



IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

P-INSB-ICOMM (08/'08)

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Declaration of Conformity

We declare, under our sole responsibility, that the product identified in this declaration, and to which this declaration relates, are in conformity with the protection requirements of Council Directive 98/37/EEG



US Patents Pending

Manufacturer: Pentair Water Pool and Spa, Inc.

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IMPORTANT SAFETY PRECAUTIONS

⚠ WARNING Read and follow all safety warning notices and instructions in this manual before installing this product. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage.

⚠ CAUTION When using the IntelliComm communication center with the IntelliFlo pump, it is recommended to wire the IntelliComm power center to a ground fault circuit-interrupter (GFCI) to protect the circuit. A green colored terminal (or a wire connector marked “G”, “GR”, “Ground” or “Grounding”) is provided within the terminal compartment in the Power Center transformer enclosure. To reduce risk of electric shock, connect this terminal or connector to the grounding terminal of your electric service or supply panel with a conductor equivalent in size to the circuit conductors supplying this equipment.

⚠ WARNING To reduce the risk of injury, installation or service should only be attempted by a qualified Pool Service Professional.

⚠ WARNING To reduce the risk of injury, do not permit children to use this product unless they are closely supervised at all times.

⚠ CAUTION The IntelliFlo pump is for use with permanently installed pools and may also be used with hot tubs and spas if so marked. Do not use with storable pools. A permanently installed pool is constructed in or on the ground or in a building such that it cannot be readily disassembled for storage. A storable pool is constructed so that it may be readily disassembled for storage and reassembled to its original integrity.

Section 1

Installation Steps Summary

The recommended IntelliComm Communication Center installation steps are:

1. **Review Important Safety Precautions:** Review this important information.
2. **Review IntelliComm Overview:** Review the product overview.
3. **Installing IntelliComm:** Installing the IntelliComm enclosure.
4. **Connecting the AC wires to IntelliComm:** Connecting AC wires to terminal 1 and 2.
5. **Connecting control input wires to IntelliComm:** Connecting control input wires to terminals 3 to 10 from source devices such as automation controllers or heaters.

Section 2

Kit Contents

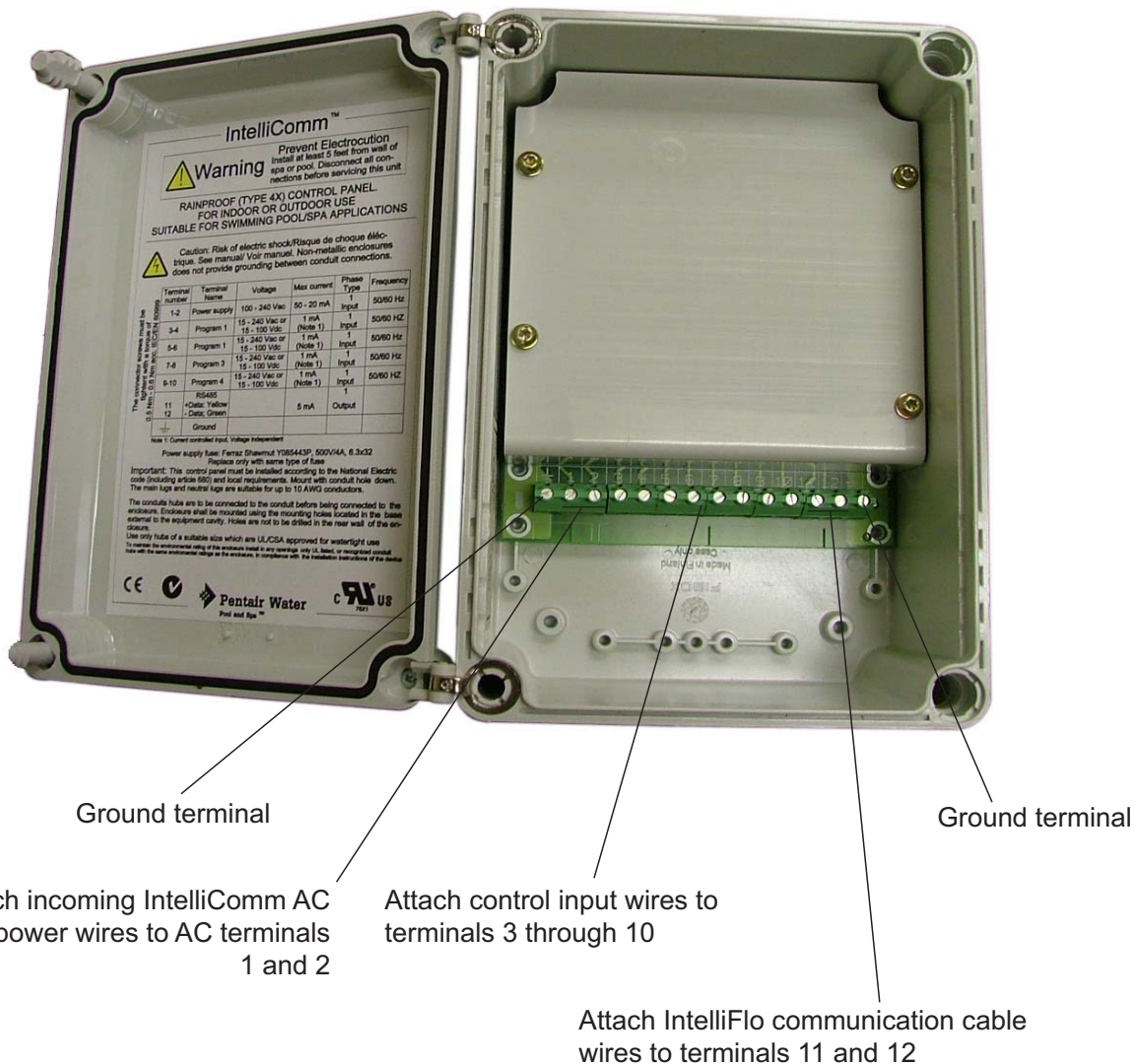
- IntelliComm Communication Center
- IntelliComm Installation Guide (this manual)
- Two wire RS-485 communication cable. Used to communicate to the IntelliFlo pump from IntelliComm.

Section 3

IntelliComm Communication Center

The Pentair IntelliComm communication center provides automatic control of the IntelliFlo pump. The IntelliComm provides four pairs of input terminal connections. These inputs connectors are actuated by either 15 VAC to 240 VAC or 15 VDC to 100 VDC from the source device such as an automation controller, heater, or heat pump. Using the device's inputs, the four IntelliFlo external control programs can be enabled. If more than one input is active, the highest program number will be communicated to the IntelliFlo pump.

The IntelliFlo pump is programmed to run at a specific speed for each input.



IntelliComm Communication Center

Installing the IntelliComm enclosure

Install the IntelliComm enclosure at the equipment pad at a maximum of 15.24 m (50ft.) from the IntelliFlo pump. Leave sufficient clearance on all sides of the enclosure. Be sure that the communication cable from the IntelliFlo pump can reach the IntelliComm enclosure location. The IntelliComm enclosure can be mounted on a wall or vertical flat surface up to 15.24 m (50ft.) away from the cell controller.

CAUTION: The IntelliComm communication center must be installed more than 2.44 m (8 ft.) from the pool edges.

Note: For IntelliFlo 4 pump operating instructions, see the IntelliFlo 4 User's Guide.

Section 5

Mounting the IntelliComm enclosure

1. Using a medium flat blade screwdriver, loosen the two plastic screws on the front cover and open the front cover.
2. Mount the enclosure on a flat surface such as a wall or post. Mark each mounting screw hole location.
3. Drill four 6 mm (1/4 inch) holes. Install anchors if necessary and one screw for each enclosure hole.
4. Position the enclosure in place over the holes and install the four mounting screws into the enclosure screw holes. Tighten the four screws to secure the enclosure.

Enclosure retaining screw

Mounting screw access hole



Enclosure retaining screw

Mounting screw access hole

Section 6

Connecting AC power wires to IntelliComm

⚠ WARNING! IMPORTANT SAFETY PRECAUTIONS. BEFORE STARTING READ THE FOLLOWING: Read all the safety precautions in this manual before attempting any electrical wiring. Be sure to read and follow all safety Instructions on page ii. Wiring should only be performed by a qualified professional. When using electrical products, basic precautions should always be followed, including the following:

- Grounding is required. The unit should be installed by a qualified service person and grounded.

To connect the AC power wires to IntelliComm:

1. Connect the main AC power wires to the IntelliComm AC terminals number 1 and 2 as shown below.
2. **Grounding:** Attach incoming GROUND wire to the ground terminal as shown below. Earth grounding is necessary to ensure personal safety and safety of equipment.
3. Close the front cover and tighten the two cover screws.



Ground terminal

Attach incoming AC (100 VAC to 240 VAC 50/60 Hz) wires to AC terminals **1** and **2**


Section 7

IntelliComm system wiring

The IntelliComm provides four pairs of input terminals which can be actuated by either 15 to 240 VAC or 15 to 100 VDC from the source device, (automation controller, heater, heat pump etc.). There are four IntelliFlo external control programs that can be enabled.

Note: The IntelliComm will always be configured to communicate to pump address 1.

IntelliComm system wiring table

Terminal number	Terminal name	Voltage	Maximum current	Phase type	Frequency
1-2	Power supply	100 - 240 VAC	100 mA	1 Input	50/60 Hz
3-4	Program 1	15 -240 VAC or 15 - 100 VDC	1 mA*	1 Input	50/60 Hz
5-6	Program 2	15 -240 VAC or 15 - 100 VDC	1 mA*	1 Input	50/60 Hz
7-8	Program 3	15 -240 VAC or 15 - 100 VDC	1 mA*	1 Input	50/60 Hz
9-10	Program 4	15 -240 VAC or 15 - 100 VDC	1 mA*	1 Input	50/60 Hz
11 12	RS-485 + Data: Yellow - Data: Green	-5 to +5 VDC	5 mA	1 Output	N/A
	Ground				

Note: (*) indicates current controlled input, voltage independent.

Section 8

IntelliComm electrical specifications

Power Requirements: The IntelliComm draws less than 1 amp. Over current protection of the wires connecting the source device, (automation controller, heater, heat pump etc.) to the IntelliComm must be provided at the source.

Inputs from remote device: The IntelliComm has four current sensing inputs that are activated by either
15 VAC to 240 VAC or 15 VDC to 100 VDC.

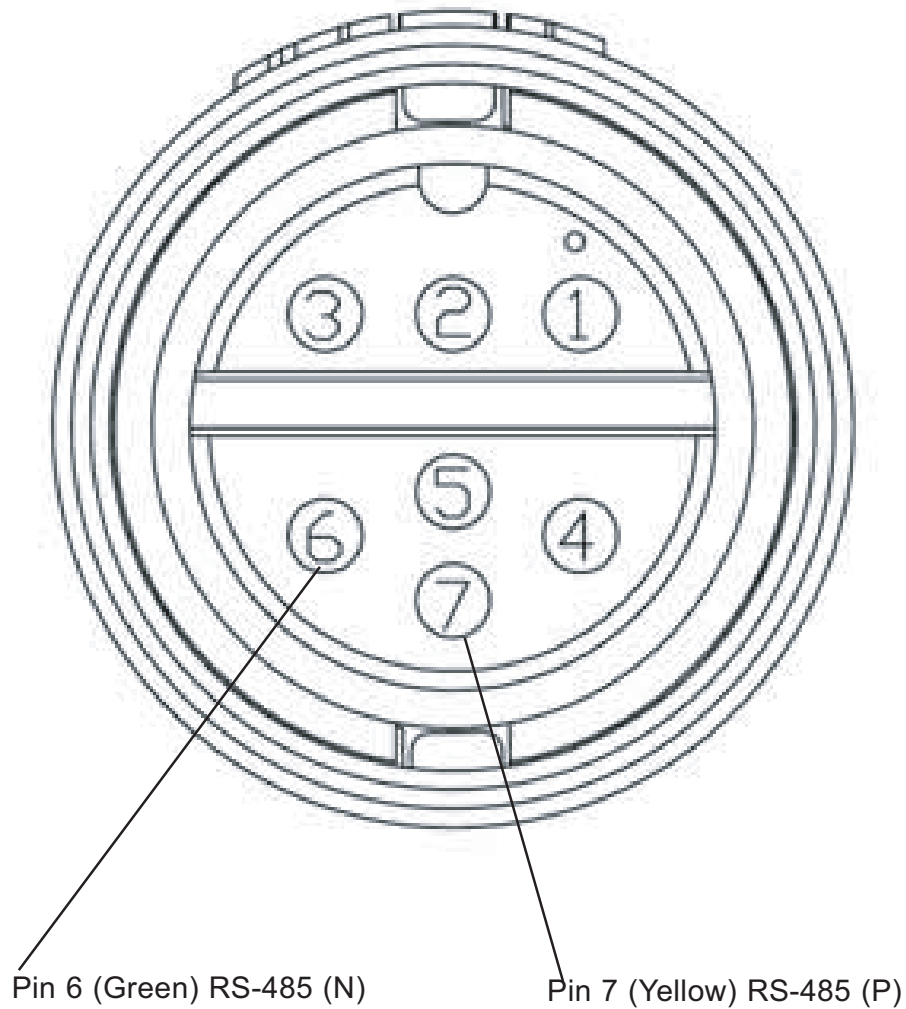
Output to IntelliFlo pumps: The IntelliComm communicates with IntelliFlo pumps via a two wire RS-485 Serial link.

Section 9

Connecting the IntelliFlo communication cable

A two-wire communication cable is required to connect either the IntelliFlo pump to IntelliComm. This allows the IntelliFlo pump to be controlled by IntelliComm. The cable pinout is shown below.

IntelliFlo communication cable pinout



Note: Pins 1 - 5 are not used.