

Micro64 Female Terminal

(Sealed Gold Female Terminal)

Terminal Crimp Guideline

DELPHI
Automotive Systems

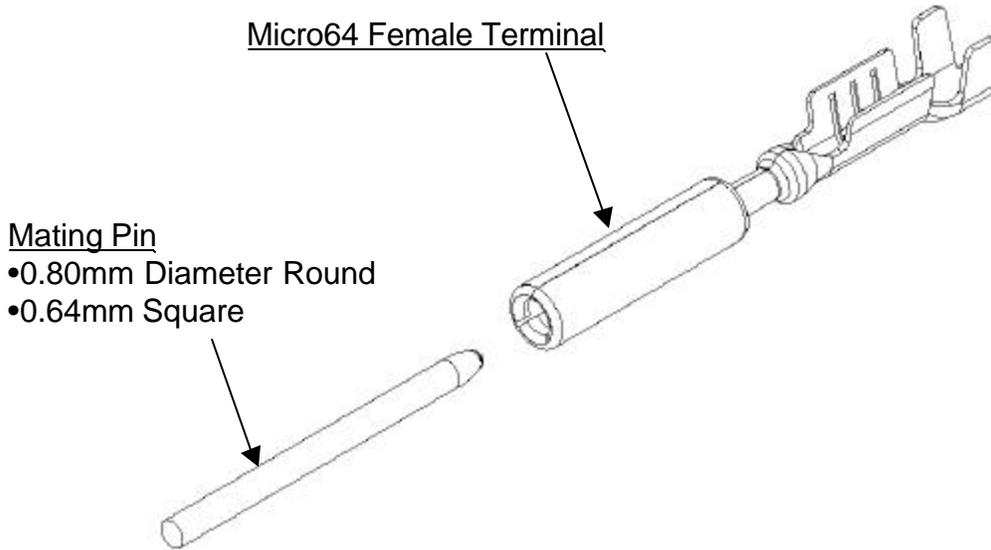
Issued : 12 Mar. 2002

UNCONTROLLED
DOCUMENT

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General Information



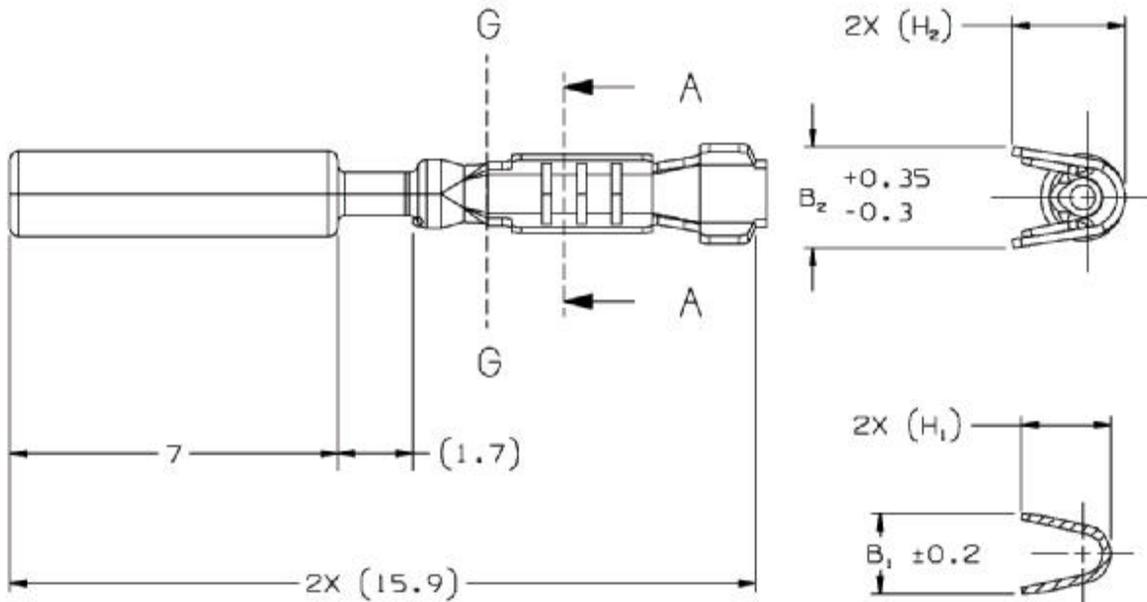
FEMALE TERMINALS

<u>Terminal PN</u>	<u>Cable Range (mm²)</u>	<u>Material</u>	<u>Plating</u>
15356826	0.35	Tin Brass	Gold
15356827	0.5 – 0.8	Tin Brass	Gold

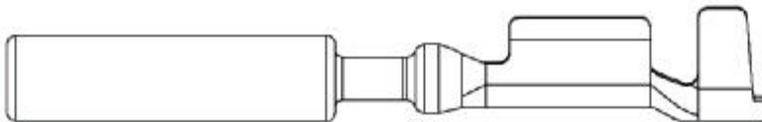
FEMALE SHORTING CLIP TERMINAL

<u>Terminal PN</u>	<u>Cable Range (mm²)</u>	<u>Material</u>	<u>Plating</u>
15359541	0.5 – 0.8	Tin Brass	Gold

Un-crimped Terminal Dimensions

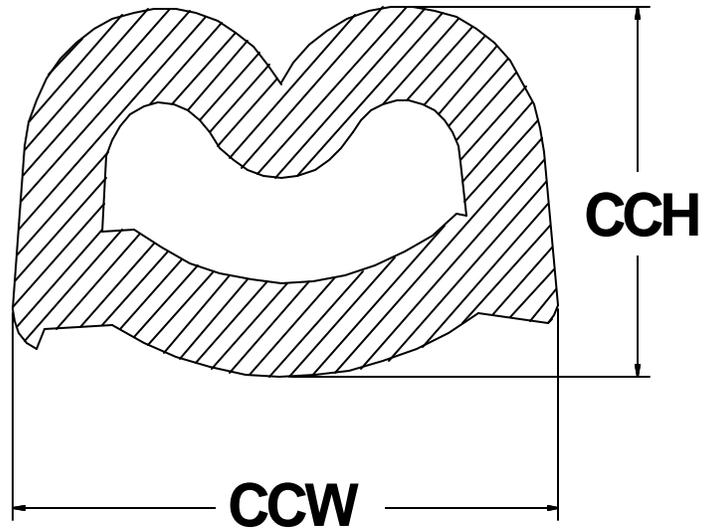


SECTION A-A TO G-G



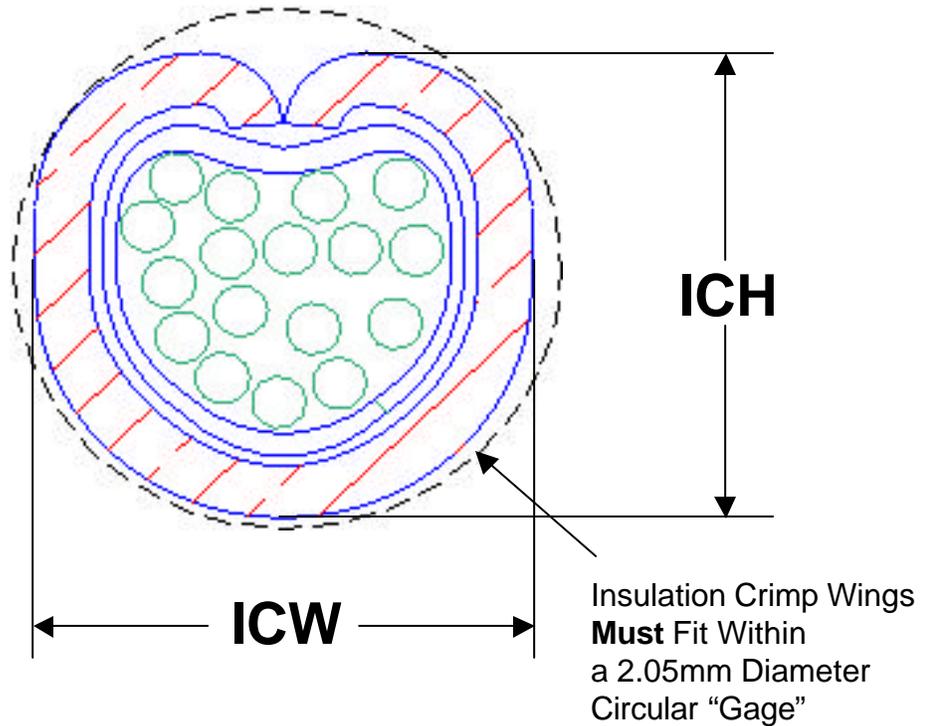
0.5 - 0.8	1.64-1.90	102	2.08	2.5	2.4	2.5
0.35	1.47-1.63	101	1.65	2.1	1.9	2.4
Cable Size (MM ²)	Cable O.D.	Crimp Type	B ₁	B ₂	H ₁	H ₂

Recommended Core Wing Crimped Dimensions



Typical Core Crimp

Recommended Insulation Wing Crimped Dimensions

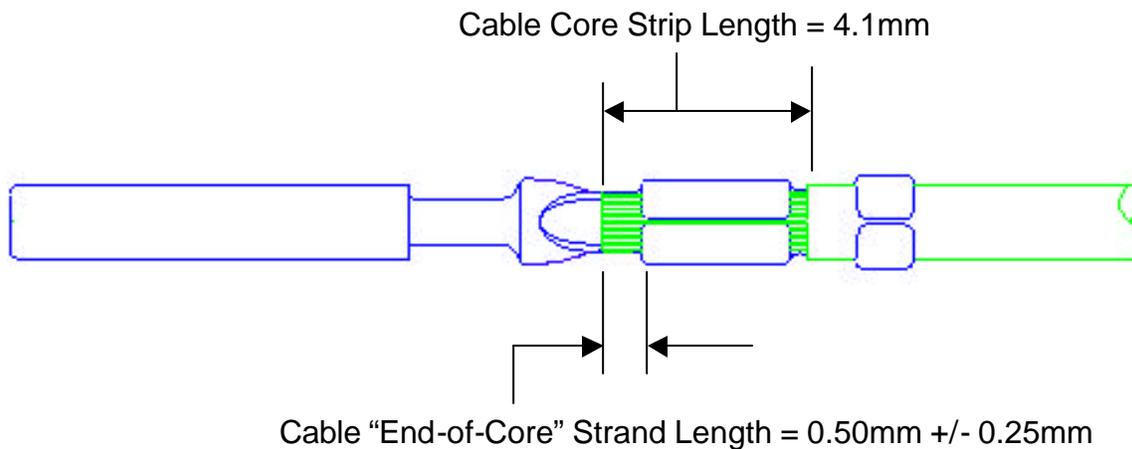


Recommended Crimp Dimensions

Terminal PN	Size (mm ²)	Cable Type	Core (mm)		Insulation (mm)	
			CCH (+/-0.05)	CCW (+0.1/-0.2)	ICH	ICW
15356826	0.35	SAE bunched bare copper	0.75	1.45	1.6	1.9
		SAE harddrawn bare copper	0.75	1.45	1.6	1.9
15356827 15359541	0.5	SAE bunched bare copper	0.95	1.45	1.9	2.0
		SAE unbonded tin plated copper	0.95	1.45	1.9	2.0
	0.8	SAE bunched bare copper	0.95	1.65	1.9	2.0

Note : Crimp dimensions shown above are reference values when using Delphi Packard crimp tool. These values are based on Delphi Packard Specification ESA 605 and are subject to change without notice. Please contact Delphi Packard Engineering for current ESA605 data. The actual method or specification of crimping should be determined by harness supplier. (As of March 2002)

Recommended Cable Strip Length and End-of-Core Length



Quality Check 1 - Terminal Straightness

Recommended Terminal "Straightness" After Crimping

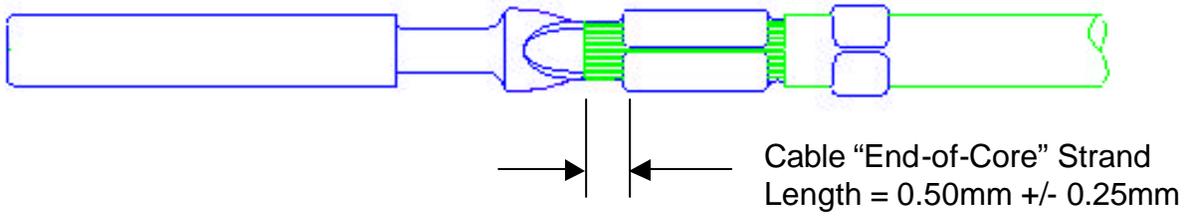


Terminal must fit a MAX. 2.10 Diameter
Gage Hole 17.0mm Deep After Crimping

Examples of bent terminals

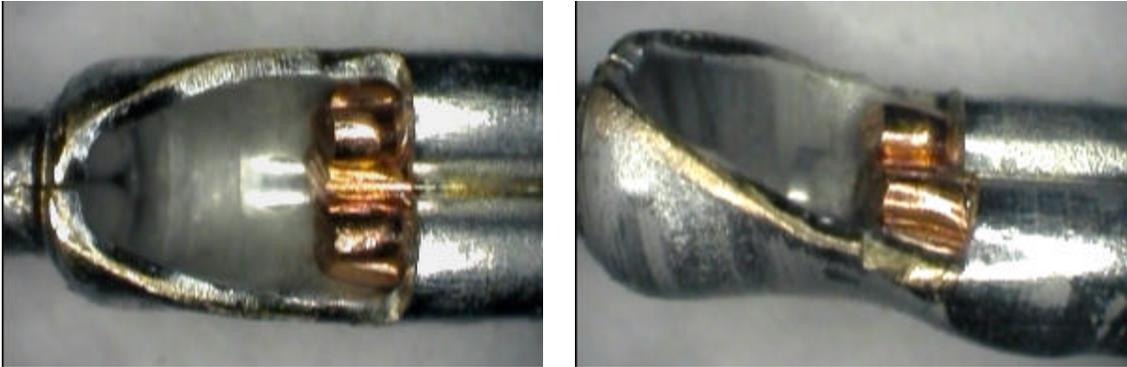


Quality Check 2 - Cable End-of-Core Length



Recommended Cable "End-of-Core" Strand Length = 0.50mm +/- 0.25mm. Excessive length can lead to "Core Flaring" and damage to the cable seals as shown in the following pictures.

Examples of **Correct** Cable "End-of-Core" Strand Length



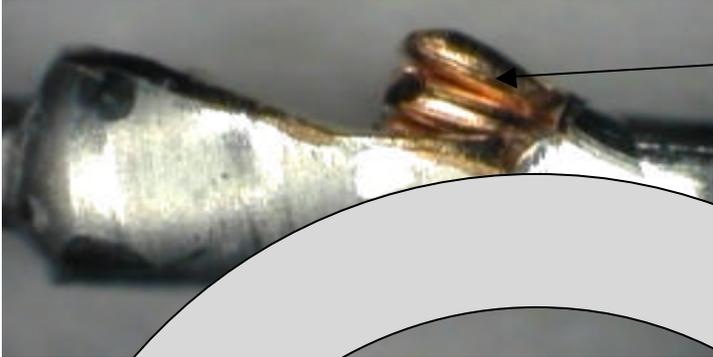
Examples of **Incorrect** Cable "End-of-Core" Strand Length



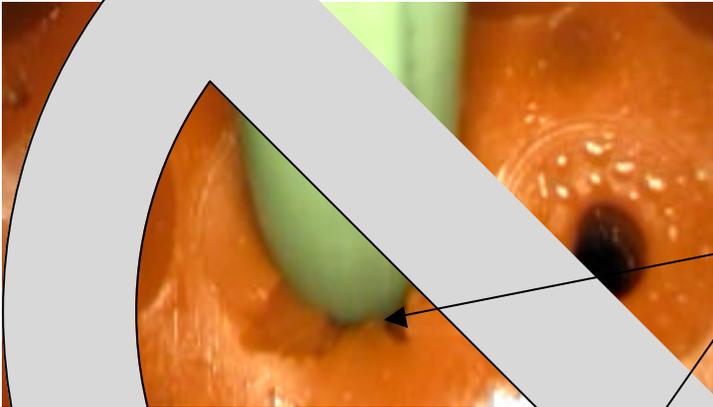
Excessive "End-of-Core" Strand Length Can Damage Cable Seal

Quality Check 2 - Cable End-of-Core Length

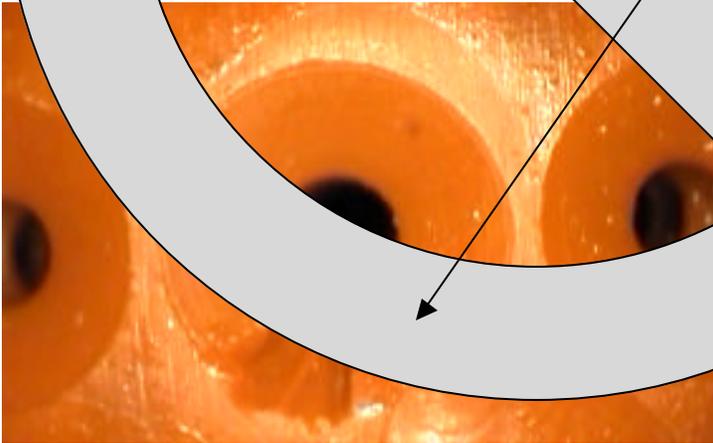
Examples of **Incorrect** Cable “End-of-Core” Strand Length



Example of Excessive
“End-of-Core” Strand Length



Example of Cable Seal
Damage
due to Excessive “End-
of-Core” Strand Length



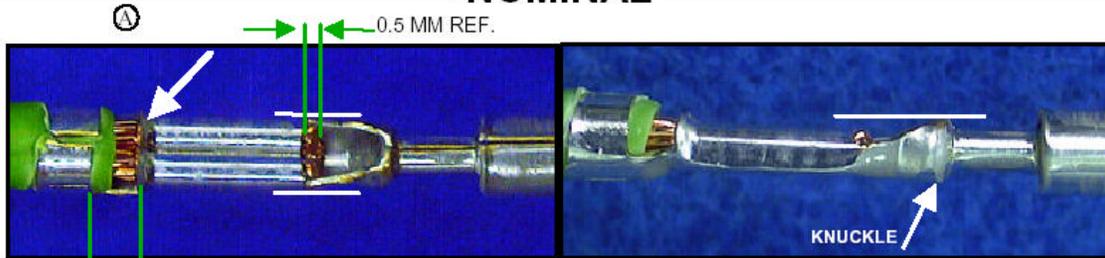
VISUAL PRODUCT STANDARD

VPS# A-66

SHEET 1 OF 3

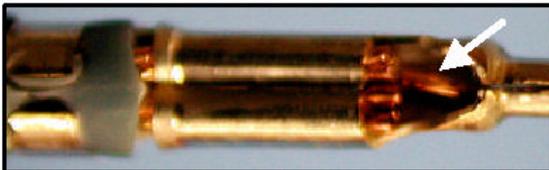
TERMINAL ASSEMBLY TO CORE: MICRO 64

NOMINAL

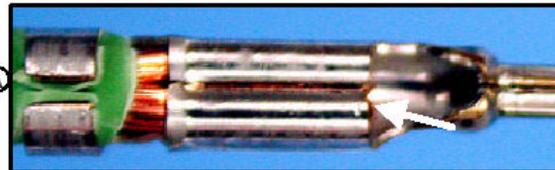


- STRANDS AND INSULATION VISIBLE IN THIS AREA
- ALL STRANDS CAPTURED WITHIN CORE WINGS. NO CUT OR MISSING STRANDS. NO STRANDS BONDED TO OUTSIDE OF CRIMP.
- CABLE STRIPPED IN CONFORMANCE WITH VPS # A-7
- CORE WING FLARE ONLY ON THE BOTTOM OF THE CORE CRIMP
- CORE IS BELOW THE TOP PLANE AND WITHIN THE SIDE PLANES OF THE TERMINAL KNUCKLE.
- NO GAP IN CORE WINGS

WITHIN TOLERANCE / SPECIFICATION



PULLED STRANDS WHICH ARE BELOW TOP PLANE AND WITHIN SIDE PLANES OF THE TERMINAL KNUCKLE



CORE FLUSH WITH TOP OF CORE WINGS



NO BOTTOM CORE WING FLARE (PASSES PULL TEST)

SHOULD BE CORRECTED AS THIS CONDITION BEGINS TO APPEAR UNLESS OTHERWISE INDICATED.

PRODUCT ENGINEERING	DATE APPROVED	REFERENCE SPECIFICATION
Ted Pushak / K.L.Weeks	7-17-00	ESA-605-A

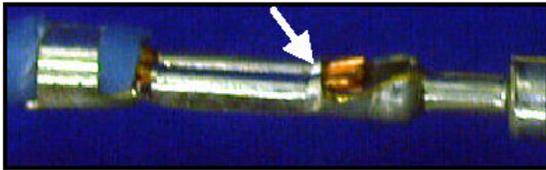
VISUAL PRODUCT STANDARD

VPS# **A-66**

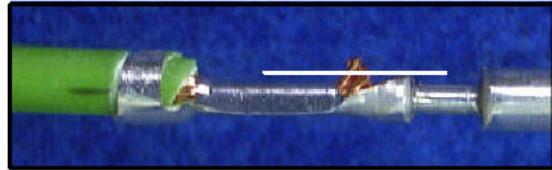
SHEET 2 OF 3

TERMINAL ASSEMBLY TO CORE: MICRO 64

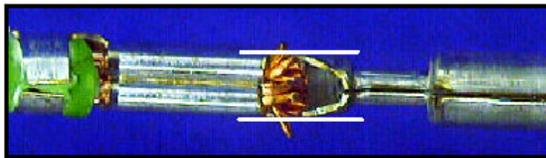
NONCONFORMANCE



CORE WING FLARE ON THE TOP OF THE CORE CRIMP



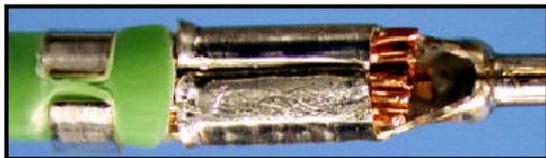
CORE EXTENDS BEYOND THE TOP PLANE OF THE TERMINAL KNUCKLE



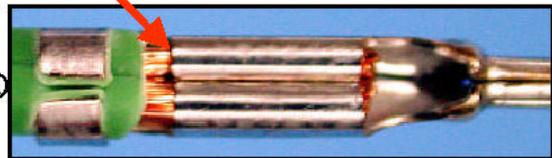
CORE EXTENDS BEYOND THE SIDE PLANE OF THE TERMINAL KNUCKLE



LOOSE STRAND OUT OF CORE CRIMP



DEFECTIVE CRIMP - UNEVENLY FORMED WINGS (FAILS PULL TEST)



NO FLARE ON BOTTOM OF CORE WING (FAILS PULL TEST)

PRODUCT ENGINEERING	DATE APPROVED	REFERENCE SPECIFICATION
Ted Pushak / K.L.Weeks	7-17-00	ESA-605-A

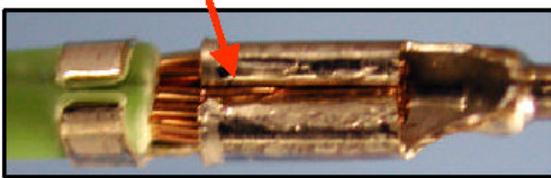
VISUAL PRODUCT STANDARD

VPS# **A-66**

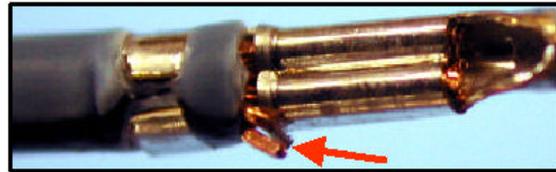
SHEET 3 OF 3

TERMINAL ASSEMBLY TO CORE: MICRO 64

NONCONFORMANCE



GAP IN CORE WINGS



CUT OR MISSING STRAND, OR BONDED TO
OUTSIDE OF CORE CRIMP



LOW CORE

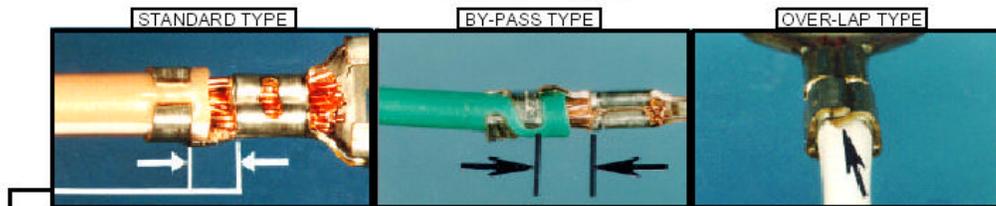
PRODUCT ENGINEERING	DATE APPROVED	REFERENCE SPECIFICATION
Ted Pushak / K.L.Weeks	7-17-00	ESA-605-A

VISUAL PRODUCT STANDARD VPS# A-17

SHEET 1 OF 2

TERMINAL ASSEMBLY TO INSULATION

NOMINAL

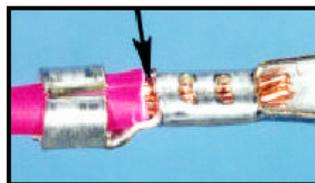


END OF INSULATION CENTERED AND STRANDS VISIBLE IN THIS AREA FOR ALL TYPES OF INSULATION CRIMPS

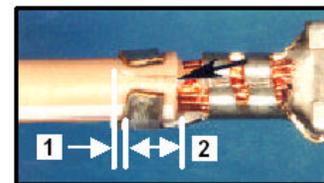
WITHIN TOLERANCE /SPECIFICATION



INSULATION CRIMP WINGS CONTACT THE INSULATION AT A MINIMUM OF 3 POINTS

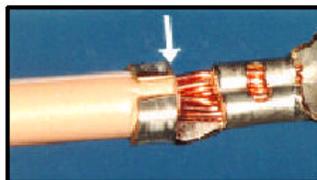


INSULATION NEAR CORE WINGS AND STRANDS ARE VISIBLE

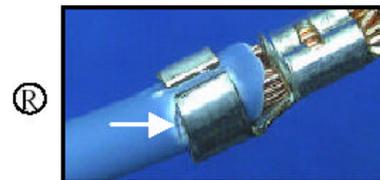


INSULATION CUT ALONG CORE AXIS - CORE VISIBLE (NO SEVERED STRANDS)

1. 1.0 MM MAX. SPLIT (BATTERY CABLE - 2.0 MM MAX. SPLIT - CRIMP ONLY APPLICATION)
2. ANY LENGTH SPLIT



INSULATION FLUSH WITH TOP OF INSULATION WINGS



INSULATION CUT AROUND CIRCUMFERENCE OF CABLE - NO CORE VISIBLE

PRODUCT ENGINEERING Rich Kollar / K.L.Weeks	DATE APPROVED 10-4-99	REFERENCE SPECIFICATION ESA-605-A and ESA-605-B
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VISUAL PRODUCT STANDARD

VPS#

A-17

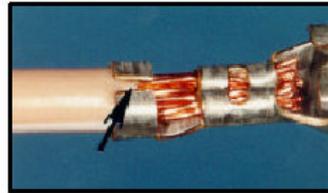
SHEET 2 OF 2

TERMINAL ASSEMBLY TO INSULATION

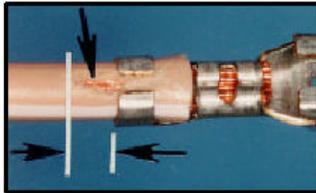
NONCONFORMANCE



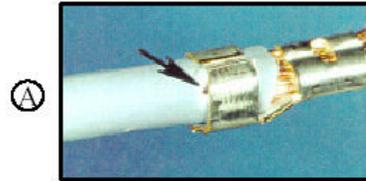
INSULATION UNDER
CORE CRIMP
(STRANDS NOT VISIBLE)



LOW INSULATION



INSULATION CUT ALONG CORE
AXIS - BEYOND 1.0 MM OR
CORE DAMAGED
(BATTERY CABLE - BEYOND
2.0 MM OR CORE DAMAGED)



INSULATION CUT AROUND CIRCUMFERENCE
OF CABLE - CORE VISIBLE

PRODUCT ENGINEERING	DATE APPROVED	REFERENCE SPECIFICATION
Rich Kollar / K.L. Weeks	10-4-99	ESA-605-A and ESA-605-B

This guideline shows only minimum required information based on general use and production conditions only the minimum required information.

Use it as a reference. Before using this product, be sure it is in conformity with your production and quality assurance systems and its properties and features meet your requirements. The actual method or specification of this production should be decided by harness supplier, but the condition for this production should be satisfied.