

***norweco*® SINGULAIR®**

INTEGRATED SYSTEM CONTROLS

FINAL INSTRUCTIONS TO THE OWNER

When Singulair wastewater treatment systems are installed in conjunction with effluent disposal systems requiring pumping, the optional integrated system controls allow both aerator and pump operations to be controlled from a single panel. Based on the specific Singulair model number, the corresponding quantity of aerators, and quantity of effluent pumps required, integrated system controls are available in simplex aerator/simplex pump, duplex aerators/simplex pump and duplex aerators/duplex pumps configurations.

These instructions are directed only to the specific requirements of the optional integrated system controls. They are not intended to cover all aspects of service of the control center or troubleshooting. Additional instructions are contained in Bio-Kinetic wastewater treatment system Final Instructions to the Owner and Aerator Troubleshooting.

CONTROL CENTER SERVICE

CAUTION: If your visual inspection of the Singulair control center reveals a problem, be sure to shut off the appropriate circuit breaker in the main service panel, then test all circuits with the electrical multi-meter to be sure they are de-energized prior to proceeding.

Control center service should be performed during each service inspection and should follow all parameters outlined in the Singulair Service Manual.

NOTE: The performance of the Singulair system has been tested and certified with the aerator(s) operating on a minimum cycle of 30 minutes per hour. No adjustment should be made to the factory preset time clock setting without following the detailed steps outlined in the "Time Clock Setting and Service Instructions."

1. If there is no evidence of an electrical problem, check the main service panel to see that the circuit breaker is in the "on" position.
2. Check to see that all circuit breakers within the integrated control center are in the "on" position.
3. Check the aerator selector switch in the Singulair integrated control center to make sure that it is set to "automatic" operation.
4. Check all alarm selector switches in the Singulair control center to see that all alarm functions are in the "normal" position.
5. Verify that your company's identification label is affixed to the Singulair control center and is legible. Replace the label if necessary.
6. Inspect wiring from the control center to the aerator(s) and pump(s) as far as it is visible, and notify the owner if you see any damaged areas.
7. As you leave, make sure that the Singulair control center is set for "automatic" operation for all aerators and pumps.

ELECTRICAL TROUBLESHOOTING

CAUTION: Before initiating any electrical component inspection or repair, turn off all power to the Singulair system by switching off the dedicated circuit breaker in the main electrical service panel and then test with the electrical multi-meter. Repairs should always be made by a qualified electrician using proper procedures and safe tools. Make sure that all circuits are properly grounded. Do not stand in damp locations when making electrical system tests. Always use tools with insulated handles for electrical repairs.

No electrical power from electrical service panel to control center

Follow instructions detailed in "Electrical Troubleshooting Section" of the Singulair Service Manual

No electrical power from control center to aerator

Follow instructions detailed in "Electrical Troubleshooting Section" of the Singulair Service Manual

No electrical power from control center to pump

Check to see that pump circuit breaker is in the "on" position.

Check to see that "on" float in pump station wet well is elevated to its "closed" position.

Check all wiring from control center to pump.

Aerator will not start

Follow instructions detailed in "Electrical Troubleshooting Section" of the Singulair Service Manual

Pump will not start

See instructions contained in Pump Operation and Maintenance Manual

Replace defective float

FINAL OWNER INSTRUCTIONS (Cont.)

The owner should be advised to make the following periodic checks of the system to insure that it continues to operate at maximum performance levels:

1. The Singulair control center should be checked daily. If the red warning light is glowing and the audible alarm sounding, depress the reset button on the control center cover. The light should go off and the audible alarm should be silenced. If the alarms activate again, call the local distributor for service.
2. Check the fresh air openings in each vented cover monthly to make sure the passage of air into the Singulair tank has not been restricted.
3. Inspect the effluent discharge point and ground water relief point monthly to make sure there are no restrictions to the effluent flow.
4. Make sure the pretreatment chamber is inspected at least every three years. Have it pumped only when necessary. See Singulair Tank Pumping Instructions to determine when pretreatment chamber pumping is required.

FOR BEST RESULTS

Be sure the owner understands the system's capabilities and purpose. Discuss the importance of the following items with the owner to maximize system performance.

Always

1. *Repair any leaking faucets or toilets promptly.*
2. *Discharge only biodegradable wastes into the system.*
3. *Divert down spouts and other surface water away from the system.*
4. *Keep mounting casting and riser covers accessible for service and inspection.*
5. *Consult your Norweco distributor before using enzymes, tank activators or similar additives.*
6. *Call your Norweco distributor if you have problems or questions.*

Never

1. *Connect roofing down spouts, footer drains, sump pump piping or garage and basement floor drains into the sewer line of the Singulair system.*
2. *Allow backwash liquid from a water softener to enter the system.*
3. *Dispose of items such as lint, cooking grease, scouring pads, diapers, sanitary napkins, cotton balls, cotton swabs, cleaning rags, dental floss, strings, cigarette filters, rubber or plastic products, paints and thinning agents, drain cleaners or other harsh chemicals in the domestic wastewater plumbing.*
4. *Dispose of disinfectants, pesticides, poisons or toxic materials down your drain.*
5. *Use the power supply to the aerator as a service receptacle for lawn and garden tools.*
6. *Interrupt power to the Singulair control center, even during extended periods of non-use. If you anticipate a long term vacancy, contact the local distributor for proper procedures.*

BEFORE LEAVING THE SITE

Remind the owner that the limited Warranty Registration Card must be filled in and mailed as soon as possible. Explain that your company's telephone number is found on the Singulair control center. Offer to remove and return the Warranty Registration Card for the owner. Have them sign the card and return it to your office to be mailed to Norweco. As you leave, remind the owner to call your office if any questions arise.

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and wastewater treatment

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