

All attendees will be muted during presentation,
Please save questions until the end. Thank you.

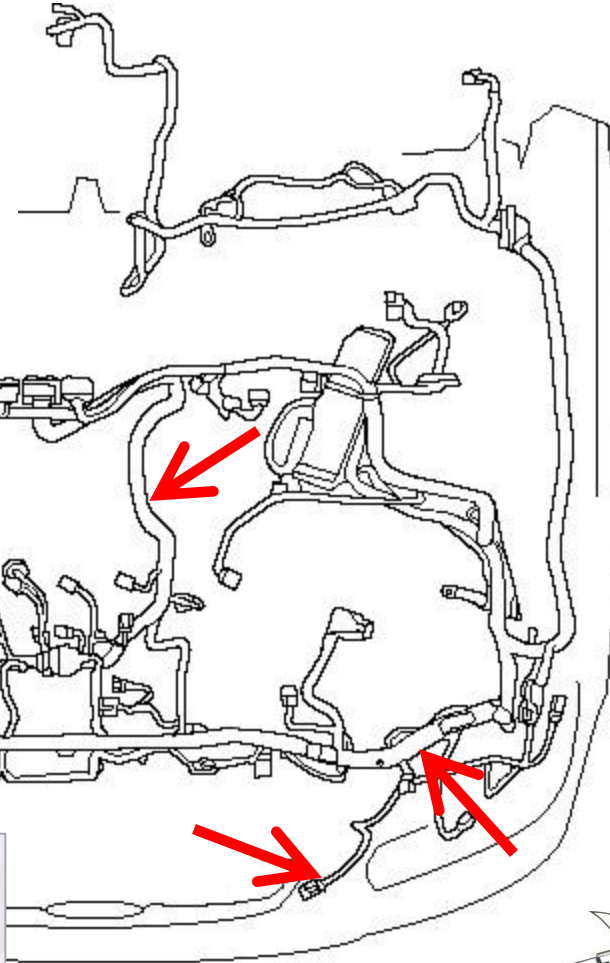
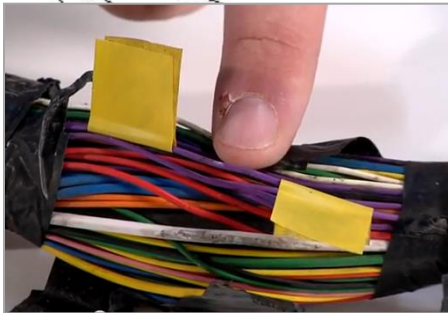
How to Evaluate and Estimate Wire Damage

Hosted by
**Matthew Randazzo &
Carl Dumele**

Flag, identify, write it down...

start by checking for damage at the outer most branch and work towards the trunk

then flag the damage



then
Write it down

take a clear photo



Look for:

- broken connectors
- damaged wire
- cut or crushed split loom (open the loom)
- tattered tape
- broken clips and shrouds
- AND all the items associated with a damaged component, e.g. headlight

**Repeat
for every
branch**



Need to know repair limitations...

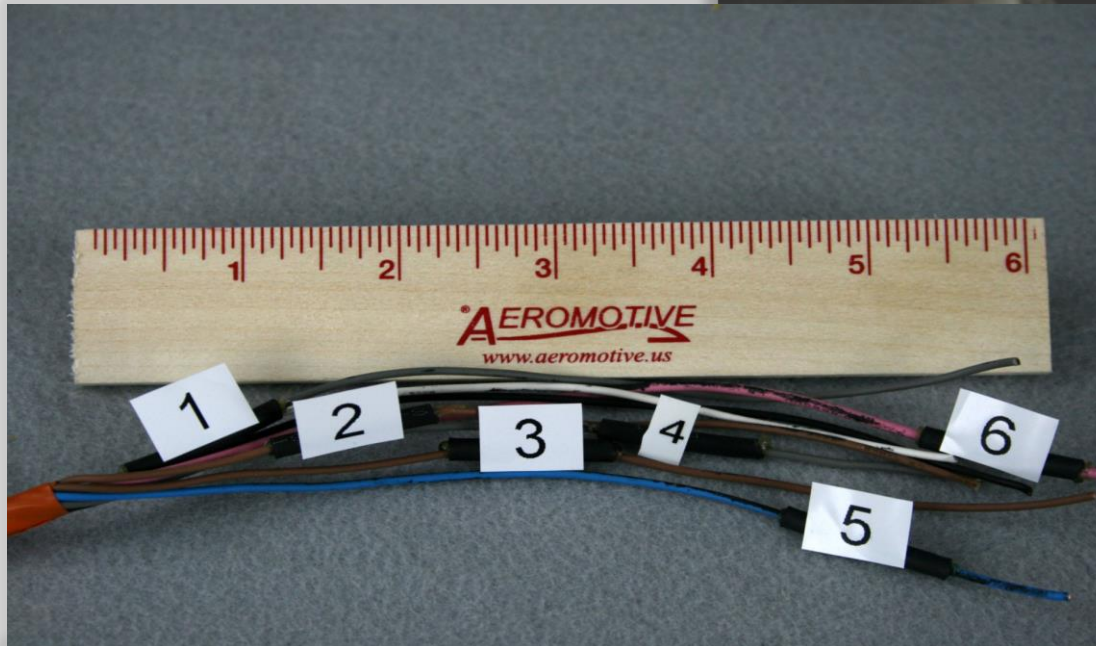
Six Inch Rule

- No repairs within six inches of a termination point
 - Workability
 - Appearance
 - Limits life-span
 - Increased resistance



Six Wire Rule

- Difficulty staggering splices
- Increased EMF
- “Meatball” effect

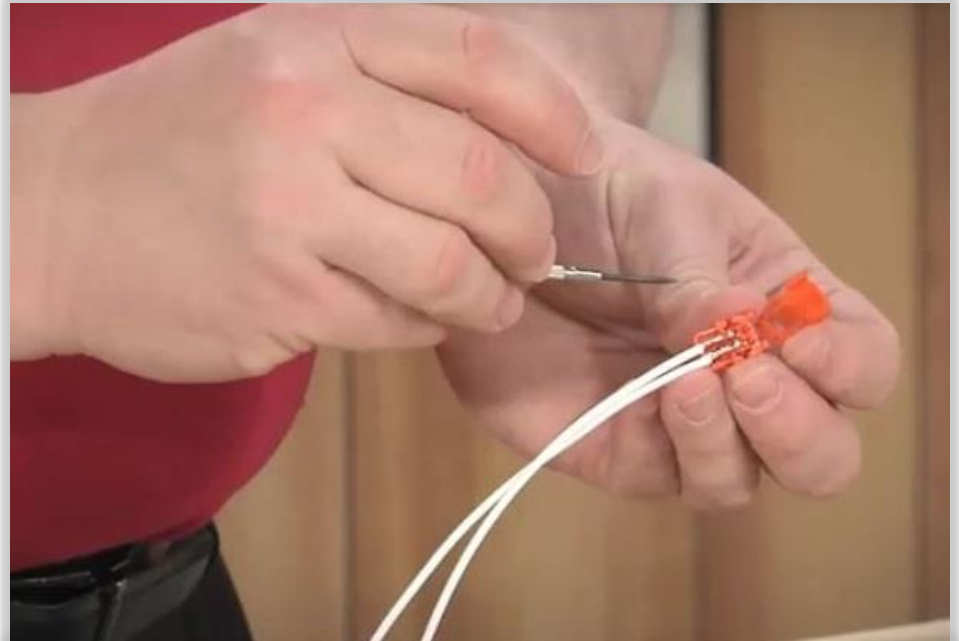


- No more than six wires can be repaired in a bundle

Repairing specific circuits

SRS circuit replacement flat rate \$275.00, (1) one day turnaround.

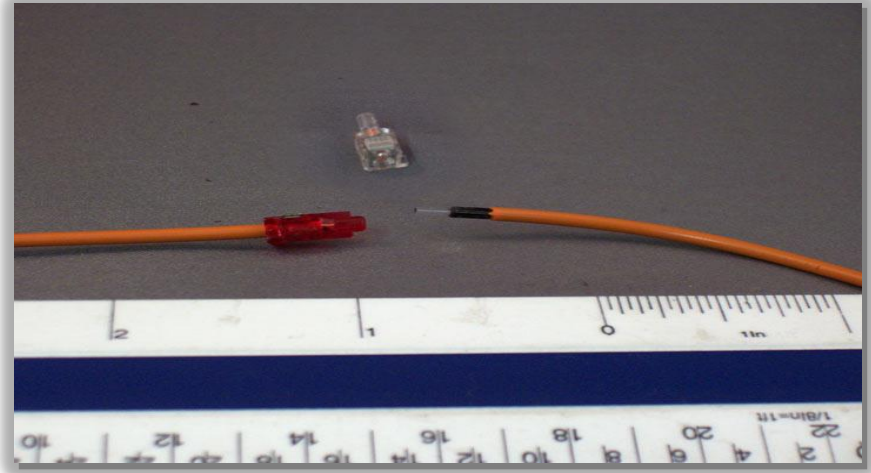
- **SRS Wiring**
 - O.E.M. guidelines
 - Replacement procedures
- **Fiber Optic**
 - Repair kits
- **Shielded Wiring**
 - Guidelines
 - Procedures
- **AI Wiring**
 - Litealum
 - Repair



**Watch our Training Videos at
www.aeromotive.us/training**

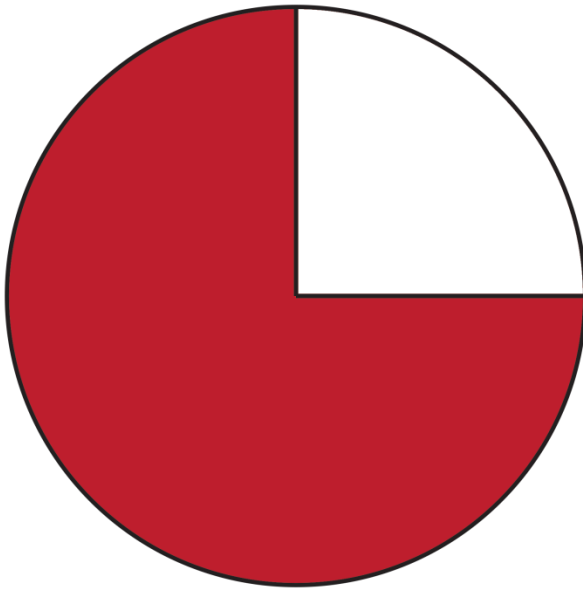
Fiber Optics

- Current market;
M.O.S.T.
 - uses a USB port
- Limitations
 - 8 in-line connectors per 10 meters (account for factory connections)
- Materials
 - Fiber repair kit \$113
- Tools required
 - Special Cutter/Strippers
 - Special Crimpers



Shielded Wire

90° of surface area
missing



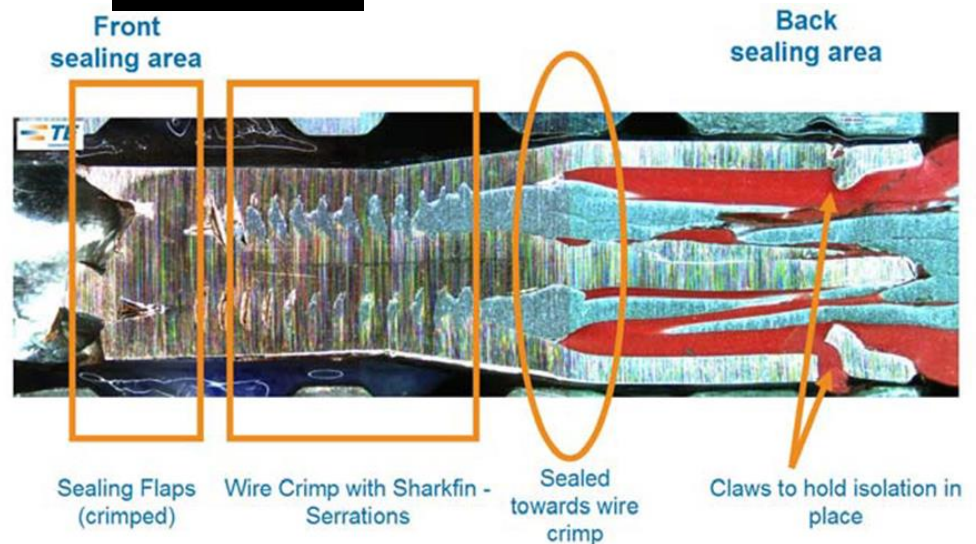
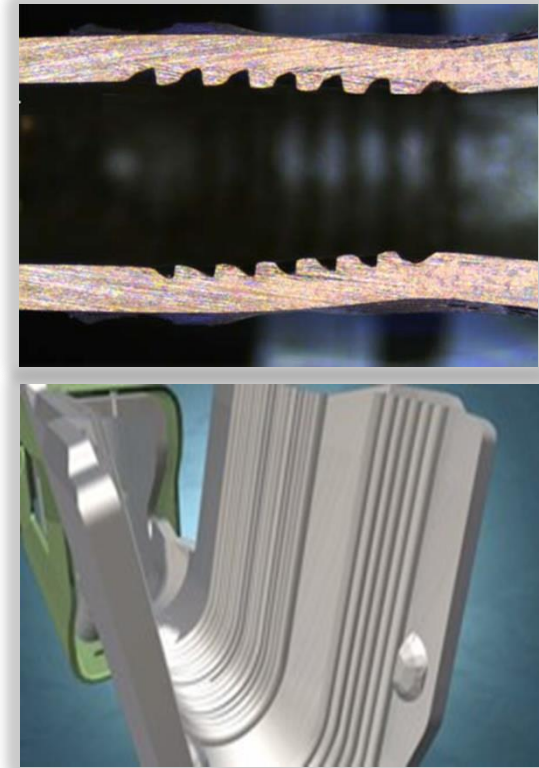
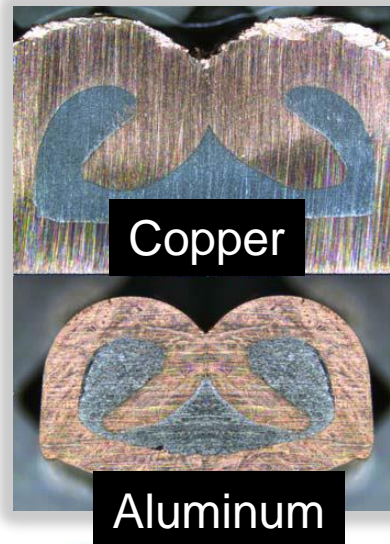
Reduces EMF

AND does not exceed
One inch of surface area



Al Wire

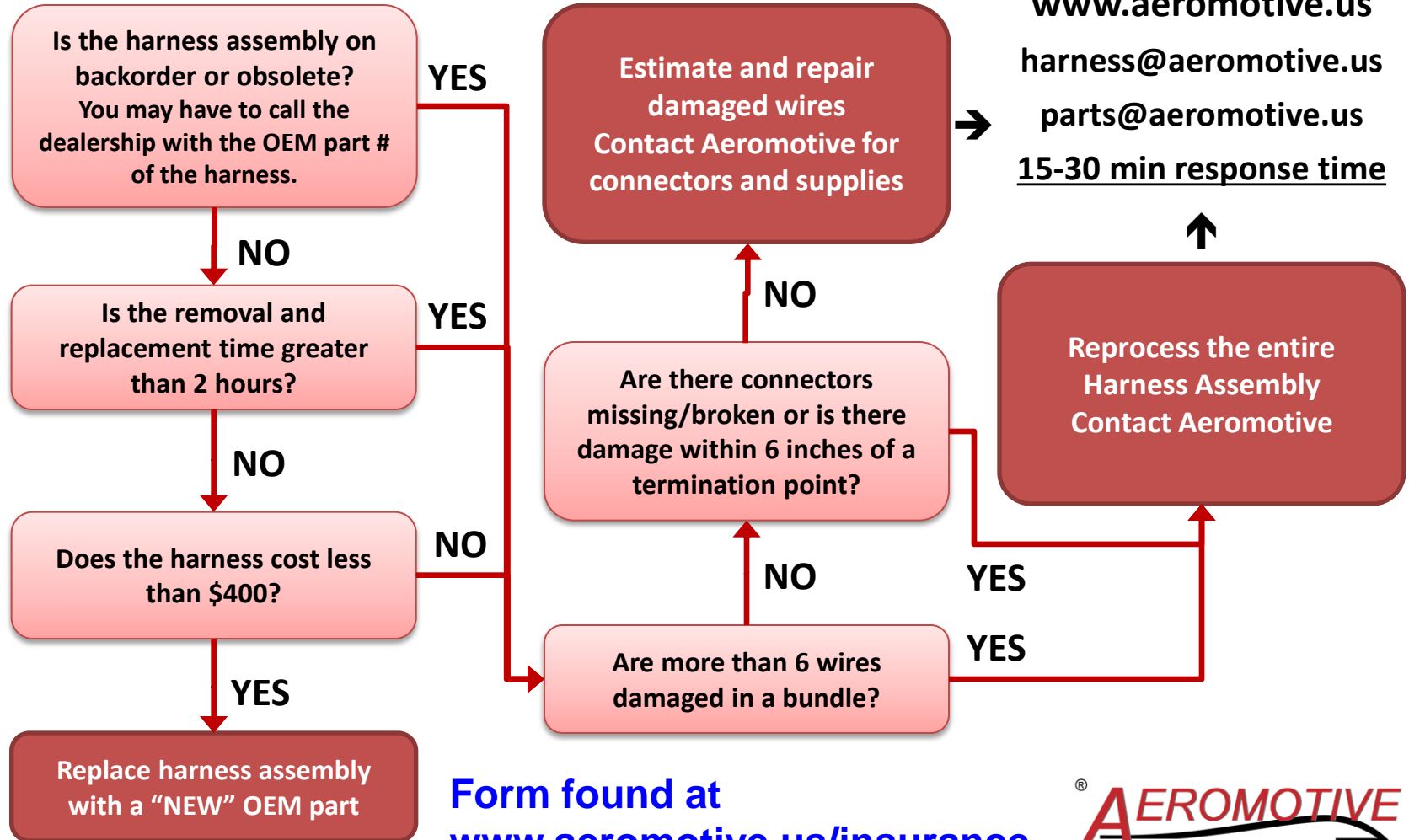
- Optimized for the “sweet spots”
- Uses larger gauge
- TE Litealum
 - Triple wing crimp
 - Pixie dust (secret sauce)
- Repair
 - Correct terminal a must
 - Crimp process slightly changed



2. Determine the Route of Repair

Go-No-Go Test

START HERE



(877) 723-7687

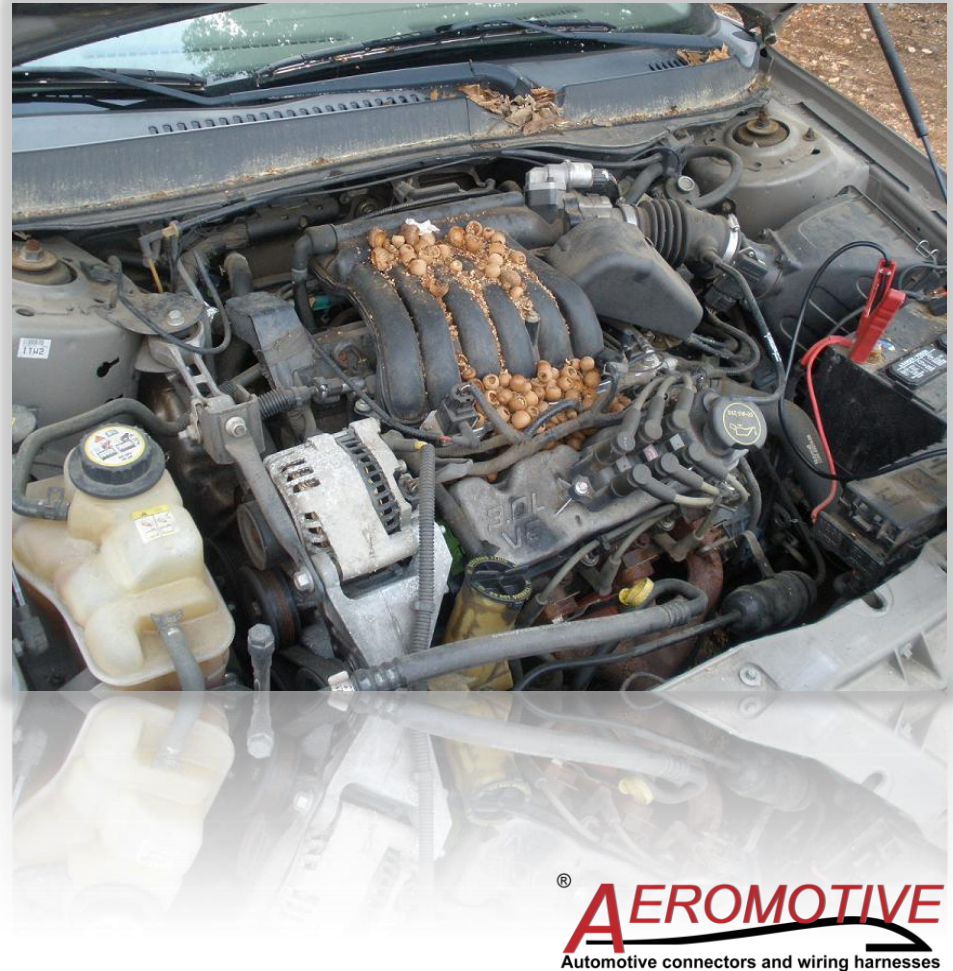
www.aeromotive.us
harness@aeromotive.us
parts@aeromotive.us
15-30 min response time



Form found at
www.aeromotive.us/insurance

Beyond the 6 x 6 rule

- Identify **candidates for reprocessing** wire/fiber cable assemblies based on...
 - Excessive damage limits your repair options
 - National backorder
 - Obsolete
 - Option configurations inhibit the use of a used assembly
 - O.E. prohibits repair (SRS, ABS etc)
 - Rodent Damage, Water, Fire etc



3. Writing the estimate...

- Determine labor time
 - Average about 15 minutes per splice
 - *2 splices = 30 minutes*
 - Include 30 minutes of labor to open and close harness
 - *30 minutes + 30 minutes = 1 hour*
- Connectors
 - Contact Aeromotive for a price and availability
 - *Invoices reflect a list cost and a shop cost*
 - ***Lifetime warranty*** on connector housings
- Supply expenses
 - Typically the shop charges for supply expenses
- Shipping
 - Next day air available, most packages will be UPS Ground and based on zip code, weight and size of package (typically \$15-\$25)

D-I-H

How to get a quote...

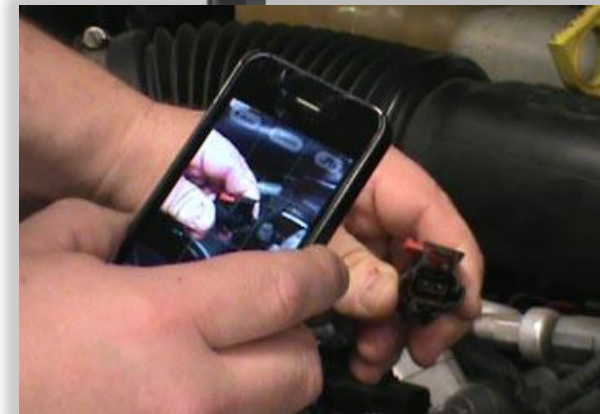
Click or Call

www.aeromotive.us/insurance

- Complete the form
- Upload your photos
- Submit!
- We will get back to you within 15-30 mins!

The screenshot shows the Aeromotive website's quote form on a desktop browser. The header includes the Aeromotive logo, the phone number (877) 723-7687, and navigation links for Home and Contact Us. The main navigation bar contains links for CONNECTORS, WIRE HARNESS, PRODUCTS, TRAINING & NEWS, and OUR COMPANY. The form is titled 'WELCOME' and includes a sub-header 'Complete the below form to get a quote. We will get back to you within 15-30 mins. If you have any questions, call us on (877) 723-7687.' The form fields include: Company, City/State, Your Name, Phone #, Email, Claim#/RO#, VIN#, and four image upload sections (each with a 'Browse...' button, a 'No file selected.' message, and 'Upload' and 'Delete' buttons). A 'Submit' button is at the bottom. A sidebar on the right contains 'Resources' (Go-No-Go Flow Chart, Estimating Worksheets, 6 Point Checklist, Wire Damage Evaluation Process) and 'Links' (Service Kit Information, Pop Quiz, Aeromotive Contacts, Order Form).

The screenshot shows the Aeromotive website's quote form on a smartphone. The header includes the Aeromotive logo, the phone number (877) 723-7687, and navigation links for Home and Contact Us. The main navigation bar contains links for CONNECTORS, WIRE HARNESS, PRODUCTS, TRAINING & NEWS, and OUR COMPANY. The form is titled 'WELCOME' and includes a sub-header 'Complete the below form to get a quote. We will get back to you within 15-30 mins. If you have any questions, call us on (877) 723-7687.' The form fields include: Company, City/State, Your Name, Phone #, Email, Claim#/RO#, VIN#, and four image upload sections (each with a 'Choose File' button, a 'No file chosen' message, and 'Upload' and 'Delete' buttons). A 'Submit' button is at the bottom. A sidebar on the right contains 'Resources' (Go-No-Go Flow Chart, Estimating Worksheets, 6 Point Checklist, Wire Damage Evaluation Process) and 'Links' (Service Kit Information, Pop Quiz, Aeromotive Contacts, Order Form).



AEROMOTIVE
Automotive connectors and wiring harnesses

1) Estimating worksheet for repairing a damaged harness assembly

OEM part # 8211106W90 (2012 Toyota Camry Hybrid)

List cost \$ \$3,363.98

Materials (prices subject to change)

Connectors:	(average cost)	x (# of connectors)	= (total)
<i>flagged item</i>	<i>\$90.00</i>	<i>1</i>	<i>\$90.00</i>
<i>flagged item</i>	<i>\$95.00</i>	<i>1</i>	<i>\$95.00</i>
<i>flagged item</i>	<i>\$150.00</i>	<i>1</i>	<i>\$150.00</i>

Wire Damage:	(# of wires to repair)	x (cost of splice)	= (total)
<i>flagged item</i>	<i>6</i>	<i>\$0.95</i>	<i>\$5.70</i>

Supplies (include tape, butane, shrinkable tubing, solder, etc):

Fixed cost (included on Aeromotive invoice) \$26.80

Total Cost of Materials \$367.50

Labor Costs

Labor:	(# damaged wires/conn)	x (repair time)	x (shop labor rate)	= (total)
<i>repair wire damage</i>	<i>6</i>	<i>0.25</i>	<i>\$80.00</i>	<i>\$120.00</i>
<i>replace connector</i>	<i>3</i>	<i>0.25</i>	<i>\$80.00</i>	<i>\$60.00</i>

Preparation Time:	(minutes)	x (shop labor rate)	= (total)
<i>open & close</i>	<i>0.50</i>	<i>\$80.00</i>	<i>\$40.00</i>

Total Cost of Labor \$220.00

Total Cost of Materials & Labor \$587.50

2) Estimating for reprocessing a harness assembly

Materials

Harness cost:	(OEM list cost)	x	(55% repro. Fee)	=	(total)
<i>harness cost</i>	<i>\$1,590.00</i>		<i>.55</i>		<i>\$874.50</i>

Turn Around Time:	(1-2 Days)	x	(Rental Charge)	=	(total)
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Shipping from Aeromotive (ground rate-based on weight and dimensions)

Average Cost (one way)	\$45.00
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Insured Saves	\$715.50
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Turn around time average 1-2 days
Warranty is 12 months/unlimited miles

For a RFQ (Request for Quote): harness@aeromotive.us

Also find our inventory on:



Recapping, the advantages...

- > Increased D-I-H (Do it in-house)
 - Reduces your severity
 - Reduces the need for sublet labor
 - Increases the shops mechanical labor
 - Benefit of reduced cycle time
 - Fewer supplements
- > Connector housings have a lifetime warranty, wire harnesses have 12 month/unlimited miles warranty
- > Exemplary turn around time for connectors and wire harnesses
- > Lastly, take the pop quiz on the website
 - www.aeromotive.us/insurance



Automotive connectors and wiring harnesses

“Make the Connection”

(877) 723-7687

www.aeromotive.us

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