

# Arctic Racing Air®



## Series IV

## Series V



MODEL: ARASIV ARASV

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Made In The USA

North America

Made In The USA

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# WARNING STATEMENTS



Proper installation procedure by a qualified service technician must be followed, as outlined in these installation instructions. Failure to do so could result in property damage, serious personal injury, or even death.



Safety measures must be practiced at all times during the assembly of this product. Use proper safety equipment and tools for the assembly procedure to prevent personal injury.



Arctic Racing Air does not warrant against damages caused during shipping nor the use of any Arctic Racing Air product for purposes other than those for which it was designed or damage caused by unauthorized attachments, modifications or improper installation. Nor is Arctic Racing Air responsible for any damages, claims, demands, suits, actions or causes of action of whatever kind resulting from, arising out of or in any manner relating to any use of said products, attachments or modifications.



Personal injury and/or property damage can result from dropping or mishandling your electronic equipment.



Be aware of the mounting environment. Beware of drilling and/or cutting into the mounting surface and what is behind the mounting surface as to not drill into wiring harnesses, tanks, etc... Cutting or drilling into an electrical line may cause serious personal injury.



For technical support or assistance you have the ability to call **24/7 (260) 705-2686**.

We understand the products value and importance to driver comfort and want to make sure you get the support required to insure reliability. We will be immediately available.

# Arctic Air Accessories



Smart 2-way Switch



Induction Air Hose



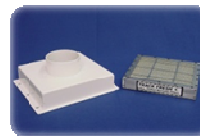
Air Induction Helmet



Air Filter



Carbon Monoxide Filter



Arctic Racing Air was designed to accomplish controlled reliable high volume air conditioned airflow for driver comfort. The Arctic Racing Air System is designed with time proven thermodynamic technology. The same technology used in your home and street car for durable, safe, reliable, and long lasting operation!

The Airflow is routed into an *Exclusive* **IMPACT** Spider Induction Helmet System . The **IMPACT** Spider Induction System developed specifically for Arctic Racing Air allows full and even comfort around your entire head and neck.

The AC provided is equivalent of up to a 960 BTU air conditioning system. The airflow provided is more than double the airflow provided by others. With over 40 Cubic Feet of Air per minute, you can truly feel the difference. You can quickly and easily adjust the Airflow to meet your preferred comfort level. Driver Control is made simple with the Arctic Racing Air quick glance 2-position Smart Switch Panel. You can choose the comfort level of your choice based on conditions on the track and your preferences.

Installation is extremely easy, just power, control cable and NACA duct for fresh air and your cooling comfort is ready to use!

And possibly the best part, *only 10 Amps max! ...as low as .5 Amp* in Fan only mode!

**Save your horsepower and gas to win the race.**

We are there to support you. We offer a 1 yr parts and labor warranty against defects in material and workmanship excluding shipping.

We provide 24 /7 technical support.

*We are pleased to have you as a customer and welcome any feedback and comments that will help us to better serve your needs.*

*Sincerely,*

James Hart  
President

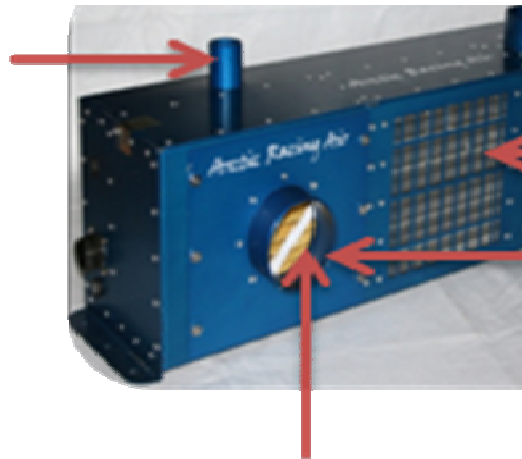
Michael Schuckel  
VP Engineering

# Installation

## Select the mounting location....

The location needs to be free from obstacles that will interfere with the proper mounting of the unit. The unit needs to be as level as possible with the condenser discharge air unobstructed. The condensate drain needs to be allowed to drain off the condensation that forms on the evaporator coil during use. It is recommended the condenser air inlet be connected to an outside air source outside of the driver's compartment but it is not mandatory. It depends on the compartment air temperature. For maximum cooling the helmet air inlet (3" Dia. inlet on end of unit) should be connected to a NACA duct for inletting of outside fresh air.

**FILTERED DRIVER  
HELMET AIR/AC  
DISCHARGE**



**Condenser Discharge Air**

**Driver Helmet Air Inlet  
to NACA Duct**

**FILTERED AIR**

## Breathe Easier With Filtered Air.... Removing: Dust / Smoke / Rubber / CO

There is an enormous amount of dust, smoke, rubber particles, and Carbon Monoxide in the air a race car driver breathes. The Arctic Racing Air with its replaceable, disposable Merv 11 filter removes dust, smoke, and rubber particulate down to 1-3 micron with >95% arrestance. And the optional Track Fresh Carbon Monoxide Filter removes up to 75% of the CO, all before it gets to the driver! You truly are breathing clean air!

# Installation

## Mount the control panel.

Select a suitable location for the Drivers Control Panel. The switch panel should be mounted within drivers arm reach and vision for quick glance access. Fasten the switch panel securely and route the control cable from the control panel to the main unit and plug the connector into the corresponding receptacle in the main unit. Route the main power cable to either the main power shutoff switch or directly to the battery. If routed to the main power shutoff switch, it is recommended to connect to the unswitched, or battery side of the switch so the driver may operate the unit while the vehicle is stationary and not running. During long periods of inactivity it is recommended that the main power cable be disconnected from the main unit.

**Power Switch**  
**AC – Turns on AC**  
**Off – Shut Down / Reboot**  
**Fan – Fan Only**



### FAN SETTINGS

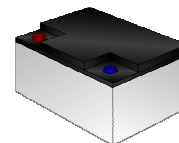
**HI - 40 CFM**  
**MED - 30 CFM**  
**LO - 20 CFM**

*You can adjust the settings according to the applications or requirements.*



Switch Panel

Power – DC 12VDC  
Use 10 gauge wire to power source



# Testing for the First Time

Turn on the Power Switch in the FAN mode. Next, Move the FAN Switch to all three settings so you can feel the difference in the settings. The Lo setting provides 20 CFM, Med 30 CFM, and Hi 40 CFM of airflow to the drivers' helmet. The Fan switch controls the amount of airflow discharged into your helmet. The Power Switch Fan mode HI setting only uses 2.5 Amps of power and can be used anytime AC is not required or desired. You can utilize the fan only setting for constant filtered fresh airflow to the drivers' helmet. This helps you understand the amount of airflow you can expect. Try the helmet on and feel the differences in the airflow in the same manner so you can feel the difference in the settings. Take your time.

Now, the fun part, turn the PWR switch to AC. When Arctic Racing Air is first activated, it will run in fan Hi mode for 15 seconds. After the 15 second delay, the fan will return to the switch panel setting and the compressor will energize. Now is when the cool part begins! You will feel the unit start to cool rapidly. It will take 3-5 minutes to accomplish maximum cooling. Once the unit has reached full cooling you can adjust the fan speed as you did in fan mode. You will again feel the difference in the amount of air being discharged. Again, put the helmet on, play with the air setting and get a feel for what it is capable of providing. Last, It is very important for the driver to spend an hour or so experimenting with the helmet and the settings so he/she can familiarize themselves with the difference in comfort.

The maximum temperature drop the unit can provide is 30-40 degrees below ambient temperature. This is why it is important to provide fresh air to the unit with the NACA duct. The fresh outside air is very important for providing the coolest air possible to the driver.

You're on your way to maximum cooling, low power consumption and a winning combination!



This was measured directly at the helmet air discharge of the unit on a 90 degree day at a Norwalk, OH race ..., very cool! However, by the time the air reaches your helmet it won't frost your nose but it will be very refreshing and very consistent!

Congratulations on your *Arctic Racing Air* purchase, you are a valued customer and your business is greatly appreciated!

