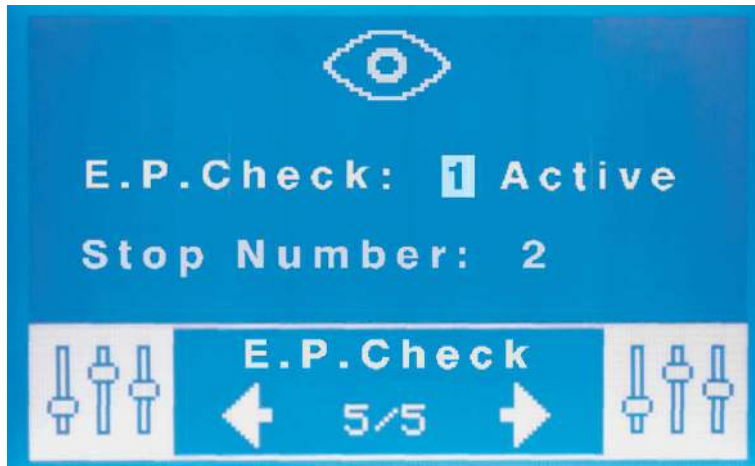
## EMPTY POCKET CHECK

Only for models: 8301.133 and 8301.143

### ENABLE / DISABLE EPC

Access the control panel by pressing the "SET" button.

Use  to move through the 5 menu until 5/5 Menu is reached.



"1" to enable EPC

"0" to disable EPC



to advance at Stop Number setting.

"1-9" number of consecutive Empty Pockets that STOP the motion.

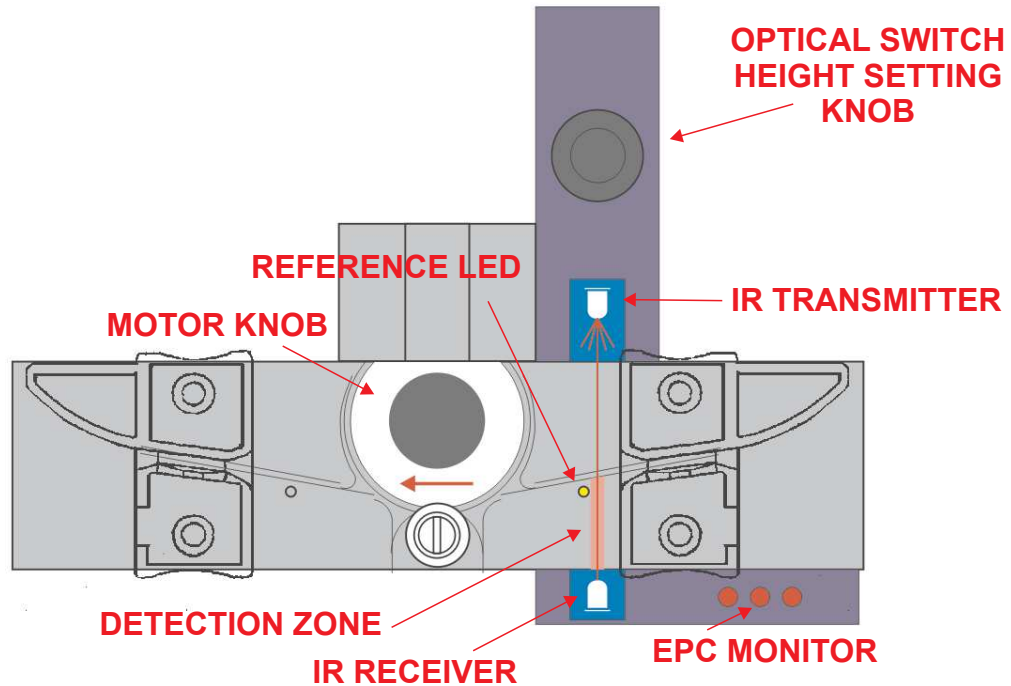
"0" no stop mode ("X" shown on display)

"EXIT" to continue with counting operations.

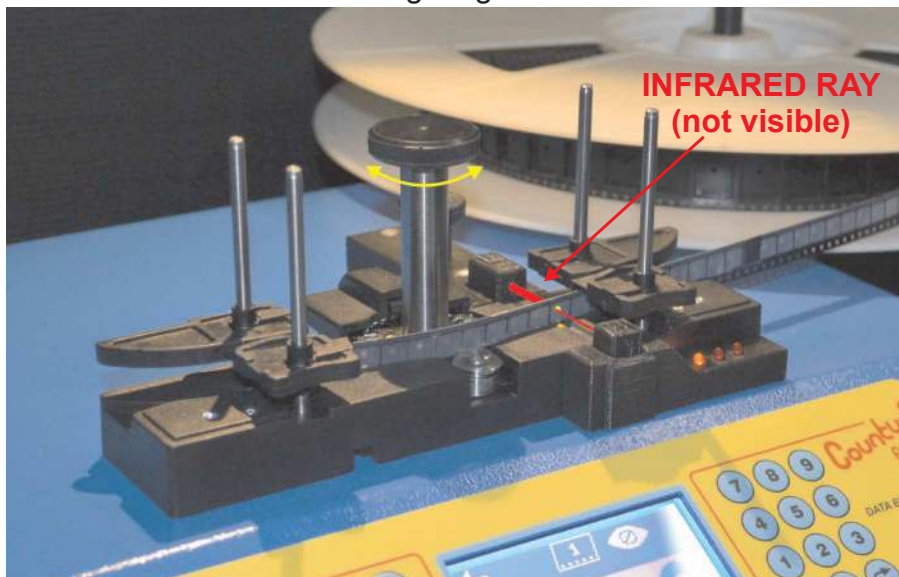
**NOTE: E.P.Check works only on black plastic tapes from 8 to 54mm of height.**



## E.P.CHECK OPTICAL SETTINGS

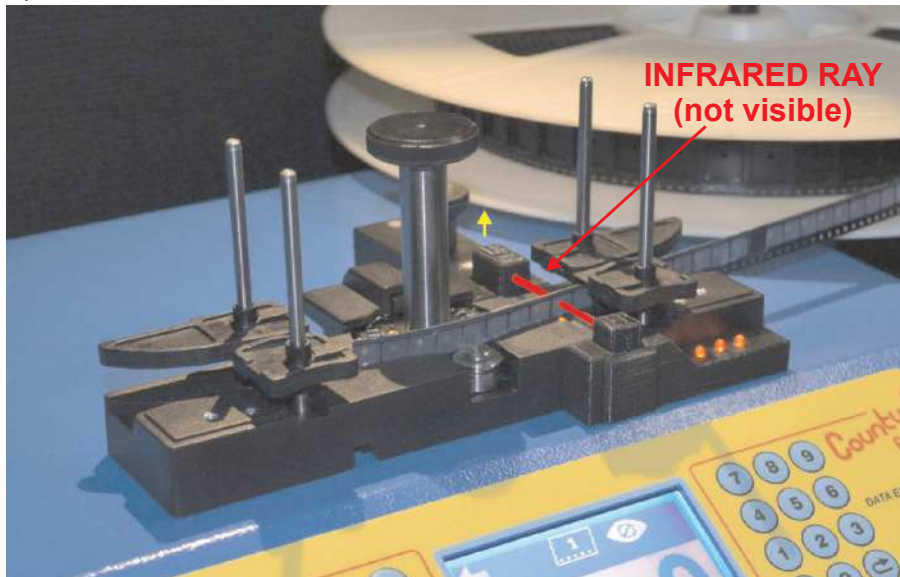


- 1) Press "LEFT" direction .
- 2) Put the tape in the counting head and push through into the driving wheel.
- 3) Place an Empty Pocket at the right of the REFERENCE LED in the DETECTION ZONE.
- 4) Rotate the KNOB in order to get the IR switch below the tape hole.
- 5) Move the MOTOR KNOB and the HEIGHT SETTING KNOB in order to get on the EPC MONITOR the lighting of the LEDs.

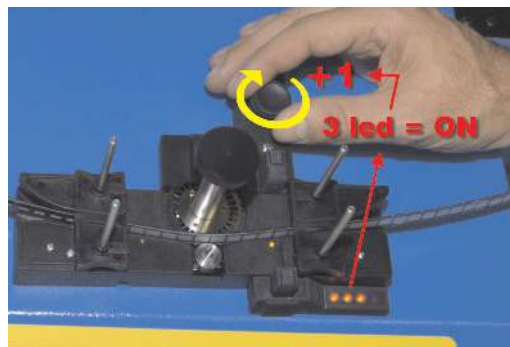


- 6) Move the MOTOR KNOB and the HEIGHT SETTING KNOB to get on the EPC MONITOR the lighting of the first LED only (best horizontal alignment of the hole).

7) Turn the HEIGHT SETTING KNOB until all the three LEDs are full lighted.



8) Turn the HEIGHT SETTING KNOB 360° clockwise (half turn) in order to give a better tolerance to the settings



### **PRELIMINARY OPERATIONS**

#### **TAPE LEADER without components**

Move the tape until you get the 3 EPC LEDs ON.  
Select "Totalizer" or "Preset"  
Press "START"  
The "Tape Leader" without components will not be counted, the count will start from the first valid component.



#### **TAPE LEADER with components**

Move the tape until you get a component into the detection area of the EPC  
Select "Totalizer" or "Preset"  
Add the number of components that are to the left of the EPC ( "Tape Leader") (see note below)  
Press "START"



**NOTE :**  
**VARIATION OF THE STARTING NUMBER OF THE COUNT**  
(to insert the components that are in the "Tape Leader")



Keep pressed the **"STOP"** key



push ◀ = INCREMENT  
or push ▶ = DECREMENT

## E.P.CHECK COUNTING



REWIND MODE:

The EPC eye indicates that system is active but empty pockets will not be taken into account.



**TOTALIZER MODE:**

The EPC eye indicates that EPC is active and empty pockets will be detected and counted.

**START AND STOP AT "STOP NUMBER"**



**STOP NUMBER = 2:**

The motor has stopped because 2 consecutive empty pockets have been detected ( i.e. tape trailer without components at end of tape)

## MAINTENANCE AND TROUBLESHOOTING

No particular maintenance is required.

### CLEANING THE OPTICAL SENSOR

A periodical verification and cleaning of the optical sensor is a good practice in order to avoid counting errors due to waste paper or plastic tape .

Remove first the plastic cover on the rear side of the counting head.


Use an air gun to remove dust and waste.

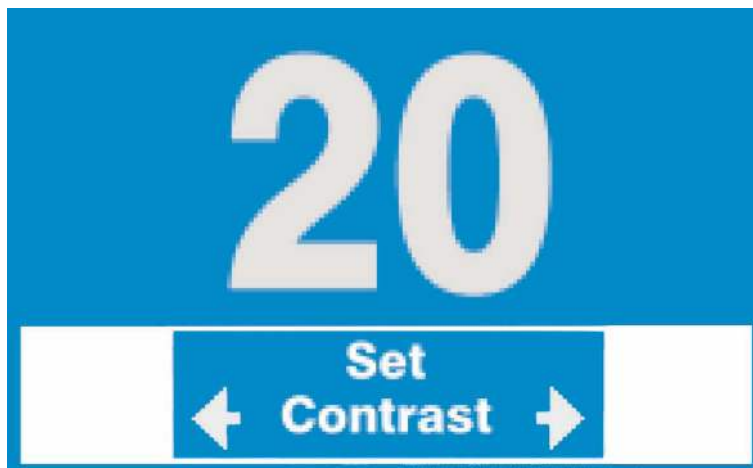
Reassemble the plastic cover.

### CONTRAST ADJUSTMENT


If the contrast of the LCD display is not correct do the following procedure:

1) Turn OFF the CountyS-EVO

2) Keep pressed the  key and without releasing it light-up the counter the display will show:



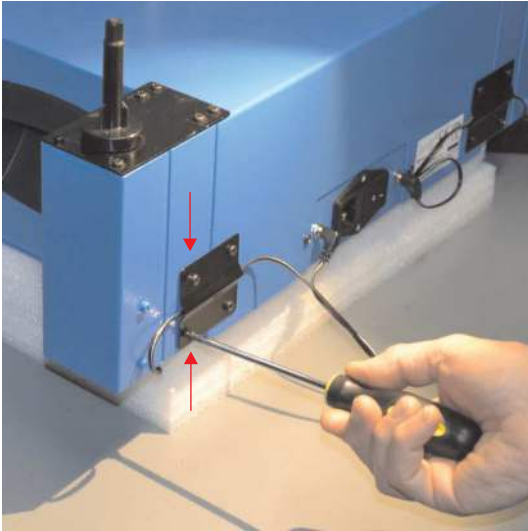
where 20 is the factory setting of the contrast.

Push  to set the correct contrast value.  
Turn off the counter to end the procedure.

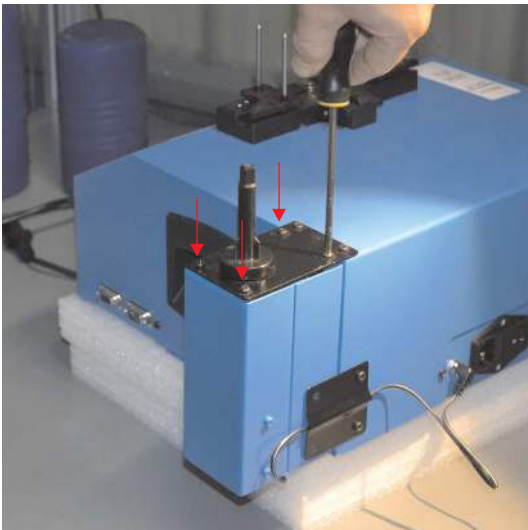


## REWIND MOTOR FRICTION ADJUSTMENT

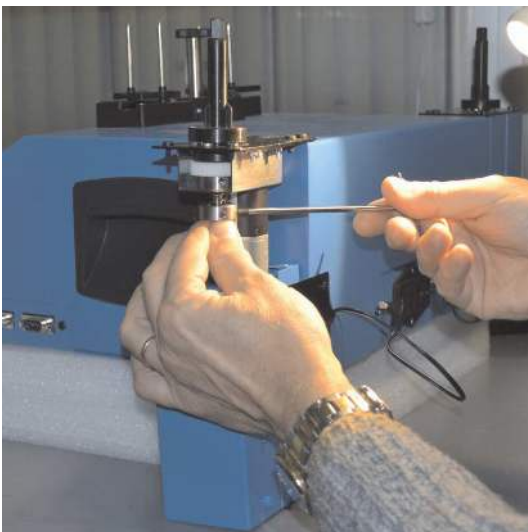
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- 1) Lift up the counter about 6-8 cm
- 2) Unscrew the 2 rear screws on the external side



- 3) Unscrew the 4 upper screws and put down the metallic cover




- 4) Loosen the 2 fixing screws on the steel nut
- 5) Push up the nut , fix the screws
- 6) Verify the setting with a reel
- 7) Reassemble the cover


## COUNTYS-EVO SELF-TEST

COUNTYS-EVO is provided with a self-test routine to check the inputs from sensor and microswitches and the functionality of the internal memory and clock.


1) Turn OFF the CountyS-EVO

2) Keep pressed the  key and without releasing it light-up the counter the display will show:



Keyboard test:	Z P S D R A < > f p X 0 ^ 1 2 3 4 5 6 7 8 9
Clock test:	seconds stepping from 00 to 59
Eeprom test:	OK or ERROR (blinking)
Microswitch :	L = left microswitch ACTIVE R = right microswitch ACTIVE
Tape Free Direction:	turn manually the sprocket CLOKWISE = L turn manually the sprocket COUNTERCLOKWISE = R
Tape Count:	start driver motor by pressing 
Barcode:	number increases/decreases according to the direction first seven characters of the barcode

### REWIND MOTOR TEST

Press  to test left rewind motor.

Press  to test right rewind motor.