

# Models: PJB2175 & PJB4175

## ELECTRICAL JUNCTION BOX FOR POOL/SPA LUMINAIRES

CAPACITY: - PJB2175: UP TO 2 UNDERWATER LIGHTS  
- PJB4175: UP TO 4 UNDERWATER LIGHTS

### DANGER! To Reduce the Risk of Injury:

...do not permit small children to operate Pool/Spa equipment or use the Pool/Spa unless they are closely supervised at all times.  
...always disconnect electricity before servicing the Pool/Spa equipment.

### IMPORTANT SAFETY INSTRUCTIONS

*When installing and servicing this Product and other associated equipment, basic safety precautions should always be followed,*

1. Read and follow all instructions.
2. This Junction Box must be installed by a qualified person, according to National and Local Electrical Codes.
3. Install this Junction Box not less than 48 inches from inside edge of pool. USE COPPER CONDUCTORS ONLY.
4. Do not exceed the maximum ratings of individual components, wiring devices, and current carrying capacity of conductors.
5. For grounding, bonding, installing and the wiring of underwater luminaires, refer to Article 680 of the National Electrical Code.

**READ, FOLLOW AND SAVE THIS INSTRUCTION MANUAL**

## GENERAL INFORMATION

This polymeric, watertight, multi-fixture Junction Box is especially designed for pools, pool-spa combinations and landscape applications. It is very versatile, rugged and simple to install. The Junction Box provides safe and reliable connections for up to four high or low voltage luminaires. It will accommodate flexible cords from #16-3 up to #12-3 and #10-2 in any combination and conduits from 1/2 to 1 inch, including the one for supply conductor feed.

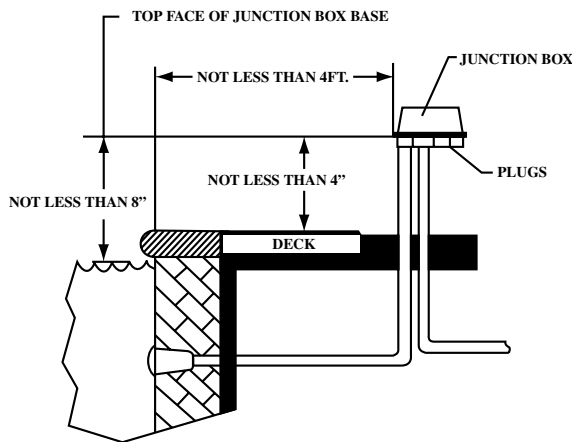
A grounding bar accepts solid or stranded conductors from #16 to #8 gauge. An external bonding lug is also provided in case your installation requires it. An optional wall/post mounting bracket (Model PA114) is available. The Junction Box complies with all the requirements of UL1241 and the National Electric Code.



# INSTALLATION PJB2175 & PJB4175

A wiring layout should be prepared ahead of the installation of this Junction Box with considerations given to the following details:

1. Installation shall be according to Article 680 of the National Electric Code and all applicable local Codes. This Junction Box is suitable for either line or low voltage luminaires.
2. Use copper conductors only.
3. This Junction Box will accommodate water resistant flexible cord, #16/3 or #14/3 Extra-hard usage (Type SOW, STW or STOW) or, #12/3 or #10/2 Hard usage (Type SJW, SJTW or SJTWO).  
Torque wire to terminal 15-20 lbf-in.
4. The Junction box must be rigidly supported and unused conduit openings permanently plugged with the plugs provided.



## Installation

1. Determine best location for the Junction Box and run properly sized conduits as per the wiring layout. The Junction Box shall be located not less than 4 feet from the inside wall of the pool. It must also be at least 8 inches above the maximum water level and not less than 4 inches above deck or grade. (See Illustration) Make sure the Junction Box can be rigidly supported. The optional mounting bracket (Model PA114) is designed to accommodate either wall or stake mounting.
2. Cut off all conduits at the same level. Use reducer bushings furnished as needed for installation. For 1/2 inch conduit, apply PVC Solvent Cement 1 inch down conduit and to small inside diameter of reducer bushing. Slide small end of reducer bushing over conduit to the stop tab. For 3/4 inch conduit, break the stop tab off of reducer bushing and PVC Solvent Cement large inside diameter of reducer bushing to conduit. PVC Solvent Cement large outside diameter of reducer bushings or 1 inch conduit to Junction Box base. Permanently close all unused conduit openings with the plugs provided.
3. An optional external bonding lug is provided. Connect to Equipotential Bonding Grid, if your installation requires it.
4. Pull supply conductors from source and flexible cord from luminaires into Junction Box. Use twist on wire connectors or other approved termination method for power connections. Connect ground conductors and bonding conductors, if required, to ground bar. Tighten terminal screws 35 in-lbs minimum.
5. Install strain reliefs. The direction that the clamps go on depends on the diameter of cable. For cables smaller than 1/2 inch (#16/3 or #12/3), install clamps with the arrow pointing down. For cables larger than 1/2 inch (#14/3 or #10/2) install clamps with the arrow pointing up. Tighten screws evenly until clamp bottoms out. If required, make bonding connections to the grounding bar and to external bonding lug.
6. Check tightness of connections, make sure gasket is properly seated and close the Junction Box with the screws provided.

## TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
1. On light is OFF	a. Burned - out bulb b. Bad connection	a. Replace bulb b. Correct defect
2. All lights are OFF	a. Tripped breaker b. Open GFCI	a. Reset breaker b. Call Electrician

### LIMITED ONE-YEAR WARRANTY

If within the warranty period specified, this product fails due to a defect in material or workmanship, Intermatic Incorporated will repair or replace it, at its sole option, free of charge. This warranty is extended to the original household purchaser only and is not transferable. This warranty does not apply to: (a) damage to units caused by accident, dropping or abuse in handling, acts of God or any negligent use; (b) units which have been subject to unauthorized repair, opened, taken apart or otherwise modified; (c) units not used in accordance with instructions; (d) damages exceeding the cost of the product; (e) sealed lamps and/or lamp bulbs, LED's and batteries; (f) the finish on any portion of the product, such as surface and/or weathering, as this is considered normal wear and tear; (g) transit damage, initial installation costs, removal costs, or reinstallation costs.

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This warranty service is available by either (a) returning the product to the dealer from whom the unit was purchased or (b) completing a warranty claim online at [www.intermatic.com](http://www.intermatic.com). This warranty is made by: Intermatic Incorporated, Customer Service 7777 Winn Rd., Spring Grove, Illinois 60081-9698. For warranty service go to: <http://www.intermatic.com> or call 815-675-7000.

*Because of our commitment to continuing research and improvements, Intermatic Incorporated reserves the right to make changes, without notice, in the specifications and material contained herein and shall not be responsible for any damages, direct or consequential, caused by reliance on the material presented.*

**INTERMATIC INCORPORATED, SPRING GROVE, IL 60081-9698**  
<http://www.intermatic.com>



SCREENLOGIC® INTERFACE  
WIRELESS CONNECTION KIT  
FOR INTELLITOUCH® AND EASYTOUCH® CONTROL SYSTEMS



INSTALLATION GUIDE

IMPORTANT SAFETY INSTRUCTIONS  
READ AND FOLLOW ALL INSTRUCTIONS  
SAVE THESE INSTRUCTIONS

## Technical Support

**Sanford, North Carolina** (8 A.M. to 4:30 P.M.)

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Fax: (919) 566-8920

**Moorpark, California** (8 A.M. to 4:30 P.M.)

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Web sites: **visit [www.pentairpool.com](http://www.pentairpool.com) and [www.staritepool.com](http://www.staritepool.com)**

Related manual: ScreenLogic® Interface User's Guide (P/N 520493)

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**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.

## In this Installation Guide

Use the information in this manual for installing the ScreenLogic® Interface Wireless Connection kit contents.

- For ScreenLogic Interface system operating instructions, refer to the ScreenLogic Interface User's Guide (P/N 520493)

## ScreenLogic® Interface Wireless Connection Kit

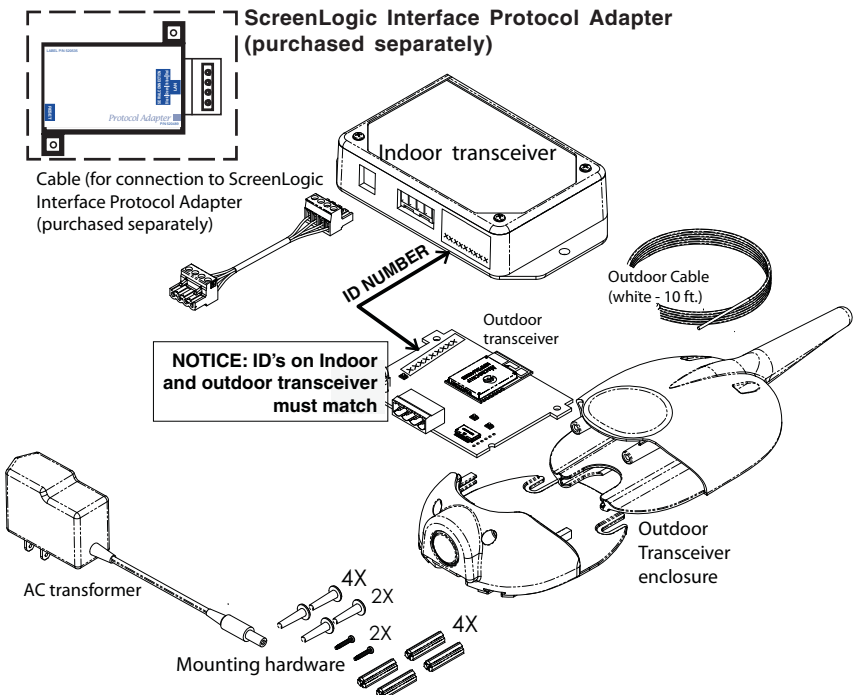
The ScreenLogic® Interface Wireless Connection interface consists of an indoor and outdoor wireless 2.4 GHz transceiver. *Note: The transceivers ship from the factory as a matched pair. The ID numbers on each transceiver must be the same number to function correctly. Transceivers are replaced as a matched pair. For more information, call Customer Support (880) 831.7133.*

The transceivers provides a wireless connection between the ScreenLogic Interface Protocol adapter and the IntelliTouch® or EasyTouch® Control System Load Center located at the equipment pad. This wireless connection eliminates the existing hard wire connection from inside your home to the equipment pad.

### Wireless Connection Kit Contents

The following items are included in the Wireless Connection kit.

- One ScreenLogic Interface indoor wireless transceiver with AC power adapter and one foot connection cable with attached plugs.
- One ScreenLogic Interface outdoor wireless transceiver with 10 ft. cable, provided in kit with enclosure and mounting hardware.
- ScreenLogic Interface Wireless Connection Installation Guide (this manual)

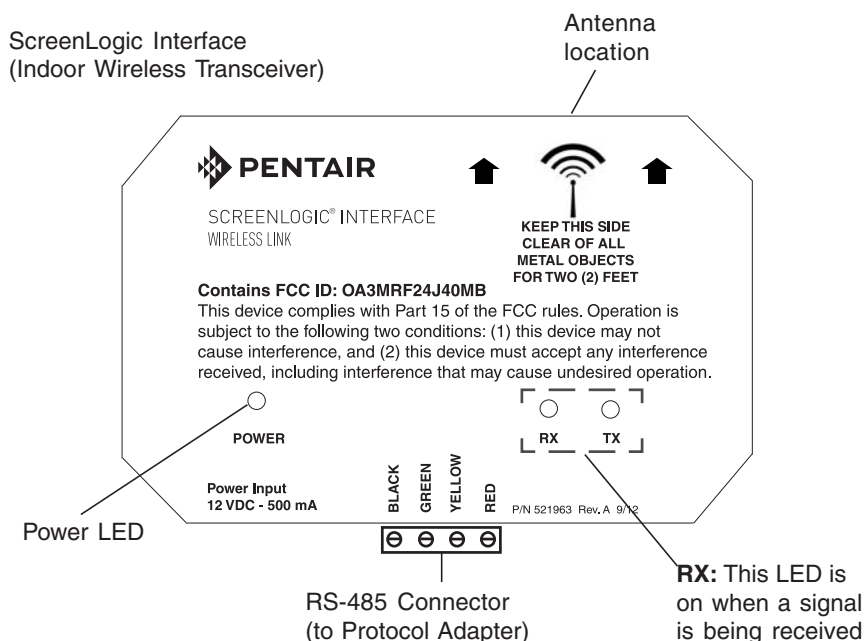


### ScreenLogic Interface Wireless Connection Kit Contents

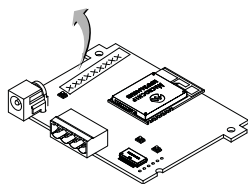
## Summary installation steps

The ScreenLogic® Interface connection diagram on page 2 shows the transceiver locations and connections. To install the ScreenLogic Interface Wireless Connection kit:

- Mount the outdoor transceiver antenna near the IntelliTouch® or EasyTouch® Control System Load Center and connect the transceiver to the COM port connector located in the IntelliTouch® or EasyTouch® Control System Load Center.
- Use the supplied 12 inch cable to connect the ScreenLogic Interface indoor wireless transceiver to the ScreenLogic Interface Protocol adapter. Plug the transceiver AC power adapter into an AC wall-outlet and into the transceiver unit to power up the unit.



ID number (Outdoor transceiver)



**IMPORTANT NOTICE:** Be sure the yellow ID label (9-digit ID number XXXXXXXXX) located to the right of the RS-484 connector on front side of indoor transceiver enclosure and the ID number on the ScreenLogic Interface outdoor wireless transceiver are the same. See page 1 for label location.



**Step 1:****Mount the Outdoor Wireless Transceiver and Connect to the IntelliTouch® or EasyTouch® Control System Load Center**

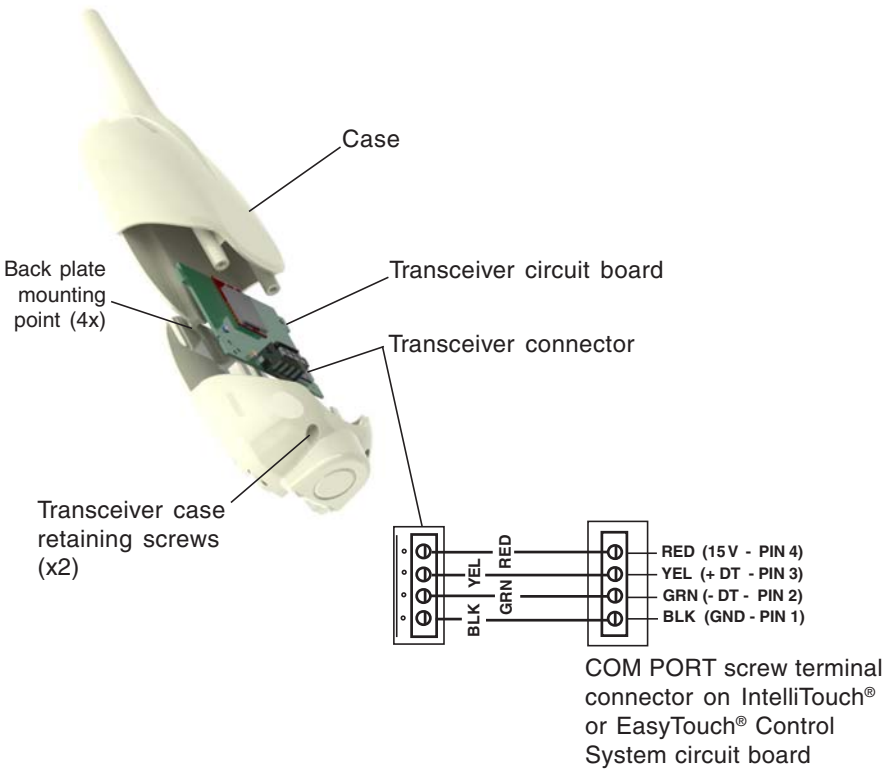
The following describes how to mount the transceiver to the IntelliTouch® or EasyTouch® Control System Load Center and connect the four-wire cable to the COM port connector located in the IntelliTouch or EasyTouch Control System Load Center:

**Mount the Transceiver Module**

The Transceiver is a two-way radio device with an attached antenna that communicates to and from the IntelliTouch or EasyTouch Control System. Mount the transceiver at a convenient location (on a flat vertical surface) near the load center at a minimum of 5 feet above ground level to optimize the transmit and receive operating range.

1. Remove the two retaining screws located on the underside of the transceiver case. Slide the case off the back plate.
2. Position the back plate against the mounting surface so that the transceiver is oriented in an upright position with the antenna pointing upwards. Use a pencil to mark the four mounting points. Drill four 3/16 in. diameter holes into the mounting surface and insert the four plastic anchors provided in the kit.  
***Note: To avoid signal interference, mount the transceiver a minimum of 10 feet away from the load center, any metal surface/structure, or air blower located in the immediate area of the equipment pad.***
3. Position the back plate over the mounting points and secure it with the four mounting screws provided in the kit.
4. Carefully position the transceiver circuit board into the mounted back plate. Route the connection wire down through the lower exit hole (left side) at the bottom of the back plate. Carefully pull the wire out the lower hole and position the circuit board in the back plate.
5. Position the transceiver circuit board to the left side of the back plate, and slide the case over the circuit board and antenna into the back plate. Secure the circuit board in the case using the two retaining screws.
6. Proceed to **“Connect the Transceiver connection cable to the COM Port on Control Systems Circuit Board”** on the next page.



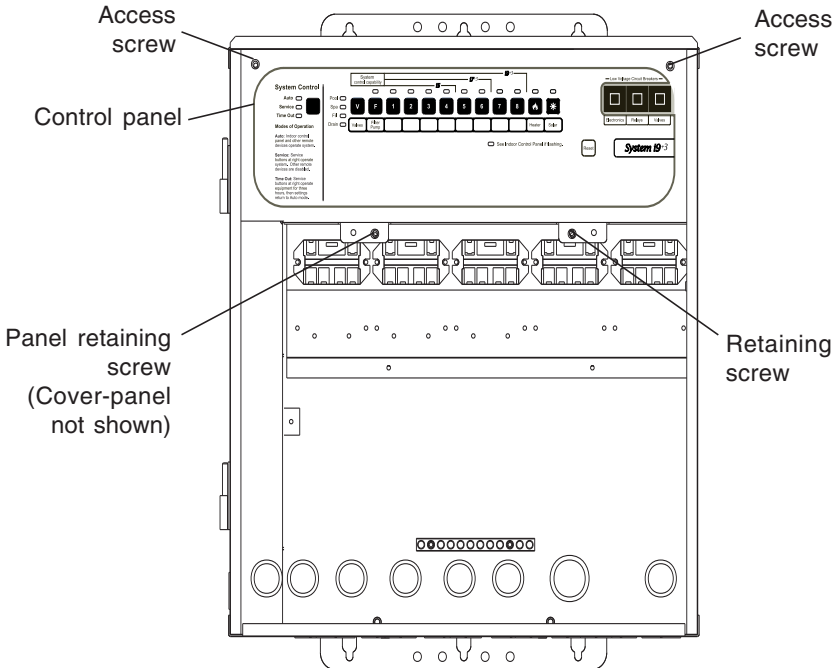


### Transceiver Module Wiring

## Connect the Transceiver connection cable to the COM Port on Control System Circuit Board

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

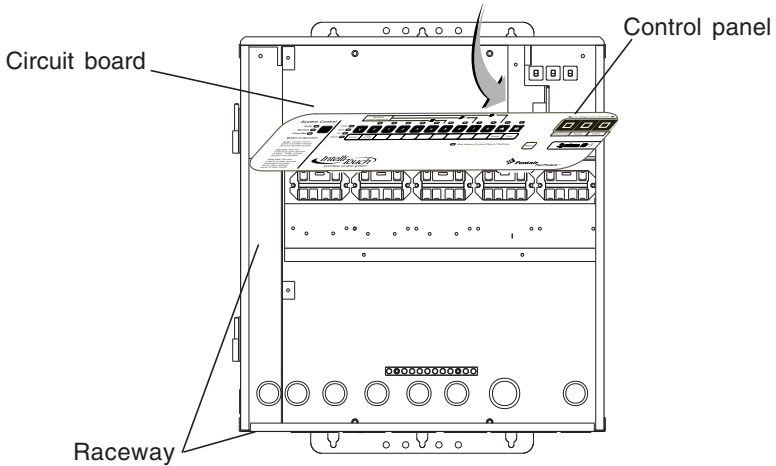
1. Unlatch the enclosure door spring latch(s), and open the door.
2. Remove the two retaining screws securing the high voltage cover-panel, and remove it from the enclosure.
3. Loosen the two access screws securing the control panel.



IntelliTouch® or EasyTouch® Load Center

4. Lower down the hinged control panel to access the circuit board.

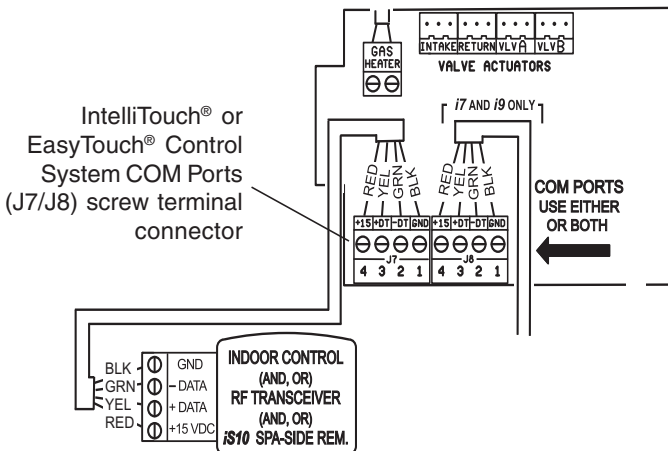
- Route the four conductor transceiver connection cable into the lower plastic grommet, up through the low voltage raceway to the circuit board.



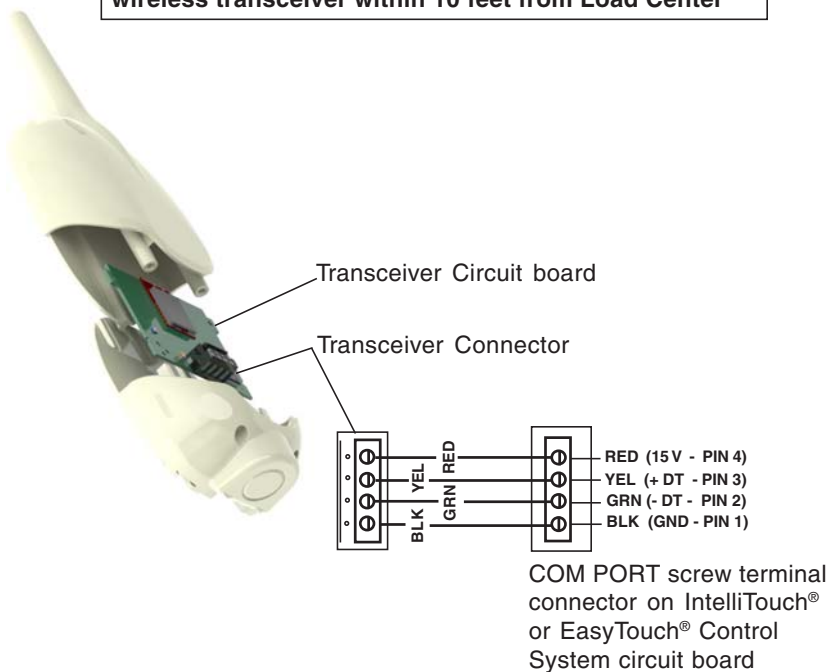
- Insert the four wires into the screw terminals of the COM PORT plug located on the circuit board as shown on page 6. Using a small flat-blade screwdriver, secure the wires with the screws. Make sure to match the color coding of the four wires:

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

*Note: Multiple wires may be inserted into a single screw terminal but increases the chances of a poor or intermittent connection.*



**Note: Install the ScreenLogic® Interface outdoor wireless transceiver within 10 feet from Load Center**



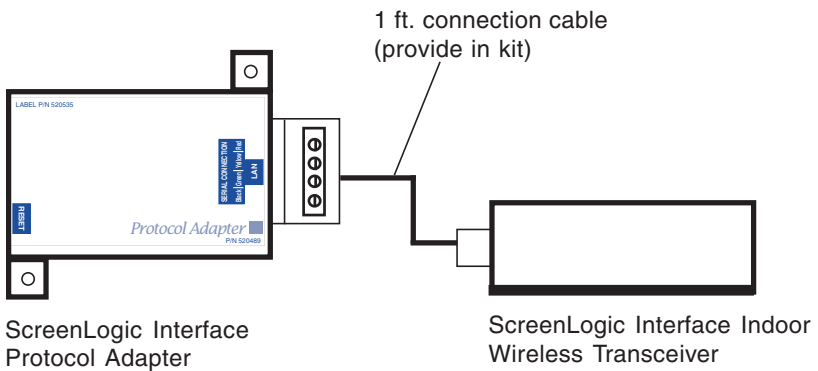
7. After the connection has been completed, close the control panel into its original position and secure it with the two access screws.
8. Install the front panel and secure it with the two retaining screws.
9. Close the Load Center front door. Fasten the spring latch(es).
10. Switch the power on to the IntelliTouch® or EasyTouch® Control System Load Center.
11. Proceed to the **“Connect the ScreenLogic Interface Indoor Wireless Transceiver to the ScreenLogic Interface Protocol Adapter”** on page 8.

## Step 2:

### Connect the ScreenLogic® Interface Indoor Wireless Transceiver to the ScreenLogic Interface Protocol Adapter

To connect the ScreenLogic Interface indoor wireless transceiver to the ScreenLogic Interface Protocol adapter:

1. Using the provided connection cable, connect one end of the cable to the ScreenLogic Interface Protocol adapter and the other end to the ScreenLogic Interface indoor wireless transceiver. The cable plugs are keyed for easy connection.
2. Plug the ScreenLogic Interface Wireless Connection transceiver AC adapter wall-plug into an AC grounded electrical outlet.



Transceiver	<----->	Indoor Wireless Transceiver
RED	<----->	RED
YELLOW	<----->	YELLOW
GREEN	<----->	GREEN
BLACK	<----->	BLACK

#### Wiring Configuration



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