Galcon GAECS900208

Galcon AC-24 Irrigation Controller User Manual

Model: GAECS900208

1. INTRODUCTION

The Galcon 800248 AC-24 is a versatile modular controller designed for irrigation, fertigation, and low voltage lighting applications. It comes equipped with 8 stations and is expandable up to 24 stations using optional 4-station expansion modules (GAEC14203P0). This controller offers advanced programming flexibility, allowing for independent station operation or grouped operation across three distinct programs (A, B, and C).
This manual provides detailed instructions for the installation, programming, and maintenance of your Galcon AC-24 controller to ensure optimal performance and longevity.

Figure 1: Front view of the Galcon AC-24 controller with the protective cover open, revealing the user interface. The interface includes a digital display, a central rotary dial for mode selection, and several push buttons for navigation and adjustment. The model number AC-800248 is visible on the lower right of the control panel.

2. SETUP AND INSTALLATION

2.1 Mounting the Controller

The Galcon AC-24 controller is designed for both indoor and outdoor installation. Choose a location that is protected from direct sunlight and extreme weather conditions, yet easily accessible for programming and maintenance. Ensure the mounting surface is stable and capable of supporting the controller's weight.

1. Securely mount the controller to a wall using appropriate screws and anchors.
2. Ensure the controller is level to prevent moisture accumulation.

2.2 Wiring Connections

All wiring should be performed by a qualified electrician in accordance with local electrical codes. This product is designed for use only in the USA and Canada.

- **Power Connection:** Connect the controller to a suitable AC power source.
- **Valve Wiring:** Connect each irrigation valve to its corresponding station terminal on the controller. Ensure common wires are connected to the common terminal.
- **Sensor Connection (Optional):** If using a rain sensor or flow sensor, connect it to the designated sensor terminals.
- **Fertigation Valve (Optional):** Connect the fertigation valve to its dedicated terminal if utilizing this feature.
- **Low Voltage Lighting (Optional):** For low voltage lighting applications, a separate relay is required and must be connected to the controller's low voltage output. This relay is not included.

2.3 Expanding Stations

The AC-24 controller can be expanded from 8 to up to 24 stations. To expand, purchase optional 4-station expansion modules (GAEC14203P0) and follow the instructions provided with the modules for installation into the controller's expansion slots.

3. OPERATING INSTRUCTIONS

The controller features a rotary dial and push buttons for navigation and programming. The dial selects the programming mode, and the buttons are used to adjust values and confirm selections.

3.1 Initial Setup and Time/Day Setting

1. Turn the rotary dial to **TIME/DAY**.
2. Use the **+** and **-** buttons to set the current time and day of the week.
3. Press the → button to confirm and move to the next setting.

3.2 Programming Irrigation (Programs A, B, C)

The controller allows for three independent programs (A, B, C) which can be set as weekly or cyclic. Each program can have up to 4 start times per day.

1. Turn the rotary dial to **PROGRAM**.
2. Select the desired program (A, B, or C) using the **+** and **-** buttons.
3. Turn the dial to **WEEKLY/CYCLIC** to choose the program type.
4. Turn the dial to **START** to set up to 4 daily start times for the selected program.
5. Turn the dial to **VALVES** to assign specific valves to the program.
6. Turn the dial to **DURATION** to set the irrigation duration for each assigned valve (1 minute to 9 hours).
7. For weekly programs, select the days of the week for irrigation. For cyclic programs, set the cycle interval (1 to 30 days).

3.3 Independent Program (I)

The controller also features an independent program (I) for specific applications like low voltage lighting or pond pumps. This program operates independently of irrigation schedules and rain delays.

1. Turn the rotary dial to **INDEPENDENT I**.
2. Set the start time, duration, and frequency (weekly or cyclic) for the independent program.

3.4 Special Functions

- **Fertigation Control:** Turn the dial to **FERTILIZER**. Assign a percentage of run time for fertilizer injection to individual valves. The fertilizer valve will activate after a calculated delay and stop before the irrigation cycle ends.
- **Rain Delay:** Turn the dial to **RAIN OFF**. Set a programmable "rain off" period up to 240 days to suspend irrigation.
- **Seasonal Adjustment (Water Budget):** Turn the dial to **WATER BUDGET**. Adjust irrigation duration from 10% to 190% to compensate for seasonal changes without reprogramming.
- **Manual Operation:** Turn the dial to **MANUAL** to manually operate individual valves or all valves for a set duration.
- **Test/Reset:** Turn the dial to **TEST/RESET** for system testing or to reset programming.

4. MAINTENANCE

The Galcon AC-24 controller is designed for durability and requires minimal maintenance. Regular checks can help ensure its long-term performance.

- Keep the controller's exterior clean and free from dust and debris. Use a soft, damp cloth for cleaning.
- Periodically inspect all wiring connections to ensure they are secure and free from corrosion.
- Ensure the protective cover is properly closed when not accessing the controls to protect against environmental elements.
- In regions with freezing temperatures, ensure the system is properly winterized to prevent damage to valves and pipes.

5. TROUBLESHOOTING

This section addresses common issues you might encounter with your Galcon AC-24 controller.

Problem	Possible Cause	Solution
Controller display is blank.	No power supply; faulty transformer; internal fuse.	Check power outlet and connections. Verify transformer output. Consult a qualified technician if fuse replacement is suspected.
Valves not activating.	Incorrect programming; wiring issue; faulty solenoid; rain sensor active.	Verify program settings (start times, durations, assigned valves). Check wiring to valves and common. Test solenoids. Check if rain delay is active or sensor is preventing operation.
Difficulty programming.	Unfamiliarity with interface; incorrect dial position.	Refer to Section 3: Operating Instructions. Ensure the dial is in the correct position for the desired setting. Practice navigating the menus.

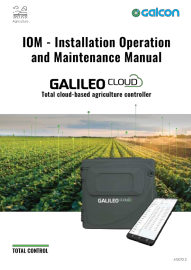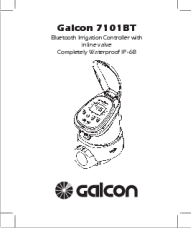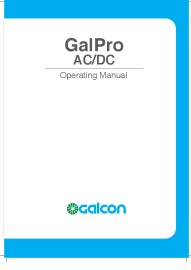| Problem	Possible Cause	Solution
Watering occurs at unexpected times.	Incorrect start times; multiple programs active; independent program running.	Review all program start times (A, B, C, and Independent I). Ensure only desired programs are enabled.

6. SPECIFICATIONS

Feature	Detail
Model Number	GAECS900208 (AC-24)
Initial Stations	8
Maximum Stations	24 (with optional 4-station expansion modules GAEC14203P0)
Programs	3 (A, B, C) weekly or cyclic, plus 1 independent (I) program
Start Times per Program	Up to 4 per day
Irrigation Duration	1 minute to 9 hours
Cyclic Interval	Every 1 day up to every 30 days
Seasonal Adjustment	10% to 190%
Rain Delay	Up to 240 days
Fertigation Control	Yes, percentage of run time
Low Voltage Lighting Control	Yes (requires separate relay, not included)
Product Dimensions	12.45 x 23.11 x 29.72 cm
Item Weight	2.23 kg
Designed For	USA and Canada only

7. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the documentation included with your purchase or visit the official Galcon website. Keep your proof of purchase for warranty claims.

For further assistance, contact Galcon customer service. Contact details are typically available on the manufacturer's website or product packaging.

Related Documents

	Galileo Cloud Installation, Operation, and Maintenance Manual Comprehensive guide for installing, operating, and maintaining the Galileo Cloud system, an advanced cloud-based agricultural controller for irrigation and fertigation.
	Galcon Catalog: Smart Irrigation Control Systems for Gardening and Agriculture Explore the Galcon catalog featuring a wide range of user-friendly, smart monitoring and control irrigation solutions for residential gardening, turf & landscape, and agriculture. Discover advanced controllers and accessories designed for efficiency and performance.
	Galcon 7101BT Bluetooth Irrigation Controller Manual User manual for the Galcon 7101BT Bluetooth Irrigation Controller with inline valve. Includes setup, programming, troubleshooting, maintenance, and warranty information.
	GalPro AC/DC Operating Manual: Efficient Irrigation and Fertilization Control Discover the Galcon GalPro AC/DC controller, an advanced irrigation and fertilization management system for agriculture. This manual details installation, setup, programming, and operation for optimal field performance.

Documents - Galcon – GAECS900208

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AC 24-8: The Galcon 800248 AC 24-8 is an Indoor or Outdoor Irrigation, Fertigation and Low Voltage L ... Irrigation Controller, this product can only be used with our 800248 AC 24-8 Irrigation Controller **GAECS900208** Additional highlights: Indoor/Outdoor 8 Station Controller with expansion capability up...

lang:en score:23 filesize: 43.15 K page_count: 2 document date: 2014-01-02