


AS9102 Rev. B First Article Inspection
Form 1: Part Number Accountability

1. Part Number C10-1616-089-1 <small>(REF. LJR P/N: 0462-201-16141)</small>	2. Part Name CONTACT, ELECTRICAL CONNECTOR SOCKET, CRIMP REMOVABLE, SIZE 16	3. Serial Number N/A	4. FAIR Number 1642721
5. Part Revision Level B	6. Drawing Number C10-1616-089-1	7. Drawing Revision Level B	8. Additional Changes N/A
9. Manufacturing Process Reference 1642721	10. Organization Name CARLISLE IT/ TRI-STAR ELECTRONICS	11. Supplier Code LJR ELECTRONICS	12. P.O. Number 0010428
13. Detail Part: <input type="checkbox"/> Assembly FAI: <input checked="" type="checkbox"/>	14. Full FAI: <input checked="" type="checkbox"/> Partial FAI: <input type="checkbox"/> ----- Baseline Part Number (including revision level): Reason for Partial FAI:		

a) If above part number is a detail part only, go to Field 19.
 b) If above part number is an assembly, go to the "INDEX" section below.


INDEX of part numbers or sub-assembly numbers required to make the assembly noted above.


15. Part Number	16. Part Name	17. Part Serial Number	18. FAIR Number
024-1616-089-C	CONTACT, SOCKET BODY, CRIMP, SIZE 16, COLD HEADED	CT-18-288982	
H-902-T	SLEEVE, SOCKET CONTACT #16	CT-18-288394	

19. Signature: <i>Alcu Porto</i>  <input checked="" type="checkbox"/> FAI complete <input type="checkbox"/> FAI not complete	20. Date: 10/02/18
21. Reviewed By: <i>[Signature]</i> Martha Gutierrez	22. Date: 10/02/18
23. Customer Approval:	24. Date:

AS9102 Rev. B First Article Inspection

Form 2: Product Accountability – Materials, Special Processes and Functional Testing

1. Part Number C10-1616-089-1 (REF. LJR P/N: 0462-201-16141)	2. Part Name CONTACT, ELECTRICAL CONNECTOR SOCKET, CRIMP REMOVABLE, SIZE 16		3. Serial Number N/A		4. FAIR Number 1642721
5. Material or Process Name	6. Specification Number	7. Code	8. Supplier	9. Customer Approval Verification	10. Certificate of Conformance Number
CONTACT BODY LEADED NICKEL COPPER UNS C19150	PER AS39029				CERTIFICATE OF CONFORMANCE FROM RAW MATERIAL SUPPLIER (SEE ATTACHED CERTIFICATION)
NICKEL PLATE	PER AMS-QQ-N-290				SEE ATTACHED READINGS
COPPER FLASH	PER AMS-2418				VERIFIED AT PLATING
HOOD STAINLESS STEEL	305				CERTIFICATE OF CONFORMANCE FROM RAW MATERIAL AND PASSIVATION SUPPLIER (SEE ATTACHED CERTIFICATION)
PASSIVATION	PER AMS 2700				
11. Functional Test Procedure Number	12. Acceptance report number				
ENGAGEMENT & SEPARATION FORCES	SEE ATTACHED TEST RESULTS				
13. Comments:					
14. Signature <i>Alan Postu</i>			15. Date 10/02/18		
					

1. Part Number				2. Part Name			3. Serial Number	4. FAIR Number
C10-1616-089-1 (REF. LJR P/N: 0462-201-16141)				CONTACT, ELECTRICAL CONNECTOR SOCKET, CRIMP REMOVABLE, SIZE 16			N/A	1642721
Characteristic Accountability				Inspection / Test Results				
5. Char No.	6. Reference Location	7. Characteristic Designator	8. Requirement	9. Results	10. Designed/Qualified Tooling	11. Non-Conformance Number	14. Additional Data / Comments	
1	C4	N/A	Ø .103-.101	Ø .102	COMPARATOR	N/A	NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES, AFTER PLATING AND ASSEMBLY.	
2	C4	N/A	Ø .068-.066	Ø .067	PIN GAGE	N/A		
3	C3	N/A	.257-.246	.250	COMPARATOR	N/A		
4	C3	N/A	.047-.044	.045	COMPARATOR	N/A		
5	D3	N/A	(.759)	.747	CALIPER	N/A		
6	C2	N/A	.500-.494	.495	DROP GAGE	N/A		
7	C2	N/A	.330 MIN	.350	COMPARATOR/ PIN GAGE	N/A		
8	C1	N/A	Ø .113-.110	Ø .1105	COMPARATOR	N/A		
9	B2	N/A	SLEEVE	CONFORMED	VISUAL	N/A		
10	B2	N/A	TRI-STAR TRADEMARK (LOCATION OPTIONAL)	CONFORMED	VISUAL	N/A		
11	B3	N/A	Ø .133-.130	Ø .132	COMPARATOR	N/A		
12	B3	N/A	CONTACT	CONFORMED	VISUAL	N/A		
13	B3	N/A	.284-.250	.261	COMPARATOR/ TEST PIN	N/A		
14	A4	N/A	NOTE 1	CONFORMED	N/A	N/A		
15	A4	N/A	NOTE 2	CONFORMED	N/A	N/A		
16	A4	N/A	NOTE 3	CONFORMED	N/A	N/A		
17	A4	N/A	NOTE 4	CONFORMED	N/A	N/A		
12. Signature:							13. Date: 10/02/18	
 								

LOT NO: 1642721
PART NO: C10-1616-089-1

EXTRACTION FORCES

INSERTION FORCES

1 21.54
2 19.06
3 19.08
4 19.67
5 15.03
6 23.69
7 18.63
8 18.89
9 19.31
10 20.40
11 17.07
12 25.83
13 24.73

* CLEAR *

1 -9.68
2 -7.67
3 -7.59
4 -8.17
5 -5.69
6 -9.73
7 -5.54
8 -5.50
9 -7.39
10 -10.04
11 -6.95
12 -10.05
13 -10.91

PART NO. :
.....

DATE 2018/10/ 2
TIME 17: 0
.....

NAME :
.....

* RESULT *

N 13
MAX 25.83
MIN 15.03
R 10.80
 \bar{x} 20.2253
 σ_n 2.9163
 σ_{n-1} 3.0353

PART NO. :
.....

DATE 2018/10/ 2
TIME 17: 1
.....

NAME :
.....

* RESULT *

N 13
MAX -5.50
MIN -10.91
R 5.41
 \bar{x} -8.0700
 σ_n 1.7975
 σ_{n-1} 1.8709



Fischerscope®

XRAY XDLM 237

Product: 24 / C10-1616-089-1

Dir: Fischer

Block:

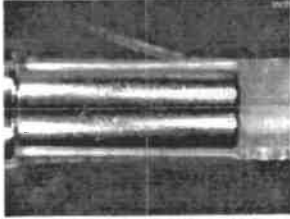
456

Application: 17 / Ni/PbNiCu

Order No: 1642721

Material No: C10-1616-089-1

Plating Load: 7231



N	Ni 1[μ"]	
	100.0	390.0
1	167.3	♦
2	150.6	♦
3	180.4	♦
4	172.7	♦
5	162.6	♦
6	162.0	♦
7	149.4	♦
8	150.5	♦
9	173.1	♦
10	154.2	♦
11	143.2	♦
12	155.0	♦
13	143.7	♦
14	138.1	♦
15	139.6	♦
16	155.0	♦
17	145.1	♦
18	156.3	♦
19	133.1	♦
20	154.1	♦

Mean 154.3 μ"
Standard deviation 12.5 μ"
C.O.V. (%) 8.12
Range 47.3 μ"
Number of readings 20
Min. reading 133.1 μ"
Max. reading 180.4 μ"
Measuring time 10 sec

Operator: YESENIA ONTIVEROS
Date: 9/21/2018 Time: 2:11:45 PM



MATERION

BRUSH PERFORMANCE ALLOYS
230 Shoemakersville Road, Shoemakersville, PA US 19556
Phone: 610-562-2211 ; Fax: 610-562-8610

Tri-Star Electronics, Inc.
A Carlisle Company
2201 Rosecrans Avenue
El Segundo CA 90245
US

Material Certificate				
Date	08/16/2018			
Purchase order item/date	605250 / 03/20/2018			
Delivery item/date shipped	81048247 000030 / 08/16/2018			
Order item/date	582371 000030 / 03/20/2018			
Customer nbr	Customer part nbr			
11068	EPS-0009-01-100			
Customer spec	EPS-0009 REV. L			
Rev	Type	Comp	Class	Grade

Our Material: K545410000 WIRE 1915 HT .10000X
Seller hereby acknowledges that the parts and/or materials being shipped under this order are intended for use under Boeing's Federal Aviation Administration (FAA) issued Production Certificate 700.

Materion Performance Metals Group (PMG) performs chemical and mechanical/physical testing in our Elmore, OH facility located at 14710 W. Portage South Road, Elmore, OH 43416-2745 and mechanical/physical testing in our Shoemakersville, PA facility. All Materion PMG labs are accredited by the American Association for Laboratory Accreditation (A2LA) under the following certificate numbers: Elmore Chemical Lab - 339.01, Elmore Mechanical Lab - 339.03, Shoemakersville Mechanical Lab - 339.02. All mechanical/physical testing is performed at the Shoemakersville facility unless otherwise stated.

This material was inspected and tested for conformity as required in accordance with the noted part, specification, and revision number. The quantitative test data obtained from these tests are available for review by the buyer. This material was tested to one or more of the following ASTM methods: B193, B820, E3, E8, E10, E18, E21, E92, E112, E340, E345, E384, E407, E930, E1181.

Batch 0002081470 / Quantity 2,259 LBS

Characteristic	Unit	Value	Specification Limits	
			Lower	Upper
CDA (UNS) Alloy	-	C19150		
ASTM Temper	-	TH04		

Dimensional Attributes

Diameter	"	0.1000		
Diameter Plus	"	0.0005		
Diameter Minus	"	0.0005		

Mechanical/Physical Properties

Grain Size	mm	0.022 0.030	0.010	
Tensile	ksi	86.4 92.0	85.0	100.0
Yield @ 0.2% Offset	ksi	82.5 89.2	0.0	
Elongation (in 4D)	%	3.0 5.0	3.0	
Hardness Scale	-	DPH		
Percent IACS	%	53.7 56.1	50.0	

CT-18-288982

Chemistry Composition

This Report may not be reproduced, except in full without written approval. "Melted and Made in the USA"

This transaction is entered into with Materion Brush Inc., 230 Shoemakersville Road, Shoemakersville, PA 19555



MATERION

BRUSH PERFORMANCE ALLOYS
230 Shoemakersville Road, Shoemakersville, PA US 19555
Phone: 610-562-2211 ; Fax: 610-562-6610

Tri-Star Electronics, Inc.
A Carlisle Company
2201 Rosecrans Avenue
El Segundo CA 90245

Delivery Item/date
81048247 000030 /
08/16/2018

Nickel	%	0.988	0.800	1.200
Iron	%	< 0.010		0.250
Tin	%	0.010		0.050
Chromium	%	< 0.010		0.050
Lead	%	0.578	0.400	0.700
Phosphorous	%	0.267	0.150	0.350
Alloy Balance	-	COPPER		

Lot Identification

Heat Number	-	318ABQ
Prod Order/Pc/Lot Nbr.	-	101268945

Mark Arnold

Quality Representative

CT-18-288982

Certificate

Certificate of Conformance

Purchase Order	Quantity	Part #	Lot Number
605964	5,000,000	Carby 1983	29-18
		H-902-T	230-18
		Rev G	

Customer: *Tri Star*

"It is hereby certified that all articles on the above shipment and in the quantities as called for in the above contractor's Purchase Order are in conformance with the blue print and/or purchase order specifications and that physical and/or chemical test reports pertaining to same are on file subject to examination as required by specification MIL-Q-9858."

Material Type: *Stainless Steel*

Specification: *305*



The Carby Corporation

Excellence in Engineered Deep Drawn Metal Products

1121 Echo Lake Road

Tel. 860-274-6741

PO Box 427

Fax 860-274-6744

Watertown, CT

06795-0427

Thomas J. Swirski
Quality Manager

Date: Tuesday, July 31, 2018

Additional Comments:

Finish: Clean & passivate per AMS 2700.

CT 18 288394

"Seller hereby acknowledges that the parts and /or materials being shipped under this order are intended for use under Boeings Federal Aviation Administration (FAA) issued Production Certificate 700"

All material has been final inspected and accepted per Zero Acceptance Number Sampling Plans based on ANSI/ASQZ1.4

C-18 288394

Job # 1915/1985
7.12.18 3/67-11

12Jul18 14:14

TEST CERTIFICATE

NO. SST

BERLIN METALS
3200 SHEFFIELD AVE.
HAMMOND, IN 46327
Tel: 219-933-0111 Fax: 219-933-0692

P/O No 21386
Rcl
S/O No SST 21166-001
H/L No SST 15452-001
Inv No

Job # 1915
LOT 104-1
Job # 1915
LOT 29-1

Sold To: (1230)
CARRY CORPORATION
P.O. BOX 427
WATERTOWN, CT 06795

Ship To: (1)
CARRY CORPORATION
1121 ECHO LAKE ROAD
WATERTOWN, CT 06795-1693

Tel: 18602746741 Fax: 18602746744

CERTIFICATE of ANALYSIS and TESTS

Cert. No: SST 21166-001

Part No .0085 X .975 305 SS
55305 15A
.0085 Nom X 0.9750"

Pcs 7
Wgt 180

12% MIN NICKEL
NON-EARRING
COMPLIES WITH cc 1907/2008 REG(REACH) & ROHS

Heat Number	Tag No	Pcs	Wgt
0451101	268475	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0087.0085>		
0451101	268476	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0087.0085>		
0451101	268477	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0087.0085>		
0451101	268482	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0087.0085>		
0451101	268483	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0089.0089>		
0451101	268484	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0089.0089>		
0451101	268485	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0089.0088>		
0451101	268490	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0089.0088>		
0451101	268491	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0087.0088>		
0451101	268492	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0087.0089>		
0451101	268493	7	180
	YIELD=<36,550>/TENSL=<86,588>/ELNG%=<55%>/GRAIN=<9>/RB=<31>		
	CENTR=<.0087.0088>		

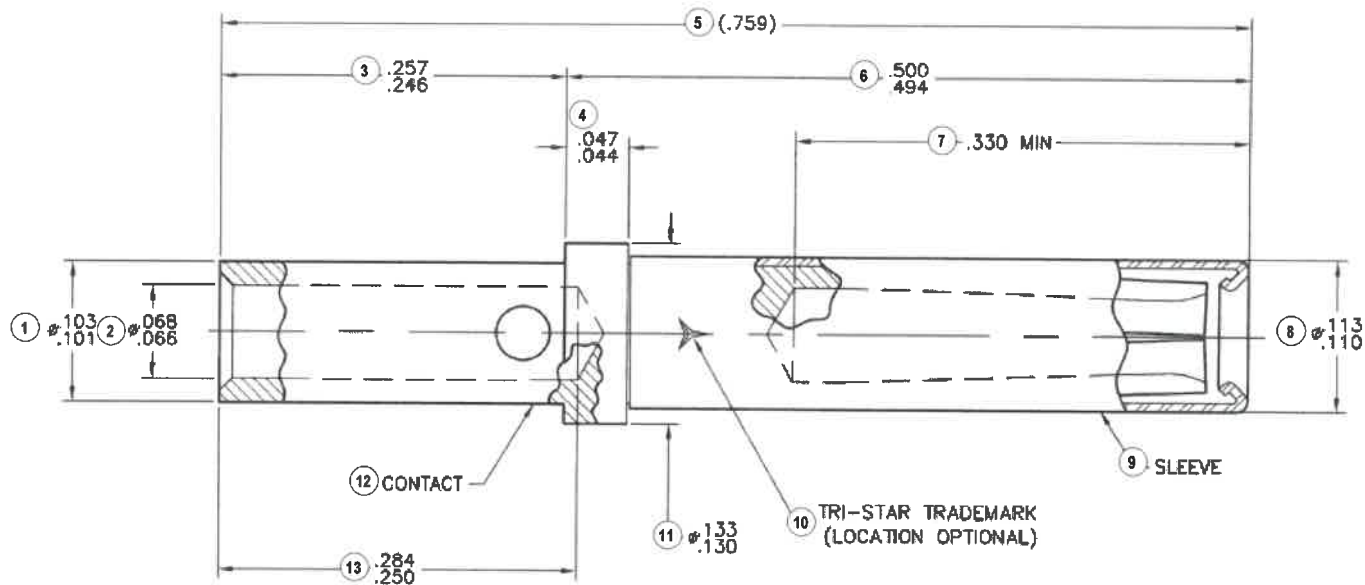
Page: 1 ... Continued

CT 18 288394

01 48 5883 4

THE INFORMATION CONTAINED HEREIN IS PROPRIETARY TO CARLISLE, INC. AND SHALL IN NO WAY BE REPRODUCED OR DISCLOSED IN WHOLE OR IN PART OR USED FOR ANY DESIGN OR MANUFACTURE EXCEPT WHEN SUCH USER POSSESSES DIRECT, WRITTEN AUTHORIZATION FROM CARLISLE, INC.

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPD
A	REVISED PER E.O. 23449	11-30-15	FR
B	REVISED PER E.O. 24436	(c/24/17	



SALES DRAWING

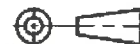
- 17 4. CRIMP TOOL DATA:
BASIC CRIMPING TOOL M22520/1-01
POSITIONER M22520/1-02 BLUE
- 16 3. ENGAGEMENT/SEPARATION FORCES PER AS39029.
- 15 2 **FINISH:** CONTACT-
BRIGHT NICKEL PLATE PER AMS-QQ-N-290 .000100 MIN THK
OVER COPPER FLASH PER AMS-2418.
- 14 1 **MATERIAL:** CONTACT: SUITABLE COPPER ALLOY PER AS39029.
SLEEVE: STAINLESS STEEL, PASSIVATED

NOTES: (UNLESS OTHERWISE SPECIFIED)

DIMENSIONING AND TOLERANCING SHALL BE INTERPRETED PER ASME Y14.5M-1994. DIMENSIONS ARE IN INCHES/MILLIMETERS ±TOLERANCES UNLESS OTHERWISE NOTED

.X	.XX	.XXX	ANGLE
±.1	±.01	±.005	±.30'

THIRD ANGLE PROJECTION



MATERIAL:	FINISH:	TREATMENT:
△1	△2	--

NEXT ASSY		USED ON	
APPLICATION			
DATE	DATE	DATE	DATE
---	---	---	---
DRW	F.R.	05-16-11	
Q-CHKD	M.Q.	05-23-11	
APPROVED	H. LE	05-23-11	



2201 ROSECRANS AVENUE, EL SEGUNDO, CA 90245
www.carlisleit.com

DWG TITLE
**CONTACT, ELECTRICAL
CONNECTOR SOCKET, CRIMP
REMOVABLE, SIZE 16**

REV	SIZE	DATE	CARLISLE NUMBER	REV
A	55104		C10-1616-089-1	B
SCALE BX-		DO NOT SCALE DWG		SHEET 1 OF 1