

[INCH-POUND]
A-A-59590/15C
30 March 2015
SUPERSEDING
A-A-59590/15B
27 August 2010

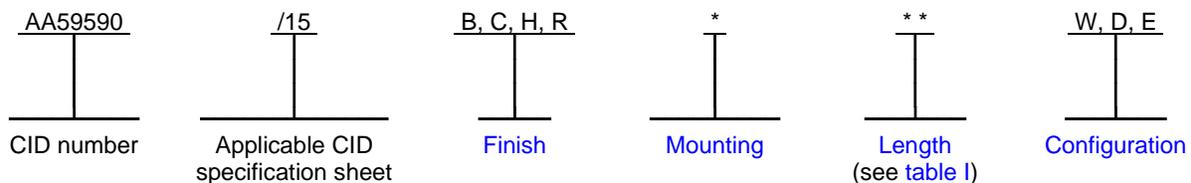
COMMERCIAL ITEM DESCRIPTION SPECIFICATION SHEET

HOLDER, ELECTRICAL CARD, WEDGE RETAINERS, 3 PIECE,
SCREW ACTUATED DRIVE, .375 X .375 INCH BODY SIZE, WITH SCREW RETENTION

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

The complete requirements for procuring electrical card holders described herein shall consist of this document and the latest issue in effect of [A-A-59590](#).

CLASSIFICATION/PART IDENTIFICATION NUMBER (PIN). This commercial item description (CID) specification sheet uses a classification system which is included in the Part Identification Number (PIN) as shown in the following example (see [notes](#) herein).



Example: AA59590/15BJ48D is the PIN for a black anodize finished, 4.8 inch (121.9 mm) long card holder with a lock nut on the screw for captivation. The card holder also features two counterbore holes for use with rivet fasteners, a lockwasher and flat washer under the screw head, and a self-locking element on the end of the actuating screw for added resistance to loosening.

SALIENT CHARACTERISTICS.

Performance. Card holders shall hold the circuit card assembly firmly in its installed position. When the card holder is installed properly, it is capable of withstanding 60g/6ms of shock, 25 G-rms of vibration, and provides from 2 to 4 degrees C/W/inch thermal resistance transfer between the circuit card assembly and the heat sink surfaces.

Material. Unless otherwise specified herein, the card holder materials shall be as specified in [A-A-59590](#).

Interface and physical dimensions. The card holders supplied to this CID specification sheet shall be as specified on [figures 1, 2, 3, and 4](#), in [table I](#), and [A-A-59590](#).

Screw retention locknut (see [figure 2](#)). Card holders shall have a screw retention locknut intended to prevent unintentional disassembly of the card holder. The locknut shall be fabricated of a corrosion resistant material.

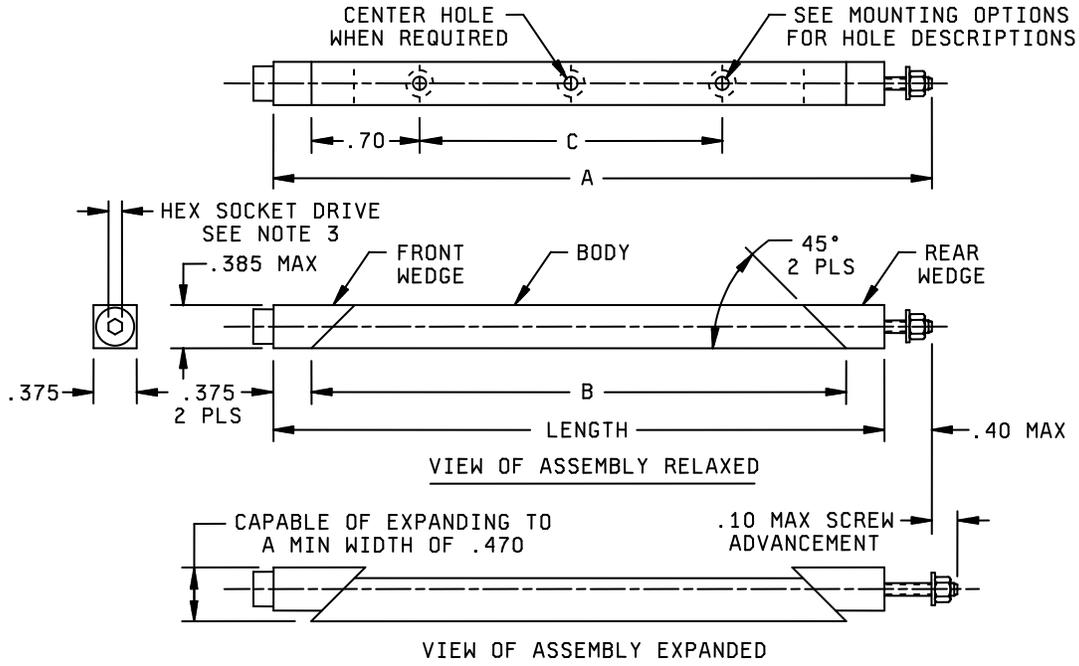
Actuating screw hex drive socket. The across flats dimension for the hex drive socket shall be as follows: .140 inch (3.57 mm) for mounting options "J", "N", "T", "R", "V", and "S" and a metric dimension of 3.0 mm (0.118 inch) for mounting options "G" and "M".

Cold plate slot width dimensions (when applicable). The recommended cold plate slot width to accommodate the circuit card assembly with attached card holder is .425 inch (10.80 mm) plus the thickness of the printed board of the circuit card assembly (see [A-A-59590](#)).

AMSC N/A

FSC 5998





Inches	mm	Inches	mm	Inches	mm
.10	2.5	.385	9.8	.470	11.9
.375	9.5	.40	10.2	.70	17.8

NOTES:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Unless otherwise specified, tolerances are ± 0.02 inch (0.51 mm) for two place decimals and ± 0.010 inch (0.25 mm) for three place decimals.
3. The across flats dimension for hex drive socket shall be .140 inch (3.57 mm) for mounting options "J", "N", "R", "T", "S", and "V". The across flats dimension for hex drive socket shall be a metric dimension of 3.0 mm (.118 inch) across flats for mounting option "G" and "M".

FIGURE 1. Relaxed and expanded dimensions.

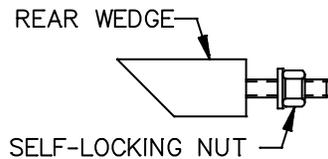


FIGURE 2. Screw retaining self-locking nut (corrosion resistant) details.

Nominal installation torque. When card holders are used in cold plate applications, the nominal installation torque of each card holder shall be as follows: 16 to 20 inch-pounds (1.8 to 2.3 N-m) for assemblies using no options or option "W" and 17 to 21 inch-pounds (1.9 to 2.5 N-m) for assemblies using options "E" or "D".

Finish. The finish designator shall be as specified in A-A-59590. The finishes available for this CID specification sheet are as follows: "B" (black anodize), "C" (gold chemical film), "H" (hard black anodize), or "R" (clear chemical film).

Mounting. The mounting designators shall be as specified in A-A-59590. The mounting options available for this CID specification sheet are as follows: "J" (rivet mounting holes), "N" (no mounting holes), "R" or "T" (tapped 0-80 UNF 2B holes), "V" or "S" (tapped 2-56 UNC 2B holes), or "G" or "M" (tapped M2.5 x.45 metric holes). Card holders using mounting option "J" may be shipped unassembled. See figure 1 and table I for mounting hole spacing requirements.

Rivet mounting holes. The holes used for rivet mounting shall be .136 inch (3.45 mm) diameter through holes, countersunk 100 degrees by .190 to .200 inch (4.83 to 5.08 mm) diameter with an access/clearance counterbore hole of .190 to .200 inch (4.83 to 5.08 mm) diameter by .300 inch (7.62 mm) deep.

Rivets. This card holder uses rivet style B as specified in A-A-59590 when rivet mounting is used.

Mounting hole locations (when specified). Two mounting holes are required on card holders less than 5.30 inches (134.6 mm) in length. Three mounting holes are required on card holders 5.30 inches (134.6 mm) or greater in length. The third mounting hole, when present, shall be centered on the mounting body. See figure 1 and table I for mounting hole locations and spacing requirements.

Length, expanded, and relaxed dimensions. The length, expanded, and relaxed dimensions shall be as specified on figure 1. The length designator shall be as specified in A-A-59590 and the available lengths for this specification sheet are listed in table I.

TABLE I. Assembly dimensions (see figure 1). 1/

PIN length designator	Dimension "LENGTH" ±.02 (0.5)	Dimension "A" (maximum)	Dimension "B" ±.03 (0.8)	Dimension "C" ±.005 (0.13)
28	2.8 (71.1)	3.25 (82.6)	2.05 (52.1)	.65 (16.5)
33	3.3 (83.8)	3.75 (95.3)	2.55 (64.8)	1.15 (29.2)
38	3.8 (96.5)	4.25 (108.0)	3.05 (77.5)	1.65 (41.9)
43	4.3 (109.2)	4.75 (120.7)	3.55 (90.2)	2.15 (54.6)
48	4.8 (121.9)	5.25 (133.4)	4.05 (102.9)	2.65 (67.3)
53	5.3 (134.6)	5.75 (146.1)	4.55 (115.6)	3.15 (80.0)
58	5.8 (147.3)	6.25 (158.8)	5.05 (128.3)	3.65 (92.7)

1/ Dimensions are in inches. Millimeters, in parenthesis, are given for general information only.

Configuration. The configuration of a card holder shall be as specified in table II. The details of a particular configuration consist of those on figures 1 and 2, and may include those on figures 3 and 4. Card holders not requiring the options described by table II shall leave the configuration position in the PIN blank.

TABLE II. Configurations.

Configuration	Applicable figures	Hardware options
	1 and 2	No added options
W	1, 2 and 3	Lockwasher and flat washer
E	1, 2 and 4	Screw self-locking element
D	1, 2, 3 and 4	Lockwasher, flat washer and screw self-locking element

Lockwasher and flat washer (see figure 3). A lockwasher and flat washer located under the screw head will provide for additional resistance to loosening of the card holder assembly from shock and vibration. Card holders requiring a lockwasher and flat washer option shall include a suffix "W" in the PIN (see [classification](#) and [notes](#)).

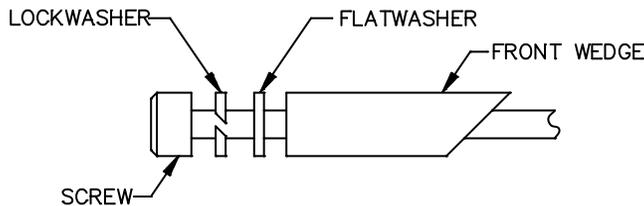


FIGURE 3. Lockwasher and flat washer details.

Screw self-locking element (see figure 4). The use of a screw self-locking element will provide prevailing torque for resistance to loosening of the card holder assembly from shock and vibration. The screw self-locking element shall be as specified in A-A-59590. Card holders requiring a screw self-locking element shall include a configuration suffix "E" in the PIN (see [classification](#) and [notes](#)).



FIGURE 4. Screw self-locking element details.

Lockwasher, flat washer, and screw self-locking element. Card holders requiring a lockwasher, flat washer, and screw self-locking element option shall include a suffix "D" in the PIN (see [classification](#) and [notes](#)).

NOTES.

PIN. The PIN should be used for Government purposes to buy commercial products to this CID specification sheet. See the classification section for PIN format example.

Source of documents.

Commercial Item Description

[A-A-59590](#) – Holder, Electrical Card, Wedge Retainers, 3 Piece, Screw Actuated Drive, General Requirements For.

(Copies of these documents are available online at <http://quicksearch.dla.mil>.)

Ordering data. Ordering data shall be as specified in [A-A-59590](#).

Commercial products. As part of the market analysis and research effort, this CID specification sheet was coordinated with the following manufacturers of commercial products. At the time of CID specification sheet preparation and coordination, these manufacturers were known to have commercial products that would meet the requirements of this CID specification sheet. (NOTE: This information should not be considered as a list of approved manufacturers or be used to restrict procurement to only the manufacturers shown.)

<u>Manufacturer CAGE</u>	<u>Manufacturer name and address</u>	<u>Manufacturer contact information</u>	
61081 (1)	Schroff Division of Pentair Equipment and Electronic Protection (formerly Birtcher) 7328 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 E-mail: schroff.us@pentair.com URL: http://www.pentairprotect.com	
61081 (2)	Schroff Division of Pentair Equipment and Electronic Protection (formerly Calmark) 7328 Trade Street San Diego, CA 92121-3410	Telephone: (858) 740-2400 Toll Free: (800) 854-7086 Facsimile: (858) 740-2430 E-mail: schroff.us@pentair.com URL: http://www.pentairprotect.com	
5BG68	American Circuit Card Retainers, Inc. 2310 E. Orangethorpe Avenue Anaheim, CA 92806-1231	Telephone: (714) 738-6194 Facsimile: (714) 446-0119 E-mail: sales@accrmfg.com URL: www.accrmfg.com	

Part number supersession data. These CID specification sheet PINs supersedes the following manufacturer's part numbers as shown in [table III](#). The CID PINs listed in [table III](#) are only for length designator "28". See [table IV](#) for CID PIN construction using other available lengths for this specification sheet. This information is being provided to assist in reducing proliferation in the Government inventory system.

TABLE III. Commercial part number supersession data.

PIN designator AA59590/15	Vendor similar designator or type part number 1/		
	CAGE 61081 2/	CAGE 61081 3/	CAGE 5BG68
BJ28	44-6-B-LN	A250CR2.80HR	3370BA-2.80HR
BN28	44-6-B-LN-A	A250CR2.80R	3370BA-2.80R
BT28	44-6-B-LN-T	A250CR2.80T0R	3370BA-2.80T0R
BV28	44-6-B-LN-S	A250CR2.80T2R	3370BA-2.80T2R
BG28	44-6-B-LN-M	MA250CR2.80TM2.5R	3370MBA-2.80TM2.5R
BJ28E	44-6-B-LN-L	A250CR2.80HLR	3370BA-2.80HLR
BN28E	44-6-B-LN-A-L	A250CR2.80LR	3370BA-2.80LR
BT28E	44-6-B-LN-T-L	A250CR2.80T0LR	3370BA-2.80T0LR
BV28E	44-6-B-LN-S-L	A250CR2.80T2LR	3370BA-2.80T2LR
BG28E	44-6-B-LN-M-L	MA250CR2.80TM2.5LR	3370MBA-2.80TM2.5LR
BJ28W	44-6-B-LF-LN	WA250CR2.80HR	3370WBA-2.80HR
BN28W	44-6-B-LF-LN-A	WA250CR2.80R	3370WBA-2.80R
BT28W	44-6-B-LF-LN-T	WA250CR2.80T0R	3370WBA-2.80T0R
BV28W	44-6-B-LF-LN-S	WA250CR2.80T2R	3370WBA-2.80T2R
BG28W	44-6-B-LF-LN-M	MWA250CR2.80TM2.5R	3370MWBA-2.80TM2.5R
BJ28D	44-6-B-LF-LN-L	WA250CR2.80HLR	3370WBA-2.80HLR
BN28D	44-6-B-LF-LNAL	WA250CR2.80LR	3370WBA-2.80LR
BT28D	44-6-B-LF-LNTL	WA250CR2.80T0LR	3370WBA-2.80T0LR
BV28D	44-6-B-LF-LNSL	WA250CR2.80T2LR	3370WBA-2.80T2LR
BG28D	44-6-B-LF-LNML	MWA250CR2.80TM2.5LR	3370MWBA-2.80TM2.5LR
CJ28	44-6-LN	250CR2.80HR	3370CG-2.80HR
CN28	44-6-LN-A	250CR2.80R	3370CG-2.80R
CT28	44-6-LN-T	250CR2.80T0R	3370CG-2.80T0R
CV28	44-6-LN-S	250CR2.80T2R	3370CG-2.80T2R
CG28	44-6-LN-M	M250CR2.80TM2.5R	3370MCG-2.80TM2.5R
CJ28E	44-6-LN-L	250CR2.80HLR	3370CG-2.80HLR
CN28E	44-6-LN-A-L	250CR2.80LR	3370CG-2.80LR
CT28E	44-6-LN-T-L	250CR2.80T0LR	3370CG-2.80T0LR
CV28E	44-6-LN-S-L	250CR2.80T2LR	3370CG-2.80T2LR
CG28E	44-6-LN-M-L	M250CR2.80TM2.5LR	3370MCG-2.80TM2.5LR

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/15	Vendor similar designator or type part number 1/		
	CAGE 61081 2/	CAGE 61081 3/	CAGE 5BG68
CJ28W	44-6-LF-LN	W250CR2.80HR	3370WCG-2.80HR
CN28W	44-6-LF-LN-A	W250CR2.80R	3370WCG-2.80R
CT28W	44-6-LF-LN-T	W250CR2.80T0R	3370WCG-2.80T0R
CV28W	44-6-LF-LN-S	W250CR2.80T2R	3370WCG-2.80T2R
CG28W	44-6-LF-LN-M	MW250CR2.80TM2.5R	3370MWCG-2.80TM2.5R
CJ28D	44-6-LF-LN-L	W250CR2.80HLR	3370WCG-2.80HLR
CN28D	44-6-LF-LN-A-L	W250CR2.80LR	3370WCG-2.80LR
CT28D	44-6-LF-LN-T-L	W250CR2.80T0LR	3370WCG-2.80T0LR
CV28D	44-6-LF-LN-S-L	W250CR2.80T2LR	3370WCG-2.80T2LR
CG28D	44-6-LF-LN-M-L	MW250CR2.80TM2.5LR	3370MWCG-2.80TM2.5LR
HJ28	44-6-B3-LN	HA250CR2.80HR	3370BH-2.80HR
HN28	44-6-B3-LN-A	HA250CR2.80R	3370BH-2.80R
HT28	44-6-B3-LN-T	HA250CR2.80T0R	3370BH-2.80T0R
HV28	44-6-B3-LN-S	HA250CR2.80T2R	3370BH-2.80T2R
HG28	44-6-B3-LN-M	MHA250CR2.80TM2.5R	3370MBH-2.80TM2.5R
HJ28E	44-6-B3-LN-L	HA250CR2.80HLR	3370BH-2.80HLR
HN28E	44-6-B3-LN-A-L	HA250CR2.80LR	3370BH-2.80LR
HT28E	44-6-B3-LN-T-L	HA250CR2.80T0LR	3370BH-2.80T0LR
HV28E	44-6-B3-LN-S-L	HA250CR2.80T2LR	3370BH-2.80T2LR
HG28E	44-6-B3-LN-M-L	MHA250CR2.80TM2.5LR	3370MBH-2.80TM2.5LR
HJ28W	44-6-B3-LF-LN	WHA250CR2.80HR	3370WBH-2.80HR
HN28W	44-6-B3-LF-LNA	WHA250CR2.80R	3370WBH-2.80R
HT28W	44-6-B3-LF-LNT	WHA250CR2.80T0R	3370WBH-2.80T0R
HV28W	44-6-B3-LF-LNS	WHA250CR2.80T2R	3370WBH-2.80T2R
HG28W	44-6-B3-LF-LNM	MWHA250CR2.80TM2.5R	3370MWBH-2.80TM2.5R
HJ28D	44-6-B3-LF-LNL	WHA250CR2.80HLR	3370WBH-2.80HLR
HN28D	44-6-B3-LFLNAL	WHA250CR2.80LR	3370WBH-2.80LR
HT28D	44-6-B3-LFLNLT	WHA250CR2.80T0LR	3370WBH-2.80T0LR
HV28D	44-6-B3-LFLNSL	WHA250CR2.80T2LR	3370WBH-2.80T2LR
HG28D	44-6-B3-LFLNML	MWHA250CR2.80TM2.5LR	3370MWBH-2.80TM2.5LR

See footnotes at end of table.

TABLE III. Commercial part number supersession data – Continued.

PIN designator AA59590/15	Vendor similar designator or type part number <u>1/</u>		
	CAGE 61081 <u>2/</u>	CAGE 61081 <u>3/</u>	CAGE 5BG68
RJ28	44-6-CC-LN	R250CR2.80HR	3370CC-2.80HR
RN28	44-6-CC-LN-A	R250CR2.80R	3370CC-2.80R
RT28	44-6-CC-LN-T	R250CR2.80T0R	3370CC-2.80T0R
RV28	44-6-CC-LN-S	R250CR2.80T2R	3370CC-2.80T2R
RG28	44-6-CC-LN-M	MR250CR2.80TM2.5R	3370MCC-2.80TM2.5R
RJ28E	44-6-CC-LN-L	R250CR2.80HLR	3370CC-2.80HLR
RN28E	44-6-CC-LN-A-L	R250CR2.80LR	3370CC-2.80LR
RT28E	44-6-CC-LN-T-L	R250CR2.80T0LR	3370CC-2.80T0LR
RV28E	44-6-CC-LN-S-L	R250CR2.80T2LR	3370CC-2.80T2LR
RG28E	44-6-CC-LN-M-L	MR250CR2.80TM2.5LR	3370MCC-2.80TM2.5LR
RJ28W	44-6-CC-LF-LN	WR250CR2.80HR	3370WCC-2.80HR
RN28W	44-6-CC-LF-LNA	WR250CR2.80R	3370WCC-2.80R
RT28W	44-6-CC-LF-LNT	WR250CR2.80T0R	3370WCC-2.80T0R
RV28W	44-6-CC-LF-LNS	WR250CR2.80T2R	3370WCC-2.80T2R
RG28W	44-6-CC-LF-LNM	MWR250CR2.80TM2.5R	3370MWCC-2.80TM2.5R
RJ28D	44-6-CC-LF-LNL	WR250CR2.80HLR	3370WCC-2.80HLR
RN28D	44-6-CC-LFLNAL	WR250CR2.80LR	3370WCC-2.80LR
RT28D	44-6-CC-LFLNLT	WR250CR2.80T0LR	3370WCC-2.80T0LR
RV28D	44-6-CC-LFLNSL	WR250CR2.80T2LR	3370WCC-2.80T2LR
RG28D	44-6-CC-LFLNML	MWR250CR2.80TM2.5LR	3370MWCC-2.80TM2.5LR

1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in [A-A-59590](#).

2/ PINs listed are for CAGE [61081](#) (1).

3/ PINs listed are for CAGE [61081](#) (2).

PIN length examples. The CID PINs listed in table IV are for all available standard card holder lengths for this specification sheet. However, only one specific finish, mounting and configuration are listed (see PIN example for a break-down of the codes).

TABLE IV. Example of PIN with available length designators.

PIN designator AA59590/15	Vendor similar designator or type part number <u>1/</u> <u>2/</u>		
	CAGE 61081 <u>3/</u>	CAGE 61081 <u>4/</u>	CAGE 5BG68
HJ28W	44-6-B3-LF-LN	WHA250CR2.80HR	3370WBH-2.80HR
HJ33W	44-7-B3-LF-LN	WHA250CR3.30HR	3370WBH-3.30HR
HJ38W	44-8-B3-LF-LN	WHA250CR3.80HR	3370WBH-3.80HR
HJ43W	44-9-B3-LF-LN	WHA250CR4.30HR	3370WBH-4.30HR
HJ48W	44-10-B3-LF-LN	WHA250CR4.80HR	3370WBH-4.80HR
HK53W	44-11-B3-LF-LN	WHA250CR5.30EHR	3370WBH-5.30EHR
HK58W	44-12-B3-LF-LN	WHA250CR5.80EHR	3370WBH-5.80EHR

- 1/ The manufacturer's part number shall not be used for procurement to the requirements of this CID specification sheet. At the time of preparation of this CID specification sheet, the aforementioned commercial products were reviewed and could be replaced by the CID PIN shown. For actual part marking requirements, see the marking paragraph in [A-A-59590](#).
- 2/ Other lengths are available on request.
- 3/ PINs listed are for CAGE [61081](#) (1).
- 4/ PINs listed are for CAGE [61081](#) (2).

Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

MILITARY INTERESTS:

Custodians:
 Army – CR
 Navy – EC
 Air Force – 85
 DLA – CC

Review Activity:
 Air Force – 99

CIVIL AGENCY COORDINATING ACTIVITY:

GSA – FAS

Preparing Activity:
 DLA – CC

Project 5998-2015-005

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.