NOTICE
DO NOT DISCARD

In a continuing effort to satisfy our customers, Danaher Motion provides this packet of instructions with your product. This information provides safety, warranty, and liability information. This information enables you, the customer, to get your new unit up and running. Danaher Motion's technical documentation is subject to change without notice. Check the website (www.DanaherMotion.com) for the latest information.

6410 CE Installation Guide

The information contain in this document applies ONLY to the Pacific Scientific 6410. The 6410 is designed for use within machines requiring compliance with European Safety and EMC Directives. The standards the 6410 complies with are CE Guideline 89/336/EEC EMC Directive, and Applied harmonized standards: EN61800-3: 1996.

The information in this document supplements the material in the MA6410. If you do not have a copy of the MA6410, Danaher Motion recommends that you order one.

Customer Responsibility

This manual, supplied with all 6410-series drives, provides detailed information on installation. Follow this manual closely to maintain EMC compliance. It covers details such as mechanical mounting, safety earth connections, and motor wiring.

The 6410's input voltage is provided by a user-supplied DC power supply. System harmonics and conducted emissions depend on the chosen system. The machine builder is responsible to properly filter the installation to prevent unwanted conducted line noise.

EN 61800-3 also adds the responsibility of filtering to the machine builder. For additional information, see the "Assessment of Compatibility" section in EN 61800-3.

Contact Information

Danaher Motion products are available nationwide through an extensive authorized distributor network. These distributors offer literature, technical assistance and a wide range of models off the shelf for fastest possible delivery.

Danaher Motion sales engineers are conveniently located to provide prompt attention to customers' needs. Call the nearest office for ordering and application information or for the address of the closest authorized distributor.

Danaher Motion Customer Support
Phone: (815) 226-2222
Fax: (815) 226-3148
Email: customer.support@danahermotion.com
Website: www.DanaherMotion.com

CE Declaration of Conformity

This is to certify that:

Danaher Motion Pacific Scientific
Motion Technology Division
110 Fordham Road
Wilmington, MA 01887 USA

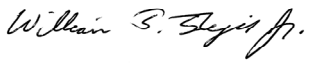
Declares that the product(s):	
Designation	*STEPPER DRIVE*
Type	*6410, 6415, 6420*

Comply with the following relevant regulations:	
CE Guideline	*89/336/EEC EMC Directive*
Applied harmonized standards:	EN 61800-3: 1996

Manufacturer's Contact:	Peter Denault Compliance Engineer

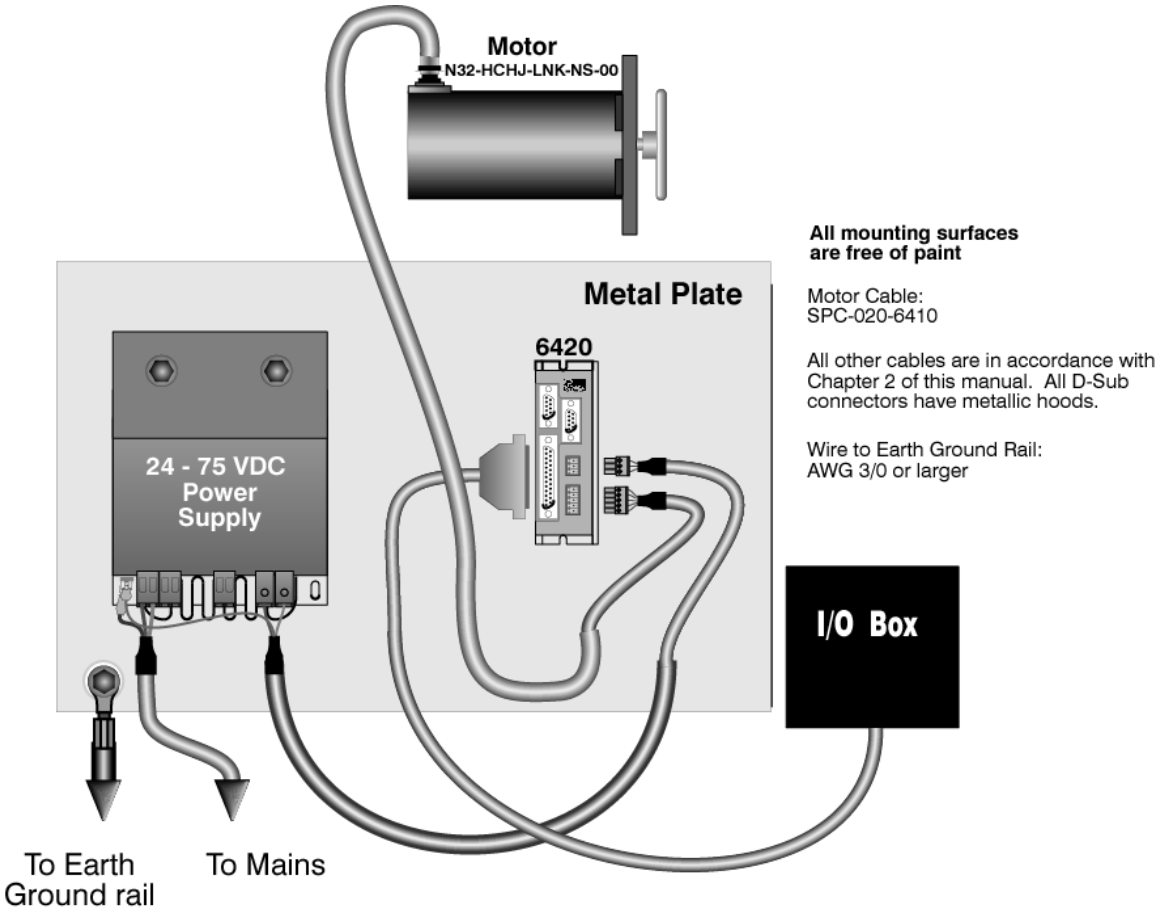
Issued By:	Danaher Motion Pacific Scientific, Motion Technology Division President, William T. Fejes
Place, Date:	Wilmington, MA USA, 10-29-1998

Legally binding
Signature



CE Test Set Up

The 6420 was determined to be the noisiest configuration for the 64xx family. Therefore, it was used for all EMC testing.



Installing and Using the 6410 Unit Safely

Your Responsibility

As the user or person applying this unit, you are responsible for determining the suitability of this product for any application you intend. In no event is Danaher Motion responsible or liable for indirect or consequential damage resulting from the misuse of this product.

Read the MA6410 manual completely to effectively and safely operate your 6410 unit. If you do not have a copy of the MA6410, Danaher Motion recommends that you order one.

The circuits in the 6410 drive are a potential source of severe electrical shock. Follow the safety guidelines to avoid shock.

Safety Guidelines

To avoid possible personal injury whenever you are working with the 6410 unit:

Do NOT operate the drive without the motor case tied to earth ground.

This is normally done by connecting the motor's case to J3-5 of the 6410 and connecting J2-3 of the 6410 to protective earth.

Do *NOT* make any connections to the internal circuitry. The input and output signals are the only safe connection points.

ALWAYS remove power before making or removing connections from the unit.

Be careful of the J3 motor terminals when disconnected from the motor. With the motor disconnected and power applied to the drive, these terminals have high voltage present, even with the motor disconnected.

Do *NOT* use the ENABLE input as a safety shutdown. *ALWAYS* remove power to the drive for a safety shutdown.

Electronic drives contain electrostatic-sensitive devices that can be damaged when handled improperly. Qualified personnel must follow ESD protection measures. For example: wear grounded heel and wrist straps when contacting the drive.

Follow IEC 536-2 and IEC 1140 for installation protection against electrical shock.

Perform installation in accordance with local electric codes, local accident prevention rules, and EN 61800-3.

Close all covers during operation.

Connect braided cable shields to protective earth ground.

Mounting, Shielding, and Grounding

Drive Mounting

Mount the drive to a conductive surface of the machine chassis to ensure a good, high-frequency ground. If the chassis is painted or coated with another nonconductive coating, remove the coating from the mounting location prior to mounting the drive.

Mounting the drive(s) inside an enclosed conductive cabinet can help reduce radiated emission levels.

Cable Routing

To avoid the risk of cross talk, keep motor and command I/O cables away from sensitive signal cables such as telephone and intercommunication lines.

Cable Shielding and Grounding

The following information is not required for CE compliance of a single-axis installation. When planning a multi-axis installation or if extra high frequency noise reduction is required, Danaher Motion suggests:

In addition to the cable requirements given in this document, the motor and signal interface cables should have a braided shield that can be grounded to reduce high frequency disturbances.

The motor cable shield must be grounded near the drive with a suitable high frequency ground. Such a ground connection is made by removing the cable's outer insulation to expose the braided shield, then clamping the exposed braid to a conductive surface of the machine chassis. If the chassis is painted or coated with another nonconductive coating, remove the coating from the clamping location prior to clamping the shield. It is important that the clamp chosen be conductive and provides a full 360° connection.