

**WARNING**

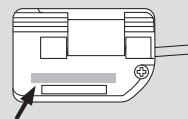
- When the shifting switch is operated, the motor which drives the front derailleur will operate without stopping at the shifting lever position. Always be sure to remove the battery before carrying out installation and adjustment, otherwise your fingers may become stuck.
- Install in a place where it will not obstruct the operation of the brake lever.
- Obtain and read the service instructions carefully prior to installing the parts. Loose, worn or damaged parts may cause the bicycle to fall over and serious injury may occur as a result. We strongly recommend only using genuine Shimano replacement parts.
- Obtain and read the service instructions carefully prior to installing the parts. If adjustments are not carried out correctly, the chain may come off and this may cause you to fall off the bicycle which could result in serious injury.
- Use the ST-7970 with the BR-7900. Do not use the BR-7900 in combination with previous STI levers for road riding or with the BL-R770/ BL-R550 brake levers for flat handlebars, otherwise the braking performance provided will be much too strong.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

**Note**

- RD-7970:** Be sure to adjust the top adjustment bolt and the low adjustment bolt by following the procedures in the Service Instructions. If these bolts are not adjusted, the chain may become clamped between the spokes and the large sprocket and the wheel may lock, or the chain may slip onto the small sprocket.
- Operation of the levers related to gear shifting should be made only when the front chainwheel is turning.
- Always be sure to use the TL-EW01 special tool to remove the cable.
- Be careful not to let water get into the terminal.
- Do not disassemble, otherwise problems may occur.
- When routing the electric cable, make sure that it does not interfere with the operation of the brake lever.
- 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.

There may be times when we need to send out important information regarding our products, so we recommend that you register your product by entering the product serial number on our website.

<http://www.shimano.com>

**SHIMANO**

SHIMANO AMERICAN CORPORATION  
One Holland, Irvine, California 92618, U.S.A. Phone: +1-949-951-5003

SHIMANO EUROPE B.V.  
Industrieweg 24, 8071 CT Nunspeet, The Netherlands Phone: +31-341-272222

SHIMANO INC.  
3-77 Oimatsu-cho, Sakai-shi, Osaka 590-8577, Japan

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

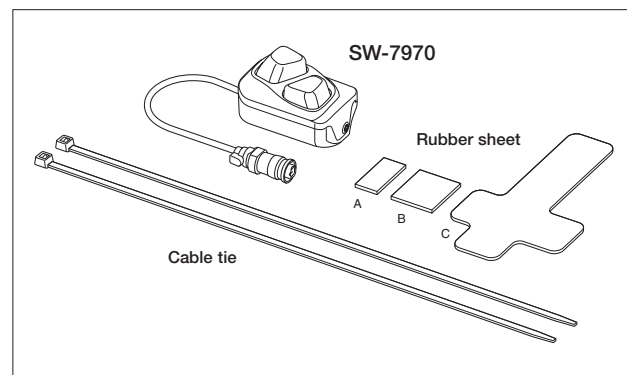
Please note: specifications are subject to change for improvement without notice. (English)  
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**SW-7970**

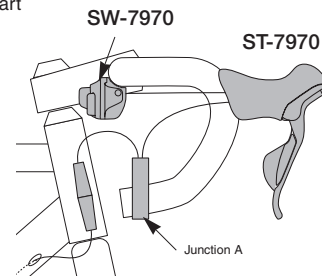
Optional shifting switch for drop handlebars

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

Series	DURA-ACE
Optional shifting switch	SW-7970
Dual control lever	ST-7970
Electric cable	SM-EW79A-E
Battery / Battery charger	SM-BTR1 / SM-BCR1
Gears	20
Front derailleur	FD-7970
Front chainwheel	FC-7900
Rear derailleur	RD-7970
Freehub	FH-7900
Cassette sprocket	CS-7900 (Except for 11-28T)
Chain	CN-7901
Caliper brake	BR-7900

**Components****Routing Map**

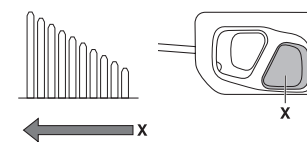
Names and locations of each part



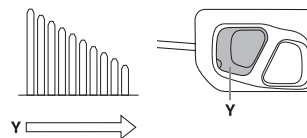
- When routing the electric cable to junction (A), allow enough looseness in the cable so that the ST-7970 / SW-7970 installation position can be adjusted and so that the handlebars can be turned fully to the left and right. When routing the electric cable to junction (A), the cable can be laid underneath the handlebar tape when it is wound onto the handlebars.
- Refer ST-7970 service instructions for button indicator operations.

**Gear shifting operation****Rear shifting switch operation****< Shifting switch (X) >**

The chain moves from a small sprocket to a larger sprocket each time the switch is operated.

**< Shifting switch (Y) >**

The chain moves from a large sprocket to a smaller sprocket each time the switch is operated.

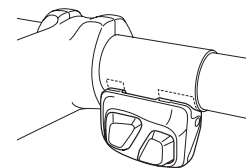


If using the checker (SM-EC79) to shift the ST-7970 shifting switch up or down, the shifting switch of the SW-7970 will also shift up or down.

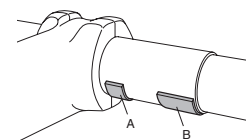
\* When connected to the left dual control lever, the front derailleur can be operated, but the layout and shape of the switch buttons are designed so that they can be operated with your right thumb, so we cannot recommend this combination.

**Installation to the handlebars****If there is no bracket for the cycle computer**

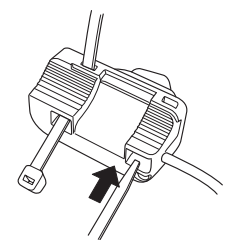
1. Mark the position for installing the switch.



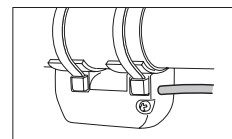
2. Attach rubber sheets A and B. At this time, make sure that A and B are attached in the correct positions at left and right.



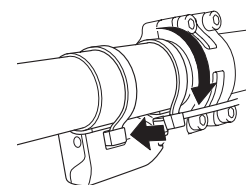
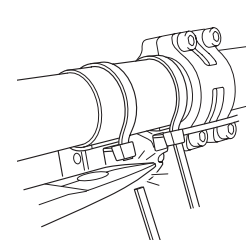
3. Pass a cable tie through the large square hole in the switch.



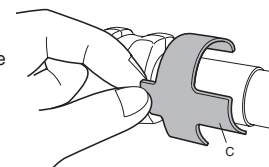
4. Secure the switch to the handlebars with the cable tie, and use pliers to cut off any excess length of cable tie. Do not secure the cable with the cable tie as well at this time.



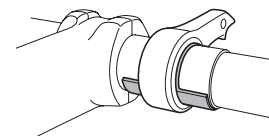
5. Turn the cable tie so that the square part goes into the square hole in the switch.

**If there is a bracket for the cycle computer**

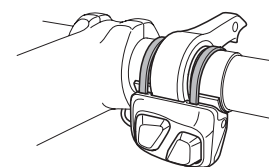
1. Make a mark as a guide to the switch mounting position, and then attach rubber sheet C. At this time, make sure that you attach rubber sheet C so that it is facing in the correct direction.



2. Install the bracket for the cycle computer.

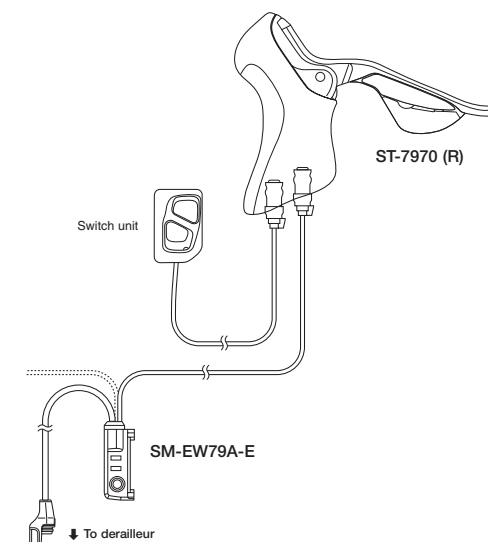


3. Install the switch so that it crosses over the band as shown in the illustration. Refer to installation steps 3 to 5 in "If there is no bracket for the cycle computer" for the method of securing using the cable tie.

**Note:**

- Do not secure the cable with the cable tie or the bracket for the cycle computer. Use handlebar tape to secure the cable.
- Move the bracket for the cycle computer approximately 9mm to the right so that it is not against the stem.

Refer to the Service Instructions for the electric cable (SM-EW79A-E) for details on connecting the cable connectors and routing the cable.

**Example of cable connections (for reference)**

Be sure to attach dummy plugs to any unused terminals using the TL-EW01.

