1. DESCRIPTION.

The BASIC Automatic multiport valve is based on a manual valve with bolts on cover, where fits an electric actuator in order to automate Backwash, Rinse, Filter and Waste functions.

This is a great advantage due to dimensions and hydraulic connections are the same, making easier the update of a manual valve to an automatic BASIC valve.

In this manual you can find how to connect the valve to a standard electric box from Certikin (point 3) or to a DUAL SPEED electric box (point 4).

2. HYDRAULIC INSTALLATION

From a hydraulic point of view, BASIC valve is a manual standard valve. It should be installed in the same way as any other manual valve.

The only difference in this section is the installation of a hydraulic electrovalve on the waste port which gives security against sudden power supply failures (avoids accidental wastes).

3. ELECTRIC CONNECTION TO AN CERTIKIN STANDARD ELECTRIC BOX

It’s important to know that, electrically, Basic valve is universal for any pump (0.75 CV, 1 CV, 2 CV, etc). This is possible due to it works over the electric operation of the electric box of the pool.

For a correct installation, you may need:

- 3-wire cable for the power supply.
- 2-wire cable for the manoeuvre.
- 2-wire cable for the electrovalve.
Next steps on installation:

a) Connections on the multiport valve:

1. Make sure power supply is off.

2. Remove the 4 bolts that fix the blue & transparent cover (one on each corner) using a suitable screwdriver.

Fig. 1.- Unscrew the 4 bolts that fix the cover

3. Pick the cover up slowly and remove the tape connector from the Electronic board.

Fig 2.- Separate the tape connector from the Electronic board.
4. Once the cover is out, fit the 3 electric cables (power, manoeuvre and electrovalve) through the glands.

5. Connect the power cable on the **J4 connector** (1st on the left).
   - Green/Yellow wire to pin $\downarrow$.
   - Blue wire to pin **N**.
   - Brown wire to pin **L1**.

It’s obliged to respect the polarity (**previous 2008 valves**).

![Fig. 3.- Power connections. J4 port.](image-url)
6. Connect the manoeuvre cable on the J10 “MOTOR-PUMP” connector.

- Brown wire to pin +.
- Blue wire to pin -.

It’s obliged to respect the polarity (previous 2008 valves).

Connect the electrovalve wires on the J7 connector. It’s a 24VAC electrovalve, Code 23.139. It’s obliged to respect the polarity: red wire (+), black wire (-).
b) Connections on the electric box:

1. Make sure power supply is off.

2. Remove the frontal cover to gain access to internal connections and components.

3. Insert through suitable glands power and manoeuvre cables that we have previously connected on the BASIC valve.

Fig. 6.- Astral electric box to control 1 pump + 1 light, with the 2 cables (power and manoeuvre)
4. Connect the 3-wires power cable (connected on J4 port at the valve).
   - Green/Yellow wire to ground pin (1st on the left). Ground pin colour: Green/Yellow.
   - Blue wire to neutral pin (2nd on the left). Neutral pin colour: Blue.
   - Brown wire to pin 2T1 on the pump protector.

It`s obliged to respect the polarity (previous 2008 valves).

Fig. 7.- Power cable connections to the electric box.
5. Find the pin **A1** on the pump’s relay (on the upper zone). Remove the brown wire connected.

![Fig. 8.- Locate pin A1 on the pump’s relay.](image1)

![Fig. 9.- Remove brown wire from pin A1.](image2)

6. Once the **brown wire** is out of **A1**, we must join it through a nylon strip to the other brown wire of the manoeuvre cable.
7. Connect the **Blue wire** of the manoeuvre cable on pin **A1**.
8. Electric connections have finished. Connect again the tape connector on the electronic board of the valve and screw the 4 bolts of the cover.

9. Connect the power supply and check the valve goes to Filter position and the pump starts working, increasing pressure inside the filter and flowing water through the pool nozzles.

10. Check the pump works correctly, both automatic and manual position from the 3 position switch.
4. ELECTRIC CONNECTION TO A DUAL SPEED ELECTRIC BOX

Basic valve is universal for any DUAL SPEED pump (1, 1.5, 2, 2.5 CV)

For a correct installation, you may need:

- 3-wire cable for the power supply
- 2-wire cable for the manoeuvre
- 2-wire cable for the electrovalve

Next steps on installation:

a) Connections on the multiport valve:

Repeat the steps on the a) section from the previous 3rd point (Connections on the multiport valve).

b) Connections on the electric box:

1. Make sure power supply is off.

2. Remove the frontal cover to gain access to internal connections and components.

Fig. 12.- DUAL SPEED electric box

3. Insert through suitable glands power and manoeuvre cables that we have previously connected on the BASIC valve.
4. Connect the 3-wires power cable (connected on J4 port at the valve).
   - Green/Yellow wire to ground pin. Ground pin colour: **Green/Yellow**.
   - Blue wire to neutral pin **N** on the protection.
   - Brown wire to pin **4T2** on the pump protector.

   It’s obliged to respect the polarity (**previous 2008 valves**).

![Power cable connections](image)

Fig. 13.- Power cable connections.

5. Find the connection between pin 6 – 8 on the digital timer and remove it.

![Connection from factory on the digital timer](image)

Fig. 14.- Connection from factory on the digital timer.
- Connect on pin 6 (digital timer) the brown wire that comes from the pin + of the J10 port of the valve. Connect on pin 8 (digital timer) the blue wire that comes from the pin – of the J10 connector of the valve.

It’s obliged to respect the polarity (previous 2008 valves).

Fig. 15.- Manoeuvre connections. J10 port on valve.

Fig. 16.- Manoeuvre connections to digital timer
6. Electric connections have finished. Connect again the tape connector on the electronic board of the valve and screw the 4 bolts of the cover.

7. Connect the power supply and check the valve goes to Filter position and the pump starts working, increasing pressure inside the filter and flowing water through the pool nozzles.

8. Check the pump works correctly.

c) Important issues to consider in Basic valve - DUAL Speed pump working

1. The valve manages the stop/go of the pump during a backwash operation.

2. THE PRESSURE SWITCH SHOULD BE TUNED AT HIGH SPEED MODE, never at low speed, due to the working range of the pump changes from one speed to other. If you tune at low speed mode, the valve will always start a backwash operation when the programmer will change to high speed mode.

3. If you want to start a manual backwash from the valve, you should select from the programmer the manual option with the selector Man/Auto and choose Turbo (high speed) with the Stop/Eco /Turbo selector. Then push the backwash button of the valve (press it during 7 seconds) or close the return valve. The Backwash Program button and the Rinse Program button from the programmer will not be used.

4. If you want to start a WASTE operation you should proceed in the same way: programmer in manual position and push waste button from the valve.

5. If the time programmed at high speed finishes during a backwash or rinse operation, being the pump in Auto mode, the valve will finish the rest of the operation at low speed. On the next high speed period, the pressure switch will detect automatically if the backwash has been enough to clean the filter.
6. If the automatic 7 days backwash on the valve is switched on, the backwash and rinse operation will be done at the speed fixed by the programmer at that moment. Therefore, we recommend to cut the power supply or force a backwash operation in a high speed period of time.

5. PRESSURE SWITCH SET UP.

1. Switch on the pump (remember: installations with DUAL SPEED pump, pressure switch must be tuned at high Speed mode).
   Notice the working pressure at standard conditions (clean filter). Pressure will be different on every case. In this example, filter works at 0,8 kg/cm$^2$.

   ![Fig. 18.- Working pressure: 0,8 kg/cm$^2$](image)

2. From this value, we may calculate the pressure when a backwash is needed. People use to add 0,5 kg/cm$^2$ over the working pressure. In this example:

   \[ 0,8 + 0,5 = 1,3 \text{ kg/cm}^2. \]

   ![Fig. 19.- Pressure before backwash: 1,3 kg/cm$^2$](image)

3. Locate the pressure switch on one side of the valve´s body. It´s covered by a black rubber cap.
4. Remove the cap. You will see 2 faston-type connections and the tuning screw (allen).

Fig. 20. - Pressure switch

Fig. 21. - Connections and tuning screw.
5. Using an Allen tool, tighten softly the screw until the end.

Fig. 22.- Tight the screw.

6. Close slowly the return to pool valve until you get the required pressure (at the example: 1,3 kg/cm²). Keep the valve in this position.

Fig. 23.- Close the return to pool valve.
7. Using again the Allen tool, untight slowly the tuning screw until the green led on the Electronic board will light on.

You will find this led near the J8 port, where the wires of the pressure switch are connected to the electronic board.

Fig. 24. - Untight the screw.
8. Once the led has lighted on, stop unscrewing. After 10 seconds, the valve will start a backwash routine.

9. Open the return to pool valve and check the green led lights off. Check the valve completes the full cycle (backwash + rinse) and returns to filter position at the end.

10. Assemble again the rubber cap. Now the valve is ready to work.

Note: If there is a change on the installation that may cause different flow or pressure conditions, the pressure switch may have to be tuned again.
6. BACKWASH AND RINSE TIMES SETUP.

If you want to change the BW or Rinse times, press over the + / - selector on the frontal cover. When the valve is doing a backwash or rinse operation, no change is allowed. You may wait until valve will return to filter position.