

ECONOMY RANGE HOOD INSTALLATION INSTRUCTIONS

40000 HOOD EXTRACTOR 40000

41000 & 41000MX SERIES/MI-CROTEK® SYSTEM I

42000 & 42000D HOODS EXTRACTOR 42000

READ AND SAVE THESE INSTRUCTIONS

⚠ INTENDED FOR DOMESTIC COOKING ONLY. ⚠

WARNING ⚠ ⚠

TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

1. Use this unit only in the manner intended by the manufacturer. If you have questions, contact the manufacturer at the address or telephone number listed in the warranty.
2. Before servicing or cleaning unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.
3. Installation work and electrical wiring must be done by a qualified person(s) in accordance with all applicable codes and standards, including fire-rated construction codes and standards.
4. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
5. When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
6. To reduce the risk of fire or electric shock, do not use this range hood with an additional speed control device.
7. Ducted fans must always be vented to the outdoors.
8. To reduce the risk of fire, use only metal ductwork.
9. Use with approved cord-connection kit only.
10. This unit must be grounded.

TO REDUCE THE RISK OF A RANGE TOP GREASE FIRE:

1. Never leave surface units unattended at high settings. Boilovers cause smoking and greasy spillovers that may ignite. Heat oils slowly on low or medium settings.
2. Always turn hood ON when cooking at high heat or when cooking flaming foods.
3. Clean ventilating fans frequently. Grease should not be allowed to accumulate on fan or filter.
4. Use proper pan size. Always use cookware appropriate for the size of the surface element.

TO REDUCE THE RISK OF INJURY TO PERSONS IN THE EVENT OF A RANGE TOP GREASE FIRE, OBSERVE THE FOLLOWING:*

1. SMOTHER FLAMES with a close-fitting lid, cookie sheet, or metal tray, then turn off the burner. BE CAREFUL TO PREVENT BURNS. If the flames do not go out immediately, EVACUATE AND CALL THE FIRE DEPARTMENT.
2. NEVER PICK UP A FLAMING PAN - You may be burned.
3. DO NOT USE WATER, including wet dishcloths or towels - a violent steam explosion will result.
4. Use an extinguisher ONLY if:
 - A. You know you have a Class ABC extinguisher and you already know how to operate it.
 - B. The fire is small and contained in the area where it started.
 - C. The fire department is being called.
 - D. You can fight the fire with your back to an exit.

* Based on "Kitchen Fire Safety Tips" published by NFPA.

CAUTION ⚠

1. For indoor use only
 2. For general ventilating use only. Do not use to exhaust hazardous or explosive materials and vapors.
 3. To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.
 4. For best capture of cooking impurities, your range hood should be mounted 18-24" above the cooking surface.
 5. Please read specification label on product for further information and requirements.
- NOTE: Monitor your fan for unusual sounds, smells and smoke. If any appear, turn off the fan immediately and replace it.

PLANNING DUCTWORK INSTALLATION

(This section for 40000 and 42000 hoods only. 41000 hoods skip this section and go on to "Prepare the Hood.")

Begin planning ductwork by deciding where the duct will run between the range hood and the outside. For best performance, use the shortest possible duct run and a minimum number of elbows. There are several choices shown - FIGS. A - F below.

FIG. A. Ducting directly through the wall (for range hoods mounted on an exterior wall). Shown are two ways to duct through an outside wall. If a wall cap is used directly off the back of the hood, special care must be taken to make sure that the damper in the damper/duct connector on the hood and damper in the wall cap do not interfere with each other when the hood is operating. This could result in either inadequate air delivery or backdrafts. If this condition does exist, remove the hood damper flap. Sometimes when using a wall cap it is easier to duct vertically and then use an elbow as shown in **FIG. B**.

In more complex ducting situations, a 3-1/4" x 10" rectangular ducting range hood (40000 hood) can be converted to a round duct by means of a transition.

FIG. C. Straight up through the roof using 7" round duct (for single story installations - 42000 & 42000D hood only).

FIG. D. Ducting straight up through the roof using 3-1/4" x 10" rectangular duct (for single story installations - 40000 hood only).

FIG. E. Ducting between the ceiling joists (for multi-story installations) or through the soffit space above the cabinets (where the soffit connects to an outside wall).

FIG. F. Straight up through the roof using 6" round duct (for single-story installations).

PREPARE THE HOOD

1. Unpack hood and check contents. You should receive:
 - 1 - Aluminum Filter (40000 and 42000 & 42000D hoods only)
 - 1 - 3-1/4" x 10" Damper/Duct Connector (mounted inside of hood for shipping only) (40000 hood only)
 - 1 - Ductfree Microtek® System I Filter (41000 hood only)
 - 1 - 7" Round Damper (42000D hoods only)
2. Remove wiring box cover. Under cover find:
 - 1 - Plastic Bag containing loose mounting hardware
3. Remove top or rear electrical knockout. (FIG. 2)
4. (40000 hood ONLY) Remove duct knockout. Insert screwdriver under edge of knockout, break tabs, and peel knockout back with pliers. (FIG. 3)
5. (40000 hood ONLY) Install damper/duct connector over opening made in STEP 4. Use #8B sheet metal screws provided. (FIG. 3)
(42000 hood ONLY) Install Model 87 round damper (purchase separately) over opening in top of hood.
(42000D hood ONLY - Install 7" round damper (included) over opening on top of hood.

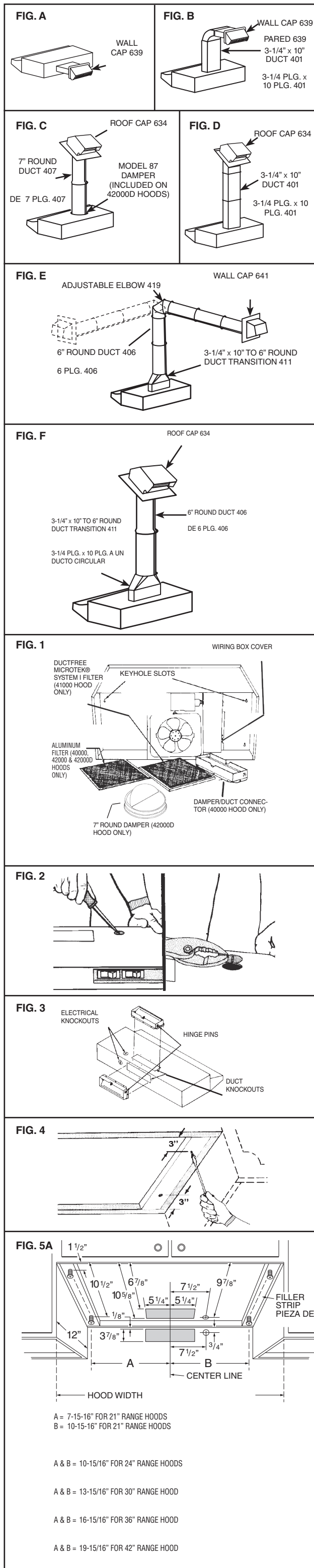
PREPARE THE INSTALLATION LOCATION

Omit STEP 1 if hood will be installed under cabinets with flush bottom.

1. (For installation on recessed bottom cabinets only) Attach a wood filler strip at each side of recessed area under cabinet. Use two 1" x 2" strips cut to length. If recess is deeper than 1" use thicker strips. Attach strips with 1-1/4" wood screws, 3" from each end of strip. See FIG. 4.
2. Measure and mark the following (FIGS. 5A & 5B):
 - a.) Electrical wiring opening in wall or cabinet.
 - b.) Duct opening in wall or cabinet (40000, 42000 & 42000D hoods ONLY).

WARNING
WHEN CUTTING OR DRILLING INTO WALL OR CABINET, BE CAREFUL NOT TO CUT EXISTING ELECTRICAL WIRING.

3. Use 1-1/4" bit to drill opening for electric wiring.
4. Cut out duct opening in wall or cabinet with saber saw or keyhole saw.



- Center hood in installation opening and trace keyhole slots onto wood filler strips on cabinet bottom.
- Screw four #10 x 7/8 wood screws into exact center of narrow end of traced keyhole slots. Allow 3/8" of screws to project, so that hood can be fitted into place later.

INSTALL THE DUCTWORK

(This section for 40000 and 42000 hoods only. 41000 hoods skip this section and go on to "Install Range Hood.")

NOTE

These instructions will follow plans made on Page 2. Start at the exterior and run ductwork back to the range hood.

For best possible performance, use the shortest possible duct run and a minimum number of elbows. Do not vent a range hood into an attic space. A buildup of grease in the attic could become a fire hazard. Use only metal ductwork. DO NOT USE PLASTIC DUCT. Assemble duct run securely so that in case of a grease fire on the range, the fire will be contained inside metal ductwork.

Tape all duct connections.

- Follow appropriate directions below for type of duct run you install.
 - Wall Cap Discharge; (FIG. 7) Use saber saw or keyhole saw to cut hole slightly larger than duct size used so that duct will line up easily with damper/duct connector on hood. Install casing strips if cap will be installed on siding. Attach required amount of duct to wall cap and run duct back to hood. Fasten cap to wall and caulk well.
 - Roof Cap Discharge; (FIG. 8) Cut a hole in roof slightly larger than duct size being used. Run ductwork down to hood location. Leave 3/4" of duct projecting above roof surface on high side. Trim duct parallel to roof pitch and seal all around duct with roof cement. Carefully trim shingles and slide back of roof sheet under shingles. Nail roof sheet to roof under shingles at top two corners and two sides. Nail sheet directly to roof in four places at bottom. Using roof cement, seal all nail heads and shingles which were cut or lifted. Do not seal bottom edge of roof sheet.

INSTALL RANGE HOOD

WARNING

TURN OFF THE PROPER CIRCUIT AT THE SERVICE ENTRANCE BEFORE WIRING THIS RANGE HOOD.

- Run electric wiring through hole drilled in wall or cabinet. Split wiring for 6" and install proper connector for type of wire used. (FIG. 9)
- Position hood so that:
 - Wiring is routed through knockout opening (FIG. 10) (MX Series Only: Use grommet supplied in parts bag.)
 - Large part of keyhole slots fit over hood mounting screws. (FIG. 10)
 - Damper/duct connector slides into duct work. (40000, 42000 and 42000D hoods only)
- Adjust hood so that hood front is flush with cabinet frame.
- Tighten hood mounting screws firmly.
- Fasten wiring to hood with proper electrical connector for type of wire being used.

WARNING

ALL ELECTRICAL CONNECTIONS MUST BE IN ACCORDANCE WITH LOCAL CODES, ORDINANCES, OR NATIONAL ELECTRICAL CODE. IF YOU ARE UNFAMILIAR WITH METHODS OF INSTALLING ELECTRICAL WIRING, SECURE THE SERVICES OF A QUALIFIED ELECTRICIAN.

- Strip 1/2" of insulation from wires. Connect white to white, black to black, and green to prepared hole with green ground screw provided. (FIG. 11)
- Replace wiring box cover and screw. Make sure that all wiring is safely contained inside.
- Install light (75 Watt maximum). For easier installation, squeeze plastic lens and remove it from hood. Remember to reinstall lens. (FIG. 12)
- Turn on power and check operation of fan and light. Make sure that damper operates freely.

USE AND CARE

SWITCHES

The fan and light are each controlled by a rocker switch. The light switch has two positions, "ON" and "OFF." The fan switch has three positions, "HIGH," "LOW" and "OFF." ("OFF" is the middle position.)

FILTERS

40000, 42000 & 42000D Hoods Only:

Remove aluminum filter by turning filter retainer to one side. (FIG. 13) Filter should be washed once a month in a hot detergent solution. Aluminum filters are dishwasher safe. When installing filter, make sure that filter slides under retaining tabs on back of fan housing. Turn filter retainer so that arrows on retainer point toward front and back of hood.

41000 Hoods Only:

The 41000 hood is equipped with a ductfree filter. Remove filter by turning filter retainer to one side. (FIG. 13) The ductfree filter is not washable, and will last up to twelve months with normal use. Replace the filter when colored side becomes noticeably dirty or discolored.

When installing filter, make sure that filter slides under retaining tabs on back of fan housing. MAKE SURE THAT COLORED SIDE OF FILTER IS NEXT TO FAN WHEN FILTER IS INSTALLED. Turn filter retainer so that arrows on retainer point toward front and back of hood.

WARNING

ALWAYS DISCONNECT ELECTRIC POWER BEFORE SERVICING RANGE HOOD.

FAN ASSEMBLY

Remove filter. Remove two screws holding motor bracket to hood, and unplug fan assembly. Be careful not to allow fan assembly to drop when screws are removed. (FIG. 14)

CLEANING

Clean your hood with a mild detergent suitable for painted surfaces. DO NOT USE ABRASIVE CLOTH, STEEL WOOL PADS OR SCOURING POWDERS. Fan assembly may be vacuumed. Fan assembly is permanently lubricated, and never needs oiling. If the product is making excessive or unusual noises, replace the motor or blower assembly.

HOW TO AVOID A COMMON RANGE-TOP GREASE FIRE

- Your range hood provides a protective barrier between the cooking surface and the cabinets.
- Keep fan, filters and grease laden surfaces CLEAN according to instructions.
- Always turn hood ON when cooking at high heat to keep the cooking area and the hood cooler.
- Use high heat settings only when necessary.
- Never leave cooking surface unattended. Boil-over causes smoking and greasy spillovers that may ignite.
- Always use adequate-sized utensils.
- If preparing flaming foods, such as Cherries Jubilee, always turn hood ON to HIGH to prevent a high heat situation which can cause damage or fire.

HOW TO EXTINGUISH A COMMON RANGE-TOP GREASE FIRE

- Never pick up a flaming pan. If dropped, flames can spread quickly.
- DO NOT USE WATER! A violent steam explosion may result. Wet dishcloths or towels are also dangerous.
- Smother flames with a close fitting lid, cookie sheet or metal tray.
- Flaming grease can also be extinguished with baking soda or a multi-purpose dry chemical extinguisher.
- Turn off surface units - if you can do so without getting burned.

FIG. 5B

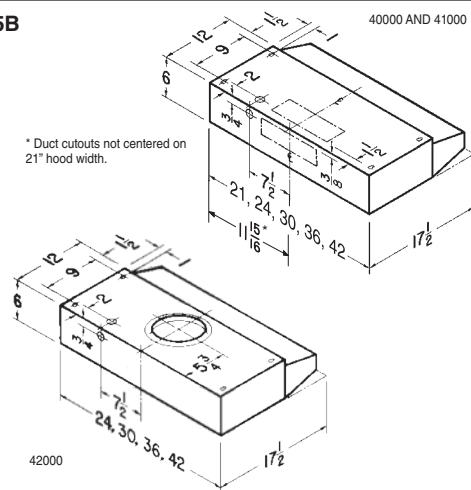


FIG. 6

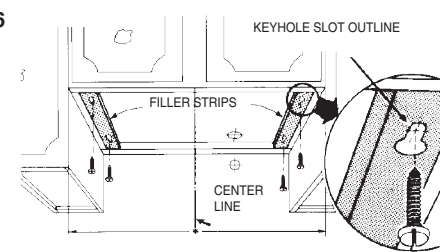


FIG. 7

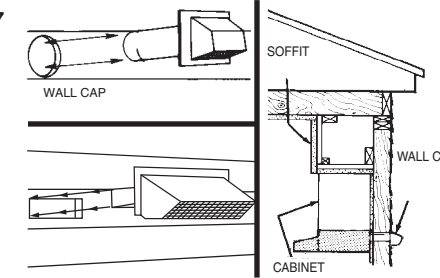


FIG. 8

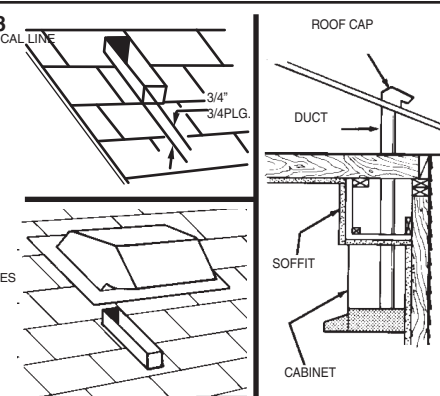


FIG. 9

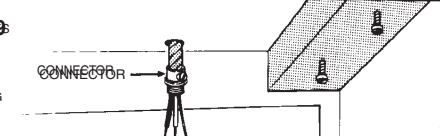


FIG. 10

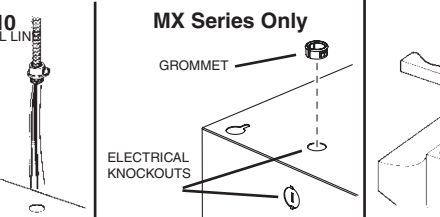


FIG. 11

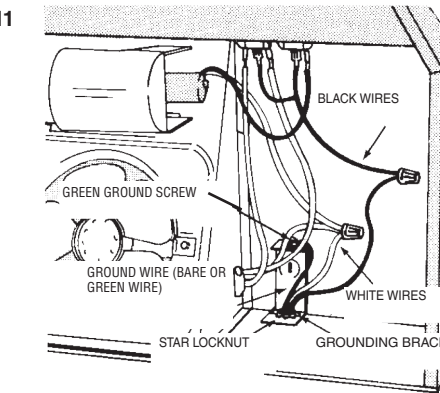


FIG. 12

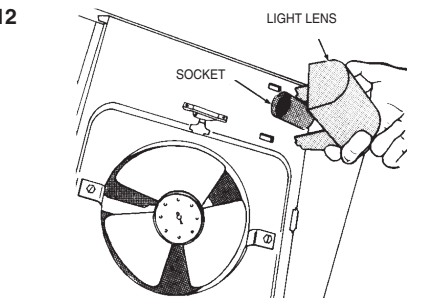


FIG. 13

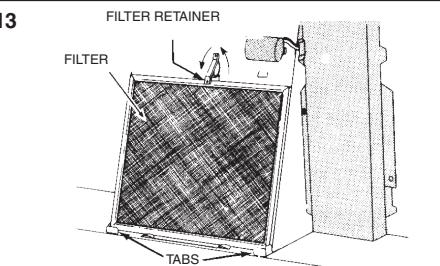
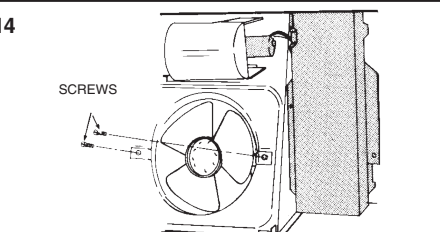


FIG. 14



RANGE HOOD CORD KIT

Installation Instructions

WARNING

FOR USE WITH RANGE HOODS ONLY.

GROUNDING INSTRUCTIONS

Range Hoods must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. After attaching this cord kit to the range hood, it is equipped with a cord having a grounding wire with a grounding plug. The plug must be plugged into an outlet that is properly installed and grounded.

WARNING - Improper grounding can result in a risk of electric shock.

Consult a qualified electrician if the grounding instructions are not completely understood, or if doubt exists as to whether the range hood is properly grounded.

Do not use an extension cord. If the power supply cord is too short, have a qualified electrician install an outlet near the appliance.

This kit includes the following:

- (1) 36" Cord & Plug with Cord Connector
- (1) Anti-Rotation Plate with Lock Bushing
- (2) Wire Nuts

CAUTION

TO REDUCE THE RISK OF FIRE AND ELECTRICAL SHOCK, THIS RANGE HOOD CORD-CONNECTION KIT IS U.L. CLASSIFIED ONLY FOR USE WITH THE RANGE HOOD MODEL SERIES LISTED BELOW:

BROAN SERIES

40000, 41000, 42000,
43000, 46000, BCDF1,
BCDJ1, BCSD1,
BCSEK1, BKDB1,
BKDEG1, BKSA1,
BKSH1, TEN1, TEN2,
BPDP1, ALT1, ALT2,
ALT3, CLDA1, CLDH1,
CLSC1, CRDE1,
CRSF1, SPE1 and
ALT4

NUTONE SERIES

RL, ACS, AR1,
AHDA1, AHSA1,
AVDF1, AVSF1
and NPDP1

KENMORE SERIES

5094, 5104, 5134, 5164, 5184, 5324, 5334,
5128, 5139, 5141, 5129, 5126, 5135 and 5140

Other cord kits are not U.L. Classified - unless the specific model numbers are listed.

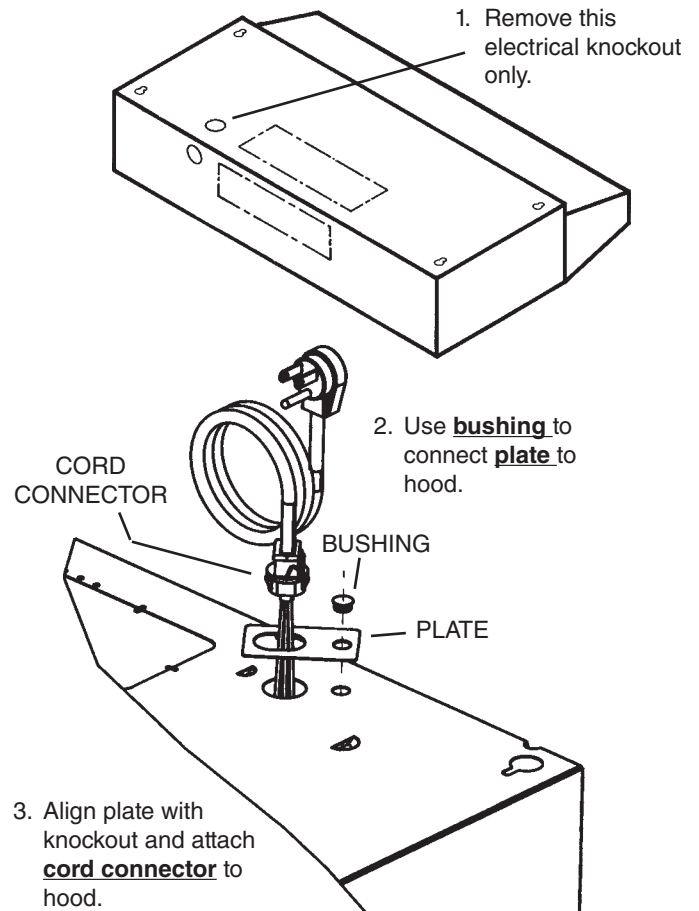
ELECTRICAL RECEPTACLE LOCATION

A grounded, electrical receptacle for this cord kit must be in a location that will not allow the cord to come in contact with any heat source. Inside the cabinet above the range is the most common location.

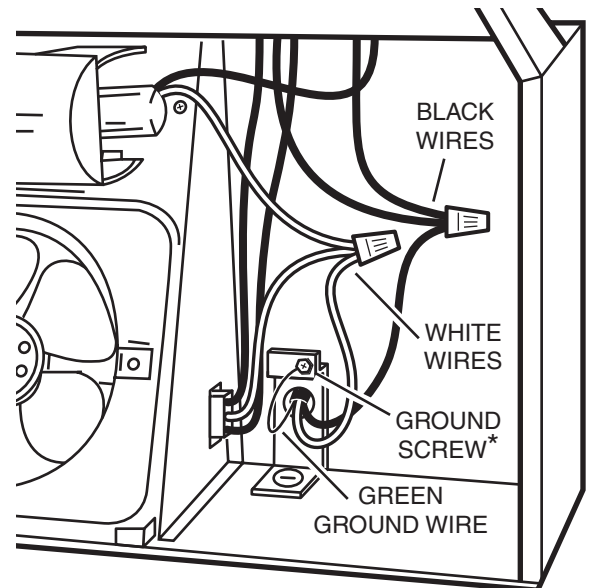
Do not plug into receptacles that would permit cord to come into contact with heat sources.



CORD KIT INSTALLATION



WIRING CONNECTIONS



4. Connect **black wires** together. Connect **white wires** together. Connect **green ground wire** beneath **ground screw**.

* If the range hood has an internal ground connection beneath a ground screw, A SECOND GROUND SCREW MUST BE USED for the cord kit ground.



Additional Information for Range Hoods meeting ADA Compliance

Broan and NuTone branded residential range hoods can be installed to comply with Sections 308 and 309 of ADA Guidelines, when used with appropriately mounted controls installed at 15” to 48” above the floor and control access should not require reaching over a cooking appliance.

The following range hoods can work in an ADA Compliant situation when the range hood is wired to operate from a dedicated, standard electrical wall switch. To facilitate this application, share the information on the following pages with your electrician when preparing for the installation.

2-SPEED RANGE HOODS:

Broan 40000, F40000, 41000, 42000, 43000, 52000, PM250, QL1, QS1, QSE1, QDE, QML and CBD1 Series, BKSA1, CLSC1, CRSF1

NuTone NS6500, NSPM250, RL6200, WS1 Series, AHSA1, AVSF1

INTERMEDIATE RANGE HOODS: (with variable speed)

Broan 46000 & QT20000 Series

NuTone ACS Series

2-ROCKER & 3-ROCKER SWITCHES

WARNING

ALL ELECTRICAL WORK MUST BE DONE IN ACCORDANCE WITH LOCAL CODES, ORDINANCES, OR NATIONAL ELECTRICAL CODE AS APPLICABLE. **FOR SAFETY, THIS PRODUCT MUST BE INSTALLED IN A GROUNDED SWITCH BOX.** IF YOU ARE UNFAMILIAR WITH METHODS OF INSTALLING ELECTRICAL WIRING, SECURE THE SERVICES OF A QUALIFIED ELECTRICIAN.

Turn off power and lock out service panel before installing or wiring this product.

Use this control only with copper or copper-clad wire. Do not use aluminum wire with this device.

INSTALLATION

1. WARNING

To avoid fire or electrical shock, turn off power at circuit breaker or fuse. Test that the power is off before wiring.

2. MOUNT THE SWITCH BOX

For 2-Rocker Switch: Install a 3½" deep single-gang switch box or a 2" deep double-gang switch box.

For 3-Rocker Switch: Install a 2½" deep double-gang switch box with a single device adapter plate.

3. ATTACH POWER CABLE

Clamp wiring to switch box and unit using appropriate clamp. Provide 6" leads inside box and fan for easier wiring.

4. CONNECT WIRING

General instructions for all configurations:

Make sure both the switch box and the appliance are properly grounded.

Make sure ground wire is securely fastened to control's ground screw. Tighten ground screw 14 to 16-in. lbs. torque.

Remove insulation per strip gauge on control (approx. 5/8"). Use proper wire nut sizes for number and size of wires.

For push-in terminals: Use #14-AWG solid copper wire only.

For screw terminals: Use #12 or #14-AWG solid copper wire only. Tighten screw terminals 14 to 16-in. lbs. torque.

Choose 4A., 4B. or 4C

4A. When using 2-Rocker or 3-Rocker Switch to turn an appliance ON & OFF:

Make electrical connections following appropriate diagram.

(over)

WARNING

To prevent serious injury from electrical shock or damage to electrical components - **DO NOT WIRE HOT!**

Each individual rocker switch on this control is rated at 15 AMPS, @ 120 VAC. The total load on this control must not exceed 20 AMPS, @ 120 VAC.

Warranty is void if miswired.

NOTE: If the switch has not been wired properly and wires need to be moved, proceed as follows:

WARNING: To avoid fire or electrical shock, turn off power at circuit breaker or fuse. Test that the power is off before wiring.

WIRE OPENING

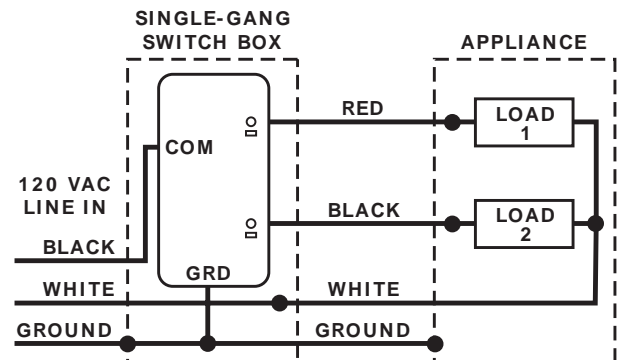


RELEASE SLOT

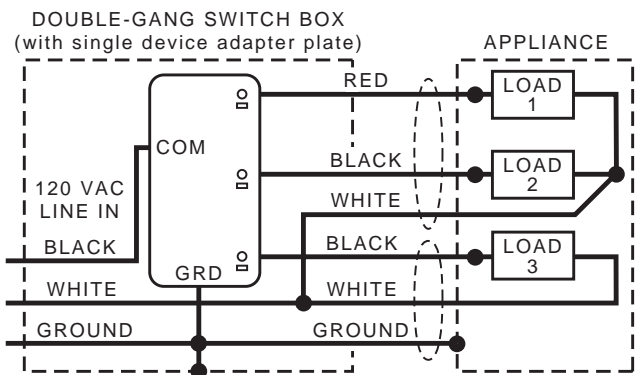
1. Each wire opening has a release slot.
2. Push a small nail or screwdriver into release slot while gently removing wire.
3. DO NOT pull any wire out of the switch without using the release slot. The switch may become damaged.

STEP 4A

2 - ROCKER SWITCH



3 - ROCKER SWITCH



4B. When using a 2-Rocker Switch to turn a range hood ON & OFF from another location with 120 VAC POWER CABLE ENTERING SWITCH BOX:

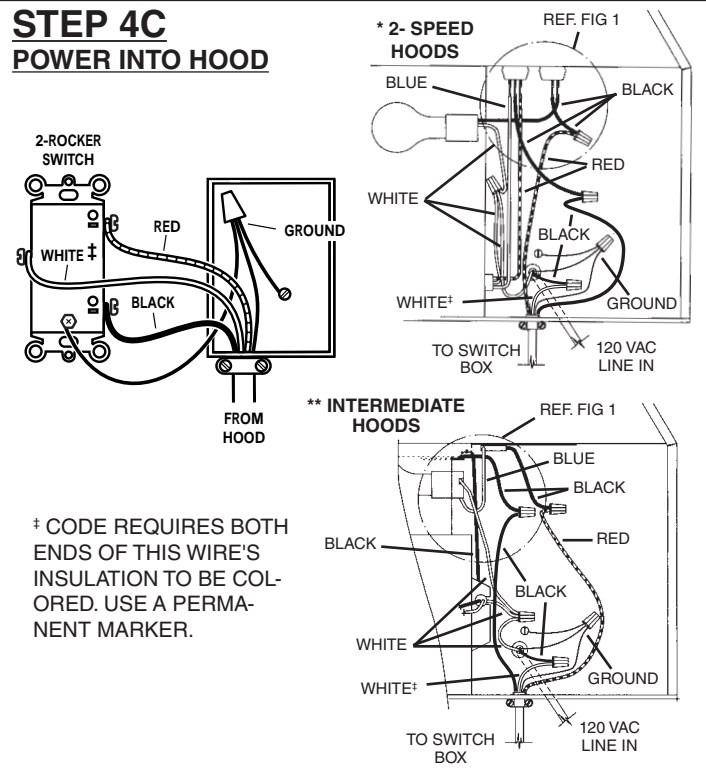
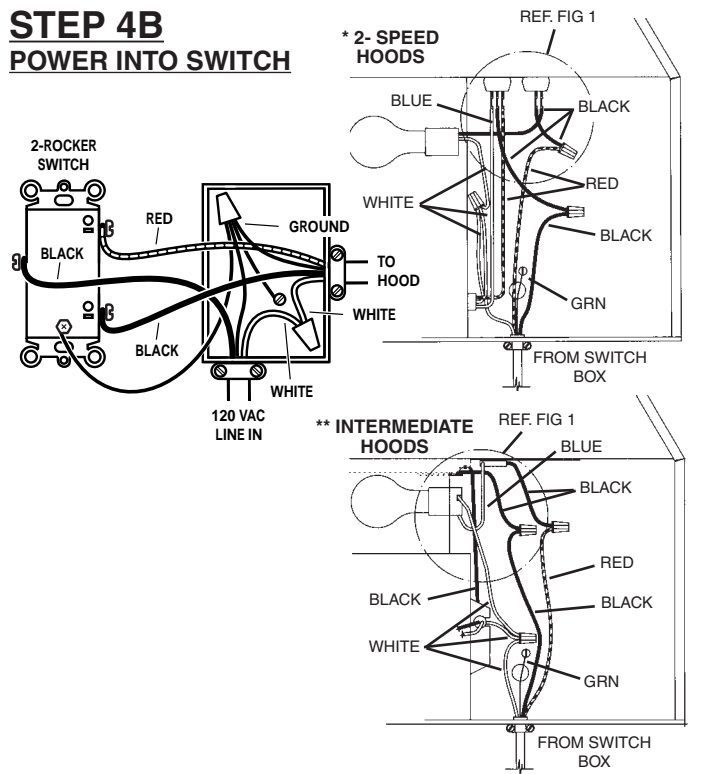
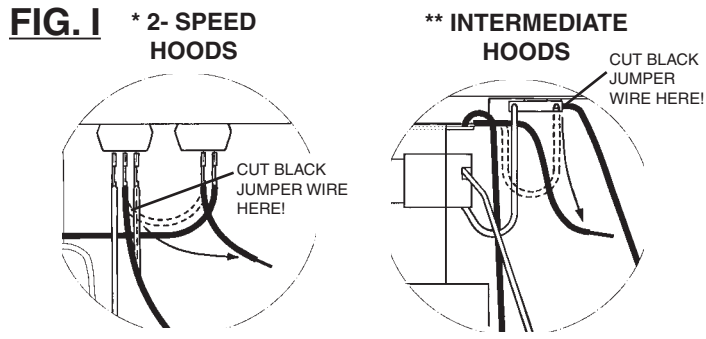
Remove the range hood's wiring cover. If the hood has a BLACK JUMPER WIRE, it must be cut and the end stripped as shown. (FIG. 1)

Use UL approved clamps to secure all cables to hood and box. Make wiring connections following appropriate diagram. Use proper wire nut sizes for number and size of wires. Replace range hood wiring cover.

4C. When using a 2-Rocker Switch to turn a range hood ON & OFF from another location with 120 VAC POWER CABLE ENTERING HOOD:

Remove the range hood's wiring cover. If the hood has a BLACK JUMPER WIRE, it must be cut and the end stripped as shown. (FIG. 1)

Use UL approved clamps to secure all cables to hood and box. Make wiring connections following appropriate diagram. Use proper wire nut sizes for number and size of wires. Replace range hood wiring cover.



‡ CODE REQUIRES BOTH ENDS OF THIS WIRE'S INSULATION TO BE COLORED. USE A PERMANENT MARKER.

5. MOUNT CONTROL IN SWITCH BOX

Tuck wires into switch box and fasten the control to box using attached screws.

6. ATTACH SWITCH PLATE

Fasten the switch plate to the control using the short screws from the parts bag.

*** 2-SPEED RANGE HOODS:**

Broan 40000, F40000, 41000, 42000, 43000, 52000, PM250, CBD1, QL1, QML, QS1 & QSE1 Series. NuTone NS6500, NSPM250, RL6200 & WS1 Series.

**** INTERMEDIATE RANGE HOODS:**

Broan 46000 & QT20000 Series. NuTone ACS3 Series.

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