INCH-POUND

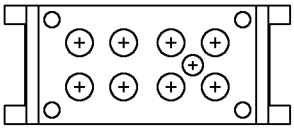
MIL-DTL-12883/52B
18 February 2003
SUPERSEDING
MIL-PRF-12883/52A
28 June 1996

DETAIL SPECIFICATION SHEET

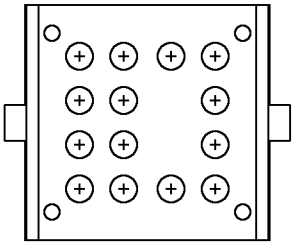
SOCKETS AND ACCESSORIES FOR PLUG-IN ELECTRONIC COMPONENTS SOCKET ASSEMBLY FOR RELAYS, 2, 3, AND 4-POLE, TRACK MOUNT (MIL-PRF-6106, MIL-PRF- 83536, AND MIL-PRF-83726)

This specification is approved for use by all Departments and Agencies of the Department of Defense.

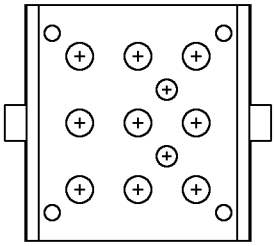
The requirements for acquiring the product described herein shall consist of this specification and MIL-DTL-12883.



CONFIGURATION "A"



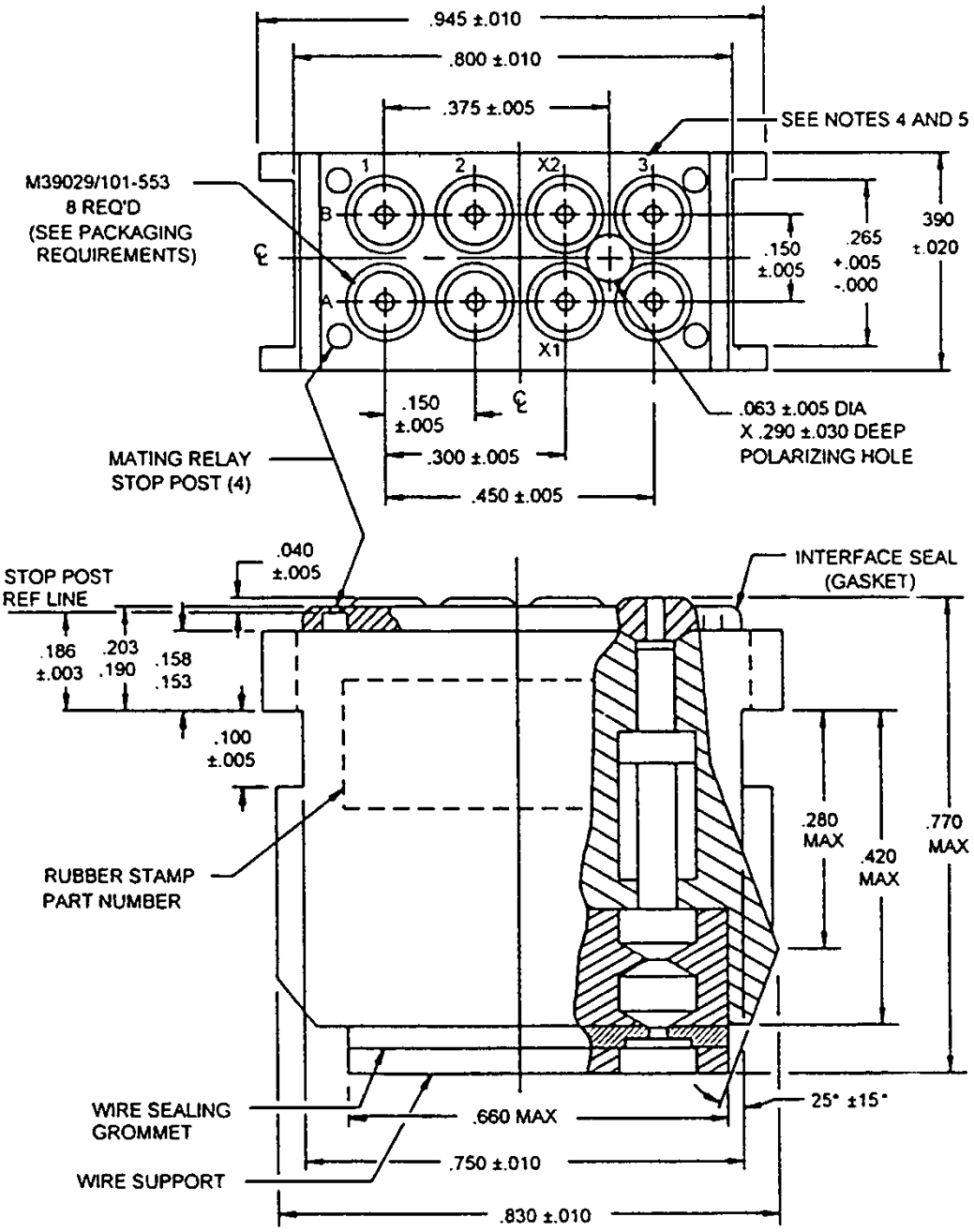
CONFIGURATION "B"



CONFIGURATION "C"

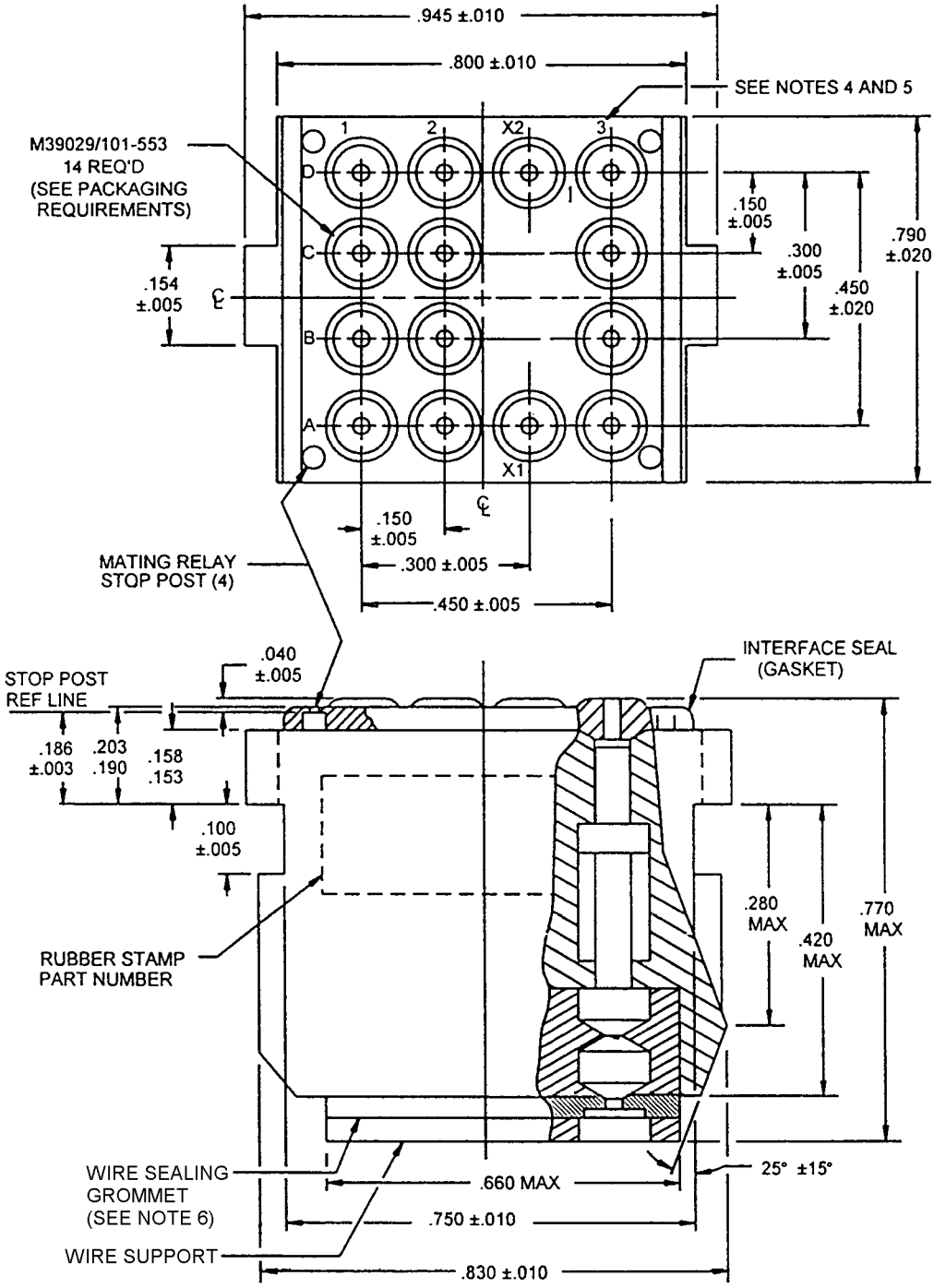
FIGURE 1. Socket configurations.

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.



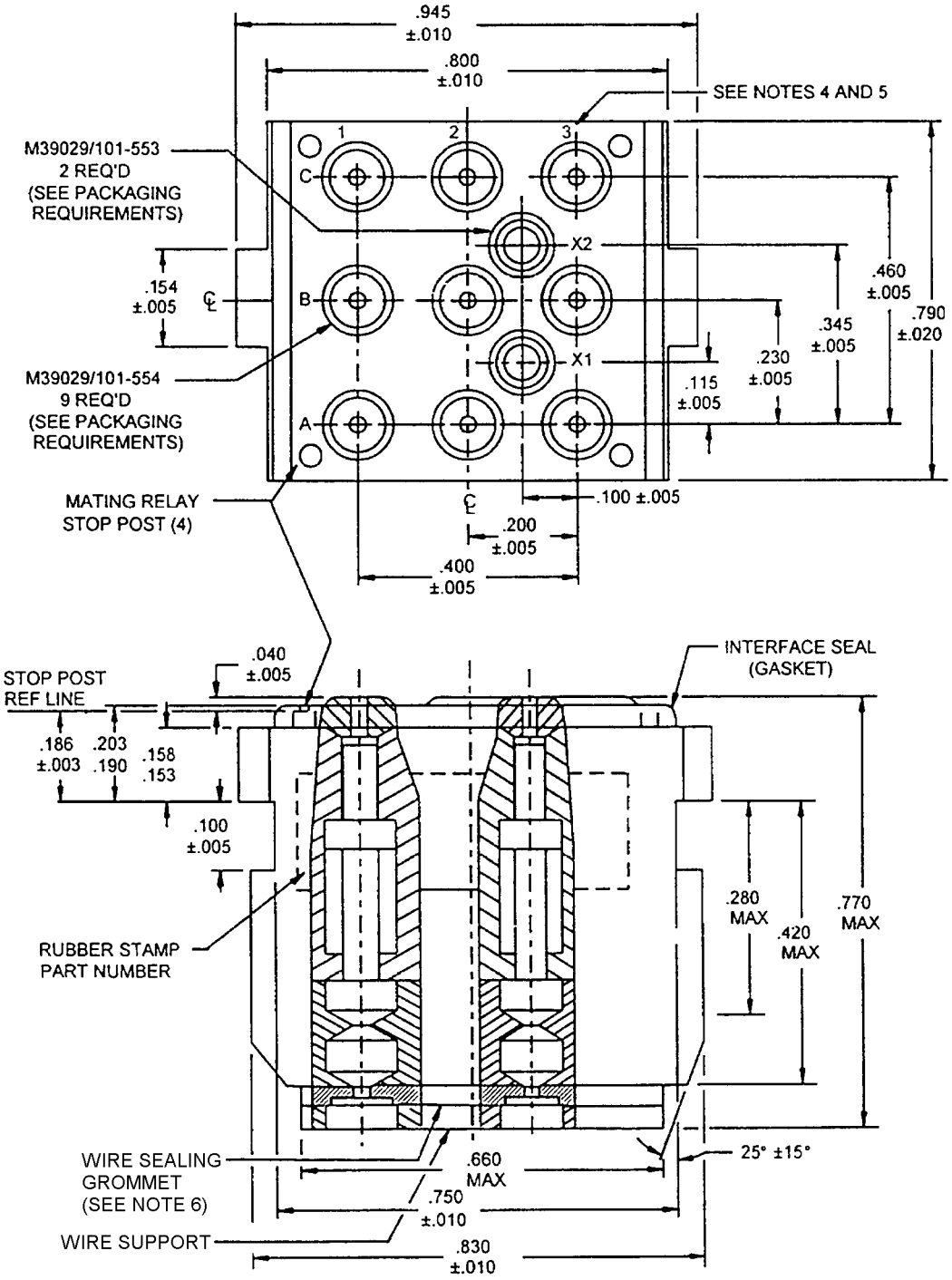
CONFIGURATION A

FIGURE 1. Socket configurations – Continued.



CONFIGURATION B

FIGURE 1. Socket configurations – Continued.



CONFIGURATION C

FIGURE 1. Socket configurations – Continued.

Inches	mm	Inches	mm	Inches	mm
.003	0.08	.154	3.91	.390	9.90
.005	0.13	.158	4.01	.420	10.67
.010	0.25	.186	4.72	.450	11.43
.020	0.51	.190	4.83	.460	11.70
.040	1.02	.203	5.16	.660	16.76
.063	1.60	.230	5.84	.750	19.05
.100	2.54	.265	6.73	.770	19.56
.115	2.92	.280	7.11	.790	20.10
.150	3.81	.300	7.62	.800	20.32
.153	3.89	.345	8.76	.830	21.08
		.375	9.53	.945	24.00

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Unless otherwise specified, tolerances are ± .005 inch (0.13 mm) for three place decimals and ± .01 inch (0.25 mm) for two place decimals.
4. Location of characters about their respective hole is optional both near and far side.
5. Marking shall be characters which are molded 0.47 inch (1.19 mm) minimum high characters and raised .005 - .008 inch (0.13 – 0.02 mm).
6. Blue sealing grommet or blue stripe marking (both broad sides) for rear release contacts.

FIGURE 1. Socket configurations – Continued.

REQUIREMENTS:

Design and construction: See figure 1.

Housing and wire support: The material shall be a hard non-resilient, non-metallic material having electrical and mechanical characteristics capable of complying with the requirements of this specification.

Color: Color shall be optional providing that the color provides a contrasting background for the blue sealing grommet or blue color bands indicating rear release contacts.

Grommet and interface seal: The grommet and interface seal shall be silicone rubber.

The shore (durometer) hardness of the interface seal (gasket) is 40 ± 5.

Wire sealing range:

a. #20 AWG - .040 to .083 inch (1.02 to 2.11 mm).
b. #16 AWG - .053 to 1.03 inch (1l.35 to 2.62 mm).

Applicable relay: See table I.

Mounting track: M12883/53-001.

Socket contacts: See table I and figure 1.

Insertion and withdrawal force: See table I.

Altitude immersion: Applicable in accordance with MIL-DTL-12883.

Dielectric withstanding voltage (in socket module only, after installation of contacts, contact to contact):

At 25ºC: 1500 V rms.
At 80,000 feet (24.4 km): 700 V rms.

Operating temperature range: -70ºC to +125ºC.

Weight including contacts:

Configuration A, .247 ounce (7 grams) max.
Configuration B, .494 ounce (14 grams) max.
Configuration C, .494 ounce (14 grams) max.

Packaging: Socket assembly and contacts shall be packaged in separate packages within a common container.

Part or Identifying Number (PIN): The PIN shall consist of the basic number of this specification sheet and the dash number from table I.

Example:

M12883/52 -001

Basic document number

Dash number (see table I)

TABLE I. Dash number and characteristics. 1/

Dash no.	Configuration	Applicable relay	Applicable socket contacts M39029/	Initial 2/ 3/ insertion force pounds (Newton)	Initial withdrawal 4/ force pounds (Newton)	
					(max)	(min)
001	A	M83536/2-028 M83726/24, 25	101-553	30 (133.45)	9 (40.03)	.35 (1.56)
002	B	M83536/6-025	101-553	45 (200.17)	16 (21.17)	.61 (2.17)
003	C	M83536/22-025	101-554 101-553	45 (200.17	19.3 (85.85)	1.2 (5.34)

1/ Reference MIL-PRF-83526 for supersession data on MIL-PRF-6106 relays.
2 Insert mating relay in a straight, downward manner into the socket contained in the mounting bracket until relay is flush against socket face.
3/ To latch and lock relay against the socket, first apply a downward force on the relay end adjacent to one side of the bracket latches until the relay tab(s) are properly locked into the latch(es). Repeat the procedure to the opposite end of the relay to fully lock the relay in place.
4/ To release and remove the relay from the socket and the mounting bracket, use removal tool A-A-59546-001.

Tools: See A-A-59546 and A-A59547 and the following:

a. Number 20 wire barrel, configurations A, B, C (-001, -002, -003).

Crimping M22520/1-01, /7-12
Positioner M22520/7-12
Installing removal M81969/16-01

b. Number 16 wire barrel, configuration C (-003) only.

Crimping M22520/7-01
Positioner M22520/7-12
Installing removal M81969/16-02

Group A inspection: Group A inspection shall consist of the test shown in MIL-DTL-12883.

Supersession data: See table II.

TABLE II. Supersession data. 1/

Superseded dash number M6106-23-	Superseding PIN
001	M12883/52-001
002	M12883/52-002
003	M12883/52-003

1/ For Government logistics support, supersession data becomes applicable when a qualified products list becomes available.

The Government PIN, specified in table IV, supersedes the following commercial PINs.

TABLE III. Supersession and cross reference.

Active Government PIN	Superseded manufacturers PIN	
	CAGE 58982	CAGE 99699
M12883/52-001	RSE116175	SE205-17
M12883/52-002	RSE116185	SE405-23
M12883/52-003	RSE116195	SE310-2

CONCLUDING MATERIAL

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Review activities:
Army - MI
Air Force - 99

Preparing activity:
DLA - CC

(Project 5935-4344-17)