

Note: Included with this product are 2 mounting screws and 4 wire connectors.

Nova® controls provide a clean, attractive appearance, solid-state circuitry, and a full range of speed control. The snap-on faceplate, modern design, and choice of colors complement any interior design theme. This product may be multi-ganged with other Nova controls. This process is described on page 2. Nova multi-gang faceplates are available in a variety of colors from your local Lutron electrical distributor.

IMPORTANT NOTES:

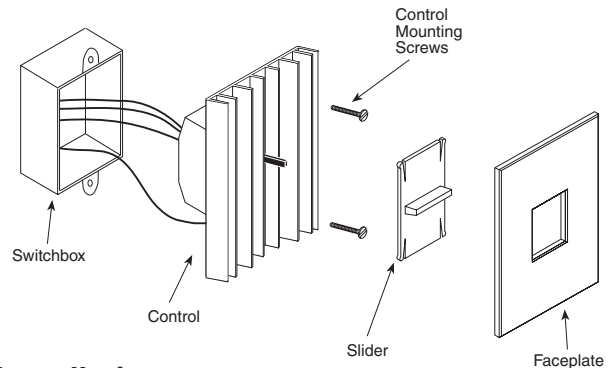
- To reduce the risk of electrical shock use this control only with fans that are marked as suitable for use with a solid-state fan speed control. The fan(s) must not conduct more than 6 Amps at 120VAC when used with the NFS-6E or 12 Amps at 120VAC when used with the NFS-12E.
- Allow a minimum space of 4¹/₂" above and below the fan speed controls for proper heat dissipation and only mount vertically (see up arrow on control).
- Check new installation for shorts prior to installation of fan speed control by using a single pole switch and connecting appropriate wires to hot line and fan with POWER OFF. Turn power on. If fan does not work or breaker trips, a short is present. Correct the wiring and check circuit again. Install fan speed control when short is no longer present.
- Turn POWER OFF when installing fan speed control. Wiring with power on may result in personal injury or damage to this product which will void the warranty.
- For use where ambient temperatures range from 0°C - 40°C (32°F - 104°F).
- To clean faceplate, use a mild detergent with damp cloth for best results.

Pre-Installation

1. You can gang Nova Fan Speed Controls without breaking off side sections. This will allow operation of control at full rated capacity. See "Multigang Installations: No Side Sections Removed" on page 2 for installation instructions.
2. Side sections can be removed when you need to conserve space or fit the controls into existing switchboxes. Capacity deratings are necessary when fins are broken off. See "Multigang Installation: Side Sections Removed" on page 3 for installation instructions.
3. Nova Fan Speed Controls have a third (yellow) wire which is a switched hot to run electrical fan accessories, such as lights or louvers. To calculate load on control add ampere rating of motor(s) to ampere rating of auxiliary devices. To convert ratings in watts to amps use Auxiliary Load Rating Chart, or divide watts by 120.

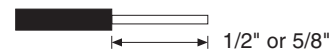
Auxiliary Load Rating Chart

| | | | | | |
|-------|-----|-----|-----|-----|------|
| Watts | 40 | 60 | 75 | 100 | 150 |
| Amps | .33 | .50 | .63 | .83 | 1.25 |



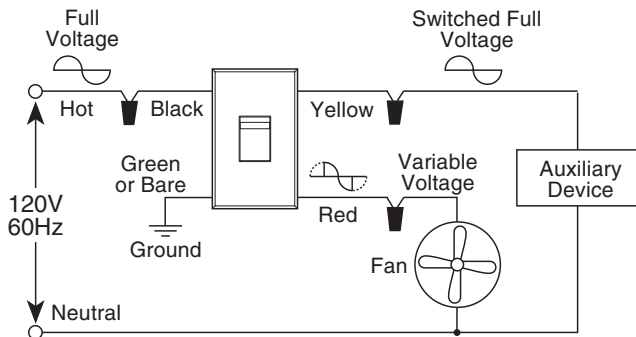
Installation

1. Turn power OFF. Fan speed controls may only be installed when power is turned off. Remove fuse or turn circuit breaker OFF.
2. Remove faceplate and slider from fan speed control to prevent damage and to access mounting holes. Pull out at top and bottom edges, plate will snap off.
3. Strip wires to the following lengths:
 - 1/2" for 10, 12, and 14 gauge supply wire
 - 5/8" for 16 and 18 gauge control wire

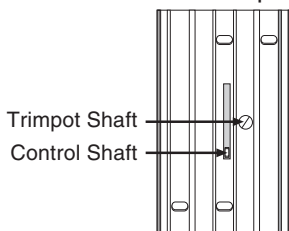


4. Using the wire connectors provided:
 - Connect the green or bare ground wire on the fan speed control (if present) to the green or bare copper ground wire in the switchbox. **Note:** If a green or bare copper ground wire is not in the switchbox, contact a licensed electrician.
 - Connect the black wire on the fan speed control to the hot wire coming from the fusebox or circuit breaker.
 - Connect the red wire on the fan speed control to the fan lead.
 - Connect the yellow wire on the fan speed control with an auxiliary device or cap off if it will not be used.

Figure 1. Fan Speed Control Wiring



5. Push wires into switchbox allowing room for fan speed control to be inserted.
6. Mount fan speed control to switchbox using two screws provided and the center mounting screw holes. Unit **MUST** be mounted vertically (see up arrow on control).
7. Replace slider and snap faceplate on over fins. When ganging, slide faceplate up or down to align them.
8. Turn power ON. Slide control up to increase speed; down to decrease speed, and off.
9. To adjust minimum speed:
 - A. Remove faceplate and slider.
 - B. Put slider at minimum speed position.



- C. Turn trimpot all the way to the left (counterclockwise), using screwdriver provided.
- D. When fan has stopped turning, slowly rotate trimpot to the right (clockwise), until fan starts to turn. Control is now trimmed to slowest speed.
- E. If higher minimum speed is desired, continue to rotate trimpot to the right.

10. Replace slider and faceplate.

Ganging and Special Faceplates

Fan speed controls can be ganged with the entire family of Nova controls. **FOR NEW CONSTRUCTION** we suggest installing the fan speed controls *without* breaking or removing the side sections. This will insure that the control can be loaded to its full-rated capacity (no derating). Follow the instructions below to install your controls with **NO SIDE SECTIONS REMOVED**. For a retrofit installation, side sections can be removed from the controls to fit existing switchboxes; however, this will require load derating.

To maintain a smooth, clean installation, one-piece Multi-Gang Faceplates are available. Custom finishes, engraving and silkscreening are available upon request.

**Multigang Installations:
No Side Sections Removed,
No Derating Required**

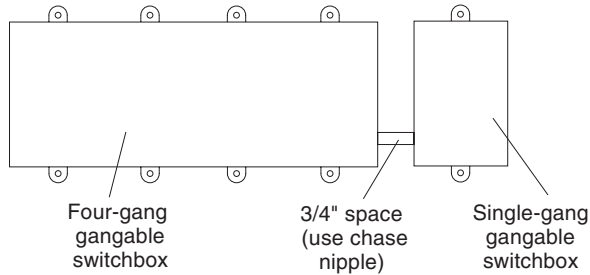
1. Determine the number of large and small controls required.

When ganging any combination of small and large controls, place a small control on one extreme end of the gang, and a large control at the other end of the gang. Use the chart below to find your switchbox requirements.

Switchbox Requirement Chart

| No Side Sections Removed | Number of Small Controls | | | | | | |
|--------------------------|--------------------------|----|-----|----|-----|----|-----|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 0 | 0 | 1 | 1+1 | 4 | 4+1 | 7 | 1+7 |
| Number of Large Controls | 1 | 3 | 5 | 6 | 8 | 9 | 11 |
| 2 | 4 | 6 | 7 | 9 | 10 | 12 | 13 |
| 3 | 6 | 8 | 10 | 11 | 13 | 14 | 16 |
| 4 | 9 | 11 | 12 | 14 | 15 | 17 | 18 |

Note: When ganging an even number of small controls with no side sections removed do not use plaster rings or gangbox covers. Space an additional switchbox 3/4" apart from the other switchbox(es). A 3/4" close nipple is recommended as a spacer between the switchboxes.

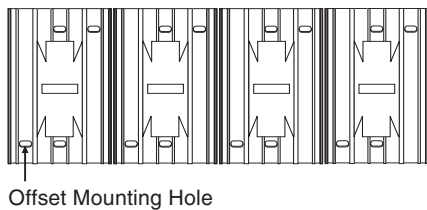


Note: Masonry Multi-Gang Switchboxes are recommended for neater installations.

2. Assemble the controls.

Use the offset mounting screws as shown below. Allow a 1/32" space between controls for ease in attaching the faceplate.

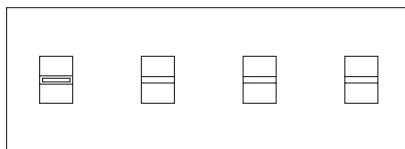
Example: Four-Gang Controls



3. Attach Faceplate.

Snap on Lutron multigang faceplate or multiple single faceplates.

Example: Lutron Four-Gang Faceplate



**Multigang Installation
Side Sections Removed,
Derating Required**

1. Determine the number of large and small controls required.

When ganging any combination of small and large controls, place all small controls on one end of the gang and all large controls on the other. Use the chart below to determine the size and maximum capacity of each control.

Switchbox Requirement Chart

| All Inside Sections Removed | Number of Small Controls | | | | | | | |
|-----------------------------|--------------------------|---|----|----|----|----|----|----|
| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | |
| Number of Large Controls | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 6 |
| 1 | 1 | 3 | 4 | 5 | 6 | 7 | 8 | 8 |
| 2 | 3 | 5 | 6 | 7 | 8 | 9 | 10 | 10 |
| 3 | 5 | 7 | 8 | 9 | 10 | 11 | 12 | 12 |
| 4 | 7 | 9 | 10 | 11 | 12 | 13 | 14 | 14 |

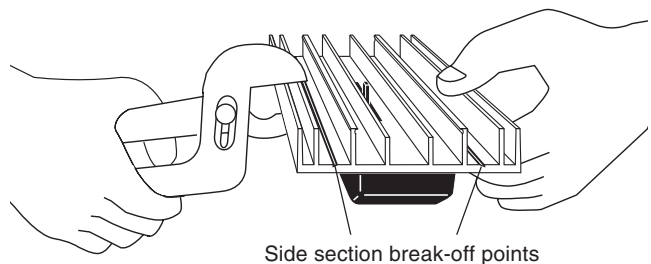
2. Derating is necessary when side sections are removed.

Capacity Derating Chart

| Model No. | Maximum Capacity (No side sections removed) | Maximum Capacity (one side section removed) | Maximum Capacity (two side sections removed) |
|-----------|---|---|--|
| NFS-6E | 6A | 5.5A | 5A |
| NFS-12E | 12A | 11A | 10A |

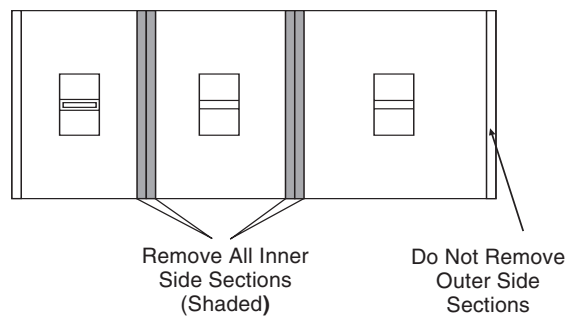
3. Remove inner side sections.

Using pliers, bend side sections down as far as you can and then bend back to original position. Side sections will break off easily.



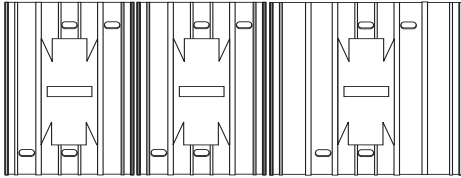
Note: When removing side sections, remove only inner side sections. **Do not remove side sections on outer ends of the gang.**

Example:



4. Assemble the controls.

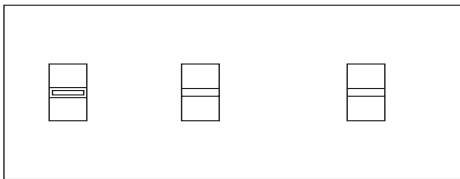
Use the center mounting holes as shown below. Allow a 1/32" space between controls for ease in attaching the faceplate.



5. Attach Faceplate.

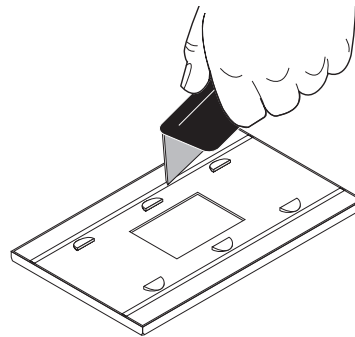
Snap on Lutron multigang faceplate or multiple single faceplates. Note: Single faceplates will need to be cut when used on controls with side sections removed (see "Faceplate Cutting" at right).

Example:



Faceplate Cutting

Some faceplates will need to be cut if removing side sections of dimmers and not using a multigang faceplate. Position faceplate on a soft cloth face down. Press firmly and score the groove on the back of faceplate with a razor-sharp knife, using vertical side groove to keep knife on straight course (see Figure H). Bend section back and forth to break it off. Smooth edges by placing fine-grained sandpaper on a flat surface and rub edge of the faceplate over the sandpaper a few times. Hold faceplate steady as you rub to keep a true edge.



Multigang faceplates, which eliminate the need to cut individual faceplates, are available from Lutron in a variety of colors to simplify and beautify your installation.

Worldwide Technical and Sales Assistance

If you have questions concerning the installation or operation of this product, call the **Lutron Technical Assistance Hotline**. Please provide exact model number when calling.

(800) 523-9466 (U.S.A., Canada, and the Caribbean)

Other countries call (610) 282-3800

Fax (610) 282-3090

Warranty

Lutron will, at its option, repair or replace any unit that is defective in materials or manufacture within one year after purchase. For warranty service, return unit to place of purchase or mail to Lutron at 7200 Suter Rd., Coopersburg, PA 18036-1299 postage prepaid. This warranty is in lieu of all other warranties, express or implied, and the implied warranty of merchantability is limited to one year from purchase. This warranty does not cover the cost of installation, removal or reinstallation, or damage resulting from misuse, abuse, or damage from improper wiring or installation. This warranty does not cover incidental or consequential damages. This warranty gives you specific legal rights, and you may have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitation on how long an implied warranty may last, so the above limitations may not apply to you.

LUTRON®

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