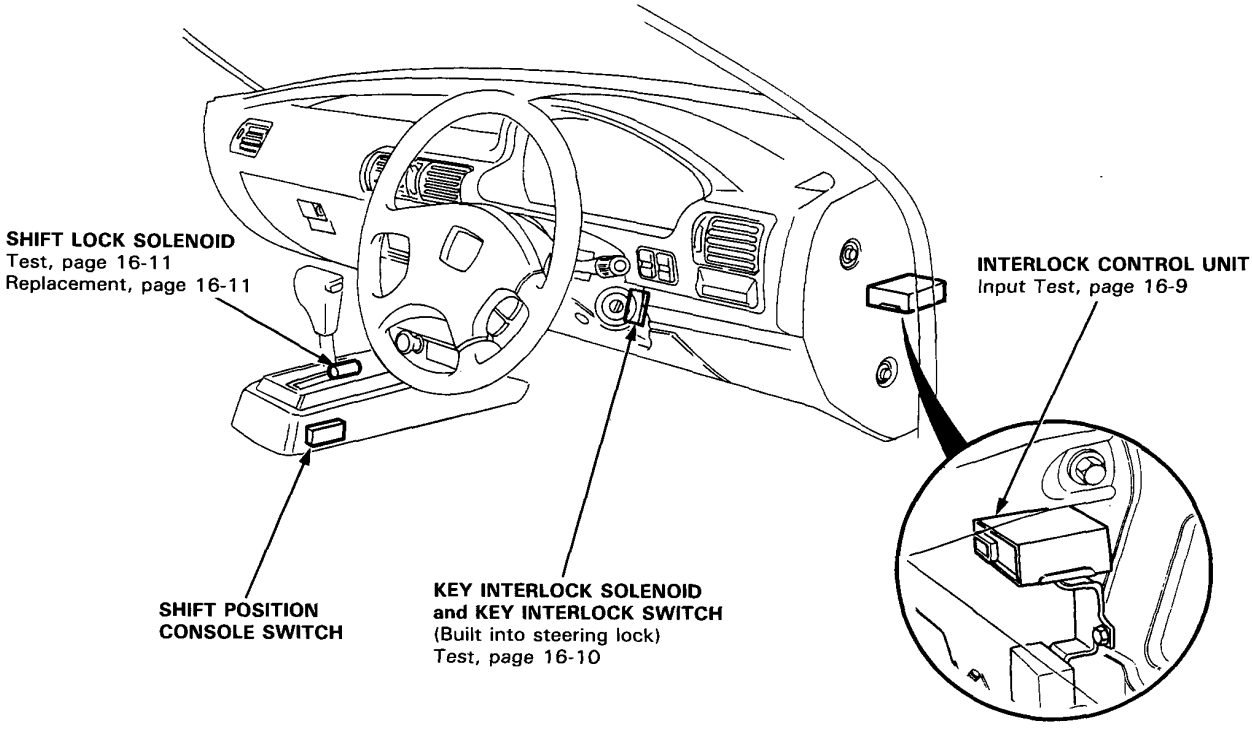
Interlock System (KQ model)

Component Location Index



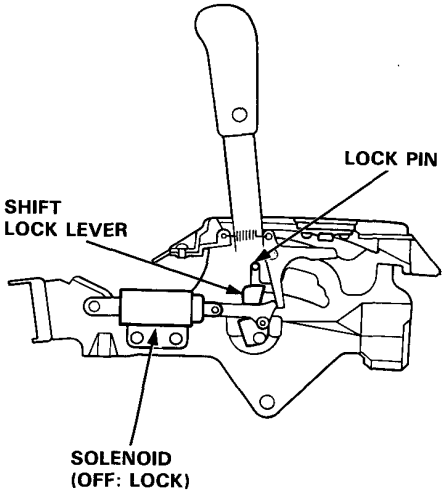
Description

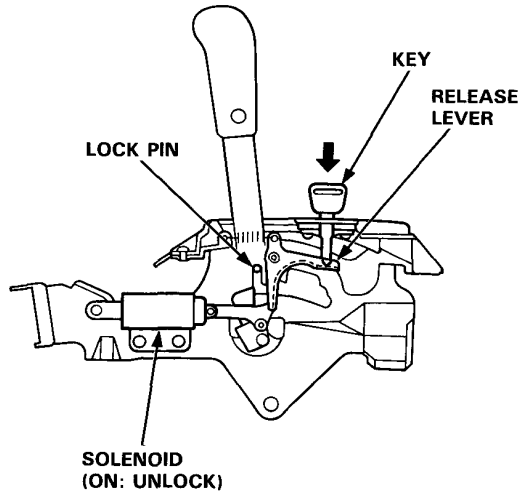
The car is equipped with the following devices to prevent inadvertent shifting:

- A/T selector with shift lock
- Key cylinder with interlocked ignition key

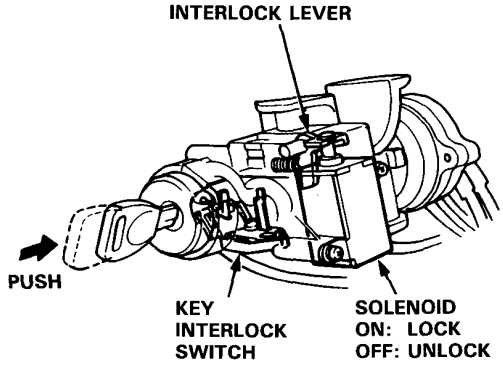
Shift Lock System:
The shift lock system prevents the shift lever from moving to [R] or [D] from the [P] position unless you step on the brake pedal.

NOTE: In case of system malfunction, the shift lever can be released by pushing a key into the release slot near the shift lever.

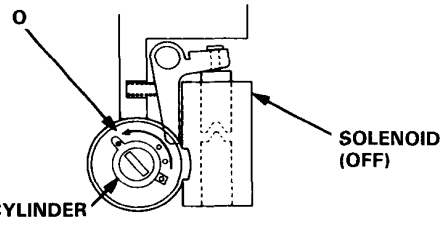




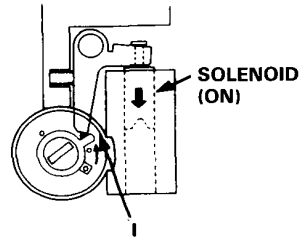
Key Interlock System:
The ignition key cannot be removed from the ignition switch unless the shift lever is in the [P] position.
If the key is inserted when the shift lever is in any position other than [P], a solenoid is activated, making it impossible for the key to be removed until the shift lever is moved to the [P] position.



The shift lever is in the [P] position:



The shift lever is in any position except [P]:



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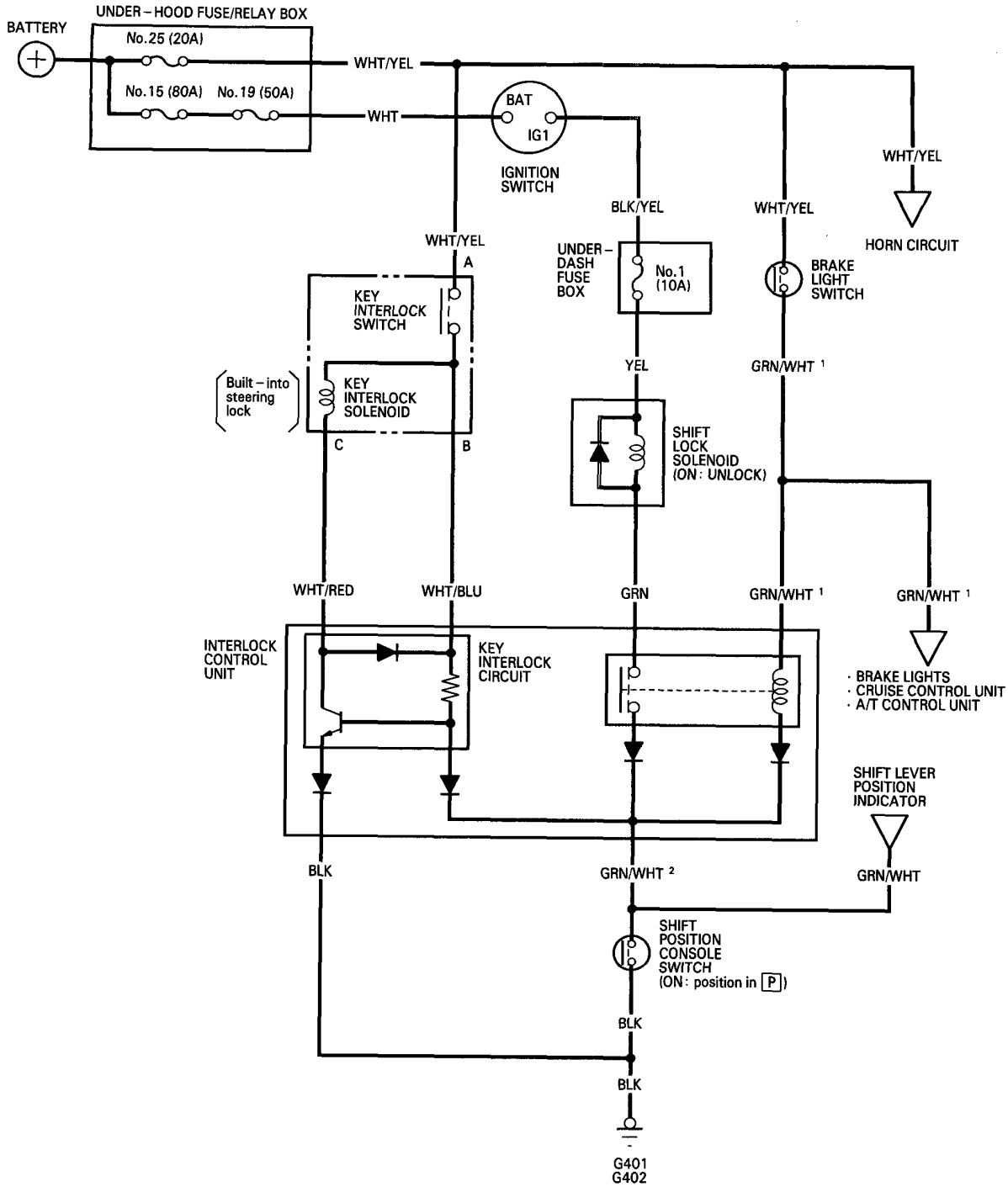
Circuit Diagram

NOTE: Different wires with the same color have been given a number suffix to distinguish them (for example, GRN/WHT[1] and GRN/WHT[2] are not the same.)

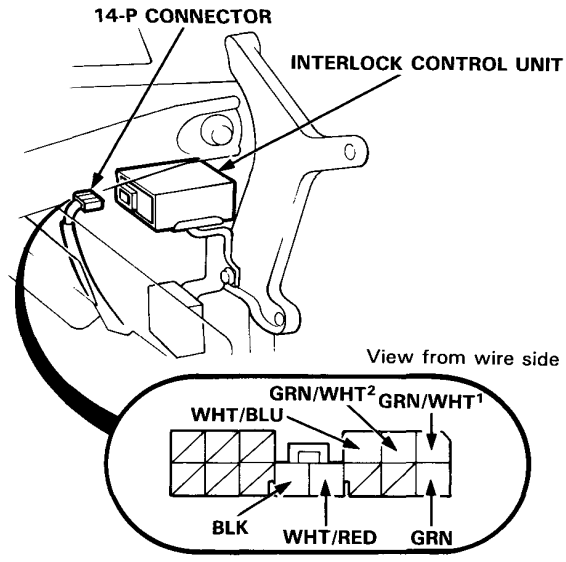


Interlock Control Unit Input Test

Disconnect the 14-P connector from the control unit. Inspect the connector terminals to be sure they are all making good contact.

- If the terminals are bent, loose or corroded, repair them as necessary, and recheck the system.
- If the terminals look OK, make the following input tests at the connector.
  - If any test indicates a problem, find and correct the cause, then recheck the system.
  - If all the input tests prove OK, the cotrol unit must be faulty; replace it.

NOTE: If the shift lock solenoid clicks when the ignition switch ON and the brake pedal is pushed (the shift lever is in the [P] position), the shift lock system is electronically normal. If the shift lever can not be shifted from [P] position, see A/T system.



Shift Lock System:

No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	GRN/WHT¹	Ignition switch ON. Brake pedal pushed.	Check for voltage to ground: There should be battery voltage.	• Blow No. 25 (20 A) fuse. • Faulty brake light switch. • An open in the wire.
2	GRN/WHT²	Shift lever in position [P].	Check for continuity to ground: There should be continuity.	• Faulty shift position console switch. • Poor ground (G401, G402) • An open in the wire.
3	GRN	Ignition switch ON.	Check for voltage to ground: There should be battery voltage.	• Blown No. 1 (10 A) fuse. • Faulty shift lock solenoid. • An open in the wire.

Key Interlock System:

No.	Wire	Test condition	Test: Desired result	Possible cause if result is not obtained
1	BLK	Under all conditions.	Check for continuity to ground: There should be continuity.	• Poor ground (G401, G402). • An open in the wire.
2	GRN/WHT²	Shift lever in position [P].	Check for continuity to ground: There should be continuity.	• Faulty shift position console switch. • Poor ground (G401, G402). • An open in the wire.
3	WHT/RED WHT/BLU	Ignition switch turned to ACC (I) and the key pushed in.	Check for voltage to ground: There should be battery voltage.	• Blown No. 25 (20 A) fuse. • Faulty steering lock assembly (key interlock solenoid). • An open in the wire.

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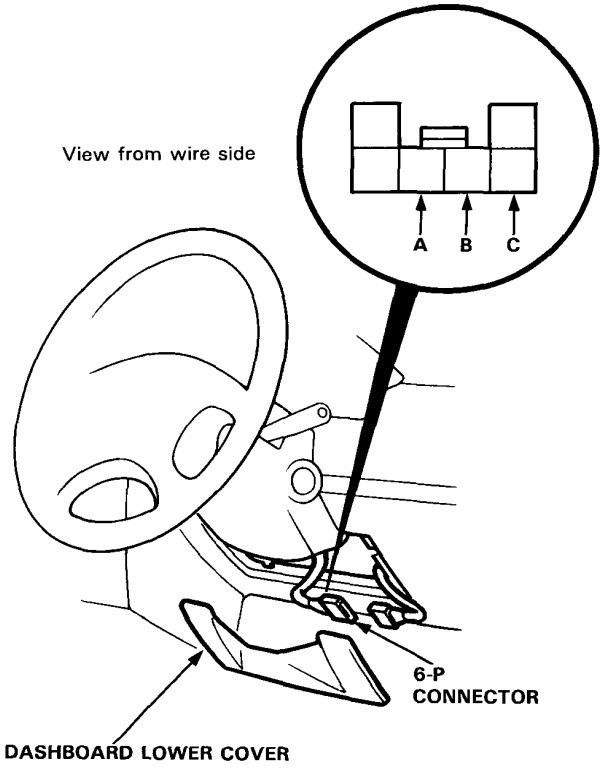
Key Interlock Solenoid Test

1. Remove the dashboard lower cover.
2. Disconnect the 6-P connector from the main wire harness.



3. Check for continuity between the terminals in each switch position according to the table.

Position \ Terminal		A	B	C
Ignition switch ACC (I)	Key pushed in.	○	○	○
	Key released.		○	○

4. Check that the key cannot be removed with power and ground connected to the A and C terminals.
   - If the key cannot be removed, the key interlock solenoid is OK.
   - If the key can be removed, replace the steering lock assembly (the key interlock solenoid is not available separately).

Shift Lock Solenoid Test/Replacement

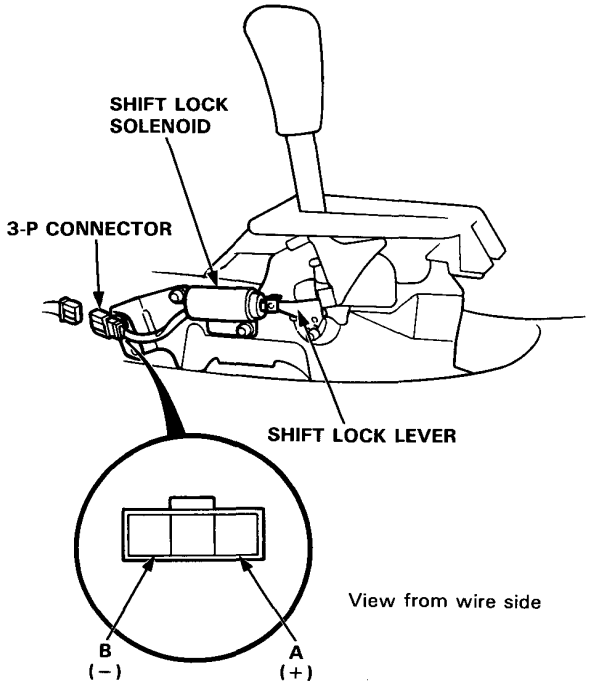
Test:

1. Remove the console, then disconnect the 3-P connector of the shift lock solenoid from the main wire harness.

   NOTE: This solenoid has a diode in it. To get an accurate reading, either test it with a volt-ohmmeter that compensates for diodes, or make sure you connect your test leads to match the polarity shown.

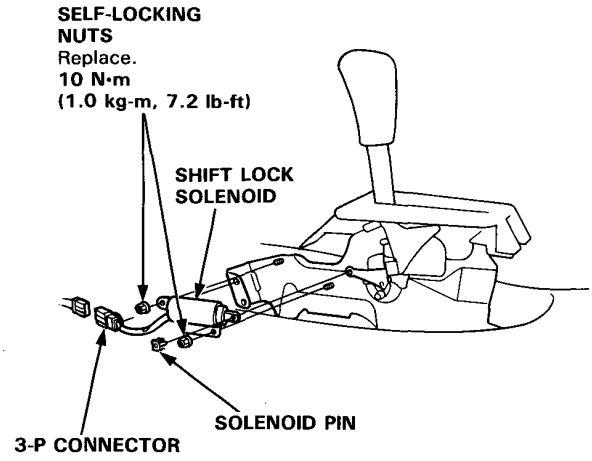
2. Connect battery power to the A terminal and ground to the B terminal momentarily. Check the solenoid. If it does not work, replace it.

   NOTE:
   - When the shift lock solenoid is ON, check that there is a clearance of 2.5 ± 0.5 mm (0.098 ± 0.020 in) between the top of the shift lock lever and the lock pin groove (see clearance check on this page).
     When the shift lock solenoid is OFF, make sure that the lock pin is blocked by the shift lock lever.
   - If it is not blocked, adjust the position of the shift lock solenoid.



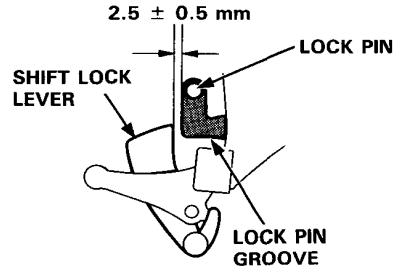
Replacement:

1. Remove the solenoid pin.
2. Remove the self-locking nuts and shift lock solenoid.



3. Install the shift lock solenoid in the reverse order of removal and adjust its position.
   - When the shift lock solenoid is ON, check that there is a clearance of 2.5 ± 0.5 mm (0.098 ± 0.020 in) between the top of the shift lock lever and the lock pin groove, and tighten the self-locking nuts.

   NOTE: Use brand-new self-locking nuts.



   - When the shift lock solenoid is OFF, make sure that the lock pin is blocked by the shift lock lever.

   NOTE: Test the solenoid after you assemble it.