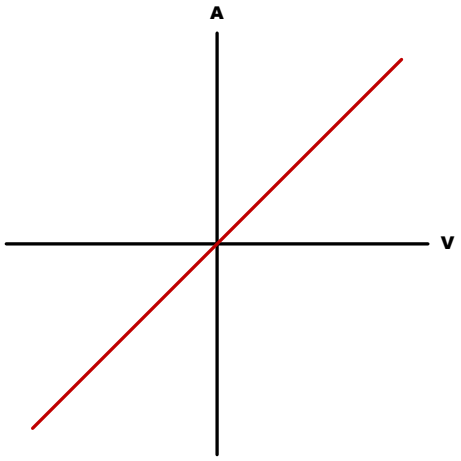
ADVANCED MOTION CONTROLS

AxCent™ Drives Deadband Configuration

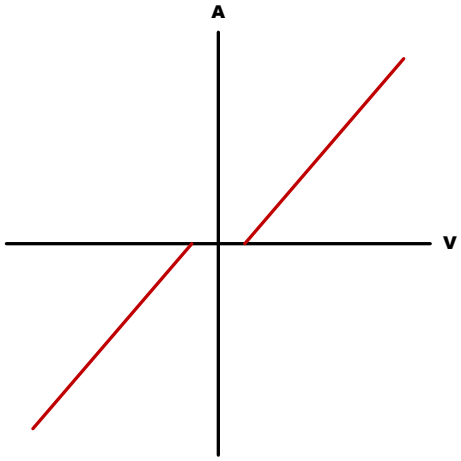
Introduction

ADVANCED Motion Controls®' AxCent™ servo drives are designed to operate in high performance applications requiring a linear response through zero current command. The result is the drive PWM output remains operational when the commanded current is near zero.

This behavior can be undesirable in applications that are low-inertia or sensitive to audible noise at low commands. For such applications, an output deadband near zero current command may be required.



Current Response with no Deadband



Current Response with Deadband active

This procedure describes the steps for configuring various AxCent servo drive models to add a deadband around the zero current command.

Procedure

Note: Any damage done to the board during modification will void the product warranty!

To activate the deadband function, an SMT resistor (RE43) must be removed from the drive PCB. The following figures show locations of RE43 for different AxCent models, as well as expanded zoom views of the SMT resistor locations. Use a soldering iron to carefully remove RE43.

Figure RE43 Location	Figure RE43 Exp. Location	AxCent Models
1a	1b	AB15A100 AB25A100 AB20A200
2a	2b	AB30A100 AB50A100 AB30A200 AB50A200
3a	3b	AB30A200I AB50A200I AB30A200AC*

*For the AB30A200AC, use caution when removing the drive cover. The AC Input circuitry is mounted to the cover and attached via wires to a connector on the drive PCB. It is recommended to not disconnect these wires while removing RE43 in order to avoid reconnecting them in the wrong order.

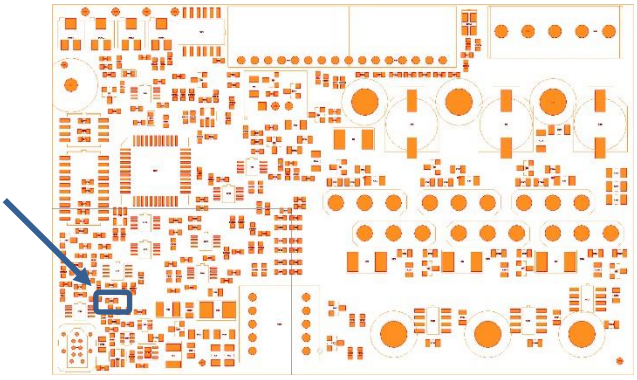


Figure 1a RE43 Location

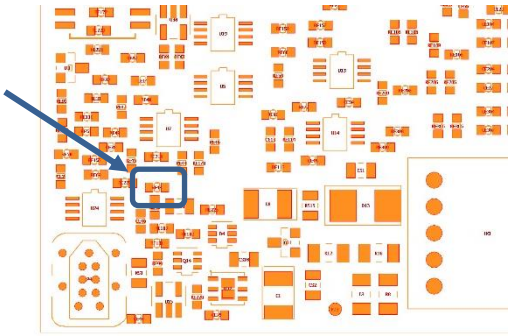


Figure 1b RE43 Expanded Location

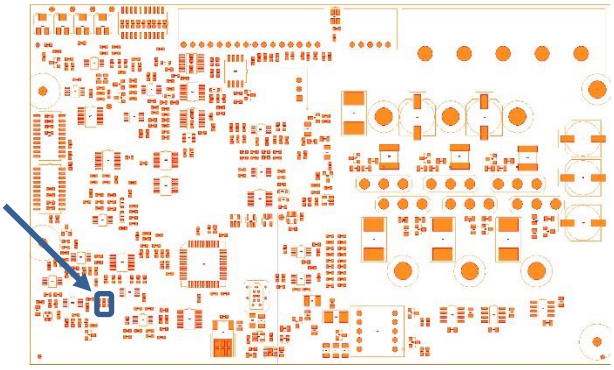


Figure 2a RE43 Location

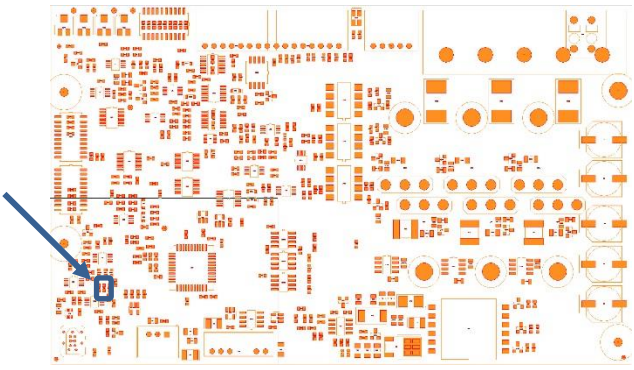


Figure 3a RE43 Location

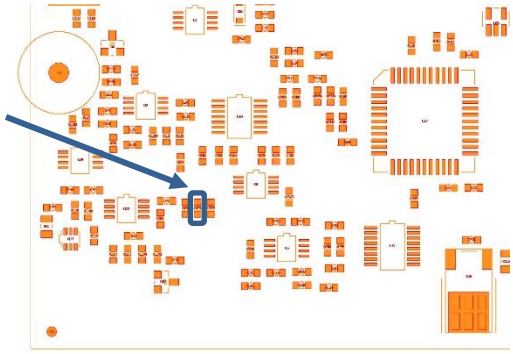


Figure 2b RE43 Expanded Location

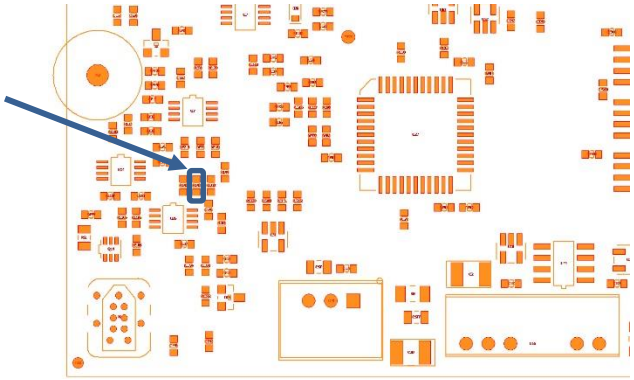


Figure 3b RE43 Expanded Location