What’s New
The A/C kit and instructions for the 2001 Civic are all new. Follow these instructions carefully.

TOOLS AND SUPPLIES REQUIRED
Duct tape
Hacksaw blade
Trim clip remover
Open-end wrench set
Screwdrivers
Socket wrench set
Torque wrench
Tension gauge
Refrigerant oil (R-12 mineral oil or R-134a PAG oil)
Fender, floor, and seat covers
HFC-134a refrigerant recovery/recycling/charging station
Gloves
Eye protection (face shield, or safety goggles)
Electronic leak detector

NOTICE
Use only HFC-134a in this system; do not use CFC 12 (Freon); do not install parts designed for use in a CFC system.

Use a charging station. A/C charging stations and refrigerant recovery/recycling stations minimize the release of CFCs and HFCs to the atmosphere. Use them for all A/C charging and service work according to the manufacturers' instructions.

Do not overcharge. This system requires only the amount of HFC-134a refrigerant shown below. If you overcharge the system, the engine and the A/C will malfunction.

<table>
<thead>
<tr>
<th>Grams</th>
<th>Kilograms</th>
<th>Pounds</th>
<th>Ounces</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 to 550</td>
<td>0.50 to 0.55</td>
<td>1.1 to 1.2</td>
<td>17.6 to 19.4</td>
</tr>
</tbody>
</table>

INSTALLATION
Before You Begin:

Customer Information: The information in these instructions is intended for use only by skilled technicians who have the proper tools, equipment, and training to correctly and safely add equipment to your car. These procedures should not be attempted by “do-it-yourselfers.”

- Make sure you have the anti-theft code for the audio system.
- Write down the customer’s radio station presets; the radio memory will be erased when you disconnect the battery.
- Make sure you install the right part. Use the illustrations on pages 2 and 3 as a guide to check the parts before you install them.
- Don’t remove plugs and caps from fittings until the parts are ready to connect. This will keep out moisture and dirt which could cause wear and damage.

During Installation:
- Before you connect any line or hose, check and lube its O-ring. Make sure the O-ring is on the fitting, put a few drops of refrigerant oil on the O-ring, then connect the fitting.
- You may use either type of refrigerant oil to lubricate O-rings and fittings.
- If you add or replace refrigerant oil in the system, use only this PAG oil: Sanden SP-10, P/N 38897-P13-A01.
- Route and secure the lines and hoses properly; maintain clearance between them and surrounding parts.
- Use two wrenches to tighten or loosen fittings; hold one fitting in place while you tighten the other one against it.

NOTICE Don’t overtighten; you could damage the fittings. Before you tighten a fitting, check the torque listed for it. If leaks are caused by faulty O-rings, overtightening the fitting won’t help.
- Before you connect each electrical connector, check its terminals. Make sure the terminals aren’t bent or out of place.
**Group A**

- Drain hose clip: 53747-SA5-003
- A/C button: 79601-SSA-003
- Evaporator: 80210-SSD-G01
- Drain hose: 80271-SSA-000
- Dust and pollen filter A: 80290-SSD-A01
- Dust and pollen filter B: 80295-SSD-A01
- Evaporator sensor: 80560-SSA-941

**Group B**

- Wire ties: 38221-SW5-000
- Condenser fan assembly: 38605-PMM-A00
- Compressor: 38800-PLM-A01
- Compressor belt: 38920-PLR-004
- Heat insulator: 38935-PLM-A00
- Right condenser bracket: 80107-SSA-000
- Left condenser bracket: 80108-SSA-000
- Suction line: 80311-SSD-A01
- Discharge hose: 80315-SSA-013
- A/C suction line and receiver line B: 80320-SSD-A12
- Condenser line: 80331-SSD-A11
- Receiver line: 80341-SSD-A11
- Receiver: 80350-SSA-A01
- Suction hose clamp A: 80360-SSA-A00
- Suction hose bracket: 80361-SSA-A00
- Suction line bracket: 80363-SSD-A01
- Receiver line clip A: 80381-SSA-A01
- Receiver line clip B: 80387-SM4-A01
- A/C wire harness: 80460-SSA-000
- Flange bolts, 8 x 100 mm: 90023-P2A-000
- Ground bolt, 6 x 12 mm (brass-colored): 90153-SEQ-003
- Paint cutting nut, 6 mm (yellow-tinted): 90361-SV4-003
- Washer-bolt, 6 x 12 mm (yellow-tinted): 93403-06012-08
- Washer-bolts, 6 x 16 mm (gray-colored): 93403-06016-05
- Flange nuts, 6 mm (gray-colored): 94050-06080
- Flange bolts, 6 x 12 mm (yellow-tinted): 95701-06012-08
- Flange bolts, 6 x 25 mm (yellow-tinted): 95701-06025-08
- Flange bolt, 6 x 30 mm (yellow-tinted): 95701-06030-08

**Group C**

- Power relay (4P): 39794-SOK-A01
- Information label (Canada): 80050-SP0-000
- Information label (USA): 80050-SR3-H00
- A/C kit identification label: 8005X-SSD-A20

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This vehicle is equipped with A/C Assembly P/N 8005-SKD-A20. Please refer to this P/N when servicing/obtaining A/C parts.

American Honda Motor Co., Inc. Torrance, CA 90501-2446
1. Disconnect the battery.

Remove the negative cable from the battery.

2. Remove the driver's dashboard lower cover and the under-dash fuse/relay box.

Slide the under-dash fuse/relay box down to free it from the mounting bracket.

Remove and save this washer bolt.

Turn the two lock knobs, then remove the driver's dashboard lower cover.
3. Remove the passenger's dashboard lower cover and the glove box.

Unlatch and remove the glove box.

Remove the two 5 mm washer bolts.

Remove the cover by pulling down on its front edge to release the three clips, then pulling it toward you to release the two rear pins.

Remove the passenger's kick panel (two clips).
4. **Remove the glove box frame and plastic cross-piece.**

- **1.** Remove and discard this 5 mm washer bolt.
- **2.** Remove the glove box frame (four bolts).
- **3.** Release these two lock tabs, then remove the relay assembly from the glove box frame.
- **4.** Place protective tape (duct tape) on the passenger’s side of the glove box opening.
- **5.** Place protective tape on the blower unit.
- **6.** Place protective tape on the driver’s side of the glove box opening.
- **7.** Move aside any vehicle harness that may be in the way, and use a hacksaw blade to carefully cut through the plastic cross-piece in the areas shown. Remove and discard the plastic cross-piece and the protective tape.
5. Remove the ECM/PCM unit and the bracket.

- Remove the main harness connector from its bracket.
- Disconnect these connectors from the ECM/PCM.
- Remove the ECM/PCM.
- Disconnect the main harness connector.
6. Prepare to install the evaporator.

Disconnect the recirculation control motor 7P connector.

Remove this wire harness clip from the blower.

Remove and save these washer bolts.

Disconnect the power transistor 4P connector.

Remove these wire harness clips from the blower.

Disconnect the blower motor 2P connector.

Remove and save this 6 x 20 mm washer bolt.

Remove and save this paint-cutting 6 mm nut and 6 x 16 mm washer-bolt.

Remove the blower from the dashboard.
Get parts group A.

7. Install the evaporator.

Remove and discard the heater baffle plate.

Remove the A/C hole plug from the bulkhead by pushing it toward the engine compartment, then discard the plug.

Remove and save the expansion valve cover (six self-tapping screws).

Carefully install the evaporator into the heater unit. Be careful not to bend the evaporator pipes.

Reinstall the expansion valve cover with the six self-tapping screws you saved.
8. Install the dust and pollen filters.

- Install dust and pollen filters A and B as shown.
- Remove and discard the two blower baffles.
- Remove the filter cover.
- Reinstall the filter cover.

9. Reinstall the blower unit and the ECM/PCM.

- Set the blower in place on the lower mounting stud.
- Loosely reinstall the two 6 x 16 mm washer-bolts you saved.
- Reinstall the 6 mm paint-cutting nut and 6 x 16 mm washer-bolt you saved, then torque them and the washer bolts in steps 2 and 3 to 10 N·m (7 lb·ft).
- Loosely reinstall the 6 x 20 mm washer-bolt you saved.
Snap these wire harness clips in place on the blower unit.

Reconnect the recirculation control motor 7P connector.

Reconnect the power transistor 4P connector.

Reconnect the blower motor 2P connector.

Reconnect the recirculation control motor 7P connector.

Snap these wire harness clips in place on the blower unit.

Reconnect these connectors to the ECM/PCM.

Reattach the main harness connector to the connector bracket.

Reinstall the ECM/PCM bracket.

Reinstall the ECM/PCM.
10. Install the A/C switch knob and the evaporator sensor.

Connect the evaporator sensor to the sensor harness 2P connector you freed in step 5, then snap the connector clip in the bracket on the blower unit.

Insert protective tape to the heater control panel just below the A/C switch hole cover.

Remove and discard the sensor hole cover.

Insert the A/C switch button in the A/C switch hole, then push on the button until it clicks into place.

With a small flat-tip screwdriver, carefully pry out the A/C switch hole cover and discard it.

Remove the ashtray, then remove the self-tapping screw. Remove the center console by pulling out on the cover to release the clips, then disconnect the connectors and the illumination bulb.

With Cigarette Lighter/Ashtray
Without Cigarette Lighter/Ashtray

Remove the blue tape securing the evaporator sensor 2P connector to the vehicle harness.
11. Raise the vehicle, and remove the front bumper and the splash shield.

Carefully remove the front bumper (10 clips, two hexhead screws, and two self-tapping screws), and set it aside.

12. Install the drain hose.

Remove and discard the drain nozzle cap from the heater unit.

Install the drain hose clip into this hole.

Install the drain hose with the white paint mark on the drain nozzle.

Install the drain clip onto the drain hose.

Remove the splash shield (five clips).
13. For vehicles with cruise control, remove the cruise control actuator.

Remove these washer bolts, then remove the cruise control actuator and set it aside.

NOTE: Do not loosen or remove the throttle cables from the actuator.

Disconnect the cruise control actuator 4P connector.

Remove this wire harness clip from the mounting bracket.

14. Prepare the engine compartment.

Remove these bolts, then remove the resonator.

Remove this vacuum hose grommet from the resonator.

Remove this engine harness clamp from its mounting bracket.

Remove these bolts, then remove the air cleaner and disconnect it from the hose.

Loosen this band.

Place a shop towel over the throttle body.
Push the vehicle harness out of this clamp.

Release the brake booster hose clamp from the bulkhead.

Release these two harness clamps from the bulkhead.

FLAT-TIP SCREWDRIVER

Disconnected the power steering pressure switch connector.

Disconnected the brake fluid level switch connector.

Viewed from the top
15. Remove the power steering pump.

- Push the P/S hose out of this mounting bracket.
- Lift the P/S fluid reservoir off its bracket (leave its hoses connected), and set it aside.
- Remove the P/S belt adjusting bolt.
- Remove and save the P/S belt.
- Remove the P/S pump (leave its hoses connected), and carefully set it aside.

16. Remove the alternator.

- Push the alternator harness out of this clamp.
- Remove the two alternator mounting bolts (loosened in steps 1 and 3), then remove the alternator and set it aside.
17. Install the heat insulator.

Install the heat insulator with two 6 x 12 mm flange bolts (yellow-tinted), 95701-06012-08. Torque the bolts to 10 N·m (7 lb-ft).

Remove this 10 x 35 mm mounting bolt, and remove the compressor bracket.

Reinstall the compressor bracket with the mounting bolts removed in steps 1 and 2. Torque the bolts to 44 N·m (33 lb-ft).

18. Install the condenser and the receiver.

Install the left and right condenser brackets with two 6 x 16 mm washer-bolts (gray-colored), 93403-06016-05. Torque the bolts to 10 N·m (7 lb-ft).

Set the condenser on the condenser mounts on the front lower frame.

Mount the receiver to the left side of the frame with one 6 x 16 mm washer-bolt (gray-colored) 93403-06016-05. Torque the bolt to 10 N·m (7 lb-ft).
19. Install the condenser and receiver lines.

Secure the condenser line to the receiver with one 6 x 25 mm flange bolt (yellow-tinted), 95701-06025-08. Torque the bolt to 10 N·m (7 lb-ft).

Apply refrigerant oil to both fittings on the condenser line, then install the line between the receiver and condenser.

Apply refrigerant oil to its fitting, then connect the receiver line to the receiver with one 6 x 25 mm flange bolt (yellow-tinted), 95701-06025-08. Torque the bolt to 10 N·m (7 lb-ft).

Install receiver line clip A (80381-S5A-A01) into this square hole.

Install receiver line clip B (80387-SM4-A01) into this square hole.

Install receiver line clip B (80387-SM4-A01) into this square hole.

20. Install the compressor and the condenser fan.

Install the compressor on the compressor bracket with the four 8 x 100 mm flange bolts (90023-P2A-000). Torque the bolts to 24 N·m (17lb-ft).

Secure the condenser fan assembly with two 6 x 16 mm washer-bolts (gray-colored), 93403-06016-05. Torque the bolts to 10 N·m (7 lb-ft).

Carefully set the condenser fan assembly in place on the condenser fan mounts.
21. Install the A/C wire harness.

**With Fog Lights:**
- Secure the A/C wire harness to the fog light wire harness with two wire ties (38221-SW5-300).
- Cut off the excess wire tie.

**Without Fog Lights:**
- Attach the A/C wire harness to the front bulkhead by snapping the two wire harness clips into the two holes shown.

**FOG LIGHT HARNESS**
- Connect this 2P connector of the A/C wire harness to the condenser fan connector.
- Snap this wire harness clip into the tab on the condenser fan shroud.
- Snap this wire harness clip into the hole next to the ground bolt.
- Attach the A/C harness ground terminal here with the ground bolt (gold-colored), 90153-SE0-003. Torque the bolt to 10 N.m (7 lb-ft).
- Connect the A/C harness pressure switch connector to the receiver.
- Connect the A/C harness 1P connector to the compressor, then snap the connector to the bracket into the condenser fan shroud.
- Attach the A/C wire harness to the front bulkhead by snapping the two wire harness clips into the two holes shown.

**FRONT**
- Connect the vehicle harness 4P connector to the A/C harness 4P connector, then snap the connector into the bracket.
- Remove the blue tape from the vehicle harness 4P connector, then remove and discard the blank connector.

**Secure the A/C wire harness to the fog light wire harness with two wire ties (38221-SW5-300).**

**Cut off the excess wire tie.**

**Attach the A/C wire harness to the front bulkhead by snapping the two wire harness clips into the two holes shown.**

**Connect this 2P connector of the A/C wire harness to the condenser fan connector.**

**Snap this wire harness clip into the tab on the condenser fan shroud.**

**Snap this wire harness clip into the hole next to the ground bolt.**

**Attach the A/C harness ground terminal here with the ground bolt (gold-colored), 90153-SE0-003. Torque the bolt to 10 N.m (7 lb-ft).**

**Connect the A/C harness pressure switch connector to the receiver.**

**Connect the A/C harness 1P connector to the compressor, then snap the connector to the bracket into the condenser fan shroud.**
22. Install the A/C compressor belt.

Fit the belt tension gauge (T/N 07JGG-001010A) onto the A/C compressor belt. Do not use any other gauge!

Torque this bolt to its final torque of 44 N·m (33 lb-ft).

Apply an initial torque of 19 N·m (14 lb-ft) to this bolt.

Torque this bolt to 44 N·m (33 lb-ft), then recheck the belt tension.

Tighten

Loosely reinstall the alternator. Do not tighten the bolts yet.

Loosen

Turn the adjusting bolt until the belt tension reaches the "New Belt" tension. Do not overtighten!

New Belt Tension:
830 to 980 N (85 to 100 kg)

NOTE: After the A/C kit is installed and the engine has run for 5 or more minutes (A/C performance test), readjust the belt to the "Used Belt" tension.

Used Belt Tension:
390 to 540 N (40 to 55 kg)
23. Reinstall the power steering pump.

Reinstall the P/S hose in the bracket.

Reinstall the adjusting bolt, and turn it by hand to get the proper belt tension of 390 to 540 N (40 to 50 kg).

Do not overtighten!

Fit the belt tension gauge (T/N 07JGG-01010A) onto the P/S belt.

Do not use any other gauge!

Torque the two mounting nuts to 24 N·m (17 lb-ft), then recheck the belt tension.

Reinstall the P/S pump and its mounting bolts and nuts. Do not tighten the bolts and nuts yet.

Reinstall the P/S fluid reservoir back in its mounting bracket.

Reinstall the P/S belt. Make sure the belt is properly aligned in the grooves of the pulleys.

24. Install the A/C suction line and receiver line B.

Connect the A/C suction line and receiver line B to the evaporator with one 6 x 30 mm flange bolt (yellow-tinted), 95701-06030-08, and two 6 mm paint-cutting nuts (yellow-tinted), 90361-SV4-003. Torque the bolt and nuts to 10 N·m (7 lb-ft).

Push the brake booster vacuum hose toward the engine, then feed the suction hose on the A/C suction line and receiver line B under it.

Slide the A/C suction line and receiver line B clamp onto the mounting stud. Make sure that the throttle and heater cables are not caught or pinched by the bracket, then install a 6 mm paint-cutting nut (yellow-tinted), 90361-SV4-003. Torque the nut to 10 N·m (7 lb-ft).
25. Connect the suction line.

- Install the suction hose bracket to the P/S hose bracket with a 6 x 12 mm washer-bolt (yellow-tinted), 93403-06012-08. Torque the bolt to 10 N·m (7 lb-ft).

- Torque this fitting to 33 N·m (24 lb-ft). Make sure you use a second wrench to hold the other fitting.

- Apply refrigerant oil to the suction hose O-ring, then loosely connect the suction hose to the suction line.

- Install the suction line bracket with two 6 x 16 mm washer-bolts (gray-colored), 93403-06016-05. Torque the bolts to 10 N·m (7 lb-ft).

- Apply refrigerant oil to its O-ring, then connect the suction line to the compressor with a 6 mm flange nut (yellow-tinted), 94050-06080. Torque the nut to 10 N·m (7 lb-ft).

- Install the suction hose clamp onto the suction hose bracket, then secure the suction hose in the clamp.

- Remove and discard the nut and cap from the suction side of the compressor.

26. Install the discharge hose.

- Route the discharge hose below the compressor clutch wire, and up to the compressor.

- Apply refrigerant oil to its O-ring, then connect the discharge hose to the condensor with a 6 x 25 mm flange bolt (yellow-tinted), 95701-06025-08. Torque the nut to 10 N·m (7 lb-ft).

- Apply refrigerant oil to its O-ring, then connect the discharge hose to the compressor with a 6 mm flange nut (yellow-tinted), 94050-06080. Torque the nut to 10 N·m (7 lb-ft).

- Remove and discard this nut and cap.
27. Install the power relays and the vehicle harness clip.

Install the two power relays in the sockets shown.

1. Remove the lid from the under-hood fuse/relay box.
2. Install the two power relays in the sockets shown.
3. Reinstall the fuse/relay box lid.
4. Reattach the vehicle harness clips to their brackets.

28. Attach the labels in the locations shown.

This vehicle is equipped with A/C Assembly Pin
Please refer to this PIN when servicing/ordering A/C parts.
American Honda Motor Co., Inc.
Torrance, CA 90601-2746
29. Reinstall the remaining parts.

- Relay assembly and glove box frame
- Glove box
- Passenger’s dashboard lower cover
- Passenger’s kick panel
- Center console cover, and reconnect the accessory power socket or cigarette lighter.
- Under-dash fuse/relay box
- Driver’s dashboard lower cover
- Front bumper and splash shield
- Cruise control actuator; tighten the mounting bolts to 10 N-m (7 lb-ft).
- Power steering pressure switch connector
- Brake fluid level switch connector
- Resonator and air cleaner case
- Reconnect the negative cable to the battery.
- Check for battery voltage at the accessory power socket (or cigarette lighter).

30. Do the idle learning procedure.

Whenever the battery or the ECM/PCM is disconnected, the ECM/PCM must relearn the proper idle air control (IAC) values. To do this, follow this procedure exactly.

1. Start the engine, and turn off all accessories (A/C, radio, defogger, etc.).
2. Warm the engine up to normal operating temperatures (cooling fans come on twice), then let the engine idle for 10 minutes.

If the above procedure is not done correctly, the engine will have an erratic idle.

31. Evacuate the system.

The HFC-134a and compressor oil used in this A/C system are highly moisture absorbent. After installing the system, make sure you evacuate it for at least 15 minutes.

NOTE:
- If low pressure does not reach more than 700 mm Hg (27 in-Hg) in 15 minutes, there is probably a leak in the system. Partially charge the system, and check for leaks (see step 32).
- If the system is left open, the desiccant in the receiver tank will become saturated with moisture, requiring longer evacuation time.

32. Charge the system.

- This system requires only the amount of HFC-134a refrigerant shown below. If you overcharge the system, the engine and the A/C will malfunction. **Do not overcharge!** Select the appropriate units of measure for your refrigerant charging station.

<table>
<thead>
<tr>
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<th>Pounds</th>
<th>Ounces</th>
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<td>0.50 to 0.55</td>
<td>1.1 to 1.2</td>
<td>17.6 to 19.4</td>
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</table>

- Do not add oil to the compressor; a new compressor already contains enough oil for the entire A/C system. If you are replacing compressor oil that has leaked out of the system, use only **Sanden SP-10 oil**.
- Using the wrong oil, or mixing different types of oil, will result in abnormal compressor noise or seizure, or shortened compressor service life. These conditions are not covered by the warranty policy.

33. Check for leaks.

When testing for leaks, follow these guidelines:

- Make sure you use a leak detector designed for A/C systems that use HFC-134a.
- To avoid false readings, do not use a tester designed to detect Freon (CFC-12).
- Because HFC-134a is heavier than air, always check 360° around all fittings.
- If you lose or damage an O-ring during A/C installation, make sure you order the correct replacement as listed here:

<table>
<thead>
<tr>
<th>PART NAME</th>
<th>PART NUMBER</th>
<th>APPLICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-ring, 8 mm</td>
<td>80873-ST7-000</td>
<td>Condenser line</td>
</tr>
<tr>
<td></td>
<td></td>
<td>receiver lines</td>
</tr>
<tr>
<td>O-ring, 5/8&quot;</td>
<td>80871-ST7-000</td>
<td>Suction hose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and line</td>
</tr>
<tr>
<td>O-ring, 1/2&quot;</td>
<td>80872-ST7-000</td>
<td>Discharge hose</td>
</tr>
<tr>
<td></td>
<td></td>
<td>and line</td>
</tr>
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</table>

34. Performance test the A/C system.

Refer to Service Bulletin 96-012, **Air Conditioning System Performance Test**, filed under Accessories in the old Service Bulletin binder.

35. Readjust the A/C compressor belt to the “Used Belt” tension: 390 to 540N (40 to 55 kg).

Refer to step 22 on page 20.