Mini-Counter
BLOP-SC3

Instruction Manual
(Current as of Jan. 2012)

Introduction
BLOP-SC3 has the same features as BLOP-SC1 except interface with external equipments. The specification may change without notice.

Outline
The BLOP-SC3 can be connected between HIOS BL-OPC series and the power supply, T-30BL or T-70BL. Each setting can be checked and changed at the button of the display panel.

SC3 Series Count Function
1. The number of screws to be tightened for a particular work piece can be set to between 1 and 99 for this unit. The remaining number of screws to be tightened is counted down in the display after each screw has been tightened.
2. The buzzer beeps after the final screw has been tightened to prevent the operator from forgetting to tighten screws.
3. The auto reset function automatically updates the unit’s display when all screws are tightened and can be used to prevent the driver from being used until the SET signal is received when the next work piece is set.
4. Prevents tightening check and increase tightening (tightening the screw once more) from counting.
5. The unit can be set so that it does not count screws which have not been properly seated and cross-threaded screws. * Varies with the type of work being performed.

Installation Area
* Use the HIOS Power Supply designed for the driver.
* Install the unit in a temperature and humidity controlled room with adequate ventilation.
* Install the unit in an area where it is not subjected to dust, dirt or metal fragments.
* Install the unit in an area where it is not subjected to water or oil.
* Do not place heavy items on the unit.
* Select a safe installation area that is free from vibrations.
* Do not install the unit near other high-voltage equipment or electrically noisy environments.
* Do not bind both input and output cables with other cables such as power cable. It may cause incorrect movement of the counter.

Precautions for Use
* Ground the HIOS power supply connected to the unit and use the power supply within the specified voltage. Exceeding the rated load can cause a malfunction.
* Use the unit in temperatures of 5°C to 40°C and 80% or less humidity (with no condensation).
* Always hold the plug when connecting or removing the driver cord.
* Do not pull the cords, drag them across oil or sharp edges, or place heavy objects on top of them. Doing so may result in severed wires or malfunctions.
* When the screwdriver locked during tightening, the power supply over-current detector is activated and shut-off the output. If this happens many times, it must be applied more torque or power than the specification of either screwdriver or power supply. Even if the trouble happens within the specification, switch off the connected HIOS power supply, disconnect the AC plug, and then inquire to your distributor.
* If the unit overheats, turn off the main power switch of the connected HIOS power supply, remove the power cord from the power outlet and cool down the unit. The unit may be used again once it has cooled down. If it overheats again immediately stop using the unit, turn off the main power switch, remove the power cord from the power outlet and inquire to your distributor.
* When tightening screws on plastic work pieces that may contain a lot of static electricity build up, remove electricity before starting work. If electricity is not removed, static electricity may flow from the end of result, in incorrect operation.
* Do not drop or give strong shock to the counter.
* Do not connect drivers other than those manufactured by HIOS. It may cause malfunction.
* Turn the main power switch of the HIOS power supply OFF if the unit is not used for a prolonged period of time, and remove the power plug.
* Never dismantle or modify the unit. Doing so may result in a malfunction and make it difficult to repair.

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>BLOP-SC3</th>
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<tbody>
<tr>
<td>Primary</td>
<td>Input voltage</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>0.5 W (Max.) / DC 31 V</td>
</tr>
<tr>
<td>Secondary</td>
<td>Output voltage</td>
</tr>
<tr>
<td>Dimensions</td>
<td>(mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>(g)</td>
</tr>
<tr>
<td>Accessory</td>
<td>Instruction manual (1 copy)</td>
</tr>
</tbody>
</table>

BLOP-SC3 and Power supply

<table>
<thead>
<tr>
<th>BLOP-SC3</th>
<th>Number of screwdriver</th>
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</thead>
<tbody>
<tr>
<td>BL-OPC screwdriver: BLG-4000-OPC, BL-2000-OPC, BL-3000-OPC, BL-5000-OPC, BL-6500-OPC and BL-7000-OPC, to be used with HIOS power supply for BL series.</td>
<td>1 unit only</td>
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Trouble shooting

1. Main Features and Terminology
   a. Tightening Check
      * Refers to the act of tightening screws a second or third time to check that the screws have been tightened properly or to completely seat the screw. The terms second tightening or increase tightening may also be used for the same meaning.
   b. Torque Up
      * After each screw has been tightened, the torque reached to the set level of the electric screwdriver and then the clutch is disengaged.

   2. BL-OPC Specifications (electric screwdriver)
      * BL-OPC specifications refer to BL (brushless) electric screwdrivers with output functions that have normal rotation, reverse rotation and torque up signal output functions.

3. Screw Tightening Over and Screw Tightening Complete
   * “Screw tightening over” in the instruction manual refers that one screw has been tightened properly or to completely seat the screw. The terms second tightening or increase tightening may also be used for the same meaning.
   * “Screw tightening complete” in the instruction manual means that all screw tightening operations for a certain work piece have been completed.

4. Counter Mode
   * The number of screws to be tightened can be seen in the count down display as each screw is tightened.

5. Accessory Instruction manual (1 copy)

Operating, Display Panel

- Function Display
- Count Display
- 5-pin metal Connector

Driver Connector (6 pin)
- Connect with 5-pin driver cable with power supply. Do not connect with screwdriver.
- Do not connect other than BL-OPC type screwdriver, brushless screwdriver as well.

Driver Connector (6 pin)
- Connect with 6-pin driver cable with power supply. Do not connect with screwdriver.
- Do not connect other than the power supply for HIOS BL series, T-30BL or T-70BL only. Also use the power supply which is suitable for the screwdriver. Otherwise the power supply will be overloaded or the screwdriver cannot get enough power to fasten.
- Count Display
- Does not display the count. Once count down begins, it shows remaining count.
- After finish fastening, count down to show the remaining screws to be fastened.

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Setting and Operating Procedures

(1) Pressing the F1 switch, change to System Setting mode (function display “c”) and set the time on the work reset timer using the time until reverse rotation is operated.

(2) Pressing the F1 switch, after settings are complete, it moves to the next item to be set.

Phenomenon

Power does not ON.

Check points

(1) Confirm that the 6-pin driver cord and 5-pin DC power cord is OK.
   • AC cord of power supply, T-30BL or T-70BL is connected to AC plug.
   • If AC cord is not connected, connect it and Power ON the AC Switch of power supply.

Counter function is not working.

(2) Consult with HIOS Inc.