



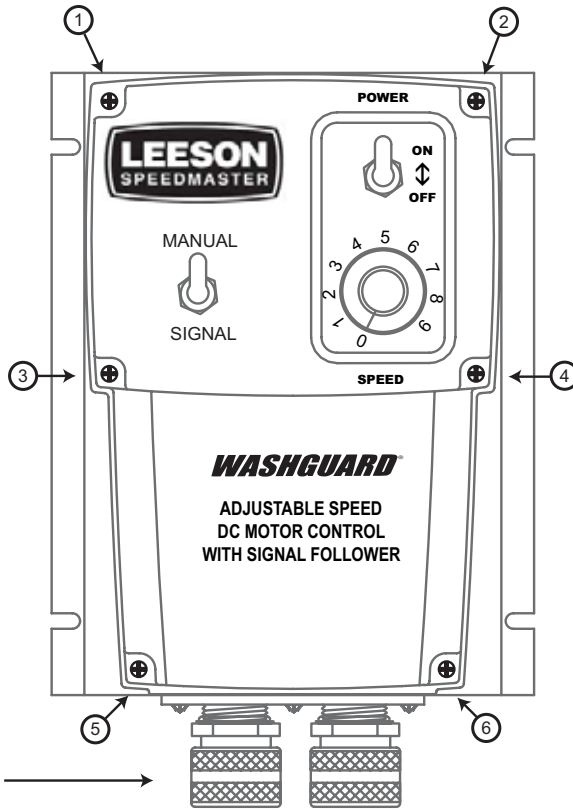
174103.00

**NEMA 4X SCR MOTOR CONTROL  
WITH SIGNAL FOLLOWER**

**QUICK START GUIDE**

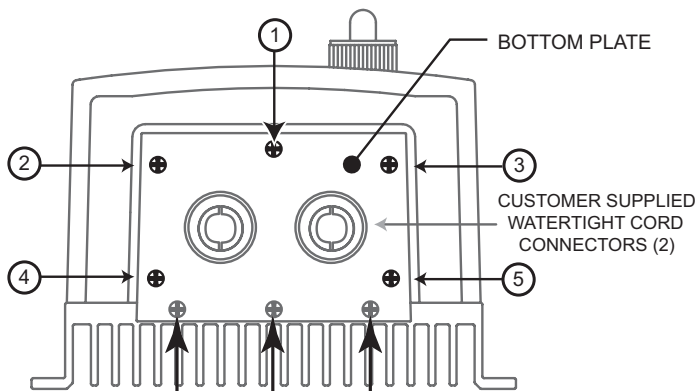
**STEP #1**  
REMOVE THE SIX (6)  
PHILLIPS SCREWS ON  
THE FRONT CASE.

NOTE: THE TWO SHORTER  
SCREWS (#6 - 32 x 2 1/2) ON  
THE FRONT CASE ARE USED  
AT HOLE LOCATIONS 5 & 6.



CUSTOMER SUPPLIED  
WATERTIGHT CORD  
CONNECTORS (2)

**STEP #2**  
REMOVE THE FIVE (5)  
PHILLIPS SCREWS ON  
THE BOTTOM PLATE.

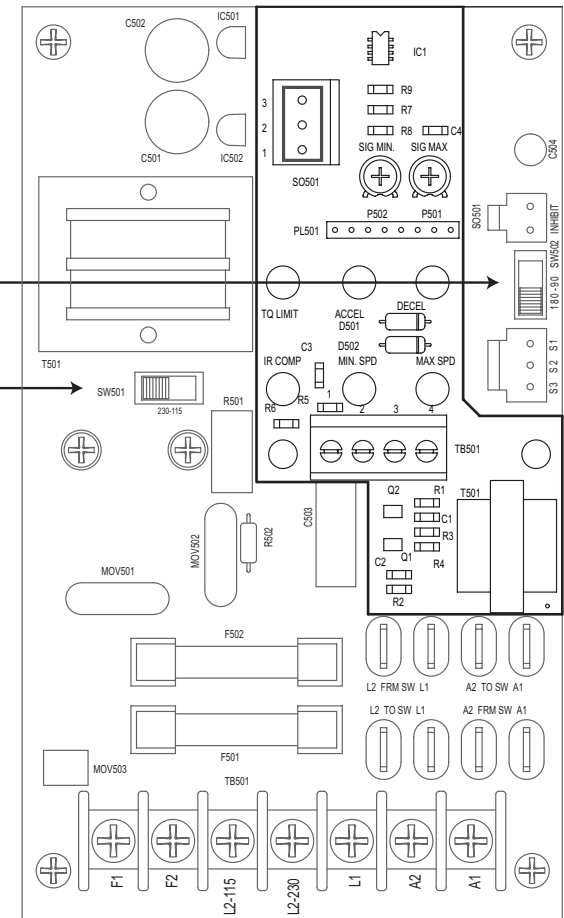


**DO NOT REMOVE**  
THE THREE (3) SCREWS SECURING  
THE BOTTOM PLATE TO THE HEATSINK

**STEP #3**  
ASSURE THAT THE  
VOLTAGE SWITCH  
SETTINGS ARE CORRECT  
(SW501 & SW502)

ARMATURE VOLTAGE  
SWITCH (SW502)  
90 or 180 VDC

AC LINE VOLTAGE  
SWITCH (SW501)  
115 or 230 VAC



## C O N N E C T I O N S

### S T E P # 4

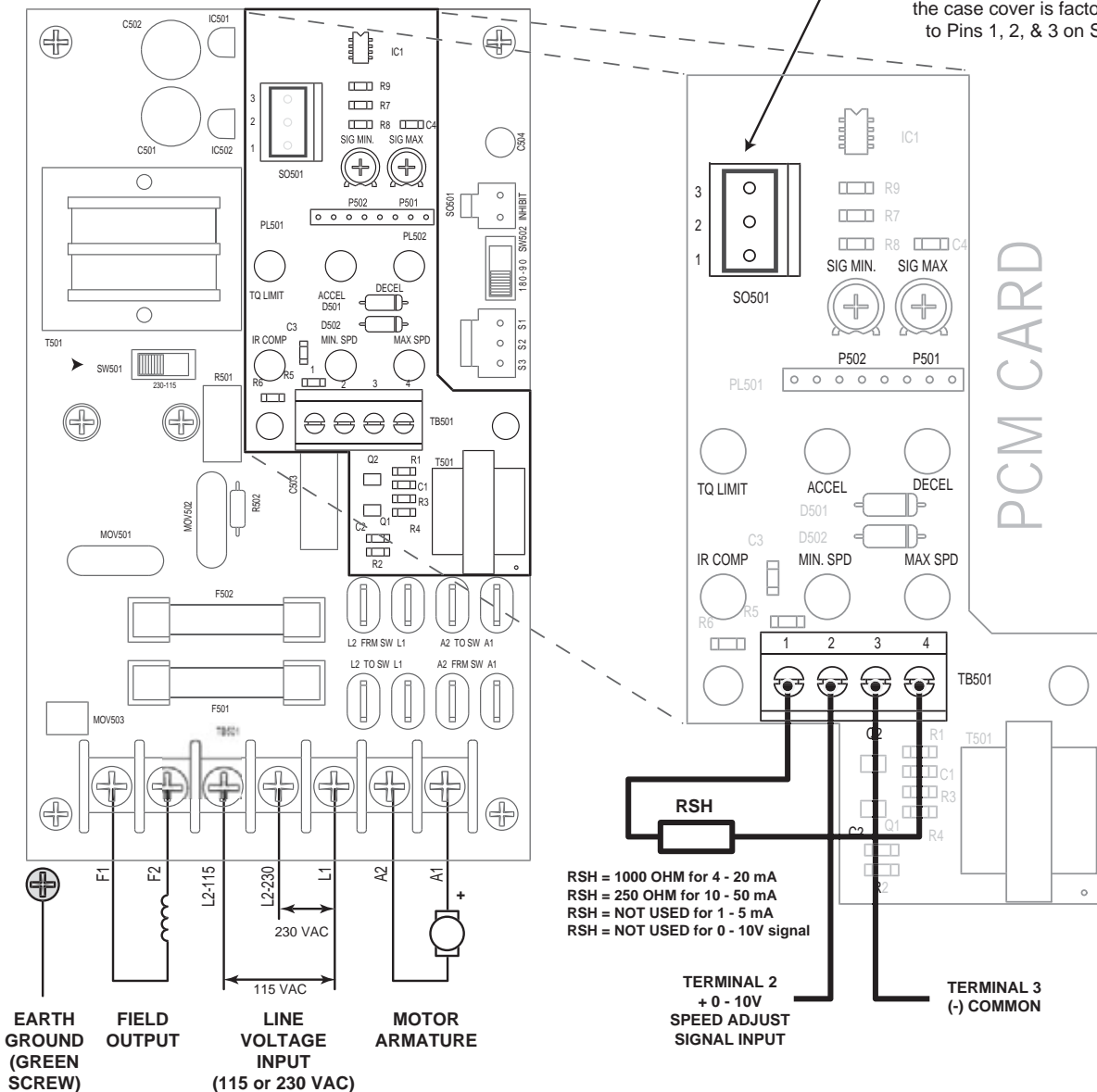
WIRE THE CONTROL  
AS SHOWN THROUGH  
THE CONDUIT HOLES  
IN THE BOTTOM PLATE.

### S T E P # 5

REPLACE SIX SCREWS  
ON FRONT CASE &  
FIVE SCREWS ON  
BOTTOM PLATE.

### FIELD OUTPUT CONNECTIONS

The field output is for shunt  
wound motors only. Do not  
make any connections to  
F1 and F2 when using a  
permanent magnet (PM) motor.



**SIGNAL / MANUAL SWITCH**  
The signal/manual switch on  
the case cover is factory-wired  
to Pins 1, 2, & 3 on SO501.

## O P E R A T I O N

### Manual Operation

1. Set the Signal/Manual Switch to the MANUAL position.
2. Set the speed adjust dial to "0" (full CCW).
3. Apply AC line voltage.
4. Set the POWER switch to the ON position.
5. Slowly advance the speed adjust dial CW. The motor slowly accelerates as the dial is turned CW. Continue until the desired speed is reached.
6. To coast the motor to a stop, turn the speed adjust dial to "0" or set the POWER switch to the OFF position.

### Signal Operation

1. Set the Signal/Manual Switch to the SIGNAL position.
2. Apply AC line voltage.
3. Set the POWER switch to the ON position.
4. Apply minimum current or voltage signal. Adjust the SIG MIN trimpot to achieve the desired minimum motor speed.
5. Apply maximum current or voltage signal. Adjust the SIG MAX trimpot to achieve the desired maximum motor speed.

RSH = 1000 OHM for 4 - 20 mA  
RSH = 250 OHM for 10 - 50 mA  
RSH = NOT USED for 1 - 5 mA  
RSH = NOT USED for 0 - 10V signal

TERMINAL 2  
+ 0 - 10V  
SPEED ADJUST  
SIGNAL INPUT

TERMINAL 3  
(-) COMMON

L E E S O N E l e c t r i c

w w w . l e e s o n . c o m

2100 Washington Street, Grafton, WI 53024-0241, USA

Phone: 262-377-8810 Fax: 262-377-9025

Document Number: 250-0388, Revision 0; Printed in the U.S.A. - May 2004

Copyright 2003 by LEESON Electric - All rights reserved. No part of this document may be reproduced or transmitted in any form without written permission from LEESON Electric. The information and technical data in this document are subject to change without notice. LEESON Electric makes no warranty of any kind with respect to this material, including, but not limited to, the implied warranties of its merchantability and fitness for a given purpose. LEESON Electric and its Divisions assume no responsibility for any errors that may appear in this document and make no commitment to update or to keep current the information in this document. kc0504