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## ADVANTAGE Router™ 600 Pre-Installation Checklist

**Gerber FastFact #** 5008  
**Supplied by:** Gerber Service  
**Last Modified:** October 29, 2001  
**Summary:** This document provides the Pre-Installation Checklist for the ADVANTAGE Router™ 600.

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Dear ADVANTAGE Router™ 600 Customer:

Thank you for purchasing the ADVANTAGE Router™ 600. We very much appreciate your business and will work with you diligently to ensure your needs are met.

Selling you a router is only part of our primary objective -- making you a satisfied customer. In order for us to accomplish this objective, we need to work with you throughout the delivery, preparation, and installation process. This letter and the accompanying Pre-Installation Checklist provides you with the ADVANTAGE Router™ 600 site requirements and guides you through the sequence of events that will occur.

### ***Sequence of Events***

Your router order has been received and processed by Gerber Scientific Products.

Please read the enclosed Pre-Installation Checklist immediately. Information related to work area, electrical, and option requirements are listed in this checklist. Timely delivery and installation of your ADVANTAGE Router™ 600 depends on careful site preparation. Please note, if you ordered the T-Vac™ Table Option, it is important that you order the equipment specified in the Pre-Installation Checklist from Siemens® Energy & Automation Company immediately and according to the instructions in the checklist.

In the near future, you will receive a call from a Router Installation Technician. The technician will schedule the installation of your router. The first time the technician calls you, he/she will confirm your order and attempt to determine an installation date. This installation date is based on the shipping date of your router and the completion of the tasks listed in the Pre-Installation Checklist. If you have any questions about pre-installation tasks or delivery, please call Gerber Service at 860-644-6971.

Approximately one week before installation, the technician will call you again to verify that your pre-installation tasks are complete and that you have received any optional equipment (such as equipment from Siemens).

The actual installation and training typically takes place over a three-day period. The first thing the installation technician will do when he arrives at your business is to check your site. If you ordered the T-Vac™ Table Option, the installation technician will position the vacuum blower motor and you will need to have a licensed industrial electrician make the final connections from the motor to the control panel as described in the Pre-Installation Checklist. After the installation technician assembles and checks the ADVANTAGE Router™ 600, he will demonstrate your new router and train you and your staff.

### ***Let's Work Together***

Our goal is to install your system quickly and properly so that you can start using and enjoying the capabilities of your new ADVANTAGE Router™ 600. Site preparation is critical to meeting this goal. The Pre-Installation

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Checklist is designed to provide you with the specific work area, electrical, and option requirements. However, we recognize that your business is unique and you may have questions regarding your site or fulfilling the requirements. Please call us for help.



If you have questions regarding the Pre-Installation Checklist, pre-installation information, and installation scheduling, or if you need advice and information on bits and tools, materials, or general router topics, please contact Gerber Service at:

860-644-6971

860-648-8376 (fax)

Again, thank you for your order and we welcome any comments about your new router.

Sincerely,

Gerber Service

#### Enclosures

- Pre-Installation Checklist (FastFact #4008)
- ADVANTAGE Router™ 600 T-Vac™ Table Option Fact Sheet (FastFact #5004)
- Routing and Engraving Supply Brochure (Part # P69474A)
- Gerber Service Partners™ Plan Application([www.gspinc.com/support/service\\_partners\\_plans.html](http://www.gspinc.com/support/service_partners_plans.html))

***Gerber Scientific Products, Inc.***

***ADVANTAGE Router<sup>TM</sup> 600***

***Pre-Installation***

***Checklist***



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## ***ADVANTAGE Router™ 600 Pre-Installation Checklist***

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This Pre-Installation Checklist will help you prepare for the arrival of your ADVANTAGE Router™ 600. There are five sections to the Pre-Installation Checklist:

- 1. Site Preparation** provides specifications for the work area, operating environment and air supply and electrical requirements.
- 2. T-Vac™ Table Option** provides ordering information, part numbers, and electrical specifications for the required optional equipment
- 3. Shipping and Receiving** provides physical specifications, handling instructions, aisle and doorway clearance information, and transportation claims instructions.
- 4. Training** provides information regarding training during installation.
- 5. Protecting Your Investment** provides information about the Gerber Service Partners™ Plan extended warranty.

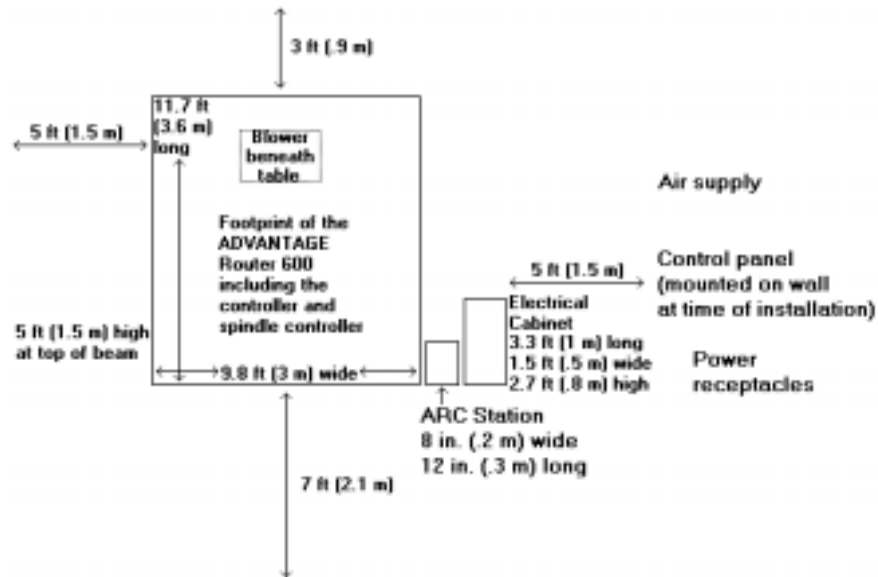
Although each section is important, site preparation and ordering the T-Vac™ Table Option equipment are critical for the smooth installation of your router. Please review and follow the checklist carefully. If you have any questions, please call Gerber Service at 860-644-6971.

### ***1. Site Preparation***

Site preparation provides specifications for the work area, operating environment and air supply, and electrical requirements.

#### ***Work Area Space Requirements***

The ADVANTAGE Router™ 600 requires a work area 21.7-ft (6.6 m) long and 21.9 ft (6.7 m) wide. This provides 5-ft (1.5 m) of space on either side, 3 ft (.9 m) behind, and 7-ft (2.1 m) in front of the router. This space allows safe access from all sides of the router. Additional space must be provided if you plan to use the paneling feature. You should also plan extra room for storage of materials and supplies. Locate the power receptacles and air supply to the right of the router as shown. Run wires to the vacuum blower motor control panel (optional) so that it can be placed on the top of the Electrical Cabinet or on the wall to the right of the router.



**☑ Operating Environment**

The operating environment should fall within a temperature range of 32°F - 99°F (0°C - 37°C), and within a relative humidity range of 0% - 70%.

**☑ Air Supply Requirements**

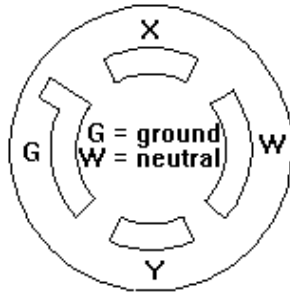
The Mist Coolant System requires approximately 0.5 CFM of compressed air at 60 - 100 pounds per square inch, which can be provided by a 0.25 to 0.5 horsepower compressor.

**☑ Electrical Requirements**

The ADVANTAGE Router™ 600 requires **a dedicated**, single-phase, 208 V, 230 V, or 250 V, 20 Amp circuit, 47-63, Hz with the receptacle shown in the illustration (NEMA designation L14-20R). It must be wired by a **licensed industrial electrician prior to installation**. Line voltage must be verified prior to installation. The receptacle must be near the ADVANTAGE Router™ 600, preferably to the right of the system, and must be easily accessible. If there is no wall within six feet of the unit, a ceiling drop should be provided. The system is equipped with a 9-foot power line cord from the rear of the Electrical Cabinet to plug in the outlet receptacle. Gerber Scientific Products will not be responsible for providing materials or installing incoming electrical service or connections.

Input Voltage	208 V, 230 V, or 250 V, single phase, 4 wire
Input Frequency	47-63 Hz
Amperage	Minimum 20 Amp service, dedicated circuit required

**ADVANTAGE Router™ 600 Connector Description**



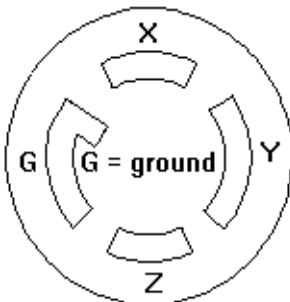
**NEMA L14-20R  
125/250V**

The electrical outlet receptacle must be installed prior to the installation of the ADVANTAGE Router™ 600. **You MUST use the specified receptacle shown at the left.** DO NOT substitute another receptacle in its place.

**High Frequency Spindle Option**

If you purchased the High Frequency Spindle Option, it requires its own **dedicated electrical circuit** in addition to the circuit used by the ADVANTAGE Router™ 600. It must be wired by a **licensed industrial electrician prior to installation**. The controller is equipped with a 9-foot power line cord to plug into the outlet receptacle.

Input Voltage	230 V, three phase
Input Frequency	47-63 Hz
Amperage	Minimum 30 Amp service, dedicated circuit required



**NEMA L15-30R  
3 PHASE, 250V**

The electrical outlet receptacle must be installed prior to the installation of the ADVANTAGE Router™ 600. **You MUST use the specified receptacle shown at the left.** DO NOT substitute another receptacle in its place.

**Chip Removal System**

The Chip Removal System requires a wet/dry shop vacuum with a minimum 3 HP motor using 115 V at 15 Amp maximum. The vacuum hose must be 2.5-inch (6.35-cm) diameter to attach to the Chip Removal System. The Chip Removal System vacuum plugs into the outlet on the back of the Electrical Cabinet labeled "VACUUM."

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## 2. T-Vac™ Table Option

This section provides ordering information and pre-installation instructions for the T-Vac™ Table Option equipment.

### **Equipment Ordering Information**

The T-Vac™ Table Option requires that you purchase and have on site the vacuum filter, a relief valve, blower, and vacuum blower motor control panel prior to installing the ADVANTAGE Router™ 600. The part numbers of the equipment you need is provided in the enclosed T-Vac™ Table Option Fact Sheet.

**Note:** *We strongly recommend that you purchase the control panel from the supplier because it will save you money during the installation and ensure that all the components are correct.*

Gerber has made arrangements with the supplier, Airtech, Inc., to purchase this equipment at a substantially discounted price. To order it, contact:

Mr. Vijay Kumar,  
Airtech, Inc.  
Phone: 203-761-1107  
Fax: 203-761-1244

Email: papakumar@cs.com

**Note:** *When ordering, it is important to mention that your order is for a Gerber routing system. This qualifies you for the discounted price.*

Please order this equipment immediately. It must be at your site before the installation technician arrives. Do not install this equipment. The installation technician will position the equipment when he arrives. You will need to have a licensed industrial electrician make the final connections from the motor through the control panel to the circuit breaker after the equipment is in position.

### **Vacuum Blower Motor Pre-installation Instructions**

**Note:** *The power requirements for the Siemens® vacuum blower motor are 10 HP, three phase, 400 - 480 V at 11.5 Amp, or three phase, 200 - 240 V at 23 Amp.*

The vacuum blower motor is manufactured by Siemens® Energy & Automation, Inc. It must be wired from the circuit breaker through a control panel, which you also can purchase from Airtech, Inc. The control panel consists of an on/off switch, a magnetic starter, and a thermal overload heater element. Have the licensed industrial electrician run the wires from the circuit breaker to the control panel so that the control panel will be close to the placement of the electrical cabinet as shown in the work area illustration. The wiring must be done prior to the installation technician's arrival. Do not wire the vacuum blower to the control panel until after the installation technician positions the blower motor.

If you have any questions regarding the equipment or instructions, please contact Mr. Vijay Kumar at Airtech, Inc. If you have questions regarding the control panel or its placement, please

contact Gerber Service.

**Note:** When ordering the control panel, please specify your facility voltage to ensure that the control panel/starter is equipped with the correct coil.

### 3. Shipping and Receiving

This section provides physical specifications, handling instructions, aisle and doorway clearance information, and transportation claims instructions.

#### Physical Specifications

The complete system is shipped in four crates. A fifth crate contains the optional 7 HP spindle option. Also, you will be receiving packages containing the tools required by the installation technician. Following are the physical specifications of the crated system and the assembled system.

#### **Crated ADVANTAGE Router™ 600 System**

	<b>Length</b>	<b>Width</b>	<b>Height</b>	<b>Weight (Standard)</b>	<b>Weight (with T-Vac)</b>
Frame Components	144 inches (3.66 m)	39 inches (.99 m)	18 inches (.46 m)	990 lb. (449 kg)	1100 lb. (499 kg)
Small Components	44 inches (1.12 m)	49 inches (1.25 m)	37 inches (.94 m)	308 lb. (140 kg)	385 lb. (175 kg)
Beam Assembly	130 inches (3.3 m)	22 inches (.56 m)	29 inches (.74 m)	510 lb. (231 kg)	510 lb. (231 kg)
Large Components	96 inches (2.44 m)	49 inches (1.25 m)	45 inches (1.14 m)	712 lb. (323 kg)	625 lb. (284 kg)
7 HP Spindle (Optional)	44 inches (1.12 m)	49 inches (1.25 m)	37 inches (.94 m)	125 lb. (57 kg)	125 lb. (57 kg)

#### **Assembled ADVANTAGE Router™ 600 System**

	<b>Length</b>	<b>Width</b>	<b>Height</b>	<b>Weight (Standard)</b>	<b>Weight (with T-Vac)</b>
Table	140 inches (3.56 m)	118 inches (3 m)	60 inches (1.52 m)	1545 lb. (701 kg)	1644 lb. (746 kg)
Electrical Cabinet	39 inches (.99 m)	18 inches (.46 m)	32 inches (.81 m)	203 lb. (92 kg)	203 lb. (92 kg)

#### Handling Instructions

Gerber Scientific Products ships the ADVANTAGE Router™ 600 FOB Manchester, CT. A Common Carrier delivers the router directly to the installation site. The ADVANTAGE Router™ 600 is a precision machine tool and should be handled accordingly. Never lift the system higher than absolutely necessary or transport it in an abusive manner.



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**Note:** *Either you or your distributor must make provisions for unloading the ADVANTAGE Router™ 600 from the truck and moving it to its destination. Moving the packaged ADVANTAGE Router™ 600 requires a forklift with 4-foot lift extensions.*

## **☑ Aisle and Doorway Clearance Information**

The widest shipping crate is 49 inches (1.25 m). You should have at least 2 inches clearance on each side to safely move the shipping crates through your doorway to the work area. Be sure there is sufficient clearance for cornering crates. If you have problems with aisle or doorway clearance, please call Gerber Service for special instructions.

## **☑ Handling Transportation Claims**

Even though the ADVANTAGE Router™ 600 is shipped in very sturdy crates, problems occasionally occur. Gerber Scientific Products offers the following guidelines for handling transportation claims.

Since your ADVANTAGE Router™ 600 is shipped FOB Manchester, CT, you, the customer, are responsible for any occurrences relating to the system after it leaves our dock. The following paragraphs will assist you in identifying possible damage and the procedures to follow to file a claim. Three primary transportation claims are **loss**, **visible damage**, and **concealed damage**.

**IMPORTANT NOTICE: If your shipment suffers loss or damage, please contact Gerber Service at 860-644-6971 as soon as possible.**

### **Loss**

A carrier's driver will have a delivery receipt itemizing the contents of the shipment. You and the driver should physically count the items as they are delivered and verify them with the delivery receipt. If the shipment is not complete, make a loss notation on **ALL** copies of the delivery receipt, which you and the driver should sign.

Clearly and concisely note the shortage on the delivery receipt and the customer copy. Describe **EXACTLY** what is missing; do not just write "one piece short."

### **Visible Damage**

When the carrier delivers your shipment, you must examine **EACH** crate as it is delivered. If any crate shows evidence of damage, open it **IMMEDIATELY**. You and the driver should make the inspection together. List and describe the damage on the delivery receipt and have it co-signed by the driver. Again, describe the visible damage in as much detail as possible, not just in general terms.

### **Concealed Damage**

This is the most difficult type of claim to collect from the carrier. The burden of proof reverts to you, the customer, to prove the shipment suffered the damage or loss while in the carrier's possession. The carrier holds a clear delivery receipt with no notation describing damage or loss. The longer the shipment is in your possession, the more difficult it is to collect from the carrier. Time is of the utmost importance.

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As soon as possible after receiving your shipment, carefully open each crate. Inspect everything for damage or loss. As soon as you discover concealed damage or loss, telephone the carrier **IMMEDIATELY** and request an inspection. Be sure to ask the name of the person you talk to, and write it down. **IMMEDIATELY** confirm your telephone conversation with a letter to that person.

If you discover damage (as opposed to loss), stop unpacking and do nothing further to disturb the shipment. Save all packaging and leave the damaged equipment exactly where it is, if possible.

The carrier or its agent will make the inspection within five working days after you, the customer, report the concealed damage or loss. If the carrier does not make the inspection or waives inspection, you should make the inspection and record all information to the best of your ability. All reports of concealed loss or damage must be received by the carrier within fifteen working days.

## **4. Training**

This section provides information regarding training during installation as well as supplies and materials used during training.

### **☑ Training during Installation**

The installation technician will provide 8 hours of training on the ADVANTAGE Router™ 600 after the installation is complete. This training is the foundation on which to start your "learning curve." When the training is complete, you will not necessarily be an expert, but you will understand basic router operations, applications and materials, ART Path™ software, and maintenance. If you plan to use the GRAPHIX ADVANTAGE® as the design software, you and the persons you designate must be trained on this software by your distributor **prior** to the router installation and training. If you plan to use another design software, you and the persons you designate must be proficient in both the design software and the Microsoft® Windows® environment **prior** to the router installation and training. Make certain that your computer has an available serial port (COM port) for connecting to the ADVANTAGE Router™ 600.

The initial training covers:

- ART Path™ toolpath generation
- Advantage Router Control (ARC) Station functions
- Material selection and hold down techniques
- Bit selection and feed rate recommendations
- System preparation and maintenance
- Safety precautions

The following are important considerations for training:

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- Select the right persons to receive training. You should choose a primary and backup operator. They should be permanent employees who are knowledgeable about computers and routing materials.
  - Dedicate the persons for training so that their training will not be interrupted.

## **☑ *Supplies and Materials***

Packed with the ADVANTAGE Router™ 600 is a supply of mist coolant and a tool kit. The tool kit contains a small quantity of routing bits for use with plastic, wood, and non-ferrous metals. These bits are yours to keep and will be used during training. We recommend that you purchase an additional supply of bits so that you can continue production after your router is installed. Enclosed is a brochure describing Gerber Gold™ routing bits, their uses, and the sizes. If you need advice and information on what type of bits to order, please contact Gerber Service at 860-644-6971.

You must provide the materials used during training. You should have a supply of plastic, wood, and non-ferrous metal materials on hand so that you can learn the techniques, tips, and tricks of working with each of the materials. Some suggested materials are:

- 1/8" and 1/4" cast acrylic
- 3/4" MDF or MDO board
- 1/8" aluminum 6061-T6

If you plan to use other materials with your router, please have a supply of that material on hand so that the installation technician can train you with that material. If you have questions about materials and their uses, please contact Gerber Service at 860-644-6971.

## ***5. Protecting Your Investment***

From the date of installation, your router is covered by a standard router warranty that includes all necessary replacement parts and factory labor for the period of one year and on-site labor and expenses for the first ninety- (90) days.

Additional coverage to protect your router investment beyond the standard warranty period is available through one of Gerber's router service plans. Gerber's Service Partners Plan for Router Products covers all necessary replacement parts and factory labor for the period of one year. Our Gerber Guardian Plan for routers covers all necessary replacement parts, factory labor, on-site labor and expenses, and one preventative maintenance visit during the one-year term of the plan. (The Gerber Guardian Plan is available in limited geographical locations.)

As a special bonus, customers may purchase up to three years of service plan coverage if they do so during the original one-year warranty period. Purchasing multiple years of coverage protects your router from potentially costly repairs while protecting you from future service plan price increases. Multi-year purchases are only available only during the warranty period. After the warranty period expires, service contract coverage can only be purchased one year at a time.

Complete information about pricing and availability of Gerber service plans is available through the support section of our web site, [www.gspinc.com](http://www.gspinc.com), or by calling your distributor or Gerber Service at 1-800-828-5406.

## ADVANTAGE Router™ 600

### Site Preparation Checklist

In order to expedite the scheduling of your AR600 installation; please complete the following site preparation checklist. Fax the completed preparation checklist to **Gerber Service at 860-648-8376**. Once we receive your completed Site Preparation Checklist and your Router has shipped, we will schedule your installation.

**Note:** The installation technician will provide the designated operator(s) with a full day (8 hours) of training. The items below must be ready prior to installation. ***If these are not completed prior to the installation date, your 8 hours of training will be decreased.*** Additional training, beyond the first day, is available for an additional charge.

<i>Description</i>	<i>Complete</i>
<b>Power Requirements</b>  <b><i>Power must be run to the work location and receptacles installed.</i></b>  <b>ADVANTAGE Router™ 600:</b> 208v, 230v, or 250v AC 4 wire single phase 20 amp service.  <i>Our records indicate that you ordered the options, which are checked.</i>  <input type="checkbox"/> <b>High Frequency Spindle:</b> 230v three phase 30 amp service. <input type="checkbox"/> <b>T/VAC™ Vacuum Table:</b> 400-480 v, three phase 11.5 amp service or, 200-240 v, three phase, 23 amp service	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
<b>Work Area</b>  Minimum requirements are 22 ft long and 22 ft wide. The floor must be level and in good condition. The area must be clear and free from debris. The system crates should be located nearby.	<b>Space Available</b> <input type="checkbox"/>
<b>Computer</b>  What design software has the operator been trained on?  Is there a serial port (COM Port) available for the AR600?	<input type="checkbox"/> <input type="checkbox"/>
<b>Vacuum Cleaner</b>  Chip Removal requires at least a 3 hp wet/dry shop vac 115v with a 2.5 inch diameter hose	<input type="checkbox"/>
<b>Air Supply</b>  Air supply = 0.5 CFM at 60 - 100 PSI. The hose to coolant tank connectors (1/4-inch diameter) are supplied with the AR600 tool kit.	<b>Available</b> <input type="checkbox"/>
<b>Materials</b>  Are there materials onsite available for use during training?  Plastic _____ Wood _____ Foam _____ Aluminum _____ Other _____	<input type="checkbox"/>

Name: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_ Company Name: \_\_\_\_\_