

KEYWIN CRM Pedal

Conditions of sale

The Keywin CRM pedal has been designed specifically for lightweight performance. It is well tested by world class riders and has proven benefits and reliability. It has been manufactured as light as possible and is sold specifically excluding any liability for any loss, damage, consequential losses, injury or any claims however caused.

Warranty

If, within six months of purchase, any part is found defective through faulty materials or workmanship, the pedal should be returned to the dealer with proof of purchase. The dealer will replace the defective item. This warranty does not apply to shoe plate wear, damping washer wear, or crash damage.

Concept

The CRM pedal is designed to give radial movement or a fixed pedal position depending on the choice of individual riders. Additionally, the pedal's radial movement can be controlled from being very free to quite damped.

It is not the intention that the damping mechanism for the radial movement should be tightened to a point where the pedal becomes fixed - that is the job of the "fixed pedal inserts".

The intention is that the radial movement can be controlled from fully floating to a point where the rider needs a positive movement to change the foot angle.

Radial Movement

Movement is achieved by allowing the pedal body to move independently of the axle

The outer bearing is held in the "bearing carrier" which moves forward and aft relative to the body.

Movement Damping

Damping is achieved by the action of the "rubber damping washer" pressing against the inside of the pedal body. Damping adjustment is achieved by compressing the "rubber damping washer" to create greater friction against the pedal body.

Fitting the pedals and Shoe Plates

Setting up KEYWIN CRM pedals is a breeze.

- a) Fit the pedals to the cranks after first applying some grease to the threads. Use a copper based grease when fitting titanium axles to prevent possible creaking between the aluminium and titanium.
- b) Tighten firmly (but don't over tighten as the threads tend to tighten in use) using either an allen key (on chrome moly axles) or a crescent wrench carefully placed and tightened on the flats. Don't rush this as a slip will spoil the appearance of the axles.
- c) Fit the shoe plate to the shoe as shown in diagram C. and lightly tighten the screws.
- d) Put on the shoes and attach to the pedals. Move your foot until your ankle is just brushing the crank. Leaving the shoe on the pedal, remove

your foot. Mark the shoe sole with the shoe plate position.

- e) When you remove the shoe from the pedal the shoe plate will move.
- f) Slacken the shoe plate screws and reposition the shoe plate to the marks and tighten very firmly.
- g) Go for a short test ride and adjust the shoe plate position to suit.
- h) Your mid point of radial movement should be approximately as shown in diagram D. In this position the shoe is parallel to the crank and the pedal axle directly under the ball of the foot.

Test Ride

Take your first test ride in a quiet area. Try attaching and releasing from the pedals a few times before riding off. Get used to the release movement and effort required.

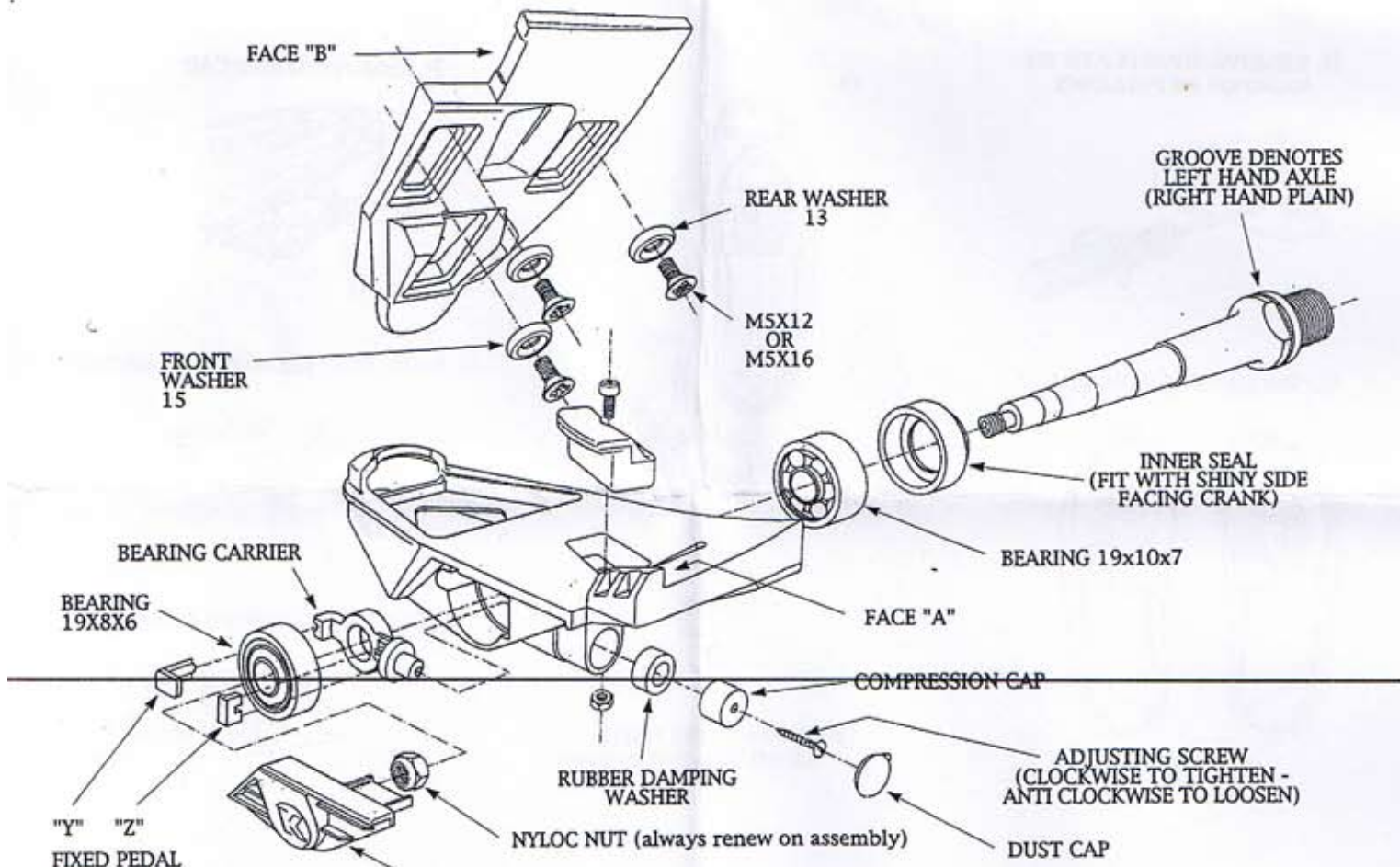
It is important that the pedal is correctly aligned. The radial movement built into the pedal should not be used as an excuse for incorrect alignment.

If the shoe plate position feels uncomfortable during your test ride, adjust by easing the screws, move to the new desired position, and re-tighten very firmly

Alternative axle lengths

In addition to foot alignment, overall hip, knee and ankle alignment is very important. To achieve optimum alignment, Keywin make 5 optional axle lengths. Speak to you dealer or specialist "bike fit" consultant.

A. PEDAL & SHOE PLATE - Exploded view of left hand pedal



Adjusting the radial damping

(Note: the adjustment is to the stiffness of the movement - not the amount of movement which remains at 6%)

- Flick off the small round dust cap. Screw in the adjusting screw to increase stiffness, screw out to decrease stiffness
- Move the screw no more than 1/4 turn each time. (Note: the adjustment is NOT meant to eliminate movement. The adjusting screw can be stripped if over tightened)
- If no movement is wanted, insert the "fixed pedal inserts".

Making the pedal fixed

- Two small plastic inserts are supplied for each pedal.
- Remove the end cover by inserting a small screwdriver in the slot provided and twist gently - (drawing F)
- Remove the dust cap and loosen the adjusting screw a full turn.
- Force the axle and bearing assembly to the back of the adjustment range and insert tab Z in the rear of the bearing carrier.
- When Z is in place, force the bearing assembly back and insert tab Y into the front of the bearing carrier.
- Both tabs will require a light tap using a suitable drill to force them home.
- Refit the end cover and the adjusting screw dust cover.

Removing the fixed pedal inserts

- Remove the end cap as previously described
- Remove the nyloc nut and pull out the axle
- Insert a screwdriver into the centre of the outer bearing (drawing G), and gently lever out the bearing and the rear insert Z
- Remove the front insert Y.

- Refit bearing, insert axle and screw on a new nyloc nut. Tighten until end float can be just felt.

Removing and replacing the rubber damping washer

- Remove dust cap, end cap, axle and bearing as previously described
- Unscrew adjusting screw
- Force the bearing carrier to the rear of the pedal, then force it to the front
- Use a screw driver to lever out the bearing carrier as shown in drawing H. Ease the bearing carrier out with steady force
- Push out the damping washer and compression cap.
- Refit bearing carrier - needs only to be pushed in by hand
- Push new damping washer into place
- Refit compression cap, fit screw and tighten until resistance is felt. Tighten half a turn further
- Refit bearing, insert axle and fit new nyloc nut. Tighten until end float can just be felt
- Refit end cap smearing both surfaces lightly with grease. Refit dust cap

Care of CRM Pedals

- Keywin pedals need very little maintenance. Be sure to keep all mating surfaces clean and free of grit. Clean with shoe polish - this also helps to keep the release pressure constant.
- Take care of your shoe plates: avoid walking on rough surfaces and be careful not to get grit and sand into the spring release (between surfaces A and B, diagram A) as this can cause the release pressure to greatly increase.
- Bearings are pre-greased and well protected, if the pedal runs roughly they should be replaced.
- Re-new the nyloc nut every time the pedal is re-assembled. Tighten until the end float can just be felt.

- Wipe the pedals with a damp cloth. Do not immerse in water or direct a strong water jet at them. After cleaning, brush on shoe polish.
- If the release pressure is too light, check the hook bolt and tighten if necessary, see diagram E. Check your shoe is not distorting the shoe plate - pack with thin washers if necessary. Check for excessive wear on the shoe plate and replace if necessary
- When replacing the hook, always use a light grade Loctite on the bolt threads.
- Always smear grease on the end cap mating surfaces.

Spares

All spares are available through your dealer.

Contents of pack

- 1 x pair pedals
- 1 x pair shoe plates
- 2 x large washers
- 4 x small washers
- 6 x M5x12 c/sunk screws

- 2 x pairs fixed pedal inserts
- Instruction leaflet

Weights

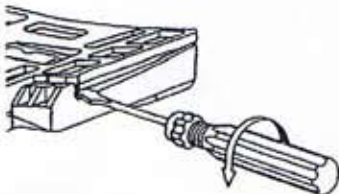
- CRM Chrome Moly axle 124 grams
- CRM Titanium axle 96 grams

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Specifications subject to change in the light of further improvements.

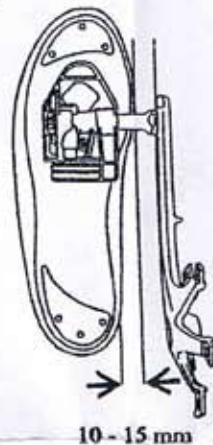
B. REMOVE SHOE PLATE BY HAND OR AS FOLLOWS



C. SHOE PLATE POSITION

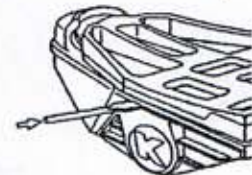


D.



E. ALWAYS FIX WITH LIGHT GRADE LOCTITE

F. REMOVING END CAP



G. REMOVING FIXED PEDAL INSERT



H. REMOVING BEARING CARRIER

