PENTAIR

ACUTROL® AK600 CHEMICAL CONTROLLER
TOUCHSCREEN DISPLAY INSTALLATION KIT (P/N 724000110)

INSTALLATION INSTRUCTIONS

⚠ WARNING

FAILURE TO FOLLOW ALL INSTRUCTIONS AND WARNINGS CAN RESULT IN SERIOUS BODILY INJURY OR DEATH. THIS PRODUCT SHOULD BE INSTALLED AND SERVICED ONLY BY A QUALIFIED POOL SERVICE PROFESSIONAL. INSTALLERS, POOL OPERATORS AND OWNERS MUST READ THESE WARNINGS AND ALL INSTRUCTIONS IN THE HEATER INSTALLATION AND USER'S GUIDE BEFORE USING THIS PRODUCT. THESE INSTRUCTIONS MUST BE LEFT WITH THE POOL OWNER.

Warnings and safety instructions for Pentair Aquatic Systems pumps and other related products are available at: **http://www.pentairpool.com/safety-warnings** Call (800) 831-7133 for additional free copies of these instructions.

IMPORTANT SAFETY INSTRUCTIONS
READ AND FOLLOW ALL INSTRUCTIONS - SAVE THESE INSTRUCTIONS

Required Tools

When installing this kit, **basic safety precautions** should always be followed. Read and follow all instructions. Required installation tools:

- #2 Philips Screw Driver
- Nut driver
- Plastic Tweaker Screwdriver or small flat blade screwdriver

Kit Contents

The following parts are provided in the kit:

- P/N 624000440 (Qty. 4)
- Screw, 4-40 x ¾ PPH M/S Zinc

- P/N 624000980 (Qty. 4)
- Nut Nylon, Lock 4-40, Threaded

- P/N 625000180 (Qty. 4)
- 3/8" Length, Nylon Spacer

P/N 522515.A

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Removal Instructions: AK600 Display/Touchscreen - (see page 3 for Illustrations)

1. Switch the AC power OFF to the AK600 Controller.

2. Open the front lid/door enclosure of the AK600 system (See Figure 1).

3. Disconnect the power/data, ribbon cable from the AK600 Motherboard (Item 7 of Figure 2).

4. If Sensor boards are attached to the Pool #1, #2, or #3 slots of the AK200 Interface board (Item 1 of Figure 2), then loosen and remove the pairs of nuts that attach each Sensor board to the lid/door enclosure but do not yet remove sensor boards.

5. Removal of the AK600 Motherboard

   a. Optional: If the AK600 Motherboard is installed with two screws at opposite corners on the board, then use a Phillips driver to remove the two screws (Item 3 of Figure 2) that attach the AK600 Motherboard to the AK200 Interface board (Item 1 of Figure 2).

   b. Carefully pull off the AK600 Motherboard from the AK200 Interface board from the two, 40-pin terminals where the two boards are interconnected.

6. Next, removal of the AK200 Interface/Display Touchscreen boards

   a. To remove the AK200 Interface board and the Display Touchscreen board (Item 4) set from the front lid/door enclosure, remove the outer, four nuts (not shown) on the AK200 Interface board that attach it to the front lid/door enclosure.

   b. Carefully remove any Sensor Boards that are attached to the pool ports.

   c. Remove the AK200 Interface/Display Touchscreen board set from the front lid/door enclosure.

7. Separate the Display Touchscreen board and AK200 Interface board

   a. To remove the Display Touchscreen board from the AK200 Interface board, remove the four sets of nuts (Item 5 of Figure 2), spacers (Item 2 of Figure 2), and screws (Item 3 of Figure 2) between the AK200 Interface board and the Display Touchscreen board.

   b. Carefully pull off the AK200 Interface board from the Display Touchscreen board from its 20-pin and 2-pin terminal headers where the two boards are interconnected.

   c. Orient the boards to have access to the housing of the ribbon cable that is attached to the 4-pin terminal header. Carefully pull off the ribbon cable from the 4-pin terminal.

Installation Instructions: Display/Touchscreen (P/N 810072000) - (see page 3 for Illustrations)

1. Attach the ribbon cable of the Display Touchscreen board to the 4-pin terminal of the AK200 Interface board. Carefully align the 20-pin and 2-pin terminal headers of the Display Touchscreen with the terminals of the AK200 Interface board, and then press boards into place. Attach the four nuts (Item 5), four spacers (Figure 1,item 2), and four screws (Figure 1, item 3) to attach the AK200 Interface board with the Display Touchscreen board (See Figure 1). Securely fasten.

2. Install the AK200 Interface/Display Touchscreen board (Item 4) set to the front lid/door enclosure by positioning the holes of AK200 Interface board through the four standoffs of the front lid/door enclosure. Carefully attach any Sensor Board to its pool ports and position the board through its two standoffs of the front lid/door enclosure.

3. Install and fasten the four nuts (not shown) that attach the AK200 Interface board to the front lid/door enclosure, and then install and fasten the pair of nuts to secure the Sensor board to the front lid/door enclosure.

4. AK600 Motherboard:

   a. Insert the two, self-retaining spacers (Item 6 of Figure 2) on the AK600 Motherboard.

   b. Carefully align the two, 40-pin terminal headers of the AK600 Motherboard with the headers of the AK200 Interface board, and then press the boards into place.

   c. Optional: Insert two, ¾-inch screws on the opposite corners of the AK600 Motherboard (See Figure 2), and then fasten the screws with a Phillips driver.

   d. Connect the power/data ribbon cable to the plug the AK600 Motherboard.

Contrast Knob for Display TouchScreen:

1. When all hardware is fastened and secure, turn the power switch ON the AK600.

2. If the Display Touchscreen appears black or if LCD characters are hard to read, then use a small driver or plastic tweaker screw driver to adjust the contrast knob (See Figure 3) on the AK200 Interface board. Turning the contrast knob fully counterclockwise will turn the Display Touchscreen black. Adjust the contrast knob clockwise to set the appearance of the LCD characters.

AK600 Assembly Board Set

Display Touchscreen board: P/N 810072000 (Provided in Kit)
AK600 Motherboard: P/N 800200100 (For illustration Only)
AK200 Interface board: P/N 810690000 (For illustration Only)
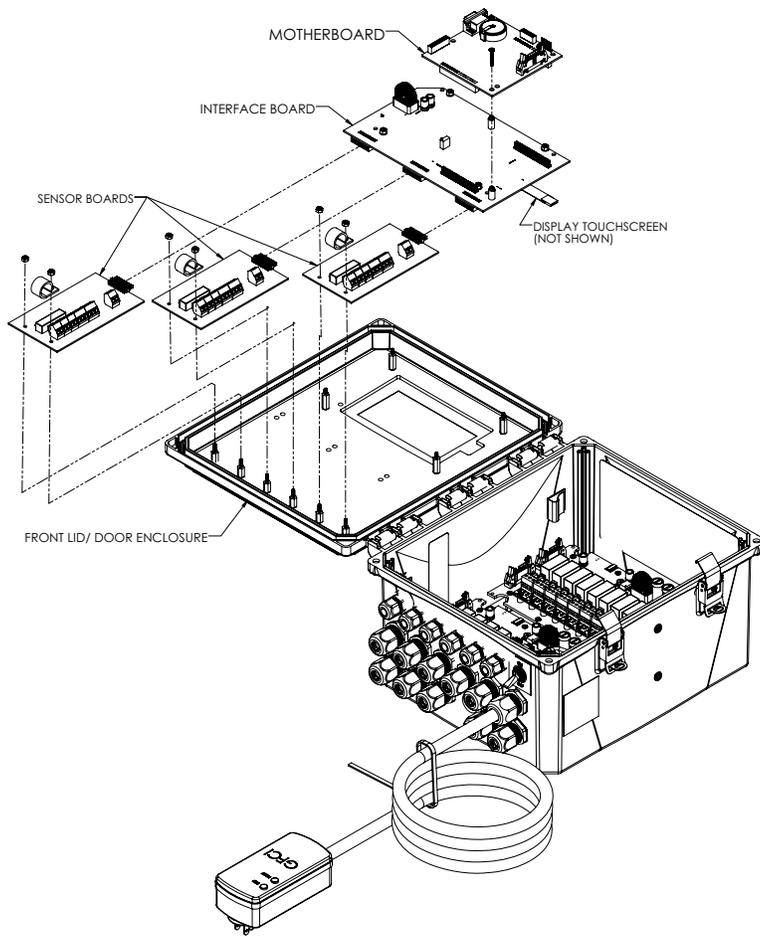

**Figure 1. AK600 Controller Enclosure (Door Open)**
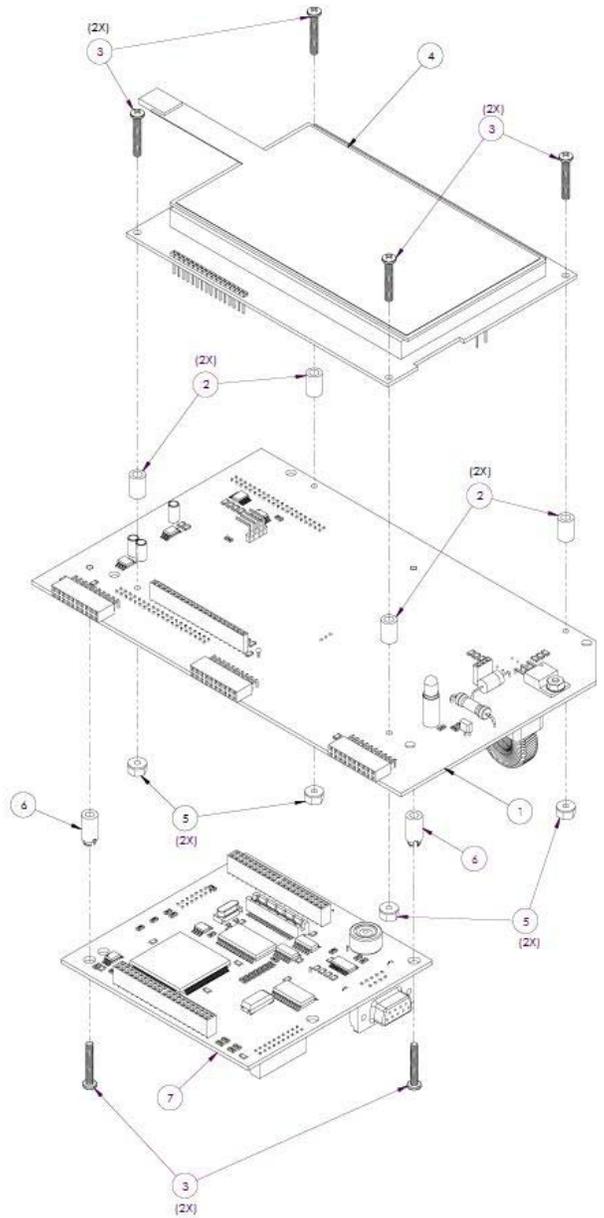
Figure 2. AK600 Controller Three-Board Set
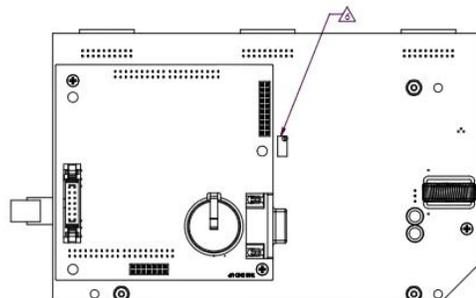
Figure 3. AK600 Controller (Location of Contrast Knob)

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