

EZ100 EASYTOUCH OWNER'S MANUAL

4-Function Hand-Held Wireless Remote Control

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS
SAVE THESE INSTRUCTIONS

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⚠ WARNING

Before installing this product, read and follow all warning notices and instructions which are included. Failure to follow safety warnings and instructions can result in severe injury, death, or property damage. Call (800) 831-7133 for additional free copies of these instructions.

Important Notice



Attention Installer.

This manual contains important information about the installation, operation and safe use of this product. This information should be given to the owner/operator of this equipment.

IMPORTANT

The Hand-held remote may be used with wet hands, but should never be submersed in water, as this could damage the unit. If accidental submersion occurs, dry unit out by removing battery cover and removing battery. Position unit so that water can drain out. Reassemble when completely dry.

Pentair Pool Products

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SECTION I. APPLICATION

Used in conjunction with Compool CP100 and EasyTouch Control Systems.

Provides switching of four remote control circuits from a wireless hand-held remote.

It is typically used for activating the spa circulation, and for operating three auxiliary pieces of equipment (such as lights, jet pump, air blower, waterfall, etc.)

Each of the four functions on the hand-held remote has an “ON” and an “OFF” button.

SECTION II. KIT INCLUDES:

- 1-qty. Hand-held Remote (P/N 520018)
- 1-qty. Receiver (with 8 ft. flexible conduit with 2–9½ ft. cables inside)
- 4-qty. Plastic Anchors (for mounting Receiver to a flat surface)
- 4-qty. Mounting screws (for mounting Receiver to a flat surface)

SECTION III. RECEIVER

The functional range of the wireless remote (from Hand-held Remote to Receiver) is approximately 150 ft. line-of-sight.

The Receiver should be mounted at a convenient location (on a flat surface) a minimum of 5 ft. above ground level to optimize the functional range of the Hand-held Remote.

CAUTION

The Receiver should be mounted a minimum of 8 to 10 feet away from any air blower, which may be part of the equipment set. The Receiver will not operate properly if it is close to a blower which is operating.

In order to mount the Receiver, it will be necessary to remove the two retaining screws located on the underside of the Receiver, and carefully slide the Receiver case up and off of its backplate. Temporarily position the backplate against its mounting surface so that the Receiver is oriented in an upright position (with antenna pointing upwards, and flexible conduit protruding from the bottom of the Receiver). The circuit board may need to be temporarily removed. Carefully disconnect the modular connectors at the bottom of the circuit board and slide the board out of the backplate. Use a pencil to mark the four mounting points. For mounting to stucco walls, drill 3/16 in. dia. holes. Insert the four plastic anchors (provided). Reposition the backplate over the mounting points and secure with the four mounting screws (provided). Carefully slide the circuit board back into the backplate and connect the modular connectors with the silver cable connector attached to Socket #1 (SILVER) and the black cable connector attached to Socket #2. Then slide the Receiver case back onto the backplate, and secure using the two retaining screws.

SECTION IV. POWER CENTER

WARNING



RISK OF ELECTRICAL SHOCK OR ELECTROCUTION

If your Compool electrical panel includes circuit breakers (almond colored steel enclosure), it is also required that the main power into the home be switched off at the main circuit breaker box.

Before starting the installation process, disconnect power by switching off all circuit breakers to all associated pool and spa equipment. Failure to do so may lead to severe electrical shock, which can result in death or severe personal injury.

Loosen the LOCK SCREW on handle of hinged faceplate in left-side of Power Center, and swing open to expose the low-voltage wiring compartment. If the Power Center incorporates a circuit breaker subpanel, it will be necessary to temporarily remove the breaker panel in order to access the low-voltage wiring compartment.

Insert the flexible conduit (attached to Receiver) into the low-voltage compartment by threading through the plastic bushing on the underside of the Power Center enclosure.

SECTION V. POWER ISOLATION CIRCUIT BOARD

Locate the two cables (one silver and one black) protruding from the flexible conduit. Each cable has a modular connector attached. If the Control System incorporates an Indoor Remote, disconnect any cables going to Socket #2 of the Power Center circuit board. Plug the short cable (BLACK) from the Power Isolation circuit board into Socket #2. Plug the black cable from the RF receiver into the socket marked “EZ-WIRELESS” of the Power Isolation circuit board. The Power Isolation PCB has an additional socket to accommodate the Indoor Remote cable from Socket #2 marked “CP100”. If there is no Indoor Remote, the silver cable for the receiver may be plugged directly into Socket #1 of the Power Center circuit board. If the Control System incorporates an Indoor Remote, it will be necessary to use a Cable Splitter for Socket #1. See SECTION VI. CABLE SPLITTERS (Optional).

SECTION VI. CABLE SPLITTERS (Optional)

If the Control System incorporates an Indoor Remote, disconnect any existing Indoor Remote cables from Socket #1. It will be necessary to use a Cable Splitter (P/N 6COND DUAL) to connect to the Power Center circuit board.

Plug the short cable (attached to single-connector end of each Cable Splitter) into Socket #1. Plug the cable from the Indoor Remote and the silver cable from the receiver into the Cable Splitter sockets.

SECTION VII. HAND-HELD REMOTE

The Hand-held Remote will control four circuits.

SPA button activates the Spa circuit (duplicates Spa Button on Optional Indoor Remote).

“A” button activates Auxiliary 1 circuit (duplicates Button 1 on Optional Indoor Remote).

“B” button activates Auxiliary 2 circuit (duplicates Button 2 on Optional Indoor Remote).

“C” button activates Auxiliary 3 circuit (duplicates Button 3 on Optional Indoor Remote).

Each of the four functions on the hand-held remote has an “ON” and an “OFF” button.

It is possible to incorporate a 30-minute or 90-minute countdown cycle for the Spa and/or Auxiliary 1 circuit (useful if Aux 1 is used for a jet pump or air blower). In this instance, whenever those circuits are turned on, they will automatically shut down (at the end of the countdown cycle) without having to push the “OFF” button.

In order to incorporate the countdown feature, it is necessary to make adjustments to the circuit board located inside the Receiver unit.

SECTION VIII. USING THE HAND-HELD REMOTE

To activate a circuit, press and hold the appropriate “ON” button for at least *a full second*. To deactivate, press and hold the “OFF” button in the same manner.

SECTION IX. RECEIVER CIRCUIT BOARD

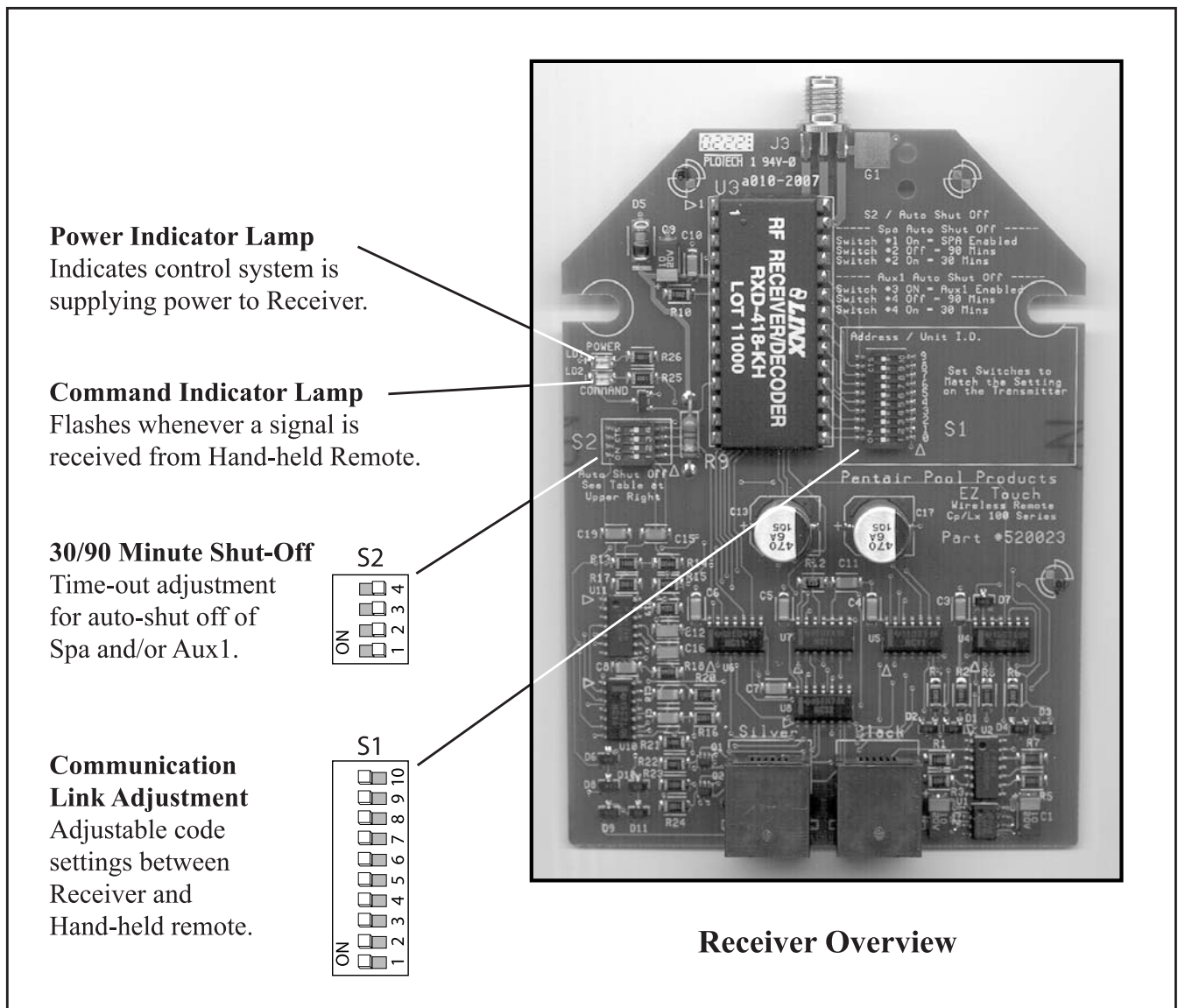
To access the circuit board inside the Receiver, remove the two retaining screws located on the underside of the Receiver, and slide the Receiver case up and off of its backplate.

On the circuit board, you will discover the following:

- 1) A 4-position configuration switch (designated S2), which can be used to configure an automatic countdown cycle for the Spa and/or Aux 1 circuit.
- 2) A 10-position configuration switch (designated S1), which can be used to customize the communication link between the Receiver and Hand-held Remote.
- 3) 2-qty. status lights (designated POWER and COMMAND), which are used for trouble-shooting:

POWER: Indicates that the Control System is supplying power to the Receiver unit.

COMMAND: Flashes whenever a button is pushed on the Hand-held Remote.



SECTION X. AUTOMATIC COUNTDOWN CYCLE (OPTIONAL)

There is a 4-position configuration switch (designated S2) located on the Receiver circuit board. This switch can be used to set a countdown cycle (time-out feature) for the Spa and/or Aux 1 circuit. Once this feature has been enabled, the equipment will automatically turn off after the countdown cycle irrespective of how the circuit was turned on (by Indoor Remote, Spa-side Remote or Hand-held Remote).

Use a paper clip or other blunt instrument to slide the appropriate switch at S2 to the “ON” or “OFF” position, in accordance with the following pictorial:

Factory Setting, All Off.
No time-out for Spa or Aux 1.

Spa will shut off in
approximately 90 minutes.

Spa will shut off in
approximately 30 minutes.

Aux 1 will shut off in
approximately 90 minutes.

Aux 1 will shut off in
approximately 30 minutes.

Note: Both Spa and Aux 1 Time-Out
mode can be enabled at the same time.

The diagram shows a receiver circuit board with a 4-position switch labeled S2. The switch is used to configure the automatic shutdown cycle for the Spa and Aux 1 circuits. The board includes an RF RECEIVER/DECODER (RXD-418-KH) and a S1 switch for Address / Unit I.D. The board is labeled with various components and part numbers, including J3, FLDIECH 1.94V-0, U3 3010-2007, G1, D5, C3, C10, R10, L01, L02, R26, R25, R19, R20, R21, R22, R23, R24, R25, R26, R27, C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100, U1, U2, U3, U4, U5, U6, U7, U8, U9, U10, J1, J2, J3, J4, J5, J6, J7, J8, J9, J10, J11, J12, J13, J14, J15, J16, J17, J18, J19, J20, J21, J22, J23, J24, J25, J26, J27, J28, J29, J30, J31, J32, J33, J34, J35, J36, J37, J38, J39, J40, J41, J42, J43, J44, J45, J46, J47, J48, J49, J50, J51, J52, J53, J54, J55, J56, J57, J58, J59, J60, J61, J62, J63, J64, J65, J66, J67, J68, J69, J70, J71, J72, J73, J74, J75, J76, J77, J78, J79, J80, J81, J82, J83, J84, J85, J86, J87, J88, J89, J90, J91, J92, J93, J94, J95, J96, J97, J98, J99, J100, S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17, S18, S19, S20, S21, S22, S23, S24, S25, S26, S27, S28, S29, S30, S31, S32, S33, S34, S35, S36, S37, S38, S39, S40, S41, S42, S43, S44, S45, S46, S47, S48, S49, S50, S51, S52, S53, S54, S55, S56, S57, S58, S59, S60, S61, S62, S63, S64, S65, S66, S67, S68, S69, S70, S71, S72, S73, S74, S75, S76, S77, S78, S79, S80, S81, S82, S83, S84, S85, S86, S87, S88, S89, S90, S91, S92, S93, S94, S95, S96, S97, S98, S99, S100.

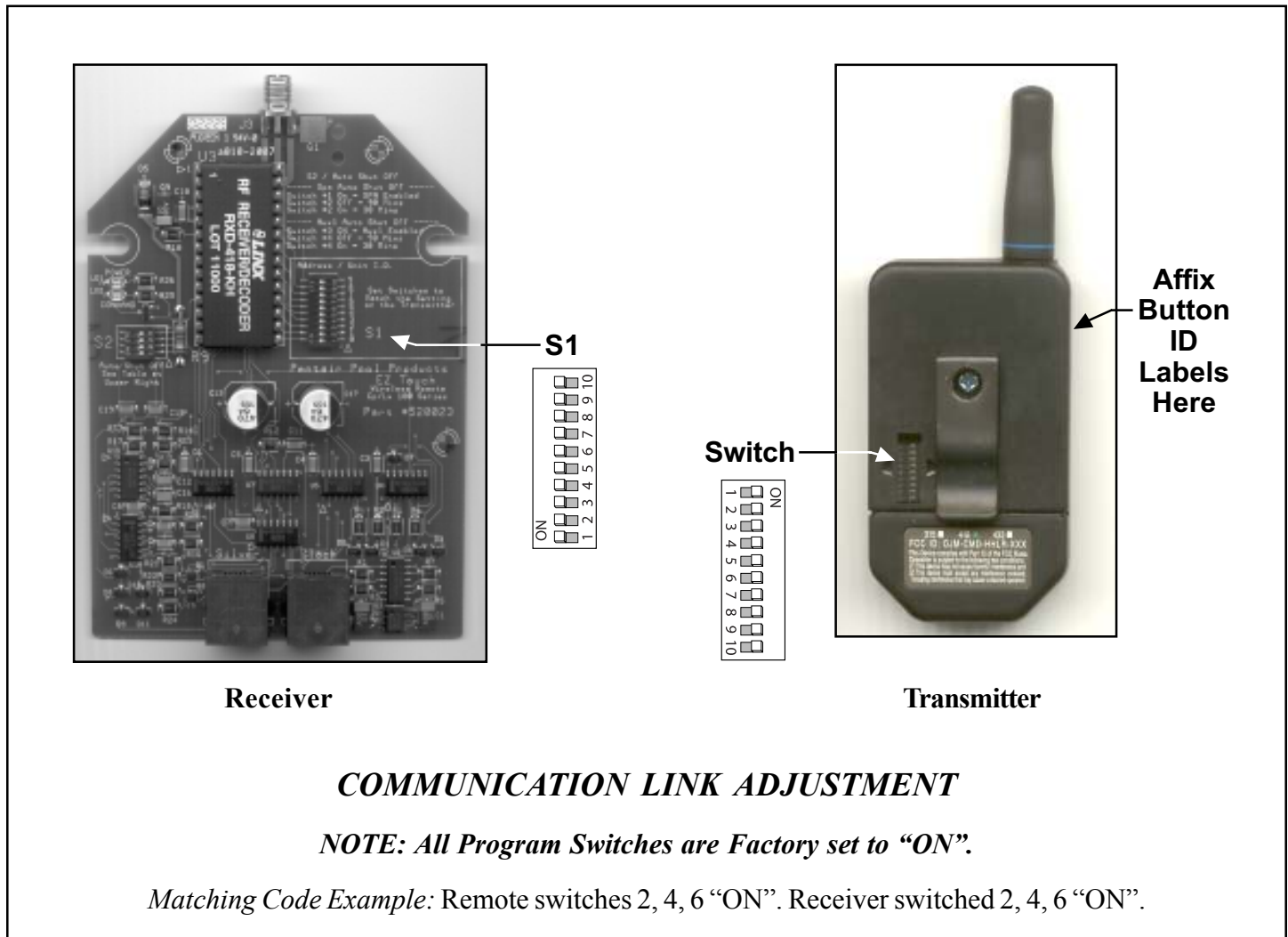
Automatic Time-Out settings for Spa and Aux1 circuits.

SECTION XI. CUSTOMIZING THE COMMUNICATION LINK

The communication link between the Receiver and Hand-held Remote can be customized to prevent electrical interference. To accomplish this, there is a 10-position configuration switch located on the Receiver circuit board and inside the Hand-held Remote. Units are shipped from the factory with all switches in the “ON” position.

If you wish to change this setting, use the corner of a paper clip or other blunt instrument and adjust both 10-position configuration switches to matching settings. If the configuration switch setting at the Receiver does not match that of the Hand-held Remote, the communication link will not function.

Labels have been provided, marked with the most commonly used functions. These labels may be affixed to the side of the Hand-held Remote to assist with button identification.



SECTION XII. TRANSMITTER BATTERY REPLACEMENT

With normal use, the battery should last for several years. In the event the battery must be replaced, slide the cover from the bottom of the Hand-held Remote. Slide the battery from the retainer clip and discard in accordance with local and/or state ordinances. Replace with 3V lithium battery number CR2032 or equivalent. Slide battery cover onto remote and snap in place.

SECTION XII. TROUBLESHOOTING

Symptom	Possible Cause	Solution
POWER LED does not light.	LX Control Center does not have power. Defective cable or connection to the LX Control Center. Defective Receiver board.	Insure power is being supplied and that the LX Control Center operates correctly without the Receiver installed. Verify the function of the board using known good cable set. Contact Factory or Service center.
COM LINK LED does not light or blink. In normal operation LED will blink at least every 2 seconds.	Defective cable or connection to the LX Control Center Defective Receiver board.	Verify the function of the board using known good cable set. Contact factory or service center.
COMMAND LED does not light when Transmitter button(s) is pressed - unit fails to operate.	Address switches are incorrectly configured. Transmitter battery has failed. Defective Transmitter or Receiver.	Verify that the address switches on the Transmitter and Receiver board are correct and match. Replace Transmitter battery. Contact Factory or Service center.
Unit functions, but some circuits do not work, or operate the incorrect circuit.	Circuit selection switches are incorrectly set.	Verify settings of SW1 through SW4 on the Receiver board.
Unit fails to operate, or fails to dependably at range.	Undue electrical noise. Too many obstructions between the Transmitter and Receiver. Receiver unit is too near the ground.	Relocate the Receiver away from operate equipment such as blower motors. Relocate the Receiver in a location that provides fewer obstructions to the area the user commonly operates the Transmitter. Relocate the Receiver to maximize the distance between the Receiver antenna and the ground.
Unit seems to turn on or off circuits without the user / Transmitter.	A near by home is operating a similar wireless unit.	Select a an alternate address code for the Transmitter and Receiver, i.e. change the switches on both boards to an alternate, but matching setting.
Unit dependably turns equipment ON, but once equipment is running it does not dependably turn equipment OFF, or range is greatly reduced when equipment is running.	Undue electrical noise is being produced by one or more pieces of equipment in close proximity to the Receiver.	Relocate the Receiver away from equipment such as blower motors OR relocate the Receiver in a location that provides fewer obstructions to the area the user commonly operates the Transmitter.
Unit operates, but has greatly reduced range compared to prior function.	Transmitter battery is failing.	Replace Transmitter battery.

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