

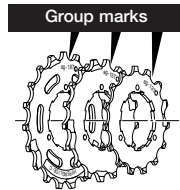
General Safety Information

WARNING

- 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.
- 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.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

Note

- Always be sure to use the sprocket set bearing the same group marks. Never use in combination with a sprocket bearing a different group mark.
- Be sure to read the service instructions for the Rear Drive System in conjunction with these service instructions.
- 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.



Technical Service Instructions

SI-0099A-001

Cassette sprocket

SHIMANO

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* 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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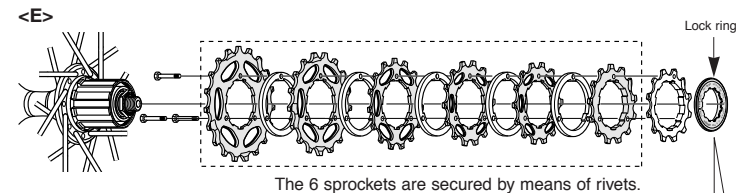
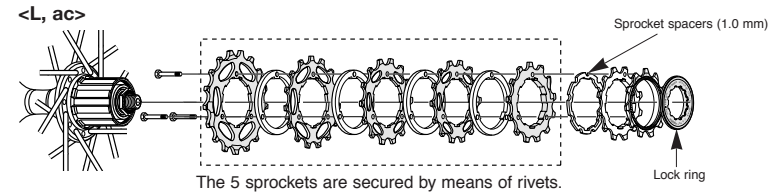
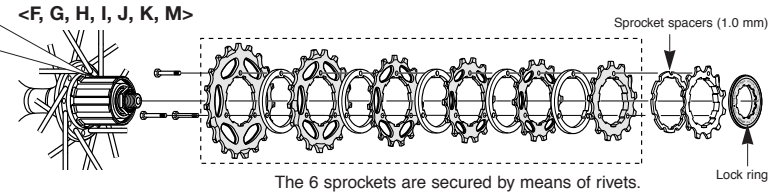
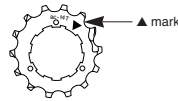
Cassette sprocket tooth combination (Gears : 7)

Group name	Tooth combination
E	12, 14, 16, 18, 21, 24, 28T
F	14, 16, 18, 21, 24, 28, 32T
G	13, 15, 17, 20, 23, 26, 30T
H	13, 15, 17, 19, 21, 23, 26T
I	13, 14, 15, 17, 19, 21, 23T

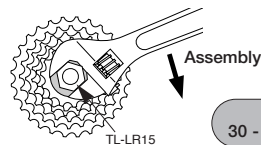
Group name	Tooth combination
J	13, 14, 15, 16, 17, 19, 21T
K	13, 15, 17, 20, 24, 29, 34T
L	12, 13, 14, 15, 17, 19, 21T
M	13, 15, 17, 19, 21, 24, 28T
ac	11, 13, 15, 18, 21, 24, 28T

Installation of the sprockets

For each sprocket, the surface that has the group mark should face outward and be positioned so that the triangle (▲) mark on each sprocket and the A part (where the groove width is wide) of the freewheel body are aligned.



For installation of the HG sprockets, use the special tool (TL-LR15) to tighten the lock ring.



Tightening torque:
30 - 50 N·m {261 - 434 in. lbs.}

To replace the HG sprockets, use the special tool (TL-LR15) and TL-SR21 to remove the lock ring.

