

General Safety Information

⚠ WARNING – To avoid serious injuries:

- If the 1.5 W hub dynamo designed for exclusive LED lamp use is connected to a bulb-type lamp, sufficient illumination intensity cannot be obtained.
- **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).
 - When using this hub dynamo, observe the rules and laws of the country in which you intend to use it.
 - The hub dynamo (1.5W) is designed to be used exclusively for LED lamps. Read the instruction manuals of the lamp and bicycle with which you intend to use the hub dynamo before using it with them.
 - 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 lamps
- | < 3.0 W hub dynamo > | | < 2.4 W hub dynamo > | |
|----------------------|-------------|----------------------|-----------|
| Front lamp | Tail lamp | Front lamp | Tail lamp |
| 6.0 V/2.4 W | 6.0 V/0.6 W | 6.0 V/2.4 W | — |
| 6.0 V/3.0 W | — | < 1.5 W hub dynamo > | |
| 9.6 V/5.0 W* | — | Use LED lamp only | |

*: For exclusive LP-R600 LED lamp use (compatible with Sport Hub dynamo)

- 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.

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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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/3.0 W	

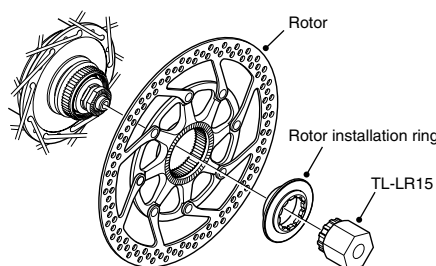
Model No.	DH-3D80*	DH-3D72*	DH-3D35	DH-2D35
Compatible size	Tire outer diameter	646 – 716 mm		400 – 716 mm
	Wheel	26 – 28 inch		16 – 28 inch
Voltage/Output		6 V/3.0 W		6 V/2.4 W

Model No.	DH-3D30	DH-2D30	DH-S700*	DH-1D70*
Compatible size	Tire outer diameter	400 – 716 mm		492 – 716 mm
	Wheel	16 – 28 inch		20 – 28 inch
Voltage/Output		6 V/3.0 W	6 V/2.4 W	6 V/1.5 W

*: Sport hub dynamo

Installation of the rotor

For center lock type



Tightening torque:
40 – 50 N·m
{348 – 435 in. lbs.}

For 6 bolt type

1. Install the rotor and the tightening plate, and then provisionally tighten the rotor fixing bolts as shown in Fig. 1.
2. 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.

Tightening torque:
2 – 4 N·m {17 – 35 in. lbs.}

Fig. 1

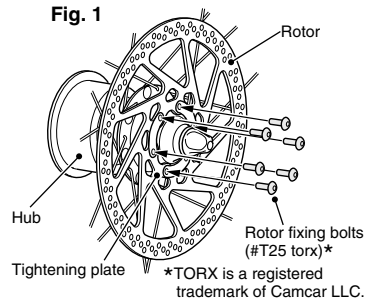
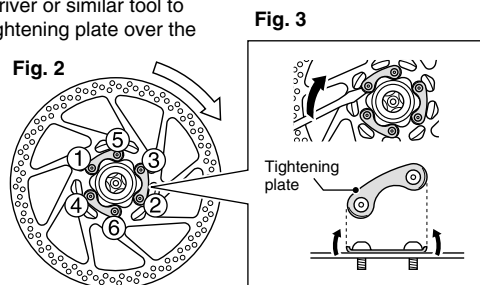


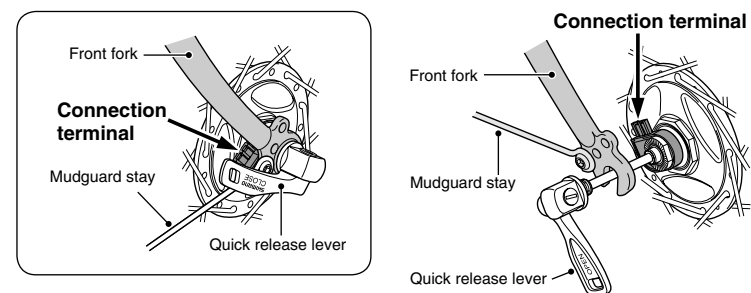
Fig. 3



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:

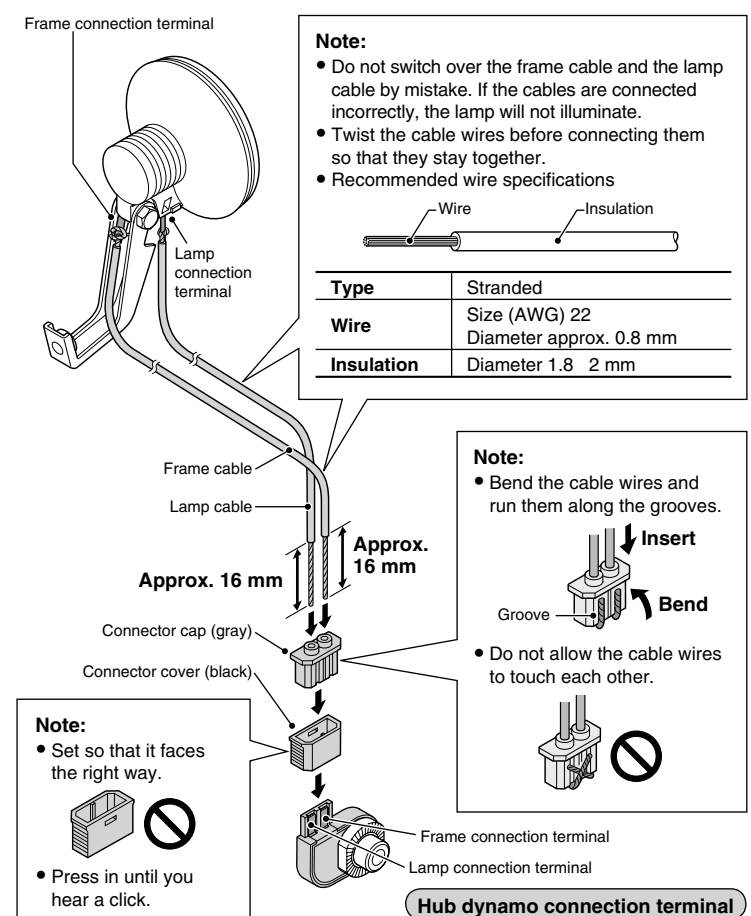
- Do not use the toothed axle washer with a quick release type.
- Connect the two wires to ensure that the current flows smoothly.

Connection of the cables

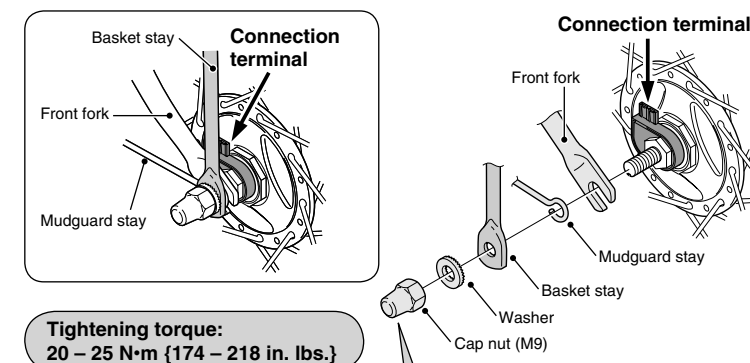
Connect the cables as shown in the illustration below.

Note:

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



For nut type



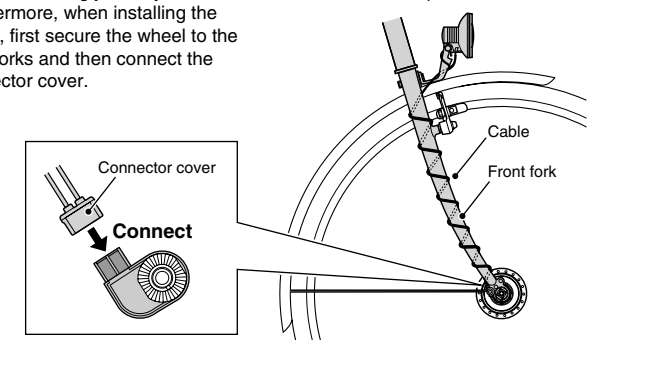
Tightening torque:
20 – 25 N·m {174 – 218 in. lbs.}

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.

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.

