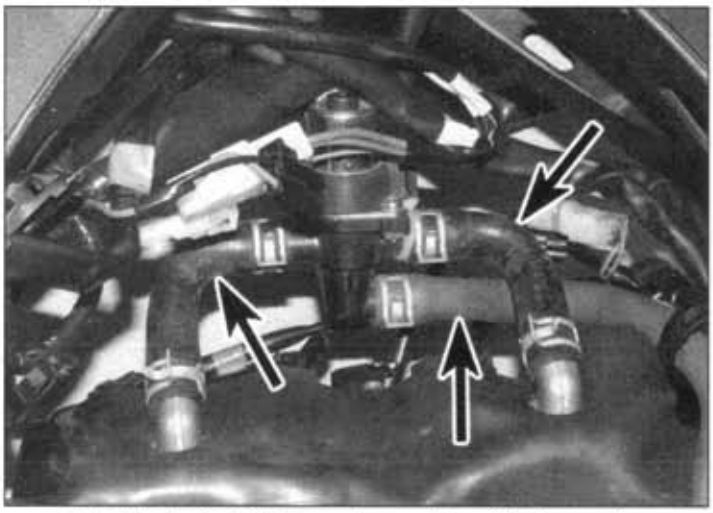
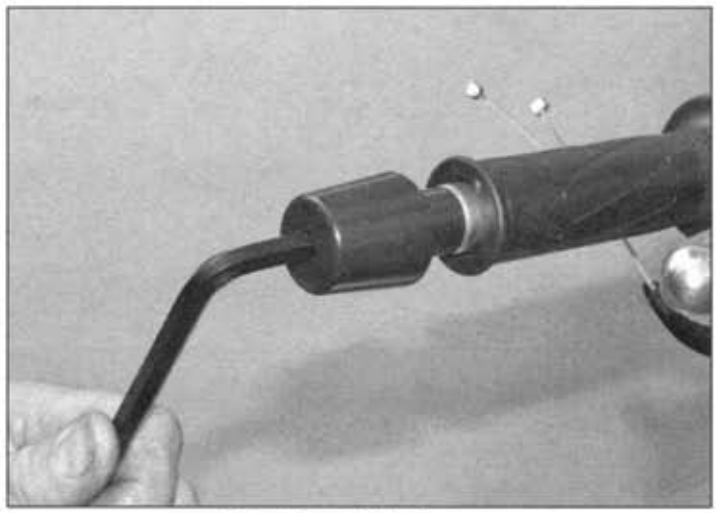


5.11 Check the AIS hoses (arrowed) and the hose clips



6.3a Use an Allen key . . .

7 Check that the clamp screws on the intake manifolds between the throttle bodies and the cylinder head are tight (see Chapter 4).

Air induction system (AIS)

8 To reduce the amount of unburned hydrocarbons released in the exhaust gases, an air induction system (AIS) is fitted. The system consists of the cut-off valve (mounted in front of the battery housing), the reed valves (fitted in the valve cover) and the hoses linking them. The cut-off valve is actuated electronically by the ECU.

9 The system is not adjustable and requires little maintenance. To gain access for inspection, remove the air filter housing (see Chapter 4), then remove the battery housing (see Chapter 8).

10 Note that carbon deposits inside the air filter housing, particularly on the right-hand side around the union for the AIS hose, indicate a fault with the reed valves (see Section 18).

11 Check that the AIS hoses are not kinked or pinched, are in good condition and are securely connected at each end **(see illustration)**. Replace any hoses that are cracked, split or generally deteriorated with new ones. Renew any spring clips that are corroded or sprained.

12 If the valve clearances are all correct and the throttle bodies have been synchronised and have no other faults, but the idle speed cannot be set properly, it is possible that the AIS is faulty. Refer to Chapter 4 for further information on the system and for checks if it is believed to be faulty.

EVAP system (California models)

13 Raise the fuel tank (see Chapter 4). Visually inspect all the system hoses between the fuel tank and the roll-over valve for kinks and splits and any other damage or deterioration. Make sure that the hoses are securely connected with a clamp on each end. Renew any hoses that are damaged or deteriorated.

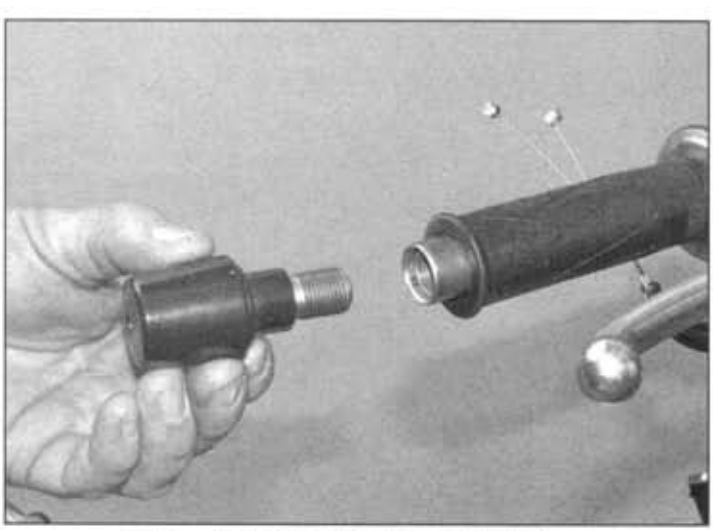
14 Refer to your dealer for further information and tests on the system.

6 Throttle cables

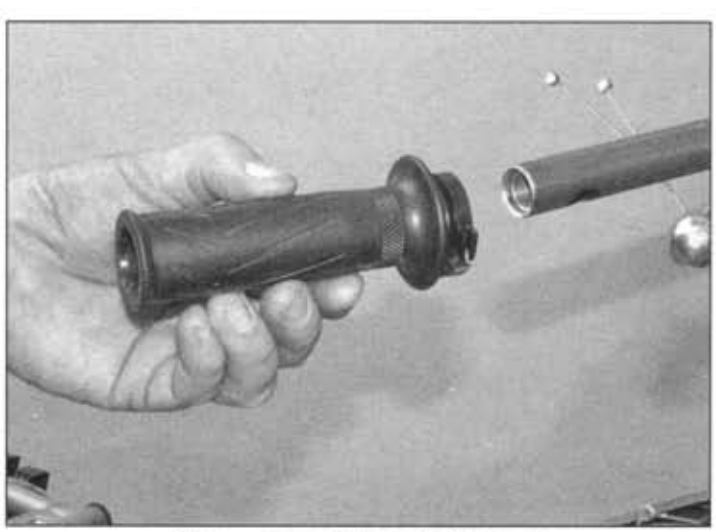
1 Make sure the throttle twistgrip rotates easily from fully closed to fully open with the front wheel turned at various angles. The twistgrip should return automatically from fully open to fully closed when released.

2 If the throttle sticks, this is probably due to a cable fault. Remove the cables (see Chapter 4) and lubricate them (see Section 8). If the inner cables still do not run smoothly in the outer cables, replace the cables with new ones.

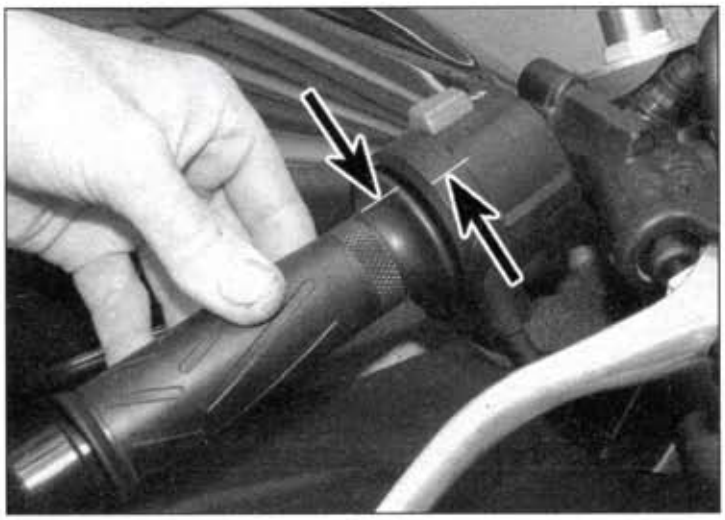
3 With the cables removed, check that the twistgrip turns smoothly around the handlebar – dirt combined with a lack of lubrication can cause the action to be stiff. If necessary, unscrew the handlebar end-weight with a suitable Allen key and slide the twistgrip off the handlebar **(see illustrations)**. Clean any old grease from the bar and the inside of the tube.



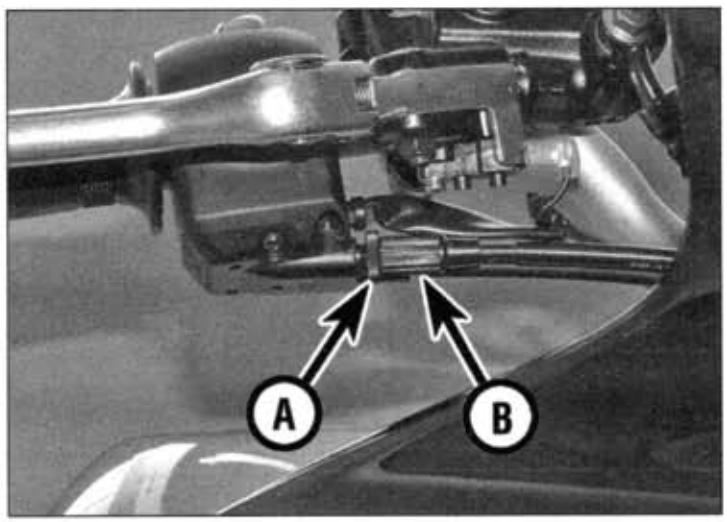
6.3b . . . to unscrew the bar end-weight . . .



6.3c . . . then slide the twistgrip off



6.4 Throttle cable freeplay is measured in terms of twistgrip rotation



6.5 Throttle cable lock ring (A) and adjuster (B)

Smear some new grease of the specified type onto the bar, then refit the twistgrip. Install the lubricated or new cables, making sure they are correctly routed (see Chapter 4). If this fails to improve the operation of the throttle, the fault could lie in the throttle bodies. Remove them and check the action of the throttle linkage and butterflies (see Chapter 4).

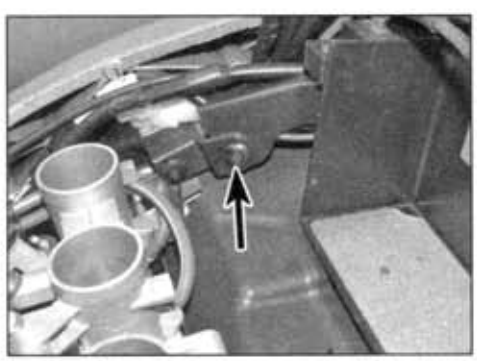
4 With the throttle operating smoothly, check for a small amount of freeplay in the opening cable, measured in terms of the amount of twistgrip rotation before the throttle opens, and compare the amount to that listed in this Chapter's Specifications **(see illustration)**. If it is incorrect, adjust the cables as follows:

5 Initially adjust freeplay using the adjuster in the throttle opening cable where it leaves the housing on the handlebar. Loosen the lock ring and turn the adjuster until the specified amount of freeplay is obtained, then retighten the lock ring **(see illustration)**. Turn the adjuster in to increase freeplay and out to reduce it.

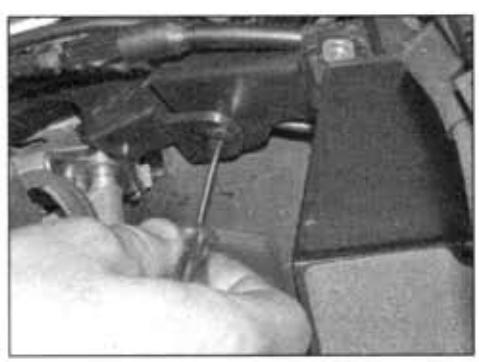
6 If the adjuster has reached its limit of adjustment, reset it so that the freeplay is at a maximum, then adjust the cables at the throttle body end as follows.

7 Remove the fuel tank and air filter housing (see Chapter 4). Release the trim clip securing the clutch cable support bracket and displace the bracket **(see illustrations)**.

8 Displace the left-hand corner of the heat shield to access the throttle cable adjusters – the upper cable in the bracket on the throttle bodies is the closing cable, and the lower cable is the opening cable **(see illustration)**.

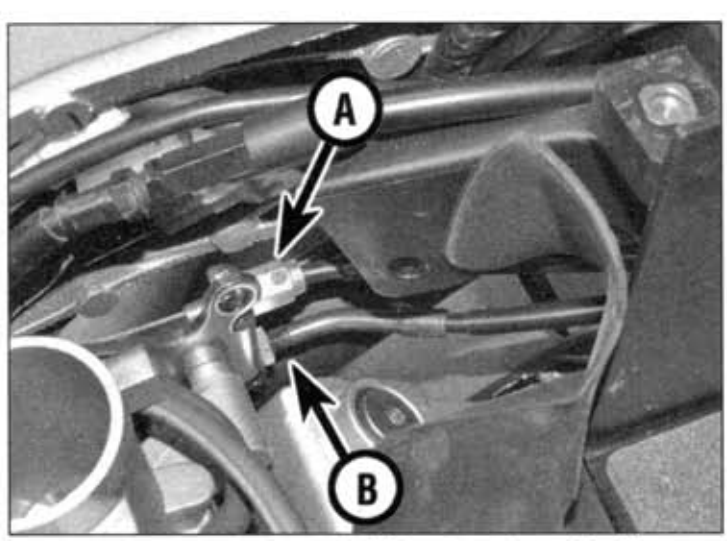


6.7a Press in the centre of the trim clip (arrowed) . . .

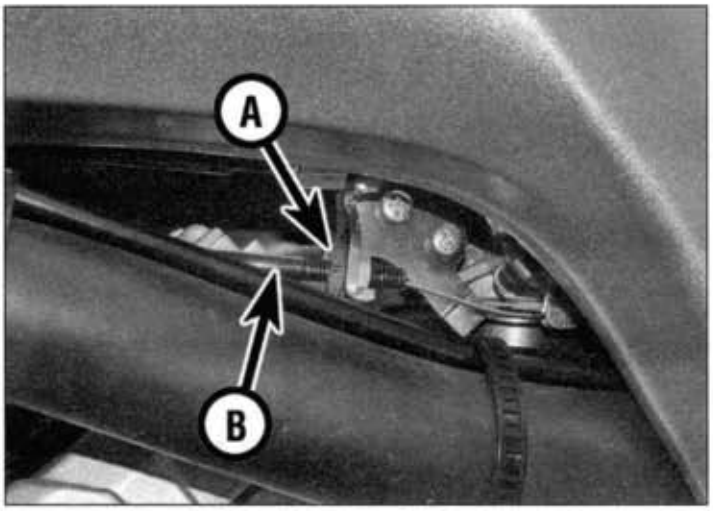


6.7b . . . with a small screwdriver . . .

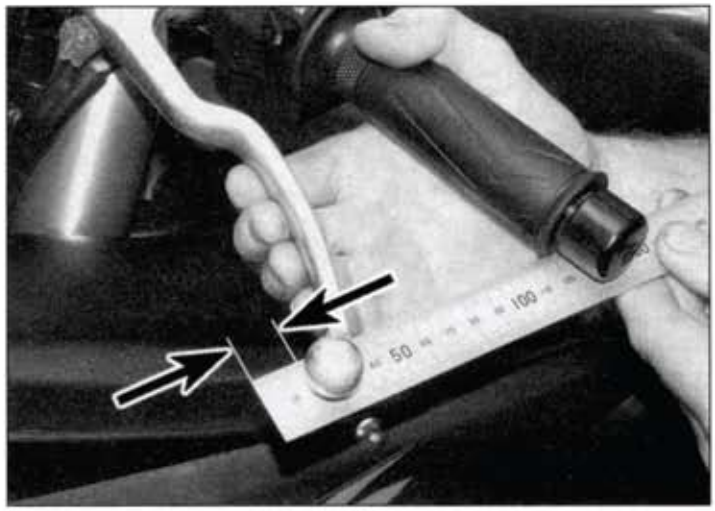
6.7c . . . so that the clutch cable support bracket can be displaced



6.8 Throttle closing cable (A) and opening cable (B)



6.10 Opening cable adjuster locknut (A) and adjuster (B)



7.5 Measure the amount of freeplay at the clutch lever end as shown (arrowed)

9 There should be no discernable freeplay in the closing cable. If necessary, loosen the locknut on the closing cable adjuster and turn the adjuster until any slack is removed, then tighten the locknut **(see illustration 6.8)**.

10 Now loosen the locknut on the opening cable adjuster and turn the adjuster nut until the specified amount of twistgrip freeplay is obtained, then tighten the locknut **(see illustration)**. Ensure that the adjuster elbow is aligned at the correct angle **(see illustration 6.8)**. Further adjustments can now be made at the handlebar end (see Step 5). If the cables cannot be adjusted as specified, replace them with new ones (see Chapter 4).

Warning: Turn the handlebars all the way through their travel with the engine idling. Idle speed should not change. If it does, the cables may be routed incorrectly. Correct this condition before riding the motorcycle.

11 Check that the throttle twistgrip operates smoothly and snaps shut when released.

7 Clutch and clutch cable

1 Check that the clutch lever operates smoothly and easily.

2 If the lever action is heavy or stiff, remove the cable (see Chapter 2, Section 12) and lubricate it (see Section 8). If the inner cable still does not run smoothly in the outer cable, replace the cable with a new one. Install the lubricated or new cable (see Chapter 2).

3 If the lever itself is stiff, remove the lever from its bracket (see Chapter 5) and check for damage or distortion, or any other cause, and remedy as necessary. Clean and lubricate the pivot and contact areas (see Section 8).

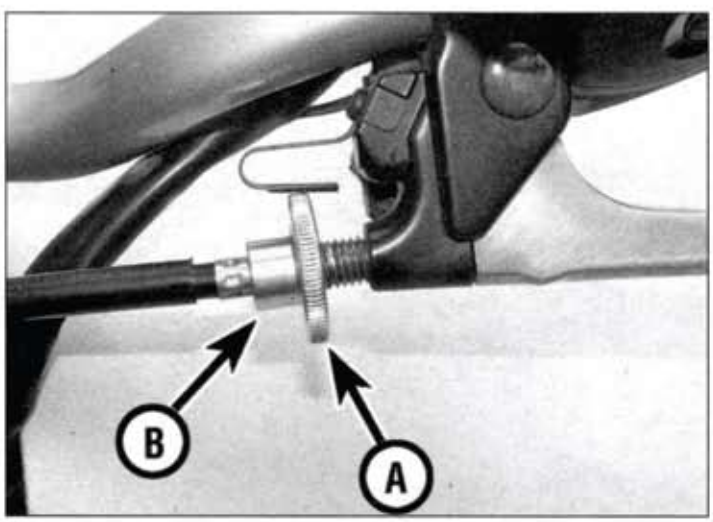
4 If the lever and cable are good, refer to Chapter 2 and check the release mechanism in the clutch cover and the clutch itself.

5 With the clutch operating smoothly, check that the clutch lever is correctly adjusted. Periodic adjustment is necessary to compensate for wear in the clutch plates and stretch of the cable. Check that the amount of freeplay at the clutch lever end is within the specifications listed at the beginning of this Chapter **(see illustration)**.

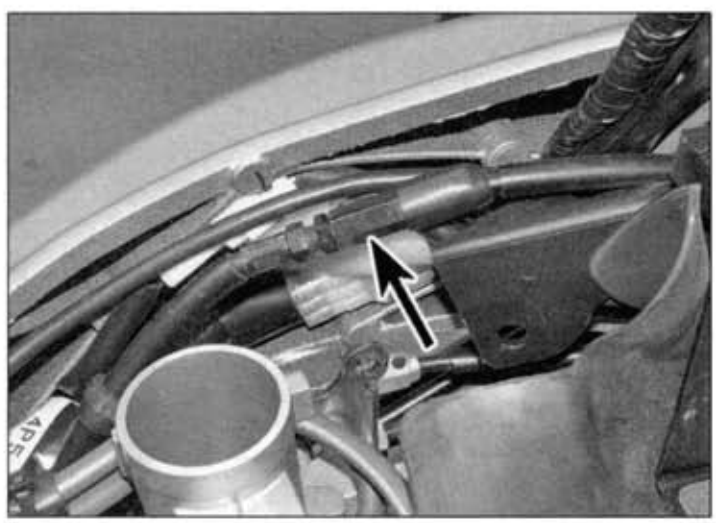
6 If adjustment is required, loosen the lock ring on the adjuster and turn the adjuster in or out of the handlebar bracket until the required amount of freeplay is obtained **(see illustration)**. To increase freeplay, turn the adjuster clockwise (into the lever bracket). To reduce freeplay, turn the adjuster anti-clockwise (out of the lever bracket). Tighten the locking ring securely.

7 If all the adjustment has been taken up at the lever, reset the adjuster to give the maximum amount of freeplay, then set the correct amount of freeplay using the adjuster in the cable underneath the fuel tank.

8 Remove the fuel tank and the air filter housing (see Chapter 4). Slacken the adjuster locknut, then turn the adjuster as required to obtain the correct freeplay **(see illustration)**. When the correct amount of freeplay has been



7.6 Loosen lock ring (A) and turn adjuster (B)



7.8 Location of lower clutch cable adjuster (arrowed)