

UNIQUE

LIGHTING SYSTEMS®

Direct Burial Transformer

SAFETY AND WARRANTY INFORMATION

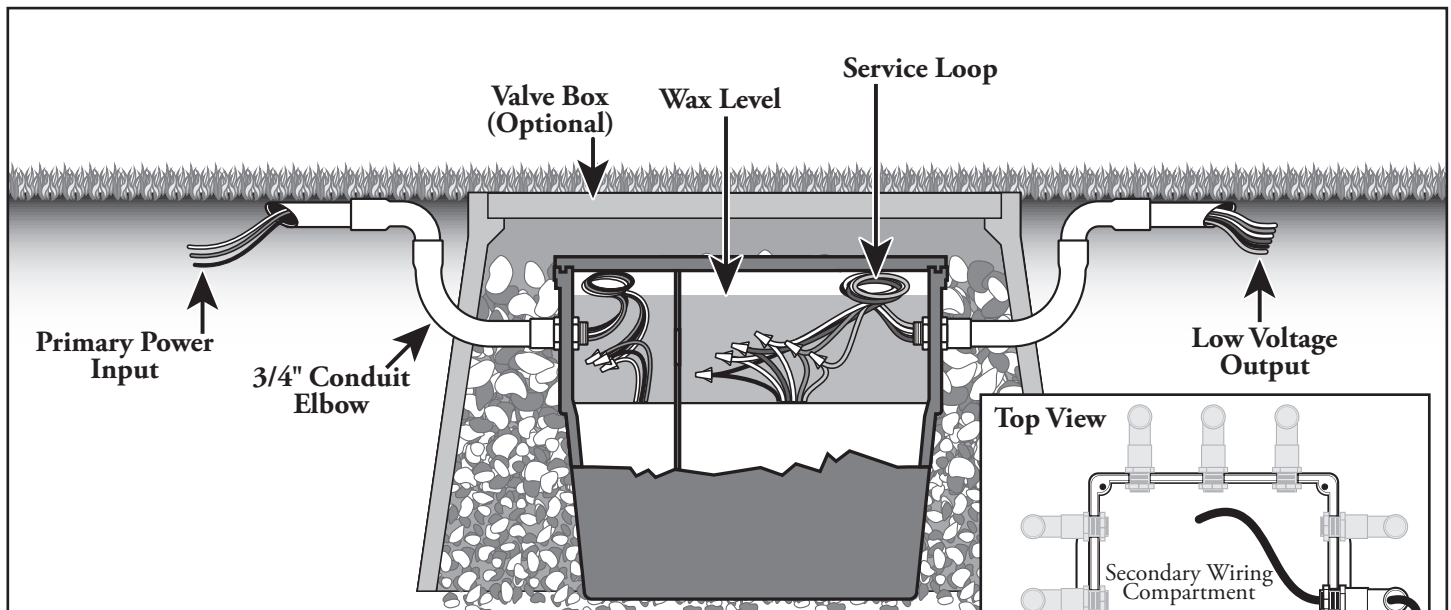
▲ IMPORTANT SAFETY INSTRUCTIONS: This product must be installed in accordance with the applicable installation code by a person familiar with the construction, installation and operation of the product and the hazards involved.

The use of or installation of junction boxes, conduit bodies, and conduit connections shall be suitable for the installation and intended use, and in accordance with applicable electrical code. Consult with a qualified electrician and local electrical codes before installing any electrical product.

DO NOT OVERLOAD CABLE or TRANSFORMER. Maintain polarity at all times. For 12-Volt systems, keep each fixture between 10.8 and 12 operating volts for halogen and 10-15 operating volts for LED.

WARRANTY: Limited lifetime warranty against manufacturer's defects. The warranty is void if the installation steps are not followed.

TRANSFORMER LOCATION AND MOUNTING INSTRUCTIONS



1. Select an appropriate installation location for the Direct Burial transformer with easy access to primary power for each unit.
2. Be sure to locate the transformer away from service vehicle or maintenance crew traffic.
3. Dig the appropriate sized hole to accommodate the box size and allow the lid to be approximately 1" above grade for easy access. A good tip is to use an over sized valve box and install the Direct Burial transformer inside the valve box, then fill the inside of the valve box with gravel. This will give the Direct Burial added protection and the gravel is a clean back fill material.
4. The Direct Burial comes with 4 flat sides. These flat sides are where the primary and secondary runs enter the box. Before drilling any entry holes, make sure the unit is positioned correctly. There is a divider between the primary and secondary wiring. Make sure the primary (small compartment) is on the same side as the primary power input.
5. Drill all holes into the box 1/2" above the reveal in the box. Make sure the top of the elbow is above the green wax line.
6. Pull in the primary and wire to pigtail inside the primary compartment. Make connections. Make sure the primary is OFF before making the connections.
7. Pull in all secondary connections.

Low Voltage Cable Connections

1. After all fixtures have been placed and hubs have been connected, gather all Homerun wires at the transformer.
2. Separate each cable (approx. 6") and strip off 1" of insulation.

Volt Testing

1. Connect the secondary wires to the 12/24 volt wire tap.
2. Once all connections have been made, turn the transformer ON.
3. All the lights should turn ON. Using your digital volt meter, check the voltage at each hub.
4. Make a note of each Hub's voltage and proceed with adjusting the voltage at the transformer.

Proper Voltage

Polarity is not a problem with low voltage lighting. The wire is marked with the ratings on one leg and ribbed texture on the other leg. Make sure one leg is attached to the common and the other is attached to the voltage output tap.

The ideal voltage is between 10.8–12 operating volts for halogen and 10–15 operating volts for LED. Connect to the appropriate output to account for the voltage drop. The outputs are color coded:

White: Common

Black: 12V

Brown: 13V

Red: 14V

Purple: 15V

1. For example, if the volt meter reads 9 volts, you will need to add 3 volts at the transformer to compensate for the voltage drop. You would need to connect this homerun wire to the 15 volts tap since 12 volts plus 3 volts equals 15 volts. (The idea is to have 12 volts at the Hub.)
2. Disconnect the homerun wire from the 12 volt tap wire and connect to the 15 volt tap.
3. Follow the same procedure for each Homerun wire remaining.

Applying Wax to the Unit

After every step has been completed and the voltage is correct at all hubs, the unit is ready to be sealed with wax. The wax acts like water when melted and will find every path out of the can. Use the Duct Seal to seal around all entry points into the transformer. Take your time and make sure everything is sealed properly. Press the putty into all conduit openings sealing them the best you can. Place primary power connections at the lowest point of the primary compartment. Place secondary wire connections at the lowest of the secondary compartment. The primary and secondary divider plate has holes to allow wax to flow from one compartment to the other. Each Direct Burial comes with three pounds of wax. Heat the wax using a camping stove with a pan or coffee pot. Pour the wax into the box while making sure your connections are below the wax line. Make sure the Primary Fuse is above the wax line for servicing. If using secondary fusing, make sure it is also above the wax line. Leave a service loop out of the wax for the primary and secondary. This will allow fixtures to be added in the future. Leave the lid off to allow the wax to cure. After the process is complete, the lid can be installed.

Multiple Connections at Each Tap

You may use various voltage taps as often as needed.

Example: If you need to use a volt tap two times, simply connect both cables to the volt tap. However, we do recommend that you limit the amperage on any single tap to a maximum of 30 Amps.

⚠ WARNING: Cancer and Reproductive harm – www.P65Warnings.ca.gov.
For more information, please visit www.toro.com/CAProp65.