


Thanks for purchasing a Centroid Acorn CNC control kit!

**Start Here!** [https://www.centroidcnc.com/centroid\\_diy/acorn\\_quick\\_start\\_guide.html](https://www.centroidcnc.com/centroid_diy/acorn_quick_start_guide.html)

This web page contains critical Acorn CNC information that is presented in order to ensure your success. Please review this web page before connecting anything to the Acorn CNC controller!



User Freindly DIY CNC Controls for Milli Lathes, Routers and other special applic Do-It-Yourself professional grade CNC c

Centroid CNC Control Board Comparison

DIY Acorn CNC Control

DIY Allin1DC CNC Controls

DIY Oak CNC Controls

Wireless MPG Pendant

KP-3 CNC Touch Probe

TT-4 Tool Touch Off

CNC Components

CNC Retrofit Gallery

CNC Videos

Turn-Key CNC Systems

CNC Features

Customer Reviews

DIY CNC Support

CNC Registration

Centroid HOME

**Centroid Acorn CNC controller li**

Minimum Components and Tools n

Acorn CNC control kit

Acorn Wireless MPG Pendant

I/O Expansion Ether1616

KP-3 CNC Touch Probe

TT-4 Tool Touch Off

Laser Engraving and Cutting

Acorn Install Start Here!

Acorn CNC Control FAO

Acorn Hookup Schematics

Acorn CNC Software Download

Free Tech Support

Acorn Success Stories

Gear we use but don't sell

Sign Up for Free Tech Support

Purchase Acorn Technical Support

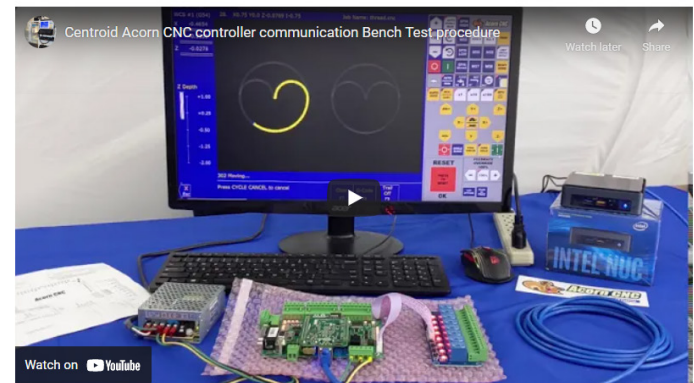
Acorn Warranty

Acorn Resellers

Step 2: Acorn Unboxing



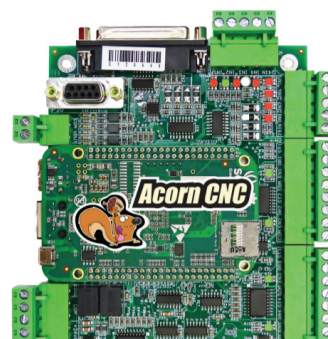
Step 3: Acorn Communications to CNCPC Bench Test: Always perform this test before connection anything to the Acorn CNC controller. Corresponding Acorn Bench Test PDF



Be sure to download the accompanying Acorn Installation manual. Link is found at the top of this page as well. [https://www.centroidcnc.com/centroid\\_diy/downloads/acorn\\_documentation/centroid\\_acorn\\_install\\_manual.pdf](https://www.centroidcnc.com/centroid_diy/downloads/acorn_documentation/centroid_acorn_install_manual.pdf)







Centroid AcornCNC Installation Manual  
CNC Software version: CNC12 V4.64+  
Models: AcornCNC



Acorn CNC Control Kit	6
Bench Test Hardware setup	7
Windows 10 config for CNC use	9
Acorn Communications Bench Testing	11
Spindle Bench Testing Procedure	19
Electrical Cabinet Layout	24

# 1 SIGN UP FOR FREE CNC TECH SUPPORT at [www.centroidcncforum.com](http://www.centroidcncforum.com)

 **CENTROID™** Centroid Community CNC Support Forum

Quick links  FAQ  ACP  MCP





Notifications **8** Private messages **cnckeith**



[Board index](#) < [Centroid Community CNC Support Forum](#) < [Centroid Acorn CNC Controller](#)







## Centroid Acorn CNC Controller

Moderator: **cnckeith**









Mark subforums read

FORUM	TOPICS	POSTS	LAST POST
 Acorn CNC Knowledge Base Videos Moderator: <b>cnckeith</b>	46	93	<b>KBMG 212D with SIMG, CNC4PC C...</b> by <b>martyscncgarage</b>  Sun Aug 01, 2021 9:44 am
 Acorn CNC Tech Tips Knowledge Base, Look Here! before posting Moderator: <b>cnckeith</b>	80	797	<b>Re: VFD Voltage/RPM fluctuati...</b> by <b>lavrge</b>  Tue Oct 12, 2021 10:20 am

































New Topic  Search this forum... 

Mark topics read • 3698 topics      ... 

### ANNOUNCEMENTS

	REPLIES	VIEWS	LAST POST
 Acorn CNC12 Mill, Router, and Lathe v4.64 has been released! by <b>cnckeith</b> » Wed Jan 27, 2021 4:15 pm    	35	14541	by <b>tkbot47</b>  Fri Nov 26, 2021 2:10 pm
 ALL Acorn Documentation by <b>cnckeith</b> » Wed Aug 14, 2019 12:11 pm	0	28989	by <b>cnckeith</b>  Wed Aug 14, 2019 12:11 pm

### TOPICS

	REPLIES	VIEWS	LAST POST
 Show me your Custom VCP's! by <b>cnckeith</b> » Mon Dec 07, 2020 1:18 pm    	38	12917	by <b>FlySox</b>  Mon Nov 01, 2021 6:56 pm
 New Build: SYIL X4 CNC Mill, Clearpath SDSK, C86ACCP & Centroid Acorn by <b>martyscncgarage</b> » Wed Feb 10, 2021 5:58 pm  ...     	109	29995	by <b>beevo</b>  Sat Oct 23, 2021 4:26 pm
 ProbeApp V3: Test and Improve Touch Probe Accuracy by <b>swissi</b> » Mon Aug 16, 2021 4:40 pm	7	2836	by <b>jasonstewart81</b>  Mon Oct 04, 2021 3:39 pm
 *** released 7-13-21 Acorn Installation Manual for comment *** by <b>cnckeith</b> » Mon Jun 28, 2021 10:17 am  	19	5050	by <b>suntravel</b>  Tue Sep 28, 2021 11:46 am
 New Centroid Teknic Clearpath officially supported configurations by <b>cnckeith</b> » Fri Mar 05, 2021 1:43 pm     	45	19714	by <b>cnckeith</b>  Fri Aug 06, 2021 11:39 am
 How to Register for an Account on this Forum: Video Tutorial. by <b>cnckeith</b> » Mon Jul 29, 2019 7:35 pm	6	14420	by <b>cnckeith</b>  Thu Jul 08, 2021 7:27 am
 YOU WANT HELP? READ ME! by <b>martyscncgarage</b> » Sat Sep 28, 2019 8:34 am	0	12393	by <b>martyscncgarage</b>  Sat Sep 28, 2019 8:34 am
 Please Read Before posting questions here on the forum, report.zip and images required by <b>cnckeith</b> » Mon Oct 16, 2017 6:42 pm	0	19473	by <b>cnckeith</b>  Mon Oct 16, 2017 6:42 pm

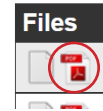
- 2** Acorn Documentation contains all related Acorn documentation such as, Acorn Hookup Schematics, Probe Set-up guide, Axis pairing guide, Macro programming guide, Acorn Specifications manual, CNC12 Operator Manuals and more is located here. This is the go to page for all up to date Acorn information.
- 3** Be sure to become familiar with the posts in the “Acorn CNC Knowledge Base Video” and the “Acorn CNC Tech Tip Knowledgebase” forum for detailed CNC setup information covering a wide range of common Acorn CNC technical support subjects. Valuable time saving information contained here.

**All Centroid DIY CNC controller hookup schematics are located on this page.**

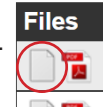
[https://www.centroidcnc.com/centroid\\_diy/schematics/pbrowse.php](https://www.centroidcnc.com/centroid_diy/schematics/pbrowse.php)


Use the “Search Files” button to find the schematics you need. For instance “Acorn” results in a list of all schematics with the word Acorn in them.

Click on the PDF logo in the Files column to open and download the PDF version of the schematic.



Click on the white file logo to download the AutoCad version of the same schematic.





















 **CENTROID** Schematics

 SEARCH FILES

 HELP

Search

Files	ID	R#	Date	Title
	S15114	1	11-22-2021	ACORN_rev4, THC_TX, THC_RX, PowerMax 45/65/85 Plasma, Float Switch and Breakaway
	S15113	2	11-22-2021	ACORN_rev4, GECKO GR214V STEPPER DRIVE
	S15109	4	10-26-2021	ACORN_rev4, THC_TX, THC_RX, PowerMax 45/65/85 Plasma, Float Switch and Breakaway
	S15108	4	11-01-2021	ACORN_rev4, THC_TX, THC_RX, PowerMax 45/65/85 Plasma, Torch Tip Touchoff, Breakaway and Secondary Float Switch
	S15107	3	10-25-2021	ACORN_rev4, THC_TX, THC_RX, PowerMax 45/65/85 Plasma, Torch Tip Touchoff and Breakaway
	S15106	5	10-26-2021	ACORN_rev4, THC_TX, THC_RX, PowerMax 45/65/85_Plasma
	S15103	1	09-24-2021	ACORN_rev4, LEADSHINE ELP-D400Z SERVO DRIVE
	S15102	1	09-16-2021	ACORN_rev4, DELTA ASDA-B2 SERVO DRIVE
	S15088	1	07-13-2021	ACORN_rev4, GECKO G320X SERVO DRIVE
	S15087	2	08-03-2021	ACORN_rev4, TT-4 TOOL TOUCHOFF
	S15079	1	05-10-2021	ACORN_rev4, Door Closed Safety Switch
	S15078	1	05-10-2021	ACORN_rev4, XCS-TE Door Interlock
	S15074	2	04-20-2021	ACORN_rev4, YASKAWA V1000, ENABLE-DIRECTION
	S15072	4	04-20-2021	ACORN_rev4, CLEARPATH SDSK SERIES MOTOR, CNC4PC C86ACCP INTERFACE BOARD
	S15065	2	04-20-2021	ACORN_rev4, Hall_Effect_RPM_Sensor
	S15063	2	04-20-2021	ACORN_rev4, COMCROW D-B500F LASER
	S15062	2	04-20-2021	ACORN_rev4, NEJE LASER
	S15061	2	04-20-2021	ACORN_rev4, OBT LASER

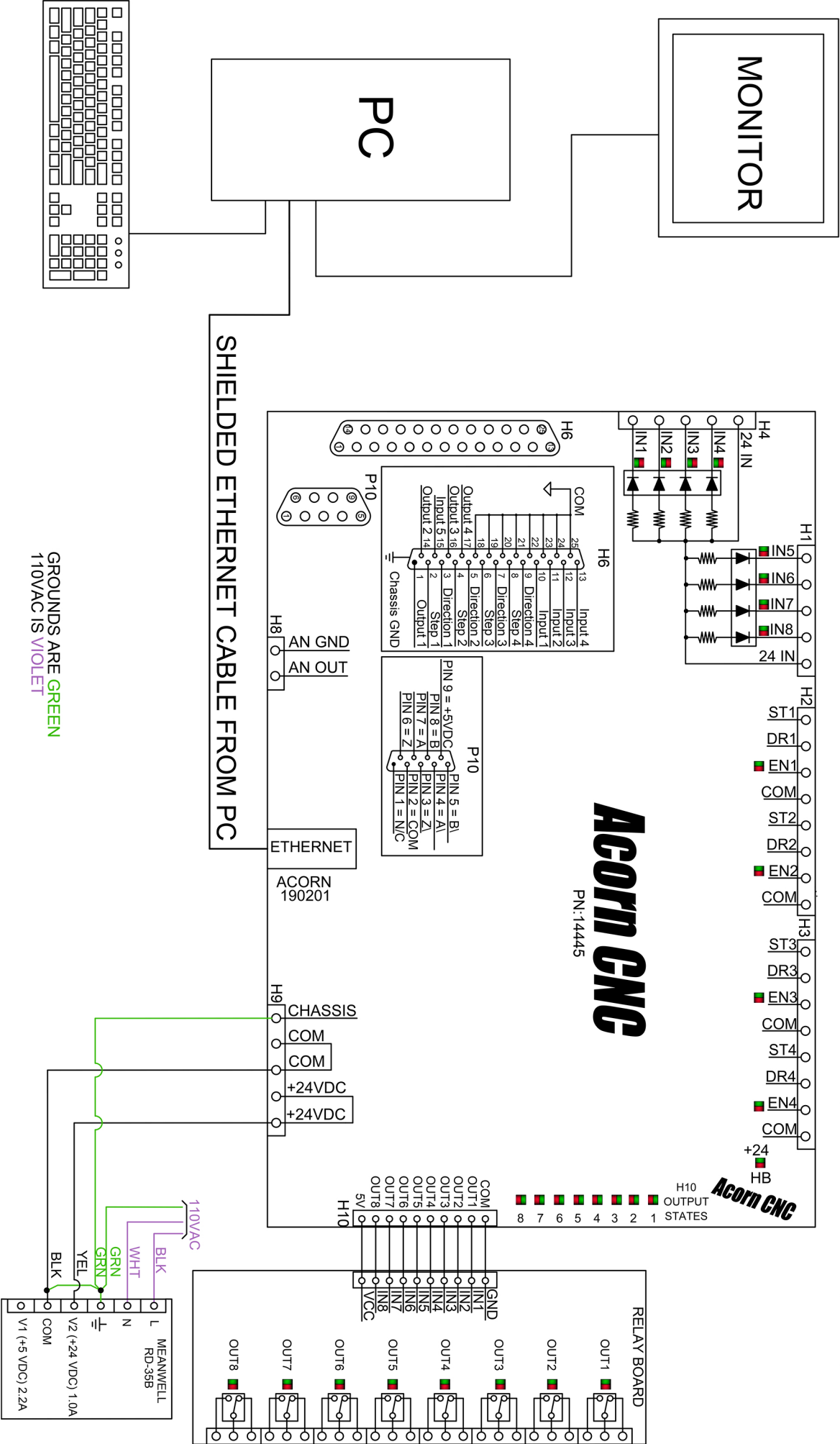
Acorn is an educational DIY (do it yourself) product. Centroid makes no warranties or claims of safety or suitability for any application. Any schematics or wiring hookup instructions presented on Centroid's website or in the on-line forums are incomplete educational examples for discussion only. The user, DIY'er is creating his/her own CNC device, which may include dangerous voltages, powerful motors and resulting dangerous unexpected forceful motion of dangerous cutters and fast moving heavy machine parts.

If you are not qualified to accept all responsibility and/or you do not agree, DO NOT PROCEED.

Always follow this schematic and the online bench test installation videos BEFORE making any other connections.  
[www.centroidcnc.com/centroid\\_diy/acorn\\_quick\\_start\\_guide.html](http://www.centroidcnc.com/centroid_diy/acorn_quick_start_guide.html)

Title: ACORN_rev4, BASIC POWER AND COMMUNICATION CONNECTIONS, Bench Test			
Date: 210420	Ver: 3	Drawn by: CEM	
Filename: S14952.DWG		Sheet 1	of 1

How to tell the difference between Acorn\_rev2, Acorn\_rev3 and Acorn\_rev4  
Acorn\_rev2 has FIXED green screw terminal blocks  
Acorn\_rev3 has REMOVABLE green screw terminal blocks  
Acorn\_rev4 has LED indicators for the inputs and Outputs



GROUND ARE GREEN  
110VAC IS VIOLET