



INSTALLATION INSTRUCTIONS

Thank you for purchasing genuine Design Engineering, Inc. products. Be sure to always wear the proper safety equipment when installing any DEI product. Design Engineering Inc. WILL NOT BE HELD LIABLE FOR IMPROPER INSTALLATION OR USE OF THIS PRODUCT. Please follow all instructions provided. If you are unsure of any installation procedure, please contact a certified technician.

DESCRIPTION: Exhaust Wrap Kit

KIT CONTENTS:

Exhaust Wrap 2"x 50' rolls	Qty 2
Stainless Steel Locking Ties™	
8" Locking Ties	Qty 8
14" Locking Ties	Qty 4
HT Silicone Coating™	Qty 1

TOOLS NEEDED:

Scissors, pliers, metal clippers, water

SAFETY:

Safety glasses
Gloves

NOTE OF CAUTION: Exhaust wrap is not flammable. However, if any flammable liquids (fuel, oil) are introduced, conditions may be suitable for a flame to be present. Please take all necessary precautions to ensure that all fluid lines and all fluid fittings are in proper working order. DEI is not responsible for any damage caused by fluid contamination.

Exhaust wrap is not designed to be removed after it has been through heat cycles. After the fibers have been heated they lose their initial flexibility. This does not reduce the thermal properties of the wrap. Be aware of this before you decide to remove it.

OVERVIEW: Exhaust wrap is designed to reduce underhood temperatures and to reduce the exhaust gas density to help your engine run more efficiently. This can provide cooler intake charge temps, improve exhaust flow, and create incremental power gains.

GUIDE : INCHES USED PER LINEAR FOOT OF PIPE

TUBE DIA.	1" WRAP	2" WRAP
1-3/8"	70" per foot	30" per foot
1-1/2"	76" per foot	33" per foot
1-5/8"	82" per foot	35" per foot
1-3/4"	88" per foot	38" per foot
1-7/8"	95" per foot	41" per foot
2"	101" per foot	44" per foot
2-1/8"	108" per foot	46" per foot
2-1/4"	113" per foot	49" per foot
2-1/2"	125" per foot	52" per foot
3"	136" per foot	60" per foot

INCLUDE AN ADDITIONAL 10" OF WRAP PER BEND ON 2" WIDTH WRAP OR 15" WHEN USING 1" WIDTH WRAP (BENDS INCREASE SURFACE AREA)

Fig. 1

NOTE: Utilize a 1/4" overlap when wrapping pipes.

STEP 1: Measure primary pipes (header) from the exhaust to the collector to the header flange.

Use the chart to determine the length needed to cut for each section of pipe. **Fig. 1**

HINT: Wrapping a pipe takes time and concentration. The tighter the wrapping, the better the hold and less chance of a loose or irregular fit. It is suggested to only moisten wrap and not soak wrap in water, making the material more pliable for a tight and secure installation. **Fig. 2** For additional assistance consider temporarily anchoring one end of the wrap with a zip tie as it will aid in a much tighter wrap for increased heat isolation.

STEP 2: Begin wrapping starting at the collector. **Fig. 3** Wrap tightly and secure with a DEI Stainless Steel Locking Tie or clamp. Remember when wrapping, testing has



Fig 2



Fig 3



Fig 4



Fig 5

shown using a ¼" overlap produces the best results without adversely affecting the metal.

STEP 3: When primary tubes are close together, wrap the pipes to the point of closeness or contact and secure at the end. **Fig. 4** On the final pipe, begin wrapping where primary tubes meet. Wrap all the unwrapped pipes simultaneously using the same ¼" overlap.

STEP 4: Proceed to wrap up to the exhaust flange and secure with DEI Locking Ties or clamps and let air dry (if wet) prior to applying HT Silicone Coating Spray.



Scan Code to Watch Video Installation

Using HT Silicone Spray

STEP 1: Once wrapping is complete, make sure it has dried completely before coating.

STEP 2: Keep nozzle approximately 5-6 inches from wrap and spray in a side to side motion to get a full coating on the wrap. Make sure to get into tight areas and get as complete coverage as possible. **Fig. 5**

STEP 3: Once first coat is dry, apply second coat if necessary to cover any missed areas or to add a thicker coat. **Fig. 6**

STEP 4: Smoking/steaming of wrap is normal during curing processes and can last up to 3 heat cycles to properly cure. Let motor reach operating temps under idle, let cool down, then repeat if necessary until smoking stops.



Scan Code to Watch Video Application of HT Coating



Fig 6



Fig 7



Fig 8



Fig 9

Installing Stainless Steel LockingTies

STEP 1: Begin initially tightening the tie using hands or pliers. Be careful as the sides of the metal ties can be sharp. **Fig. 7**

STEP 2: Hold the locking mechanism down with your thumb and pull the tie through the locking head. **Fig. 8**

NOTE: To help get the tie tight, use a pair of pliers to pull end of the tie while holding down locking mechanism.

STEP 3: Trim off excess locking tie end, bend with pliers and fold under to avoid exposing sharp end of tie. **Fig. 9**



LOCKING TIE TOOL

Easily get stainless steel locking ties tight & secure!

LOCKING TIE TOOL

Part #	Description
010220	Locking Tie Tool

MUFFLER SHIELD KIT

Greatly reduce radiant heat from mufflers and helps keep interiors cool and comfortable.

MUFFLER SHIELD KIT

Part #	Description
010455	Muffler Shield Kit

INCLUDES FREE LOCKING TIE TOOL!

VERSA SHIELD STARTER SHIELD

Prevent starter failure from heat soak by reflecting away engine heat

VERSA SHIELD STARTER SHIELD

Part #	Description
010402	Versa Shield 7" W x 24" L
010235	Ultra 47 Shield
010236	ONYX Starter Shield

EXO SERIES™ PLUG BOOTS

EXO Series Spark Plug Boots are designed to withstand extreme racing and high heat environments. The outer Exoskeleton stainless mesh prevents direct contact with the Dual layer Silica boot underneath.

PROTECT-A-BOOT EXO SERIES

Part #	Description
010088	2 pack
010087	4 pack
010086	8 pack

REFLECTIVE FUEL CAN COVERS

Keep fuel temperatures stable and extend the pot life of expensive race fuels with DEI's Reflective Fuel Can Covers. These durable covers reflect away radiant heat and keep fuel cool!

REFLECTIVE FUEL CAN COVERS

Part #	Description
010467	For 5 gallon metal fuel can
010471	For 5 gallon VP square fuel jug
010484	For 54 gallon metal fuel can
010489	For 5 gallon VP plastic round jug

BOOM MAT DAMPING MATERIAL

Premium quality damping material control noise and vibrations coming from the road, sheet metal or engine to help give you a cool, quiet, comfortable interior. Available in sheets or spray-on

See our entire product line at
www.DesignEngineering.com