

Pedal Adjustment

JJ.11 - PEDAL BOX

The extruded and welded aluminium alloy pedal box is bonded and rivetted to an aperture in the chassis scuttle. A hollow steel pivot shaft serving all three pedals is bolted to a steel mounting plate, itself bolted to the inside of the pedal box. Each pedal is machined from a common alloy extrusion, with the throttle pedal being of a narrower section than that used for the brake and clutch. An extruded footpad is keyed, bonded and rivetted to the clutch and brake pedals, and is bolted to the throttle pedal. All the pedals use synthetic bushes for maintenance free articulation on the steel pivot shaft, and the clutch pedal uses a cylindrical steel trunnion supported in synthetic bearing rings to actuate the master cylinder pushrod.

In order for the required pedal spacing to be achieved within the packaging constraints of the vehicle, the brake pedal uses a relay lever to move the output plane inboard of the pedal line. A steel relay lever pivots on the common pedal shaft, and is equipped with two legs, one of which is used to connect to the brake pedal via an integral trunnion, whilst the other leg is connected to the brake servo pushrod by a clevis pin.

The throttle pedal actuates the throttle cable directly, which is routed along the cockpit centre, beneath the gear lever and parking brake lever trim panels, beneath the fuel tank bay and up to the front of the engine bay to the throttle body.

Adjustment

Throttle cable:

- The pedal is pulled against a rubber buffer on a steel upstop bracket by an extension spring.
- Adjust the cable outer length at the engine end abutment bracket to allow 2 - 3mm of pedal movement before the throttle is actuated.
- Set the downstop in the pedal footpad such that vigorous full depression of the pedal achieves full opening of the throttle butterfly without allowing the cable to be strained.
- An alternative pedal position which may be preferred for 'heel and toeing' may be achieved by replacing the rubber upstop buffer with a M5x15 hex. head setscrew, with three flat washers beneath the head for a total thickness of around 7mm. The cable must then be re-adjusted at the engine abutment as above. The footpad downstop bolt should then be replaced by an M8x20 setscrew and reset as above.

Brake pedal:

- The pedal is pulled 'off' by an extension spring anchored to a bracket rivetted to the scuttle beam.
- There is normally a gap of approximately 3mm between the brake pedal and the pedal box upstop flange with the pedal released. If preferred, the brake pedal can be raised slightly by adjusting the effective length of the pushrod at its connection to the clevis, but the master cylinder must never be preloaded, i.e. there must always be a small clearance between the pedal and upstop bracket to ensure that the master cylinder piston is allowed fully to return and open the reservoir port.
- After any adjustment, tighten the clevis locknut and check operation of the brake light switch.

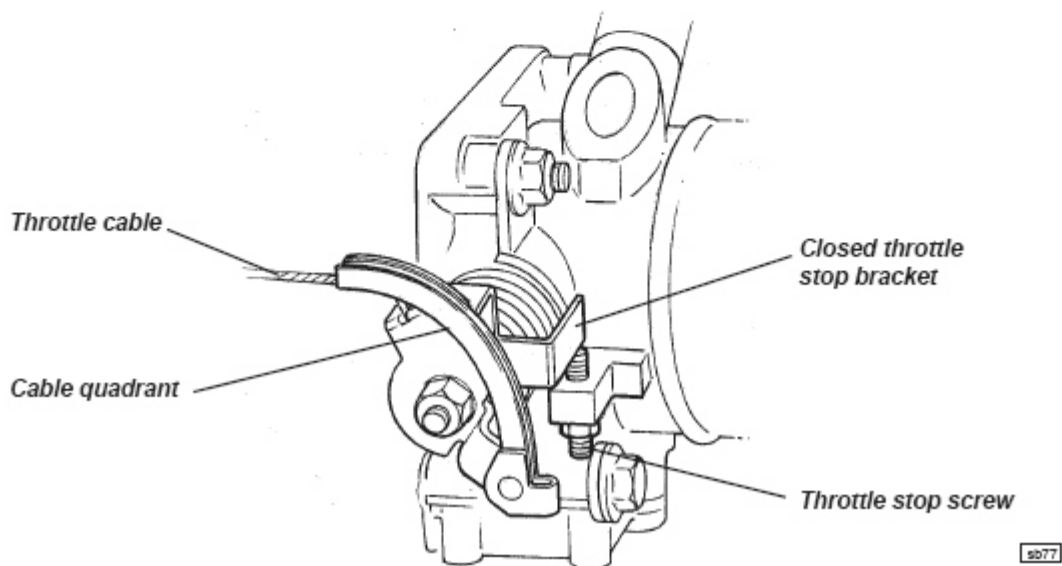
Clutch pedal:

- The pushrod, which is captive in the master cylinder, is screwed fully into the pedal trunnion, and controls the pedal height. Rubber buffers are provided to cushion the pedal at full travel.

EMP.4 - MECHANICAL THROTTLE SETTING PROCEDURE

To avoid throttle cable strain, and ensure correct idle control and pedal operation, the following adjustments must be maintained. If the pedal downstop is incorrectly set, overloading of the throttle body cable quadrant can occur, resulting in quadrant distortion, closed throttle position error and engine stalling:

1. Check the throttle body cable quadrant for distortion and mis-alignment. If necessary, repair or replace the quadrant.
2. Check that there is 2 - 3 mm free play at the throttle pedal, adjusting at the throttle body cable abutment bracket if necessary.
3. If an idle control problem has been reported, reset the closed throttle stop screw on the throttle body: With ignition off, use a hexagonal key in the bottom end of the throttle stop screw to allow the throttle butterfly valve to fully close, and introduce clearance between the screw and quadrant stop bracket. Screw upwards until contact is just made, and then a further $\frac{1}{2}$ turn upwards. Secure with the locknut. Recheck cable adjustment as above.
4. Adjust the throttle pedal downstop such that vigorous full depression of the pedal achieves full opening of the throttle butterfly without allowing the cable or mechanism to be strained.
5. If the throttle stop screw was adjusted, allow the engine to idle for 15 minutes to relearn settings.
6. An alternative pedal position which may be preferred for 'heel and toeing', may be achieved by replacing the rubber upstop buffer with an M5x15 hex. head setscrew, with three flat washers beneath the head for a total thickness of around 7mm. The cable must then be re-adjusted at the engine abutment as above. The footpad downstop bolt should then be replaced by an M8x20 setscrew and reset as above.

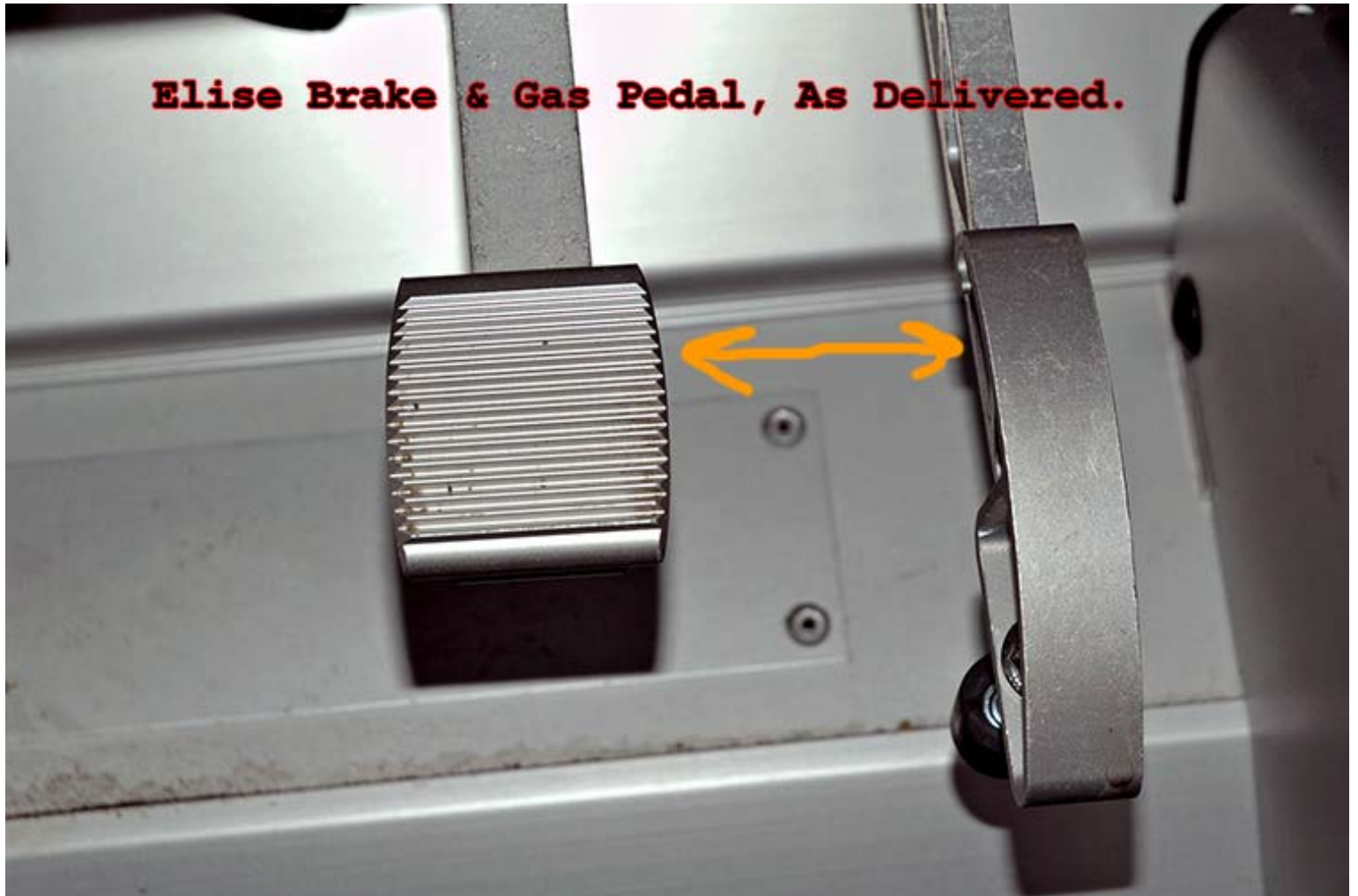


Brake Pedal, Bottom



As Delivered Alignment Hole

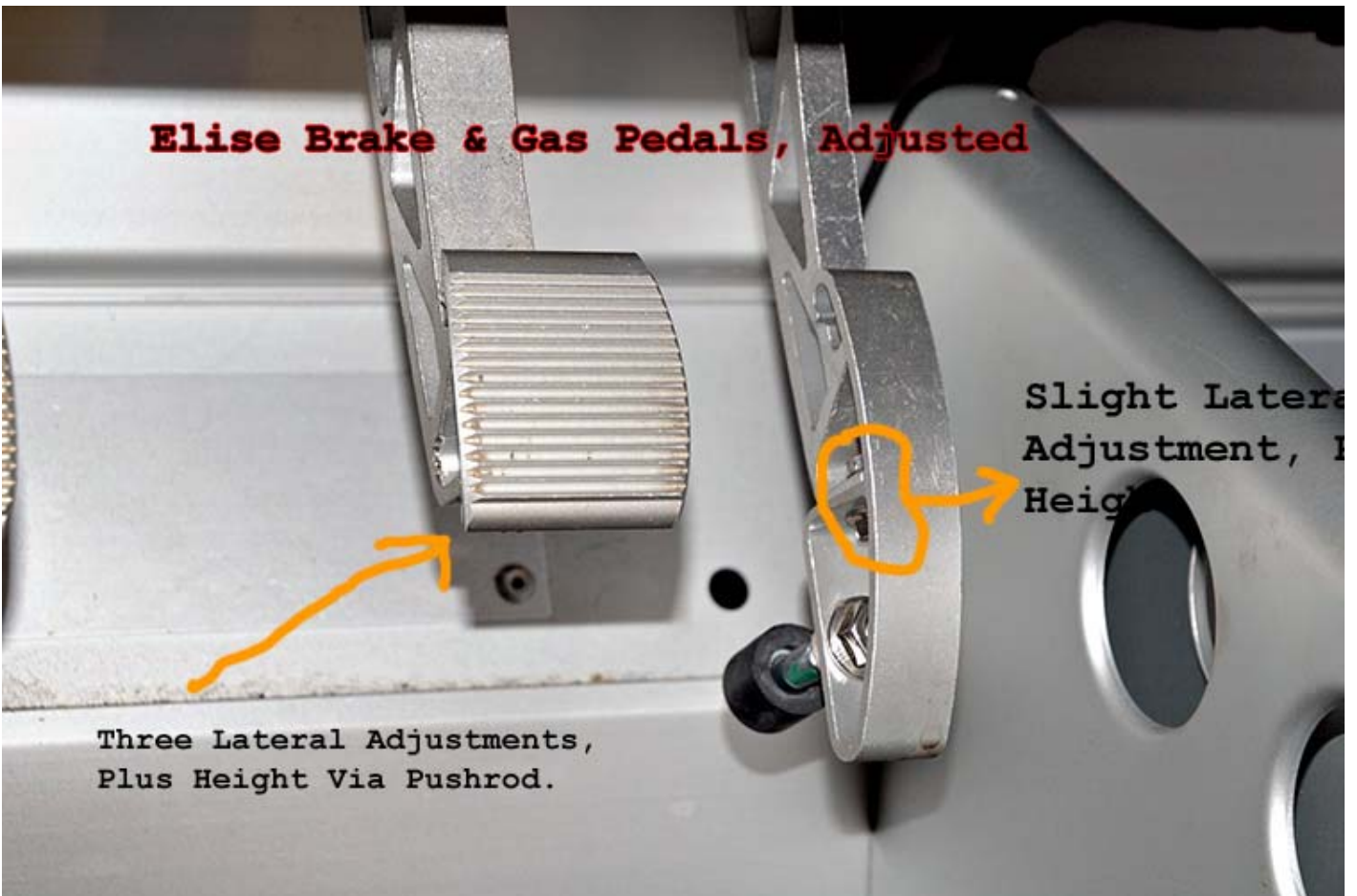
Elise Brake & Gas Pedal, As Delivered.



**Elise Brake & Gas Pedal, Adjusted.
(Brake Pad = Closer To Gas)**



Elise Brake & Gas Pedals, Adjusted



Three Lateral Adjustments,
Plus Height Via Pushrod.

Slight Lateral
Adjustment, Height