

Motor Mounted Speed Control

1/8 HP, 90VDC, 2.5 Amp, Field Installed

Input: 115VAC 60Hz, 3 Amp Max **Output:** 0-90VDC, 2.5 Amp Max

Bison's new 90V PMDC speed control was designed for applications that require a convenient location for the motor control.... right on the motor! Designed to be easily field mounted on Bison PMDC motors, the speed control is mounted within an aluminum extrusion for superior heat dissipation. A simple knob provides a convenient on-off switch. Three adjustable potentiometers provide settings for minimum RPM, maximum RPM, and current limit. A pre-wired three foot long cord with plug is provided for use with 115V, 60 Hz.



170-113-0003

Features and Benefits

Simple Mounting and Assembly

Allows the drive to start working for you in the field as quickly as possible

Easy Operation

Speed is controlled with a simple on/off potentiometer in conjunction with current limit, min. speed, and max. speed settings

All Metal Enclosure

Durable aluminum housing with steel cover plates disperses heat more efficiently

Includes Power Cord with Plug

Three foot power cord is included with a NEMA 5-15P plug for use with 115VAC 60Hz

More Consistent Speed Under All Loads

SCR circuitry provides much more consistent speed throughout the motor's rated torque

SPECIFICATIONS

UP TO 3.0 AMPS (1/8 HP @ 90VDC)

OPERATIONAL SPECIFICATIONS	
INPUT VOLTAGE @ 50/60 Hz	115 VAC
MAXIMUM OUTPUT VOLTAGE	90VDC
OUTPUT HP RANGE	1/8

FEATURE SPECIFICATIONS	
SPEED RANGE	20:1
ON/OFF SWITCH	YES

Bison 170-113-0003	Rating
Input Voltage	115 Volt, Single Phase, 60 Hz
Output Voltage	90 Volt, Direct Current
Maximum Current	2.5 Amps
Maximum Output Power	1/6 Hp, 124 Watt
Enclosure Rating	IP 30
Reversible?	Non-Reversible
Form Factor	1.37
UL/ CUL	Pending
CE	Yes
ROHS	Yes



Ph: 800-AT-BISON • Int'l. Ph: 1-630-377-4327
Email: info@bisongear.com • www.bisongear.com

CALIBRATION

MINIMUM RPM (MIN RPM)

The MIN RPM setting determines the motor speed when the speed adjust potentiometer is turned full counterclockwise (CCW).

To Calibrate:

1. Set the MIN RPM trimpot to full CCW.
2. Turn the speed adjust potentiometer full CCW.
3. Adjust the MIN RPM trimpot until the desired minimum motor speed is reached.

MAXIMUM RPM (MAX RPM)

The MAX RPM setting determines the motor speed when the speed adjust potentiometer is turned full clockwise (CW).

To Calibrate:

1. Set the MAX RPM trimpot to full CCW.
2. Turn the speed adjust potentiometer to full CW.
3. Adjust the MAX RPM trimpot until the desired maximum motor speed is reached.

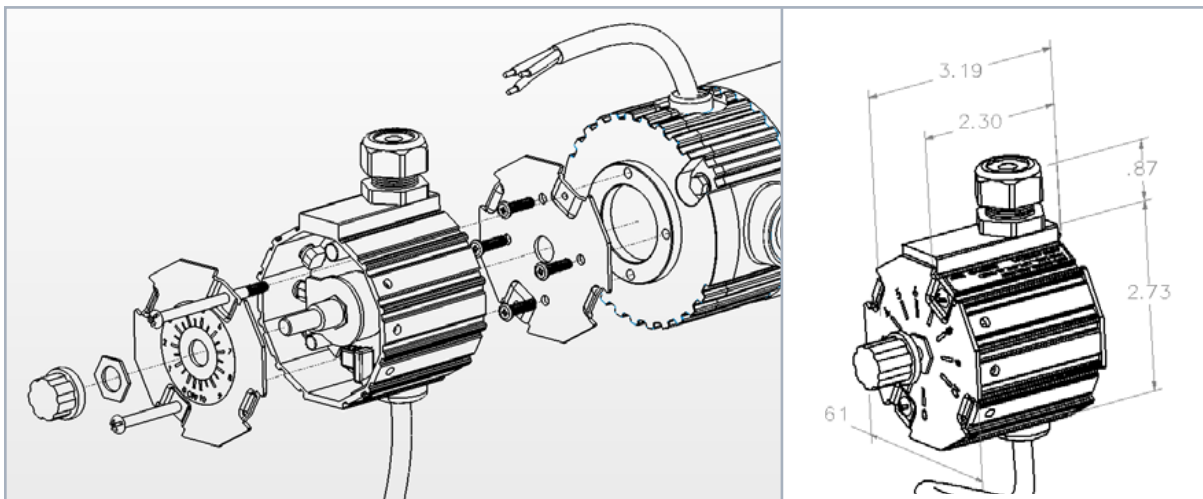
AMP LIMIT (AMP LIM)

The AMP LIM setting determines the maximum torque for accelerating and driving the motor. The factory setting is 2.5A.

To Calibrate:

1. With power disconnected, connect a DC ammeter in series with the armature.
2. Set AMP LIM potentiometer full CCW.
3. Lock the motor armature.
4. Apply power to drive. The motor should be stopped.
5. Slowly adjust the AMP LIM trimpot CW until the armature current is 150% of the rated armature current.
6. Remove line power.
7. Remove ammeter.

Installation Instruction Drawings



Installation Instructions:

Terminals L1 and L2 are pre-installed at the factory and should not be tampered with.

The terminals labeled A1 and A2 supply the motor armature voltage.

NOTE: To reverse motor direction switch A1 & A2 terminal leads.



Ph: 800-AT-BISON • Int'l. Ph: 1-630-377-4327
Email: info@bisongear.com • www.bisongear.com