



SB-250U-01

250 Amp Portable Starter Alternator Control System

Typical Applications:

- Safely starting Unmanned Air Vehicles (UAV's) and Unmanned Ground Vehicles (UGV's)

Featuring:

- Connects directly to the Starter-Alternator and allows safe, reliable, starting from a distance
 - Durable, Environmentally sealed, Pelican Case
 - MIL-SPEC circular connectors
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Specifications



Mechanical:	Conditions
Starting Current:	250A Max Surge 75A Max Continuous
Dimensions:	300 mm x 248 mm x 232 mm
Weight:	2.7 Kg 9.8 Kg with Batteries
Connectors:	MIL-SPEC Circular Connectors
Design Standard:	MIL-STD 1275D
Charging:	Any charger suitable for 24V Lead Acid
Fusible Link:	3 sq mm 12 gauge
Batteries:	Two (2) Bosch YT12B-BS AGM, Maintenance Free rated for 12V, 12AH, 190CCA or equivalent
Storage Temperature:	-40C to 85C

An external starting box is used to crank an engine fitted with a Sullivan Starter-Alternator without carrying onboard starting batteries. This can save battery weight in the vehicle.

This also lets you safely remotely start the engine using a three wire cable, rather than a hand held starter.

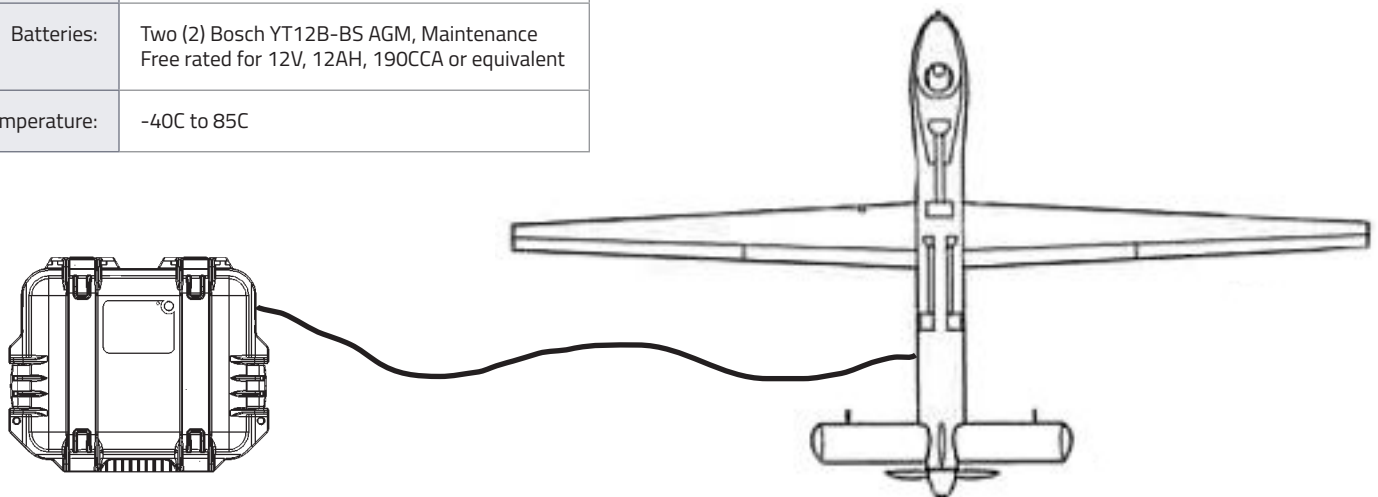
These are available in a variety of sizes and voltages.

This particular unit uses two small wet cell lead acid batteries (similar to motorcycle batteries) in a waterproof case.

There is a push button and an indicator LED on top for cranking.

The motor controller is inside the case. There are two connectors, one for output to the Starter-Alternator and one for battery charging.

The Starter-Alternator can generate electrical power in flight. The vehicle has a fuselage side connector that goes to the alternator and power regulator.



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24V Battery Charge Connection
 ITT CANNON MIL-C-5015 CA-Bayonet
 P/N: CA3102E18-3SB109
 Mates with: CA3106E18-3PBF80
 Pin A: 24V Battery (-), 12 AWG
 Pin B: 24V Battery (+), 12 AWG

Starter-Alternator Connection
 ITT CANNON MIL-C-5015 CA-Bayonet
 P/N: CA3102E20-19SB109
 Mates with: CA3106E20-19PBF80
 Pin A: Phase U, 8 AWG
 Pin B: Phase V, 8 AWG
 Pin C: Phase W, 8 AWG

Control and Indicator Panel

[131] 5.18
 [300] 11.82

[196] 7.72
 [232] 9.14

[248] 9.77

Notes:

- 1.) Reversing any two "Starter-Alternator Connection" leads will reverse the engine's direction of rotation during cranking
- 2.) Starter-Alternator Connection Cable should be 2.5 m in length or less (8.2'). For longer distances increase wire size to reduce voltage losses
- 3.) Maximum Starting Current ~250A Surge, 75A Continuous
- 4.) REQUIRED: Two (2) - BOSCH YT12B-BS AGM, Maintenance Free Batteries, rated for 12V, 12AH, 190CCA or equivalent
- 5.) To Recharge, connect a battery charger suitable for 24V Lead Acid Batteries to Two position Lemo Connector Labeled "Battery Charge Connection" and operate charger per manufacturers instructions.
- 6.) In the event Starter Does Not Operate, check fusible link for continuity. Open circuit indicates a over current or short circuit has occurred. Replace only after determining the fault is no longer present. All other repairs should be performed by Sullivan. No other components are user servicable.
- 7.) Weight = 9.8 Kg with Batteries installed, 2.7Kg without Batteries

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN INCHES		KP	12/15/2014
TOLERANCES:			
FRACTIONAL: ± 1/64	BEND ±		
ANGULAR: MACH ±	TWO PLACE DECIMAL ± .010		
THREE PLACE DECIMAL ± .005			
INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.		
MATERIAL	PROPRIETARY AND CONFIDENTIAL		
FINISH	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF THE PERFECT PARTS COMPANY. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF THE PERFECT PARTS COMPANY IS PROHIBITED.		
DO NOT SCALE DRAWING			

Sullivan UV

TITLE: Portable Starter-Alternator Control System
 24-28V, 250A

SIZE DWG. NO. REV
A SB-250U-01 ICD N/C

SCALE: 1:8 WEIGHT: SHEET 1 OF 1