

CL-9000

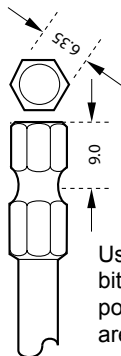
Push-to-Start Type
(comes with shockless stand)

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Precautions for Safe Operation

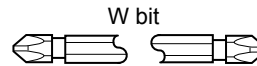
1. Check that the power is off before changing the bit. It takes only a slight amount of pressure for a push-to-start driver to go into operation. Accidental pressure on the tool could result in the high-speed bit causing unexpected damage. Before touching the bit always check to see that the power is turned off or the **power switch** (FOR/OFF/REV) is set to the off position in the middle.
2. This high-torque tool delivers considerable punch. It should be operated only when the **stand base** is securely bolted to a sturdy work bench.
3. For safe operation use bits conforming to the standards indicated in the diagram on the left below. The diagrams on the right indicate bits that cannot be used with the CL-9000 driver.

Bits for use with CL-9000

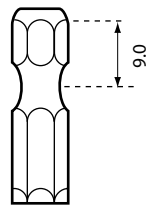
Use size 6.35 mm hexagonal bits whose length from the point to the bearing groove are 9 mm.

Bits unsuitable for CL-9000

Double recess bearing groove



W bit



Bits whose length from the point to the bearing groove is not 9 mm.

4. To protect the functioning of the tool and transformer and insure their safe operation, never use them in an environment where they might be penetrated by water, oil, etc.
5. Dropping the tool or subjecting it to strong impacts can harm it. Please exercise care it handing it and the transformer.
6. When reversing direction of rotation, first set the **power switch** to the off position between FOR (forward) and REV (reverse) and wait until the driver has completely stopped turning.
7. The CL-9000 driver uses external carbon brushes that cannot be replaced by the user. In order to avoid deterioration of insulation from brush wear, we recommend that the tool be sent to your Hios dealer for replacement (1) after about 1 million operations, (2) when your Hios repairman recommends replacement upon an annual maintenance check, (3) when the tool begins to show irregular rotational movement, the motor sound is abnormal, there is overheating or the tool is no longer operating at full strength.
8. Be sure to ground the tool.

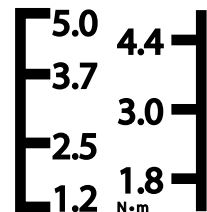
Operating Procedure

1. Fasten the **stand base** to the work bench securely, employing all three holes provided so that it will withstand the torque delivered by the tool.
2. Pass the **slide arm** through the **shockless holder** and adjust the desired height of the arm on the stanchion by loosening the **wing screw** and moving the **collar**. Re-tighten the wing screw.

Caution: Vibration may loosen the wing screw. Please check it periodically.

3. Check to see the point of the bit fits the type of screw to be turned. Neglecting this check can result in damage to screw heads.
4. Attach the bit to the driver by pushing the **joint shaft collar** into the body. Check that bit is firmly attached.
5. Connect the **5-core driver cord** to the CLT-80 **Power Pack**. Then connect the power cord to an AC outlet. Turn the power switch of Power Pack on and check that the power lamp lights.

The scale indicates output torque.



6. Use the torque adjustment nut to make the desired output torque level scale setting. Note that this setting should be taken as an approximate value. Make the setting by loosening the **adjustment nut stopper** and adjusting the **torque adjustment nut**. The figure at the right shows the torque scale. When the setting has been made, re-tighten the torque adjustment nut stopper securely.
7. Next, try tightening one screw as a test. Set the **power switch** to the forward (FOR) position and turn the screw by lightly applying the point of the bit to the head of the screw. When the screw is tightened, remove the bit from the screw head.
8. Using a Hios torque meter HDP Series*, loosen the screw, measuring the amount of torque. If the screw wasn't tight enough, increase the driver's torque setting, or if not tight enough, decrease the torque setting. Use this procedure to find the right torque setting for the fastening job.
9. To loosen a screw, set the **power switch** to the reverse (REV) position. The tightest screw can be loosened by tapping the bit to the screw head a number of times.

Caution: When switching between forward and reverse drive always stop the operation of the motor by setting the power switch to the middle position and waiting until rotation stops completely before proceeding to the opposite drive setting.

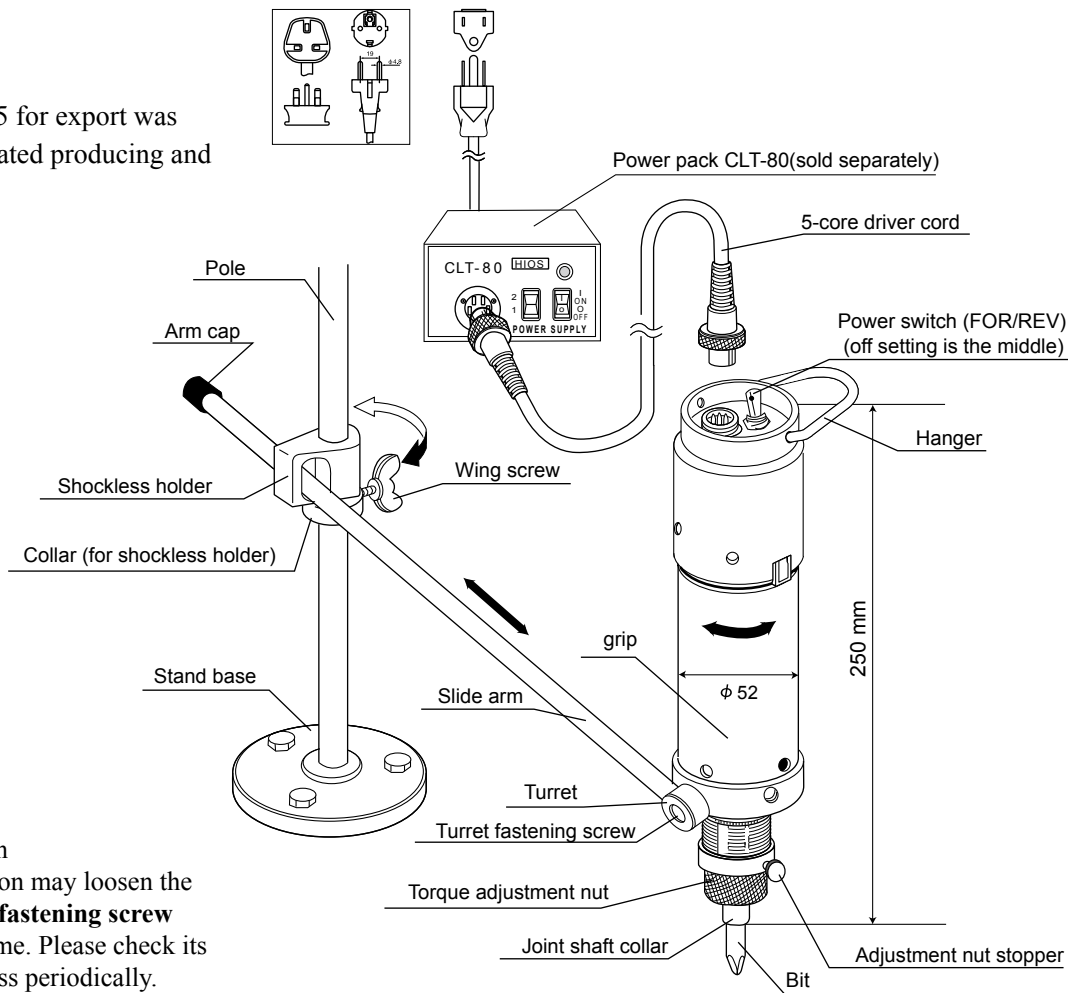
* We recommend Hios torque meters for use in measuring tightening torque of screws and making driver torque settings.

- Use the Hios HDP torque meter series for measurement of loosening and tightening torque of the fastened screw.
- The HP series of torque meters can be used for checking torque settings of screwdrivers, torque drivers or torque wrenches.

These instruments are displayed on the Hios home page: www.hios.com

Parts of the CL-9000 Shockless Stand

CLT-75 for export was terminated producing and sales.



Caution
Vibration may loosen the **turret fastening screw** over time. Please check its tightness periodically.

■ Specifications

		CL-9000
Controllable Torque Range	N•m	1.2 - 5
	lbf•in	10 - 43
	(kgf•cm)	(12 - 50)
Torque Switching		Stepless adjustment
Unloaded Rotation Speed (r.p.m)		HI:544, LOW:360*
Screw Size (mm)		4.0 - 6.0
Weight (g)		2,360 (Includes the weight of the screwdriver cord and slide arm)
Bit Type		6.35 mm HEX bit

* DC20V output is only for Machine screw.

■ Specifications of Shockless Stand

Slide arm (mm) (effective sliding range in parenthesis)		530 (475)
Height of pole (mm)		570
Stand base	Height of base (mm)	8
	Attachment bolts inner diameter of bolt holes (mm)	6
	Respective distances between attachment bolts (mm)	52

■ Specifications of CLT-80 power pack

Input voltage	AC100V-240V 47-63Hz
Output voltage	2:(30V), 1:(20V) Two stage settings
Size (mm)	116(W)×210(D)×55(H) mm
Weight(kg)	1.37kg
AC Cord Length	1.8m (inlet cord)
Accessories	Attachment plates 2 pieces
	Attachment screw 4 pieces

ASSY of Parts (one of each)

- Stand ASSY: Pole, Stand base, Collar (for shockless holder), Wing screw.
- Arm ASSY: Slide arm, Shockless holder, Slide arm with slide cap, Turret, Turret fastening screw.

■ Specifications

Bits	Power cord
6.35 mm HEX bit	2 m (5P) 1 piece
⊕ #2 ∅ 7 x 100 mm	
⊕ #3 ∅ 7 x 100 mm	
(one of each)	