

PEDAL SYSTEM AND CONTROL CABLES

4-5

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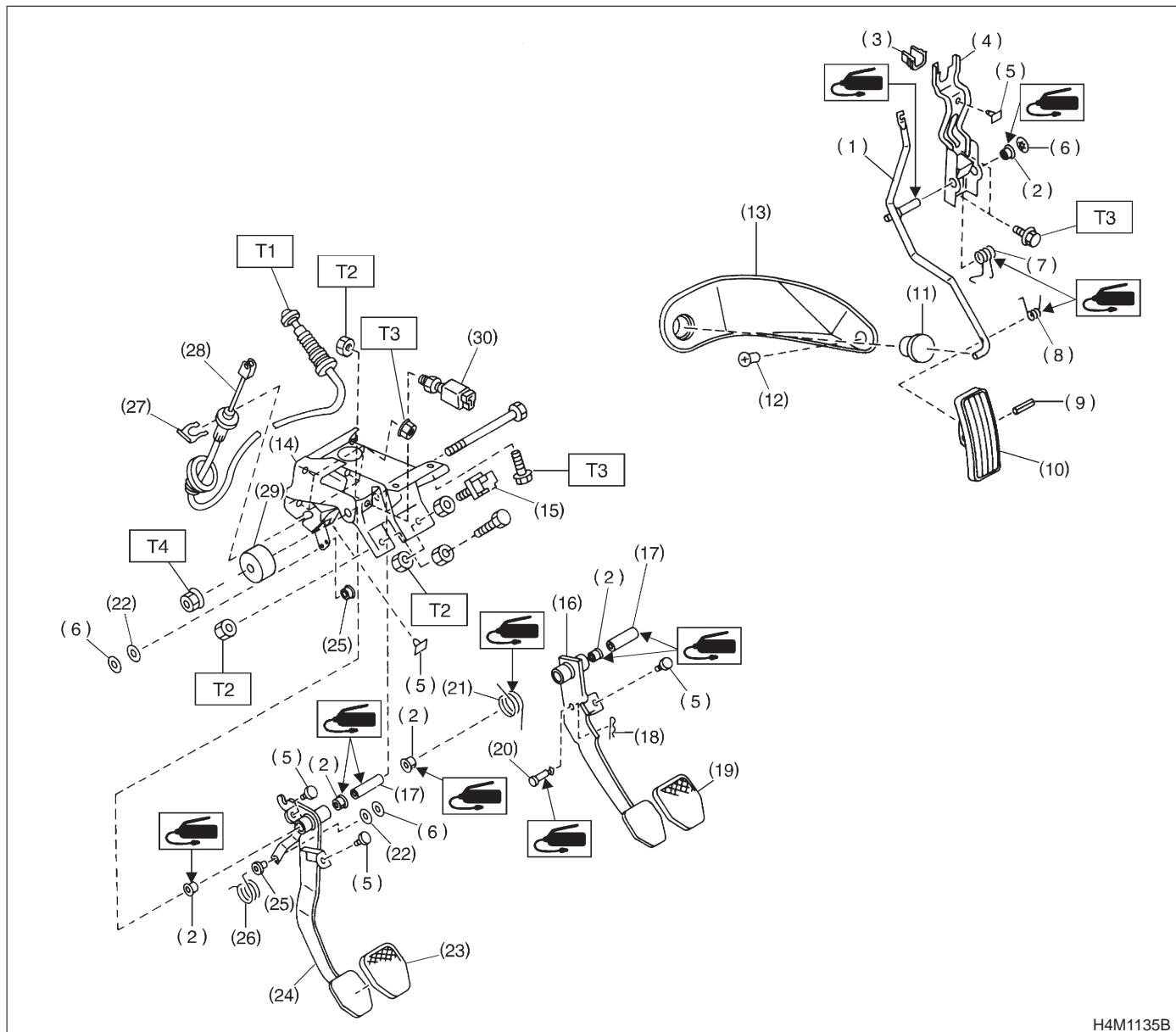
1. Pedal System

Brake pedal	Free play		1 — 3 mm (0.04 — 0.12 in) [Depress brake pedal pad with a force of less than 10 N (1 kg, 2 lb).]
Clutch pedal	Free play	At clutch pedal pad	Except 2500 cc model: 10 — 20 mm (0.39 — 0.79 in) 2500 cc model: 4 — 13 mm (0.16 — 0.51 in)
	Full stroke	At clutch pedal pad	Except 2500 cc model: 140 — 145 mm (5.51 — 5.71 in) 2500 cc model: 130 — 135 mm (5.12 — 5.31 in)
Accelerator pedal	Free play	At pedal pad	1 — 4 mm (0.04 — 0.16 in)
	Stroke	At pedal pad	50 — 55 mm (1.97 — 2.17 in)

1. Pedal

A: MT MODEL

1. 2200 cc MODEL



H4M1135B

(1) Accelerator pedal	(14) Pedal bracket	(27) Clutch cable clamp
(2) Bushing	(15) Stop light switch	(28) Clutch cable
(3) Holder	(16) Brake pedal	(29) Mass damper
(4) Accelerator bracket	(17) Spacer	(30) Clutch switch (Starter interlock)
(5) Stopper	(18) Snap pin	
(6) Clip	(19) Brake pedal pad	
(7) Accelerator spring	(20) Clevis pin	
(8) Accelerator pedal spring	(21) Brake pedal spring	
(9) Spring pin	(22) Washer	
(10) Accelerator pedal pad	(23) Clutch pedal pad	
(11) Accelerator stopper	(24) Clutch pedal	
(12) Clip	(25) Bushing assist	
(13) Accelerator plate	(26) Spring assist	

Tightening torque: N·m (kg·m, ft·lb)

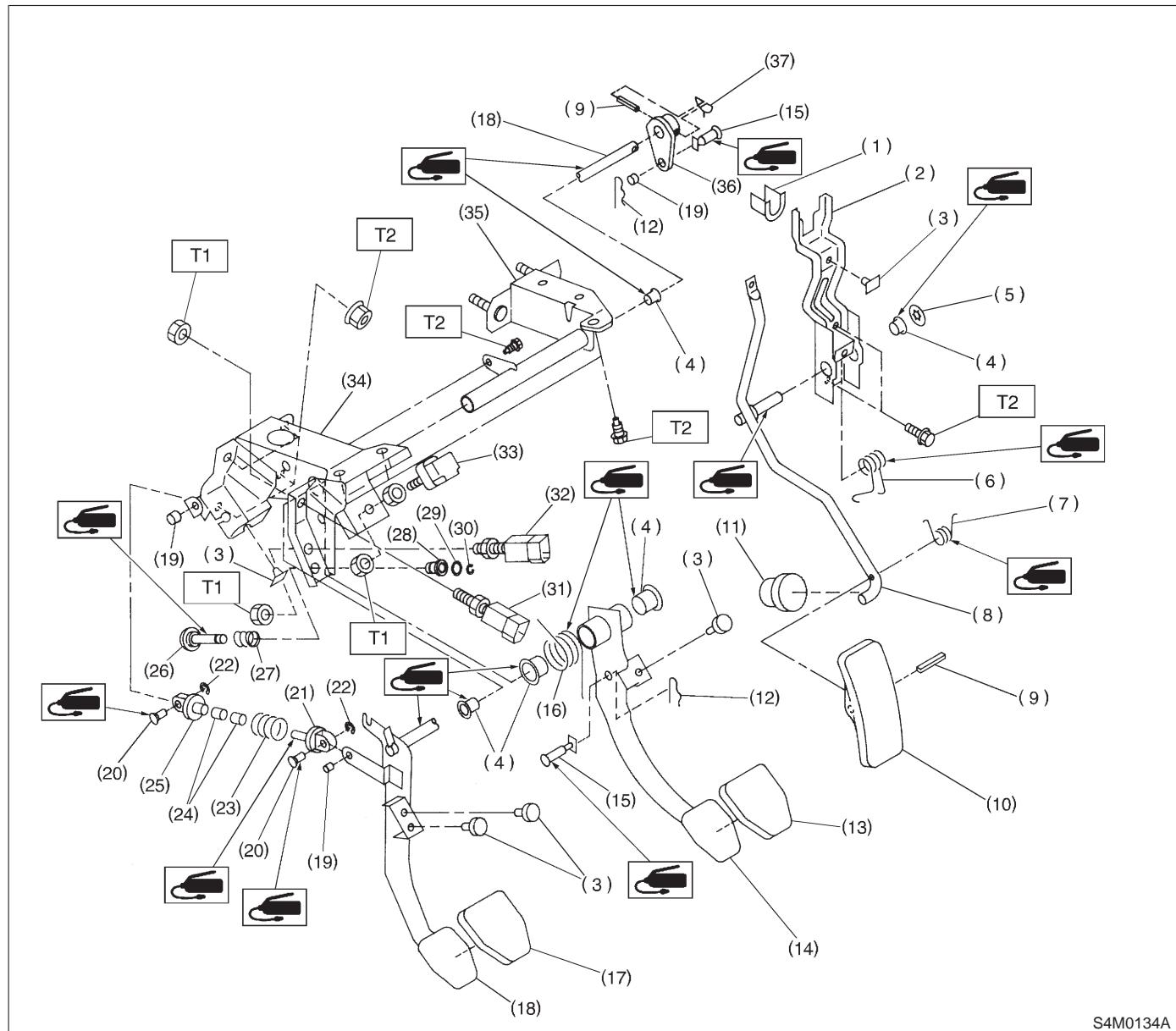
T1: 5.9 ± 1.5 (0.60 \pm 0.15, 4.3 \pm 1.1)

T2: 8 ± 2 (0.8 \pm 0.2, 5.8 \pm 1.4)

T3: 18 ± 5 (1.8 \pm 0.5, 13.0 \pm 3.6)

T4: 29 ± 7 (3.0 \pm 0.7, 21.7 \pm 5.1)

2. 2500 cc MODEL

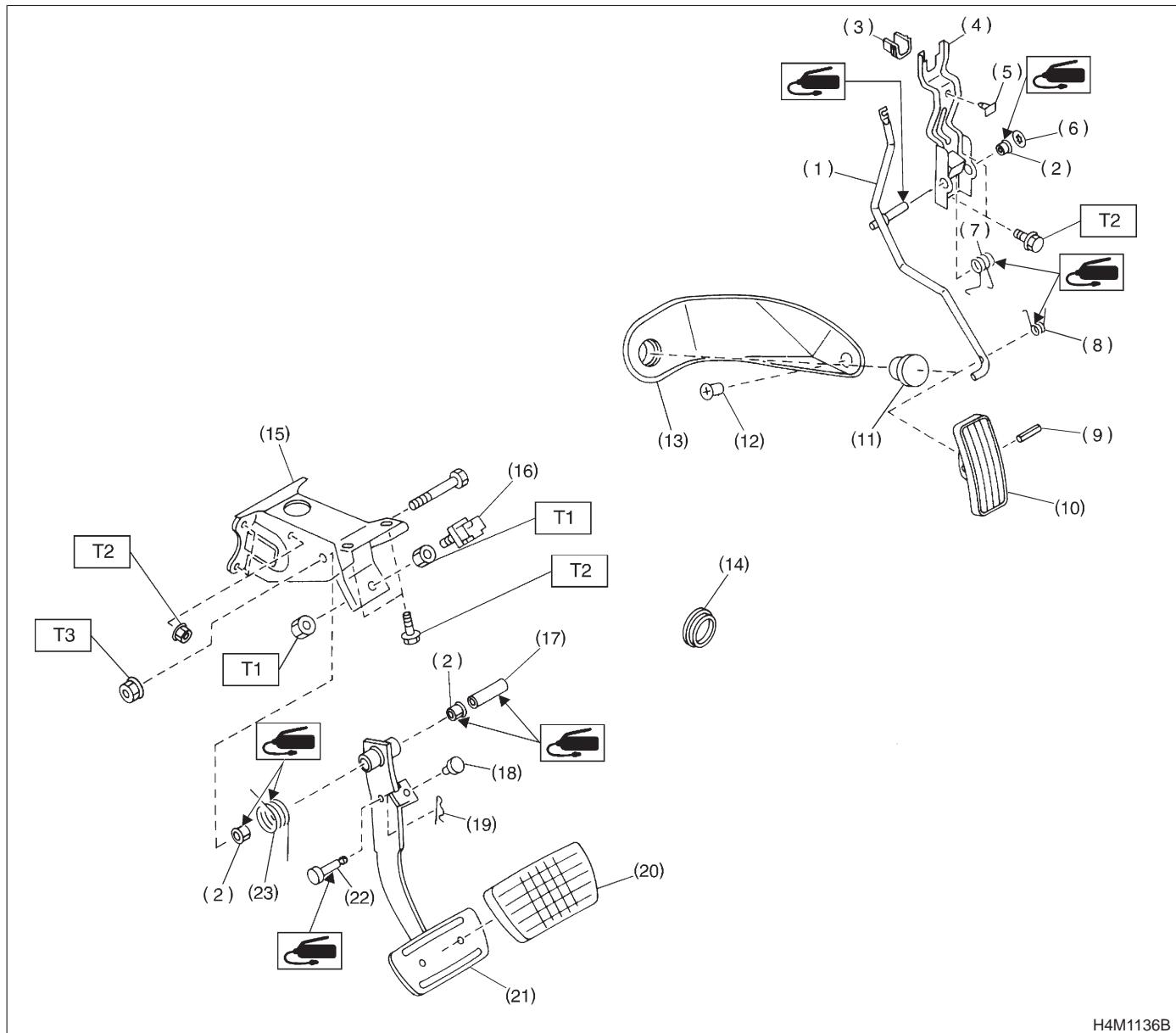


S4M0134A

(1) Holder	(16) Brake pedal spring	(31) Clutch switch (Starter interlock)
(2) Accelerator bracket	(17) Clutch pedal pad	(32) Clutch switch (With cruise control)
(3) Stopper	(18) Clutch pedal	(33) Stop light switch
(4) Bushing	(19) Bushing C	(34) Pedal bracket
(5) Clip	(20) Clutch clevis pin	(35) Clutch master cylinder bracket
(6) Accelerator spring	(21) Assist rod A	(36) Lever
(7) Accelerator pedal spring	(22) Clip	(37) Lock wire
(8) Accelerator pedal	(23) Assist spring	
(9) Spring pin	(24) Assist bushing	
(10) Accelerator pedal pad	(25) Assist rod B	
(11) Accelerator stopper	(26) Rod S	
(12) Snap pin	(27) Spring S	
(13) Brake pedal pad	(28) Bushing S	
(14) Brake pedal	(29) O-ring	
(15) Clevis pin	(30) Clip	

Tightening torque: N·m (kg·m, ft·lb)**T1: 8 ± 2 (0.8±0.2, 5.8±1.4)****T2: 18 ± 5 (1.8±0.5, 13.0±3.6)**

B: AT MODEL



H4M1136B

(1) Accelerator pedal	(11) Accelerator stopper
(2) Bushing	(12) Clip
(3) Holder	(13) Accelerator plate
(4) Accelerator bracket	(14) Plug
(5) Stopper	(15) Pedal bracket
(6) Clip	(16) Stop light switch
(7) Accelerator spring	(17) Spacer
(8) Accelerator pedal spring	(18) Stopper
(9) Spring pin	(19) Snap pin
(10) Accelerator pedal	(20) Brake pedal pad

(21) Brake pedal
(22) Clevis pin
(23) Brake pedal spring

Tightening torque: N·m (kg·m, ft·lb)

T1: 8±2 (0.8±0.2, 5.8±1.4)

T2: 18±5 (1.8±0.5, 13.0±3.6)

T3: 29±7 (3.0±0.7, 21.7±5.1)

1. Pedal

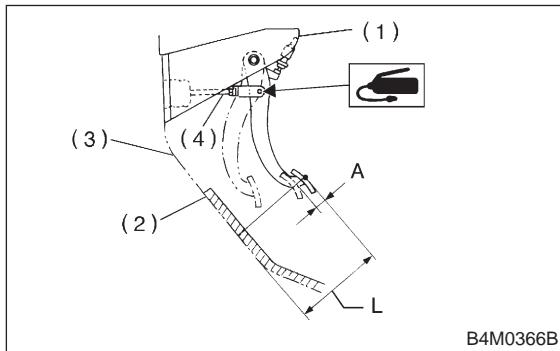
A: ON-CAR SERVICE

1. BRAKE PEDAL

- 1) Check position of pedal pad.

Pedal height: L

148 mm (5.83 in)



B4M0366B

- (1) Stop light switch
- (2) Mat
- (3) Toe board
- (4) Brake booster operating rod

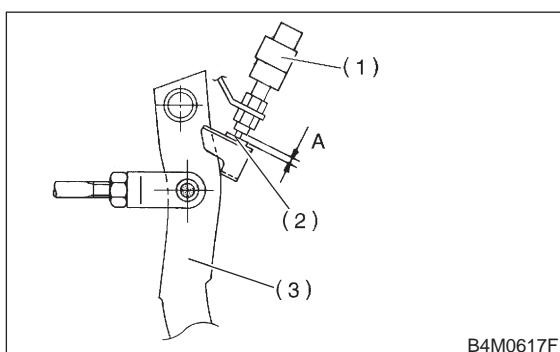
- 2) If it is not in specified value, adjust it by adjusting brake booster operating rod length.
- 3) Measure the clearance between threaded end of stop light switch and stopper. If it is not in specified value, adjust it by adjusting position of stop light switch.

CAUTION:

Be careful not to rotate stop light switch.

Stop light switch clearance: A

0.3 mm (0.012 in)



B4M0617F

- (1) Stop light switch
- (2) Stopper
- (3) Brake pedal

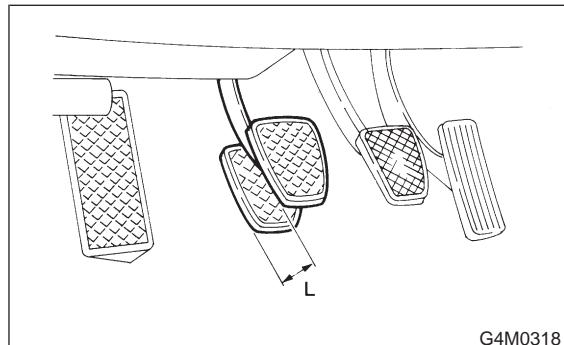
- 4) Apply grease to operating rod connecting pin to prevent it from wearing.

2. CLUTCH PEDAL (2200 cc MODEL)

- 1) Check clutch pedal free play by operating pedal by hand.

Free play: L (At clutch pedal pad)

10 — 20 mm (0.39 — 0.79 in)



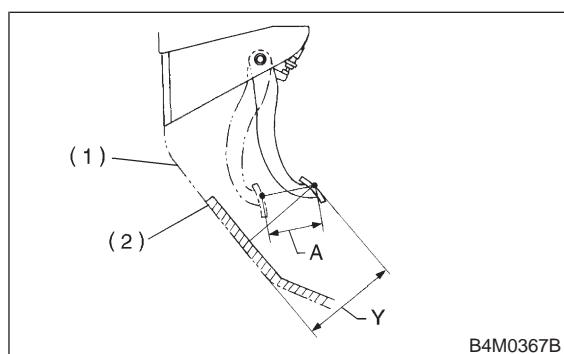
G4M0318

Pedal height: Y

158 mm (6.22 in)

Pedal stroke: A

140 — 145 mm (5.51 — 5.71 in)



B4M0367B

- (1) Toe board
- (2) Mat

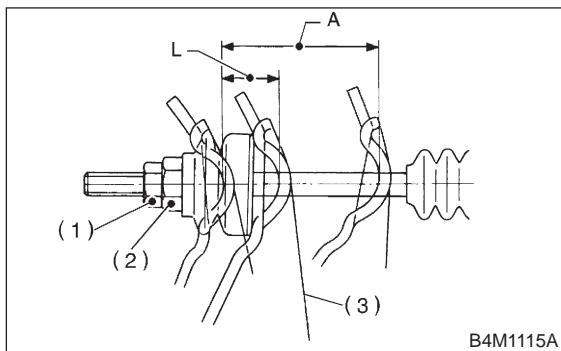
2) If it is not in specified value, adjust it by turning adjusting nut on engine side end of clutch cable.

Free play: L

2 — 4 mm (0.08 — 0.16 in)

Full stroke: A

25.5 — 27 mm (1.004 — 1.063 in)



- (1) Lock nut
- (2) Adjusting nut
- (3) Release fork

3) Apply grease to connecting portion of clutch pedal and clutch cable.

Lock nut tightening torque:

$5.9 \pm 1.5 \text{ N}\cdot\text{m (0.60} \pm 0.15 \text{ kg}\cdot\text{m, } 4.3 \pm 1.1 \text{ ft-lb)}$

3. ACCELERATOR PEDAL

Check pedal stroke and free play by operating accelerator pedal by hand.

If it is not within specified value, adjust it by turning nut connecting accelerator cable to throttle body.

Free play at pedal pad: L

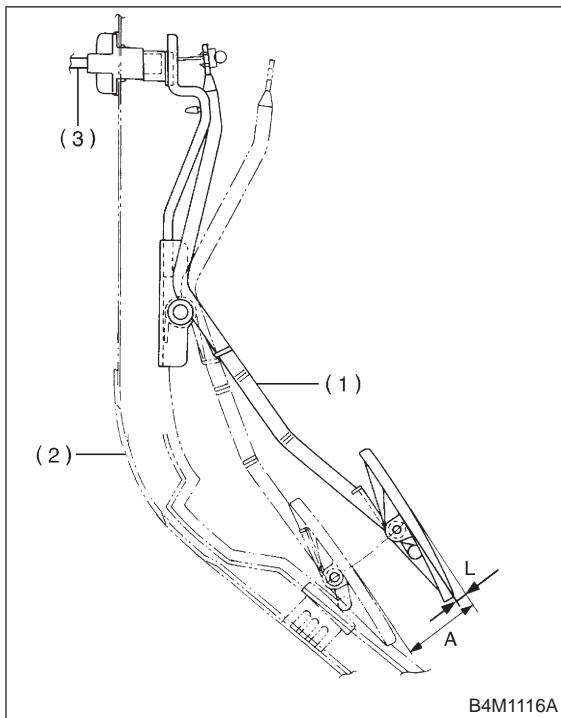
1 — 4 mm (0.04 — 0.16 in)

Stroke at pedal pad: A

46 — 50 mm (1.81 — 1.97 in)

Accelerator cable lock nut tightening torque:

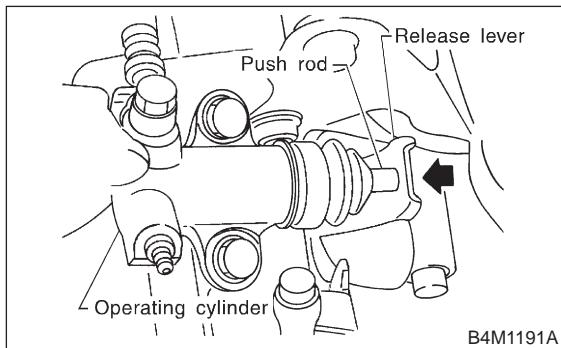
$14 \pm 4 \text{ N}\cdot\text{m (1.4} \pm 0.4 \text{ kg}\cdot\text{m, } 10.1 \pm 2.9 \text{ ft-lb)}$



- (1) Accelerator pedal
- (2) Toe board
- (3) Accelerator cable

4. CLUTCH PEDAL (2500 cc MODEL)

- Push release fork until operating cylinder push rod retracts. Check that clutch fluid level in reservoir tank increases.



- If clutch fluid level increases, hydraulic clutch play is correct.
- If clutch fluid level does not increase or push rod does not retract, clutch pedal must be adjusted. <Ref. to 4-5 [W1F1].>
- Check the fluid level on the outside of the clutch master cylinder tank. If the level is below "MIN", add clutch fluid to bring it up to "MAX".

Recommended clutch fluid:

**FMVSS No. 116, fresh DOT 3 or DOT 4
brake fluid**

B: REMOVAL

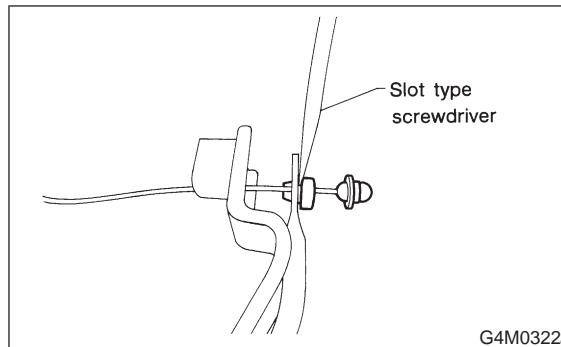
1. ACCELERATOR PEDAL

- Disconnect ground cable from battery.
- Disconnect accelerator cable from throttle body.

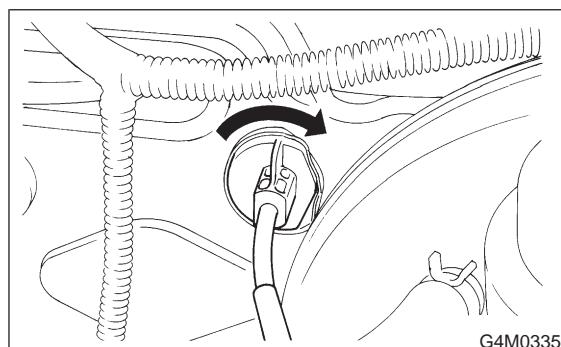
CAUTION:

Be careful not to kink accelerator cable.

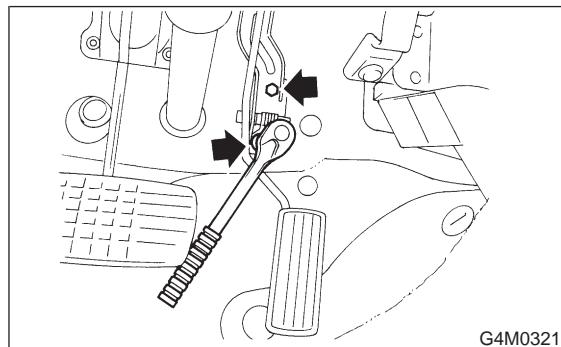
- Remove instrument panel lower cover from instrument panel, and connector.
- Disconnect accelerator cable from accelerator pedal lever.



- Working inside engine compartment, remove casing cap out of the toe board by turning it clockwise.



- Pull out the cable from the toe board hole.
- Remove accelerator pedal connecting bolt from accelerator pedal bracket.

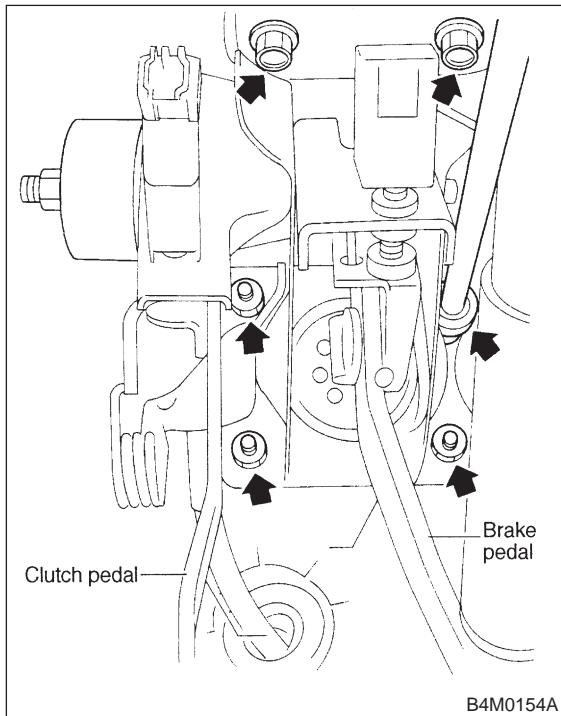


2. BRAKE AND CLUTCH PEDAL (2200 cc MODEL)

- 1) Disconnect ground cable from battery.
- 2) Disconnect clutch cable from release lever.
- 3) Remove instrument panel lower cover from instrument panel.
- 4) Disconnect the following parts from pedal bracket.
 - (1) Operating rod of brake booster
 - (2) Electrical connectors (for stop light switch, etc.)
- 5) Remove clevis pin which secures pedal to push rod.
- 6) Remove bolts and nuts which secure brake and clutch pedals, and remove pedal bracket and clutch cable as a unit.

CAUTION:

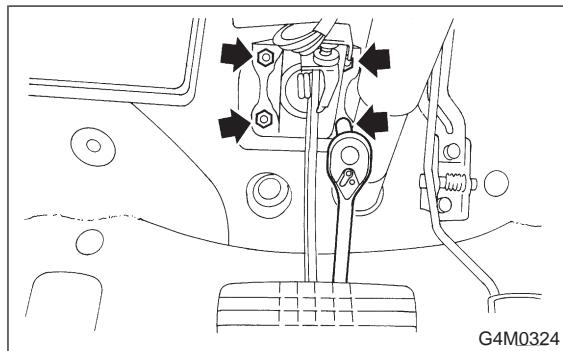
Before removing clutch cable from toe board, remove grommet. Slowly remove clutch cable, being careful not to scratch it.



- 7) Depress clutch pedal, disconnect clutch cable from clutch pedal.

3. BRAKE PEDAL

- 1) Disconnect ground cable from battery.
- 2) Remove instrument panel lower cover from instrument panel.
- 3) Remove clevis pin which secures brake pedal to brake booster operating rod. Also disconnect stop lamp switch connector.
- 4) Remove two bolts and four nuts which secure brake pedal to pedal.



4. BRAKE AND CLUTCH PEDAL (2500 cc MODEL)

- 1) Remove steering bolts.
- 2) Raise vehicle on hoist and remove the two bolts which secure steering unit to underside of body.
- 3) Lower vehicle to floor.
- 4) Remove instrument panel lower cover from instrument panel.
- 5) Disconnect the following parts from pedal bracket.
 - Operating rod of brake booster
 - Electrical connectors (for stop light switch, etc.)
- 6) Remove clevis pin which secures lever to push rod.
- 7) Remove nut which secures clutch master cylinder.
- 8) Remove steering assembly.
- 9) Remove bolts and nuts which secure brake and clutch pedals, and remove pedal assembly.

C: INSPECTION**1. BRAKE AND CLUTCH PEDALS**

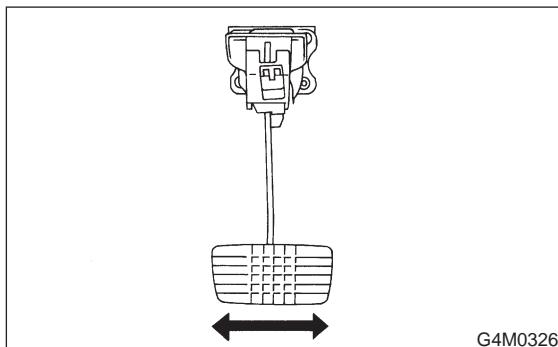
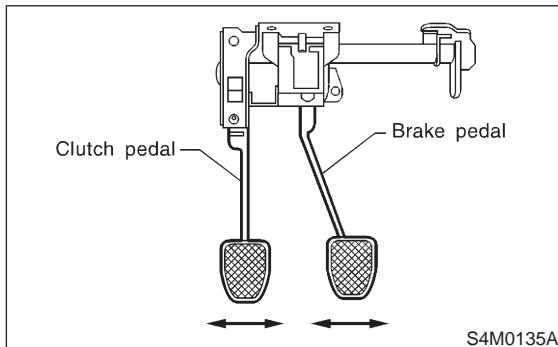
Move brake and clutch pedal pads in the lateral direction with a force of approximately 10 N (1 kg, 2 lb) to ensure pedal deflection is in specified range.

CAUTION:

If excessive deflection is noted, replace bushings with new ones.

Deflection of brake and clutch pedal:**Service limit**

5.0 mm (0.197 in) or less

**2. ACCELERATOR PEDAL**

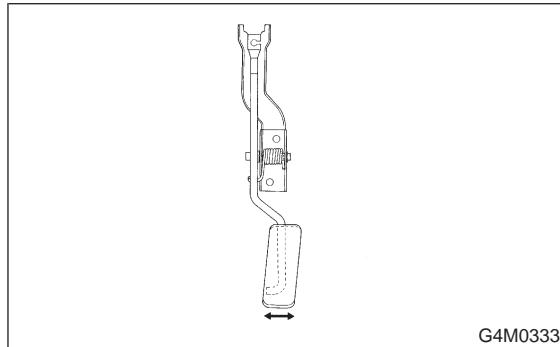
Lightly move pedal pad in lateral the direction to ensure pedal deflection is in specified range.

CAUTION:

If excessive deflection is noted, replace bushing and clip with new ones.

Deflection of accelerator pedal:**Service limit**

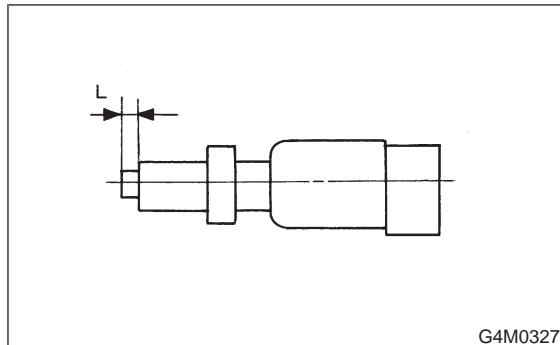
5.0 mm (0.197 in) or less

**3. STOP LIGHT SWITCH**

If stop light switch does not operate properly (or if it does not stop at the specified position), replace with a new one.

Specified position: L

$2^{+1.5}/_{-0}$ mm (0.079 $^{+0.059}/_{-0}$ in)



D: ASSEMBLY

1. BRAKE AND CLUTCH PEDAL

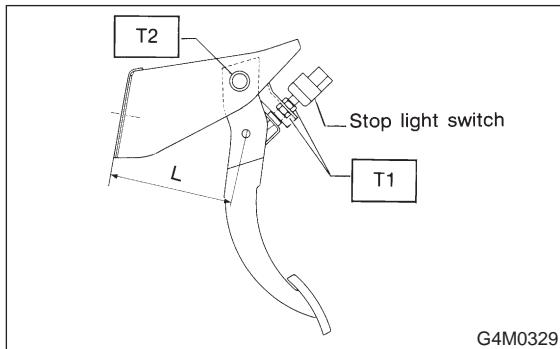
- 1) Attach stop light switch, etc. to pedal bracket temporarily.
- 2) Clean inside of bores of clutch pedal and brake pedal, apply grease, and set bushings into bores.
- 3) Align bores of pedal bracket, clutch pedal and brake pedal, attach brake pedal return spring and clutch pedal effort reducing spring, and then install pedal bolt.

NOTE:

Clean up inside of bushings and apply grease before installing spacer.

Tightening torque:

T2: $29 \pm 7 \text{ N}\cdot\text{m}$ (3.0 $\pm 0.7 \text{ kg}\cdot\text{m}$, 21.7 $\pm 5.1 \text{ ft-lb}$)



- 4) Set brake pedal position by adjusting position of stop light switch.

Pedal position: L

125.9 mm (4.96 in)

Tightening torque:

T1: $8 \pm 2 \text{ N}\cdot\text{m}$ (0.8 $\pm 0.2 \text{ kg}\cdot\text{m}$, 5.8 $\pm 1.4 \text{ ft-lb}$)

2. ACCELERATOR PEDAL

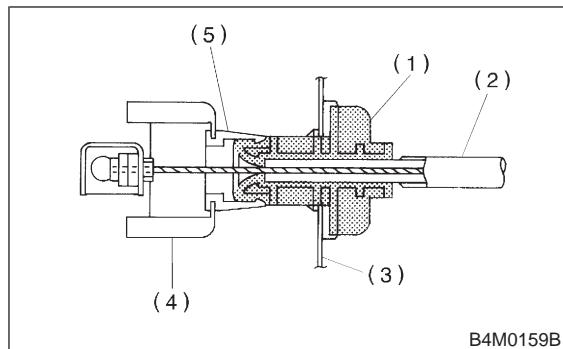
Clean and apply grease to spacer and inside bore of accelerator pedal. Install accelerator pedal onto pedal bracket.

E: INSTALLATION

- 1) Installation is in the reverse order of removal procedures.

CAUTION:

- Be careful not to bend clutch cable too much.
- Never fail to cover outer cable end with boot.
- Be careful not to kink accelerator cable.
- Make sure that holder and casing cap are securely connected.



- (1) Casing cap
- (2) Accelerator cable
- (3) Toe board
- (4) Accelerator pedal bracket
- (5) Holder

- 2) Adjust clutch pedal (2500 cc model) <Ref. to 4-5 [W1F1].>
- 3) Adjustment after pedal installation <Ref. to 4-5 [W1A0].>

F: ADJUSTMENT

1. CLUTCH PEDAL (2500 cc MODEL)

1) Turn cruise control clutch switch lock nuts until clutch pedal full stroke length is within specifications.

CAUTION:

Do not attempt to turn clutch switch to adjust clutch pedal full stroke length.

NOTE:

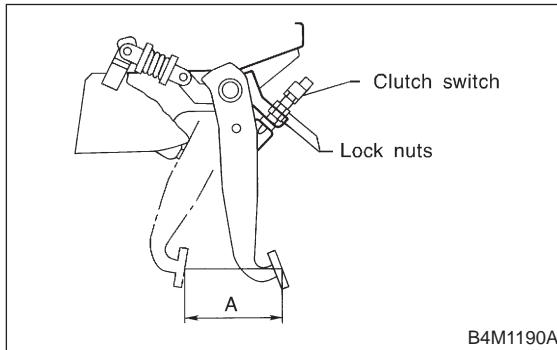
If lock nuts cannot adjust clutch pedal full stroke length to specifications, turn master cylinder push rod to adjust it.

Specified clutch pedal full stroke: A

130 — 135 mm (5.12 — 5.31 in)

Tightening torque (Clutch switch lock nut):

8 ± 2 N·m (0.8±0.2 kg-m, 5.8±1.4 ft-lb)

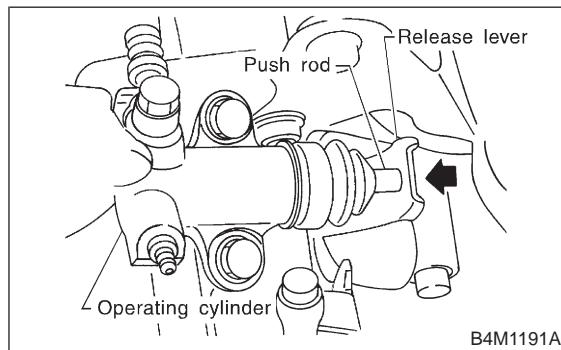


Specified clutch pedal full stroke:

130 — 135 mm (5.12 — 5.31 in)

5) Move clevis pin to the left and then to the right. It should move without resistance while it is rattling. If resistance is felt, repeat adjustment procedures again from the beginning.

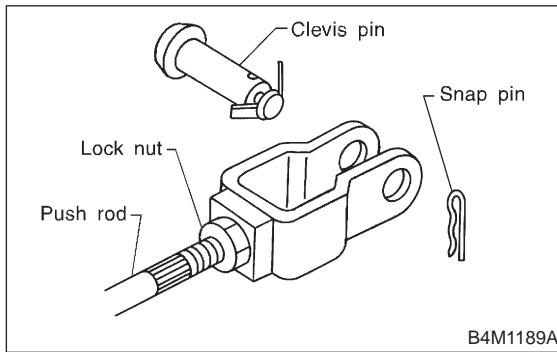
6) Push release lever until operating cylinder push rod retracts. Ensure that clutch fluid level in reservoir tank increases. If clutch fluid level increases, hydraulic clutch is properly adjusted; if fluid level does not increase or push rod does not retract, replace master cylinder with new one. <Ref. to 2-10 [W600].>



2) Turn master cylinder push rod so that clevis pin moves to the left and then to the right. Clevis pin must move without resistance while it is rattling.

Tightening torque (Push rod lock nut):

10 ± 2 N·m (1.0±0.2 kg-m, 7.2±1.4 ft-lb)



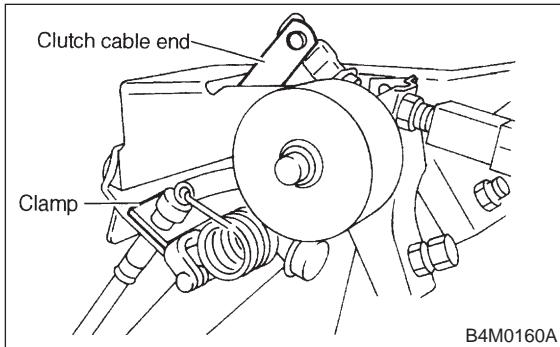
3) Depress and release clutch pedal 2 to 3 times to ensure that clutch pedal and release fork operate smoothly. If clutch pedal and release fork do not operate smoothly, bleed air from clutch hydraulic system. <Ref. to 2-10 [W2A2].>

4) Measure clutch pedal full stroke length again to ensure that it is within specifications. If it is not, repeat adjustment procedures again from the beginning.

2. Clutch Cable

A: REMOVAL

- 1) Disconnect clutch cable from release lever.
- 2) Remove clutch cable clamp from pedal bracket.



- 2) Fit clutch pedal to pedal bolt, and connect clutch cable to bracket with clamp.
- 3) Connect clutch cable end to pedal end.
- 4) Connect clutch cable from release lever.
- 5) Install grommet to toe board.
- 6) Adjust after cable installation. <Ref. to 4-5 [W1A2].>

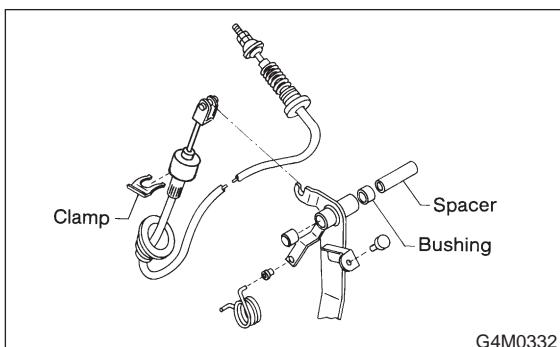
- 3) Disconnect clutch cable from pedal bracket and pedal end.
- 4) Remove clutch cable from body.

CAUTION:

Before removing clutch cable from toe board, remove grommet. Slowly remove clutch cable, being careful not to scratch it.

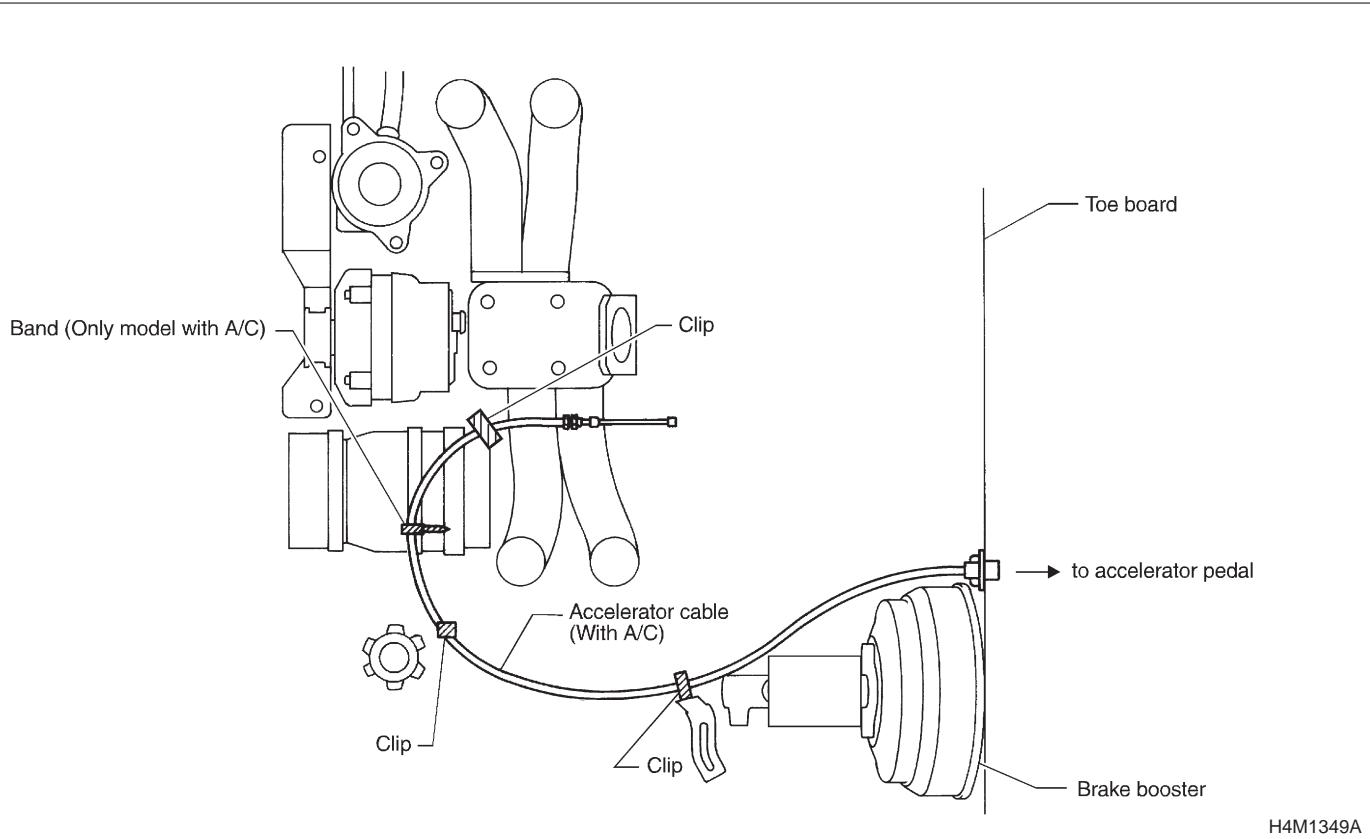
B: INSTALLATION

- 1) Clean clutch pedal fitting hole, and apply grease. Connect clutch cable to clutch pedal.

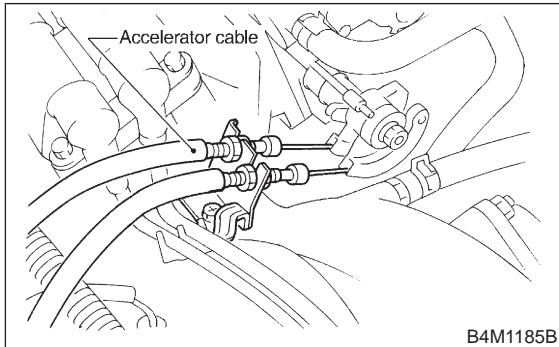


3. Accelerator Cable

A: REMOVAL



- 1) Disconnect accelerator cable from connector inside engine compartment first.
- 2) Remove lock nut from accelerator cable bracket.
- 3) Separate accelerator cable from bracket, then unlock inner cable.



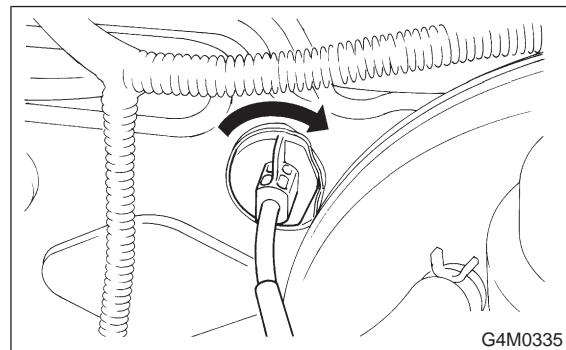
- 4) Remove cable end from throttle cam using your fingertips.

CAUTION:

Be careful not to bend inner cable.

- 5) Disconnect cable end from accelerator cable bracket inside driver compartment.
- 6) Remove clip inside engine compartment.

- 7) Working inside engine compartment, remove cable connection by turning toe board clockwise.



- 8) Pull out the cable from the toe board hole.

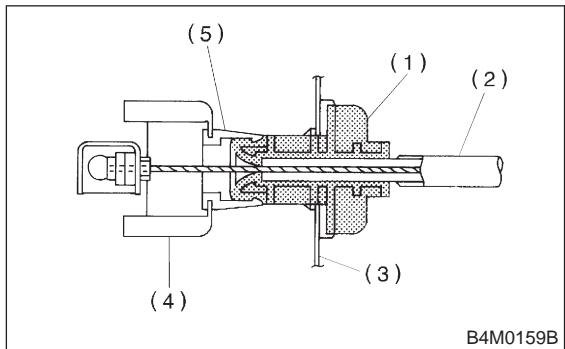
B: INSTALLATION

1) Installation is in the reverse order of removal procedures.

CAUTION:

- Be careful not to kink accelerator cable.
- Make sure that holder and casing cap are securely connected.

2) Adjust after cable installation. <Ref. to 4-5 [W1A3].>



- (1) Casing cap
- (2) Accelerator cable
- (3) Toe board
- (4) Accelerator pedal bracket
- (5) Holder

1. Pedal System and Control Cables

Trouble	Corrective action
Excessively worn brake pedal pad	Replace.
Failure of clutch and/or accelerator pedals to operate	Connect cables correctly.
Stop light switch does not light up.	Adjust position of stop light switch.
Stop light switch is not smooth and/or stroke is not correct.	Replace.
Insufficient pedal play	Adjust pedal play.
Clutch and/or brake pedal free play insufficient	Adjust pedal free play.
Maladjustment of brake pedal or booster push rod	Inspect and adjust.
Excessively worn and damaged pedal shaft and/or bushing	Replace bushing and/or shaft with new one.