



**ELIMINATE
HEAT INDUCED
FATIGUE**

**The World Leader
in Personal Cooling**

COOL SHIRT® Cool Air System

The **COOL SHIRT® Cool Air System** is one of the finest *Driver Cooling Systems* available today and is used by drivers in all levels of racing. The *Cool Air System* delivers cooled, HEPA-4 filtered, blower-enhanced air to the driver's helmet.

COOL SHIRT® Personal Cooling Systems are manufactured in the USA and contain the highest quality components available. With proper installation and maintenance, your system will provide you with years of dependable service. *Please inspect your purchase to ensure that your system contains the selected components listed below. If there are any discrepancies, please contact Shafer Enterprises Customer Service at 800-345-3176 immediately.*

<u>Quantity</u>	<u>Part#</u>	<u>Description</u>
_____ 1	CAS-12 or CAS-24	<i>Platinum Series</i> Cooling Unit w/heat exchanger & internal pump
_____ 1	AIRH-8	8-foot x 1 1/2" diameter heavy-duty clear Helmet Air Hose
_____ 2	HEF-1 1/2	Blue Air Hose Connectors: 1 1/2" diameter
_____ 1	HEF-H	Blue Helmet Connector for Air Hose
_____ 1	A-3x3FT	3' x 3" heavy duty clear Intake Air Hose
_____ 1	HEF-3	3" x 1.5" blue Intake Air Hose-to-Blower connector
_____ 1	FS-10	HEPA-4 Micron Air Filters: 10 per package
_____ 1	FS-1	Metal Screen for Air Filter
_____ 1	BF-135	135CFM Blower with 1 1/2 inch Blue Filter Housing attached
_____ ()	Other	_____ Order packed by: _____

Available Accessories for your Cool Air System:

<u>Part#</u>	<u>Description</u>
_____ FC-1	Temperature Control Switch with On/Off/Bypass
_____ FH-4	Blower Filter Housing 4" x 3"
_____ HEF-H-45	45 degree Helmet Hose Adaptor
_____ BF-235	235 CFM Blower
_____ MT-12 or 24	Custom powder-coated Mounting Tray with tie-down strap
_____ Other (specify)	_____ Order packed by: _____

System Specifications

	<u>Dimensions</u>	<u>Cooling Time</u>	<u>Dry Weight</u>	<u>Power Required</u>
CAS-12:	14"L x 9.5"W x 11"H	3 hours	5 lbs.	135 CFM Blower: 2.9A, 12V
CAS-24:	15.5"L x 10.5"W x 13"H	6 hours	5 lbs.	135 CFM Blower: 2.9A, 12V

COOL SHIRT® Cool Air System

Installation Instructions

MOUNTING TRAY and COOLING UNIT

(Part #: MT-12 or 24) (Part#: CAS-24 or CAS-12)

- 1) Select mounting tray location and permanently attach the tray to the racecar with any appropriate hardware (not provided). Place cooling unit into the mounting tray.
- 2) Thread the tie down strap through one of the two slots provided on the cooling unit, then run the strap down through the slot on the same side of the mounting tray. Run the strap lengthwise *under* the cooling unit *between* the mounting tray and cooling unit, through the slot on the other side of the mounting tray and up through the slot in the top of the cooling unit.
- 3) Use the clamp provided on the strap to secure the cooling unit to the tray. The cooling unit and mounting tray were packaged this way from the factory prior to shipping to illustrate proper placement of tie-down strap.

Note: Ensure that the 8-foot x 1½ inch air hose can reach the driver. Do not allow any hoses to come into contact with any hot metals as this may damage the hoses.

BLOWER (Part #: BF-135)

- 1) Select the cockpit location for the blower and permanently mount the blower to the racecar using any appropriate hardware (not provided).
- 2) Make sure that the 3-inch air intake is pointed towards the outside of the car. Place filter and screen and fasten with a tie-wrap or clamp (not provided). **CAUTION: DO NOT OVER TIGHTEN as this can cause damage to the fan blades.**

TEMPERATURE CONTROL SWITCH (Part #: FC-1)

- 1) Select the location for the Temperature Control Switch and permanently mount the switch to the racecar using any appropriate hardware (not provided). The switch has a faceplate that allows for convenient in-dash mounting or it may be mounted at any location that is accessible by the driver.
- 2) Wire the blower to the Temperature Control Switch using appropriate lengths of wire (not provided). As the instructions provided with the switch illustrate: Blower: *brown* = + (positive), *black* = - (negative). Now wire the Temperature Control Switch to the racecar's 12V system and ground properly using the instructions provided with the switch.

INTAKE AIR HOSE and HELMET AIR HOSE

(Part #: A-3x3FT)

(Part #: AIRH-8)

- 1) Determine the length of 3-inch hose needed to pick up outside air and cut the hose to the appropriate length.
- 2) Slide one end of the 3-inch hose over the intake side of the blower. If you have a NACA duct, connect the hose to the duct appropriately.
- 3) Attach the other end to blower using the 3-inch blue adaptor provided.
- 4) Attach the 1½ Helmet Air hose to the blue adaptor already attached to the other side of the blower.
- 5) Determine length of 1½ inch hose needed to connect to the driver's helmet and cut the hose to the appropriate length.
- 6) Attach to the helmet with the blue adaptor provided.

COOL SHIRT® *Cool Air System*

Instructions for Use

- 1) Pour ½ gallon of water into the cooling unit. Fill the unit with block ice (preferable) or cubed ice to the top of the unit.
- 2) Attach helmet hose. Using FC-1 Switch, turn the unit on and select your setting preference.

Troubleshooting

- 1) *Air not circulating:* Recheck electrical connections.

Maintenance

- 1) To prevent scum build-up and algae growth, once per month or just before long-term storage, wipe the cooling unit and hoses clean with any antibacterial soap or cleaner.

All products are guaranteed for one year from the initial date of purchase for defects in material and workmanship. If you have any questions, please call Shafer Enterprises Customer Service at (800)345-3176. We appreciate your interest in our personal cooling products.

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