## SI-41N0G-003

# SPD Pedals

Service Instructions

## **IMPORTANT NOTICE**

The service instructions can be viewed at the following location. https://si.shimano.com

#### For safety, be sure to read these "service instructions" thoroughly before use, follow them for correct use, and store them so that they can be referenced at any time.

The following instructions must be observed at all times in order to prevent personal injury and physical damage to equipment and surroundings. The instructions are classified according to the degree of danger or damage which may occur if the product is used incorrectly.

DANGER	Failure to follow the instructions will result
	in death or serious injury.
WARNING	Failure to follow the instructions could
	result in death or serious injury.
	Failure to follow the instructions could
CAUTION	cause personal injury or physical damage
	to equipment and surroundings.

## Important safety information

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- Do not disassemble or modify the product. This may cause the product to not operate correctly, and you may suddenly fall and be seriously injured.
- Use only SPD shoes with this product. Other types of shoes may not release from the pedals, or may release unexpectedly.
- Use only SHIMANO cleats (SM-SH51/SM-SH52/SM-SH55/SM-SH56) and make sure that the mounting bolts are tightened securely to the shoes. Failure to securely tighten the bolts may result in a fall in which the cleats do not release.
- Before attempting to ride with these pedals and cleats (shoes), make sure you understand the operation of the engagement/release mechanism for the pedals and cleats (shoes). SPD pedals are designed to be released only when intended. They are not designed to be released automatically when you have fallen off the bicycle.
- Before attempting to ride with these pedals and cleats, apply the brakes, then place one foot on the ground and practice engaging and releasing each cleat from its pedal until you can do so naturally and with minimal effort.
- Ride on level ground first until you become accustomed to engaging and releasing your cleats from the pedals.
- Before riding, adjust the cleat holding force of the pedals to your liking. If the cleat holding force of the pedals is low, the cleats may become accidentally released and you may lose balance and fall off the bicycle. If the cleat holding force of the pedals is high, the cleats cannot be easily released.
- When riding at low speed or when there is a possibility that you might need to stop riding, (for example, when doing a U-turn, nearing an intersection, riding uphill or turning a blind curve), release your cleats from the pedals beforehand so that you can quickly put your feet onto the ground at any time.
- Use a lighter cleat holding force for attaching the pedal cleats when riding in adverse conditions.

- Keep cleats and bindings out of dirt and debris to ensure proper engagement and release.
- Remember to check the cleats periodically for wear. When the cleats are worn, replace them, and adjust the cleat holding force before riding and after replacing the pedal cleats.
- Be sure to attach reflectors to the bicycle when traveling on roads. Reflectors are sold separately for models that do not come with reflectors equipped as standard. For information on compatible reflectors, contact the place of purchase or a distributor.
- Do not continue riding the bicycle if the reflectors are dirty or damaged. Otherwise, it becomes more difficult for oncoming vehicles to see you.
- Be sure to follow the instructions provided in the manuals when installing the product. It is recommended that you use SHIMANO genuine parts. If bolts and nuts become loose or damaged, the bicycle may suddenly fall over, result in a serious injury.
- If you have any questions, consult your place of purchase or a distributor.
- Do not use the pedals or cleats in any way not described in the Service Instructions. When the cleat and pedal are facing forwards, the cleat can be released and engaged with the pedal.

For instructions on using the cleats, see the Service Instructions. Failure to follow the instructions may lead to serious injury.

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 Toe clips can be installed, but they should be removed when using the pedals as SPD pedals.

If the warnings above are not followed, your shoes may not come out of the pedals when you intend or they may come out unexpectedly or accidentally, and severe injury may result.

## Notice

- Check that there is no excess play or looseness in any fastening sections before riding the bicycle. Also, be sure to retighten the cranks and pedals at periodic intervals.
- If pedaling performance does not feel normal, perform an inspection again.
- Products are not guaranteed against natural wear and deterioration from normal use and aging.
- For maximum performance we highly recommend SHIMANO lubricants and maintenance products.

These pedals have a tread for SPD on one side and a normal cage tread on the other side.

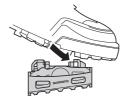
## Cleat types, and using the cleats

Single release mode cleats (SM-SH51 / SM-SH52) and multiple release mode cleats (SM-SH55 / SM-SH56) are available for use with these pedals.

Read the Service Instructions and choose the correct type for your needs, based on a consideration of your riding style, riding terrain, and conditions.

#### How to engage

Press the cleats into the pedal binding with an angled downward motion.



#### How to release

The release mode can be selected depending on the type of cleat being used.

Multiple release mode cleats: SM-SH55 (Silver) SM-SH56 (Gold/Silver)	Single release mode cleats: SM-SH51 / SM-SH52 (Black / sold separately)
The cleats can be released by twisting in any direction.	These cleats only release when the heel is moved <b>outward</b> . They will not release if the heel is twisted in any other direction.
The cleat may release in an upward direction. Therefore, pulling up on the pedal may result in the cleat unexpectedly disengaging. Therefore, do not use this cleat if you pull up on the pedals when riding, or if you perform jumps or similar in which forces act on the foot in the direction of cleat release.	Upward force may be applied to the pedal, since the cleat will not release unless the foot is twisted.
Although the cleats do release in directions other than the horizontal, they will not necessarily release if you lose your balance. Accordingly, for places and conditions where it looks as though you may lose balance, make sure that you have sufficient time to release the cleats beforehand.	The cleats will not necessarily release if you lose your balance. Accordingly, for places and conditions where it looks as though you may lose balance, make sure that you have sufficient time to release the cleats beforehand.
If the characteristics of multiple release mode cleats are not sufficiently understood or used correctly, they are more likely than single release mode cleats to release unexpectedly. Once you have adjusted the cleats, practice engaging and releasing until you are fully familiar with the amount of force required in each direction. An unexpected release may cause you to fall off the bicycle and serious injury may result.	When, for example, you are pedaling vigorously, your heel may inadvertently twist sideways and this may cause the cleat to release accidentally. Once you have adjusted the cleats, practice engaging and releasing until you are fully familiar with the amount of force and foot angle required. An unexpected release may cause you to fall off the bicycle and serious injury may result.

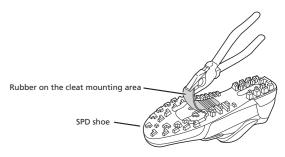
#### Notice:

It is necessary to practice releasing until you become accustomed to the technique.

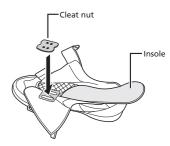
\* In multiple release mode, releasing by lifting your heel requires particular practice.

## Installing cleats

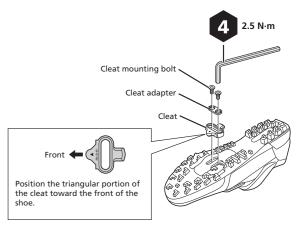
- 1. With a pair of pliers or a similar tool, pull off the rubber on the cleat mounting area.
- This step may not be necessary depending on the type of shoe.



2. Remove the insole and position a cleat nut over the oval holes.\* This step may not be necessary depending on the type of shoe.

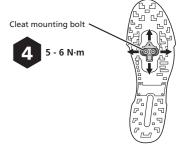


- 3. Position the cleat then the cleat adapter on to the bottom of the shoe, then temporarily tighten with the cleat mounting bolts.
- \* The cleats are compatible with both left and right pedals.



## Adjusting cleat positions

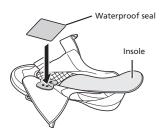
- After temporarily fixing the cleats, adjust them by repeatedly engaging and releasing the cleats, one by one, to determine the optimal cleat positions.
- The cleat has an adjustment range of 20 mm front to back and 5 mm right to left.
- 2. After you have determined the best cleat position, firmly tighten the cleat mounting bolts with a 4 mm hexagon wrench.



## Waterproof seal

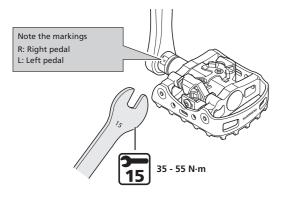
Remove the insole and attach the waterproof seal.

\* The waterproof seal is supplied with SHIMANO shoes that require this step to be carried out.



# Installing to the crank

Use a 15 mm spanner to install the pedals onto the crank arms. The right pedal has a right-hand thread; the left pedal has a left-hand thread.



#### Notice:

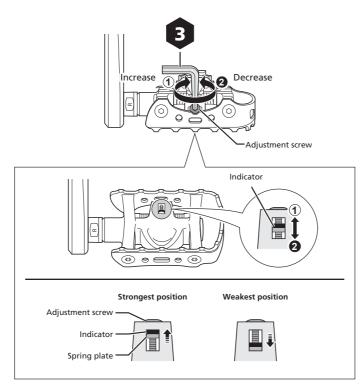
A 6 mm hexagon wrench cannot provide a sufficient tightening torque. Always be sure to use a 15 mm spanner.

# Spring tension adjustment of the bindings

The spring force is adjusted by means of adjustment screws. The adjustment screw is located at the rear of each binding, resulting in two positions in total for the two pedals.

Equalize the spring tensions in both positions by referring to the tension indicators and by counting the number of turns of the adjustment screws. The spring force switches between one of three levels each time the adjustment screw is turned.

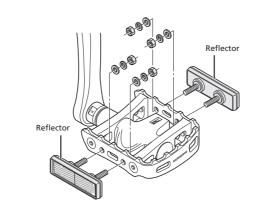
If the indicator is at the strongest or the weakest position, do not turn the adjustment screw any further.



#### Notice:

- Adjust the spring force to also prevent the cleats from coming off unintentionally.
- If the spring force is not adjusted equally, it can cause the rider difficulty in engaging or releasing the cleats. The spring force for the right and left pedals should be adjusted so they are equal.
- If an adjustment screw comes off the spring plate, disassembly and reassembly will be required. Contact a bicycle dealer.

# Installing the reflectors (sold separately)



# **Replacing cleats**

Cleats become worn and need to be replaced periodically. Cleats should be replaced when it becomes difficult to release, or it starts to release with much less effort than when it was in new condition.



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