### General Safety Information

- **WARNING**
  - Never attempt to clean the chain. Do not use alkali-based or acid-based detergent such as household detergents as it may result in damage to and/or fatigue of the chain.
  - Use the recommended connecting pin only for connecting the various types of chain.
  - Do not use different connecting pins at the same time. Use the recommended connecting pin in the same direction.
  - The bottom bracket is made from a molded plastic and is designed to be used for the specified purpose only. Therefore, it is not suitable for the type of chain in use. Sufficient connection force may not be obtained, which could cause the chain to break or fall off.
  - **CAUTION**
    - Use in a front derailleur which is compatible with the type of chain in use. When performing a shift, be sure to use the recommended connecting pin. If an unsuitable connecting pin is used, chain breakage may occur.
    - **Note**
      - In addition, if pedaling performance does not feel normal, check the clearance described below.
      - Check the tension bar is correct and that the chain is not damaged. If the tension bar is not correct or the chain is damaged, the chain should be replaced immediately.
      - Check that there are no cracks in the crank arm before riding the bicycle. There are cases where the chain may break even if it has been checked by the dealer. Consult and read the service instructions carefully prior to installing the parts. Loose, worn, or damaged parts may cause injury to the rider.

### Specifications

#### Front Derailleur
- **Top route type**
- **Low route type**
- **Normal type**

#### Bottom Bracket
- **Normal type**
- **Weak bottom bracket type**
- **Sprocket type**

#### Chainwheel
- **Normal type**
- **Weak bottom bracket type**
- **Connecting pin type**

#### Chematical
- **Normal type**
- **Echo type**

### Mounting the shifting lever

1. **Use a handgrip with a maximum outer diameter of 30 mm**

### SIS Adjustment

#### 1. Low adjustment

- First, set so that the clearance between the chain guide inner plate and the cover is 0.5 - 2.0 mm.

#### 2. Connecting and securing the inner cable

- Operate lever (B) 2 or more times, check on the indicator that the low adjustment screw is now being held by the stopping screw or the insertion nut.
- If the chain guide is not quite parallel to the chain, it may cause the chain to be jammed.

#### 3. Top adjustment

- Set so that the clearance between the chain guide inner plate and the cover is 0.5 - 2.0 mm.

### Installation of the Front Derailleur, Bottom Bracket and Front Chainwheel

- **Use the special tool TL-CN2/6S**
- Charge the main body, then adapt it to the cranks.

### Gear shifting operation

- **Both lever (A) and lever (B) always return to the initial position when they are released after shifting.**
- To shift from a small chainring to a larger chainring, when lever (B) is pressed, first, press lever (A) to make the chainguide enter from the outer end and then release lever (A). If lever (A) is released then lever (B) returns to the initial position.

### Replacement of the indicator

- **Demount and reassemble should only be carried out when replacing the indicator.**
  1. Remove the two indicator set screws which are securing the indicators.
  2. Install the new indicator from directly above.

### Troubleshooting chart

- **After checking that the indicator is not left at the right edge, install the indicator from directly above.**

### Gear function

- **To shift from a large chainring to a smaller chainring, when lever (B) is pressed, the indicator returns to the initial position.**
- **To shift from a smaller chainring to a larger chainring, when lever (B) is pressed, the indicator returns to the initial position.**

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**Note:***This service instruction explains how to use the Shimano SIS (Shimano Index Shifting System) to perform all simple shifting operations.**

**Questions regarding your bicycle or other items which are not covered by this service instruction, please contact the place of purchase or your local dealer.**
## DEORE Top Swing Front Derailleur

**FD-M510**

### Item List

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>SHIMANO CODE NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Y-5BG07000</td>
<td>Clamp Bolt (M5 x 18.5)</td>
</tr>
<tr>
<td>* 2</td>
<td>Y-57Y 98030</td>
<td>SM-AD17-S Clamp Band Adapters for S-size / ø 28.6 mm (1-1/8&quot;)</td>
</tr>
<tr>
<td>* 2</td>
<td>Y-57Y 98040</td>
<td>SM-AD17-M Clamp Band Adapters for M-size / ø 31.8 mm (1-1/4&quot;)</td>
</tr>
<tr>
<td>3</td>
<td>Y-5EZ 98030</td>
<td>Stroke Adjust Screws (M4 x 12) &amp; Plate</td>
</tr>
<tr>
<td>4</td>
<td>Y-5EZ 98040</td>
<td>Cable Fixing Bolt Unit (M5 x 10.5)</td>
</tr>
</tbody>
</table>

Specifications are subject to change without notice.