



BC433-H

QUICK FACTS

JUST RIGHT — NO COMPROMISES

The BC433-H sets a new standard for lightweight, high-performance gear-driven alternators for Continental engines. Weighing 4.4 lbs. (including the drive gear assembly), the BC433-H has a rated output of 29.4 amps @ 5500 alternator RPM (roughly 2750 engine RPM), and mounts on the bottom accessory pad on Continental engines (C-75, C-85, C-90, C-145-2, O-200, IO-240, O-300) equipped with a 12 accessory case. It features a precision CNC machined billet aluminum mounting flange, and two sealed heavy-duty ball-bearings — just like you'd

expect from B&C: no short-cuts, and no compromises. Every BC433-H ships with a matching 3-phase PMR3A regulator, and a 505-1 PM/OV Kit. It is sold less the Continental drive gear assembly — this is typically customer supplied and must be sent to B&C for inspection, cleaning, and installation. Well-suited for a wide variety of 14v homebuilt aircraft, the BC433-H may be used in a variety of operations to power a starter, Nav/Com, transponder, and other similar devices.



FEATURES

- Permanent magnet design — no brushes or slip-rings
- Precision CNC machined billet aluminum mounting flange
- Two heavy-duty sealed ball-bearings
- Ships with PMR3A external Regulator and PM/OV Over-Voltage Protection Kit
- Exceptional reliability
- Small size — 4.078" in diameter and 3.743" deep
- Weight: 4.4 lbs.

BANDC.COM

SAVE WEIGHT, REDUCE MAINTENANCE

Weight and maintenance — two nearly inescapable concerns for any aircraft. How DO you effectively decrease weight and reduce common maintenance headaches? For many Continental engines, one way is to replace an older OEM gear-driven generator with a modern, lightweight alternator.



When compared with contemporary alternators, the legacy gear-driven generators

are rather hefty, tipping the scales between 9.25 lbs (Delco-Remy 1101876) and 15.4 lbs (Delco-Remy 1101898). In addition to sheer weight, these units also have the disadvantage of requiring frequent maintenance — often due to worn brushes or commutators.

In contrast, the BC433-H Alternator weighs only 4.4 lbs. — a 5 to 11 lb. weight savings — and occupies much less space overall. Better yet, it has an innovative 3-phase, permanent-magnet design that uses neither a commutator or brushes that wear over time. Think of it as a “right-sized” contemporary alternative to the legacy OEM units, offering reliable efficiency without the bulk and maintenance headaches.

PRICING

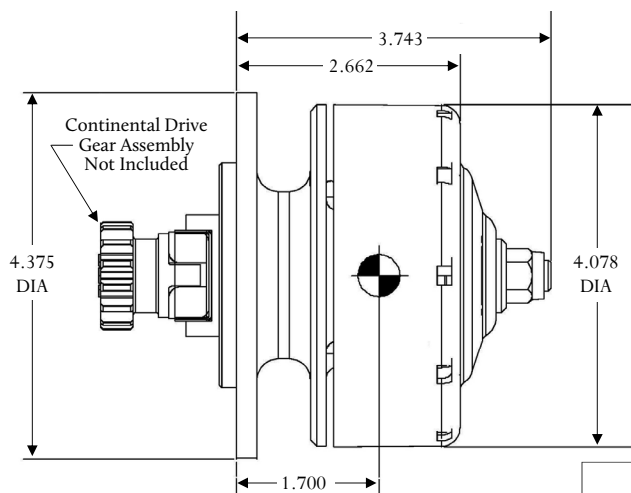
BC433-H Alternator, w/ External Regulator and PM/OV Kit, 14v (Homebuilt), less Generator Drive Gear	\$720
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ALSO OF INTEREST

505-1 PM/OV Filter Kit, 14v (Homebuilt), if purchased separately	\$70
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PMR3A Regulator, 14v (Homebuilt), if purchased separately	\$75
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BC433-H DIMENSIONS AND SPECIFICATIONS



Alternator RPM	Output AMPS
5000	29.1
4500	26.5
4000	23.8
3500	20.4
3000	14.9
2500	6.8

Alternator RPM = 2X Engine RPM

This part is not STC'd or PMA'd and is sold for amateur-built aircraft only.

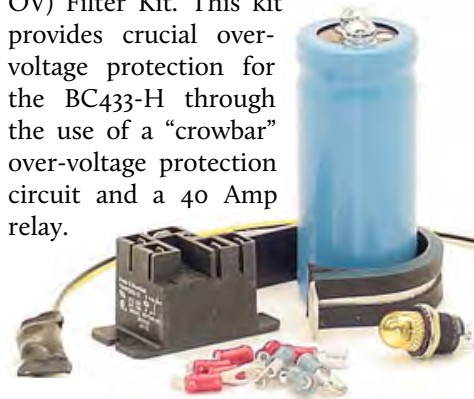
THINKING AHEAD WITH SAFETY OF FLIGHT IN MIND*

An in-flight emergency such as an over-voltage event is something that many people would rather not think about. Like being struck by lightning, few actually experience it — but those who do tend to remember it vividly.

As with any other rare but grave possibility, it is always wise to find ways of protecting yourself — and your aircraft — against an OV “lightning strike.” Careful system planning and implementation are of key importance.

It is for this reason that every BC433-H Alternator is accompanied by our 505-1

Permanent Magnet/Over-Voltage (PM/OV) Filter Kit. This kit provides crucial over-voltage protection for the BC433-H through the use of a “crowbar” over-voltage protection circuit and a 40 Amp relay.



Each kit also contains a clear-yellow warning light that will illuminate — providing valuable visual indication — if the OV protection circuit has been “tripped” (or when the alternator switch has been left off), as well as a filter capacitor to reduce radio noise and enhance regulation.

Why all the fuss?

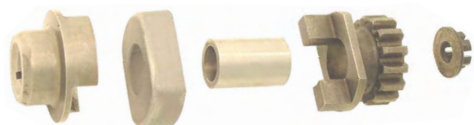
Simple. Active prevention is better than waiting for problems. And since forward-thinking really begins on the ground, when the pressure is off, it's also key to enhancing your safety of flight.

“PIECES & PARTS”: KNOW YOUR CONTINENTAL DRIVE GEAR ASSEMBLY

The Continental drive gear assembly is sometimes the object of a kind of “mistaken identity.” This is understandable since there have been several similar — but different — versions used in a number of engines over the years.

The BC433-H was designed with a fairly common version of these parts in mind. Still, there are a few points to consider. First, we will need the *latest* revision of the Hub (P/N 653983) for the BC433-H. Any prospective Hub should

also be examined for an inside diameter (or I.D.) of 1/2” —no other I.D. work. Second, the counterpart component to the Hub, the Retainer (P/N 653982), will



also need to be the latest revision. Finally, the Drive Gear (P/N 531325) should be confirmed to have an overall thickness of 1.2” (measured across the gear face to the

2 tangs). Early Drive Gears often have different dimensions in this area, and as a result will not fit on the BC433-H.

Please call us if you have any questions.

Part Description	Continental Motors P/N
Hub	653983
Retainer	653982
Sleeve	530407
Gear	531325
Nut	530412