IntelliTouch®
pool/spa control system

IntelliTouch® Pool & Spa Control System
MobileTouch® Wireless Controller

User's and Installation Guide

Pentair Water
Pool and Spa®
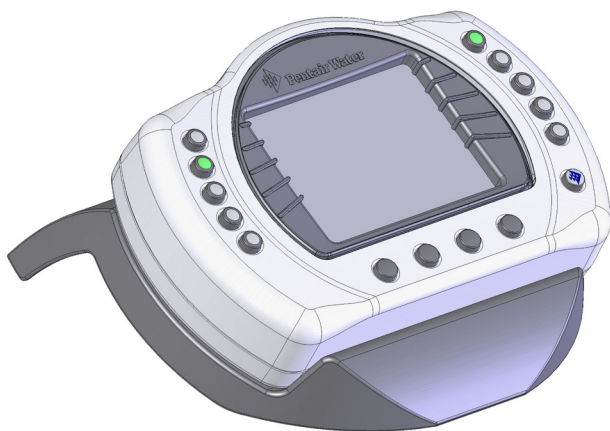
MobileTouch Wireless Controller kit contents

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.
- Replace battery with the same type recommended by Pentair. Use Pentair 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.

P/N 520886 - Rev A - 07/24/2008

Contents

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 500 ft. from the MobileTouch antenna (Transceiver), 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), and geographical features.

The MobileTouch controller LCD (liquid crystal display) can be sensitive to sunlight. When exposed for extended periods, the LCD screen will heat up and turn 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.
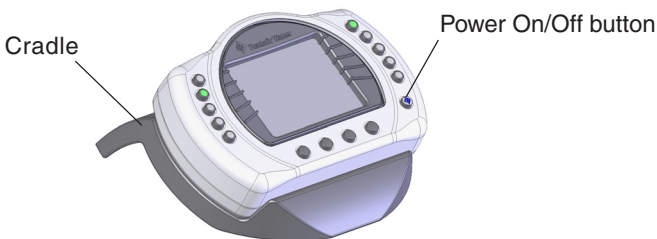
To charge the MobileTouch controller battery

• 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: If the MobileTouch is not being used for extended periods of time, press the Power On/Off switch to turn the controller Off.*

Cradle   Power On/Off button

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).*

Battery Icon

Three solid bars indicate ample battery charge. During battery recharge, bars scroll right to left.

Sufficient charge left in the batteries to operate device.

Batteries will deplete soon.

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

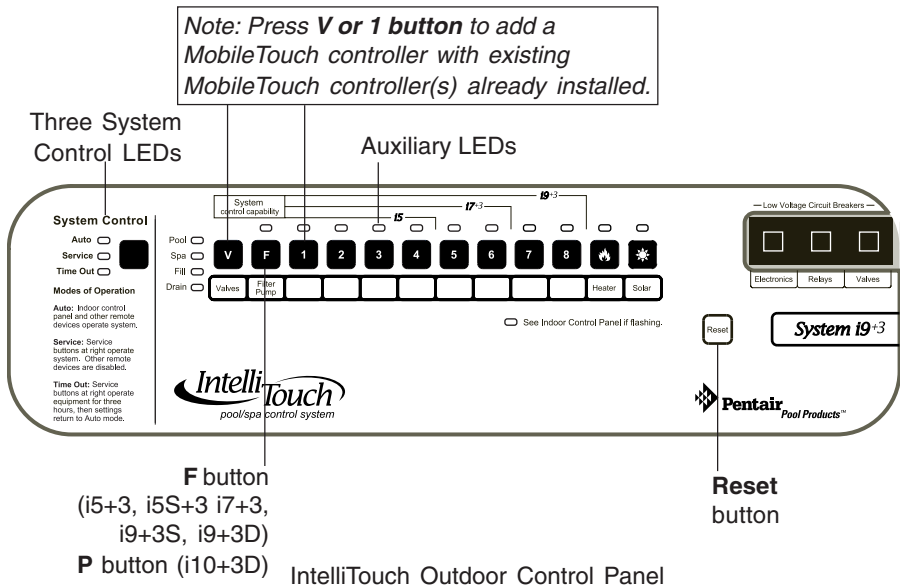## Setting up the MobileTouch Wireless Controller

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 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 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 IntellliTouch 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.

*Note: Press **V or 1 button** to add a MobileTouch controller with existing MobileTouch controller(s) already installed.*

Three System Control LEDs

Auxiliary LEDs

F button (i5+3, i5S+3 i7+3, i9+3S, i9+3D)
P button (i10+3D)

IntelliTouch Outdoor Control Panel

Reset button

Setting up the MobileTouch Wireless Controller (continued)

Go to the Advanced screen.

```
Getting There
MENU   SETUP   ADVANCED
  ◯  →  ◯  →  ◯
```

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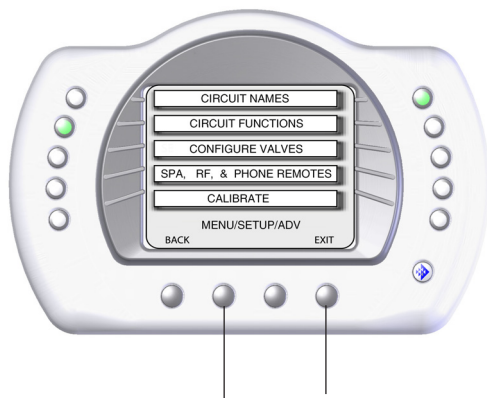
Press button 2 and 4 at the same time to access the Service Personnel screen

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

6. Press the button next to **LOCK ON ADDRESS** to assign a unique frequency for the MobileTouch controller to avoid interference from other wireless devices within range of the MobileTouch transceiver.

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.*

Possible antenna location

Possible antenna location

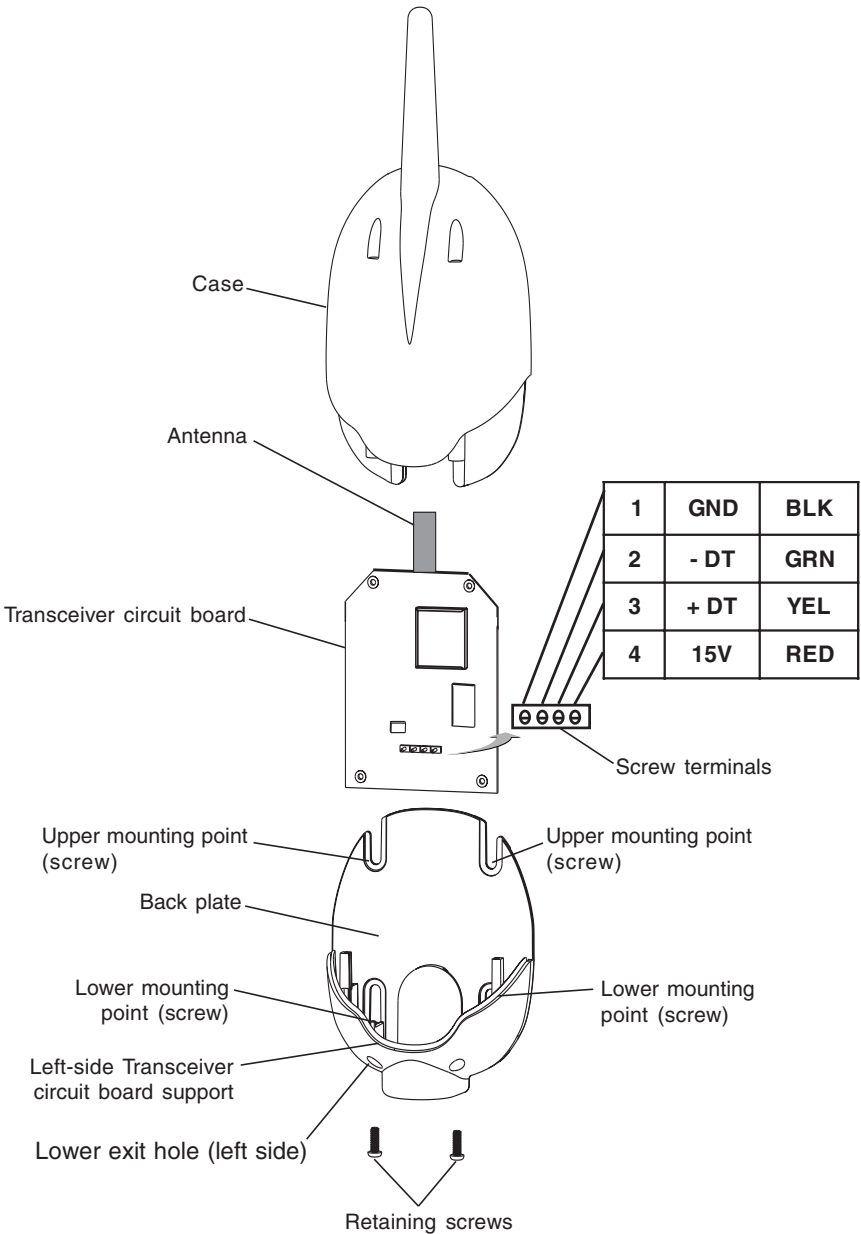Possible antenna location

LOAD CENTER
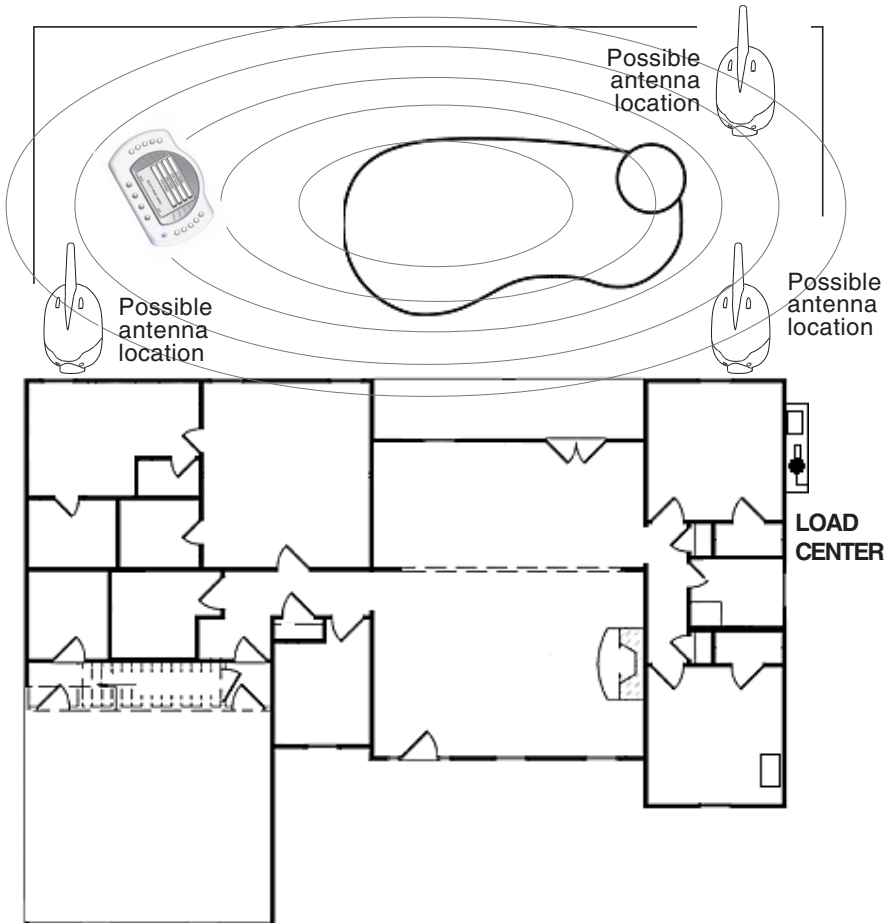
Installing the MobileTouch Transceiver

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.**

Case

Antenna

1	GND	BLK
2	- DT	GRN
3	+ DT	YEL
4	15V	RED

Transceiver circuit board

Screw terminals

Upper mounting point (screw)

Upper mounting point (screw)

Back plate

Lower mounting point (screw)

Lower mounting point (screw)

Left-side Transceiver circuit board support

Lower exit hole (left side)

Retaining screws

Transceiver Module

## Connecting the Transceiver cable to the Personality board

> ⚠️ **WARNING** Switch OFF the main system power to the Load Center before making any connections.

1. Unlatch the two enclosure door spring latches, and open the door.

2. Remove the two retaining screws securing the high voltage cover-panel, and remove it from the enclosure.

3. Loosen the two access screws securing the control panel.

Load Center
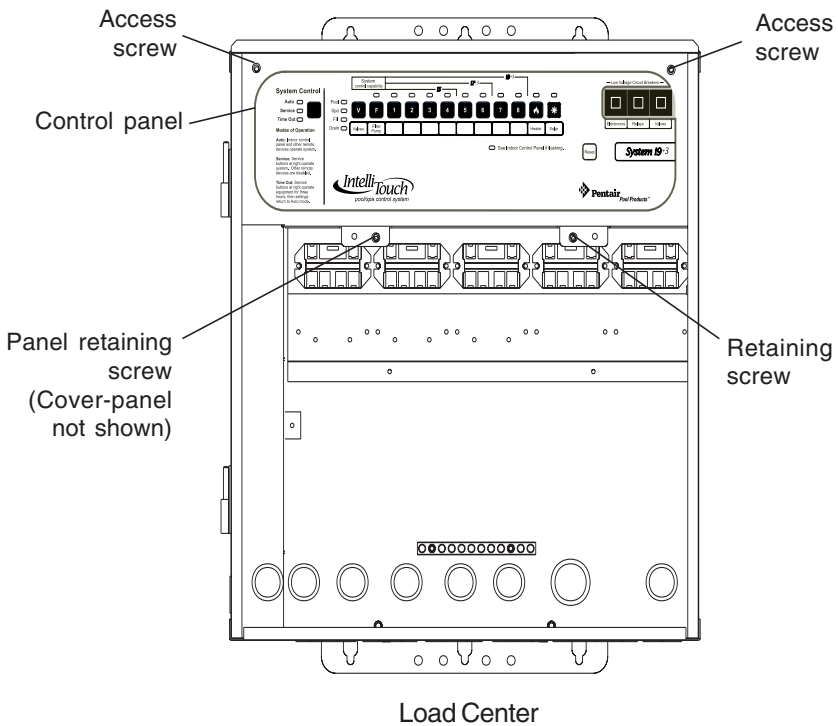
4. Lower down the hinged control panel to access the Personality board.

5. Route the transceiver cable into the lower plastic grommet, up through the low voltage raceway to the Personality board.
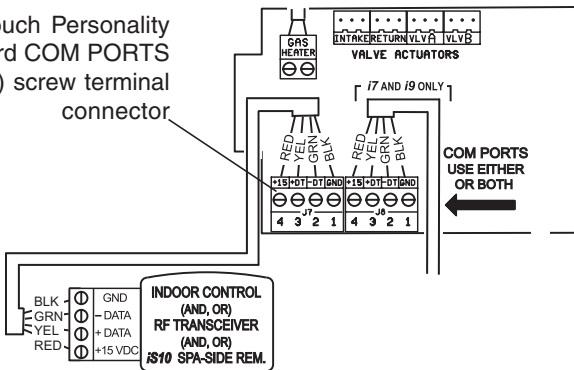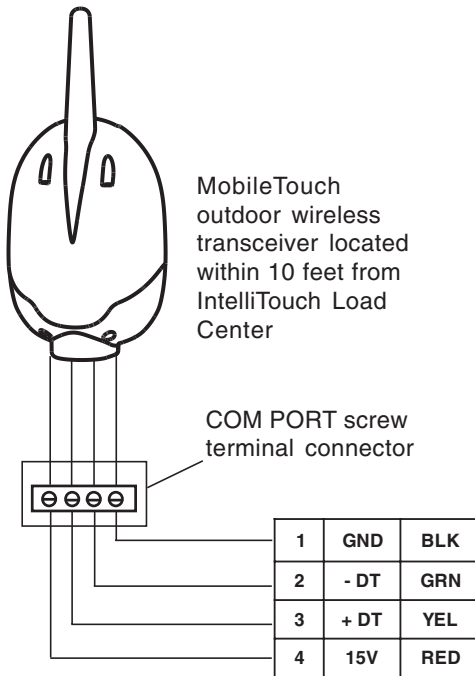

Control panel

Personality board

Raceway
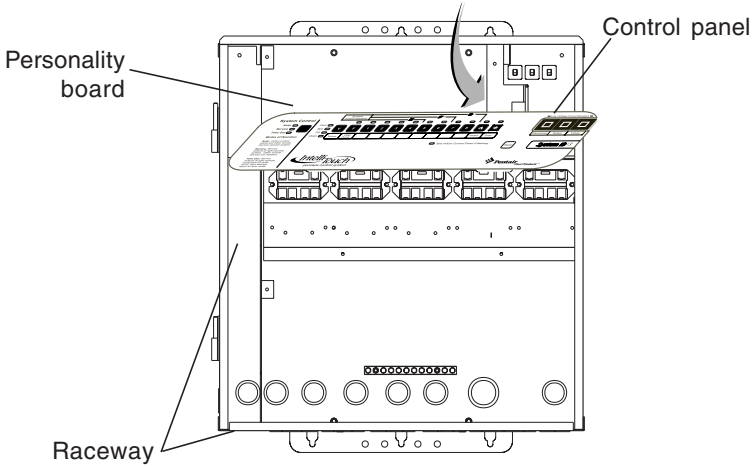
6. Insert the four wires into the screw terminals of the COM PORT plug located on the Personality board as shown below. Using a small flat-blade screwdriver, secure the wires with the screws. Make sure to match the color coding of the four wires:

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

Note: If there no available COM port terminals for the Transceiver cable plug connector to plug in to, the optional Serial COM Port Expansion Board (P/N520818) can be used (see page 13). Multiple wires may also be inserted into a single screw terminal.

IntelliTouch Personality board COM PORTS (J7/J8) screw terminal connector

GAS HEATER

INTAKE RETURN VLV A VLV B
VALVE ACTUATORS

i7 AND *i9* ONLY

RED YEL GRN BLK   RED YEL GRN BLK

+15 +DT -DT GND   +15 +DT -DT GND

COM PORTS
USE EITHER
OR BOTH

J7   J8
4 3 2 1   4 3 2 1

BLK — GND
GRN — – DATA
YEL — + DATA
RED — +15 VDC

INDOOR CONTROL
(AND, OR)
RF TRANSCEIVER
(AND, OR)
iS10 SPA-SIDE REM.

Personality board COM PORT Pin configuration

7. After the connection has been completed, close the control panel into its original position and secure it with the two access screws.

8. Close the IntelliTouch front panel and secure it with the two retaining screws.

9. Close the IntelliTouch Load Center front door. Fasten the two spring latches.

10. Switch the power on to the IntelliTouch Load Center.

11. Proceed to **"Setting up MobileTouch and IntelliTouch"** on page 4.

Optional Serial COM Port Expansion Board
(for use with IntelliTouch® control systems)

If there is not an available COM port for the Transceiver cable plug on the IntelliTouch Personality board, the optional Serial COM port Expansion Board (P/N 520818) can be used for additional COM ports connections.
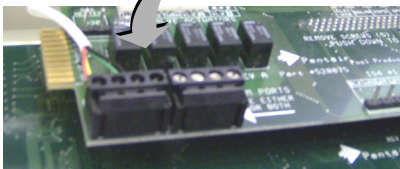
Mounting the Expansion Board

1. Remove the inside terminal connectors (with wires attached) from the Expansion board and connect it to a COM port on the Personality board.

   Note: If this a new Load Center installation, you'll have to remove one of the existing (empty) terminal connectors from the Personality board to allow for the Expansion board terminal connector. You can place the (empty) connector onto the available COM port on the Expansion board.
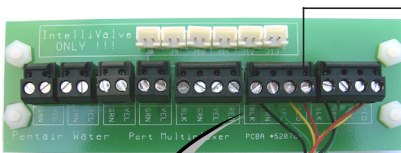
Remove this terminal connector and connect it to an available COM port on the IntelliTouch Personality board.
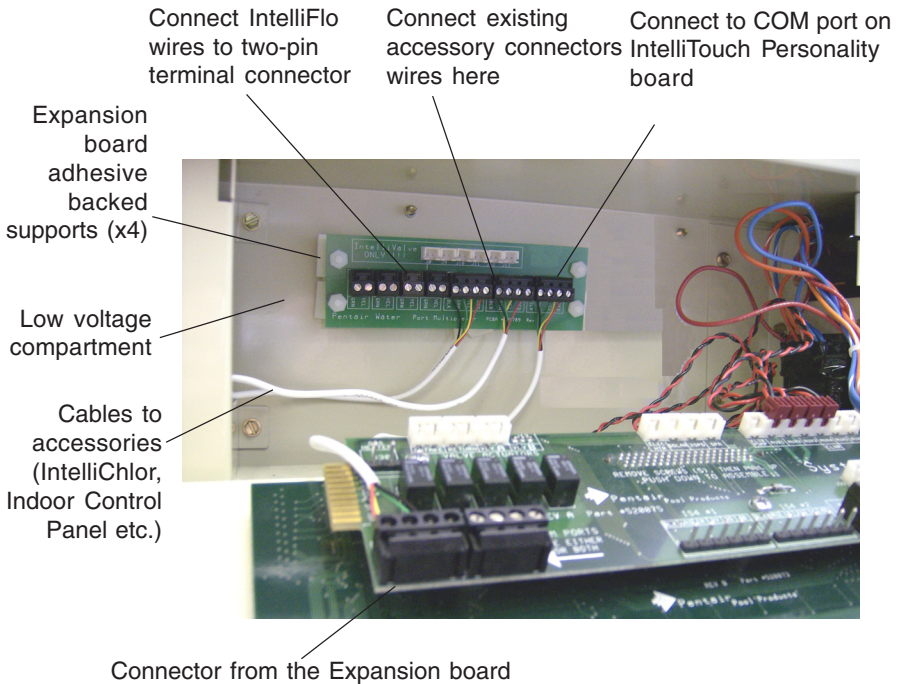
Personality Board

2. Mount the Expansion board on to the back wall in the low voltage compartment of the IntelliTouch load center using the four adhesive backed supports.

3. Proceed to "Connecting the Transceiver cable plug to the Serial COM Port Expansion Board," on page 14.

Connecting the Transceiver cable plug to the Serial Com Port Expansion Board

Connect the Transceiver cable plug onto one of the available Serial COM port expansion board connector terminals.

Note: If you have existing accessories (IntelliChlor, IntelliFlo) connected to the IntelliTouch Personality board and need to free up connectors for additional equipment, remove one of the existing connectors (with the attached wires to equipment) from the Personality board and plug it into an available connector on the Expansion board COM port (as shown below).

Connect IntelliFlo wires to two-pin terminal connector

Connect existing accessory connectors wires here

Connect to COM port on IntelliTouch Personality board

Expansion board adhesive backed supports (x4)

Low voltage compartment

Cables to accessories (IntelliChlor, Indoor Control Panel etc.)

Connector from the Expansion board

Notes

Notes

Notes

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