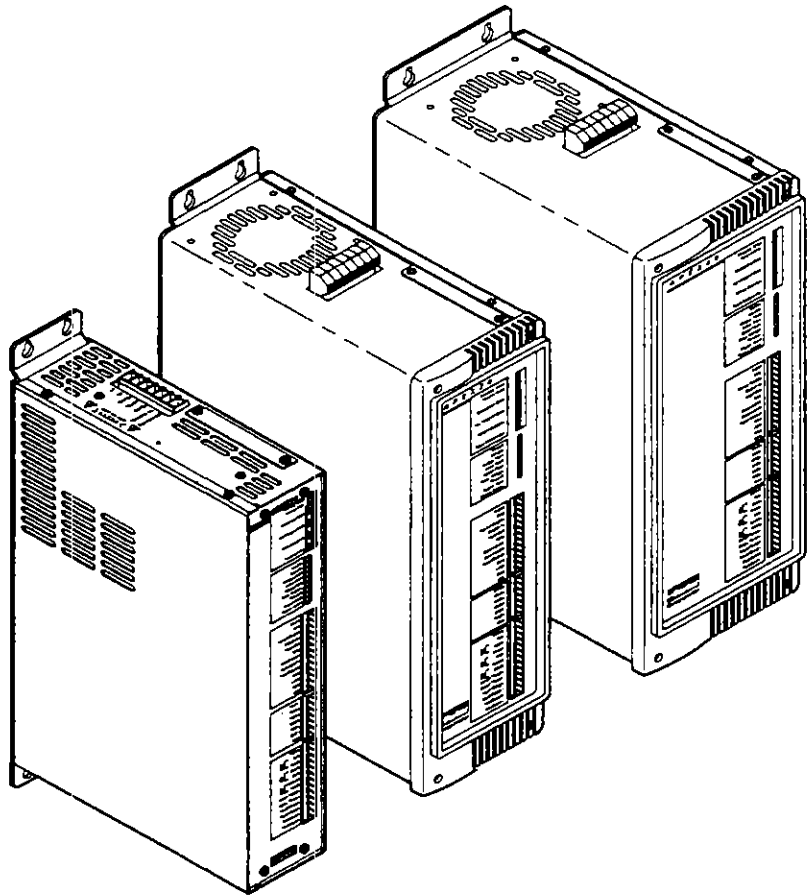


Compumotor

**APEX10
APEX20 APEX40
Analog Servo Drive
User Guide**



Compumotor Division
Parker Hannifin Corporation
p/n 88-013904-02 A



IMPORTANT

User Information

To ensure that the equipment described in this user guide, as well as all the equipment connected to and used with it, operates satisfactorily and safely, all applicable local and national codes that apply to installing and operating the equipment must be followed. Since codes can vary geographically and can change with time, it is the user's responsibility to identify and comply with the applicable standards and codes. **WARNING: Failure to comply with applicable codes and standards can result in damage to equipment and/or serious injury to personnel.**

Personnel who are to install and operate the equipment should study this user guide and all referenced documentation prior to installation and/or operation of the equipment.

In no event will the provider of the equipment be liable for any incidental, consequential, or special damages of any kind or nature whatsoever, including but not limited to lost profits arising from or in any way connected with the use of this user guide or the equipment.

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Since Parker Compumotor constantly strives to improve all of its products, we reserve the right to change this user guide and equipment mentioned therein at any time without notice.

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Motion & Control

Compumotor

Change Summary

APEX SERVO DRIVE USER GUIDE

88-013904-02 A

May 1996

This user guide, part number 88-013904-02 A, replaces two previous user guides:

APEX20/APEX40 Analog Servo Drive User Guide	p/n 88-013904-01 C
APEX10 Analog Servo Drive User Guide	p/n 88-015213-01 A

Primary changes that appear in this new user guide are summarized below.

NEW AC INPUT CONNECTOR (page 24)

CHANGE - The AC Input connector has changed to a 7-pin connector from a 4-pin connector. AC power must now be connected in two places: to **L1/L2/L3** and to **Control L1/Control L2**. You can use this new feature to disable the drive's internal high-power system, while keeping the internal low-power logic system enabled.

NEW MOTOR CONNECTOR (page 24)

CHANGE - A shield terminal has been added to the motor connector. The connector has changed to an 8-pin connector from a 7-pin connector.

NEW MOTORS (page 68)

NEW PRODUCT - Three new SM Series Servo Motors have been added to the APEX Series product line.

NEW DIP SWITCH FUNCTIONS (page 9 - 11)

NEW FEATURES - Two new features have been added to the APEX Drive's DIP switches. **REGEN FAULT (SW1#1)** allows you to disable the drive's regen fault monitoring circuit, which you should do if you connect a custom external regeneration resistor (see below). **HALL DEGREES (SW1#2)** allows you to select between 120° or 60° Hall effect motors.

GROUND SYSTEM (page 19)

CHANGE - The drive's internal circuit ground system (**Gnd**) is now isolated from the chassis ground (**Motor Ground, Earth, chassis**). On previous drive models, these two ground systems were connected together internally.

RESOLVER CONNECTIONS (page 20)

NAME CHANGE - The names of some of the terminals on the resolver connector have been changed to **Ref, Sin, Cos** from **Rotor 1, Rotor 2, Stator 1, Stator 2, Stator 3, Stator 4**.

REGENERATION RESISTOR - APEX20 (page 47)

CHANGE - The continuous power dissipation rating of the APEX20's internal regeneration resistor has doubled, to 80W from 40W.

REGENERATION - EXTERNAL RESISTOR NETWORK (page 53)

CHANGE - You can now design and install a customized external regeneration resistor network, to increase the continuous power dissipation of the APEX Drive's regeneration system.



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