



BC462-H

QUICK FACTS

INNOVATION 2.0

Introducing the new high-performance spline-driven alternator from the company that pioneered the spline-driven alternator over 20 years ago! The BC462-H continues our tradition of innovation, offering robust performance and superb efficiency.

Rated at 30 to 35 amps @ cruise RPM on Lycoming and Continental engines (14v bus), it mounts on a standard

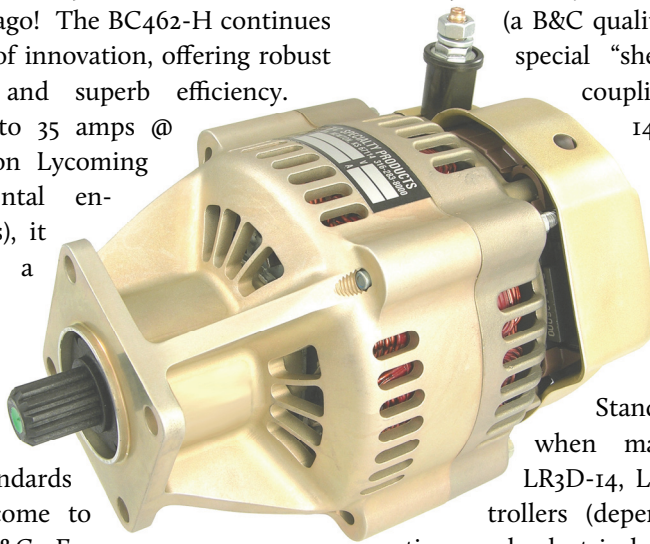
AND20000-spec accessory pad, and is built to the quality standards that you've come to expect from B&C. Every

BC462-H features a CNC machined billet aluminum mounting flange for superior

strength. Inside you'll find heavy-duty sealed ball bearings, two internal cooling fans, a precision dynamically-balanced rotor (a B&C quality exclusive), and a special "shear section" drive coupling. Suited for both

14 volt or 28 volt applications, the BC462-H is designed for true aircraft-style external control, and may serve as a Primary or as a

Standby Alternator when matched with our LR3D-14, LS1B, or SB1B Controllers (depending on application and electrical system). Includes mounting gasket, mounting hardware, and a pre-wired field connector assembly.



WHY BILLET?

Over the past 35+ years, B&C has become known for quality and reliability. It's a reputation we've worked diligently to earn (and keep); one based on real-world performance rather than clever marketing.

We see virtue in the real and tangible. We believe the small things really do matter. And if we can find a better way to build something — a way that leads to a more reliable product with enhanced value — we're all for it.

That's why we decided to draw on our decades of experience

in CNC machined billet aluminum for the design of the BC462-H. As one of the few large-scale accessory manufacturers who produce alternators (and other accessories) incorporating billet, we know it can be used to produce a complex part that is both lightweight and superior in strength.

It is not cheap, however. Nor is it simple to produce. But it is a highly-consistent — and strong — material.

The BC462-H is born out of our commitment to quality, and our emphasis on improvement on purpose. The small things really do matter; the proof is in tangible performance and genuine reliability.

FEATURES

- CNC machined billet aluminum mounting flange
- Precision dynamically balanced rotor for long service life
- Externally regulated
- Two internal cooling fans
- Heavy-duty sealed ball bearings
- "Shear section" drive coupling
- 14 volt or 28 volt
- Weight: 6.75 lbs.

BANDC.COM

PRICING

BC462-H Alternator (Homebuilt)	\$885
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ALSO OF INTEREST

LR3D-14 Controller, 14v (Homebuilt)	\$245
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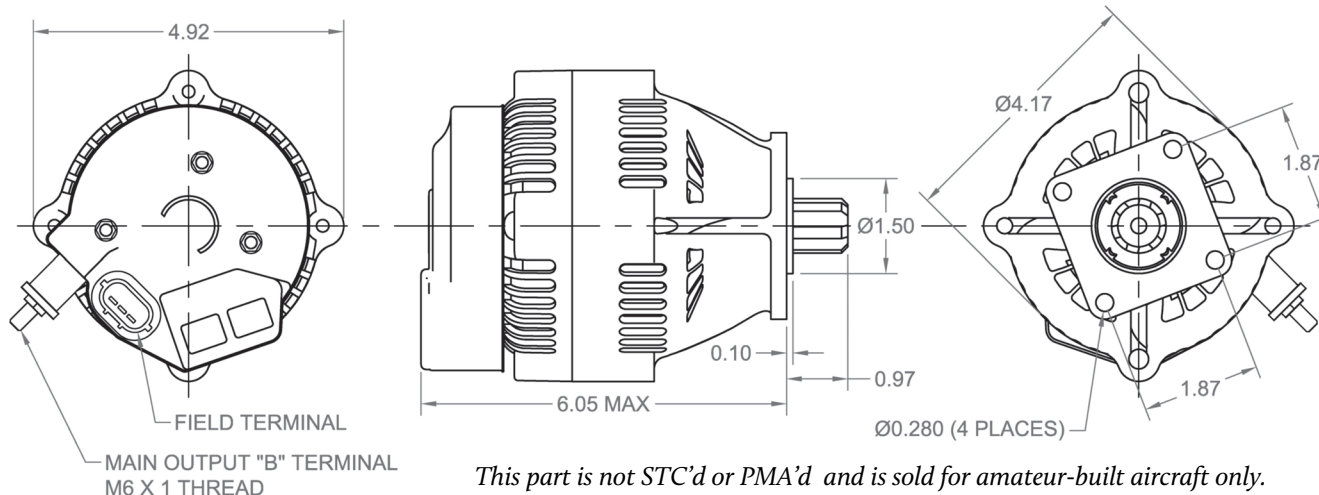
LS1B Controller, 28v (Homebuilt)	\$245
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SB1B-14 Controller, 14v, for use w/ Stand-by Alternators	\$245
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SB1B-28 Controller, 28v, for use w/ Stand-by Alternators	\$245
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BC462-H DIMENSIONS



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

APPLICATION NOTES: FIT CONSIDERATIONS

Given that the BC462-H mounts on the accessory pad on Lycoming and Continental engines — an area that is already precious real estate — careful consideration of the available space and exact accessory case configuration can help ensure a trouble-free installation.

An important consideration is the space needed for installation and removal of the BC462-H from a mounted engine. Also of note is the space required for the field connector assembly. With these issues in mind, we typically recommend that a *minimum* of 7" be budgeted between the face of the engine accessory

pad and the aircraft firewall.

Another easily overlooked item is the accessory case configuration. On many engines, for example, a spacer is used to install a 90-degree oil filter adapter (such as our BC700-H) so as to clear the engine mounts. While this resolves one interference, it can create another one — with the BC462-H. This resulting “secondary interference” can sometimes be negotiated also; but not always. As a result, we suggest studying (and measuring) the available space carefully.

Please feel free to call us with questions — we are here to help wherever possible.

Alternator RPM	ALTERNATOR OUTPUT	
	At 14.4v (Hot)	At 28.8v (Hot)
2000	25.6	—
2500	29.4	7.5
3000	32.1	18.8
3500	34.6	29.8
4000	37.5	35.2
4500	39.1	40.7
5000	40.3	43.4
6000	43.3	49.0
7000	46.1	50.2
8000	48.8	51.1
9000	51.1	55.4
10000	56.6	58.7

APPLICATION NOTES: SELECTING A CONTROLLER (REGULATOR)

The BC462-H Alternator is designed to be controlled (or “regulated”) externally. This permits the use of sophisticated, aircraft-style alternator control, and contributes to safety-of-flight.

B&C has been an innovator in the design and manufacture of external controllers from our earliest beginnings over 35 years ago. In fact, two of our linear controllers were selected for the historic Voyager around-the-world flight in 1986. Reliable, sophisticated alternator control is not new to us!

Our LR3D and LSiB controllers are built from this expertise; each provide three functions — linear voltage regulation, over-voltage protection, and low-voltage sensing — for primary alternators. Our SBiB controllers provide the same capabilities for “standby” alternators. All are completely solid-state, and function in a stable, “quiet” fashion (electrically-speaking). Moreover, the charging voltage on each may be adjusted in the field to meet the manufacturer’s specifications for your battery (“flooded,”

SLA/VRSLA, or LiFePO) — an important feature not even available on many lesser “regulators”.

Use the matrix below to correctly match a B&C linear controller to your application and electrical system —

APPLICATION	VOLTAGE	CONTROLLER
Primary	14v	LR3D-14
Primary	28v	LSiB
Standby	14v	SBiB-14
Standby	28v	SBiB-28

Questions? Please feel free to call us!