Vision Engravers and Routers Installation Guide

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Factory	Settings

Χ	Inches	mm
Y	Inches	mm

Braille Inserter Offset

X	Inches	mm
Y	Inches	mm

This is ONLY the Installation Guide. PLEASE review the complete User Manual for your machine, which will be installed on your computer after the software installation is completed.

Vision Engravers and Routers Installation Guide

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Table of Contents

Part I	Introduction 5
1	Computer Requirements
2	Direct Connection to Computer
3	Network Connection 15
4	Using a Router or Hub - ONLY 18
5	Vision Software Installation
Part II	General Electrical and Facility Requirements
i art i	by Model 35
Part III	Pendant Holder Installation 36
Part IV	Express and VE-810 40
1	Express Layout Diagram 41
2	VE-810 Layout Diagram 41
Part V	Phoenix 1212 42
1	Phoenix 1212 Layout Diagram 43
Part VI	16 Series and 24 Series Engravers44
1	1612 and 1624 Engraver Layout Diagram 45
2	2424 and 2448 Engraver Layout Diagram 46
Part VII	16 Series and 25 Series Routers47
1	High Frequency Router Head 47
2	Engraving Head 51
3	1624R Router Layout Diagram 53
4	2525 and 2550 Router Layout Diagrams 54
Part VIII	MAX and MAX PRO 57
1	MAX and MAX PRO Layout Diagram 58
Part IX	VR48 Router 59
1	Requirements
2	Wiring Connections
3	Vacuum Pump Connections - Vacuum Table Models Only
4	VR48 Router Layout Diagrams 67

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5

1 Introduction

This guide contains information to prepare the new owner of a Vision Engraver or Router for the proper installation of their machine. It is the customer's responsibility to read through this guide and make sure the work area, electrical and computer requirements are met prior to the arrival of a representative from Vision for the scheduled installation/machine orientation date (Training NOT included with Vision Express machines). If for any reason, there are questions about these requirements, please call your Vision representative as soon as possible. **IMPORTANT** – Once your training day is scheduled, if for any reason you have to cancel training or change the dates, you may be subject to fees associated with your change request. However, if the trainer arrives at your facility on the day of training and you have to cancel or reschedule training at that time, a fee of \$750 will be required before Vision will send the trainer back to your facility in addition to fees associated with your change request. No exceptions.

In the following sections, the complete machine and Vision software installation will be outlined. There are three connection configurations possible with the Vision Engraver or Router.

The first is a direct cable connection to your computer via the network port. There is a special "crossover" cable (the cable colored gray) supplied for this connection type. This configuration is for a stand alone computer that is NOT connected to a <u>WIRED</u> network or internet. A connection can be made to a computer that is connected to a wireless network in this manner.

The second configuration is for connection through a wired network using a standard Ethernet cable (DO NOT use the crossover cable when connecting to a network). In this configuration, the engraver or router will be recognized as a network device. Connection in this manner is the easier of the two connection types. If there are no network connections available, a network hub can be added to allow connection to your network.

The third configuration is for a connection from the computer to a hub (or router) and then to your machine. This is WITHOUT a computer network. Standard Ethernet cables are used in this configuration.

Please call your distributor or the service department at Vision for assistance if you are having problems with this procedure.

FOR MORE DETAILED INFORMATION, PLEASE REFER TO THE USER GUIDE FOR YOUR MACHINE INSTALLED WITH THE VISION SOFTWARE. USER GUIDES ARE ALSO AVAILABLE ONLINE AT <u>http://www.visionengravers.com/support/vision-engraver-manuals.html</u>

To begin installation, locate the White/Blue Dongle or Orange Dongle or USB Stick included with your machine in the Accessories Box

Important Note:

The Vision software is available in two versions; one with a dongle, and one that is "dongle-less" and is loaded on to a USB Memory stick.

If your machine was delivered with, or you currently have the white/blue or orange software dongle, DO NOT LOSE IT!

The Vision software will NOT run without the dongle plugged into the computer.



1.1 Computer Requirements

IT IS HIGHLY RECOMMENDED THAT THE COMPUTER USED TO OPERATE THE VISION ENGRAVER OR ROUTER BE CONNECTED TO THE INTERNET. THIS ALLOWS THE USER TO ALLOW VISION'S TECHNICAL SUPPORT TO ACCESS THE MACHINE AND TROUBLESHOOT IF NECESSARY.

Minimum System Requirements

CPU:	Dual Core (2.0GHz or higher)
Hard Drive:	500 GB free space
RAM:	1GB + OS Requirements
Operating System:	Windows 10 - 32 Bit & 64 Bit
	Windows 8 & 8.1 - 32 Bit & 64 Bit
	Windows 7 - 32 Bit & 64 Bit
	Windows XP SP3 - 32 Bit (64 Bit not supported)
Ports:	USB port for security dongle
	Local or network Ethernet port to connect machine

Suggested System Requirements

CPU:	Core i3 (or faster)
Hard Drive:	1 TB (or more)
RAM:	4GB + OS Requirements
Operating System:	Windows 10 - 32 Bit & 64 Bit
	Windows 8 & 8.1 - 32 Bit & 64 Bit
	Windows 7 - 32 Bit & 64 Bit
Ports:	USB port for security dongle
	Local or network Ethernet port to connect machine

1.2 Direct Connection to Computer

Direct Connection to Computer Using Crossover Cable



Once the machine or controller is connected directly to your computer's network port with the crossover cable (the gray colored cable), turn the machine or controller on. The power switch for the Vision Express is located on the power supply box for the machine. The power switch for the VE810 is located below the LCD screen on the front of the machine. The power switch for the Vision Series 4 Controller is located on the front left of the Controller. Once the machine or controller has initialized, plug the supplied Vision USB drive (or orange USB Dongle) into an available USB port on your computer.

NOTE - This installation is performed on a Windows 7 PC. For Windows XP, Windows 8, Windows 8.1 or Windows 10, the screens are slightly different.

The computer will recognize the USB drive and the following screen will appear. Select Continue without scanning.



Select Open folder to view files.



Locate the file named Start and double click on the file to start the installation. The screen below shows Start.exe, but your computer might not show the .exe portion.

Organize • 📄 Open	New folder			
Favorites	Name	Date modified	Туре	Size
Desktop	L Camera	1/27/2011 3:30 PM	File folder	
3 Recent Places	L cdmcdata	1/4/2012 5:05 PM	File folder	
bownloads	L ClipArt	12/17/2008 9:01 AM	File folder	
	L Connectivity Manager	1/5/2012 10:50 AM	File folder	
📔 Libraries	Firmware - Series 1 and 2 Controllers	2/3/2009 9:39 AM	File folder	
Documents	E Fonts	12/17/2008 8:55 AM	File folder	
🕹 Music 🗏	L USBtoSerial	8/5/2010 7:39 AM	File folder	
S Pictures	Vision Machine Tools v4	11/21/2011 1:38 PM	File folder	
Juleos	Vision Pro dongle driver	10/12/2009 2:50 PM	File folder	
	1 Vision Screen Backrounds	2/3/2009 9:40 AM	File folder	
Scomputer	Vision Series 1 and 2 Controller Drivers	1/20/2009 5:18 PM	File folder	
Local Disk (C:)	Vision Series 3 Controller Drivers	10/14/2011 10:32 AM	File folder	
V DVD Drive (D:) Fc	🐌 VisionW	8/28/2009 2:17 PM	File folder	
Vision (F:)	🗼 VPro	11/21/2011 1:41 PM	File folder	
📜 Camera	AUTORUNINF	1/5/2012 2:04 PM	Setup Information	1 KB
👃 cdmcdata	products.ini	12/9/2011 6:30 PM	Configuration settings	1 KB
📙 ClipArt	products.lcf	12/9/2011 6:30 PM	LCF File	3 KB
👃 Connectivity Ma	Readme.txt	1/5/2012 10:17 AM	Text Document	1 KB
🗼 Firmware - Serie	Slcdmenu.cdi	1/5/2012 2:04 PM	CDI File	9 KB
L Fonts	SLCDMENU.EXE.manifest	1/10/2010 11:03 AM	MANIFEST File	1 KB
L USBtoSerial	Start.exe	3/30/2010 12:47 PM	Application	340 KB
📙 Vision Machine	👘 Vision Software. nsi	1/5/2012 12:25 PM	Windows Installer Pa	160,845 KB
Vision Pro dong *	VISION ICO	1/5/2012 11:11 AM	lcon	289 KB

Select Step 1 - Setup Machine. This installs the Vision Connectivity Manager software.



When the software is installed, select Finish.

InstallShield Wizard	InstallShield Wizard Complete Setup has finished installing Connectivity Manager on your computer.
	KBack Finish Cancel

The Connectivity Manager will search for available Vision devices.

Discover Machine Tools	
 ■ My Computer 	
	Configure
	Update
Scanning	Close

The computer's IP address will need to be set. NOTE - this should not cause any conflicts with your computer's wireless IP address, which is determined by the computer's wireless network card. To set the computer's IP address, open the Window's Control Panel. Depending on how you have this folder set, you will either see Network and Internet, or you will see the Network and Sharing Center immediately. If you see Network and Internet, select View Network Status and Tasks (which opens the Network and Sharing Center). If you see the Network and Sharing Center, open it. Then select Local Area Connection (as shown below).

- + Control Panel +	All Control Panel Items + Network and Sharing Center	▼ 4y Search Control Panel
~		
ontrol Panel Home	View your basic network information and set up connections	
hange adapter settings	s	See full map
hange advanced sharing ettings	DSCLIFI-JL7 visionengravers.com Internet (This computer)	
	View your active networks Connect o	or disconnect
	Visionengravers.com Access type: Internet Domain network Connections: ell' <u>Local Area Connection</u>	20
	Change your networking settings	
	Set up a new connection or network Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a nouter or a	access point.
	Connect to a network Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.	
	Choose homogroup and sharing options Access files and printers located on other network computers, or change sharing setting	gs.
	Troubleshoot problems Diagnose and repair network problems, or get troubleshooting information.	
ee also		
lomeGroup		
nternet Options		

Select Properties.

eneral		
Connection -		
IPv4 Conne	ctivity:	Internet
IPv6 Conne	ctivity:	No Internet access
Media State	22	Enabled
Duration:		00:35:45
Speed:		100.0 Mbps
Details		
	Sent — 💐	— Received
Details Activity Bytes:		Received 22,049,839

Then, select Internet Protocol Version 4 (TCP/IPv4).

a broadcom me	x 10/100 Integrated Contro	ller
his connection uses	the following items:	Configure
Client for Micro		
🗹 🛃 QoS Packet S		
	er Sharing for Microsoft Net	works
	col Version 6 (TCP/IPv6)	
	col Version 4 (TCP/IPv4)	100
	pology Discovery Mapper pology Discovery Respor	
E Ink Layer To	pology Discovery respon	lder
Install	Uninstall	Properties
Install Description	Uninstall	Properties
Description	Uninstall	

Then select Properties. Select Use the following IP address: and enter 192.168.5.100 and set the Subnet mask to 255.255.255.0 as shown. Then select OK and close any other network configuration windows.

Networking	General	
Connect using:	You can get IP settings assigned supports this capability. Otherwi	d automatically if your network ise, you need to ask your network
Broadcom 440x 10/100 Integrated Controller	administrator for the appropriat	
Configure	Obtain an IP address autor	natically
This connection uses the following items:	Use the following IP address	\$5:
 ✓ Intervention Microsoft Networks ✓ □ QoS Packet Scheduler 	IP address:	192.168.5.100
File and Printer Sharing for Microsoft Networks	Subnet mask:	255.255.255.0
Internet Protocol Version 6 (TCP/IPv6) Internet Protocol Version 4 (TCP/IPv4)	Default gateway:	
🗵 🛶 Link-Layer Topology Discovery Mapper I/O Driver		
Link-Layer Topology Discovery Responder	Obtain DNS server address	
	 Ouse the following DNS served 	ver addresses
Install Uninstall Properties	Preferred DNS server:	· · ·
Description Transmission Control Protocol/Internet Protocol. The default wide	Alternate DNS server:	
area network protocol that provides communication across diverse interconnected networks.	Validate settings upon exi	t Advanced
OK Cancel		OK Cancel

The IP address of the machine will need to be set to set up the connections properly. Select the + box next to the machine now listed in the Discover Machine Tools window to expand the information. Then select Configure (Your Machine) at the bottom of the screen.

🗄 🚟 My Computer	
S Vision Express Engraver (15983)	
- 192.168.0.61 / 255.255.255.0 / DHCP	
-& 169.254.42.115 / 255.255.0.0 / LocalLink	
-RP Current Connections	
ision Express Engraver (15983) is ready.	Configure Vision Express Engraver (15983)
	Compare vision Express Engraves (15500 mil
	Update Vision Express Engraver (15983)

Select Use Static IP.

Configure Vision VE81	.0 s4 (15535)				×
Use DHCP					
Select this opti The machine to If the machine please power-o	ol will obtair tool does not	n networ t come t	k settings a ack online	automaticall	y.
Use Static IP Select this opti tool. The IP ad	dress should	be in on	e of the ne	tworks conf	
			ОК	Ca	ncel

Set the IP address (as shown) to 192.168.5.101, then select OK. This sets the machine's IP address.

Configure Vision VE810 s4 (15535)	×
Use DHCP Select this option, if you have a DHCP server in your The machine tool will obtain network settings autom If the machine tool does not come back online after please power-cycle the machine tool.	atically.
• Use Static IP 192 . 168 . 5 . 101 Select this option to statically assign an IP address to tool. The IP address should be in one of the network on this computer, and should be unique in that network	s configured
ок	Cancel

The configuration is complete at this point. Close the Discover Machine Tools window and return to the Main Installation Screen to proceed with the Vision software installation in the next section.

1.3 Network Connection

Connecting via Standard Network Cable to Network



Once the machine or controller is connected to your network, turn the machine or controller on. The power switch for the Vision Express is located on the power supply box for the machine. The power switch for the VE810 is located below the LCD screen on the front of the machine. The power switch for the Vision Series 4 Controller is located on the front left side of the controller. Once the machine or controller has initialized, plug the supplied Vision USB drive (or orange USB Dongle) into an available USB port on your computer.

NOTE - This installation is performed on a Windows 7 PC. For Windows XP, Windows 8, Windows 8.1 or Windows 10, the screens are slightly different.

The computer will recognize the USB drive and the following screen will appear. Select Continue without scanning.



Select Open folder to view files.



Locate the file named Start and double click on the file to start the installation. The screen below shows Start.exe, but your computer might not show the .exe portion.

Organize • 🖻 Open	New folder			
organize • 🔤 Open				
Favorites	Name	Date modified	Туре	Size
E Desktop	🐌 Camera	1/27/2011 3:30 PM	File folder	
3 Recent Places	🐌 cdmcdata	1/4/2012 5:05 PM	File folder	
bownloads	L ClipArt	12/17/2008 9:01 AM	File folder	
	Connectivity Manager	1/5/2012 10:50 AM	File folder	
💭 Libraries	Firmware - Series 1 and 2 Controllers	2/3/2009 9:39 AM	File folder	
Documents	1 Fonts	12/17/2008 8:55 AM	File folder	
🛃 Music 👘	👃 USBtoSerial	8/5/2010 7:39 AM	File folder	
S Pictures	Vision Machine Tools v4	11/21/2011 1:38 PM	File folder	
JUIDE VIDEOS	🗼 Vision Pro dongle driver	10/12/2009 2:50 PM	File folder	
	Vision Screen Backrounds	2/3/2009 9:40 AM	File folder	
Scomputer	Vision Series 1 and 2 Controller Drivers	1/20/2009 5:18 PM	File folder	
Local Disk (C:)	Vision Series 3 Controller Drivers	10/14/2011 10:32 AM	File folder	
VDVD Drive (D:) Fc	1. VisionW	8/28/2009 2:17 PM	File folder	
Vision (F:)	🗼 VPro	11/21/2011 1:41 PM	File folder	
📙 Camera	AUTORUN.INF	1/5/2012 2:04 PM	Setup Information	1 KB
👃 cdmcdata	products.ini	12/9/2011 6:30 PM	Configuration settings	1 KB
📙 ClipArt	products.lcf	12/9/2011 6:30 PM	LCF File	3 KB
👃 Connectivity Ma	Readme.txt	1/5/2012 10:17 AM	Text Document	1 KB
🗼 Firmware - Serie	🗋 slcdmenu.cdi	1/5/2012 2:04 PM	CDI File	9 KB
L Fonts	SLCDMENU.EXE.manifest	1/10/2010 11:03 AM	MANIFEST File	1 KB
L USBtoSerial	Ge Start.exe	3/30/2010 12:47 PM	Application	340 KB
👃 Vision Machine	👘 Vision Software. nsi	1/5/2012 12:25 PM	Windows Installer Pa	160,845 KB
🗼 Vision Pro dong 🔻	VISION ICO	1/5/2012 11:11 AM	lcon	289 KB

Select Step 1 - Setup Machine. This installs the Vision Connectivity Manager software.



When the software is installed, select Finish.

InstallShield Wizard	InstallShield Wizard Complete Setup has finished installing Connectivity Manager on your computer.
	< Back Finish Cancel

The Connectivity Manager will search for available Vision devices.

■ ₩ Computer Storm States	
	Configure
	Update
Scanning	Close

The configuration is complete at this point. Close the Machine Tools Discovery window and return to the Main Installation Screen to proceed with the Vision software installation in the next section.

1.4 Using a Router or Hub - ONLY

Connection from PC to Hub or Router to Machine or Controller



Once the machine is connected to a hub or router, and the hub or router is connected to your computer's network port, turn the machine or controller on. The power switch for the Vision Express is located on the power supply box for the machine. The power switch for the VE810 is located below the LCD screen on the front of the machine. The power switch for the Vision Series 4 Controller is located on the front left of the Controller. Once the machine or controller has initialized, plug the supplied Vision USB drive (or orange USB Dongle) into an available USB port on your computer.

NOTE - This installation is performed on a Windows 7 PC. For Windows XP, Windows 8, Windows 8.1 or Windows 10, the screens are slightly different.

The computer will recognize the USB drive and the following screen will appear. Select Continue without scanning.



Select Open folder to view files.



18

Locate the file named Start and double click on the file to start the installation. The screen below shows Start.exe, but your computer might not show the .exe portion.

Irganize • 📄 Open	New folder			
Favorites	Name	Date modified	Туре	Size
E Desktop	L Camera	1/27/2011 3:30 PM	File folder	
Sk Recent Places	L cdmcdata	1/4/2012 5:05 PM	File folder	
bownloads	L ClipArt	12/17/2008 9:01 AM	File folder	
	L Connectivity Manager	1/5/2012 10:50 AM	File folder	
😂 Libraries	Firmware - Series 1 and 2 Controllers	2/3/2009 9:39 AM	File folder	
Bocuments	Fonts	12/17/2008 8:55 AM	File folder	
🕹 Music 🗏	USBtoSerial	8/5/2010 7:39 AM	File folder	
S. Pictures	Vision Machine Tools v4	11/21/2011 1:38 PM	File folder	
Videos	Vision Pro dongle driver	10/12/2009 2:50 PM	File folder	
	1. Vision Screen Backrounds	2/3/2009 9:40 AM	File folder	
Computer	Vision Series 1 and 2 Controller Drivers	1/20/2009 5:18 PM	File folder	
local Disk (C:)	Vision Series 3 Controller Drivers	10/14/2011 10:32 AM	File folder	
V DVD Drive (D:) Fc	🐌 VisionW	8/28/2009 2:17 PM	File folder	
Vision (F:)	🗼 VPro	11/21/2011 1:41 PM	File folder	
📙 Camera	AUTORUNINF	1/5/2012 2:04 PM	Setup Information	1 KB
👃 cdmcdata	oproducts.ini	12/9/2011 6:30 PM	Configuration settings	1 KB
📙 ClipArt	products.lcf	12/9/2011 6:30 PM	LCF File	3 KB
👃 Connectivity Ma	Readme.txt	1/5/2012 10:17 AM	Text Document	1 KB
🗼 Firmware - Serie	🗋 slcdmenu.cdi	1/5/2012 2:04 PM	CDI File	9 KB
📙 Fonts	SLCDMENU.EXE.manifest	1/10/2010 11:03 AM	MANIFEST File	1 KB
L USBtoSerial	Ge Start.exe	3/30/2010 12:47 PM	Application	340 KB
🗼 Vision Machine	👘 Vision Software. nsi	1/5/2012 12:25 PM	Windows Installer Pa	160,845 KB
👃 Vision Pro dong 🔻	VISION ICO	1/5/2012 11:11 AM	lcon	289 KB

Select Step 1 - Setup Machine. This installs the Vision Connectivity Manager software.



When the software is installed, select Finish.

InstallShield Wizard	InstallShield Wizard Complete Setup has finished installing Connectivity Manager on your computer.
	< Back Finish Cancel

The Connectivity Manager will search for available Vision devices.

a	
No vision express engraver (15965)	
	Configure
	Configure
	Configure Update

The computer's IP address will need to be set. To set the computer's IP address, open the Window's Control Panel. Depending on how you have this folder set, you will either see Network and Internet, or you will see the Network and Sharing Center immediately. If you see Network and Internet, select View Network Status and Tasks (which opens the Network and Sharing Center). If you see the Network and Sharing Center, open it. Then select Local Area Connection (as shown below).

🕖 🗣 🕴 🔸 Control Panel 🕨	All Control Panel Items + Network and Sharing Cer	vter	
Control Panel Home	View your basic network information	and set up connections	
Change adapter settings	A	See tuli map	
Change advanced sharing settings	DSCL1F1-R.7 visioneng (This computer)	ravers.com Internet	
	View your active networks	Connect or disconnect	
	Visionengravers.com Domain network	Access type: Internet Connections: H ^{III} Local Area Connection	
	Change your networking settings	•	
	Section 2010 Connect to a network	ad hoc, or VPN connection; or set up a nouter or access point.	
	Choose homegroup and sharing optic	ired, dial-up, or VPN network connection. oni ther network computers, or change sharing settings.	
	Troubleshoot problems Diagnose and repair network problem	ns, or get troubleshooting information.	
See also			
fomeGroup			
Internet Options			
Windows Firewall			

Select Properties.

eneral		
Connection		
IPv4 Connect	ivity:	Internet
IPv6 Connect	ivity:	No Internet access
Media State:		Enabled
Duration:		00:35:45
Speed:		100.0 Mbps
100		
Activity		
Activity ———	Sent —	— Received
Activity ——— Bytes:	Sent —	Received 22,049,839
Activity Bytes:	5,435,157	(F

Then, select Internet Protocol Version 4 (TCP/IPv4).

connect using: Broadcom 440x 1	0/100 Integrated Contro	ller
his connection uses the	o following items:	Configure
File and Printer S	Sharing for Microsoft Net	worke
 Internet Protocol Internet Protocol Internet Protocol Internet Protocol Internet Protocol 	Version 6 (TCP/IPv6)	r I/O Driver
 Internet Protocol Internet Protocol Internet Protocol Internet Protocol Internet Protocol 	Version 6 (TCP/IPv6) Version 4 (TCP/IPv4) logy Discovery Mappe	r I/O Driver

Then select Properties. Select Use the following IP address: and enter 192.168.5.100 and set the Subnet mask to 255.255.255.0 as shown. Then select OK and close any other network configuration windows.

Connect using:			General You can get IP settings assigned a	automatically if your network
Broadcom 440x 10/100 Ir	ntegrated Controller		supports this capability. Otherwise administrator for the appropriate	
This connection uses the follow	ing itome	Configure	Obtain an IP address automa	atically
			 Ouse the following IP address 	:
Client for Microsoft Netw QoS Packet Scheduler			IP address:	192.168.5.100
File and Printer Sharing		rks	Subnet mask:	255.255.255.0
 Internet Protocol Version Internet Protocol Version 			Default gateway:	
 Link-Layer Topology Di Link-Layer Topology Di 			Obtain DNS server address a	automatically
			Use the following DNS server	r addresses
Install	Uninstall	Properties	Preferred DNS server:	
Description Transmission Control Protoc	ol/Internet Protocol	The default wide	Alternate DNS server:	
	ovides communica orks.		Validate settings upon exit	

The IP address of the machine will need to be set to set up the connections properly. Select the + box next to the machine now listed in the Discover Machine Tools window to expand the information. Then select Configure (Your Machine) at the bottom of the screen.

🗉 🔚 My Computer	
B 🔿 Vision Express Engraver (15983)	
- 192.168.0.61 / 255.255.255.0 / DHCP	
- 169.254.42.115 / 255.255.0.0 / LocalLink	
o contra connectoria	
ision Express Engraver (15983) is ready.	Configure Vision Express Engraver (15983)
	Update Vision Express Engraver (15983)

Select Use Static IP.

Configure Vision VE8	10 s4 (15535)			×
Use DHCP					
Select this opt The machine t If the machine please power-	ool will obt	ain netw not come	ork setting back onlir	s automati	ically.
Use Static IP Select this opt tool. The IP ac on this comput	ldress shou	ld be in o	one of the	networks c	onfigured
			ОК		Cancel

Set the IP address (as shown) to 192.168.5.101, then select OK. This sets the machine's IP address.

Configure Vision VE81	0 s4 (15535)		×
The machine to If the machine	on, if you have a DHCP ol will obtain network s tool does not come bac ycle the machine tool.	settings automatica	ally.
tool. The IP ad	192 . 168 . 5 . on to statically assign a dress should be in one o er, and should be unique	n IP address to the of the networks co	
		ОК	Cancel

The configuration is complete at this point. The new IP address should appear in a few seconds in the Discover Machine Tools window. Close the Discover Machine Tools window and return to the Main Installation Screen to proceed with the Vision software installation in the next section.

1.5 Vision Software Installation

From the Main Installation Screen, Select Step 2 - Install Vision Software.

log Vision Software		×
Vision Mac	Engraving & Routing Sys hine setup & software installati	tems on
	Step 1 - Setup Machine	
	Step 2 - Install Vision Software	
	Optional Items	
	DACS camera (Machine Tools)	
	Install open drivers	
	Explore Memory Stick	
	Exit	

The Windows Installer will prepare the installation.

Preparing to install.	
	Cancel

Select Next.

Welcome to the Vision Software Setup Wizard
The Setup Wizard will install the Vision manuals, tutorial videos and machine update files on your computer. Click "Next" to continue or "Cancel" to exit the Setup Wizard.
< Back Next > Cancel

Select Install.

Ready to Install	
The Setup Wizard is ready to	begin the Vision Software installation
	tallation. If you want to review or change any of your ck". Click "Cancel" to exit the wizard.

The installation will proceed.

Installing Vision Software	e
	ietup Wizard installs the Vision manuals, tutorial videos and This may take several minutes.
Status:	The may take several minutes.
vanced Installer	

Select the appropriate language and select OK.

	Select the language for the installation from the choices below.
[English

Installation will proceed.



Select Next to begin the installer.



Select Accept the license agreement, then select Next.



Select Next (or change the destination folder - not recommended).

Select Next to create the folder.

Vision Express 9 Setup		×
Select Program Folder Please select a program tolder		
	Setup will add program icons to the Program Folder listed below. You may type a new folder name, o select one from the existing tolders list. Click Next to continue.	
	Program Polder: Mison Express 9	
	Existing Folders: Accessories	
	Administrative Tools Constructivity Managar ConstDRAW Graphics Suite X5 Experilogix Games	-
1	Halp & Manual 5 Help & Manual 6 HTML Halp Workshop Mantanance McMee Security Scan Plus	
-	Microsoft Office	*
Bucco:		
Install21664	<back bent's="" cancel<="" td=""><td></td></back>	

The installation will continue.



Select your machine from the Manufacturer list on the left side of this window by clicking in the box to the left of the machine (or machine series) you own. The right side of the window will list a selection of Output Devices. Only put a check mark in the box(es) to the left of the Output Device(s) you own. Then select Next. If you purchase another engraving system from Vision, it can be added to the machine list at a later date from within the Vision software.

Manufacturer:			Output Device:	
Vision Express	0 K		Phoenix 1212 S4	121
✓ Vision Engravers S4	12 K		□Vision 1612 S4	01
Vision VE810 S4	0 K		□Vision 1624 S4	01
Vision Max S4	0 K		Rotary Photo Engrave S4	01
Vision MaxPro S4	0 K		□Vision 2424 S4	01
Vision Routers S4 (2'x4" and smalle	0 K		□Vision 2448 S4	01
Vision Routers S4 (4'x8' and larger)	0 K	=	□Vision ADA Braille S4	01
Vision Engravers S3	0 K		□ Vision ADA Raised S4	01
Vision Max S3	0 K		Vision ADA Visual S4	01
Vision MaxPro S3	0 K		Phoenix/Vision Center Origin S4	01
Vision VE810 S3	ΟK		□Vision Cylindrical S4	01
□Vision Routers S3 (2'x4" and smalle	0 K		□ Vision DACS S4	01
Vision Routers S3 (4'x8' and larger)	0 K	-	Vision Rotary Attachment S4	01
Vision Engravers S1 and S2	0 K	+	- CA	

Select Continue to install True Type fonts and Vision Engraving Fonts on your computer.

nstallation Wizard. To use a font in
on of TrueType fontsand Vision Pr
Continue

The software will look for True Type fonts on your computer and allow the Vision software to use them.

Install True	Type Fonts
	Now installing TrueType and OpenType fonts that are present on your system.
Installing	fonts
341 fonts	found.

Once the True Type fonts are installed, select OK.

nstall Tru	eType Fonts	_
0	The TrueType fonts	have been installed.
	•	ОК

In this step, the software will install any Engraving fonts on your computer.



When complete, click on OK.

Install All	Fonts On Local Disks
i	The fonts have been installed.
	ОК

In order to install the fonts on the USB drive, select A Removable drive and from the drop down list, select the drive letter for the Vision USB drive plugged into your computer.

You can install Vision Express fonts and clipart from media on which these files are available then selec all or part of these fonts later by selecting the Install	t one of the option	s below. You may	also install
Install Vision Express fonts and clipart from:			
C Vision Express Fonts and Clipart CD			
 A Removeable drive (ex flash) 	F:\	•	
C Network location			
		Br	owse

Select OK to install to the default folder.

 Copy the fonts and clipart to the hard drive for (all of them will take about 360 MB of hard dr 	
Destination Folder	Browse
J	

Select OK. All fonts and clipart have been installed from the USB drive at this time.



Select OK to return to the main installation screen.

Font Installation	X
Thank you for using the Vision Express Font Installation Wizard may be installed later by selecting the Install Fonts option of th Vision Express.	
ОК	

To complete the installation, select Finish.



To close the Software Setup window, select Finish.



Select Exit to close the installer.



The Vision manuals icon should now appear on your computer's desktop along with an icon for your version of Vision 9 software.



Clicking on the Vision manuals link will give the user access to User Manuals, Installation Guides, Accessories and Training Videos.

If you were supplied with an Orange Dongle (orange USB stick), keep it installed in your computer's USB port in order to use the Vision software. If you were supplied with another color USB stick with your machine, it can be removed at this time from your computer. Installation is now complete.

2 General Electrical and Facility Requirements by Model

Machine Model	Requirements
Express, VE-810, 1612, 1624 Engraver, 2424, 2448, MAX and MAX Pro	One 110 VAC 15 Amp or One 220 VAC 10 Amp Single Phase
1624R, 2525 and 2550 Router - T-Slot Table With High Frequency Router Head	One 110 VAC 15 Amp or One 220 VAC 10 Amp Single Phase (for Vision controller) AND One 220 VAC 30 Amp Single Phase (for 3 HP router motor)
With Engraving Head	One 110 VAC 15 Amp or One 220 VAC 10 Amp Single Phase
With NSK High Frequency Spindle	Two 110 VAC 15 Amp, or Two 220 VAC 10 Amp Single Phase
2550 Router with Vacuum Table With High Frequency Router Head	One 110 VAC 15 Amp or One 220 VAC 10 Amp Single Phase (for Vision controller) AND One 220 VAC 30 Amp Single Phase (for 3 HP router motor) AND One 220 VAC 30 Amp 3 Phase (for vacuum table pump)
With Engraving Head	One 110 VAC 15 Amp or One 220 VAC 10 Amp Single Phase (for Vision controller) AND One 220 VAC 30 Amp 3 Phase (for vacuum table pump)
With NSK High Frequency Spindle	Two 110 VAC 15 Amp, or Two 220 VAC 10 Amp Single Phase AND One 220 VAC 30 Amp 3 Phase (for vacuum table pump)
VR48 Router - T-Slot Table	One 220 VAC 50 Amp Single Phase (for Vision machine) AND One 110 VAC 25 Amp or One 220 VAC 15 Amp Single Phase (for extraction unit)
VR48 Router - Vacuum Table	One 220 VAC 50 Amp Single Phase (for Vision machine) AND One 110 VAC 25 Amp or One 220 VAC 20 Amp Single Phase (for extraction unit) AND One 220 VAC 40 Amp 3 Phase (for vacuum table pump)
Optional Equipment Engraving Vacuum Chip Removal System	One 110 VAC 15 Amp
Router Chip Extraction System	One 110 VAC 25 Amp or One 220 VAC 20 Amp Single Phase
Optional Equipment Requiring Compressed Air Supply UNIST Misting System	Clean Dry Compressed Air Supply 60 - 90 PSI
NSK High Frequency Spindle	Clean Dry Compressed Air Supply 1 SCFM @ 40 PSI

NOTE: In addition to the above requirements, a 110 VAC standard outlet is required for the computer.

3 Pendant Holder Installation

36

Pendant Holder Installation for Phoenix 1212, 16, 24 and 25 Series machines

Your machine is shipped with an optional Pendant Holder to give the user a place to secure the Pendant.

To install the Pendant Holder on the Phoenix 1212, follow the below procedure.

Phoenix 1212 Pendant Holder Installation

Step 1- Locate the 3 nuts



Step 2 - Remove nuts with wrench









Step 4 - Mount Pendant in Holder
To install the Pendant Holder on the 16 Series machines, follow the below procedure.

16 Series Pendant Holder Installation

Step 1- Locate the 3 screws



Step 2 - Remove screws with allen tool





Step 3 - Mount Pendant Holder and re-install screws



Step 4 - Mount Pendant in Holder

To install the Pendant Holder on the 25 Series machines, follow the below procedure.

24 and 25 Series Pendant Holder Installation

Step 1- Locate the 3 nuts

Step 2 - Remove nuts with wrench





Step 3 - Mount Pendant Holder and re-install nuts



Step 4 - Mount Pendant in Holder

The Pendant Holder for the VR48 can be mounted on the front of the machine. To install the Pendant Holder, remove the three screws on the machine and mount the holder to the machine as shown below. Place the Pendant in the Holder to keep it secure when the machine is being used.

VR48 Pendant Holder Installation

Step 1 - Locate and remove the three mounting screws



Step 2 - Secure Pendant Holder to machine with screws



4 Express and VE-810

Vision Express and VE-810 Connections

On the rear of the Vision Express and VE810, there are three connection ports. The power port, the Ethernet port and the remote on/off port for the optional Vacuum Chip Removal System.

Vision Express (rear view)



For the Vision Express: Connect the power supply cable to a 110 - 220 VAC source, then connect the power supply plug into the port on the back of the machine. Plug the Ethernet cable into the Ethernet port.

Vision VE810 (rear view)



For the VE810: Connect the power cable to a 110 - 220 VAC source, then plug the power cable into the port on the back of the machine. Plug the Ethernet cable into the Ethernet port.



4.1 Express Layout Diagram

Vision Express Engraver Installation Layout

4.2 VE-810 Layout Diagram



Vision VE810 Engraver Installation Layout

5 Phoenix 1212

42

Phoenix 1212 Engraver/Series 4 Controller Connections

There is only one connection port on the Phoenix 1212. It is a 25 pin Table Cable port on the left side of the machine. All other connections on the machine's controller are listed below.

- 1. The engraver's Pendant is connected to the Pendant cable port.
- 2. The Ethernet Cable from your computer, hub or network is connected to the Ethernet port.
- 3. The Table Cable connects from 25 pin connector on the engraver to the Table port.

4. The Power Cable connects a 110 - 220 VAC electrical source to the controller and powers the controller, table and spindle.

Note: If your machine is equipped with the optional Vacuum Chip Removal System, a remote On/Off cable is connected to the controller to automatically turn the vacuum pump on and off when the job is being run.





5.1 Phoenix 1212 Layout Diagram

6 16 Series and 24 Series Engravers

44

16 and 24 Series Engraver/Series 4 Controller Connections

- 1. The engraver's Pendant is connected to the Pendant cable port.
- 2. The Ethernet Cable from your computer, hub or network is connected to the Ethernet port.
- 3. The Auxiliary Table Cable is used on the 24 Series engraver ONLY.
- 4. The Table Cable connects from 25 pin connector on the engraver to the Table port.
- 5. The Spindle Cable connects to the Spindle port.

6. The Power Cable connects a 110 - 220 VAC electrical source to the controller and powers the controller, table and spindle.

7. If your machine is equipped with the optional Vacuum Chip Removal System, a remote On/Off cable is connected to the controller to automatically turn the vacuum pump on and off when the job is being run.

8. *If your machine is equipped with the optional NSK High Frequency Spindle, an second 25 pin connector will be included with your controller. The NSK Spindle is controlled by the NSK Spindle Cable connected to this port. NOTE - the Spindle Cable to the standard engraving motor will not be used in this configuration.

1. Pendant Cable 8. NSK Spindle Port* 7. Vacuum/Auxiliary Control Port 7. Vacuum/Auxiliary Control Port

Series 4 Pendant and Controller



6.1 1612 and 1624 Engraver Layout Diagram



6.2 2424 and 2448 Engraver Layout Diagram

Vision Engravers and Routers Installation Guide

7 16 Series and 25 Series Routers

7.1 High Frequency Router Head

High Frequency Router Head Wiring Connections

- 1. The controller Pendant is connected to the Pendant port on the controller.
- 2. The Ethernet Cable from your computer, hub or network is connected to the Ethernet port on the controller
- 3. The Auxiliary Table Cable is used on the 25 Series machines ONLY. It connects the Serial Table Connector on the machine to the Aux Table port on the controller.
- 4. The Table Cable connects from 25 Pin Table Connector on the machine to the Table Port on the controller
- 5. The machine's Spindle Cable connects to the Spindle port on the controller.
- 6. The Power Cable connects a 110 220 VAC electrical source to the controller and powers the controller and table.
- 7. The MOD/BUS Cable from the Inverter connects to the MOD/BUS port on the controller and controls the High Frequency Router Motor.



Series 4 Controller (rear view) Router Head Connections



Wiring Connections for Inverter (used with High Frequency Router Head only)

NOTE: The Auxiliary Power Cable is pre-wired on all 16 and 25 Series Routers.

Remove Inverter Cover and feed the Auxiliary Power Cable through hole in bottom of Inverter. Connect the three black wires labeled, T1, T2 and T3, to their respective connection points. Connect the Green (Ground) wire to the connection point shown. Connect the Main Power Cable to a 220VAC source and connect the MOD/BUS Cable to the machine controller's MOD/BUS port.

Carriage Wiring Connections

The Motor Plug connects to the Spindle Port on the back of the Carriage.

Carriage (rear view)



Mounting the Inverter on the 25 Series Table Stand

The Inverter is mounted on the top-left corner of the machine's stand. There are two flanges mounted on the rear of the inverter. These flanges are placed in the inside of the stand's legs. Screws are included with the inverter to secure the inverter to the stand. Instructions for assembly of the stand are included with the stand, which is packed underneath the machine in its shipping crate.



7.2 Engraving Head

Engraving Head Wiring Connections

- 1. The controller Pendant is connected to the Pendant port on the controller.
- 2. The Ethernet Cable from your computer, hub or network is connected to the Ethernet port on the controller
- 3. The Auxiliary Table Cable is used on the 25 Series machines ONLY. It connects the Serial Cable Port on the machine to the Aux Table port on the controller.
- 4. The Table Cable connects from 25 Pin Table Connector on the machine to the Table Port on the controller
- 5. The machine's Spindle Cable connects to the Spindle port on the controller.
- 6. The Power Cable connects a 110 220 VAC electrical source to the controller and powers the controller and table.

Series 4 Controller (rear view) Engraving Head Connections

Pendant



NOTE: The Auxiliary Power Cable which is pre-wired on all 16 and 25 Series Routers is NOT used with the Engraving Head. If your router was not equipped with the High Frequency Router Head or the Porter Cable Router Head, this cable can remain disconnected at all times.

Carriage Wiring Connections

The Motor Plug connects to the Spindle Port on the back of the Carriage.



Carriage - rear view



7.3 1624R Router Layout Diagram



7.4 2525 and 2550 Router Layout Diagrams





8 MAX and MAX PRO

Max and Max Pro Connections

The Vision Max and Max Pro machines have an integrated controller inside the base of the machine. The machines need to have the following cables connected to the controller.

1. The engraver's Pendant is connected to the Pendant cable port.

2. The Ethernet Cable from your computer, hub or network is connected to the Ethernet port.

3. The Auxiliary Table Cable is connected to the Aux Table port and powers the machine's rotary axis.

4. The Table Cable connects from 25 pin connector on the engraver to the Table port.

5. The Power Cable connects a 110 - 220 VAC electrical source to the controller and powers the controller, table and spindle.

6. The Pump Cable (Max Pro only) connects to the Pump/Mist port and powers the machine's water pump for glass engraving.

7. Main Power switch (for reference only)

8. If you machine was equipped with the optional Vacuum Chip Removal System, the Vacuum Cable from the vacuum pump will connect to the Vacuum port.

Series 4 Pendant and Integrated Controller Connections



8.1 MAX and MAX PRO Layout Diagram

* This dimension is added to allow for clearance on the rear of the machine for cables and for air flow to the cooling fan.

Vision MAX



Vision MAX PRO



9 VR48 Router

9.1 Requirements

Electrical Connections

- 1. A qualified and licensed electrician must be used to complete all wiring and grounding of the machine according to all state, local, and national electrical codes.
- 2. Make sure all Junction Boxes and Outlets are mounted according to all state, local and national electrical codes.
- 3. Junction Box #1 (50 Amp, 220 VAC, Single Phase) will power the router table, spindle, and controls. It is typically mounted on Wall A, approximately 36 to 48 inches above the floor surface. The box should be level with the left edge of the router table. (Refer to Installation Layout Diagrams).
- 4. Junction Box #2 for machines equipped with Vacuum Tables ONLY (40 Amp. 220 VAC, 3 Phase) will power the Vacuum Pump. Mounting should be on Wall A and between 36 inches and 48 inches above the floor surface. If locating the vacuum pump as shown (Refer to Installation Layout Diagram), locate Junction Box #2 no greater than 4 feet from Junction Box #1.
- Outlet #1 (20 Amp, 220 VAC, Single Phase) should be mounted on Wall A as shown (Refer to Installation Layout Diagram - Section 2.1). This can also be another Junction Box if the Dust Collector is to be direct wired to its electrical source. The dust collector is approximately 2 feet x 3 feet and is on wheels.
- Outlet #2 (15 Amp, 110 VAC, Single Phase) should have multiple standard three prong sockets for the computer. It is typically located near the bottom left corner of the router table (home position) as shown (Refer to Installation Layout Diagram).
- 7. Wiring needs to be completed to the junction boxes, outlets, etc. before the scheduled first installation/machine orientation day.

Locating the Router

- 1. A doorway of at least 80 inches wide and 80 inches high is required in order for the router to be moved into your facility.
- 2. Locate machine indoors on a flat surface and on a solid foundation.
- 3. Temperature must remain between 40°F and 85°F.
- 4. Do not expose machine to direct sunlight, rain, vibration, dampness, or explosive environments.
- 5. A forklift is required to remove the crate from the shipping truck and to locate the equipment in the building. The forklift must have a minimum capacity of 6,000 lbs and 6' or longer forks.
- 6. A pallet jack is required to level the router table.
- 7. The router table footprint is approximately 6.7 feet x 10.7 feet. A designated work area of at least 5 feet is strongly recommended around all sides of the machine to ensure ease of operation, material handling, cleaning, maintenance and safety.
- 8. Typically, the vacuum pump is between the router table and Wall A (Refer to Installation Layout Diagram Section 2.1). Please note the orientation of the pump and motor.

Leveling the machine

- 1. Make sure the machine has been properly located at your work-site.
- 2. It is not necessary to bolt your machine to the floor in your facility. However, a solid, stable foundation is required to support the machine's weight.
- 3. There should be a leveling bolt in each of the four machine legs.
- 4. Place a precision leveling gauge on the machine's table top and adjust the leveling bolts until the machine is level in both the horizontal and vertical directions.

Scheduling the Installation

- 1. Please schedule an electrician for the morning of the first day of installation/machine orientation to connect the router table, vacuum pump motor, and dust collector to the junction boxes and outlets.
- 2. If an electrician is not available for the installation, please call Vision ASAP in order to reschedule installation/machine orientation. If Vision personnel arrive and the electrical connections are not ready and the electrician is not present, there will be an additional charge \$750/day while waiting.

WARNING:

The first time the Vacuum Pump is turned on, check that the direction of rotation is correct. Turn it on, then off, observing the direction of rotation. It should match the arrow on the pump near the motor. If necessary, swap any two of the three power leads to change the rotation to the opposite direction. Prolonged usage of the vacuum pump when rotating in the incorrect direction can cause permanent damage to the pump.

9.2 Wiring Connections

The Main Power Switch is located on the left side of the VR48.



The main power supply is connected to the Main Electrical Box on the left side of the VR48. Remove the cover and make the connections as shown below. Ground is connected to the bare wire and common leads are connected to the two shielded wires. The supply for this connection is Junction Box #1 (220 VAC, Single Phase).

Note: The picture below is for illustration purposes only. The power cable should enter the Main Electrical Box through the hole in the left side of the box as shown in the above picture.



On the front of the control box for VR48 Router, there are four connection ports; One is an Ethernet port used to connect your computer or network to the on-board Series 4 Controller, the second is for the Pendant, the third is a USB port used to connect a computer to the VR48 when using the DACS Camera System, and the fourth is to connect the Remote Start Switch for the Dust Collector System.

Plug the network cable (or the crossover cable) into the Ethernet port on the VR48, then either plug the network cable into your network (or hub), or using the crossover cable, plug into the network port on your computer. Plug the Pendant cable into the Pendant and Pendant Port on the VR48. Connections for the DACS Camera System are detailed in a separate section of this manual. Connect the Dust Collector Remote Start Cable to the Remote Start Port using the supplied cable.



NOTE: The crossover cable is colored gray.



The Dust Collector Remote Start Switch will need to be connected. For ease of operation, a remote start switch and cables can be used to turn on the dust collector automatically when a job is being run. The supply for this connection is from Outlet #1 (220 VAC, Single Phase, 20 Amp).



Wiring for this switch is shown below. The input and output wires should be connected as shown. Both input and output ground wires can be connected to the single GND location shown. The switch can be wall mounted at a location convenient for the user.



The Remote Start Cable is connected to the Remote Start Port on the front of the machine's control box.



66

9.3 Vacuum Pump Connections - Vacuum Table Models Only

The Main Vacuum Port for the VR48 is located at the foot of the machine. To connect the vacuum pump to the machine, use the supplied 3" diameter vacuum hose and connect one end to the vacuum pump and the other end to the Main Vacuum Port on the machine.



The vacuum pump has been equipped with an electrical connector designed for a 40 amp, 220 VAC, 3 phase power supply. A qualified and licensed electrician must be used to complete all wiring and grounding of the vacuum pump according to all state, local, and national electrical codes.





9.4 VR48 Router Layout Diagrams

68



Vacuum Table Models