ST-M800

DUAL CONTROL lever

General Safety Information

⚠ WARNING

- **Off-road bicycle riding and extreme mountain bike riding, represented in part by North Shore style riding, “trials riding”, or urban stunt riding is an inherently dangerous activity. There is a risk of being involved in an accident that can result in a serious injury or even death. It is strongly recommended that riders wear protective head and body gear and perform thorough safety checks of their bicycles before riding. Please remember that you are riding at your own risk and that you have to consider your experience and your skills very carefully.**
- The ST-M800 DUAL CONTROL lever is used for both gear shifting and braking operations. Make sure that you fully understand and are accustomed to the gear shifting and braking operations for your bicycle. Refer to the illustration for the method of operation.
- Braking can only be performed with the DUAL CONTROL lever. If you use the gear shifting release lever (Auxiliary release lever) for braking, the release lever may become damaged and you may lose control of the bicycle, which could result in an accident.
- If the internal unit of the DUAL CONTROL lever becomes damaged, the lever will move down from the normal lever position, and it may move to a position where braking is difficult to carry out. If this happens, you should stop riding the bicycle immediately.
- Obtain and read the service instructions carefully prior to installing the parts. Loose, worn, or damaged parts may cause injury to the rider.
  We strongly recommend only using genuine Shimano replacement parts.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

Note

- If gear shifting operations do not feel smooth, wash the derailleur and lubricate all moving parts.
- If the amount of looseness in the links is so great that adjustment is not possible, you should replace the derailleur.
- If gear shifting adjustment cannot be carried out, check the degree of parallelism at the rear end of the bicycle. Also check if the cable is lubricated and if the outer casing is too long or too short.
- Adjust the RD-M805 / RD-M800 reverse spring type rear derailleur from the low side.
- Use a frame with internal cable routing is strongly discouraged as it has tendencies to impair the SIS shifting function due to its high cable resistance.
- Use an outer casing which still has some length to spare even when the handlebars are turned all the way to both sides. Furthermore, check that the shifting lever does not touch the bicycle frame when the handlebars are turned all the way.
- Make sure that the gear shifting cable and the brake cable do not obstruct each other during braking operations. If they do obstruct, it may interfere with braking.
  Install the cables so that they still have some slack in them even when the handlebars are turned fully in either direction.
- A special grease is used for the gear shifting cable (SIS-SP41). Do not use DURA-ACE grease or other types of grease, otherwise they may cause deterioration in gear shifting performance.
- Grease the inner cable and the inside of the outer casing before use to ensure that they slide properly.
- For smooth operation, use the specified outer casing and the bottom bracket cable guide.
- Operation of the levers related to gear shifting should be made only when the front chainwheel is turning.
- If the brake fluid used in the oil disc brakes is of a type which tends to adhere to the plastic parts of the shifting lever, this may cause the plastic parts to crack or become discolored. Therefore, you should make sure that the brake fluid does not adhere to these plastic parts.
  The mineral oil which is used in SHIMANO disc brakes does not cause cracking or discoloration if it adheres to plastic parts, but such parts should be cleaned with alcohol beforehand to prevent foreign particles from adhering.
- This product is not warranted against damage resulting from use such as jumping while riding or if the bicycle falls over, except if such malfunctions result from non conforming materials or manufacturing methods.
- Parts are not guaranteed against natural wear or deterioration resulting from normal use.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.
- For any questions regarding methods of installation, adjustment, maintenance or operation, please contact a professional bicycle dealer.

In order to realize the best performance, we recommend that the following combination be used.

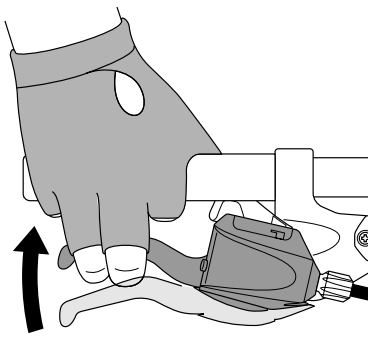
Series	SAINT
DUAL CONTROL lever	ST-M800
Outer casing	SIS-SP41
Gears	9 / 18 / 27
Front derailleur	FD-M805 / FD-M806
Front chainwheel	FC-M805 / FC-M800
Rear derailleur	RD-M805 / RD-M800
Type	SS /GS / SGS
Freehub	FH-M805 / FH-M800
Cassette sprocket	CS-M760
Chain	CN-HG93
Bottom bracket guide	SM-SP17 / SM-BT17

These Service Instructions describe the operation method when using the ST-M800 DUAL CONTROL lever in combination with the RD-M805 / M800 reverse spring-type rear derailleur. If using in combination with a top normal-type derailleur, the operations will be reversed.

Operating the levers

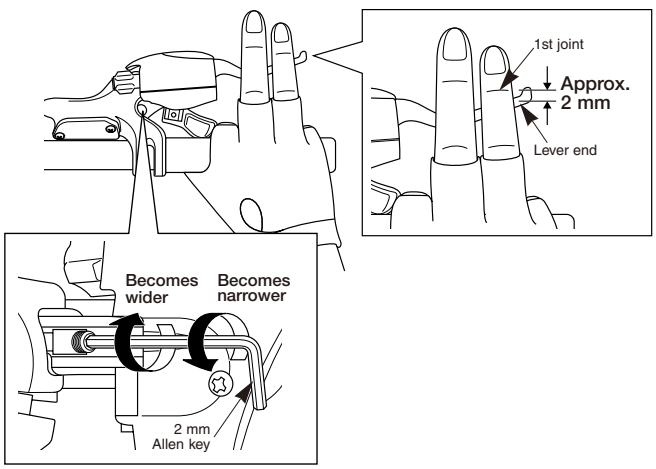
< Rear >

■ Operating the brake lever



Adjusting the grip width

It is recommended that you adjust the grip widths of the levers to the most comfortable widths for gear shifting and braking.

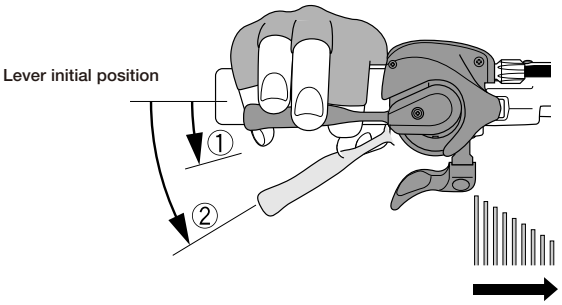


■ Gear shifting operation < Rear >

The lever always returns to the initial position when it is released after shifting. When operating the lever, always be sure to turn the crank arm at the same time.

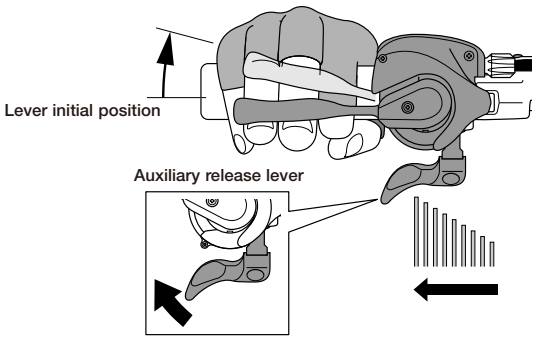
To shift from a large sprocket to a smaller sprocket

To shift one step only, press lever to the (1) position. To shift two steps at one time, press to the (2) position. A maximum two-step shift can be made in this manner.



To shift from a small sprocket to a larger sprocket

Press lever once to shift one step from a smaller to a larger sprocket.

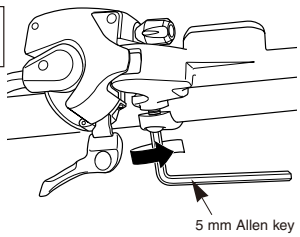


Installation of the lever

< Rear >

Use a handlebar grip with a maximum outer diameter of 32 mm.

Tightening torque : 6 - 8 N·m {53 - 69 in. lbs.}



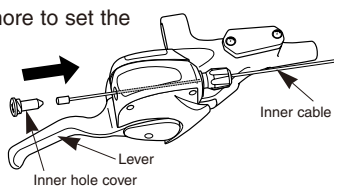
In the case of carbon handlebars, it may be necessary to lower the tightening torque in order to prevent damage to the handlebar.
Please consult the bicycle or handlebar manufacturer regarding the appropriate level of tightening torque for carbon handlebars.

Installing the shifting cable

< Rear >

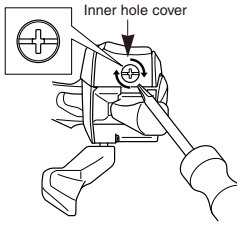
Connecting and securing the inner cable

Operate the lever eight times or more to set the lever to the lowest position. Then remove the inner hole cover and connect the inner cable.



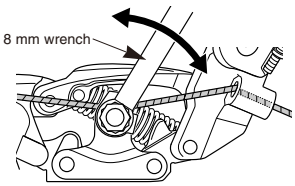
Tightening torque : 5 - 7 N·m {44 - 60 in. lbs.}

Install the inner hole cover by turning it as shown in the illustration until it stops. Do not turn it any further than this, otherwise it may damage the screw thread.

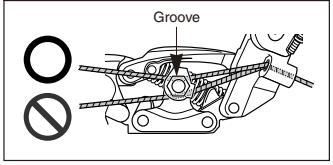


Tightening torque :
0.3 - 0.5 N·m {3 - 4 in. lbs.}

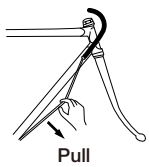
Connect the inner cable to the derailleur as shown in the illustration.



Note: Be sure that the cable is securely in the groove.



Connect the cable to the rear derailleur and, after taking up the initial slack in the cable, re-secure to the rear derailleur as shown in the illustration.



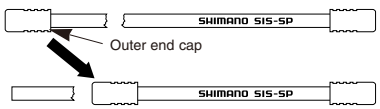
Tightening torque :
5 - 7 N·m {44 - 60 in. lbs.}

Be sure to read these service instructions in conjunction with the service instructions for the RD-M805 / M800 before use.

Cutting the outer casing (Rear / Front)

When cutting the outer casing, cut the opposite end to the end with the marking. After cutting the outer casing, make the end round so that the inside of the hole has a uniform diameter.

Attach the same outer end cap to the cut end of the outer casing.



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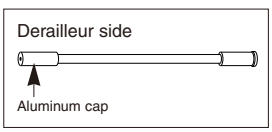
* If the rear derailleur moves to a large degree, such as in bicycles with rear suspension, it is recommended that you replace the cap with the accessory aluminum cap.

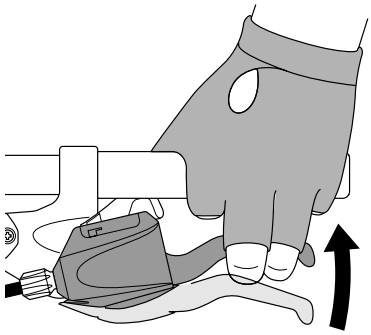
The end of the outer casing which has the aluminum cap should be at the derailleur side.



Operating the levers

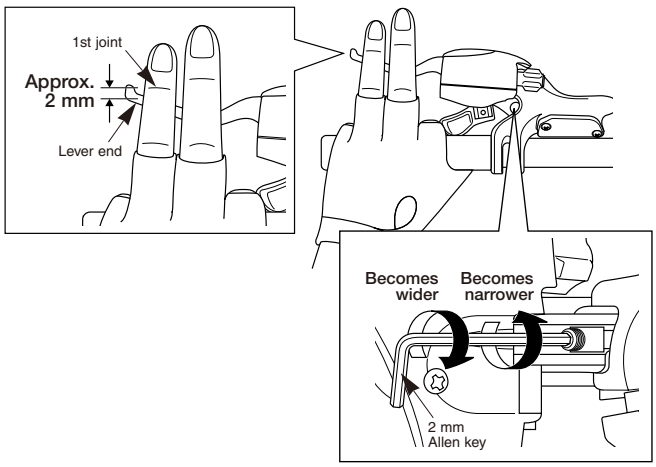
< Front >

■ Operating the brake lever



Adjusting the grip width

It is recommended that you adjust the grip widths of the levers to the most comfortable widths for gear shifting and braking.



■ Gear shifting operation < Front >

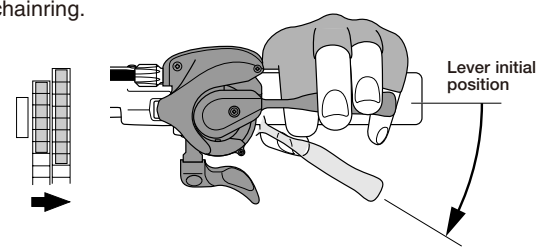
The lever always returns to the initial position when it is released after shifting. When operating the lever, always be sure to turn the crank arm at the same time.

To shift from a small chainring to a larger chainring

When lever is pressed once, there is a shift of one step from a small chainring to a larger chainring.

Example:

from intermediate chainring to largest chainring.

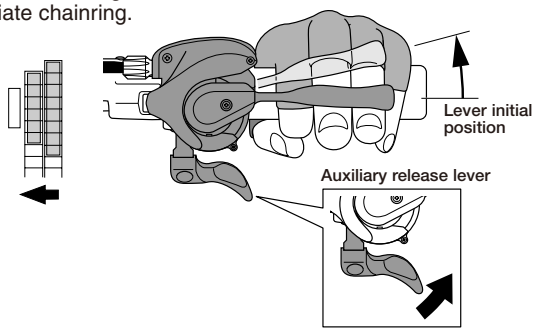


To shift from a large chainring to a smaller chainring

When lever is pressed once, there is a shift of one step from a large chainring to a smaller chainring.

Example:

from largest chainring to intermediate chainring.

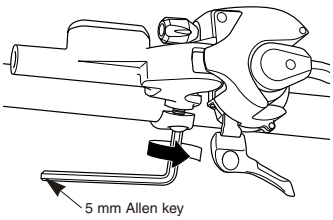


Installation of the lever

< Front >

Use a handlebar grip with a maximum outer diameter of 32 mm.

Tightening torque : 6 - 8 N·m {53 - 69 in. lbs.}



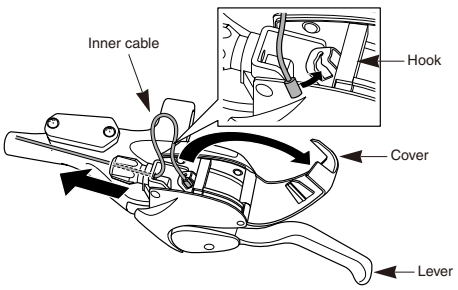
In the case of carbon handlebars, it may be necessary to lower the tightening torque in order to prevent damage to the handlebar. Please consult the bicycle or handlebar manufacturer regarding the appropriate level of tightening torque for carbon handlebars.

Installing the shifting cable

< Front >

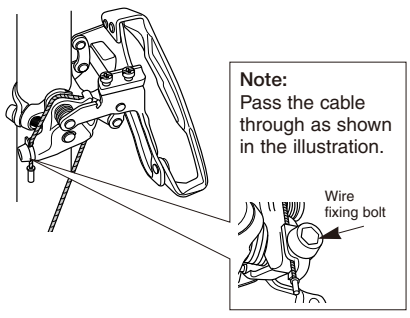
Connecting and securing the inner cable

Operate the lever 2 or more times to set the lever to the low position. After opening the cover, place the end of the cable onto the hook. In this condition, operate the lever 2 or more times to set the lever to the top position, and then pass the cable through the outer casing adjustment bolt and pull the cable all the way through. After this, operate the lever to set it to the low position and close the cover.



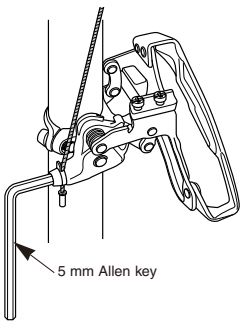
- **FD-M805**

< Normal type >



Note:
Pass the cable through as shown in the illustration.

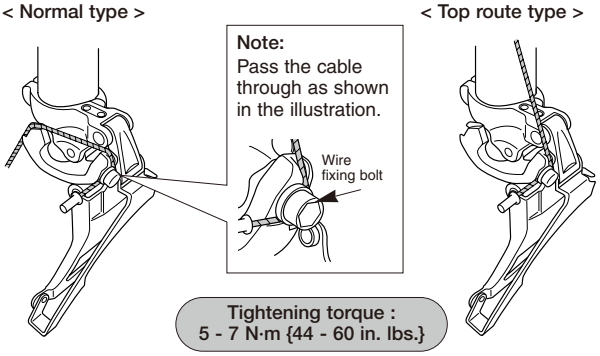
< Top route type >



• FD-M806

< Normal type >

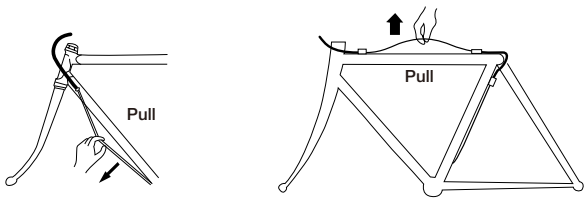
< Top route type >



After taking up the initial slack in the cable, re-secure to the front derailleur as shown in the illustration.

Normal type

Top route type



Be sure to read these service instructions in conjunction with the service instructions for the FD-M805 / M806 before use.

SHIMANO

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