

General Safety Information

WARNING – To avoid serious injuries:

- Obtain and read the service instructions carefully prior to installing the parts. Loose, worn, or damaged parts may cause serious injury to the rider. We strongly recommend only using genuine Shimano replacement parts.
- Check that the wheels are fastened securely before riding the bicycle. If the wheels are loose in any way, they may come off the bicycle and serious injury may result.
- Check that the lamp illuminates normally when riding at nighttime.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

CAUTION – To avoid serious injuries:

The hub dynamo generates an extremely high voltage. Never touch the connection terminal of the hub dynamo directly while riding the bicycle or while the wheel is spinning. Touching the dynamo terminal may cause an electric shock.

NOTE:

- Be sure to read these Service Instructions together with the Service Instructions for the disc brake system.
- According to German regulations (StVZO), a hub dynamo in Germany requires overvoltage protection. This hub dynamo (3.0 W) does not have overvoltage protection inside the hub itself. Use an external overvoltage protector with a symbol to show that it complies with the German regulations (Shimano SM-DH10 overvoltage protector or similar product).
- Check the degree of parallel of the front fork end. If the front fork end is severely out of parallel, deformation of the hub axle may cause noise from an obstruction inside the hub dynamo to be generated.
- Be sure to install the hub dynamo to the front fork so that the side with the connection terminal is on the right when facing toward the front of the bicycle. If the side with the connection terminal is facing toward the left, the hub dynamo may not turn properly while riding.
- Check that the hub dynamo connection terminal is securely connected before using the hub dynamo.

Compatible bulbs < 3.0 W hub dynamo >

Front lamp	Tail lamp
6.0V/2.4W	6.0V/0.6W
6.0V/3.0W	—

Compatible bulbs < 2.4 W hub dynamo >

Front lamp	Tail lamp
6.0V/2.4W	—

- If the bulb of either the front lamp or taillamp blows, excessive voltage will be applied to the remaining lamp and shorten the operating life of the bulb, so any blown bulbs should be replaced as soon as possible.
- Lamps with electrical circuits such as automatic lamps may become damaged if the bicycle is ridden at high speeds.
- If the lamp is frequently turned on when riding at high speed ranges, it will shorten the operating life of the bulbs.
- Do not disassemble the internal hub mechanism.
- Do not apply any lubricant to the inside of the hub, otherwise the grease will come out and it may cause problems with conductivity.
- The hub dynamo will cause the turning of the wheel to become slightly heavier because of the magnet inside the hub.
- Parts are not guaranteed against natural wear or deterioration resulting from normal use.



Hub Dynamo (Disc Brake Specifications)

Technical Service Instructions

Specifications

Model No.	DH-S501	DH-T785	DH-T665
Compatible size	Tire outer diameter	646 – 716 mm	
	Wheel	26 – 28 inch	
	Voltage / Output	6V/3.0W	

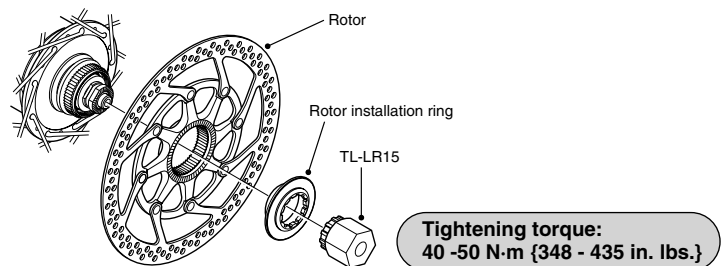
Model No.	DH-3D80*	DH-3D72*	DH-3D35
Compatible size	Tire outer diameter	646 – 716 mm	
	Wheel	26 – 28 inch	
	Voltage / Output	6V/3.0W	

Model No.	DH-3D30	DH-2D30
Compatible size	Tire outer diameter	400 – 716 mm
	Wheel	16 – 28 inch
	Voltage / Output	6V/3.0W
		6V/2.4W

* : Sport hub dynamo

Installation of the rotor

For center lock type



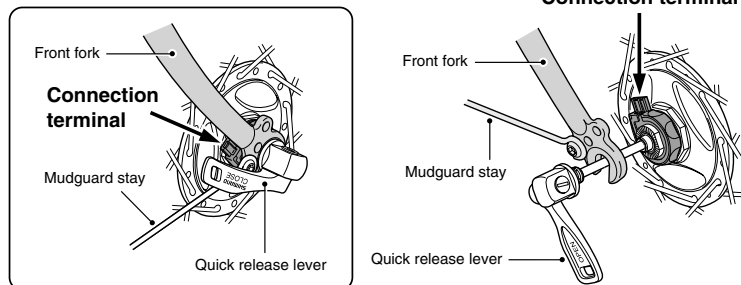
For 6 bolt type

- Install the rotor and the tightening plate, and then provisionally tighten the rotor fixing bolts as shown in Fig. 1.
- While wearing gloves, apply a force to the rotor to turn it in a clockwise direction as shown in Fig. 2. While doing this, tighten the rotor fixing bolts in the order shown in the illustration.
- Use a flat-tipped screwdriver or similar tool to bend the edges of the tightening plate over the heads of the bolts as shown in Fig. 3.

Installation of the front wheel

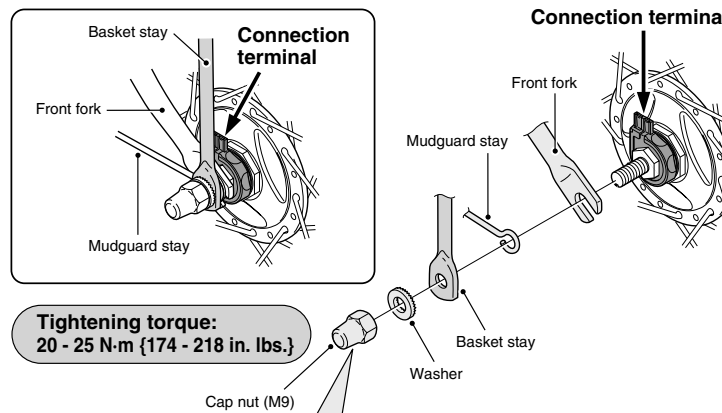
Install the wheel so that the side with the hub dynamo connection terminal is on the right side when looking toward the front of the bicycle, and so that the hub connection terminal is aligned with the front fork or with the basket stay. Then install by following the procedure shown in the illustration below so that the connection terminal is facing upward. Do not force the connection terminal to turn after the quick release lever or the cap nut has been secured. If you force the connection terminal to turn, it may become damaged, or the wire inside the connection terminal may break.

For quick release type



- Note:**
- Do not use the toothed axle washer with a quick release type.
 - Connect the two wires to ensure that the current flows smoothly.

For nut type



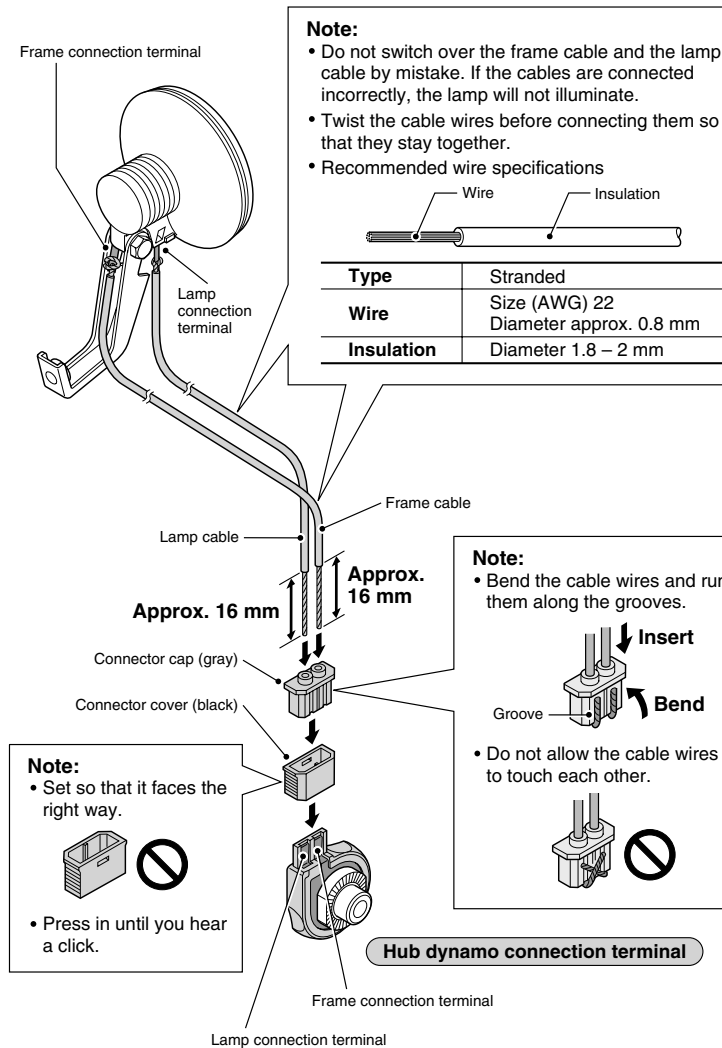
Tightening torque:
20 - 25 N·m {174 - 218 in. lbs.}

Note:
When tightening the cap nuts, tighten the nuts alternately on both sides and do not concentrate all of the effort for tightening and loosening the cap nut on one side of the wheel only, otherwise the hub axle may turn, which could excessively tighten or loosen the lock nuts.

Connection of the cables

Connect the cables as shown in the illustration below.

Note:
Scrape away the paint from the lamp's frame connection terminal and the lamp connection terminal when connecting the cables.



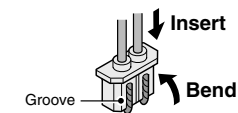
Note:

- Do not switch over the frame cable and the lamp cable by mistake. If the cables are connected incorrectly, the lamp will not illuminate.
- Twist the cable wires before connecting them so that they stay together.
- Recommended wire specifications

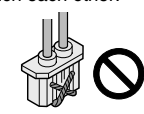
Wire	Insulation
Stranded	
Wire	Size (AWG) 22
	Diameter approx. 0.8 mm
Insulation	Diameter 1.8 – 2 mm

Note:

- Bend the cable wires and run them along the grooves.

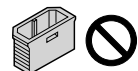


Do not allow the cable wires to touch each other.



Note:

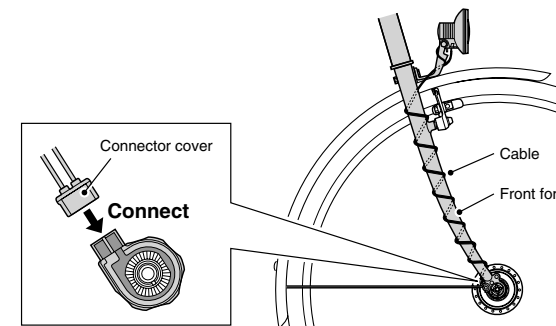
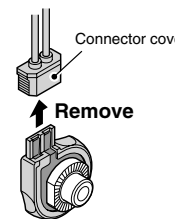
- Set so that it faces the right way.



Press in until you hear a click.

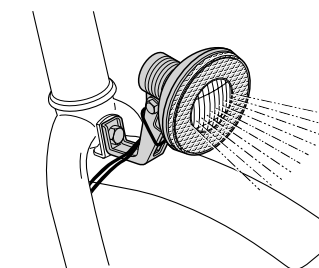
Note:

- Secure the cable to the front fork or the basket stay so that it will not get caught in the spokes or any other parts while riding. If the position of the hub dynamo may change with respect to the lamp while riding, for example when using a suspension fork, make sure that the cable is connected so that it will not be too loose or too tight at any point within the range of movement.
- Connect so that the current from the hub dynamo flows through the cable from the lamp connection terminal of the hub dynamo to the frame connection terminal.
- To disconnect the lamp from the hub dynamo, remove the connector cover.
- Do not ride the bicycle while the connector cover is removed, otherwise the cable might get caught in the bicycle wheel.
- When removing the bicycle wheel, first remove the connector cover. If the cables are pulled strongly, it may break the cable wires or cause poor contacts. Furthermore, when installing the wheel, first secure the wheel to the front forks and then connect the connector cover.



Checking the lamp illumination

Rotate the front wheel and check that the lamp illuminates.



These service instructions explain how to use and maintain the Shimano bicycle parts which have been used on your new bicycle. For any questions regarding your bicycle or other matters which are not related to Shimano parts, please contact the place of purchase or the bicycle manufacturer.

* Service Instructions in further languages are available at : <http://techdocs.shimano.com>

Please note: Specifications are subject to change for improvement without notice. (English)

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