Promoting Advanced Wastewater Technology!

## SUPERIOR ON-SITE SOLUTIONS

*California's Authorized Hoot Manufacturer & Distributor*

---

# Supplemental Installer's Guide

*for the HOOT® Aerobic Treatment System*

Practical Tips and Procedures for Licensed Septic Contractors

**Superior On-Site Solutions**
3643 Bradshaw Road #311 | Sacramento, CA 95827
Local: 916-436-8457 | Toll Free: 877-669-4668
info@sosonsiteca.com | sosonsiteca.com

## 1. SCOPE, ROLES, AND HOW WE WORK TOGETHER

**Important Note for Installing Contractors**

This Supplemental Installer's Guide has been prepared by Superior On-Site Solutions to provide California licensed septic contractors with practical tips, procedures, and reference photos in support of a successful Hoot system installation.

This document supplements but does not replace the current Hoot Aerobic Systems, Inc. Installer's Guide that ships with each system. When in doubt regarding manufacturer-specific procedures, controller programming, or warranty conditions, always defer to the current Hoot manufacturer documentation provided with the system or contact Superior On-Site Solutions for guidance.

Superior On-Site Solutions is California's authorized Hoot manufacturer and distributor. As the manufacturer, we supply the system, perform tank-top connections and commissioning, and provide ongoing O&M service for the life of the system. The licensed septic contractor — that's you — performs the excavation, tank setting, plumbing, electrical, dispersal field installation, and backfilling.

Both roles are essential to a successful Hoot installation. This guide outlines what we do, what you do, and how we coordinate at each stage of the project.

### Superior On-Site Solutions (Manufacturer/Distributor) Performs:

- System sizing consultation and selection guidance
- Manufacturing of the concrete tank in California
- Delivery to the project site
- Tank-top connections (controller, blower, sensor, dialer wiring)
- Initial system commissioning and performance verification
- Warranty registration with Hoot Aerobic Systems, Inc.
- Coordination with the county for final inspection
- Ongoing O&M service per California county requirements

### The Licensed Septic Contractor Performs:

- Excavation of the tank hole and dispersal field
- Setting the tank in the prepared hole
- 4" sewer line connections from the residence to the tank inlet
- Watertight integrity testing of the tank

- Riser installation to final grade
- All electrical work between the 30-amp service and the controller
- Dispersal field installation (drip tubing, trenching, distribution)
- Surface restoration, backfilling, and seeding
- Final coordination with the county inspector

**Coordination Tip**

Schedule the SOS commissioning visit AFTER the tank is set, the dispersal field is installed, and 30-amp electrical service is available — but BEFORE backfilling around the tank. This gives our technician access to verify watertight integrity, complete tank-top connections, and address any issues before the work is concealed.

## 2. DELIVERY CHECKLIST

Each Hoot system is delivered with the following components. The installer and the SOS delivery driver should both verify the contents at the time of delivery. Note any missing or damaged items in the Comments section. Both parties sign and retain a copy.

Project Name / Address: _____

| | |
|---|---|
| ☐ | Concrete lids for tank-top openings: (1) Trash, (4) Catastrophic |
| ☐ | HOOT computer controller: S/N _____ Chip # _____ |
| ☐ | NSF auto-dialer (with controller harness): Dialer ID # _____ |
| ☐ | Aeration blower (with check valve, rubber hose, clamps): S/N _____ |
| ☐ | Sensor probe assembly (with parts bag) |
| ☐ | Headworks riser assembly |
| ☐ | Riser rings (3) |
| ☐ | Riser covers (2) and screws |
| ☐ | Effluent pump: S/N _____ |
| ☐ | Geoflow drip tubing: Part # _____ Length: _____ |
| ☐ | Geoflow connectors: Quantity _____ |
| ☐ | Air release valves and cones (2) |

| | |
|---|---|
| ☐ | Concrete cover for aeration blower |
| ☐ | Concrete blower pedestal (round) |
| ☐ | Sealants: Ramneck, Silicone II, Jet-Set Concrete |
| ☐ | UV disinfection light (when specified) |
| ☐ | Hoot Installer's Guide and this Supplemental Guide |

Comments: _____

_____

Installer's Signature: _____ Date: _____

SOS Signature: _____ Date: _____

## 3. HOOT SYSTEM DECLARATION OF WARNINGS

These warnings come directly from Hoot Aerobic Systems, Inc. and apply to every Hoot installation. Review with the homeowner during system handoff.

**WARNING — Materials That Damage the System**

To prevent malfunction, do not discharge the following materials into the system: plastic materials, cloth, cigarette butts, large quantities of acids/caustics/soaps/cleaning materials with high or low pH (use low-suds detergents), disposable diapers, baby wipes, paper towels, facial tissues that do not decompose readily, rubber products, automatic toilet disinfection products, excess grease or fatty materials (use garbage disposal sparingly), oily materials, motor oils, kerosene, gasoline, paints, water softener backwash (per local regulations), sump pump discharge, or any other materials that do not disintegrate readily in water.

**WARNING — Required Maintenance**

To function properly, the Hoot system must be maintained by a qualified professional at least every six months for the life of the system. Failure to maintain the Hoot system voids the limited warranty and may cause serious bodily injury or illness, and may cause serious damage to the system or other property.

**DANGER — Repairs by Qualified Professional Only**

Only a qualified professional should attempt to repair or service the Hoot system. Attempted repair by anyone other than a qualified professional may cause serious bodily injury or death and may cause serious damage to the system and other property.

**DANGER — Do Not Disconnect Power**

Do not disconnect power to the Hoot system. Disconnection may cause serious illness or death and may cause serious damage to the system.

**WARNING — Imminent Flood**

In case of imminent flood, immediately turn off electrical power to the Hoot system at the independent breaker located at the house. Failure to do so may cause serious injury or death and may damage the system.

**DANGER — Control Panel Service**

Do not open the control panel without electricity disconnected and locked out on the system. Failure to do so could cause severe injury or death.

## 4. TANK INSTALLATION

Each Hoot Treatment System is constructed of steel-reinforced concrete with a minimum strength of 4,000 P.S.I. at 28-day cure. Some configurations use structural fiber reinforcement that provides equivalent strength to steel. Tanks meet the requirements of ASTM C-1227, the industry standard for structural integrity of concrete tanks.

**Standard Tank Dimensions — HOOT 600AND**

13'-6" Length × 6'-0" Width × 6'-0" Height

### Step 1 — Excavate the Tank Hole

Dig the hole approximately one foot larger than the tank in all directions. Minimum dimensions for a HOOT 600AND: 15'-6" L × 8'-0" W × 7'-6" deep (allowing 18" of cover). Grade the bottom smooth and level. Verify excavation depth against the bottom of the inlet to confirm the tank will be deep enough for your sewer inlet to flow properly.

*Properly excavated and graded tank hole — smooth, level, free of sharp rocks*

**Tip — Bedding**

Check local regulations regarding bedding the excavated hole with sand or pea gravel. Remove all sharp rocks and smooth any jagged edges before tank placement.

## Step 2 — Prepare for Delivery

Prepare a level, clear approach to the tank hole for the delivery truck. The truck and crane require sufficient turning radius and overhead clearance. Coordinate access details with SOS in advance, especially for sites with narrow driveways, low overhead obstructions, or steep grades.


*Delivery truck with mounted crane positioned for tank placement*

## Step 3 — Tank Inspection on Arrival

Conduct a visual inspection of the tank IMMEDIATELY UPON ARRIVAL. Document any damage. Make any necessary concrete repairs prior to the tank being offloaded into the hole. The SOS delivery driver will assist; the contractor confirms tank is level within 1 inch from center to any corner once placed.


*Tank inspection prior to placement in hole*

## Step 4 — Watertight Integrity Test

1. Begin filling the tank with water through the CENTER chamber. Water will spill into both the pretreatment and pump chambers — fill all three this way.
2. Bring 4" Schedule 40 ABS pipe into the inlet opening to the pre-treatment tank. Install a 4" sanitary tee inside the trash chamber.
3. CAP THE END OF THE INLET to perform the watertight test.
4. Backfill partially with dirt and continue filling the tank with water. Verify all unused seals are fully intact. If in doubt, remove the seal and install a piece of 4" Schedule 40 pipe with a cap, or grout the opening to prevent infiltration.
5. Measure water level from the top of the riser and allow for some absorption — fresh concrete will absorb a small amount of moisture.

*Begin filling the tank with water through the center chamber*

**Tip — Sewer Cleanout**

A sewer cleanout should be installed between the tank and the residence if total run distance exceeds 50 feet.

*Tank set with sewer line connection and cleanout*

## Step 5 — Backfill and Risers

1. Once watertight test is complete, backfill with dirt and complete the water fill.
2. If local regulations permit, fill between excavation walls and the tank with a flowing material such as sand or non-compacted soil — this makes working on the tank-top safer. If regulations do not allow this, backfill immediately following inspection and exercise extra care around the excavation.

3. Bring the access ports to final grade using the supplied risers. Risers should extend a minimum of 2 inches above finished grade.

*Risers brought to final grade with proper above-grade clearance*

## 5. TANK-TOP CONNECTIONS (SOS PERFORMS)

SOS handles all tank-top connections during commissioning. The information below is provided so the licensed contractor understands what's happening on the tank-top and can properly route conduit, supply, and return lines to the right locations during installation.

*Typical Hoot tank-top connection layout — performed by SOS during commissioning*

## Tank-Top Components and Connections

- Risers should be a minimum of 2 inches above finished grade
- All tank-top openings sealed with Ramneck or concrete: catastrophic lids, 4" or 3" sanitary line, UV light penetration, aeration penetration
- Dripfield supply and return lines with sized check valves
- Optional UV disinfection light (casing installed at the manufacturing plant)
- Pump and UV light power, UV light alarm and solenoid wires (typically ½" or ¾" conduit, contractor-supplied)
- Sensor probe with wires routed to controller (½" or ¾" conduit)
- Aeration pipe leads back to the blower (no more than 50 feet away)
- Recirculation line to sewer inlet with sized check valves

**Critical — Silicone II Seal**

All LBs and connectors MUST be filled with the provided Silicone II sealant during tank-top connection. Failure to do so will void the warranty. SOS will verify all penetrations and

connections are properly sealed at commissioning.

## 6. EFFLUENT PUMP INSTALLATION

The effluent pump is installed in the pump chamber by the licensed contractor at the time of plumbing rough-in. SOS will verify the pump installation and complete final electrical connections during commissioning.

### Pump Installation Steps

1. Install the provided 1-¼" male adapter into the pump using Teflon tape.
2. Glue a 1-¼" PVC pipe into the adapter.
3. Measure the length of the pump and the 1-¼" PVC pipe so you can connect to the headworks filter, OR drop the pump into the chamber and measure the height of the connection — keeping the connection level.
4. Tie the power cord to the 1-¼" PVC pipe using Ty-rap.
5. Set the pump inside the 6" collar at the bottom of the pump chamber.
6. Connect the pump to the filter in the headworks box.
7. Confirm the filter is easily accessible for future maintenance — this is critical.

*Pump prep — 1-¼" male adapter installed with Teflon tape, PVC pipe attached, power cord tied with Ty-rap*

**Conduit Sizing**

Choose ½", ¾", or 1" electrical conduit, and stock the appropriate sized adapters, connectors, 90° bends, and LBs. Plan conduit routing before pouring or backfilling —

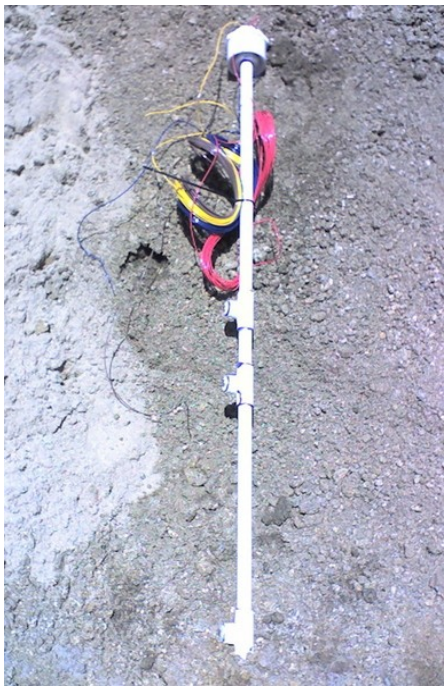
retrofitting is expensive.

### Pump Chamber Reference Layout

Inside the pump chamber, you'll find: the supply line to the dripfield, the return line from the dripfield, the recirculation line back to the trash chamber sewer inlet, and the pump connection to the headworks box. Keep all connections level from the pump to the headworks box supply line.

## 7. SENSOR PROBE REFERENCE

The sensor probe is installed and connected by SOS during commissioning. The information below is provided for the licensed contractor's reference so conduit can be properly routed during rough-in.



*Hoot sensor probe assembly — installed and connected by SOS*

### Sensor Probe Specifications

- Maximum 50 feet total run from tank to controller — absolutely no splicing of sensor wires
- Tank-top sensor hole must be clean and free of debris or concrete before SOS arrives
- Sensors must face the headworks riser — not the tank walls — for accurate water level reading
- Compression fitting design — installed by pushing or carefully stepping (do not crimp wires)
- From the LB at the tank, ½" PVC conduit routes to the controller location

**Tip — Sensor Conduit Routing**

When routing the conduit during rough-in, plan a straight, accessible path from the tank-top sensor location to the controller. Bends and length both make sensor installation harder. Keep total run under 50 feet.

## 8. AERATION BLOWER INSTALLATION

The aeration blower must be located within 4 feet of the controller, on the provided concrete pedestal, and protected by the provided concrete cover. Plan the location during initial site layout — it must be accessible for routine service and replacement.

### Blower Plumbing

1. Place the blower close to or at its final location — must be less than 4 feet from the controller.
2. Install a 1-¼" PVC pipe from the tank aeration manifold to the blower location.
3. Install the rubber hose onto the ½" PVC nipple, then glue the ½" PVC nipple into the reducer on the check valve.
4. Install rubber hose onto the blower using the two provided hose clamps.
5. Connect the 1-¼" PVC pipe coming from the tank.
6. Secure hose clamps that come with the blower to the small rubber hose and the check valve. Ensure check valve is level.


*Blower with check valve and rubber hose connections — 1-¼" PVC line back to tank aeration manifold*

## Blower Electrical and Liquid Flex

1. Remove the electrical plug from the cord (cut off cleanly).
2. Measure the length of liquid flex from the blower to the controller using one of the ½" openings on the controller, and cut to size.
3. Slip the flex connector onto the aerator cord first, followed by the piece of flexible conduit.
4. Feed the aerator cord through the liquid flex conduit connector on the front of the controller box and screw the flex conduit into the connector.
5. Pull the cord through the liquid flex from blower to controller, leaving about 6" of wire in the controller for SOS to make final connections.

*Blower with liquid flex conduit installed for cord protection*

**Critical — Air Tube Routing**

When routing the ¼" tubing from the controller to the blower, do NOT cinch the Ty-raps too tightly. Restricting air movement in the tube will cause back-pressure faults and can damage the blower diaphragm.

## 9. ELECTRICAL SERVICE REQUIREMENTS

The licensed septic contractor coordinates with a qualified electrician to provide power to the Hoot system. SOS does not perform electrical work — we make connections at the controller after your electrician completes the service install.

### Required Electrical Service

- 30-amp service box, within sight of the unit, supplied by the homeowner/electrician
- Service must include Hot, Neutral, AND independent Ground (failure to have all three will result in operational problems)
- A qualified electrician must bring the line to the area where the controller will be installed for hook-up
- Confirm sufficient slack and routing access before pouring or backfilling

### Conduit Penetrations

Plan the following conduit runs into and out of the controller location during rough-in:

- 30-amp service feed (from the house)
- Sensor probe conduit (½" or ¾" — runs to tank-top, max 50 ft total)
- Pump cord conduit (from tank-top pump to controller)
- Blower cord conduit (liquid flex, from blower pedestal to controller)
- UV light power and alarm conduit (when UV is specified)
- Phone line for the NSF auto-dialer (RJ-11)

**Critical — Silicone II at Conduit Penetrations**

All control panel conduit penetrations MUST be filled with Silicone II to prevent moisture intrusion. Failure to do so will void the warranty.

## 10. NSF AUTO-DIALER REFERENCE

The NSF auto-dialer provides remote alarm notification for High Water and Aeration Problem conditions. SOS handles dialer installation and wiring during commissioning. The contractor's role is to provide:

- A working RJ-11 telephone line at the dialer location

- A short telephone line with modular plugs on both ends to connect from the RJ-11 block to the dialer
- Conduit between the dialer and the controller (typically a ½" PVC nipple — installed on the right side of the controller and the left side of the dialer)

**Note — Wire Color Verification**

Wire colors on the dialer harness are subject to change. SOS will reference the current Hoot manufacturer wiring instructions at the time of commissioning. Always defer to the wiring diagram supplied with the system.

If your project includes UV disinfection, the UV light alarm wires need to be routed to alarm pins 9 & 10 on the dialer. The UV light installation requires power from the disconnect (5-amp breaker side) routed through the controller utility box to the UV light junction box. Leave approximately 3 feet of excess wire at the UV light location to allow for future lamp replacement.

## 11. CONTROLLER, PROGRAMMING, AND STARTUP

All Hoot controller installation, programming, dip switch configuration, chip information, software version-specific procedures, troubleshooting modes, and startup procedures are addressed by SOS during commissioning, in accordance with the current Hoot Aerobic Systems, Inc. Installer's Guide that ships with the system.

Specifically, the following items are NOT performed by the licensed contractor and are NOT covered in this guide:

- Controller mounting and wiring of sensor probes to board
- Battery installation and charging procedures
- Dip switch configuration for system size and pump type
- Software version verification (chip identification)
- Troubleshooting modes (Mode 1: status; Mode 2: pump down; Mode 3: pressure / version; Mode 4: error history)
- Startup procedures and initial system pressurization verification
- Aeration sensor calibration
- Third probe / drip dosing configuration

**For Controller Procedures**

Always reference the current Hoot Aerobic Systems, Inc. Installer's Guide that ships with

the system. Manufacturer procedures and software versions are updated periodically. Contact Superior On-Site Solutions at 916-436-8457 if you have questions about specific procedures or need clarification on commissioning timing.

## 12. DISPERSAL FIELD INSTALLATION

The licensed contractor performs all dispersal field installation, including trenching, drip tubing placement, distribution components, and final restoration. Below are typical equipment and methods used for Hoot/GeoFlow drip systems in California.

### Common Installation Methods and Equipment

- Ditch Witch — for residential dispersal field trenching
- Vibratory plow — for tubing installation in established turf or larger fields
- Trenching wheel — for higher-volume linear installations
- Hand-dig finishing — for delicate areas, root zones, or tight access points

Ditch Witch

Prepare Dispersal Field

Vibratory Plow

Seed and Straw Dispersal Fi

*Typical dispersal field installation methods — trenching, plowing, prep, seeding, and grass establishment*

## Site Restoration and Establishment

- After tubing install, prepare the dispersal field surface — smooth, removed of clods and debris
- Seed and straw the dispersal field to encourage rapid grass establishment
- Allow 2–3 weeks of grass growth before activating the system at full discharge
- Healthy vegetation enhances treatment performance through plant nutrient uptake

**Reference — HOOT Drip Disposal Design & Installation Guide**
For detailed drip dispersal design, hydraulic calculations, GeoFlow component

specifications, zone valve sizing, and installation procedures, refer to the current Hoot Drip Design & Installation Guide. SOS can provide a copy on request.

## 13. TYPICAL EQUIPMENT INSTALLATIONS

Hoot system equipment (controller, blower, dialer) can be mounted in a variety of configurations to suit site conditions. The most common arrangements are shown below — discuss the right configuration for your project with SOS during planning.


*Typical equipment mounting configurations — remote on house, remote backboard, tank-top mount, and variations*

### Equipment Mounting Options

- Remote equipment mount on house — controller and blower attached to the residence wall, ideal for short conduit runs and easy service access
- Remote backboard mount — independent backboard near the tank, used when wall mounting isn't practical

- Tank-top equipment mount — controller and blower mounted directly above the tank on a stand or pedestal, used in remote or commercial sites
- Below-grade or under-deck variations — for sites with strict aesthetic or setback requirements

**Avoid**

Avoid mounting equipment in low areas prone to standing water, near sprinkler overspray, or in areas without service access. The blower requires unobstructed airflow around it — never enclose it in a sealed housing.

## 14. COMMISSIONING, INSPECTION, AND HANDOFF

### SOS Commissioning Visit

Once the tank is set, the dispersal field is installed, and electrical service is in place, schedule the SOS commissioning visit. Our technician will:

- Verify watertight integrity
- Complete tank-top connections (sensor, pump, blower, dialer)
- Make final electrical connections at the controller
- Program the controller and verify all alarm conditions
- Test blower output, pump cycle, and dispersal field flow
- Verify sensor probe operation
- Confirm dialer reports correctly to the monitoring service
- Document tank S/N, controller chip #, dialer ID, blower S/N, and pump S/N for warranty registration

### County Final Inspection

After SOS commissioning is complete, the licensed contractor coordinates the county environmental health final inspection. SOS will provide any manufacturer documentation required for permit sign-off and is available to attend the inspection if needed. Common county inspection items:

- Visible riser elevations above grade
- Effluent dispersal area properly sized and seeded
- Operational test of blower, pump, and alarm cycle
- Verification of NSF Standard 40 certification on the controller
- Verification of O&M service contract — SOS provides this directly

### Homeowner Handoff

Once final inspection is signed off, the system is ready for occupancy and use. SOS provides the homeowner with:

- Homeowner's Welcome Packet with care, maintenance, and alarm reference
- Initial 2-year service policy documentation
- Warranty registration confirmation
- Direct contact information for ongoing O&M service

**Coordination Reminder**

If you encounter site-specific challenges during installation — unusual setbacks, soil conditions, plumbing routing, or county-specific requirements — call SOS at 916-436-8457 before improvising. We've seen most situations and can usually save you time and rework with a quick conversation.

## 15. CONTACT INFORMATION

Superior On-Site Solutions is California's only authorized Hoot manufacturer and distributor. We're here to support your installations from initial planning through final inspection — and beyond, with manufacturer-direct ongoing service for the life of every system.

### CONTACT US

*Local Sacramento*
**916-436-8457**

*Toll Free*
**877-669-4668**

*Email*
**info@sosonsiteca.com**

### MAILING ADDRESS

**Superior On-Site Solutions**
3643 Bradshaw Road #311
Sacramento, CA 95827

### WEBSITE

**sosonsiteca.com**

### SERVICE AREA

Full Hoot service within 4 hours of Sacramento. Tank delivery statewide. 24+ California counties.

*Promoting Advanced Wastewater Technology*