

QUICK SELECTON

- + General Questions
- + Code and Ratings
- + Box Construction



GENERAL QUESTIONS

How does the ground box keep water out of the connection areas?

There are two main connection areas in the ground box. The first area is where the wires enter the box from the feed in the ground. These wires enter and connect inside a NEMA 6P (IP68) wiring enclosure — it has gasket seals and has been tested to perform under six feet of water for over 24 hours. The second area is in the cover. It has a diving bell (air pocket) design that traps air and maintains a constant air pressure — keeping water out of the connection area. It's like turning an empty cup upside down and pushing it into a bucket of water — same concept.

If I have something plugged in and it starts raining, will the box be safe to use?

Yes, it will. The Legrand Outdoor Ground Box is the first “while in use” box on the market that is designed and UL listed to go into the ground and be safe to use even if unexpected weather moves in.

How does the box keep from filling up with water?

The box may fill with water — in fact, the box is designed to allow water to enter into it. Here's the important part — it is also designed to keep water out of the connection areas with a NEMA 6P (IP68) wiring enclosure and the air pocket design.

Once the box fills up with water, how do you get the water out?

You don't have to — a series of openings at the bottom of the ground box allow the water to drain out naturally through the ground.

Are there replacement parts for the box?

Yes, there are. If the cover is ever damaged, it can be replaced. We can also replace the egress doors, spring pins and cover plates.

Will the ground box leak if it cracks or breaks?

No. As long as the inner liner does not crack or break, the box will not lose its air pocket seal.

What is the standard warranty on this box?

The standard warranty is 1 year from installation or 2 years from point of purchase — whichever comes first.

What color options are available?

The ground box is offered in three colors — black, gray or brown.

Are there any other ground boxes on the market?

Yes, there are a few other boxes on the market. The Legrand Outdoor Ground Box is the only one rated NEMA 6P (IP68) — safe while in use. All of the other boxes are rated NEMA 3R in the closed un-activated position.

Can the ground box be installed inside?

Yes, it can — providing you follow the installation instructions and have proper drainage.

Are there concerns with the box withstanding frost heaves?

The Outdoor Ground Box was evaluated by a civil engineer and our installation recommendations are based on their analysis.

What is the maximum gauge wire that can be used in the ground box?

Due to NEC requirements, the maximum gauge wire that can be used in the ground box is a #6 gauge conductor.

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GENERAL QUESTIONS

If temperatures drop below freezing and water inside the ground box turns to ice, will it cause damage during expansion?

The box was subjected to the UL 2996 Icing Test and additional Legrand lab testing where it was cycled through intervals of freezing and thawing with no resulting damage, cracks, or breaks. [SEE HERE](#)

How do you connect the conduit to the bottom of the box and then connect the module?

Place a male fitting to the end of a PVC feed pipe and connect using the a lock nut tool. Visit the installation video page to [SEE HOW IT'S DONE.](#)

Can the Outdoor Ground Box be installed on rooftops or underground parking structures?

Yes, the ground box can be installed in either location providing it is installed per the instructions- meaning, the box has to sit on gravel, allow for proper drainage, and the conduit feed must enter the box properly.

As long as the well system is under the box to allow drainage, can the box be encased in concrete around the outside (i.e. 2", 4")?

Yes, you can pour concrete around the box as long as you do not encase the entire ground box in concrete. The bottom of the box has to be allowed to drain through the weep holes.

How many 1½" conduits feed the box?

There are two - one for feeding the box and the other to daisy chain to another box if needed.

How does the ground box stay level when the aggregate settles?

There are level requirements which can be found in the [INSTRUCTION SHEET](#) and [CUT SHEET](#). As long as the instructions are followed and the ground is tamped properly, there will be no settling issues.

Are the egress doors susceptible to opening if you step on them when not populated- causing a trip hazard?

No, there are spring loaded pins that lock the egress door when the cover is in the closed position, with no cables exiting the box. The ground box meets the construction requirement from UL 2996; 5.4, stating that an in-ground box shall have a means of securing the cover in the closed position both when in use and when not in use.

Does the Outdoor Ground Box require GFCI protection?

Yes, per Article 250 of the NEC, all outdoor branch circuits require GFCI protection. The ground box does not provide a GFCI receptacle - one must be placed upstream to ensure that all live components are protected. The product is labeled with this requirement in compliance with UL 2996.

Does the ground box have a drainage pipe?

No, the box drains through a series of rectangular weep holes.

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CODE AND RATINGS

Has this been tested & verified by a third party?

Yes, the Legrand Outdoor Ground Box has been tested and listed by Underwriters Laboratories, Inc. (UL) for use in the ground. Listed for use in the US and Canada.

Can the box be field wired?

The electrical components are all prewired to ensure the seal. The low-voltage boxes are field wired — please review the step-by-step cover installation instructions.

Are there restrictions on where a ground box can be installed?

The Legrand Outdoor Ground Box can be installed in most locations. However, there are areas — such as high water table locations — where we recommend taking additional measures before a ground box is installed.

Are the devices weather resistant?

The 20A devices are weather resistant and the 30A devices are corrosion resistant.

Does the conduit feeding the box still have to be trenched to a depth according to code?

Yes, the box itself does not supersede any codes or regulations.

What is IP68?

The IP Code is International Protection Marking, per IEC standard 60529. An IP68 enclosure must meet several strict code requirements. First, it must be dust-tight. There is no ingress of dust and there is complete protection against contact. In addition, the enclosure is protected in water immersion over 1 meter — and the equipment is suitable for continuous immersion in water under conditions specified by the manufacturer. Normally, this means that the equipment is hermetically sealed. However, with certain types of equipment, it can mean that water can enter — but only in a manner that produces no harmful effects.

What is the difference between IP68 and IP66?

IP68 is a requirement for submerging and dust protection. IP66 is the requirement for high pressure water (no submerging). Review the [CUT SHEET](#) for more detailed information.

Do the nonmetallic materials meet RoHS & CA Prop 65 requirements?

Yes, the Legrand Outdoor Ground Box meets RoHS and Prop 65 requirements.

What is the difference between NEMA 4X & NEMA 6P?

NEMA 4X: Enclosures are constructed for either indoor or outdoor use to provide a degree of protection to personnel against the following:

- Access to hazardous parts
- Ingress of solid foreign objects (falling dirt and windblown dust)
- Harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water and hose-directed water)
- External formation of ice on the enclosure
- Corrosion

NEMA 6P: Enclosures are constructed for either indoor or outdoor use to provide a degree of protection to personnel against the following:

- Access to hazardous parts
- Ingress of solid foreign objects (falling dirt)
- Harmful effects on the equipment due to the ingress of water (rain, sleet, snow, splashing water, hose-directed water, and the entry of water during prolonged submersion at a limited depth)
- External formation of ice on the enclosure
- Corrosion

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BOX CONSTRUCTION

What is the largest power device available?

The largest-amperage device is a 30A receptacle L5-30R or L6-30R.

What box sizes are available?

The box is the same size for all versions — 8" x 16" x 10 3/4".

Are all the key locks the same?

Yes, they are.

Can the boxes have power and communication devices in the same box?

No. Each box is designed for a single service. However, the boxes are designed to be modular, which means they can be connected together, allowing all of the services to be in the same location. There is no limit on how many boxes can be connected together.

What box options are available?

The Legrand Outdoor Ground Box is offered in 4 standard versions:

1. (2) 20A duplex receptacle options
2. L5-30R Turnlok locking receptacle
3. L6-30R Turnlok locking receptacle
4. Low-voltage box that accommodates communications and/or audio video devices

Why a plastic box?

We chose to make the ground box from a nonmetallic material for a number of reasons:

1. Nonmetallic materials are lighter — making the ground box easier to move around.
2. Nonmetallic materials have better corrosion resistance.
3. Nonmetallic materials don't allow the box to develop condensation.

Isn't a nonmetallic box less durable than a metal box?

No, it's not. There is a false perception that nonmetallic materials are weaker, more prone to damage and cannot take as much load as a metallic box. The Legrand Outdoor Ground Box has been put through a number of rigorous tests that would destroy a number of metals — including impact, 7,500-pound load, freezing and thawing, burning and chemical resistance testing.

How much load can the ground box handle?

The Legrand Outdoor Ground Box has an ANSI/SCTE 77 Tier 5 rating, which means it can hold 5,000 pounds of occasional non-deliberate vehicular traffic. Note that you cannot place the box in a path where there is constant vehicular traffic.

Are both the box body and cover made from the non-metallic material.

Yes, both parts of the box are constructed from a mineral reinforced PPE thermoplastic, providing excellent mechanical strength to meet the requirements of ANSI/SCTE 77 for Structural Load Testing. The material has excellent corrosion resistance and meets the UL 50E requirements for outdoor use. It has undergone testing to confirm resistance to UV light and water as well as the ANSI/SCTE 77 requirements for chemical resistance and water absorption.

What raceway material is used for the low voltage installation connection between the junction box and the connection points?

It uses a corrugated tube, roughly 1" in diameter to feed the low voltage cables into the cover assembly.

What is the finish on top of the box?

It is a tough polyurethane coating with recycled rubber granules, similar to the material used for spray-on truck bed liners. It is abrasion-resistant, chemical resistant and slip-resistant.