



IntelliTouch® Pool & Spa Control System MobileTouch® Wireless Controller



Installation and User's Guide

MobileTouch Wireless Controller kit contents

The following items are included in the MobileTouch Controller kit. If any items are missing please contact Technical Support.

- MobileTouch wireless controller
- AC/DC power adapter
- Cradle
- User's and Installation Guide (this manual)

Technical Support

Sanford, North Carolina (8 A.M. to 5 P.M. ET)

Moorpark, California (8 A.M. to 5 P.M. PT)

Phone: (800) 831-7133 - Fax: (800) 284-4151

Related manuals - Download the IntelliTouch User's Guide (P/N 520102) at: http://www.pentairpool.com/owners_manuals/controls_IntelliTouch_Pool_Spa_Cntrls_Instll_Guide.pdf



CAUTION: IMPORTANT BATTERY INFORMATION

- Danger of explosion if battery is incorrectly replaced.
- ONLY USE a Pentair Water Pool and Spa ("Pentair") replacement battery. Order Battery Replacement Kit (P/N 520815Z).
- **Rechargeable Lithium-ion battery disposal:** Unwanted lithium ion battery pack may be returned to your local recycling center or the manufacturer for disposal.
- Dispose of used batteries according to the manufacturer's instructions.
- Dismantling or opening the device (with the exception of the battery door) or case will void warranty and may possibly cause electric shock.



FCC Regulatory Safety Notice - This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Modifications not expressly approved by the party responsible for FCC compliance could void the user's authority to operate the equipment.



RF Exposure Requirements: This Device must **not** be co-located or operated in conjunction with any other antenna or transmitter.



IC Regulatory Notice

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

© 2011 Pentair Water Pool and Spa, Inc. All rights reserved.

1620 Hawkins Ave., Sanford, NC 27330 • (919) 566-8000

10951 West Los Angeles Ave., Moorpark, CA 93021 • (800) 553-5000

MobileTouch®, IntelliTouch® and Pentair Water Pool and Spa® are trademarks and/or registered trademarks of Pentair Water Pool and Spa, Inc. and/or its affiliated companies in the United States and/or other countries. Unless noted, names and brands of others that may be used in this document are not used to indicate an affiliation or endorsement between the proprietors of these names and brands and Pentair Water Pool and Spa, Inc. Those names and brands may be the trademarks or registered trademarks of those parties or others.

P/N 520886 - Rev B - 06/10/2011

Contents

| | |
|--|----|
| Charging the MobileTouch Wireless Controller | 2 |
| Setting up the MobileTouch Wireless Controller | 4 |
| MobileTouch Transceiver Antenna Location | 7 |
| Installing the MobileTouch Transceiver | 8 |
| Optional Serial COM Port Expansion Board | 13 |

MobileTouch Wireless Controller

The MobileTouch wireless controller provides the same functionality as the IntelliTouch Indoor Control Panel. It has an operating range of up to 300 ft. from the MobileTouch transceiver antenna (line of sight) which is typically located near the IntelliTouch load center. The optimum wireless transmit and receive range may be affected by physical obstructions, (especially those containing metal), weather conditions, and geographical features.

The MobileTouch controller screen is an LCD (liquid crystal display) which can be sensitive to sunlight. When exposed for extended periods the LCD screen will heat up and go black. If this happens, place the remote in a shaded area and allow the screen to cool down. Do not attempt to adjust the contrast or the screen will be unreadable when it eventually cools. When used outside, keep the remote covered or in a shaded area. Prolonged exposure to sunlight may permanently damage the unit.

⚠ WARNING! Do not plug in the AC adapter to a power source within five (5) feet of the pool and spa. Canadian installations require a minimum of (3) meters from pool water. Do not recharge outdoors. Only use Pentair approved AC adapter transformer.

The MobileTouch wireless controller is water resistant and can be exposed to temporary splashing or wet hands. However, the controller is not intended to be submersed. Remove unit immediately if it is dropped in the water or exposed to rain. Store the unit indoors in a dry environment. Be sure the gold charging contacts are dry before charging.

MobileTouch Wireless Controller (Previous Model)

The previous model of the MobileTouch wireless controller and Transceiver antenna cannot be used with the latest model of the MobileTouch wireless controller and Transceiver antenna. Both models cannot coexist in the same IntelliTouch system.

Charging the MobileTouch Wireless Controller

When you are not using the MobileTouch controller, place it in the cradle to recharge the battery. This allows the battery to be fully charged at all times.

To charge the MobileTouch controller battery

- Plug the AC adapter into an AC wall outlet.
- Insert the AC Adapter plug into the bottom of the cradle.
- Place the MobileTouch controller in the cradle.

***Note:** When the MobileTouch controller is placed in the cradle the display and backlight will be on. After five minutes the backlight will shut off. The MobileTouch unit and display are always on when seated in the cradle. To turn the backlight on, press any button.*

To use the MobileTouch wireless controller

1. Remove the MobileTouch wireless controller from the cradle. *Note: With AC power connected to the cradle, the MobileTouch controller can be used while seated in the cradle.*
2. Press the Power On/Off button (front lower right-side) to switch the unit on. The main screen is displayed. The LCD backlight will turn off in five minutes if not in use. The battery icon displays three solid bars, only when it's fully charged. *Note: The device can be used all day at full power with a complete battery charge (3 to 4 hours). If the MobileTouch is not being used for extended periods of time, press the Power On/Off switch to turn the controller off.*

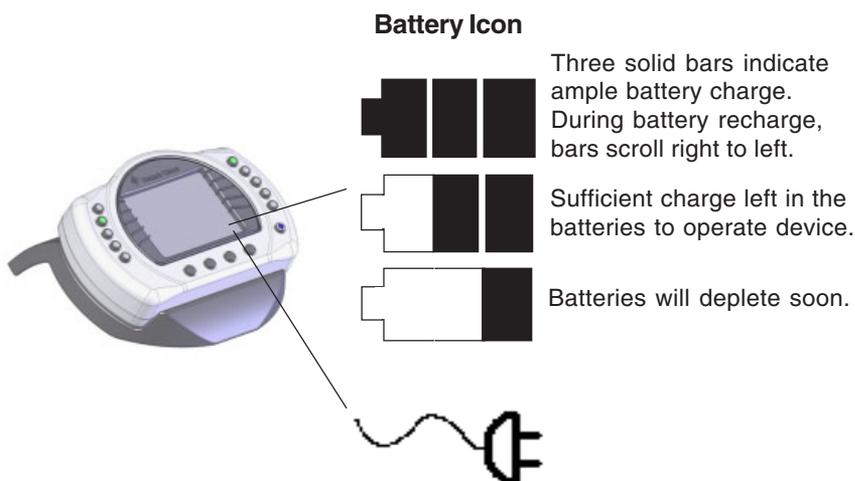


MobileTouch controller seated in cradle

Main Screen Check Battery Icon

The check battery icon is located in the lower right corner of the main screen. If the battery icon displays one or no bars or the screen is blank, this may indicate that the battery cannot power the device and needs recharging.

A complete battery charge takes about 3 to 4 hours. During battery recharge, the battery icon bars scroll from right to left. After a complete battery recharge, the battery icon is replaced with a **power plug icon**, indicating the battery is fully charged and is now operating on AC power from the cradle. *Note: If the battery requires replacement, only use Pentair replacement battery (P/N 520815Z).*



Power Plug Icon

The power plug icon displays when the battery is fully charged and the MobileTouch controller is operating on AC power supplied from cradle

Setting up the MobileTouch Wireless Controller

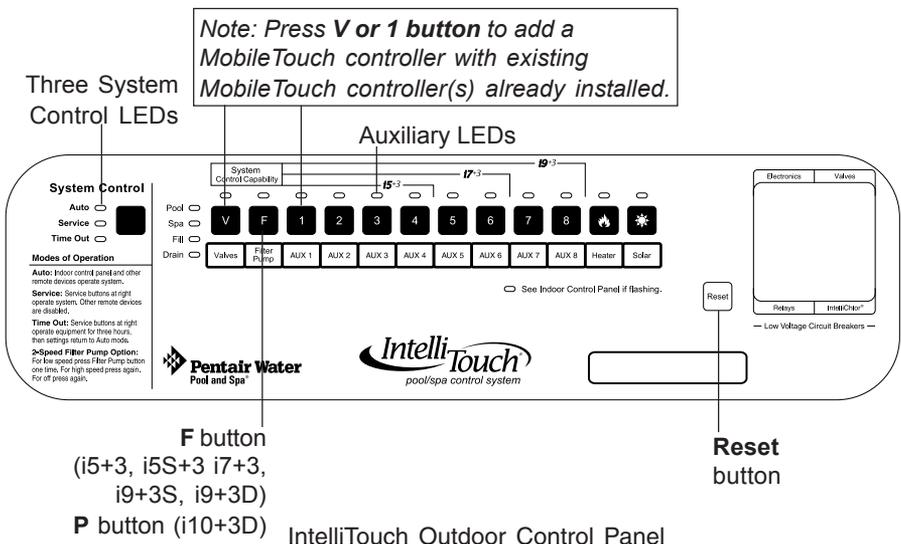
The following describes how to assign the MobileTouch wireless controller a communication address for the first time and to add a MobileTouch controller to a system with a MobileTouch controller already installed. After connecting the Transceiver cable to the IntelliTouch load center (see page 8), the system is ready to setup MobileTouch controller.

To manually setup the MobileTouch controller:

1. On the IntelliTouch Outdoor Control Panel, press the **Reset** button (see control panel illustration below).
2. **First Time MobileTouch install:** The three red **System Control** LEDs will be lit (solid). Wait a few seconds then press the **“F” Filter button**. For IntelliTouch model i10+3, press the **“P” Pool Filter Pump button**.

Add a MobileTouch with existing MobileTouch installed:
The three red **System Control** LEDs will be lit (solid). Wait a few seconds then press the **“V” button** or **“1” button**.

3. The three red **System Control LEDs** and the **auxiliary button LEDs** will begin cycling. *Wait until the LEDs stop cycling. The three System Control LEDs will start to blink on and off.* The IntelliTouch system is ready to assign an address for the MobileTouch wireless controller; continue with Step 4 on page 5. *See note on page 5 if using MobileTouch firmware version 1.160/2.160.*

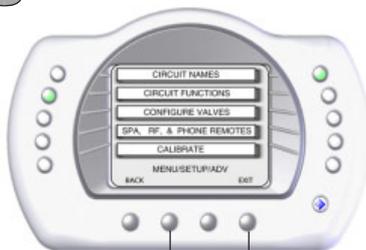


Setting up the MobileTouch Wireless Controller (continued)

Go to the Advanced screen.



- From the MobileTouch Advanced screen, press the lower **buttons 2 and 4 at the same time**. The Service Personnel screen is displayed.



Press button 2 and 4 at the same time to access the Service Personnel screen

- Press the button next to **LOCK ON ADDRESS** to access the next screen.



- Note:** Before pressing the "Lock On Address" move at least 20 to 30 feet away from the transceiver. Press the button next to **LOCK ON ADDRESS** to assign a unique frequency for the MobileTouch controller to avoid inference from other wireless devices within range of the MobileTouch transceiver.

Note: For MobileTouch firmware version 1.160/2.160: The "Lock On Address" line displays "MAN ADDRESS LOCK AUTO" - Press **AUTO** to lock on the address. If MobileTouch does not connect then use the MAN (manual) mode. You will notice on the IntelliTouch outdoor control panel there are three System Control LEDs flashing on and off. There are also two other LEDs going on and off. Watch these LEDs and you will see a pause, followed by one of the AUX 1 - 8 or Heater or solar LEDs flash on, then it goes off and a second LED will flash on. Then pause and repeat over and over. AUX 1 - 8 represent number 1 - 8, Heat = 9, and solar = 0. So if you see Pause, AUX 2, AUX 7, see Pause, AUX 2, AUX 7, etc. This indicates CHANNEL 27. The first LED is the 10's digit, the second LED is the ones digit.
Continue on next page.

Press MAN on the address lock line, a new screen will appear, displaying **ENTER LOCK CODE**. Use the LEFT and RIGHT buttons to decrease or increase the number (16 to 47). So in this example you would set it to 27. **Press SAVE**, you will return back to the prior screen. **Press the RESET button** on the outdoor control panel and your MobileTouch is ready to use. If the MobileTouch is not connecting check your wiring connections.



7. After selecting “Lock On Address” the MobileTouch controller is now ready to operate the IntelliTouch system. The “Service Personnel” screen will be displayed.
8. Press **Exit** to return to the main screen or proceed with **Step 9** if you are adding another MobileTouch controller while the IntelliTouch outdoor control panel LEDs are flashing.
9. **To add another MobileTouch controller at this time**, repeat Steps 4 (page 5) through 8 for each controller, if not, continue with Step 10.
10. Return to the Load Center or Power Center. The System Control LEDs will be flashing. Press the **Reset** button. When the “Auto” LED is illuminated the process is complete and the system is ready for operation.

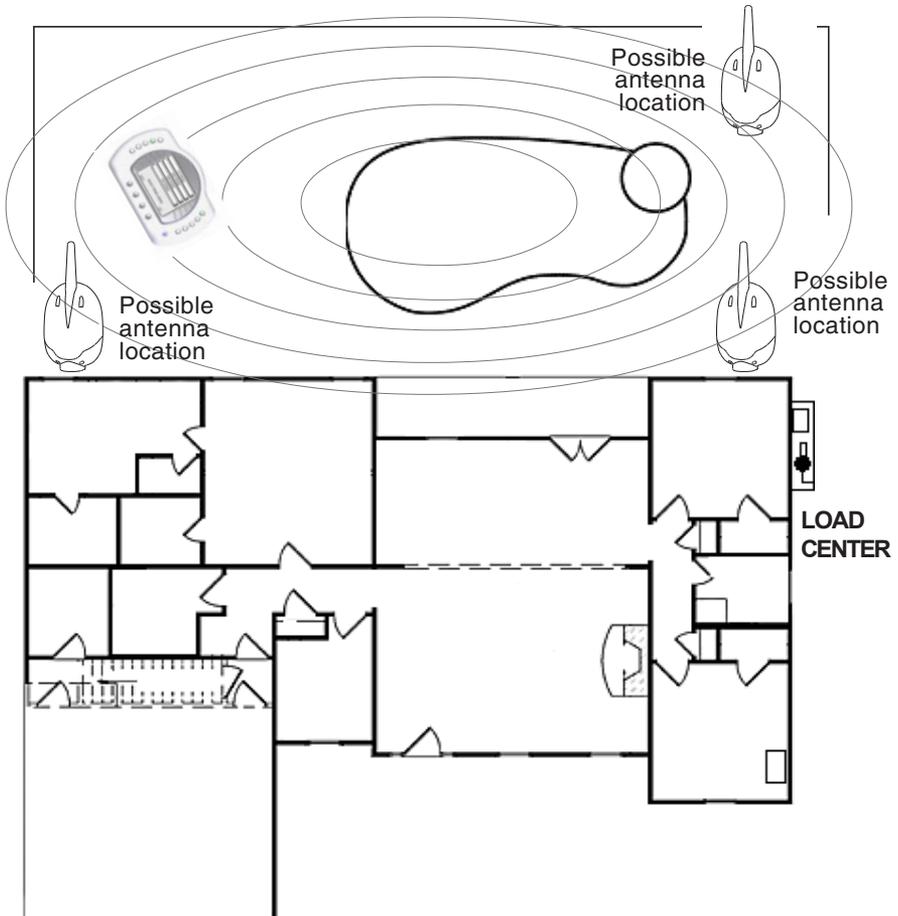
MobileTouch Transceiver Antenna Location

The Transceiver optimum wireless transmit and receive range may be affected by physical obstructions, (especially those containing metal), weather conditions, and geographical features.

The MobileTouch controller has an operating range of up to 500 ft. (line-of-sight) from the MobileTouch Transceiver. The Transceiver kit includes a 10 ft. connection cable. If needed, using extra cable, the cable length can be lengthened to 300 ft. The recommended locations for the Transceiver are shown below.

Recommended locations for Transceiver Antenna

Note: Only one MobileTouch controller Transceiver can be used per IntelliTouch system.

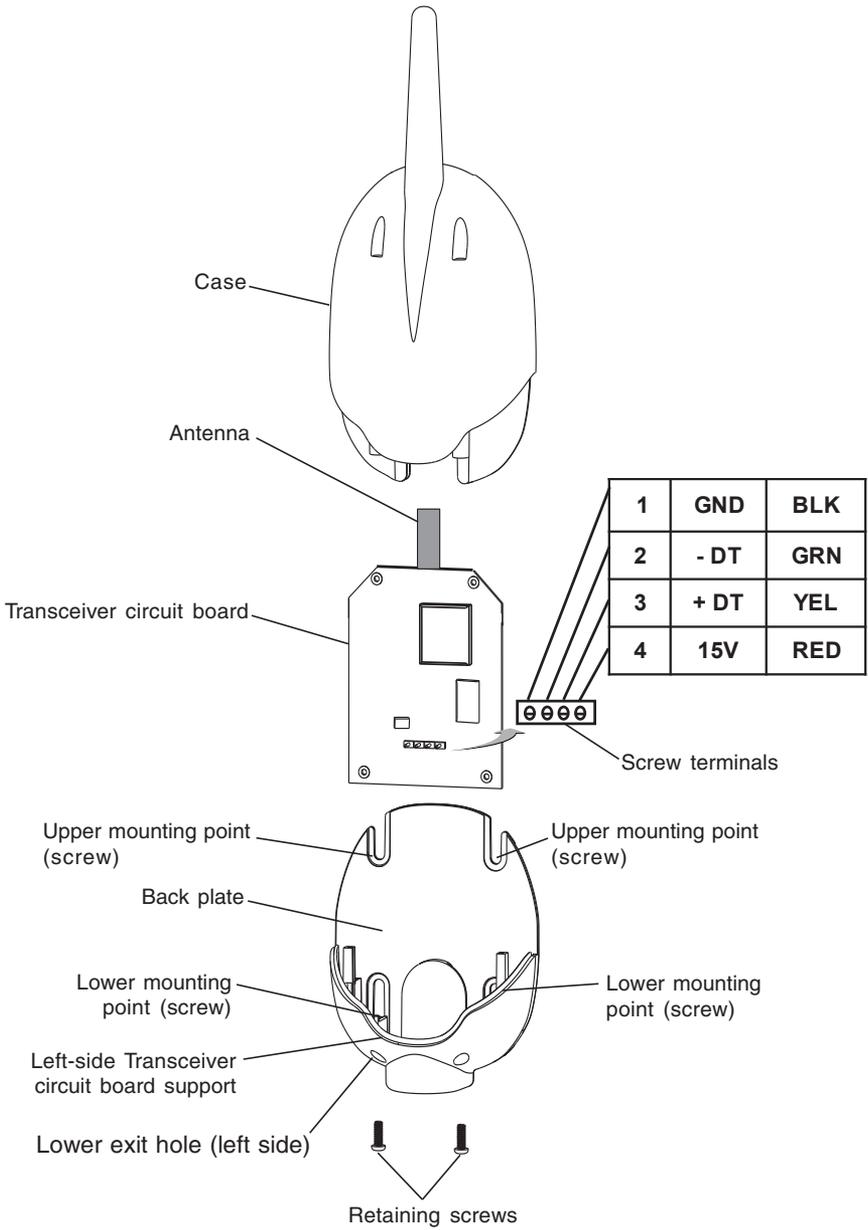


Installing the MobileTouch Transceiver

The MobileTouch controller has an operating range of up to 500 ft. (line-of-sight) from the MobileTouch Transceiver. The Transceiver kit includes a 10 ft. connection cable. If needed, using extra cable, the cable length can be lengthened to 300 ft. The recommended locations for the Transceiver are shown on page 7.

To install the Transceiver:

1. Choose an installation location for the Transceiver near the IntelliTouch load center.
2. Remove the two lower retaining screws from the Transceiver and slide the Transceiver case up to remove it from the back plate.
3. Remove the Transceiver circuit board from the back plate by carefully lifting it up out of the back plate supports. Place the circuit board on a clean dry surface away from direct sunlight.
4. Mount the Transceiver back plate (see page 9) onto a flat wooden surface, such as a wooden fence, or post. While holding the back plate, install two lower mounting screws through the back plate lower mounting holes. Tighten the screws to secure the back plate in place. Install two screws through the upper mounting holes.
5. Slide the Transceiver circuit board into the back plate into the board side supports.
6. Route the Transceiver cable up through the bottom of the back plate (see page 9) to the screw terminal connector.
7. Insert the four wires into the screw terminals of the Transceiver connector. Using a small flat-blade screwdriver, secure the wires with the screws. Make sure to match the color coding of the four wires (see page 12 for wiring diagram).
8. Carefully slide the case over the Transceiver antenna and secure it to the back plate with the two lower retaining screws.
9. **Proceed with “Connecting the Transceiver cable to the IntelliTouch Personality board” on page 10.**



Transceiver Module

Connecting the Transceiver cable to the Personality board



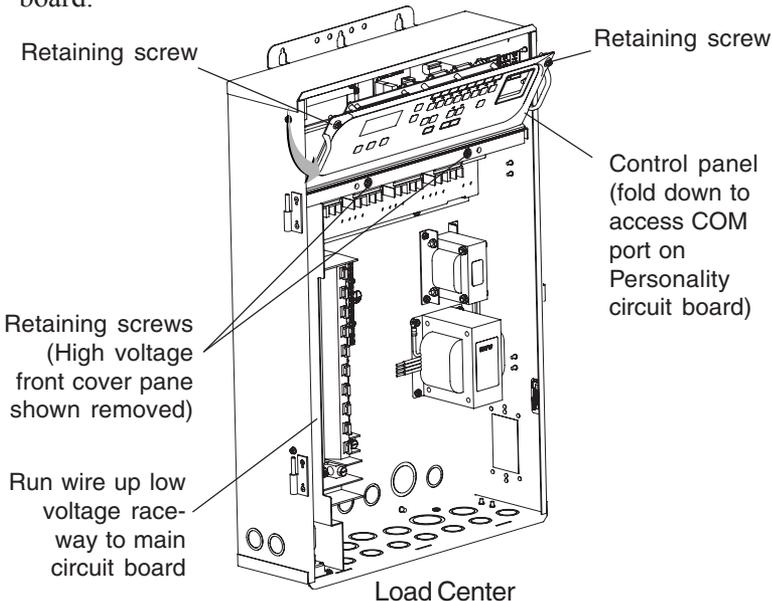
WARNING All electrical installation, including electrical wiring methods and materials used to complete the electrical installation of the IntelliTouch Pool/Spa control system **MUST BE PERFORMED BY A SERVICE PROFESSIONAL AND/OR UNDER DIRECT SUPERVISION OF A QUALIFIED ELECTRICIAN** in accordance with the National Electrical Code or the Canadian Electric Code, as well as any local electrical codes in effect at the time of installation. Refer to **NEC 680-21 (b)** or **CEC 687-060, 062, and 066** for further details.

1.



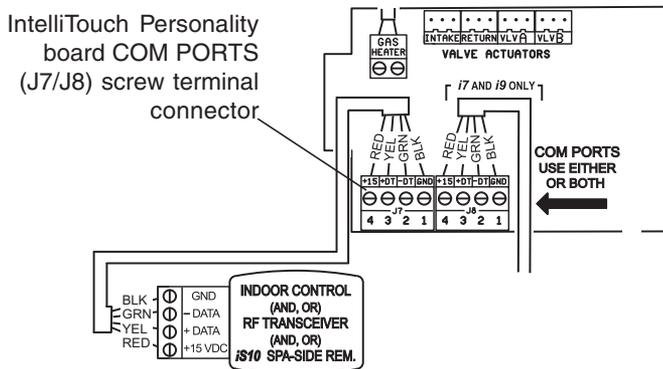
Switch OFF the power to the load center at the main circuit breaker before removing the High Voltage Cover Panel. Failure to do so could result in personal injury and/or death. Shorting wires may permanently damage unit. Close all panels and load center front door when remote installation is complete.

2. Unlatch the door spring latch and open the door.
3. Remove the two retaining screws securing the **HIGH VOLTAGE COVER PANEL**. Remove the panel from the enclosure (illustration below shows panel removed).
4. Loosen the two screws securing the control panel then fold down the panel.
5. Lower down the hinged control panel to access the Personality board.

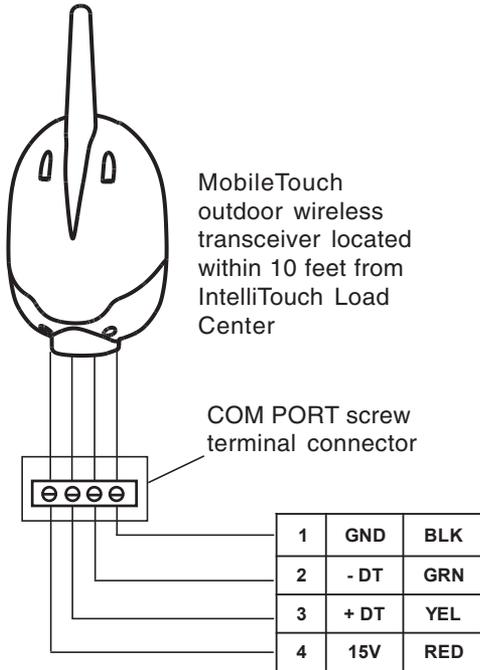


6. Insert the four-wire transceiver cable into the plastic grommet on the bottom of the enclosure and route the wire up through the low voltage raceway to the Personality circuit board.
7. Strip back the cable jacket one inch and the cable conductors ¼-inch.
8. Insert the wires into the either of the COM PORTS (J7 and J8) screw terminals located on the left side of the Personality board as shown below. Using a small flat-blade screwdriver, secure the wires with the screws. Make sure to match the color coding of the four wires as shown below. Multiple wires may be inserted into a single screw terminal.

| |
|----------------------|
| Pin 4 - Red = +15 |
| Pin 3 - Yellow = +DT |
| Pin 2 - Green = -DT |
| Pin 1 - Black = GND |



Note: If there are no available COM port terminals on the Personality circuit board, the optional load center Serial COM Port Expansion Board (P/N520818) provides additional COM ports.



Personality board COM PORT Pin configuration

9. After the connection has been completed, close the control panel into its original position and secure it with the two screws.
10. Close the IntelliTouch front panel and secure it with the two retaining screws.
11. Close the IntelliTouch Load Center front door. Fasten the door latch.
12. Switch the power on to the IntelliTouch Load Center.
13. Proceed to **“Setting up MobileTouch and IntelliTouch”** on page 4.

Notes



P/N 520886 - Rev B