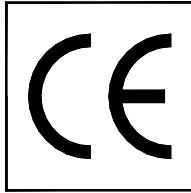


DECLARATION OF CONFORMITY



KOLVER S.r.l.
Via Marco Corner, 19/21
36016 THIENE (VI) ITALIA

Declare that the new tool here described:

Electric screwdriver:

BRL07AS 160007 BRL07AS/CA 160007/CA
BRL10AS 160010 BRL10AS/CA 160010/CA
BRL16AS 160016 BRL16AS/CA 160016/CA

Is in conformity with the following standards and other normative documents:

98/37/CE, 89/336/CE and 2006/95/CE,
EN 50144-1 and EN 602004-1

It is also in conformity with RoHS normative.

Name: Giovanni Colasante
Position: Managing Director

Giovanni Colasante
KOLVER S.r.l.



Operator's Handbook

IDENTIFICATION DATA OF THE MANUFACTURER

KOLVER S.r.l.
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TEL +39 0445 371068
www.kolver.it

IDENTIFICATION DATA OF THE PRODUCT

BRL07AS 160007 BRL07AS/CA 160007/CA
BRL10AS 160010 BRL10AS/CA 160010/CA
BRL16AS 160016 BRL16AS/CA 160016/CA

TECHNICAL DATA OF THE PRODUCT

TENSION: 40V DC
POWER: 50W
SPEED: 07:1000; 10:650; 16:450
TORQUE RANGE: 07:0,1-0,7; 10:0,05-1,0; 16:0,1-1,6

GENERAL SAFETY RULES

WARNING: when using electric screwdrivers, basic safety precaution should always be followed to reduce the risk of fire, electric shock and personal injury. Read all the instructions below before using the screwdriver and save them.

1. **Keep the work area clean and well lit.**
2. **Do not use the electric screwdrivers in damp or wet locations or in presence of flammable liquid or gases.**
3. **Avoid body contact with grounded surfaces such as pipes, radiators, refrigerators, etc.**
4. **Keep children and visitors away from work area.**
5. **When not in use screwdrivers should be stored in dry and locked-up place and out of the reach of children.**
6. **Do not use the screwdrivers for purposes or work not intended.**
7. **Dress properly. Do not wear loose clothing and jewellery. Wear protective hair covering to contain long hair.**
8. **Never carry the screwdriver by its cable or pull it to disconnect it from socket.**
9. **Use clamps or a vice to hold work.**
10. **Keep proper footing and balance at all times.**
11. **Inspect tool cable periodically and, if damaged, have it repaired or replaced by authorized service facility. Always keep handles dry, clean and free from oil and grease.**
12. **Disconnect tools from power supply before any operation of servicing, when changing accessories and when you do not use them.**
13. **When screwdriver is used outdoors, only operate with extension cords intended for use outdoors and so marked .**
14. **Pay attention while working. Do not operate screwdriver when you are tired.**
15. **Always check the screwdriver is not damaged before using it. Detective switches must be replaced by authorized service center. Never use tools that cannot be turned on or off by the switch.**
16. **The use of any other accessory other than recommended in this operating instruction may represent a risk of personal injury.**
17. **Have the screwdriver repaired only by authorized and expert people. Failing to do so may represent a serious danger.**

WARNING: before connecting the control unit and power supply to the socket, please check the voltage you are using is that indicated on the label of the unit itself.

1. Applications

KOLVER electric screwdrivers are used to tighten to the required torque screws, nuts, studs and any other kind of threaded connection on any material. Obviously, it is possible to use the screwdrivers with screw having a larger diameter if the torque falls within the indicated range. All models are reversible and can consequently be used to unscrew. Electric screwdrivers are mainly used in the electronic industry as well as for electric appliances, wiring, toys, lamps, glasses, in the mechanical light industry etc.

2. Use

KOLVER screwdriving system is composed by a screwdriver, a cable with 2 x M12 female 8 pin connectors and a power supply and control unit. To install it please follow the instructions.

- a) Connect the 8-pin connectors of the cable to the controller EDU 1BR and to the screwdriver and tighten the relevant nuts.
- b) Connect the controller plug to a main supply socket 90 / 230V- 50/60Hz.
- c) Switch the controller on through the black button on the back panel.
- d) Select the desired setting of speed (SPEED), slow start (RAMP) and torque (TORQUE) options through the relevant knobs. Two ranges of torque are selectable through the TORQUE RANGE switch. Please make sure that such options are compatible with the torque setting.
- e) Similarly, the slow start setting should be chosen according to the torque that must be reached at full speed and not when the slow start is still in action.
- g) Do not slide the forward/reverse while the motor is running, it's dangerous for the motor! For a long life of motor not pass over 60° C when it works.

3. Control unit and power supply / Adjusting torque

EDU 1BR power supply and control unit acts as voltage transformer and electronic torque controller.

The power supply (90/260VAC-50/60Hz), is converted into 40VDC required by the BRL (brushless) series through an electronic transformer with a constant power of 120W. The electronic control circuit cuts the power supply when the current reaches the setting level.

On the front panel of the controller there are three knobs .

The knob "RAMP" is used to adjust the slow start option (ramp) from 0 to 2 seconds, i.e. the motor will reach the nominal speed gradually. Dial "1" for no ramp and "10" for maximum ramp.

Knob "SPEED" is used to adjust the motor speed for nominal speed, i.e. speed as per ctg. data sheet, to 60% of nominal speed. Dial "1" for minimum speed and "10" for nominal speed.

Knob "TORQUE" is used to set the torque range. Two ranges of torque are selectable through the TORQUE RANGE switch. Level "L": the range is approx. from 0 to 30 % of the data sheet screwdriver range. Level "H" :the range is approx. from 20% to 100 % of the data sheet screwdriver range.

OFFSET CALIBRATION SCREWDRIVER:

When the screwdriver is used for the first time, we suggest to calibrate the offset in the control unit so that the full range of torque may be achieved. Please follow the instructions:

- a) Switch the control unit off,
- b) Connect the screwdriver in order to run clockwise
- c) Push start and keep on pushing,
- d) Switch the control unit on.

After 5 secs, the motors will start running at different speeds until the end of the offset cycle. Repeat this procedure either in L and H range.

Do this once; it will not be necessary to repeat it anymore, unless you change the screwdriver.

FRONT PANEL LIGHTS:

On the front panel you can also see 3 lights: the green one (POWER) will light permanently when the power is on; the yellow one (TORQUE) will light only when the torque has been reached and the red one (ERROR) will light only when the torque is not correct (screw closed or torque reached during the RAMP time).

The temperature of the unit can normally reach 45°C.

BACK PANEL I/O

EDU1BRL/SG can be used with any Kolver BRL screwdriver, either lever, inline, pistol type or CA version.

CONTACT INPUT					OUTPUT 24V 0,5W				
1	2	3	4	5	6	7	8	9	10
COM 0 VDC	START	REVERSE	STOP	TORQUE H/L	TORQUE	LEVER	ERROR	COM 0 VDC	NOT USED

The back panel contains only one connector. Input contacts: start, reverse and stop motor; and adjustable torque range H/L (through contact). Output signals: torque, pressed lever and error (24V 20mA).

- Capability to START and stop the screwdriver by a contact between PIN1 and PIN2.
- Capability to REVERSE rotation of the screwdriver by a contact between PIN1 and PIN3
- Capability to STOP the motor in any moment by a contact between PIN1 and PIN4
- Capability to choose the TORQUE RANGE L by a contact between PIN1 and PIN5. On the front panel the torque range switch must be put on H position.
- Capability to check the torque reached through an high active signal 24V DC between PIN1 and PIN6 (TORQUE SIGNAL).
- Capability to check the lever through an high active signal 24V DC between PIN1 and PIN7 (LEVER SIGNAL).
- Capability to check the error (screw closed or torque reached during the RAMP time) through a high active signal 24V DC between PIN1 and PIN8 (ERROR SIGNAL).

The torque, lever and error signal goes out when you release the lever.

ATTENTION :

- Do not slide the forward/reverse while the motor is running.
- Do not give voltage on input connector but use only the contact in the I/O connector.
- Do not exceed the maximum total output current (60 mA). If you exceed, signals won't work and the red led on the back panel will light permanently. To restore the signal check the connections and switch off the machine for 3 seconds.
- Do not exceed the work motor temperature (60° C).

On the back panel you can find a socket equipped with a fuse holder and on/off switch. To replace the fuse just pull out the fuse holder and change the fuse.

Always remember to switch off the control unit at the end of each working shift.

To check the torque value we suggest the use of K1 or K5 torque tester.

4. Maintenance

The EDU 1BR control unit is a maintenance free unit.

The BRL screwdriver's motors are also maintenance free.

NOTE

The sound level generated by Kolver electric screwdrivers is always lower than 70dB(A).

The vibrations transmitted to operator's hand are lower than 2.5m/s². In particular the exposition to vibrations is lower than 1m/s² for operators who make up to 4200 screwing cycles per day.

5. Warranty

KOLVER warrants its products for a period of one year from the date of original purchase. Any products which examination proves to be defective in workmanship on material will be repaired or replaced free of charge during the warranty period. For repair or replacement return the product, transportation prepaid, to your nearest KOLVER service center. This warranty does not repair or replacement required as a consequence of misuse, abuse, normal wear and tear.