

General Safety Information

WARNING

- Be careful not to let the cuffs of your clothes get caught in the chain while riding, otherwise you may fall off the bicycle.
- Check that the tension of the chain is correct and that the chain is not damaged. If the tension is too weak or the chain is damaged, the chain should be replaced. If this is not done, the chain may break cause serious injury.
- Check that there are no cracks in the crank arms before riding the bicycle. If there are any cracks, the crank arm may break and you may fall off the bicycle.
- **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

- Be sure to use only the applicable chain and bottom bracket.
- Before riding the bicycle, check that there is no play or looseness in the connection. Also, be sure to retighten the crank arms and pedals at periodic intervals.
- If you feel any looseness in the bottom bracket axle, the bottom bracket should be replaced.
- In addition, if pedaling performance does not feel normal, check this once more.
- Do not wash the bottom bracket with high-pressure jets of water.
- Apply grease to the bottom bracket before installing it.
- To ensure the best performance, be sure to use only the specified type of chain. The wide type of chain cannot be used.
- If the chain keeps coming off the chainrings during use, replace the chainrings and the chain.
- You should periodically wash the chainrings in a neutral detergent and then lubricate them again. In addition, cleaning the chain with neutral detergent and lubricating it can be an effective way of extending the useful life of the chainrings and the chain.
- 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-0094A-001

FC-M411
FC-M410 / FC-M410-8
FC-M361 / FC-M361-8
FC-M311 / FC-M311-8

Specifications

Front chainwheel

Model number	FC-M411	FC-M410	FC-M410-8	FC-M361	FC-M361-8	FC-M311	FC-M311-8	
Front chainwheel tooth combination	42 - 32 - 22 T 48 - 38 - 28 T	42 - 32 - 22 T	42 - 32 - 22 T	42 - 32 - 22 T 48 - 38 - 28 T	42 - 32 - 22 T	42 - 32 - 22 T 48 - 38 - 28 T	42 - 32 - 22 T	
Bolt circle diameter	104 / 64 mm						-	-
Crank arm length	170 / 175 mm							
Pedal thread dimensions	B.C. 9/16" x 20 T.P.I. (English thread)							
Applicable bottom bracket	BB-UN26 (-K)	BB-UN26	BB-ES25	BB-UN26 (-K)	BB-ES25 (-K)	BB-UN26 (-K)	BB-ES25 (-K)	
Applicable front derailleur	FD-M413 / M412 / M410-E *			FD-M360 / M330 / M330-E *		FD-M311 / M310		

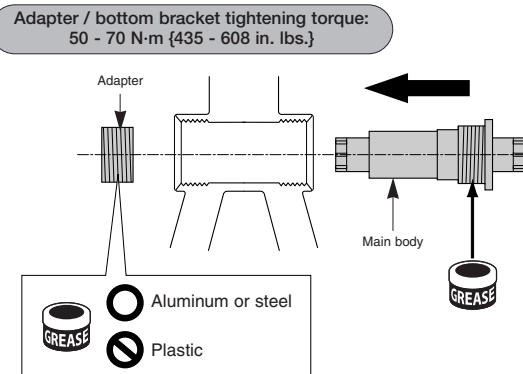
* The maximum applicable number of teeth for the BB mount-type front derailleur is 42T.

Bottom Bracket

Model number	BB-UN26 (-K)	BB-ES25 (-E)	BB-UN26 (-E)	BB-ES25	BB-ES25 (-K)
Spindle length	LL123 (K)	118 (E)	LL113 (E)	126 (K)	126 (K)
Chain line	50 mm				
Shell width (Thread dimensions)	68 / 73 mm (1.37 X 24 T.P.I.)				
Applicable front chainwheel	FC-M411 / M361 / M311	FC-M410-8	FC-M410	FC-M311-8	FC-M361-8

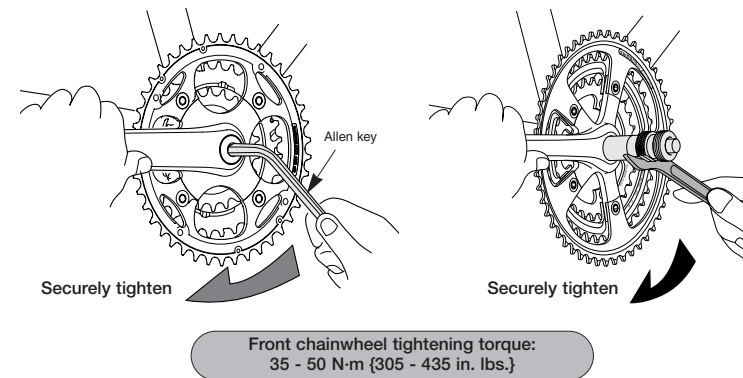
Installation of the Bottom Bracket

Install using the special tool TL-UN74-S / TL-UN66. First install the main body, then the adapter.



Installation of the front chainwheel

Use an 8 mm Allen key or a cotterless crank extractor (TL-FC10) to install the front chainwheel.



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