

FRONT WHEEL/SUSPENSION/STEERING

SERVICE INFORMATION

GENERAL

- A jack or other support is required to support the vehicle.
- Adjust toe whenever the tie-rod, knuckle or steering shaft are replaced or removed (page 3-26).
- Do not twist or bend the brake hose and pipe when serving.
- Use genuine Honda replacement bolts and nuts for all suspension pivots and mounting points.
- Refer to 16-3 for brake system information.
- Refer to 22-10 for handlebar switch inspection.
- For electric power steering (EPS) service (page 25-8).
- EPS model only: Perform the Torque Sensor Initialization when you service the following components (page 25-13).

| MAINTENANCE LOCATION | REPLACEMENT | REMOVAL/INSTALLATION |
|---|-------------|----------------------|
| Cables and harness around handlebar | INITIALIZE | INITIALIZE |
| Handlebar | INITIALIZE | INITIALIZE |
| Steering shaft and steering shaft bushing | INITIALIZE | INITIALIZE |
| Steering shaft arm and end nut | INITIALIZE | INITIALIZE |
| EPS unit | INITIALIZE | INITIALIZE |
| EPS ECU | INITIALIZE | NO NEED |

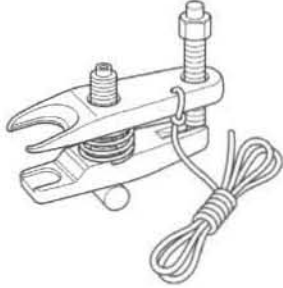

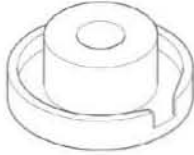
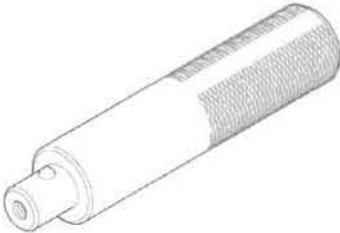








SPECIFICATIONS

| ITEM | | | STANDARD | SERVICE LIMIT |
|---|----------------------|------------|---|---------------------|
| Minimum tire tread depth | | | — | 4.0 mm (0.16 in) |
| Cold tire pressure | '05 – '07 | Standard | 25 kPa (0.25 kgf/cm ² , 3.6 psi) | — |
| | | Minimum | 22 kPa (0.22 kgf/cm ² , 3.2 psi) | — |
| | | Maximum | 28 kPa (0.28 kgf/cm ² , 4.0 psi) | — |
| | | With cargo | 25 kPa (0.25 kgf/cm ² , 3.6 psi) | — |
| | After '07 except EPS | | 25 kPa (0.25 kgf/cm ² , 3.6 psi) | — |
| | EPS only | | 32.5 kPa (0.33 kgf/cm ² , 4.7 psi) | — |
| Tie-rod distance between the ball joints | | | 387 mm (15.2 in) | — |
| Toe | | | Toe-out: 30 ± 15 mm (1 - 3/16 ± 9/16 in) | — |
| Suspension spring pre-load adjuster standard position (CM type and A type after '08 only) | | | Position 2 | — |

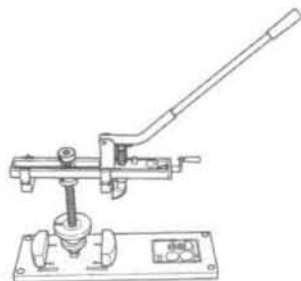
TORQUE VALUES

| | | |
|---|---------------------------------|------------------------------------|
| Handlebar lower holder nut | 39 N·m (4.0 kgf·m, 29 lbf·ft) | Lock nut: replace with a new one |
| Front wheel nut | 64 N·m (6.5 kgf·m, 47 lbf·ft) | |
| Front wheel hub nut | 78 N·m (8.0 kgf·m, 58 lbf·ft) | Castle nut |
| Front brake disc plate bolt | 42 N·m (4.3 kgf·m, 31 lbf·ft) | ALOC bolt: replace with a new one |
| Shock absorber mounting nut | 44 N·m (4.5 kgf·m, 33 lbf·ft) | Lock nut: replace with a new one |
| Upper arm pivot nut | 34 N·m (3.5 kgf·m, 25 lbf·ft) | Lock nut: replace with a new one |
| Lower arm pivot nut | 44 N·m (4.5 kgf·m, 33 lbf·ft) | Lock nut: replace with a new one |
| Upper and lower arm ball joint nut | 29 N·m (3.0 kgf·m, 21 lbf·ft) | Castle nut |
| Brake hose clamp bolt | 12 N·m (1.2 kgf·m, 9 lbf·ft) | |
| Tie-rod ball joint nut | 54 N·m (5.5 kgf·m, 40 lbf·ft) | Lock nut: replace with a new one |
| Assist headlight case mounting nut | 25 N·m (2.6 kgf·m, 19 lbf·ft) | |
| Steering shaft end nut | 108 N·m (11.0 kgf·m, 80 lbf·ft) | |
| Steering shaft holder bolt | 32 N·m (3.3 kgf·m, 24 lbf·ft) | |
| Front master cylinder holder bolt | 12 N·m (1.2 kgf·m, 9 lbf·ft) | |
| EPS unit output shaft nut (EPS model) | 108 N·m (11.0 kgf·m, 80 lbf·ft) | Lock nut: replace with a new one. |
| EPS unit mounting bolt (EPS model) | 22 N·m (2.2 kgf·m, 16 lbf·ft) | |
| EPS unit mounting nut (EPS model) | 22 N·m (2.2 kgf·m, 16 lbf·ft) | |
| EPS unit steering shaft flange bolt (EPS model) | 60 N·m (6.1 kgf·m, 44 lbf·ft) | ALOC bolt: replace with a new one. |
| EPS motor flange bolt (EPS model) | 20 N·m (2.0 kgf·m, 15 lbf·ft) | |

TOOLS

| | | |
|---|---|---|
| <p>Ball joint remover, 28 mm 07MAC-SL00201</p>  <p>07MAC-SL0A202(U.S.A.only) or 07MAC-SL00200 and 07MAC-SL0A300 (U.S.A.only)</p> | <p>Ball joint remover/installer 07WMF-HN00100</p>  | <p>Oil seal driver 07JAD-PH80101</p>  |
| <p>Driver 07749-0010000</p>  | <p>Attachment, 28 x 30 mm 07946-1870100</p>  | <p>Attachment, 42 x 47 mm 07746-0010300</p>  |
| <p>Attachment, 52 x 55 mm 07746-0010400</p>  | <p>Attachment, 22 x 24 mm 07746-0010800</p>  | <p>Attachment, 15 mm I.D. 07746-0020200</p>  |
| <p>Pilot, 30 mm 07746-0040700</p>  | <p>Pilot, 22 mm 07746-0041000</p>  | <p>Pilot, 16 mm 07746-0041300</p>  |

ATV Bead Buster
KLS379024



(U.S.A. only)

TROUBLESHOOTING

Hard steering

- Steering shaft holder too tight
- Damaged steering shaft bearing/bushing
- Insufficient tire pressure
- EPS does not assist the steering force (EPS model only)

Steers one side or does not track straight

- Incorrect wheel alignment
- Unequal tire pressure
- Bent tie-rod, suspension arm or frame
- Worn or damaged knuckle bearing
- Weak shock absorber

Front wheel wobbling

- Bent rim
- Worn or damaged knuckle bearing
- Faulty tire
- Wheel hub nut not tightened properly

Soft suspension

- Weak shock absorber spring
- Faulty shock absorber damper

Hard suspension

- Bent shock absorber damper rod
- Improperly installed suspension arms
- Faulty suspension arm bushings

Front suspension noise

- Loose front suspension fasteners
- Damaged suspension components

HANDLEBAR

REMOVAL

Remove the following:

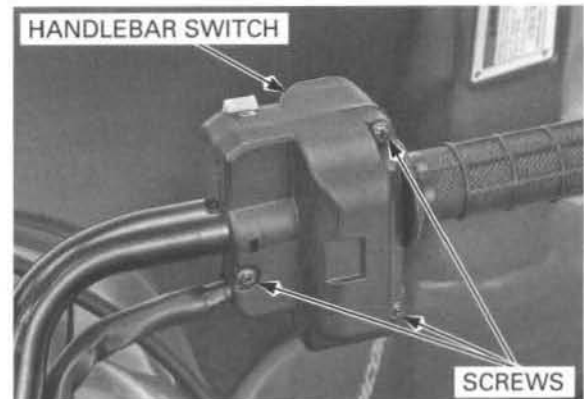
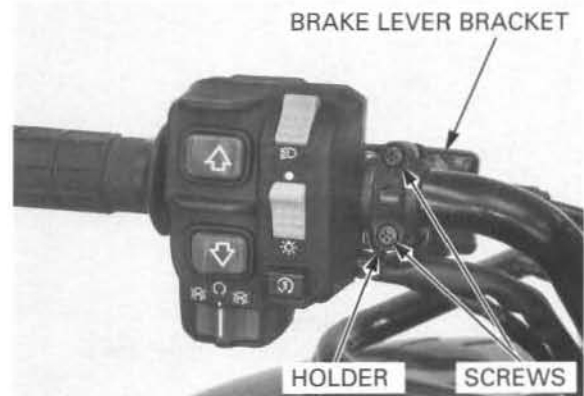
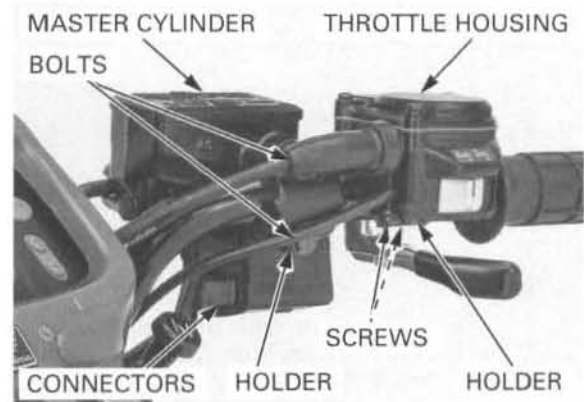
- four wire bands
- breather hose

- two screws
- throttle housing holder
- throttle housing
- brake light switch connectors
- two bolts
- master cylinder holder
- front brake master cylinder

Keep the brake master cylinder upright to prevent air from entering the hydraulic system.

- two screws
- bracket holder
- rear (parking) brake lever bracket

- three screws
- handlebar switch



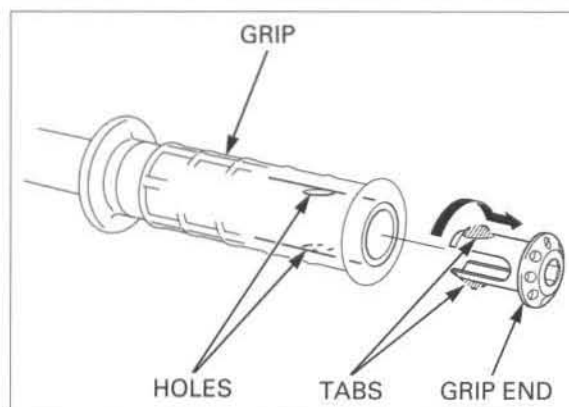
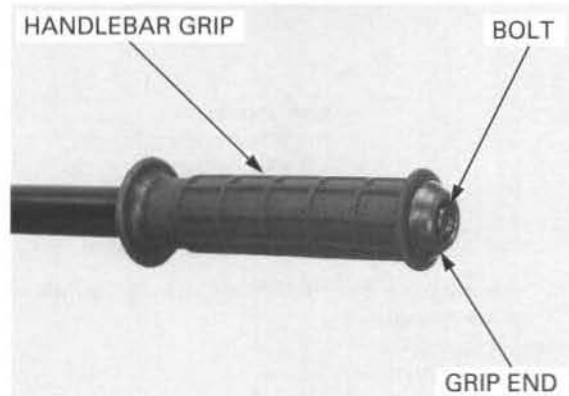
FRONT WHEEL/SUSPENSION/STEERING

- nut
- choke knob

- '05 - '07:
- bolts
 - grip ends
 - handlebar grips

- After '07:
- grip ends (turn the grip end to release the setting tabs from the holes in the handlebar and pry it using a screwdriver)
 - handlebar grips

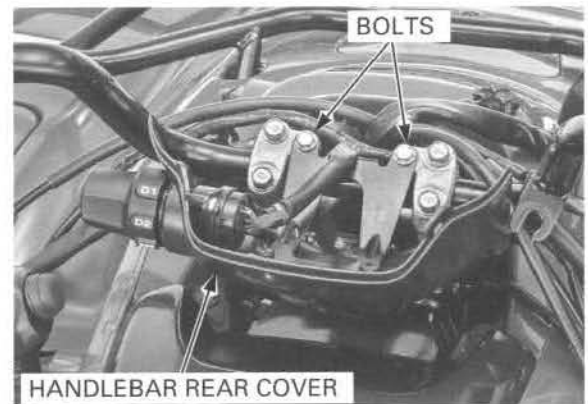
- screw
- handlebar upper cover



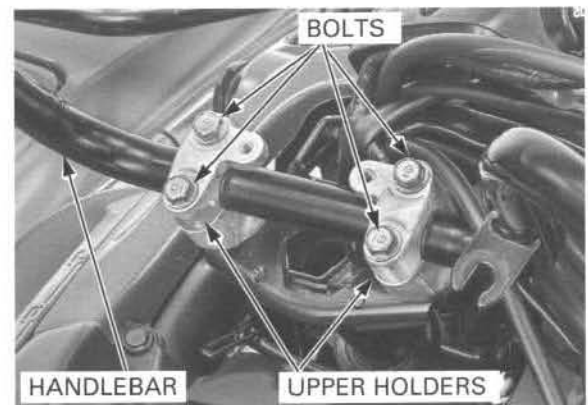
- two nuts
- handlebar front cover



- two bolts
- handlebar rear cover

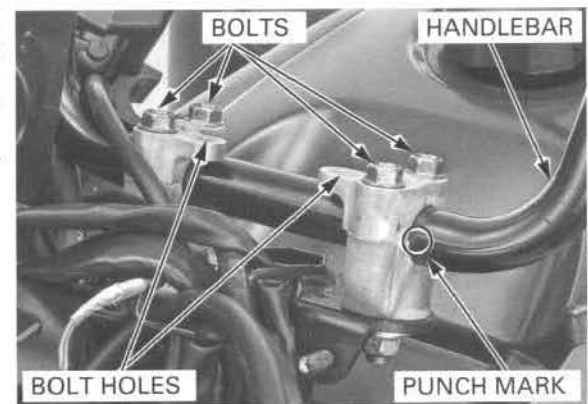


- four bolts
- handlebar upper holders
- handlebar



INSTALLATION

Place the handlebar onto the lower holders and align the punch mark on the handlebar with the top of the lower holder. Install the upper holders with the bolt holes facing forward. Install the four bolts and tighten the front bolts first, then tighten the rear bolts.



FRONT WHEEL/SUSPENSION/STEERING

Install the handlebar rear cover and tighten the two bolts.



Install the handlebar front cover and tighten the two nuts.



Install the handlebar upper cover and tighten the screw.



Apply Honda Bond A or Honda Hand Grip Cement (U.S.A. only) to the inside surfaces of the handlebar grips and to the clean surfaces of the handlebar.

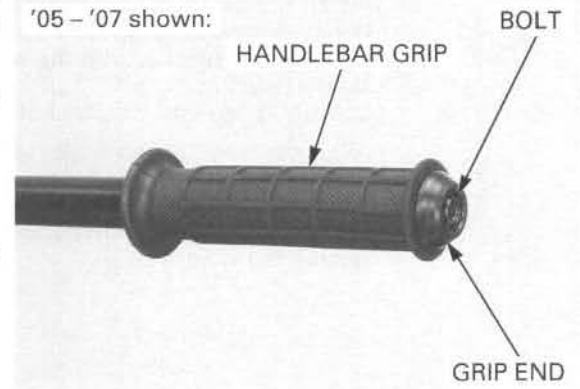
Allow the adhesive to dry for an hour before using.

Wait 3—5 minutes and install the grip. Rotate the grip for even application of the adhesive.

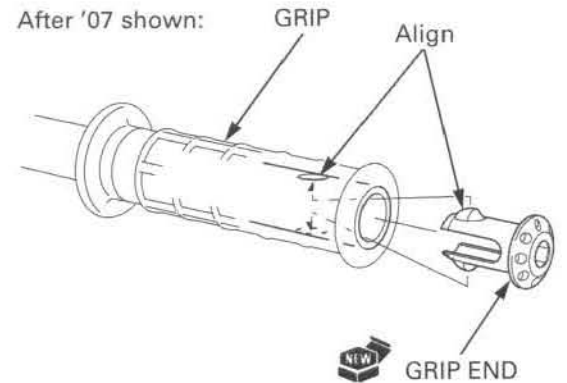
'05 – '07: Install the grip ends and tighten the bolts.

After '07: Install new grip ends by aligning their tabs with the holes in the handlebar.

'05 – '07 shown:



After '07 shown:



Install the choke knob and tighten the nut.



Install the handlebar switch and loosely tighten the three screws.

