General Safety Information

**WARNING** — To avoid serious injuries:

- SPD pedals are designed so that you release them only when you intend to release. They are not designed to release automatically at times such as when falling off the bicycle. This is a safety measure to prevent you from losing balance and falling off the bicycle as a result of your feet becoming accidentally released from the pedals.
- 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-SH66) and tighten the mounting bolts or screws securely to the shoes.
- Before attempting to ride with these pedals and shoes, make sure you understand the operation of the engagement/release mechanism for the pedals and cleats (SM-SH51). If you are unsure of the correct operation, contact a professional dealer for details.
- Be sure to tight-helm the cleats and engaging and releasing the shoes from the pedals.
- Before riding, adjust the spring tension of the pedals to your liking.
- 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 shoes from the pedal beforehand so that you can quickly put your feet onto the ground at any time.
- Use a lighter spring tension for attaching the pedal cleats when riding in adverse conditions.
- Keep cleats and bindings clear of dirt and debris to ensure engagement and release.
- Remember to check the cleats periodically for wear. When the cleats are worn, replace them. Always check the spring tension after replacing the pedal cleats and before riding.
- If you do not maintain both your shoes and cleats in good condition, release and engagement to the pedals could become unpredictable or difficult, which could result in severe injury.
- Be sure to attach reflectors to the bicycle when riding at night. Do not continue riding the bicycle if the reflectors are dirty or damaged, otherwise it becomes more difficult for oncoming vehicles to see you.
- Obtain and read the service instructions carefully prior to installing the parts. Loose, worn, or damaged parts may cause serious injury to the rider.
- We strongly recommend only using genuine Shimano replacement parts.
- If you have any questions concerning your pedals, contact a professional dealer.
- Read these Technical Service Instructions carefully, and keep them in a safe place for later reference.

**BE SURE TO READ AND FOLLOW THE ABOVE WARNINGS CAREFULLY.**

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

**NOTE:**

- Before riding the bicycle, check that there is no play or looseness in the connection. Also, be sure to tighten the crank arms and pedals at periodic intervals.
- In addition, if the pedal performance does not feel normal, check this once more.
- Parts are not guaranteed against natural wear or deterioration resulting from normal use.
- For maximum performance we highly recommend Shimano lubricants and maintenance products.

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**Technical Service Instructions**

**PD-A520 SPD Pedals**

### Cleat types and using the pedals

#### Engaging the cleats with the pedals

Press the cleats into the pedals with a forward and downward motion.

**Note:***

- This step may not be necessary depending on the type of shoes.
- The waterproof seal is supplied with Shimano shoes which require this step to be carried out.

#### Attaching the cleats

1. With a pair of pliers or a similar tool, pull off the rubber cover to expose the cleat mounting holes.

**Note:**

- This step may not be necessary depending on the type of shoes.

2. Remove the sockliner and position a cleat nut over the oval holes.

**Warning:**

- To avoid serious injuries:
  - Only Shimano cleats (SM-SH51/SM-SH66) and multiple release mode cleats (SM-SH55) are available for use with these pedals.
  - Each type of cleat has its own distinctive features, so be sure to read the Service Instructions carefully and select whichever type of cleat best suits your riding style and the terrain and riding conditions which you will encounter.
  - Other types of cleats such as single release mode cleats (SM-SH10) and multiple release mode cleats (SM-SH55) cannot be used, as they do not provide stable enough step-out performance or sufficient holding force.

#### Releasing the cleats from the pedals

**Note:**

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

- The waterproof seal is attached to the sockliner.

**WARNING**

- Do not use the pedal and cleats in any other way than as described in these Service Instructions.
- The cleats are designed to engage and release from the pedals when the cleats and pedals are facing forward.
- See below for instructions on how to install the cleats.

**Failure to follow these instructions may result in serious personal injury.**

#### Single release mode cleats (SM-SH51 and single release mode cleats (SM-SH10))

The cleats do not release automatically 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.

When you are pedaling vigorously, your heel may inadvertently twist outward and this may cause the cleat to release accidentally. If the cleat release by accident, you may fall off the bicycle and serious injury may result.

You can help to prevent this by adjusting the amount of force required to release the cleats, and you should practice until you are accustomed to the amount of force and the angle required to release the cleats.

**Note:**

- If you do not maintain both your shoes and cleats in good condition, release and engagement to the pedals could become unpredictable or difficult, which could result in severe injury.

**Cleat adapter**

- Front
- Position the triangular portion of the cleat toward the front of the shoe.

**Cleat mounting bolts**

- 4 mm Allen key

**Cleat**

- Provisional tightening torque for cleat mounting bolts: 2.5 N·m (22 in. lbs.)

**Cleat screw**

- 4 mm Allen key

**Cleat nut**

- 4 mm Allen key

**Scokliner**

- Waterproof seal

**Adjusting the cleat position**

1. The cleat has an adjustment range of 20 mm front to back and 5 mm right to left. After provisionally tightening the cleat, practice engaging and releasing, one shoe at a time, until you are accustomed to the cleat position.
2. After you have determined the best cleat position, firmly tighten the cleat mounting bolts with a 4 mm Allen key.

**Tightening torque:**

- 5 – 6 N·m (43 – 52 in. lbs.)

**Note:**

- A 4 mm Allen key cannot provide a sufficient tightening torque. Always be sure to use a 15 mm spanner.

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### Adjusting the spring tension of the binding

The spring force is adjusted by means of adjustment bolts. The adjustment bolts are located behind each of the bindings, and there is one adjustment bolt on each pedal. Equally have the spring tension be adjusted by referring to the position of the adjustment plate, and by counting the number of turns of the adjustment bolts. The spring tension can be adjusted in four steps for each turn of the adjustment bolt.

#### Mounting the reflectors (optional)

An optional reflector set (SM-PD59) is available. Please contact a professional dealer for details.

#### Clear replacement

Cleats wear out over time and should be replaced periodically. Cleats should be replaced if they become difficult to release, or it starts to release with much less effort than when it was in new condition.

#### Maintenance of the axle units

If you experience any trouble with the rotating parts of the pedal, the pedal may require adjustment. Obtain advice from a professional dealer.

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**Note:**

- Specifications are subject to change for improvement without notice. (December 2022)**