General Instructions and Notes

1. **Application.** The application of the unit is as follows. See diagram on back.
   - **Basic Version (2 Fans).** The standard version of this unit is appropriate for most general applications in a system for cooling components from on top of, or below the Component Unit.
   - **Four Fan Version.** This version of the product is for the same applications as the standard version but simply provides more aggressive cooling.
   - **Fully Loaded Version (4 Fans w/Exhaust Blowers).** This version would typically be placed above an amplifier and would not only directly cool the unit but would also directly exhaust hot air out the front of the unit. This unit is not intended, nor would be appropriate for venting an entire rack system. Use the Universal Cooler for that Application (purchased separately).
   - **Pulling Air Into a Rack.** Pulling cooler air into a rack is easily accomplished by using the Standard or 4 Fan Version and placing it so the bottom of the unit is installed directly above a solid surface, such as the bottom of the rack or another component. With the fans blowing upward, the unit will naturally draw in through the front of the unit and up through the rack.
   - **Protecting Individual Components.** Any of the versions can be used for this application and it will be at the installer’s discretion to determine the proper version and best configuration (placement and airflow direction).
   - **Venting Air Out.** This unit is not intended to fully vent a cabinet or rack. The Universal Cooler is appropriate for this application. To exhaust air with this unit though, the Fully Loaded version, or any version with the Exhaust Blowers installed as an option, will directly vent some of the hot air out of the rack. To improve the affect, one possible configuration, is to place the unit above a solid surface such as a full sized component, shelf unit, or other accessory. Then configure the fans to blow down and now the air will enter the Component Unit from the top, blow it downward, and out of the front of the unit. The key with this configuration is that only a limited amount of air can be allowed to escape around the sides and between the two components/areas - between the Component Unit and the solid surface.

2. **Fan Direction.** The direction of the fans can be easily reversed. By default the fans pull air from the bottom of the unit and blows upward. The fans can be easily reversed by carefully pulling the fans from the rubber mounts, flipping the fan, and reattaching the fans using the same mounts. Simply pull the mounts through the mounting holes on the fans until they ‘catch’. **DO NOT REVERSE POLARITY!**
   
   Note: For units or applications utilizing the front blowers, those blowers ONLY pull air in from the bottom of the unit and out toward the front of the unit. There is no alternate use or configuration for the blowers.

3. **Rubber Feet.** Included with each unit is 4 rubber feet. For applications that utilize the rubber feet (non-rack applications), simply install them by first, ensuring the center pin on the foot is pulled out. Then insert the rubber foot into the holes on the bottom side rails of the component unit. The foot should slide into the hole easily. If there is resistance, ensure again that the center pin is pulled all of the way out. Once the foot is inserted into the hole, then simply push the center pin in which will lock to foot into place.

4. **Faceplates.** This applies to the use and installation of any of the faceplates. To install the faceplates, first remove the plugs that are inserted in the 4 holes on the front of the components unit. Reach behind the hole and push the plugs out, grab it with your fingernails, or you can use a mini screw driver to remove it. Once the plugs are removed, align the holes on the component unit to the mounting holes on the faceplate and using the supplied screws, secure the faceplate to the component unit.

5. **Powering the Unit.** This unit powers the same way as our other products. The speed of the fans can be adjusted by changing the voltage on the power supply. Typically the unit will be run between 7 and 12Volts DC and be switched using the switched outlet on the equipment. Ensure that polarity is followed - “Tip to +”.

6. **Options for the Unit.** The ‘standard’ unit includes the main unit with 2 of the large fans. Additional models include, or are offered with an additional 2 - 92mm fans, and also a row of 4 Blowers for directly exhausting air out the front of the unit. These additional options are either included with different models or are available separately. In addition to the fan options, there are also several faceplate options. This includes a standard faceplate to simply change the front color of the unit to silver. There are then Black and Silver Faceplate options for rack applications. A Temperature Controller can also be used with this unit to control the speed of the fans.
Instructions for Use in Non-Rack Applications

This is for applications where the unit will not utilize a rack faceplate and will most likely be placed on or below a component.

1. Install the supplied rubber ‘feet’ (See No. 3 in General Notes & Instructions)
2. Determine the direction of desired airflow and reverse the fans if necessary. (See No. 2 in General Notes & Instructions)
3. Determine and place the unit either underneath or on top of other components.
4. Once the unit has been set, plug in the power supply and secure all cables. Also ensure no wires or other obstructions or objects may come in contact with the fans. (See No. 5 in General Notes & Instructions)
5. Once fully installed and operational, ensure the unit is working as desired. It should be operating at an appropriate noise level and should be cooling as expected which may be a function of the position and/or airflow direction. If it is not cooling satisfactory, consider changing the direction of the airflow or adding some of the options such as additional fans or the blowers.

Instructions for Use in Rack Applications

This is for applications where the unit will be used in a rack system. The unit in this application requires a rack faceplate that should have been purchased separately.

1. Determine the application of the unit as related to rack applications. (See No. 1 in General Notes & Instructions)
2. Determine the direction of desired airflow and reverse the fans if necessary. (See No. 2 in General Notes & Instructions)
3. Install the rack faceplate. (See No. 4 in General Notes & Instructions)
4. Once the unit has been set, plug in the power supply and secure all cables. Also ensure no wires or other obstructions, or objects, may come in contact with the fans. (See No. 5 in General Notes & Instructions)
5. Once fully installed and operational, ensure the unit is working as desired including that it is operating at an appropriate noise level and is cooling as expected which may be a function of the position and/or airflow direction. If it is not cooling satisfactory, consider changing the direction of the airflow or adding some of the options such as additional fans or the blowers.

RACK SYSTEM COOLING

Universal Cooling Unit
Exhausts Hot Air From Rack

Component Cooling Unit
Circulates Air Between Components

Component Cooling Unit
Circulates Air Between Components & Exhausts Hot Air

Universal Cooling Unit
Circulates Air Between Components & Exhausts Hot Air

Pulls Cool Air Into Rack