The Intelligent 32-Axis Motion, Vision, PLC, Robotics, & I/O Platform

A3200
Quick Start Guide

Dedicated to the Science of Motion

www.aerotech.com
Included

- CD
- Quick Start Guide
- FireWire Cable

Typically Required

- Npaq Drive Rack
- and/or
- Digital Ndrive
- Motor(s)

- Computer
- FireWire Card
- Motor and Feedback Cables

FireWire® is a registered trademark of Apple Computer, Inc.
Ndrive®, Npaq®, Nview®, and Ncontrol® are registered trademarks of Aerotech, Inc.
Insert the Automation 3200 CD-ROM into your CD-ROM drive.
The A3200 software installation page will auto-open. Read all of the directions before proceeding — **software installation is service pack and operating system dependent.**

![A3200 Software Installation Page](image-url)
Click **Next** and follow the prompts.

The MPS Uniprocessor PC HAL is not supported.

Note: RTX requires at least two processors on multiprocessor (MP) systems in order to install and operate. If an MP system has only one processor, Windows 2000 and Windows XP must first be converted to use a standard HAL and uniprocessor (UP) kernel before RTX can be used.
Shutdown and reboot your computer after installation has completed.
FireWire Card Installation

Before installation, turn the computer off and unplug the power cord.

Do not remove the FireWire card from the protective antistatic pouch until you are ready to install it.
Remove the cover from your computer and locate an empty PCI expansion slot.
Slide the FireWire card into the open expansion slot and insert the mounting screw.
Cable Connections

Each Ndrive (HP, HL, HPe, HLe, CP, CL, or MP), Nservo, Nstep, Nmark or Npaq must have a unique, sequential address defined by switch S2. Note that an Npaq will occupy six Drive #s. If an Npaq is set as Drive 1, the next free drive number will be Drive 7.

<table>
<thead>
<tr>
<th>Drive #</th>
<th>Switch Setting*</th>
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<td>32nd</td>
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</table>

Notes: Off is indicated by " - " 
There may be more or fewer switches depending on the drive; only the switches represented by columns 0 through 4 should be set.
Connect the motor output, motor feedback, and A.C. power to your drive.
Connect all of the hardware components to the FireWire card. Each device has two or three equivalent FireWire connectors and any may be used. A star connection configuration is recommended. No branch may exceed 16 devices.
If an Aerotech pre-configured machine was purchased, skip ahead to step 6. Otherwise, you will need to configure the parameters in the Nparam editor (step 2) and tune the axes with Nscope (step 4) before you can proceed to Nview (step 6).

**Was Custom Configured Integration Purchased?**

<table>
<thead>
<tr>
<th>Yes</th>
<th>Skip to Step 6, you can begin working in Nview</th>
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<tbody>
<tr>
<td>No</td>
<td>Proceed to next step</td>
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</table>
Since integration was not purchased, you will need to configure the parameters and tune the axes (Step 3).

Open Nparam to configure the parameters for your motors, feedback devices, and application.
Select the number of axes present and then define your parameters in the Nparam editor.

1. From the Display menu, choose the Axis selection to define the number of axes present.

2. Set your parameter values here.

Selecting a folder displays the related subset of parameters.
Open the Nscope utility to begin axis tuning.
From the Tools menu, select Auto Tune. Press F1 on your keyboard to access the Help file to guide you in successfully entering Auto Tune parameters.
If you did not purchase Nview or will write your own application, skip ahead to Step 6b.
To Jog and/or Home the axes from Nview, select F3-Manual, then F6-Jog Mode.

- Click on the axis names to enable the axes.
- Click the HOME buttons to home the axes or enter a suitable distance and velocity.
- Click the arrow keys to move the axes.
Or you can review the demo programs to write your own applications.
The Ncontrol SDK provides event driven monitoring of inputs, outputs, and status. The Ncontrol SDK also provides ActiveX .OLE objects for creating a custom application in Microsoft® Visual Studio 6.
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Aerotech has over 30 years of expertise in designing motion control and positioning systems and components with an unsurpassed track record of reliability. When you make the choice to purchase from Aerotech, we urge you to learn how to get the most from your new Aerotech products. Aerotech provides both onsite (your facility) and/or in–house (our facility) training for our customers’ convenience.

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