

N8WTS

Fanless Inwall Touch Screen PC

User's Manual



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Safety Instructions

1. Always read the safety instructions carefully.
2. Keep this User's Manual for future reference.
3. Keep this equipment away from humidity.
4. Lay this equipment on a reliable flat surface during initial configuration.
5. The openings on the case are for air convection hence they help protect the equipment from overheating. **DO NOT COVER THE OPENINGS.**
6. Make sure the voltage of the power source to be used with the N8WTS is between 90-264VAC.
7. Follow all precautions listed on the *Temporary Power Cord* reference sheet included with the N8WTS.
8. It is recommended to disconnect the power source before inserting any add-on card or module.
9. All cautions and warnings on the equipment should be noted.
10. When cleaning screen or bezel never apply fluids of any kind directly onto the unit. See Maintenance section of this manual. Never pour any liquid into the openings. Liquid can cause damage or electrical shock.
11. If any of the following situations arise, get the equipment checked by Nobu service personnel:
 - The power terminal is damaged
 - Liquid has penetrated into the equipment
 - The equipment has been exposed to significant moisture
 - The equipment is not functioning properly according to the User's Manual.
 - The equipment has been dropped and/or damaged
 - If the equipment has obvious signs of damage
12. Do not leave this equipment in an environment unconditioned such as in temperatures above 60° C (140°F), it may damage the equipment.

Package Contents

- 1 x N8WTS Inwall Touchscreen PC
- 1 x RFKT8 Mounting Bracket
- 1 x Temporary Power Cord
- 1 x Mounting Screws
- 1 x Software License COA (Certificate of Authenticity)
- 1 x CD - N8WTS User's Manual & Driver Utilities CD

If any of these items are missing or damaged upon delivery, please contact your distributor or sales representative immediately.

Temporary Power Cord

The included power cable is for configuring the NOBU Touchscreen PC prior to installation only. The installation of this NOBU unit should be performed by a licensed/certified electrician.

CAUTION:

The cable consists of (3) 18 gauge wires stripped ½” from end. Connect the wires to the corresponding terminals inside the power compartment on the PC **BEFORE** plugging the cord into a live outlet. Unplug the cord from outlet **BEFORE** removing the wires from the power terminals. **Please use extreme caution during this portion of setup.**

Black = **POWER**
White = **NEUTRAL**
Green = **GROUND**



Category	3 conductor plastic original equipment cords
Shielding	unshielded
Jacket Color	Grey
Length Feet	6'
Length Meters	1.83
Temperature Rating	60°C
Color Coding	North America
AWG Stranding	18 (41x34)
Nominal OD Inch	0.246
Nominal OD millimeter	6.25
Rating	1250 Watts, 10A-125V



Figure 1.3 Temporary Power Cord



Figure 1.35 Accessories (Shown with optional antenna)



Figure 1.36 Cable Strap

The N8WTS

The N8WTS is a fully functional inwall touchscreen PC with all the necessary input/output ports to control any subsystem or automation hardware in your home. The N8WTS has the following I/O ports as seen in Figure 1.2: USB 2.0, Ethernet 10/100Mb/s, Serial RS232, VGA Out, Compact Flash type I/II, PS/2 keyboard & mouse, and Audio line out/line in/mic.



Figure 1.1 I/O Ports

The unit comes preconfigured with Windows XP Professional or XP Embedded and all necessary drivers from the motherboard driver CD. For home control applications the user has the option to install their favorite flavor of home control software which will provide the custom, intuitive, button-type interface or interactive voice recognition for controlling the hardware within the home.

The N8WTS requires only a small amount of power. It is powered by an internal power supply with standard AC input wired directly to the unit with standard interior home grade 12 or 14-gauge wire (see Figure 5). The power supply is universal; it can accept 90-264VAC.

The unit does not need a dedicated circuit, special grounding, special ventilation, or any other special treatment except that it should be handled carefully and stay as dry as possible. The ventilation slots on the case should **not** be blocked or covered except by what is normally covered by the mounting bracket. The unit mounts flush to the wall with the exception of the slightly raised bezel which attaches to the face after installation.

N8WTS Features



Figure 1.2 - Front

Front

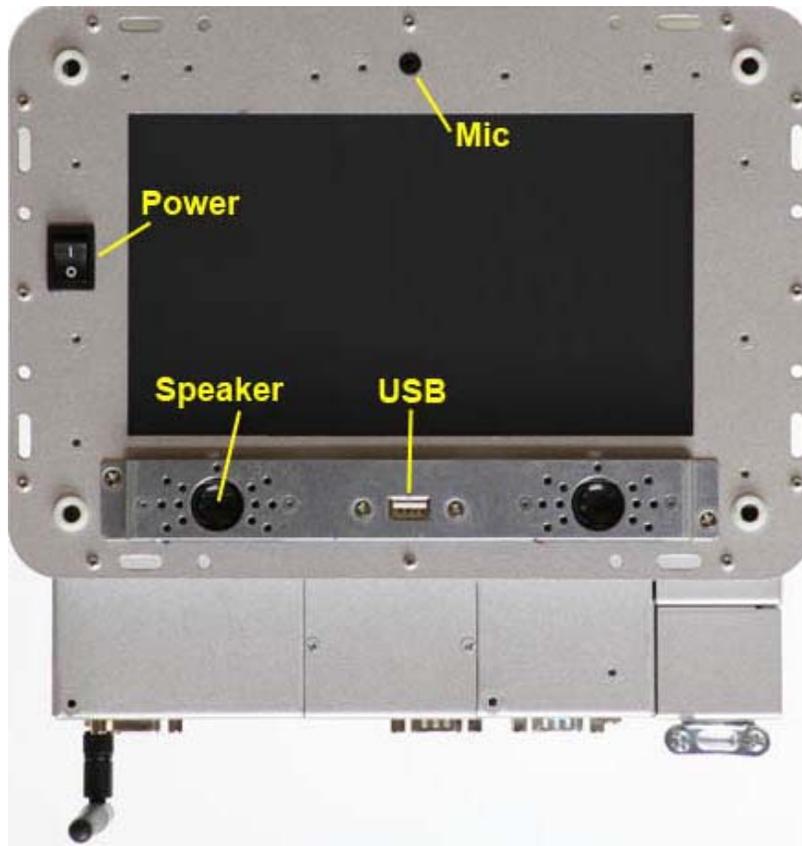


Figure 1.21 Front (Shown with optional antenna)

Bottom

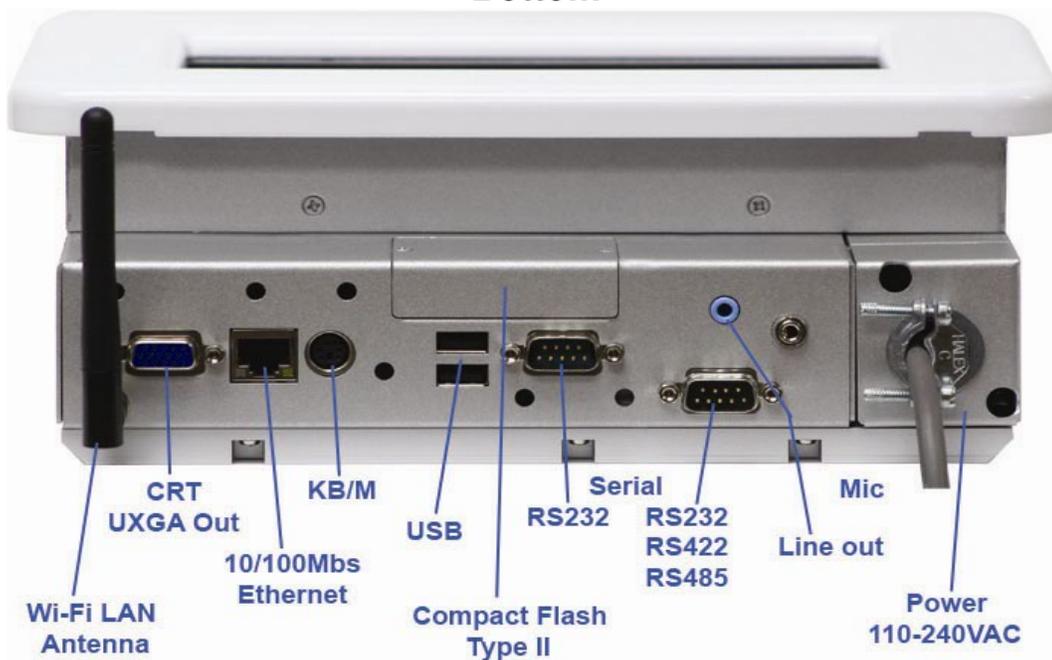


Figure 1.22 Bottom (Shown with optional antenna)

Side



Figure 1.23 Side (Shown with optional antenna)

Installation

WARNING:



The unit should be installed by a licensed electrician. Installation by anyone other than a licensed electrician will void the limited warranty.

There are some factors to consider when choosing a location for installation of the N8WTS. The unit should not be installed where it will receive direct sunlight during any portion of the day. A licensed electrician should determine an installation location that is feasible, legal, and safe to run power and other cabling to. The installation process is surprisingly simple. The N8WTS fits into any standard interior wall with a simple mounting bracket supplied with the unit.



Figure 1.3 Mounting Bracket

1) Install wall mount bracket.

A rectangular hole should be cut out of the wall corresponding to the size of the bracket. It is easiest to trace the **outer** diameter of the bracket with a pencil for proper sizing. **Pick a location where you know for certain that you can get power (inside the wall) to the N8.** Once the hole has been cut, slide the bracket into the wall opening. The bracket can be screwed onto a stud or can be secured by bending the numerous perforated metal tabs. The tabs are more than sufficient to secure the unit in place.

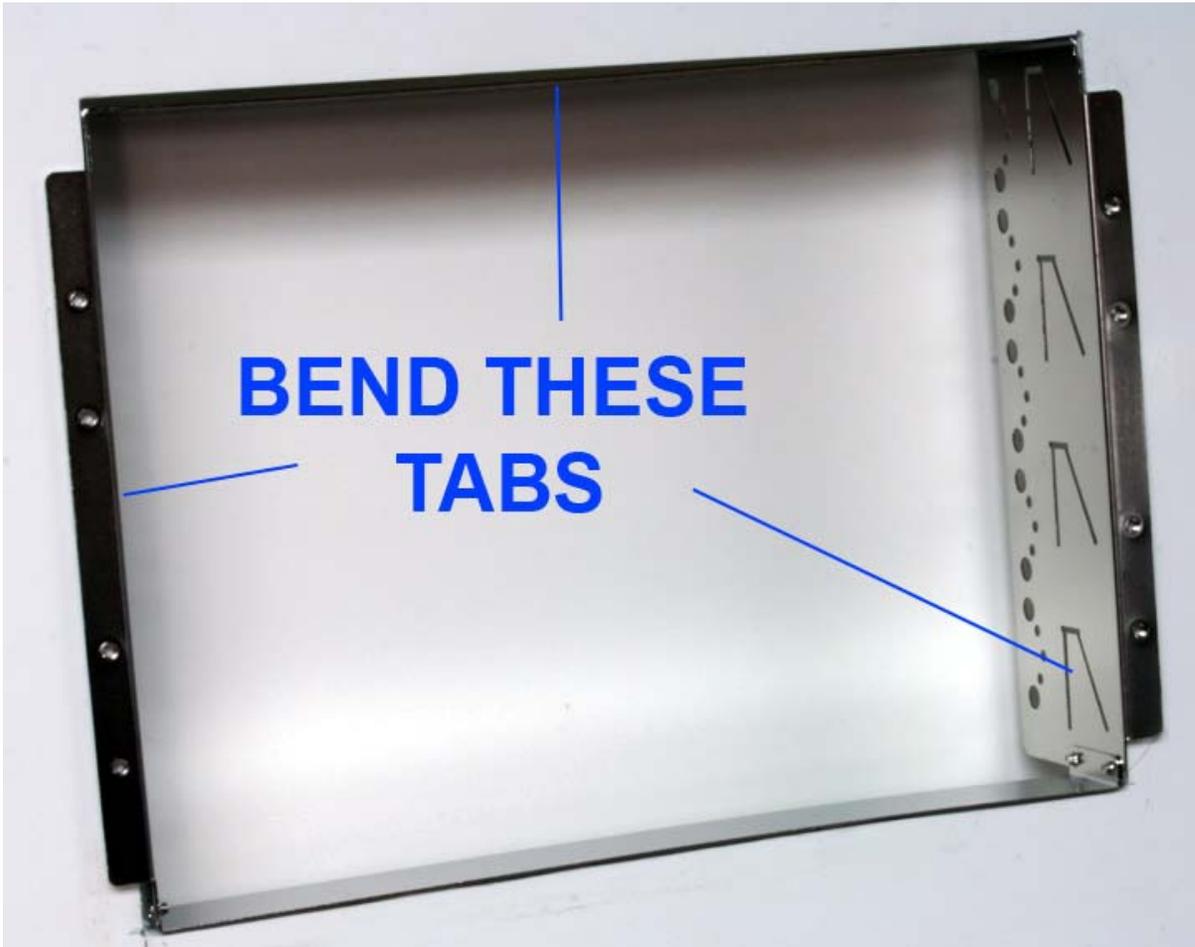


Figure 1.4

2) Remove power cover.



Figure 2 Use access holes to release screws.

CAUTION:



The power to the corresponding electrical circuit and/or all structural power should be safely turned off before connecting the 110/220v bare wire to the terminal block on the N8WTS (see Figure 5). Installation should be performed only by a licensed electrician. Installation by an unlicensed person will void the warranty.



Figure 3

- 3) Strip plastic jacket from Romex 1.25".
- 3b) Strip plastic jacket from HOT and Neutral wires 3/8".

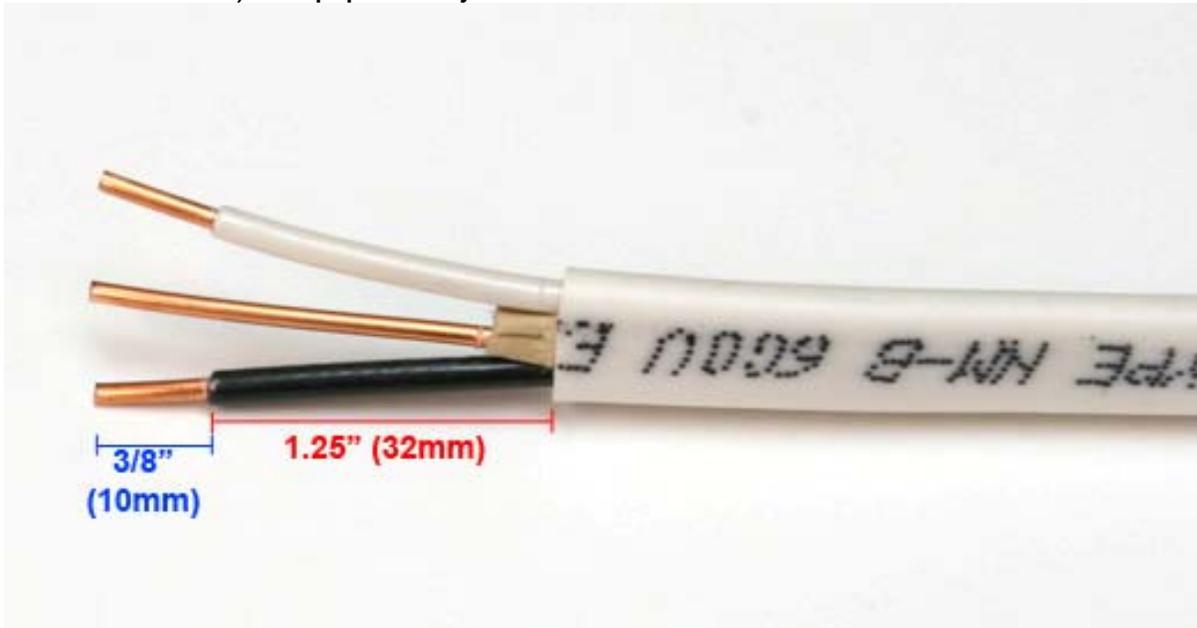


Figure 4 Prepare wiring as shown above.

- 4) Attached wires as shown.
P=Power, N=Neutral, G=Ground/Earth

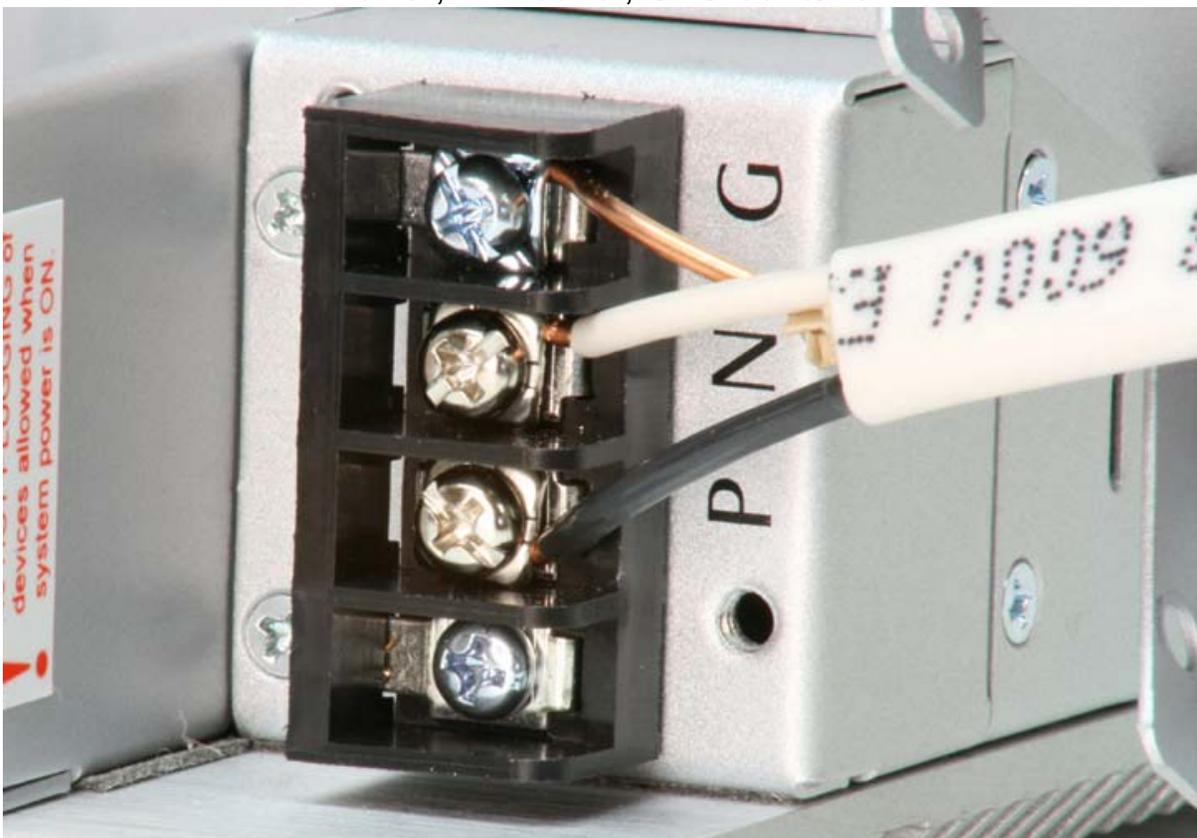


Figure 5

5) Slightly bend Romex into the shape shown below.

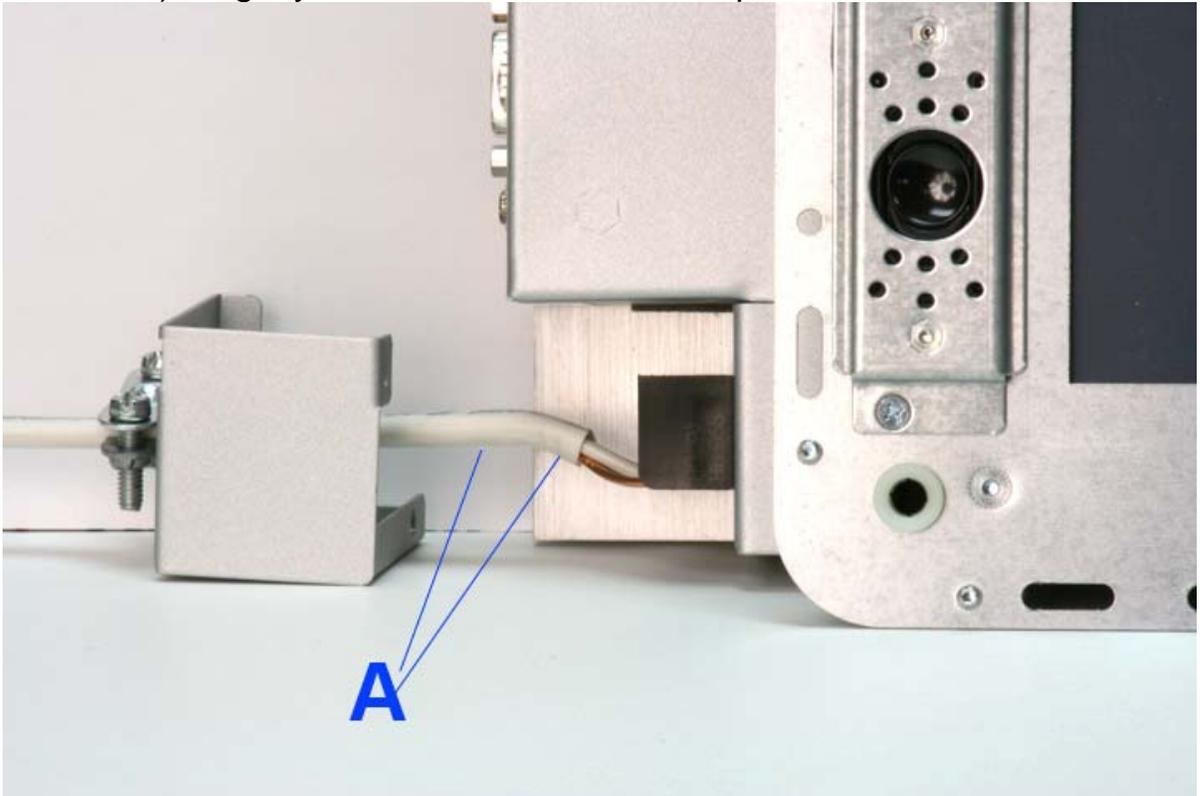


Figure 6 Romex is bent to accommodate power cover.

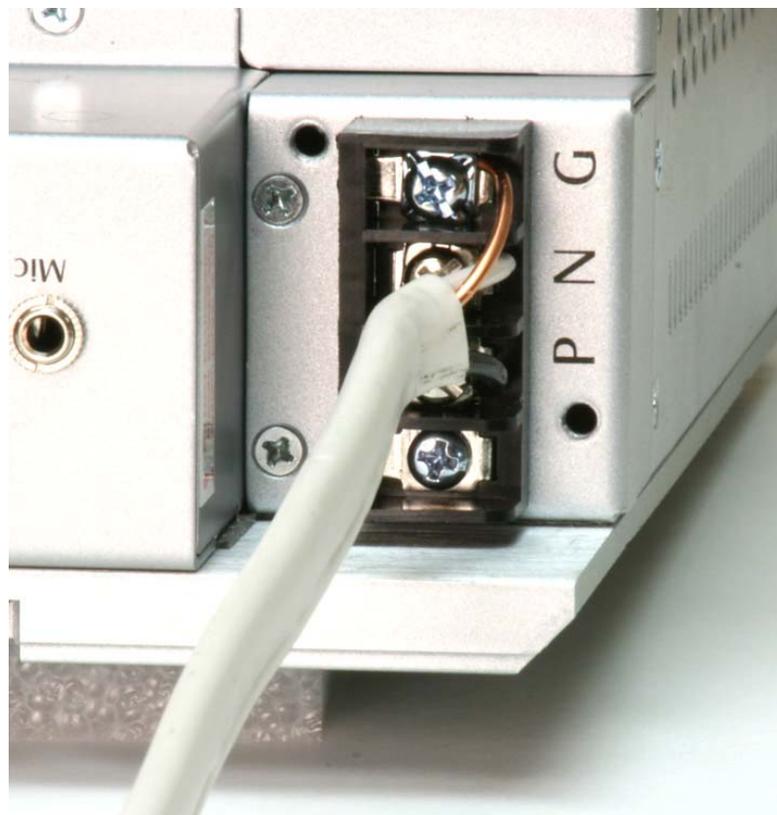


Figure 7 Romex is bent to accommodate power cover.

- 6) Position the N8 touchpanel with the power terminal facing up.
- Place the screws into their respective holes on the power cover as shown below.
 - Lower the power cover into position and tighten the 2 mounting screws.

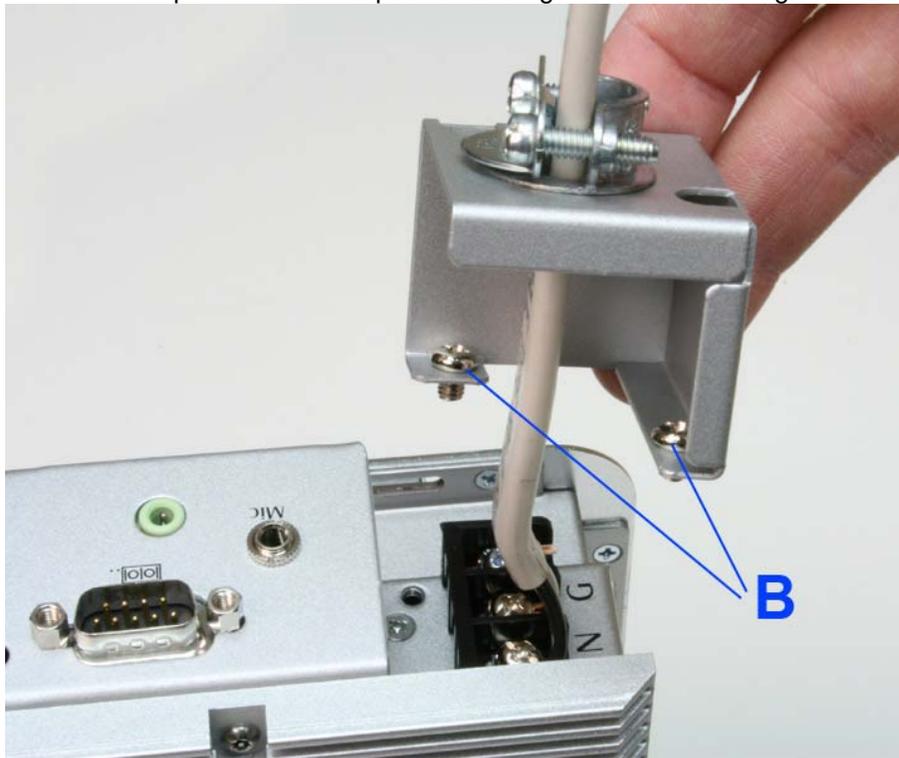


Figure 8



Figure 9 Perform this step with the power terminal facing up.

7) Tighten the 2-screw NM connector as shown below.



Figure 10

Once the power cable is secured, any necessary cables/modules should be connected to the N8WTS such as: Ethernet, microphone, USB wireless mouse/keyboard, serial connector, etc.

8) Insert N8 into wall



Figure 11

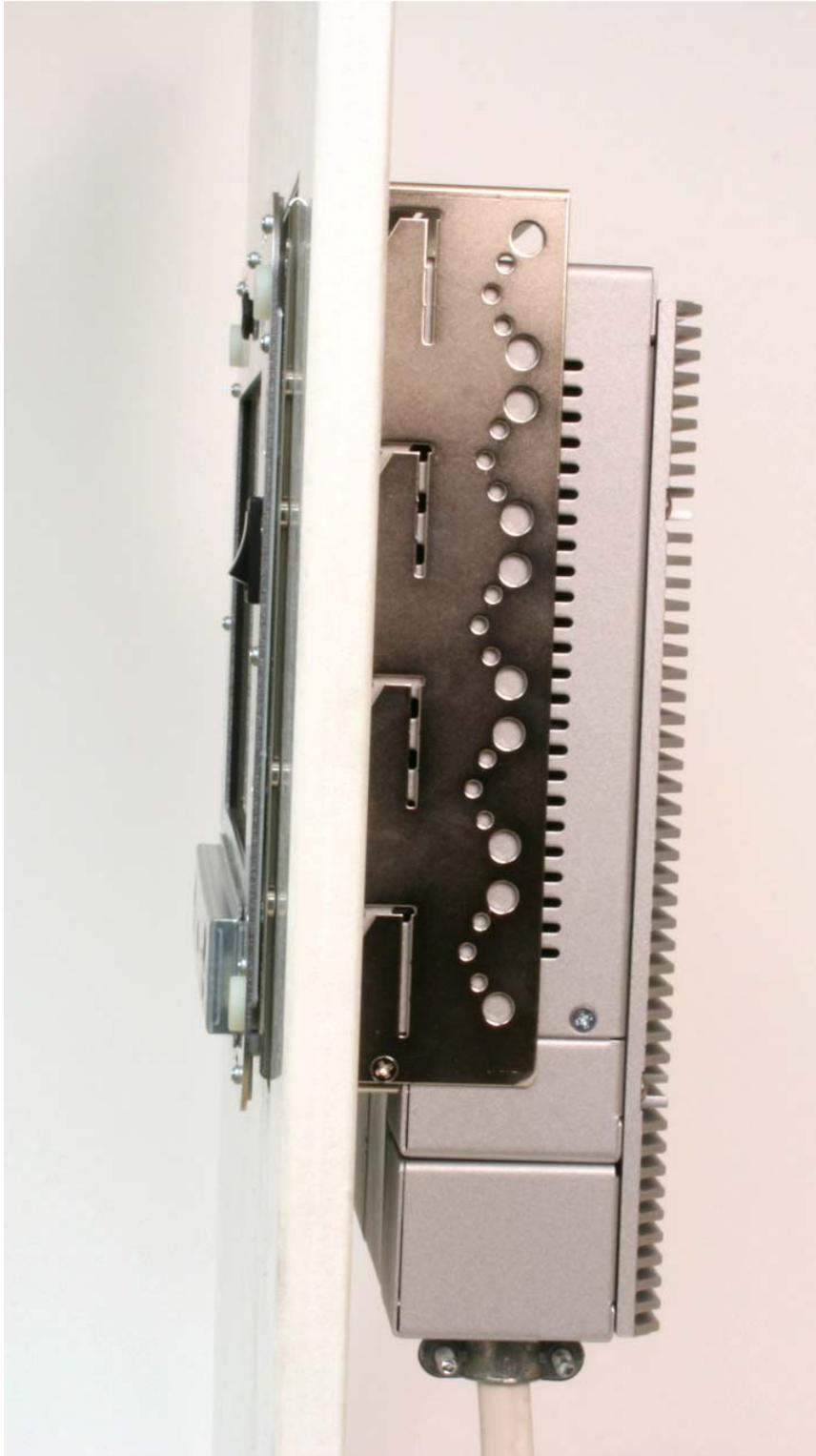


Figure 12 Side view of installed N8

9) Fasten 4 screws to secure N8 to mounting bracket



Figure 13

Once all of the necessary cables have been properly connected the N8WTS slides into the mounting bracket and should be securely attached to the bracket with the 4 small mounting screws provided. The bezel attaches to the front face of the unit last.

Finished Installation



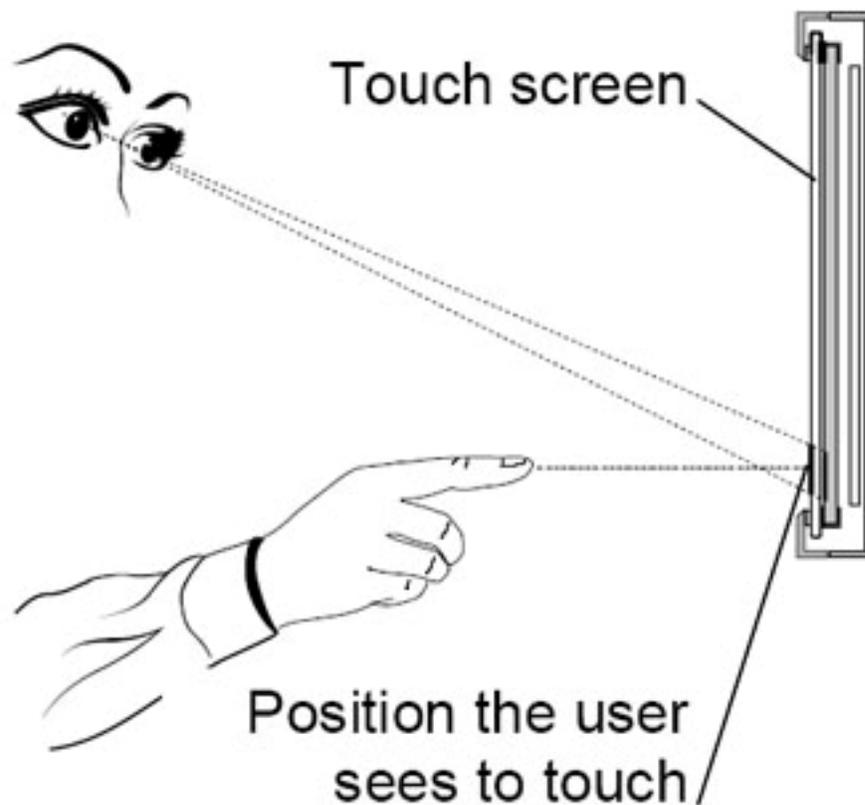
Figure 14 Finished installation

Touch Application Design:

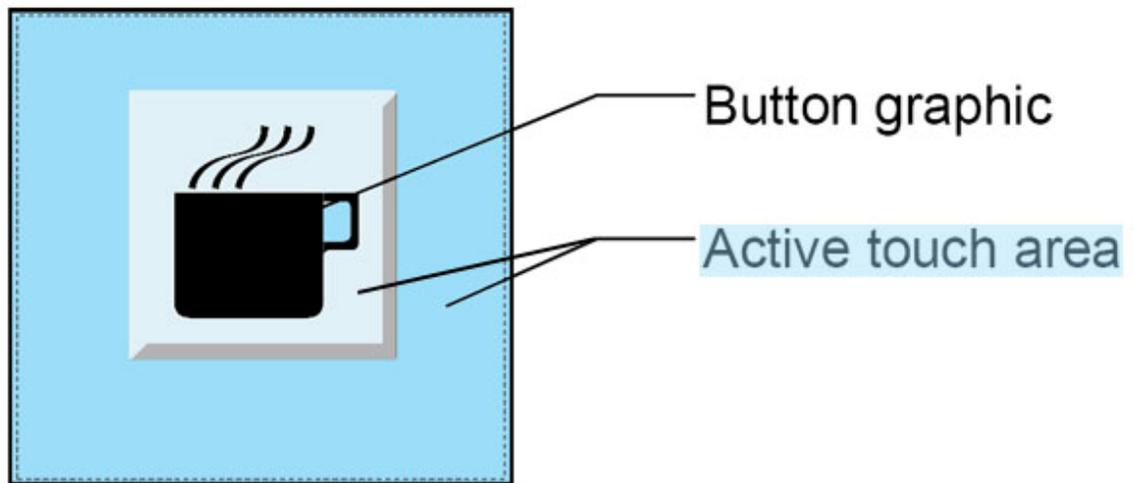
With any touch application, the design can be crucial to the usability of the final product. Clear icons, bright contrasting colors, large buttons, and simple layouts will go a long way towards the success of your installation.

Parallax, the effect of a target object appearing in different positions when looked at from different angles, is a common problem in touch applications.

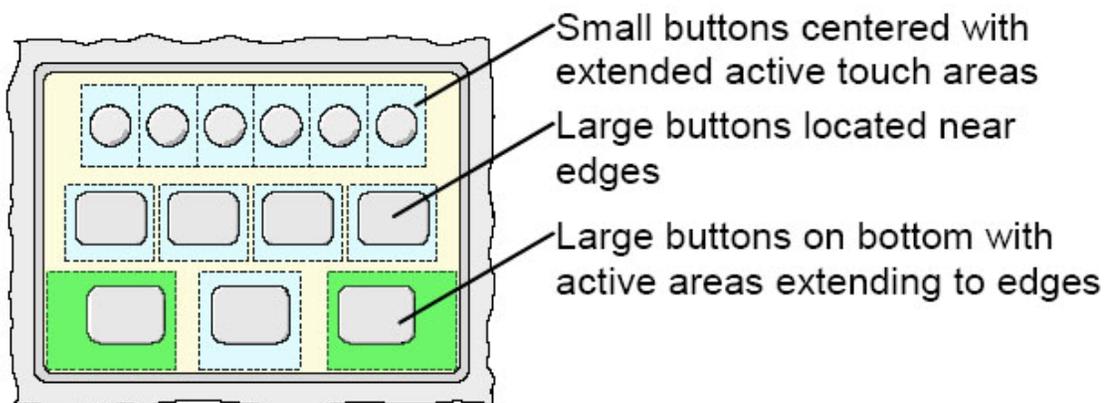
The combination of the touch screen in front of the display and differing heights of users can cause parallax. When designing your touch system software application, use the following guidelines to help reduce the effects of parallax.



- Design large buttons to facilitate touch. Remember that a fingertip is much larger than a cursor.



- Design larger active border areas for buttons. For example, if the button graphic is 1" X 1" the active touch area behind it could be 2" X 2". Also consider the target system's screen resolution when selecting graphics and sizing buttons.
- Keep buttons away from the edges and corners of the screen. If this is impossible, make sure the active touch areas extend to the outer edges of the viewing area.



- Place buttons horizontally whenever possible. One size does not fit all! Consider the varying heights of users when designing the application.

Maintenance

The N8WTS requires very little maintenance. From time to time it may be necessary to clean the screen or bezel.

Screen

The resistive touch screen includes a coating (Indium Tin Oxide on polyester substrate) on the front surface of the screen that is substantially harder and more abrasion-resistant than uncoated touch screens

Typically, isopropyl alcohol and water solution ratio of 50:50 is the best cleaning agent for your touch screen. You can also use straight isopropyl alcohol. As with any electronics, be sure to spray the cleaner onto a soft cloth and **NOT** directly onto the touch screen. It is important to avoid using any caustic chemicals on the touch screen. Be sure to follow solvent manufacturer's precautions and directions for use when using solvents.

Although the touchglass contains the above mentioned protective substances, the touchglass is **NOT** indestructible. It may still break and/or scratch if it is not treated with care and respect.

Bezel

The bezel can be very sensitive to chemical damage as well as scratches and dents. The bezel should be removed from the face of the unit before cleaning. The bezel should be cleaned with normal dish soap and water with a soft sponge..

Case

Over time some dust may collect on the case. The unit does not require cleaning maintenance but may be cleaned with compressed canned air or dusted with a light brush. The unit should be disconnected from any power source before cleaning.

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- Non-Nobu branded and Solution Provider Direct products and accessories.
- Products with missing or altered tamper-evident seals or serial numbers.
- Products for which Nobu has not received payment.

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- Servicing not authorized by Nobu.
- Usage that is not in accordance with product instructions.
- Failure to follow the product instructions or failure to perform preventive maintenance.
- Problems caused by using accessories, parts, or components not supplied by Nobu.

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