Stanley 300 amp jump starter manual

A traditional jump-starter combines a pair of jumper cables and another car for the times when the car's battery dies. Compared to this old option, modern jump-starters are small and portable enough to stay out of the way to the unexpected emergencies, which means they are a smart investment to stay safe and prepared. The right jump-starter depends on the type of vehicle you are driving and the engine. Since smaller cars will require less power for a start, you can choose something with lower power levels and smaller footprints. SuVs and trucks, on the other hand, will require more power to get started. This will increase the size and price of the jump starter depending on the battery type. Need more information to choose the best jump starter? Our purchase guide has the important features and details you need to make a choice. Best of all, we included some top candidates to check out before making the final decision. What is a jump-starter? There are three ways to get juice into a flat battery: a battery charger that you connect to the household power supply. Someone can give a boost in half an hour or so that can get the car going. Typically, they give a trickle charge over 12 to 24 hours. They work well, but they're slow. Jumper cables consist of a bunch of wires wrapped in an insulating rubber or plastic sleeve, with crocodile clips at each end. Cheap, simple and can be very effective. The downside is that you need another vehicle to piggyback off. Even then, it is not guaranteed to start. If the vehicle is smaller or the battery is not in peak condition, it may not provide enough power. Jump-starters, for all its apparent complexity, are basically quite simple. A powerful battery wrapped in a case, with jumper cables attached. They provide immediate power without the need for a donor vehicle. You can start the car or truck yourself in just a few minutes. Jump-starting considerationsSo we know what a jump-starter does, but why are there so many to choose from? Essentially, there are two reasons:The smaller the vehicle, the less power the jump starter must deliver. It leads to models with a wide variety of different power levels. Which is fine because not everyone needs to start a V8 pickup. Manufacturers try to tempt you with a variety of extras. Control technology, built-in security features and a variety of useful (and not so useful) options. These elements affect performance and price, so let's look at each in turn. Jump-starting powerTo get the vehicle started, a jump-starter must deliver sufficient power (measured in amps) to get the starter engine crank over. It, in turn, fires the engine. The Quick Launcher flows power through the battery – temporarily takes its place. As soon as the vehicle is running, disconnect the quick launcher and if everything is working properly, charge their own battery. Inside the jump-starter is one of two types of battery: lead-acid (the same type as in the vehicle) or lithium (the type you would usually associate with power tools). Lead acid versions have been around for decades. They are proven, effective, reliable and durable. The downside is that they are large and heavy - ranging from 15 to 30 pounds. Lithium versions are much more compact; many would fit in a glove box. They weigh a few pounds or less. They also have smart microprocessor control, so they don't just start the car, they can charge your phone, tablet or laptop. The disadvantage of lithium models is lower performance. Although high-performance models become more accessible, they tend to cost more. CautionNear try to use the starter while charging. Remove jumper cables from the vehicle as soon as the engine is running. STAFFBestReviewsWith the exception of smaller models (used to start garden tractors and that kind of thing), the battery inside a jump-starter is the same voltage as your vehicle: 12 volts. But what's more important is the power it delivers, in amplifier. The engine of the average family compact needs far fewer amps to flip it over than the one in a sports car or large SUV. If you've ever purchased batteries for different vehicles, you probably know that some people need a higher ampere-hour (Ah) rating than others. So, if you have a small car, you don't need a big, expensive jump-starter. On the other hand, if you have a rumbling V8, then a cheap, low-output jump-starter is not going to make it hiccup, let alone drive. So the solution is simple, right? Choose a jump starter with the same ampere timer as your car. Unfortunately, it doesn't work that way. Ampere and ampere hours are not quite the same. Also, jump-starter manufacturers usually report peak amps, which doesn't really mean much except as a comparison. What you really want is crank amplifier (CA) or cold crank amplifier (CCA). No wonder choosing a jump-starter is confusing! If you find crank amp numbers, the following is a useful guide, albeit approximate: For gas engines, you will need 150 to 200 amps for a 4-cylinder.200 to 250 amps for a 6-cylinder.250 to 300 amps for an 8-cylinder. For diesel engines, you'll need 250 to 400 amps for a 4-cylinder.400 to 500 amps for a 6-cylinder.500 to 700 amps for an 8-cylinder. Top amps may be the only number you can compare across multiple manufacturers. Look for 600 to 1,000 amps from a lithium-based jump starter, and 1,000 amps or more from a lead acid model. Bottom line? If you can afford it - and surely if you have more cars - go big. As our car expert says, you can have too few amps, but never too many! Jump-starter featuresConduct-acid jump-starters, getting bigger, have room for features that wouldn't fit in the compact case of lithium are popular, popular, for inflating tires in an emergency.12-volt DC outlet can power suitable accessories. A 120-volt converter can be included, providing power to regular sockets. A working light is common, and sometimes detachable. Very useful if you are trying to start a car in the dark. A USB port is also common. Voltmeters and charging indicators are useful additions, so you can see when the jump starter needs charging. Long cables make it easy to clamp to battery terminals while keeping the quick starter on a firm surface. Strong clips help make a good connection, biting through the corrosion that is often formed on battery terminals. Cases are usually robust, built to take daily blows and scratches. Most have overload protection that prevents damage to your vehicle. The compact size of lithium jump-starters does not allow 120-volt outlets. Instead, they concentrate on providing power to your electronic devices. At least one and often two USB ports (Smart technology adapts the power to the connected device.) 12 volt DC outletLED worklight (may have multiple brightness settings or emergency strobe)LCD display that provides a variety of useful infoCompassMicroprocessor control (prevents overload on vehicles and digital devices)Polarity sensors (warn if you have attached jumper cables to faulty terminals)Cables are usually shorter, although the size of the case makes it easy to place in the engine compartment. Regardless of type, always remember that the more features you use, the faster you will clear the jump starter. Although most provide excellent performance and multiple vehicles start between charges, it is basically a battery in one case, not a portable generator. Did you know? A sealed lead acid battery is safe even if it overturned, although it should be corrected as soon as possible. STAFFBestReviewsThere is a huge selection of jump-starters available, with something to suit any budget. Of course, you usually pay more for extra bells and whistles, so it's worth considering whether you actually want to use the tempting options very often. There are some very cheap jump-starters around, but durability may not be what you hope. That said, a good, basic model, able to start the average compact, should not cost more than about $50.Something that will handle sedans, station wagons, and small trucks will be between $70 and $120. In this price range you'll find everything from lead acid jump starters with lights and compressors to smart lithium models that start your car and charge all your electronic gadgets. Many of these models claim to start powerful gas and diesel engines. They will certainly handle the vast majority of family cars. However, the jump-starter performance depends on the time since it was last charged, the temperature, and the condition of the engine being started. If you want something you can guarantee will start your muscle car, you need a high-end For one of these, you will pay around $200. The energy a battery will keep measured for amp hours (Ah). It can also be used to measure how long a battery-powered device can run before it runs flat. Milliamp hours (mAh) is 1/1000th of an amp hour. STAFFBestReviewsIf you have multiple vehicles of different sizes, you need a jump-starter for the most powerful. There is no need to worry about supplying too much power for smaller cars; the jump starter will only give it the engine from it. You may want to consider a small lithium jump-starter even if you already have a large lead-acid one. Lithium models are good for charging electrical gadgets, and you make a very useful addition to your camping equipment or motorhome. Many jump-starters have onboard storage for cables and safe areas for clips. Use them or disconnect cables from the starter after use – even when the machine is switched off. Accidental discharge can cause extremely painful shocks. Sparks can start a four.Q. Are lithium jump-starters better than the traditional type?A. It's not really a question of which is better; it is that is best for you. Lithium jump starters are small enough to hold in a glove box, but many lack the power to launch large engines. Traditional jump-starters pack more punch, but are much bigger and heavier. Our jump-starter report provides a complete picture. Reading through should help you decide which one is right for you.Q. Can I use the jump starter right out of the box?A. It depends on the model. Some come fully charged, others need anywhere from 4 to 24 hours. It's not hard – they just connect to a regular power outlet – but you need to check the manufacturer's instructions.Q. What's the difference between top amps, crank-amps and cold crank amplifier?A. Top-amps are the maximum power available. Manufacturers love to quote it because it is the largest number! Crank reinforcements are the current available at 0 °C. It must be delivered for 30 seconds, at a minimum of 7.2 volts. Cold crank amplifier is the current available at 18 °C. Again, it must be delivered for 30 seconds, at a minimum of 7.2 volts. The cold makes the engines harder to start, so more power is needed. There is no direct conversion, but a jump-starter with peak amps of 1500 can only produce 400 crank forster, which is about 320 cold crank forster. If you can compare CCA ratings, that's when the jump starter works the hardest, but often decision makers don't give numbers. Peak ampere is an affordable option. Alternative.