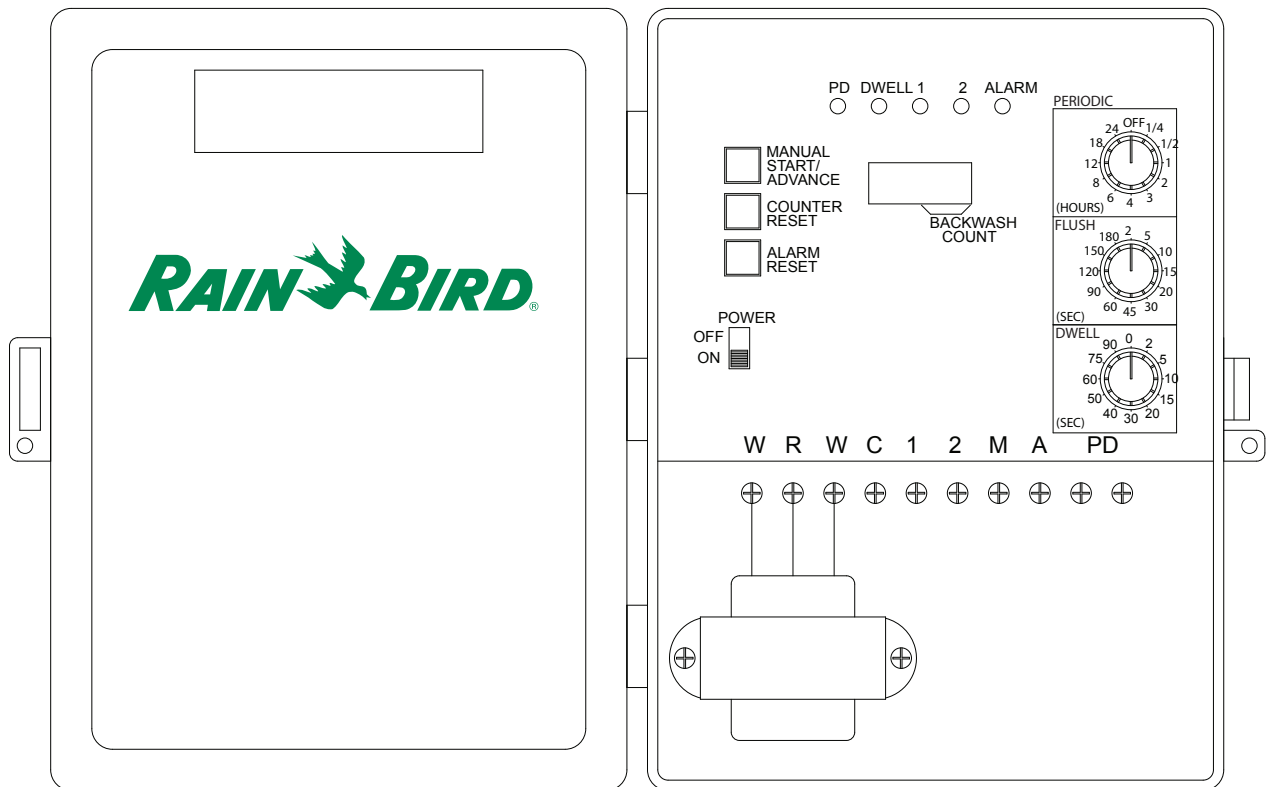




AUTO-EC-2-E

Electric Filter Backwash Controller

Operation & Maintenance Manual



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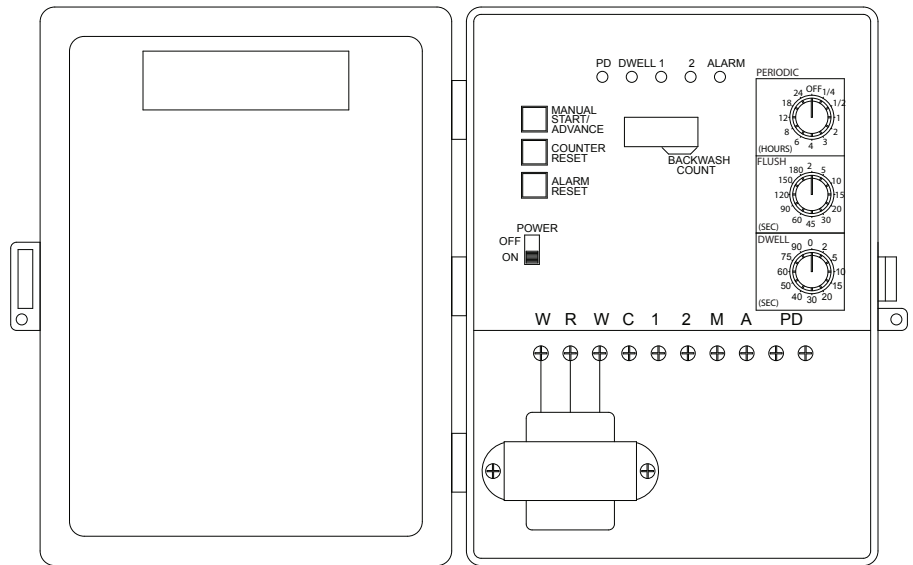
Controller Basics

E+ Series AUTO-EC-2 Backwash Controllers are designed to monitor and activate a cleaning cycle for a single filter or two filters in parallel. The controller allows the user to adjust the flush duration, dwell time between backwashes, and the specified periodic backwash. Other features include manual start, counter reset, and alarm reset.

The controller receives an open/closed signal via terminals P and D. This signal is from the differential pressure gauge, and means that the gauge has reached a preset value. Reaching the preset value (usually 7 psid) tells the controller that debris has collected on the screen element, and that an automatic backwash will activate.

When a closed signal is sensed on terminals P and D for a 5 second period, the backwash sequence begins. The backwash sequence is: terminal 1 energizes for the flush duration, then an idle period for the dwell duration, and then terminal 2 energizes for the flush duration. Terminals C and M energize for entire sequence.

Installing a surge protector prior to the transformer is highly recommended to prevent damage to the equipment.



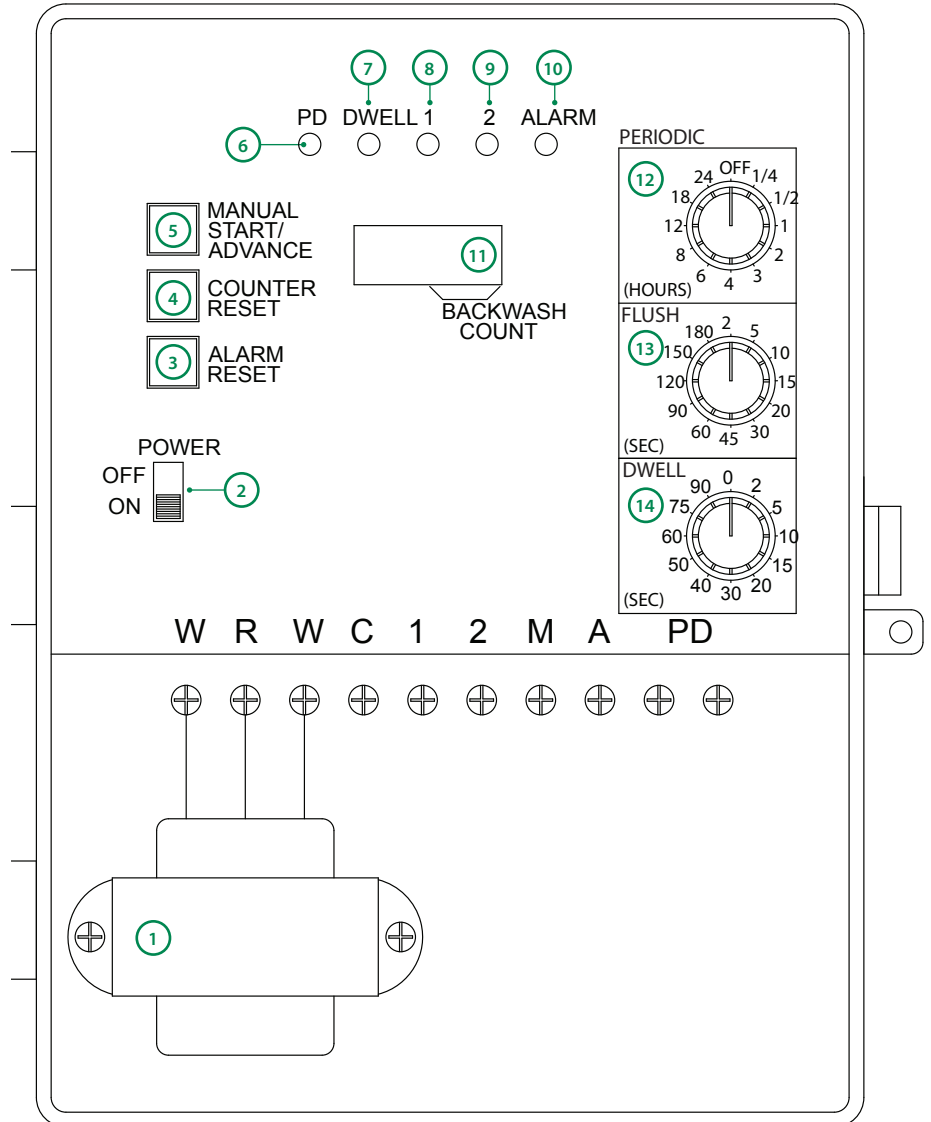
Auto-EC-2-E Controller

Controller Functions

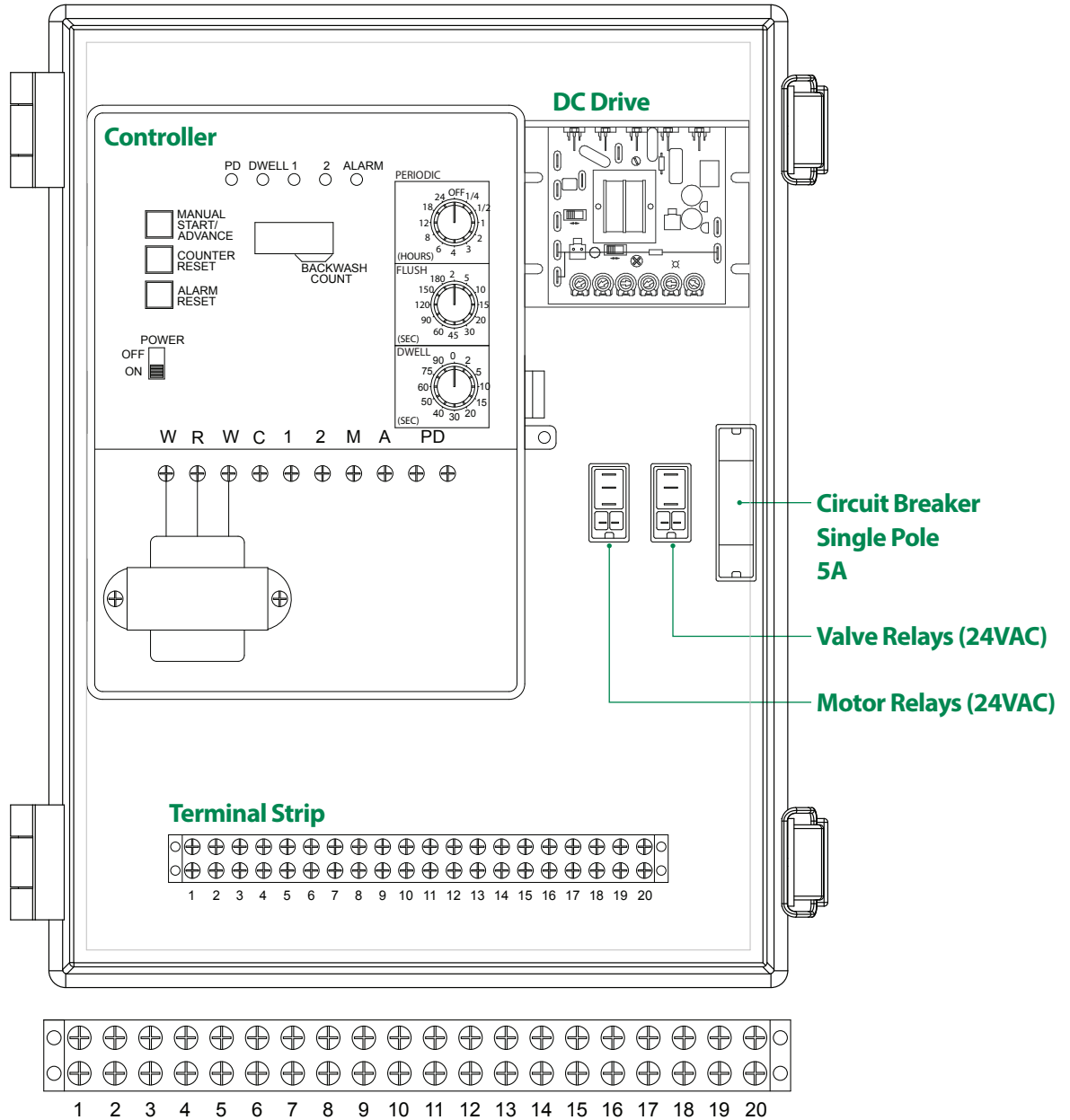
1. 1. Step-down Transformer. Converts 115 or 230 VAC to 24 VAC. Installing a surge protector is strongly advised to prevent damage to the transformer and controller.
2. 2. Power. Controls power to the controller board.
3. 3. Alarm Reset. Hold down for 1 second (while idle) to disable alarm output signal.
4. 4. Counter Reset. Hold down for 1 second (while idle) to reset backwash counter.
5. 5. Manual Start / Advance. Manually initiates a backwash sequence.
6. 6. PD. Closed contact sensed between terminals P and D.
7. 7. Dwell. When lit, the backwash sequence is in a dwell state.
8. 8. 1. Terminal 1 currently energized.
9. 9. 2. Terminal 2 currently energized.
10. 10. Alarm. Three consecutive backwashes without relieving differential pressure.
11. 11. Backwash Counter. Displays the number of backwashes.
12. 12. Periodic. Preset time for scheduled backwash cycles.
13. 13. Flush. Duration of each flush cycle.
14. 14. Dwell. Time idle between terminals 1 and 2 in the backwash sequence.

Terminals

- W(l). Red Lead - 24VAC from transformer.
 R. White Lead - 24VAC from transformer.
 W(r). Red & White Lead- 24VAC from transformer.
 C. Common - Energizes for entire backwash sequence.
1. Terminal 1 - Energizes for first half of backwash sequence.
 2. Terminal 2 - Energizes for second half of backwash sequence.
 - M. Master Terminal - Energizes for entire backwash sequence.
 - A. Alarm - Energizes when three consecutive cycles do not eliminate the PD signal.
 - P. One leg of the open/closed signal from the differential pressure gauge.
 - D. One leg of the open/closed signal from the differential pressure gauge.



Controller Components



Terminals

- Differential Pressure Gauge
- T1. White DP Lead
 - T2. Green DP Lead
 - T3. Red DP Lead
 - T4. Black DP Lead

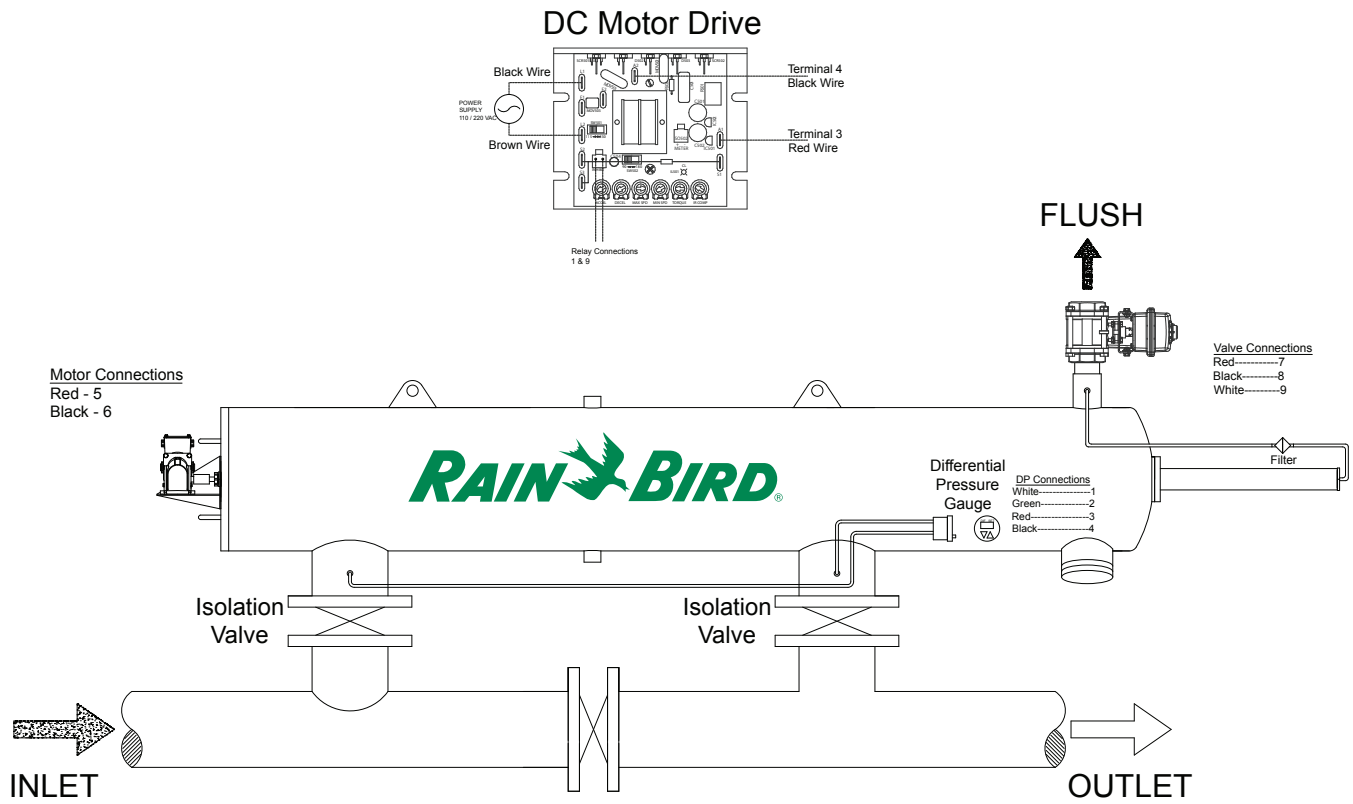
- Output Terminals for Motor (90VDC)
- T5. Red Lead Motor
 - T6. Black Lead Motor

- Input Power Source (110/220 VAC)
- T10. Ground
 - T11. Neutral
 - T12. Live

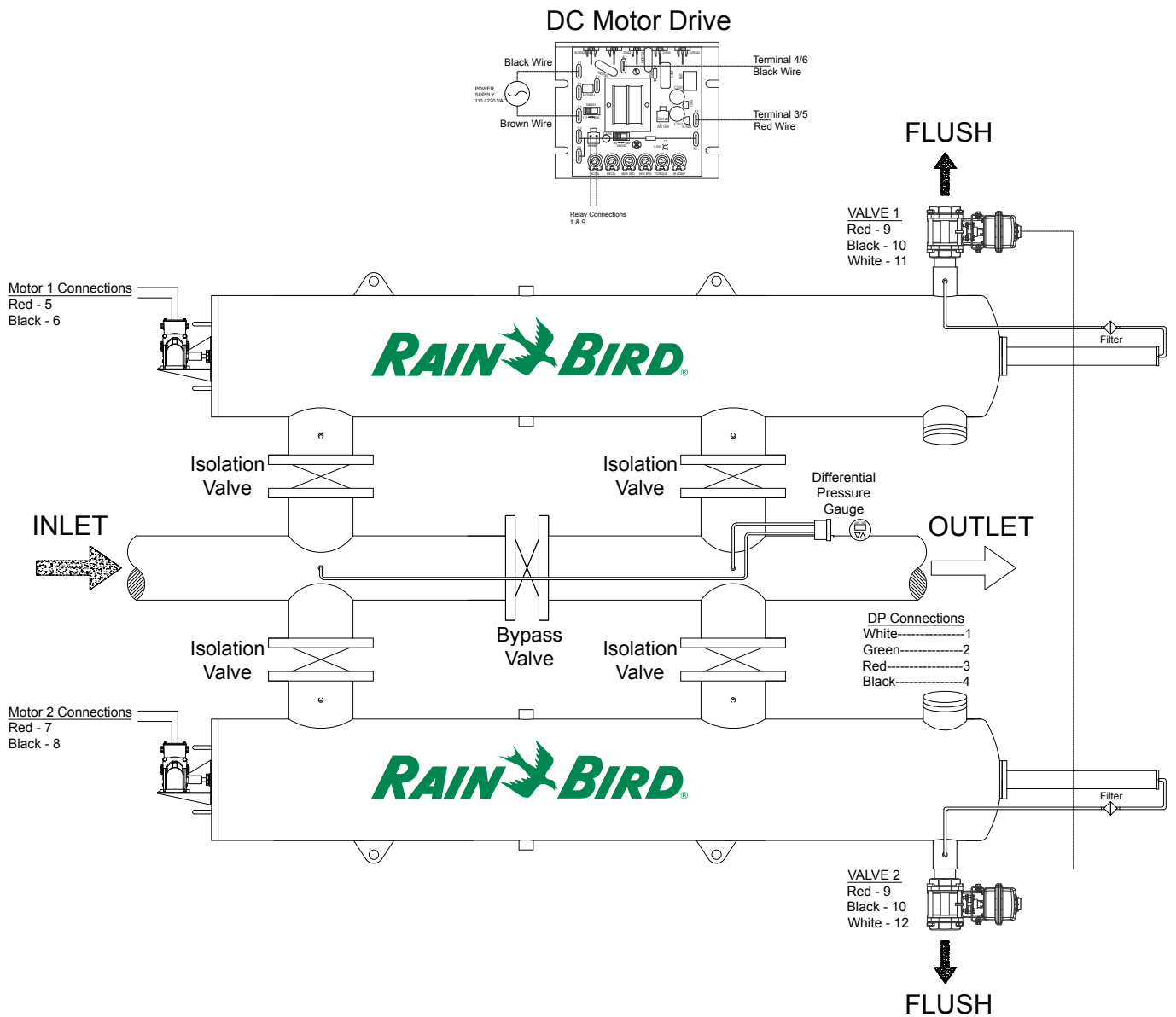
- Output Terminals for Valve (24VAC)
- T7. Red Lead (+) for Valve
 - T8. Black Lead (-) for Valve
 - T7. White Lead for Valve

- T13-20. Open Terminals

Basic Installation



Parallel Installation



Warranty

Rain Bird Filters guarantees all self cleaning water filters, components, and accessories free of defects for one year from the date of installation, or 18 months from the date of original shipment. Rain Bird will replace any part found defective during the warranty period, provided the equipment in question was handled, installed, and operated in accordance with the operation and maintenance manual and sound engineering practices. Rain Bird Filters assumes no liability for incidental or consequential damage resulting from the use of its products, services, or data. Liability is limited to replacement or repair of products provide by Rain Bird Filters, and no agent or sales representative has authority to extend the warranty period without the express written consent of Rain Bird Filters, Inc. Shipping charges for returned equipment will be at the expense of the purchaser, and all returned equipment must be sent to Rain Bird Filters.