

# How to Install a Sub Panel

Sometimes the main electrical panel of a home can become too full. In such instances, continuing to add additional circuitry is not advisable, or worse yet not allowed by law. Instead, it will be necessary to install a sub panel that can handle the additional circuitry. While many homeowners will rightfully turn to electrical professionals to install the sub panel, others will attempt the installation themselves. The choice is ultimately likely to be driven by state law. In any case, the installed sub panel will be required to meet established electrical standards. These steps will guide you through the installation process.

## Preparing to Mount the Sub Panel

### Step 1

Decide how to approach the job. Planning is an essential step in this process. Failure to plan it out thoughtfully and fully could result in a sub panel that doesn't work properly or doesn't meet the established procedures.

### Step 2

Refer to state established electrical standards. In some states, a job like this may require the services of a professional in the electrical field. In any case, it is important to know the minimum standards to which the sub panel must work.

### Step 3

Make certain that you have all of the materials, equipment and tools necessary to do the job. It may be virtually impossible to stop mid-stream in order to purchase additional items.

### Step 4

Set up good lighting in the area where the sub panel is to be installed. It is imperative that you are able to see the smallest details of the wiring and circuitry. If necessary, set up additional lamps to ensure proper lighting. However, be certain that they are set up in a manner that will not impede the installation process.

### Step 5

Determine exactly where to install the sub panel. While many will install it in the same general area as the original panel, that is not always necessary.

### Step 6

Get the new sub panel ready for mounting. In most instances, it is recommended that you remove any covers, doors or partitions that might obstruct the installation of the sub panel.

### Step 7

Mount a backboard of plywood for the sub panel if one doesn't already exist. A mounting board may already be in place if you are mounting the sub panel in the same area as the original panel. However, that may not be the case if you are mounting the sub panel in a different place. Mounting board requirements may be established by state standards in some instances. However, in most cases, one need only follow standard electrical practices.

## **Installing the Sub Panel**

### **Step 1**

Mount the sub panel within the area marked for that purpose. Use the installation instructions provided with the sub panel or provided by the retailer where the materials were purchased. Be sure to use mounting materials that are sufficiently strong to hold the new panel in place securely. Also be certain to use enough screws to hold the panel into place properly. Four to eight screws are standard.

### **Step 2**

Install the breaker panel for the sub panel and connect it to the main panel. Be sure to follow all appropriate electrical standards.

### **Step 3**

Pull one or more sub feed cables from the main panel and reroute them to the sub panel as desired. Be certain to keep in mind the sizes and lengths of the cables, keeping everything within acceptable electrical standards.

### **Step 4**

Install new sub feeds to the new panel through the breaker in the same way that any device might be attached to the main panel.

### **Step 5**

Connect the branch circuits to the sub panel following standard electrical standards.

### **Step 6**

Complete any additional wiring changes necessary, whether they are new wires being connected for the first time or old ones that are being rerouted from the main panel.

### **Step 7**

Test to make sure that everything is working properly. If not, call in a electrician rather than risk burning out either panel.

### **Step 8**

Get the final electrical work inspected according to state standards.

Source: <http://electrical-all.blogspot.in/2010/06/how-to-install-sub-panel.html>