

INSTALLATION INSTRUCTIONS JUMP START ZENOAH G45, G62, Z-445

The jump start system can be installed on Zenoah engines in just a few minutes.

WARNING: DO NOT USE THE JUMP START WITH A SPRING STARTER If you have a spring starter installed, remove it!

Remove the top mounting bolt on the spark coil and install the ground terminal on the black lead under this bolt and tighten securely. Unplug the bullet connector on the red lead from the mag coil to the spark coil(s). Install the male and female bullet connectors on the red wire coming from the Jump Start module. Install the red wire in series with the magneto red wire. CAUTION: DO NOT HOOK THE RED WIRE TO THE BLACK WIRE ON THE MAGNETO COIL, YOU WILL DESTROY THE MAGNETO PICK-UP COIL IF YOU DO.

Remove the top bolt on the magneto source coil (the front coil next to the engine flywheel). Mount the aluminum pulse switch bracket to the top of the mag coil. Install with the pulse switch chip on top of the bracket. On the Z-445 remove the left hand bolt (looking at the engine from the front). Mount the bracket on the side of the coil with the chip on the outside. Adjust the bracket so there is about a .030 gap between the flywheel and bracket. If the side of bracket touches the flywheel, use a rat tail file to shape the bracket so that it clears the flywheel. Put some silicone glue under the bracket to hold in down to the top of the mag coil. Check the magneto pickup gap and readjust it if needed. Plug the three pin Deans plug from the pulse switch into the female Deans plug on the Jump Start module. Protect the Jump Start electronic module from vibration. It can go ahead or behind the airplane firewall. Make sure it cannot rub or vibrate on something and wear through the heat shrink and short out the circuit board. It should be wrapped in foam or can be mounted with sticky tape. Mount the switch and battery jack where they are easily accessible. We have had some reports of the engines shaking off the nut on the switch so use a little thread lock or RTV on the nut. That is it, except for the battery.

Keep all wires and switches away from any parts related to the radio. The jump start will not cause any interference problems by itself, because it's not powered up during flight, but the wires could carry noise from the engine magneto to the radio.

The system will come with a D.C. plug with a 4 cell AA battery box and the Run/Start switch. We have been using a 4 battery pack with 1.5 v AA alkaline, it should last for at least a season. Make sure when you install the AA alkaline batteries in the battery box that they match the polarity on the box. It is a good idea to check that the center of the D.C. plug is positive with the batteries installed.

To check your installation, remove the engine spark plug and leave the boot on the spark plug and ground the

plug to the engine cyl. Turn the Jump Start switch to start and plug in the battery. Then turn the engine over slowly and you should see and hear the spark just as the engine passes top dead center. You are ready to enjoy the features of the Jump Start system.

This is the way I start my G45 or G62, Z-445 with the Jump Start system.

1. Choke on, Jump Start to start and battery plugged in, throttle cracked, airplane restrained.
2. Crank until the engine gets fuel and pops, then choke off and crank until engine starts. Usually three of four turns after pop with choke off.
3. Bring engine back to idle and turn the Jump Start to run and unplug the battery.
4. After the flight, flip the switch to start, DO NOT plug in the battery, it will act as a kill switch.

CAUTION: There will be an increase in engine RPM when you switch to run.

Use a heavy glove at first until you get used to starting the engine and find out it is not going to kick you. Crank normally, you do not need to slap the prop. Keep in mind that this is a large engine and can hurt you badly if you are careless.

The jump start makes this engine much safer and easier to handle. If you do not get a spark after you have installed your Jump Start system, check the battery plug for the battery voltage (6v) center is positive, if that's OK then check the voltage on the center pin of the female 3 pin Deans plug that goes to the pulse switch, you should again read battery voltage. The last check is to ground the white wire (the single wire by the groove) of the 3 pin female Deans plug, every time you remove the ground the unit should spark.

Range check carefully any ign engine airplane engine running and not running. This is a good idea even with a glo engine. You can have a vibration induced problem in the Radio. If you think you have an RFI problem with any ignition engine, we have the Bosch resistor spark plug cover that will usually cure the problem. We normally have these in stock they are \$12.95 plus handling.

Thank you,
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INSTALLATION INSTRUCTIONS - INVERTER

The jump start system can be installed on a vehicle in just a few minutes.

WARNING: DO NOT USE THE BATTERY WITH A SPRING STARTER
If you have a spring starter, remove it.

