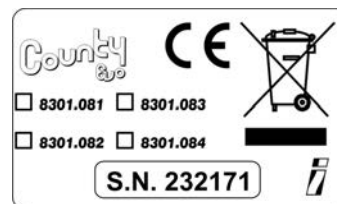


**COUNTY EVO mod.8301.08x**  
**REFERENCE MANUAL**



## CE CONFORMITY

Units 8301.081, 8301.082, 8301.083 and 8301.084 conform to EC directives **EMC - 2004/108/CE**, **LVD - 2006/95/CE**, the following harmonized standards are in use EN 60204-1, EN 61000-6-1, EN 61000-6-3



A weighted sound pressure <70dB (A)

A weighted sound power < 85dB (A)

## 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

## 1.1 GENERAL SPECIFICATIONS

Counting in both directions (left or right)  
Divider from 0.5 to 19  
TOTALIZER mode counting  
PRESET mode counting (with an audible alarm when the desired component number is reached)  
Calibration test and self diagnostic procedure  
Last counting value and condition memory  
Models 8301.082 and .084 with rechargeable battery, Barcode reader input, output for Printer/PC, Watch, Datalogger with 500 counting records .

Maximum counting value: . . . . . 999999 counts  
Minimum lead diameter: . . . . . 0.4 mm  
Axial component bandolier width: . . . . . 55 - 110 mm  
Radial component bandolier width: . . . . . max 18 mm  
Maximum component diameter: . . . . . 14 mm  
Display: . . . . . 4 digits 13 mm height  
Dimensions: . . . . . 240 x 130 x 110 mm  
Weight: . . . . . 1.8kg

## 1.2 MODELS

**8301.081** . . . . . County EVO 230V/50-60Hz  
**8301.082** . . . . . County EVO 230V/50-60Hz  
. . . . . with accumulator, barcode input, printer output, watch  
**8301.083** . . . . . County EVO 115V/50-60Hz  
**8301.084** . . . . . County EVO 115V/50-60Hz  
. . . . . with accumulator, barcode input, printer output, watch  
**8301.050** . . . . . ISO9000 Traceable® Certificate

## 1.3 OPTIONAL ACCESSORIES

Accessories for the counting of PTH taped components  
**8301.023** . . . . . Complete support for rolled bandolier(1 pcs)  
**8301.025** . . . . . Bandolier handle  
Accessories for the counting of SMD components  
**8301.018** . . . . . SMD Adaptor  
**8301.028** . . . . . SMD support for rolled bandolier  
**8301.030** . . . . . SMD bandolier handle  
  
**8301.155** . . . . . Barcode with coiled cord  
  
**8301.095** . . . . . Direct thermal label printer  
**8301.096** . . . . . 57x51mm, 1360 labels/roll

## 2 . . . . . SETUP

### 2.1 UNPACKING

---

Open the carton and check to see all the following items are there :

- 1) COUNTY EVO component counter corresponding to the model printed on the outside of the packing carton.
- 2) Power cord.
- 3) User's manual.(this manual)

**WARNING:**

As you unpack the County, set aside and save the packing materials.They will come in handy in case you need to transport it or send it back to recalibration.

### 2.2 LOCATING THE COUNTER

---

Choose the location for the County, using the following guidelines:

Choose a flat surface , with enough space for component handling  
Avoid direct sunlight (display will be more readable)

Use the counter within the following ranges :

Ambient temperature: 0°C to 40°C

Relative humidity: 10% to 80% (non-condensation)

### 2.3 POWER SUPPLY

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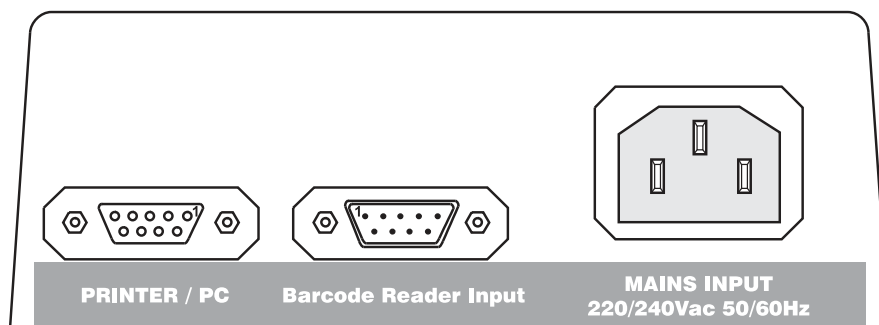
Attach first the power cord to the counter and then into an appropriate AC outlet.

**WARNING:**

The counters with rechargeable battery should be connectede to an AC outlet continuously powered, in order to allow a complete recharge of the battery. ( the medium recharge time is about 12 hours)

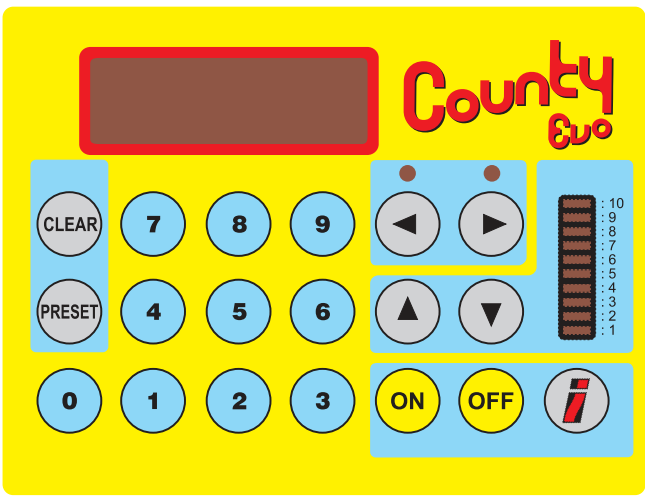
### 2.4 REAR CONNECTIONS

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# 3 . . . . . KEYBOARD

## 3.1 KEYBOARD



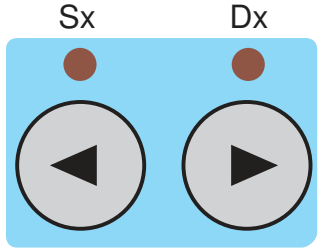
## 3.2 ON/OFF CONTROL



Keyboard section:

On : ..... press the ON pushbutton  
 ..... and hold it until the County lights on.  
 Off: ..... push OFF

## 3.3 COUNTING DIRECTION

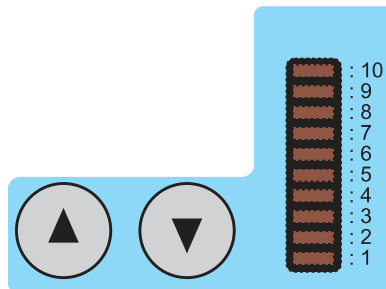


Keyboard section:

▲ ..... = left counting direction(Sx led is on)  
 ▲ ..... = right counting direction (Dx led is on)


### 3.4 COMPONENT LEAD NUMBER


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Keyboard section :

Led bar graph indicates the actual divider

Press  to increase component lead number.

Press  to decrease component lead number.

### 3.5 CONTROL SECTION

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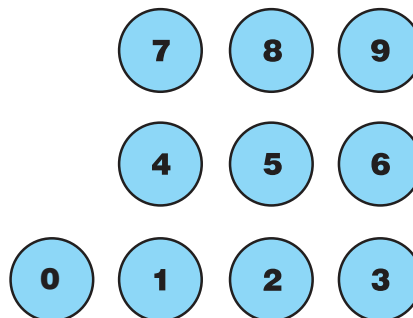
Press CLEAR to reset display and to set TOTALIZER mode counting.

Press PRESET to recall previous memorized preset value and to set PRESET mode counting.



### 3.6 PRESET DATA ENTRY

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### 3.7 SPECIAL FUNCTIONS

---



This key is reserved for special functions

- 1) During programming:  
Printer parameter setting (date, hour, printer type, barcode, barcode width)
- 2) During execution: thermal label printing.

# 4 . . . . . OPERATIVE INSTRUCTIONS

## 4.1 PRELIMINARY OPERATIONS

Lighting: press the ON pushbutton and hold it until the County lights on.

Counting direction : select the counting direction by pressing ◀ or ▶ .

Counting direction is indicated by the Sx and Dx leds placed upon the keybut-ton .

Select the number of component leads by pressing :

▲ or ▼ (LED Bargraph indicates the actual divider

1 . . . . . 1 for resistors, SMD pitch 4mm, etc.

2 . . . . . 2 for radial capacitors, SMD pitch 8mm, etc.

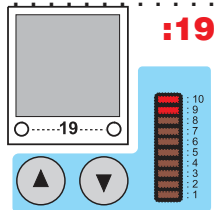
3 . . . . . 3 for transistors, SMD pitch 12mm, etc.

4 - 10 . . . . . SMD

DIVISION from 11 to 19:

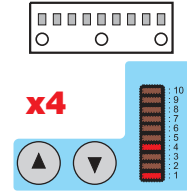
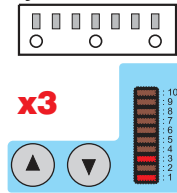
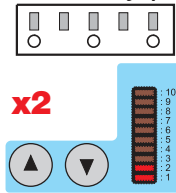
step over :10  
by pressing repetitely

the ▲ key.



SMD COMPONENTS size 0402-0201-01005

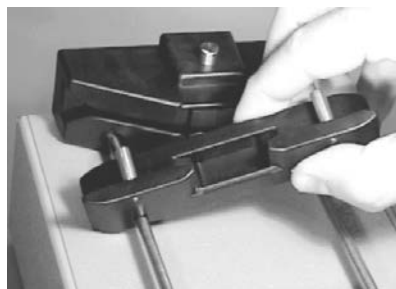
step over :1 by pressing repetitely the ▼ key.



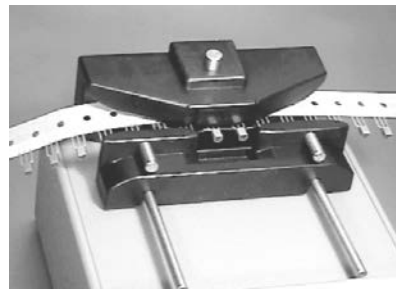
### AXIAL COMPONENT COUNTING



### RADIAL COMPONENT COUNTING



1 - Pull up the tape guide



2 - Rotate the guide of 180°



## **4.2 TOTALIZER**

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Press CLEAR to reset the display.

Pull through the component bandolier according to the feed direction.

After 10.000 counts and up to 999999 the two most significant digits will appear alternatively to the four least significant ones that are normally visible on the display.

## **4.3 PRESET MODE**

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Press PRESET.

Digit the desired component number.

Pull through the bandolier; the County EVO will start counting from ZERO up; if PRESET NUMBER will be reached intermittent buzzing tone will signal, with different repetition frequency, the relative position with respect to PRESET.

To recall the previously set number press PRESET.

Preset mode counting is indicated by the divider LED blinking.

After 4 inoperative minutes the counter will be switched off automatically.

## **4.4 BATTERY**

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For recharging, keep the mains cable inserted with the counter in the OFF state.

For battery maintenance, please recharge at least once a month. Do not store the counter with the battery full down.

## **4.5 MAINTENANCE**

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Keep the lenses of the optical head clean with a cloth moistened with a cleaning product.

## 5 . . . . . SMD ADAPTOR



The County adaptor for taped SMD components counting is an option. Components counting is achieved by counting the punched holes on the SMD tape.

### 5.1 OPERATIVE INSTRUCTION

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- 1) Insert the adaptor on the guide rods , apply a slight pressure until the adaptor is locked in place.
- 2) Push the adaptor in contact with the optical head.
- 3) Cut the tape to the middle of the first hole.
- 4) Select the correct number of holes per component by pressing : ▲ or ▼
- 5) Push trough the tape until the the hole of the first component to be counted is in correspondence with the center of the wheel then continue in the usual way(totalizer or preset mode)

**NOTE: take care at the counting end not to take off the tape of the wheel because any free wheel motion will cause an excess of counts.**

## 6. . . . THERMAL LABEL PRINTER and BARCODE


Only for 8301.082 and 8301.084 models.





Sample of a printed label , Bar Code included.

**NOTE:** Turn the power supply off, then fit together the printer, the Barcode Reader and the counter with the data cables included .

### 6.1 PARAMETER SETUP

With the counter in the “OFF” state keep the  button pressed while light on the counter with the ON button.

Select the parameter to be modified by pressing  or 

To enter/exit the parameter setup procedure press the PRESET key.  
To end parameter setup press OFF.

## 6.2 PARAMETERS

---

YEAR ("YEAR")	Input the last 2 digits of the current year ( "14" for the 2014)
MONTH ("Mont")	input 2 digits of the current month
DAY ("dAY")	input 2 digits of the current day
HOUR ("Hour")	input the current hour
MINUTE ("Minu")	input the current minutes
PRINTER ("Prin")	"0" for connection to a PC "1" to print on 8301.090 printer "2" to print on 8301.095 printer
BARCODE ("bArc")	"0" no barcode printed "1" = code 39 "2" = code 128
WIDTH ("Uidt")	"0" barcode width = narrow "1" barcode width = normal "2" barcode width = large

## 6.3 LABEL PRINTING

---

Acquire the Barcode .

Press the  key.

## 7 . . . . . CONNECTION TO A PC

Only for 8301.082 and 8301.084 models.

It's possible connect the counter to a PC with the Windows operating system XP/2000/Vista/7/8/10.

Set the parameter "PRINTER" to "0" (see section 6.1 "Parameter Setup").  
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

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

### SENDKEYS

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

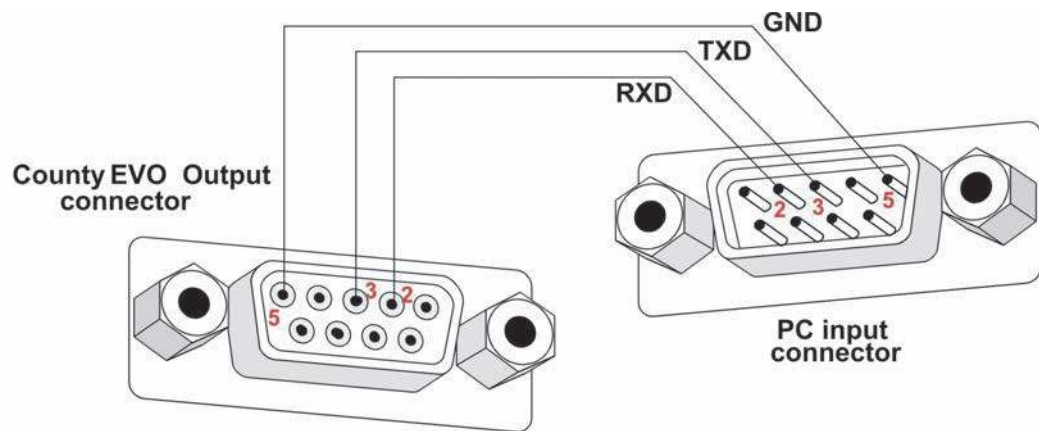
### DATALOGGER

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Turn on the County EVO holding the  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

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## CONNECTION TO THE USB INPUT OF THE PC

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Use a RS232 to USB adapter.

## 8. . . . . CALIBRATION PROCEDURE AND TEST

### 8.1 AUTOMATIC RECALIBRATION

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8301.08x models are provided with an intelligent self calibration routine.

### 8.2 MANUAL RECALIBRATION

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If any counting problems should appear, a manual calibration should be performed to check if the parameters of the optical head are in tolerance. Connect mains power cord. With the counter in the "OFF" state keep the PRESET button pressed while light on the counter with the ON button.

**ATTENTION : be sure that no components or SMD adaptor are in the optical head.**

Display will show alternatively the channel 1 and the channel 2 calibration values.

Check the two values and make this controls:

- 1) Values have to be >12
- 2) Difference between them should be less than 20%

If step 1 or step 2 are not satisfied then the optical head should be replaced.

### 8.3 TEST and TROUBLESHOOTING

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After CHANNEL 1 and CHANNEL 2 the display will show:

#### LAMP TEST

All displays and leds in the ON state.

#### EEPROM CHECK

Functional check of the datalogger eeprom :  
" 500" = EEPROM OK                      " Err" = EEPROM FAIL

#### WATCH CHECK

Display will show seconds elapsed

To exit from the calibration procedure keep pressed the OFF button. Then light again the counter and operate in the usual way.