

SON Schmidts Original Nabendynamo

Instructions for Use SON 28 / SON 28 disc

Schmidt's Original hub dynamo SON 28 is licenced for wheels with outer diameter 400-742 mm.

In terms of function, reliability and design, the Schmidt Edelux LED-headlights are ideally suited for use with SON 28. Other high grade headlamps, e.g. those of Busch & Müller, are also suitable. These headlights are provided with an integrated overvoltage protection. You recognize it

mostly by the following test symbol: 

Halogen headlights without overvoltage protection may not be used.

Running a SON 28 and caring for it is very easy. Please note the following details nevertheless. Wheel building and wiring should be done by a competent person.

Fitting the Front Wheel

The SON 28 is suitable for fitting in forks with 100 mm fork width and 9 mm axle slot. The electrical connections may be placed either on the left or on the right side. The front wheel is fastened with a standard skewer (an Allen fitting, a quick release or anti-theft device). The shaft of the bolt should not be greased to prevent clogging of the pressure compensation system. It is indispensable that you regard the manufacturer's instructions.

Concerning the Allen skewer delivered with SON 28 please note:

Thread and bolt head should be greased, but not the shaft of the skewer.
Fasten the SON 28 with a tightening torque of 8-10 Nm at the Allen skewer.
Following installation check the tightening torque after 300 km.

If the skewer is tightened insufficiently, the axle might move in the fork slots causing a rattling noise.

Regularly check the firm fitting of the front wheel.

Important Notes

A hub dynamo generates high voltage when lights are switched off and at the very moment of switching it off. Touching it in such a moment might be painful or even dangerous.

For this reason, careful, contact-free wiring must be ensured.

The pole sensitivity of the dynamo (resistance when turning the axle by hand) is a feature of the claw pole generator and has nothing to do with the smooth running of the bearings.

SON hub dynamos might interfere with the function of bicycle computers with radio transmission.

Care and Maintenance

The generator itself is optimally protected within the hub and is fully wear and maintenance free as it works without gears or contact.

To prevent water ingress, the hub should never be exposed to strong jets of water (hose, pressure washer) or immersed in water.

The deep groove ball bearings of the hub are permanently lubricated and also maintenance free under normal conditions of usage, i.e. they cannot be adjusted and require no further lubrication. A small amount of play is normal in deep groove ball bearings and will not result in damage.

The SON 28 axle and the parts on it have no threads so that nothing can or may be adjusted.

Guarantee period is 5 years. Importers and competent dealers offer service.

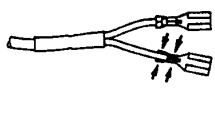
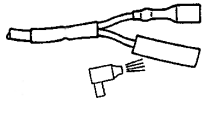
Version for disc brake SON 28 disc

The versions with 6-hole or Shimano center lock mount are made for use on pavement or limited off-road use. The distance between the spokes and brake caliper can be too small in 700c wheels with small rotors. The fork dropouts must be well fitting and equipped with laywer's lips.

Fitting the Headlight

Wiring is quite simple, if the SON 28 connectors are already mounted to the headlight cable: Pass the cable along the inside of the fork blade to the SON and plug it in (contacts arbitrarily interchangeable). Fasten the cable with zip ties at the fork so that plugs can be easily disconnected before the

wheel is removed. Switched headlights from other manufacturers have twin-wire cable in place of coaxial cable. Cut cable to a suitable length, separate the two conductors over a length of about 4 cm and strip the ends for about 5 mm.

	<ul style="list-style-type: none"> Slide shrink tube over split Crimp the plugs on with a crimping tool or pointed pliers (if in doubt, solder as well); the first pair of claws must grip the insulation
	<ul style="list-style-type: none"> Shrink on the shrink tubes Grease the plugs a little, so you can push the contacts onto the SON hub dynamo more easily

Connecting the Rear Light

The SON 28 has a nominal power of 3 Watt. It is therefore designed to operate a rear light and a headlight. If you run a headlight on it only, the headlight will take up the higher power. This is uncritical for the Edelux, for other LED headlights however not necessarily.

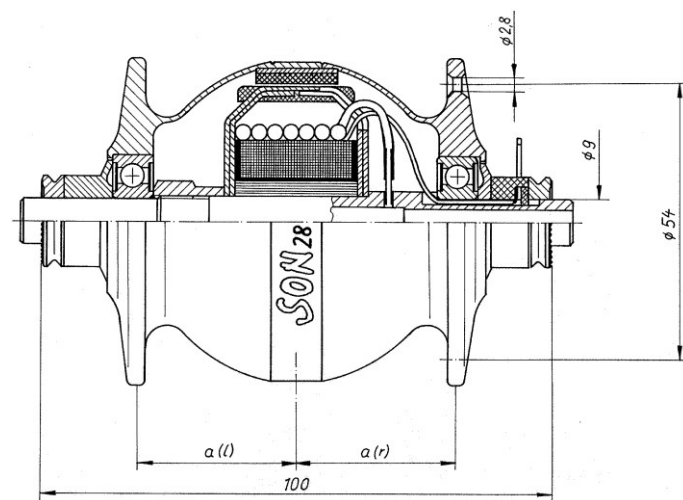
We recommend a high quality LED rear light with capacitor standlight (e.g. Toplight Line plus by B&M). In order to be able to switch the rear light on and off it has to be connected to the switched headlight. The ready-made coaxial rear light cables by Schmidt are most reliable. Depending on the build of the headlights mind the polarity (earth connection). The SON itself has no earth connection.

Wheelbuilding

The SON 28 is designed for the usual crossed form of spoking. Flange width and spoke holes are optimised for high-quality 2 mm spokes. Radial spoke pattern is allowed, yet not recommended (wheels tend to vibrate).

Support to calculate spoke length at: www.nabendynamo.de

The protective plastic wrapping on the hub's body shields against scratches through threading in the spokes. Please do not remove it until the wheel is fully spoked.



	non-disc	disc 6-Loch		disc center lock	
		left (l)	right (r)	left (l)	right (r)
PCD Pitch Circle Diameter	54 mm	59 mm	54 mm	54 mm	54 mm
Distance a Flange – Centre of hub	31 mm	22.5 mm	25 mm	23 mm	25 mm

Manufacturer

Wilfried Schmidt Maschinenbau
www.nabendynamo.de