

VidaBox 12.1" TOUCH™ Panel Installation Guide

Wiring and Preparation

The TOUCH™ Panel is a touch screen LCD, and is connected to a host VidaBox server, either directly with standard VGA and USB cables, or with CAT5 cable when using the optional extenders (See below).

Dimensions - Mounting box (inches) 11 9/16 x 9 7/8 x 3 1/2. Bezel (inches) 13 x 10 1/2 x 1/8.

Direct Connect Cables - The maximum distance between the host VidaBox server and TOUCH™ Panel depends upon the quality of the VGA cables, but a general rule is 25 ft. when using a single VGA cable. You will need a VGA cable with Male connectors (e.g. with pins) at both ends. Longer distances are possible when using VGA boosters at the VidaBox end.

For USB, Active USB extender cables, typically 14 ft. long, can be connected in series up to about 70 ft. The only issue with connecting Active USB extender cables is to make sure the connections are secured together before routing through the wall. For both cables, leave about 2-3 feet of extra cable coming through the rough-in enclosure. This allows you to remove the LCD while still connected to the VGA cable for adjustment purposes.

CAT5 Cable Connection - When using the optional CAT5 extender, a single CAT5 cable is needed to connect the VGA and USB signals from TOUCH™ Panel to the VidaBox server. This is a dedicated CAT5 cable and not part of the ethernet network.

CAT5e or CAT6 is recommended. We also recommend running 2 CAT5 cables to the TOUCH™ Panel rough-in enclosure for redundancy and future expansion.

Power Supply Wiring – The TOUCH™ Panel is available with either a DC power supply, or an AC/DC power supply. Note: You should refer to your local building code for determining what type of wire to use and other wiring considerations.

DC Power Supply – The DC wall-mount kit is supplied with a standard 12vdc wall-type power supply. Beware that this DC power supply cannot be home-run over long distances. The DC voltage at the TOUCH™ Panel must be within +/- .5vdc, and since voltage drop occurs over long distances, the 12vdc power supply supplied with the product will not likely extend over any appreciable distance. However, it is possible for you to provide your own power supply with the correct voltage drop.

To determine what power supply and gauge of wire to use, you need to do a voltage drop calculation. One good source is: <http://www.currentsolutions.com/knowledge/vdrop.htm>

The power requirements of TOUCH™ Panel (at the LCD) are 12vdc (+/- .5vdc) and approx 2 amps. For example, at a distance of 250 ft. using 18 AWG, the voltage at the load drops from 15V to 11.8 at 2amps, which is within the voltage range requirements of the TOUCH™ Panel.

If you are using an extender such as the Gefen CAT5-1000 extender, the receiver (CAT5-1000R) is rated at 5-10 volts and 3 amps. The units are supplied with a UL approved 5 Volt, 3 amp plug-in power supply. We can supply the CAT5-1000R with a UL approved 12 Volt, 3 amp plug-in power supply. As an example calculation, a distance of 250 ft. using 18 AWG wire drops the voltage down to 7.19 volts, within the voltage range of the CAT5-1000R.

NOTE: You cannot use a single pair of wire for both TOUCH™ Panel AND an extender!

Short-distance DC Power Connectors - TOUCH™ Panel and an extender can be powered from a wall outlet or j-box near the mounting location using the included plug-in power supplies. They can even be extended a short distance with 18 AWG wire without a noticeable voltage drop. Just be sure to follow local codes when doing so.

AC/DC Power Supply – The wall-mount kit is also available with an AC/DC power supply that mounts inside the wallmount box. The power supply is an enclosed type power supply similar to a desktop computer, but smaller, and has the following independent ratings:

UL 60950-1 approved
TUV EN60950-1 approved
FCC/EN55022 Class B

The AC/DC power supply accepts 115-230 VAC, and outputs 12vdc at 2.1 amps. Installation of the AC/DC power supply must be performed by a qualified electrician.

Mounting Box Assembly

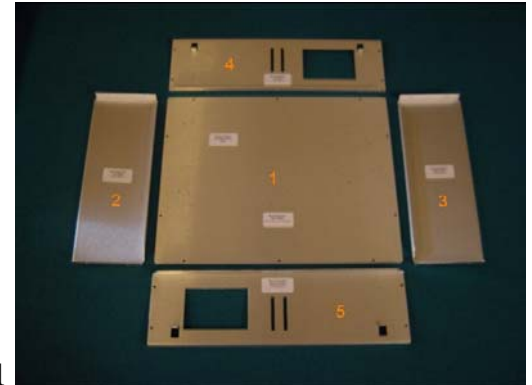
The mounting box for the TOUCH™ Panel is shipped unassembled. Assembly is easy & will only take a few minutes. The mounting box consists of 5 primary pieces, labeled as follows:

1. Mounting Box Back Plate
2. Mounting Box Left Side
3. Mounting Box Right Side
4. Mounting Box Top Side
5. Mounting Box Bottom Side

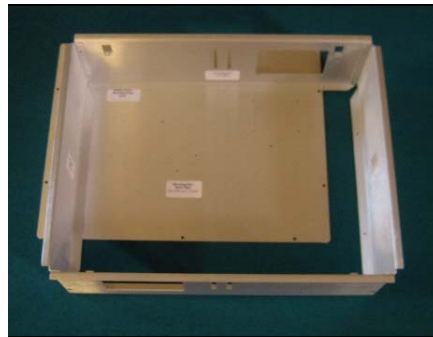
Lay the pieces out as shown in figure 1.
Use the screws labeled Mounting Box Screws.

Stand each of the side pieces up to fit together & secure with the **side** screws first, as shown in figures 2 & 3.

Lastly, flip all pieces over and attach the back plate to the sides using the remaining screws, as shown in figure 4.



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Mounting Box Installation

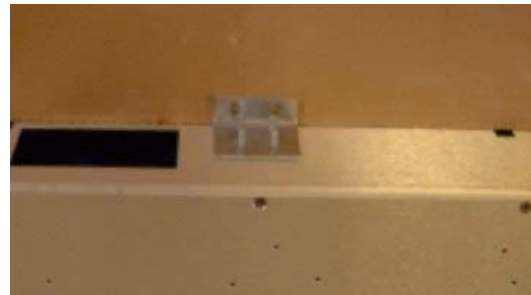
For best results, the assembled mounting box should be installed after drywall is in place. The included brackets provide a tight fit in drywall, without the need to be mounted to a stud. By cutting an opening after the drywall is in, you will have cleanest possible cutout. Installing drywall around the rough-in enclosure will produce less desirable results.

1. For positioning purposes, cut a cardboard or thick paper template to 12 3/8" wide and 9 7/8" high, and thumb-tack or tape to the wall at approximately 55" from the floor to the bottom of the template. This is used for height-positioning only, and not for making the final cut. Try some "practice touches" at that height, but walking up to the template, pausing, and touching a few areas on the template. Use this testing technique to position the template in the desired location. Have all family members that will use the touch screen do the same, until a desirable location and height is agreed upon.
2. Mark the top and sides of the desired location, then remove the template
3. Using a square and level, redraw an opening that is exactly 12 3/8" wide and 9 7/8" high in the desired location.
4. Use a straight-edge knife and the square to score the lines (do not use a drywall saw). Continue scoring the lines until the drywall is cut out and you have a clean opening.
5. Place the rough-in enclosure in the opening and pull all cables through the large openings. If using the AC/DC power supply, it is recommended to pull the AC wire from the top, and your other cables from the bottom, or vice-a-versa.

The mounting box is secured to the drywall using the two drywall brackets provided. These brackets install on the outside of the box, top and bottom, and behind the drywall. They "clamp" the box to the drywall, as shown in figures 5 and 6 below:



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The included brackets provide a tight fit in drywall, without the need to be mounted to a stud. To install the drywall brackets:

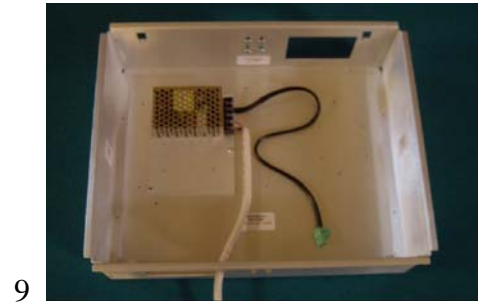
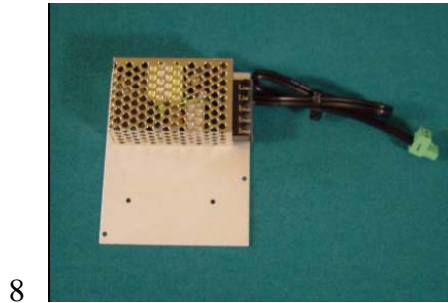
1. Reach into the top opening and align the bracket over the sliding screw holes, with the right angle facing forward, and add 4 screws from inside of the enclosure.
2. Before tightening the screws, secure the bracket as far forward as possible, clamping it to the back of the drywall.
3. Repeat the process for the bottom, being careful not to drop the bracket into the wall space (we recommend tying a string to one of the openings on the bracket).
4. Do not allow drywall compound or putty to contact the exposed sides of the enclosure.

AC/DC Power Supply Installation

If you have ordered the AC/DC power supply kit, the next step is to assemble and install the power supply. The kit contains a power supply plate, the AC to DC power supply and a bag of screws labeled **AC Power Supply Screws**, as shown in figure 7. The DC side of the power supply includes a cable to power the product.

To assemble the AC/DC power supply:

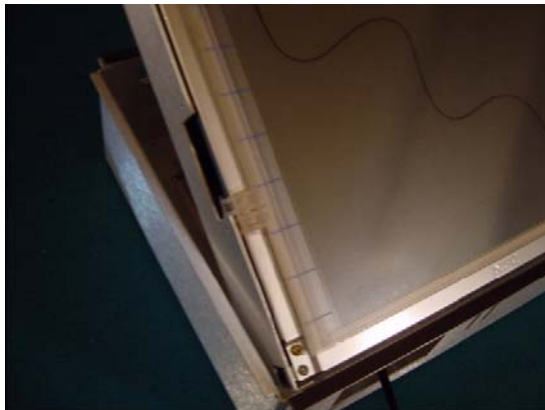
1. Using the two beveled screws from the bag, attach the power supply as shown in figure 8.
2. Connect your high-voltage wire to the power supply terminals marked L and N (either polarity), and the ground wire to the middle terminal.
3. Lastly, attach the assembled power supply plate to the mounting box as shown in figure 9.



LCD Tray Installation

The TOUCH™ Panel LCD tray assembly is attached to the mounting box with four 1.25" 4.40 screws. To mount the LCD tray in the mounting box:

1. Attach the cables to the back of the LCD tray. For the TOUCH™ Panel, this includes DC power (either from the AC/DC power supply, or from the DC only power supply), and the VGA and USB cables.
2. Tilt the LCD tray in bottom first and align with the tray mounting holes, as shown in figure 10.
3. Continue tilting the tray into the mounting box until it is flush against all 4 tray mounting holes.
4. Attach the bezel to the front as shown in figure 11.



LCD Display Adjustment

The TOUCH™ Panel uses a new LCD controller card that contains an auto adjust feature. The LCD will attempt to adjust to the display settings of its host computer. If manual adjustments need to be made, you can use the LCD adjustment buttons on the back of the LCD.