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IMPORTANT NOTICE

The tooling suggested herein may not cover a user's specific contract or manufacturing requirements. It is the user's responsibility to carry out sufficient testing to verify the suitability of the DMC product selected for the specific requirements of each particular application. DMC is not liable for consequential or special damages of any nature or kind resulting from the use of any of our products.

Verbally quoted prices, or any prices, appearing in printed price lists, are subject to change without prior notice.

If you need firm prices for future deliveries, you should request a written quotation from our sales office.

**LIMITED WARRANTY
SEE PAGE 38**

ADAPTOR TOOLS



The central element of the Daniels Manufacturing Corp. Beta connector accessory tool product line is the adaptor tool. This unique device is configured in such a manner as to mate perfectly with the corresponding circular connector keying pattern. It, therefore, can be used to hold the connector in a stationary position while the accessory components are being installed or removed. Many keying arrangements and shell sizes are utilized in high reliability wiring systems and great care must be exercised when selecting and using the Beta adaptor tool. DMC has made great effort to combine the

most possible applications into each adaptor tool design, thereby minimizing the tool requirements for overall system support. Many other important benefits are designed into DMC Beta adaptor tools.

SINGLE TOOL FOR MULTIPLE KEYING POSITIONS

When multiple keying positions exist within a specific shell size (Diameter), DMC engineers have designed each adaptor tool to accommodate as many variations as possible. Most adaptors will mate with six or more connectors having different keying positions. When compared with dummy receptacles or other connector holding devices, this flexibility is not possible.

MULTIPLE KEY ENGAGEMENT

The critical platings and delicate nature of connector keys are a prime consideration in the design of a secure connector holding system. Therefore, in all cases where the basic connector configuration permits, multiple key engagement is utilized. This allows

torque to be applied to a greater surface area and over a larger portion of the circumference of the connector.

ADAPTORS ARE AVAILABLE FOR BOTH PLUGS AND RECEPTACLES

The rotating coupling mechanism found on most plug connectors is the primary factor which prompted the original adaptor tool design; however, many users currently realize the benefits of adaptor tools when assembling or servicing receptacle connectors. DMC has both versions available for most circular connector series.

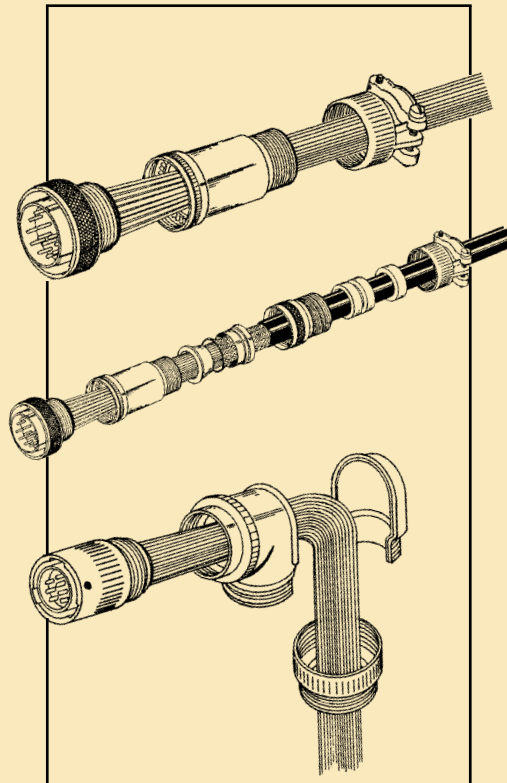
STANDARD SQUARE DRIVE MOUNTING

All DMC adaptor tools are made with a standard square drive (either 3/8" or 1/4") socket for easy utilization with common torque measuring devices or other tooling. This eliminates the need for special mounting fixtures or other considerations common to the use of dummy receptacles and similar equipment.

CIRCULAR CONNECTORS AND THEIR ACCESSORIES

The evolution of electrical connectors has seen many changes in design configuration and utilization of many varieties of materials to meet the needs of their intended application. Backshells, strain reliefs, and other connector accessories have been a vital factor in that enduring evolutionary process.

Most connector manufacturers and suppliers offer a limited variety of connector accessories. But, the specific needs of aerospace designers has fostered a connector accessory industry comprised of many dynamic manufacturers, with extensive product lines dedicated solely to components which extend the connector's performance capabilities. This variety



of products offers the equipment designer total flexibility in the packaging of electronic wiring systems.

In the past two decades special considerations such as the shielding of electrical circuits from interference generated by radar systems, communication equipment, electrical fields, nuclear fields and harsh environmental conditions, have required accessory suppliers to develop multi-piece components which have very specific assembly and maintenance requirements. The demand for advanced tool capabilities is a critical element in the utilization of these sophisticated backshell systems.

QUICK REFERENCE TOOLING GUIDE

CONNECTOR IDENTIFICATION	ADAPTOR TOOL SETS		COLOR REFERENCE	PAGE
	PLUG	RECEPTACLE		
MIL-C-5015	CM-S-5015	CM-S-5015R	CHROME	5
MIL-C-22992 CLASS C,J,R	CM-S-229	N/A	BROWN	6
MIL-C-22992 CLASS L	CM-S-229L	N/A	BLACK	7
MIL-C-26482 SERIES 1 & 2	CM-S-264	CM-S-264R	ORANGE	8
MIL-C-26500	CM-S-837	CM-S-837RB*	GREEN	9
MIL-C-28840	CM-S-288	CM-S-288R	WHITE	10
MIL-C-38999 SERIES I	CM-S-389L	CM-S-389LR	BLUE	11
MIL-C-38999 SERIES II	CM-S-389S	CM-S-264R	GRAY/ORANGE	12
MIL-C-38999 SERIES III	CM-S-389T	CM-S-389TR	LAVENDER	13
MIL-C-38999 SERIES IV	CM-S-389B	CM-S-389BR	BEIGE	14
MIL-C-81511 SERIES 1 & 3	CM-S-815L	CM-S-815R	YELLOW	15
MIL-C-81511 SERIES 2 & 4	CM-S-815S	CM-S-815R	RED	16
MIL-C-83723 SERIES I	CM-S-264	CM-S-264R	ORANGE	17
MIL-C-83723 SERIES II	CM-S-5015	CM-S-5015R	CHROME	18
MIL-C-83723 SERIES III	CM-S-837	CM-S-837RB*	GREEN	19
PATTERN 602	CM-S-602	CM-S-264R	PURPLE	20
PATTERN 615	CM-S-SJT	CM-S-264R	GOLD	21

*BAYONET COUPLINGS ONLY – THREADED RECEPTACLE SETS ARE NOT AVAILABLE.
 N/A – Not available at time of printing. Consult factory.

SIMPLE ORIENTATION TO THE CONNECTOR

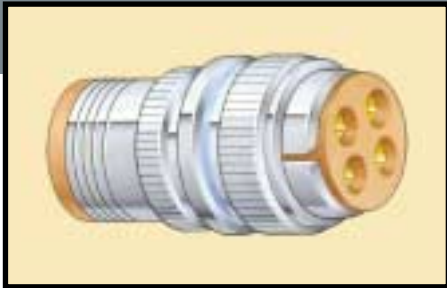
All adaptor tools have an indicator (Dot) which visually orients it with the master key on the connector. This enables the user to orient the two components for mating without trial and error fumbling.

ECONOMICAL, RELIABLE, AND AVAILABLE

There is not a precision system for holding circular connectors available anywhere which is more economical, reliable, or readily available to meet your needs than the DMC Beta adaptor tools.



MIL-C-5015 SERIES MS3100, MS3400 & MS3450



MANUFACTURER:

AERO ELECTRIC
AMPHENOL
BENDIX

BURNDY
CONNECTOR INDUSTRIES
DETRONICS
ELECTRONIC SEALS
FLIGHT CONNECTOR
GLASSEAL
HERMETIC SEAL CORP.
ITT CANNON

MATRIX SCIENCE
IPI (SAE)
SEALTRON
VEAM/LITTON

SERIES:

AE55, AE723
69, 72, 97, 157, 172, 173, 179, 208, 238 246
BT-M, BT-RA, HT, SCP, TBF, 10-72, 10-214, 10-244, 10-741,
10-747, 10-873, 10-874, 5015
LM*C
A
DS
5015
FC, FH, FF0, FF5, FZC, FZH
GSP
HS06, S*A-2000, 2000
BFH, BFR, CA, CA-EA, CA-EB, CA-HR, CA-KE, CA-RX, CV,
CVA, EX-A, FRA, FRF, FVA, FVF, FW, GS, MR, TBF, TBFH, WFS
MFR, M723, 944, 981
M0, M5, SA
6000, 8000
VE, VS, VTFB, 10/71, 75

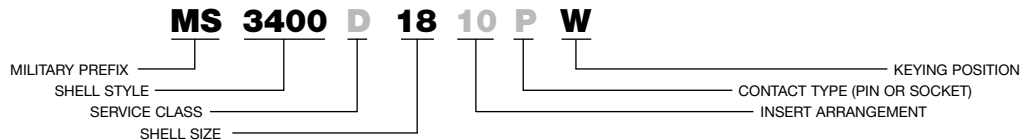
SPECIFICATIONS:

COUPLING METHOD: THREADED (MS3107,
MS3507 QUICK
DISCONNECT)
KEYING POSITIONS: BLANK (NORMAL),
W, X, Y, Z
**ALTERNATE KEYING
METHOD:** ROTATION OF INSERT
WITHIN SHELL – KEY
REMAINS STATIONARY
EMI/RFI GROUNDING: NO

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Cadmium Olive Drab Nickel Cadmium Olive Drab Over Nickel
WROUGHT ALUMINUM	Cadmium Olive Drab Over Nickel
STEEL	Cadmium Olive Drab Nickel
STAINLESS STEEL	Cadmium Black Passivated

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

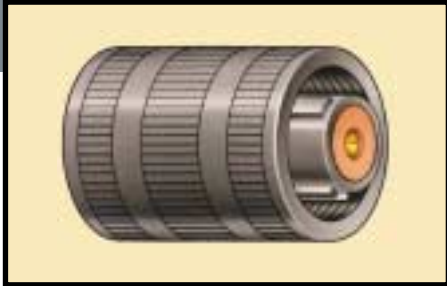
PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
MS3106 /Straight	8	ALL	CM5015-8	CHROME	MS3100 /Wall mount	8	ALL	CM5015R-8	CHROME
MS3107 /Quick disconnect	10	ALL	CM5015-10	CHROME	MS3101 /In-line	10	ALL	CM5015R-10	CHROME
MS3108 /90° angle	12	ALL	CM5015-12	CHROME	MS3102 /Box mount	12	ALL	CM5015R-12	CHROME
MS3436 /Straight	14	ALL	CM5015-14	CHROME	MS3103 /Wall mount, potting seal	14	ALL	CM5015R-14	CHROME
MS3507 /Quick disconnect	16	ALL	CM5015-16	CHROME	MS3142 /Box mount, hermetic seal	16	ALL	CM5015R-16	CHROME
MS25183 /Straight, potting seal	18	ALL	CM5015-18	CHROME	MS3143 /Solder mount, hermetic seal	18	ALL	CM5015R-18	CHROME
MS25183A /Straight, potting seal, with ground lug	20	ALL	CM5015-20	CHROME	MS3400 /Wall mount	20	ALL	CM5015R-20	CHROME
MS3406 /Straight	22	ALL	CM5015-22	CHROME	MS3401 /In-line	22	ALL	CM5015R-22	CHROME
MS3408 /90° angle	24	ALL	CM5015-24	CHROME	MS3402 /Box mount	24	ALL	CM5015R-24	CHROME
MS3409 /45° angle	28	ALL	CM5015-28	CHROME	MS3404 /*Jam nut	28	ALL	CM5015R-28	CHROME
MS3456 /Straight	32	ALL	CM5015-32	CHROME	MS3412 /Box mount, threaded rear skirt	32	ALL	CM5015R-32	CHROME
MS3459 /Straight self-locking coupling nut	36	ALL	CM5015-36	CHROME	MS3450 /Wall mount	36	ALL	CM5015R-36	CHROME
	40	ALL	CM5015-40	CHROME	MS3451 /In-line	40	ALL	CM5015R-40	CHROME
	44	ALL	CM5015-44	CHROME	MS3452 /Box mount	44	ALL	CM5015R-44	CHROME
	48	ALL	CM5015-48	CHROME	MS3454 /*Jam nut	48	ALL	CM5015R-48	CHROME

*Consult factory for "SL" Series.

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-5015	15	8 THRU 48
CM-S-5015S	10	8 THRU 28
CM-S-5015M	5	32 THRU 48

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-5015R	15	8 THRU 48
CM-S-5015RS	10	8 THRU 28
CM-S-5015RM	5	32 THRU 48

MIL-C-22992 CLASS C, J & R



MANUFACTURER:
BENDIX
ITT CANNON

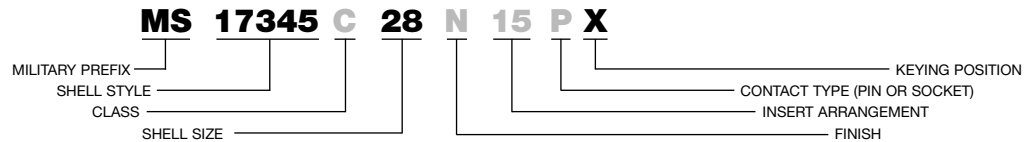
SERIES:
HK, QWLD (10-194), 88-194
CWLD

SPECIFICATIONS:
COUPLING METHOD: QUICK DISCONNECT –
THREADED COUPLING
RINGS
KEYING POSITIONS: BLANK (NORMAL),
W, X, Y, Z
**ALTERNATE KEYING
METHOD:** ROTATION OF INSERT
WITHIN SHELL – KEYS
REMAIN STATIONARY
EMI/RFI GROUNDING: NO

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Hard Black Anodize Cadmium Olive Drab Over Nickel

**TYPICAL CONNECTOR
PART NUMBER
BREAKDOWN**



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
MS17344 /Plug	12	ALL	CM229-12	BROWN	MS17343 /Wall mount MS17345 /In-line MS17346 /Box mount MS17347 /Jam nut wall mount MS17348 /Jam nut box mount	12	-	N/A	-
	14	ALL	CM229-14	BROWN		14	-	N/A	-
	16	ALL	CM229-16	BROWN		16	-	N/A	-
	18	ALL	CM229-18	BROWN		18	-	N/A	-
	20	ALL	CM229-20	BROWN		20	-	N/A	-
	22	ALL	CM229-22	BROWN		22	-	N/A	-
	24	ALL	CM229-24	BROWN		24	-	N/A	-
	36	ALL	CM229-36	BROWN		32	-	N/A	-
	40	ALL	CM229-40	BROWN		36	-	N/A	-
					40	-	N/A	-	

NOTE: For shell sizes 28, 32, 44 see Class "L", Page 6.

NA (Not available at time of printing – consult factory)

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-229	9	12 THRU 40	N/A	-	-

MIL-C-22992 CLASS L



MANUFACTURER:
AMPHENOL
BENDIX
BURNDY
MATRIX SCIENCE

SERIES:
229
10-473
B555, B556, B557, B558
MHD

SPECIFICATIONS:

COUPLING METHOD: QUICK DISCONNECT –
THREADED COUPLING
RINGS

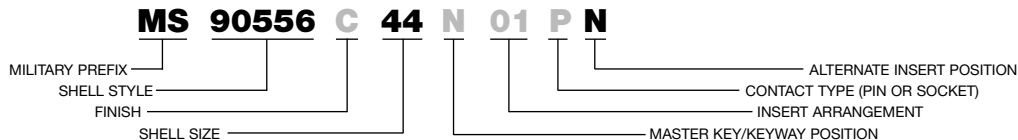
KEYING POSITIONS: N (NORMAL), W, X, Y
**ALTERNATE KEYING
METHOD:** ROTATION OF INSERT
WITHIN SHELL – KEYS
REMAIN STATIONARY

EMI/RFI GROUNDING: NO

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Hard Black Anodize Cadmium Olive Drab Over Nickel

**TYPICAL CONNECTOR
PART NUMBER
BREAKDOWN**



ADAPTOR TOOLS

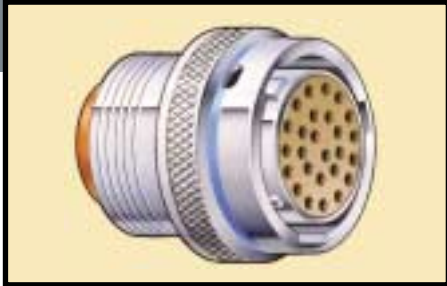
PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
MS90556 /Straight MS90558 /Wall mount	28	ALL	CM229L-28	BLACK	MS90555 /Wall mount MS90557 /In-line	28	-	N/A	-
	32	ALL	CM229L-32	BLACK		32	-	N/A	-
	44	ALL	CM229L-44	BLACK		44	-	N/A	-
	48	ALL	CM229L-48	BLACK		48	-	N/A	-
	52	ALL	CM229L-52	BLACK		52	-	N/A	-

NA (Not available at time of printing – consult factory)

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-229L	5	28 THRU 52

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
N/A	-	-

MIL-C-26482 SERIES I & II



MANUFACTURER:	SERIES:
AERO ELECTRIC	AE77
AMPHENOL	118
BENDIX	DC, FPT(21-), PT, PT*CE, SP*CE, PT*SE, PTS*DR, SP
BURNDY	BT, L*T
CONNECTOR INDUSTRIES	C, K
DETORONICS	DT
DEUTSCH	AFD, DBC, RBC, 450, 460, 810, 880
ELECTRONIC SEALS	9-
GENERAL CONNECTOR	GC, GC*C
GLASSEAL	BE, GB
HERMETIC SEAL CORP.	S*A-7000, 7000
ITT CANNON	KPD, KPSE, KSSE, KP*, KS*, KPT, KSP, KPTM, KSPM PV, PVA, PVJ, PVW, PVX
MATRIX SCIENCE	MB1
SEALTRON	6300, 8100, 8300
S.E.C.	PW
SOURIAU	851, 851*R, 8526
VEAM/LITTON	VPT, VPT*SE, VUT

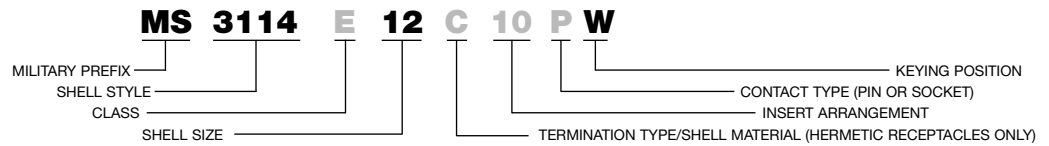
SPECIFICATIONS:

COUPLING METHOD: BAYONET
KEYING POSITIONS: BLANK (NORMAL), W, X, Y, Z
ALTERNATE KEYING METHOD: ROTATION OF INSERT KEYS REMAIN STATIONARY
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Hard Anodize – Gray/Black Cadmium Olive Drab Cadmium Olive Drab Over Nickel
STEEL	Tin

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
MS3116 /Straight	8	ALL	CM264-8	ORANGE	MS3110 /Wall mount	8	ALL	CM264R-8	ORANGE
MS3126 /Straight	10	ALL	CM264-10	ORANGE	MS3112 /Box mount	10	ALL	CM264R-10	ORANGE
MS3475 /Straight, RFI grounding	12	ALL	CM264-12	ORANGE	MS3113 /Hermetic seal solder mount	12	ALL	CM264R-12	ORANGE
MS3476 /Straight	14	ALL	CM264-14	ORANGE	MS3114 /Jam nut	14	ALL	CM264R-14	ORANGE
MS3111 /Straight	16	ALL	CM264-16	ORANGE	MS3119 /Thru-bulkhead	16	ALL	CM264R-16	ORANGE
MS3121 /Straight	18	ALL	CM264-18	ORANGE	MS3120 /Wall mount	18	ALL	CM264R-18	ORANGE
	20	ALL	CM264-20	ORANGE	MS3122 /Box mount	20	ALL	CM264R-20	ORANGE
	22	ALL	CM264-22	ORANGE	MS3124 /Jam nut	22	ALL	CM264R-22	ORANGE
	24	ALL	CM264-24	ORANGE	MS3127 /Large flange box mount	24	ALL	CM264R-24	ORANGE
					MS3128 /Large flange wall mount				
					MS3440 /Hermetic seal box mount				
					MS3442 /Wide flange hermetic seal box mount				
					MS3443 /Hermetic seal solder mount				
					MS3449 /Hermetic seal jam nut				
					MS3470 /Wall mount				
					MS3471 /In-line				
					MS3472 /Wide flange wall mount				
					MS3473 /Hermetic seal solder mount				
					MS3474 /Jam nut				
					MS3477 /Hermetic seal box mount				
					MS3479 /Hermetic seal jam nut				

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-264	9	8 THRU 24	CM-S-264R	9	8 THRU 24

MIL-C-26500



MANUFACTURER:
AMPHENOL
BOEING
CONNECTOR INDUSTRIES
DETRONICS
DEUTSCH
ELECTRONIC SEALS
GLASSEAL
HERMETIC SEAL CORP.
ITT CANNON
MATRIX SCIENCE
PYLE-NATIONAL
SEALTRON
SOURIAU
TRW

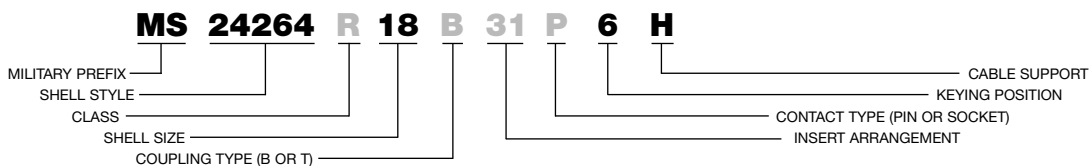
SERIES:
 48, 48-7005, 518
 BACC45F, BACC63
 26500
 DX
 DB, DL, 94603
 26500
 50
 26500
 HTMF
 MB3, MT3
 B, BFH, F, ZZ
 6500, 6600, 8500, 8600
 8530
 C48, CN0915, CN0930, CN0942, CN0966, CN0967, MMB

SPECIFICATIONS:
COUPLING METHOD: BAYONET OR THREADED
KEYING POSITIONS: N (NORMAL), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
ALTERNATE KEYING METHOD: INSERT ROTATION IN POSITIONS 1 THRU 5, MINOR KEYS ROTATE IN POSITIONS 6 THRU 10
EMI/RFI GROUNDING: NO

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Anodize - Gray/Black Cadmium
STAINLESS STEEL	Passivated
STEEL	Tin Cadmium

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
MS24266 /Straight	8	N, 8, 9	CM837-8A*	GREEN	MS24264 /Wall mount	8	ALL	CM837RB-8	GREEN
MS27615 /Straight	8	6, 7	CM837-8B*	GREEN	MS24265 /Jam nut	10	ALL	CM837RB-10	GREEN
	8	N, 8, 9	CM837-8C**	GREEN	MS27034 /Hermetic solder mount	12	ALL	CM837RB-12	GREEN
	8	6, 7	CM837-8D**	GREEN	MS27613 /Wall mount	14	ALL	CM837RB-14	GREEN
	10	N, 8, 9	CM837-10A	GREEN	MS27614 /Jam nut	16	ALL	CM837RB-16	GREEN
	10	6, 7, 10	CM837-10B	GREEN		18	ALL	CM837RB-18	GREEN
	12	N, 6, 8	CM837-12A	GREEN		20	ALL	CM837RB-20	GREEN
	12	7, 9, 10	CM837-12B	GREEN		22	ALL	CM837RB-22	GREEN
	14	N, 6, 8	CM837-14A	GREEN		24	ALL	CM837RB-24	GREEN
	14	7, 9, 10	CM837-14B	GREEN					
	16	N, 6, 8	CM837-16A	GREEN					
	16	7, 9, 10	CM837-16B	GREEN					
	18	N, 6, 8	CM837-18A	GREEN					
	18	7, 9, 10	CM837-18B	GREEN					
	20	N, 6, 8	CM837-20A	GREEN					
	20	7, 9, 10	CM837-20B	GREEN					
	22	N, 6, 8	CM837-22A	GREEN					
	22	7, 9, 10	CM837-22B	GREEN					
	24	N, 6, 8	CM837-24A	GREEN					
	24	7, 9, 10	CM837-24B	GREEN					
	28	N, 6, 8	CM837-28A	GREEN					
	28	7, 9, 10	CM837-28B	GREEN					

BAYONET COUPLINGS ONLY

* For bayonet coupling connectors only. **For threaded coupling connectors only.

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-837	22	8 THRU 28	CM-S-837RB	9	8 THRU 24

MIL-C-28840



MANUFACTURER:
G & H TECHNOLOGY
HUGHES
ITT CANNON
IPI (SAE)

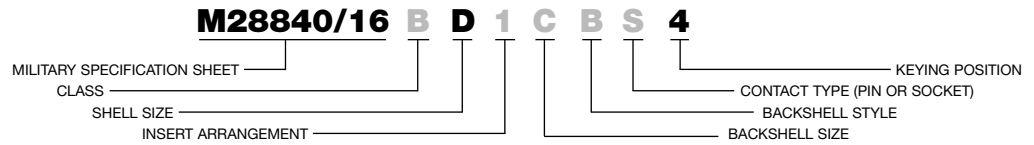
SERIES:
NC
GT, GS
KFS
HD

SPECIFICATIONS:
COUPLING METHOD: THREADED
KEYING POSITIONS: 1, 2, 3, 4, 5, 6
ALTERNATE KEYING METHOD: MASTER KEY REMAINS STATIONARY – MINOR KEYS ROTATE INDEPENDENTLY
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Cadmium Olive Drab Over Nickel
STEEL	Cadmium

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
M28840/16 / Straight	11(A)	1, 3, 5	CM288-11A	WHITE	M28840/10 / Wall mount	11(A)	1	CM288R-11A	WHITE
M28840/17 / Straight, straight strain relief	11(A)	2, 4, 6	CM288-11B	WHITE	M28840/11 / In-line	13(B)	1	CM288R-13A	WHITE
M28840/18 / Straight, 90° strain relief	13(B)	1, 3, 5	CM288-13A	WHITE	M28840/12 / Box mount	15(C)	1	CM288R-15A	WHITE
M28840/19 / Straight, 45° strain relief	13(B)	2, 4, 6	CM288-13B	WHITE	M28840/14 / Jam nut	17(D)	1	CM288R-17A	WHITE
M28840/26 / Straight, straight backshell for jacketed cable	15(C)	2, 3, 4	CM288-15A	WHITE	M28840/20 / Wall mount, EMI	19(E)	1	CM288R-19A	WHITE
	15(C)	1, 5, 6	CM288-15B	WHITE	M28840/21 / In-line, straight backshell for jacketed cable	23(F)	1	CM288R-23A	WHITE
M28840/28 / Straight, 90° backshell for jacketed cable	17(D)	2, 3, 4	CM288-17A	WHITE		25(G)	1	CM288R-25A	WHITE
	17(D)	1, 5, 6	CM288-17B	WHITE		29(H)	1	CM288R-29A	WHITE
M28840/29 / Straight, 45° backshell for jacketed cable	19(E)	2, 3, 4	CM288-19A	WHITE		33(J)	1	CM288R-33A	WHITE
	19(E)	1, 5, 6	CM288-19B	WHITE		11(A)	2, 3, 4, 5, 6	CM288R-11B	WHITE
	23(F)	2, 3, 4	CM288-23A	WHITE		13(B)	2, 3, 4, 5, 6	CM288R-13B	WHITE
	23(F)	1, 5, 6	CM288-23B	WHITE		15(C)	2, 3, 4, 5, 6	CM288R-15B	WHITE
	25(G)	2, 3, 4	CM288-25A	WHITE		17(D)	2, 3, 4, 5, 6	CM288R-17B	WHITE
	25(G)	1, 5, 6	CM288-25B	WHITE		19(E)	2, 3, 4, 5, 6	CM288R-19B	WHITE
	29(H)	2, 3, 4	CM288-29A	WHITE		23(F)	2, 3, 4, 5, 6	CM288R-23B	WHITE
	29(H)	1, 5, 6	CM288-29B	WHITE		25(G)	2, 3, 4, 5, 6	CM288R-25B	WHITE
	33(J)	2, 3, 4	CM288-33A	WHITE		29(H)	2, 3, 4, 5, 6	CM288R-29B	WHITE
	33(J)	1, 5, 6	CM288-33B	WHITE		33(J)	2, 3, 4, 5, 6	CM288R-33B	WHITE

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-288	18	11 THRU 33

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-288R	18	11 THRU 33

MIL-C-38999 SERIES I



MANUFACTURER:	SERIES:
AMPHENOL	416
BENDIX	LJT, 5388
CONNECTOR INDUSTRIES	G, P
DEUTSCH	CTC, DJT
ELECTRONIC SEALS	SERIES I
GLASSEAL	700
HERMETIC SEAL CORP.	900000
ITT CANNON	KJLL, KJL
MATRIX SCIENCE	MB91
PLESSEY	CT, LCT
SAE	HM (SERIES I)
SEALTRON	9700
SOURIAU	8LT

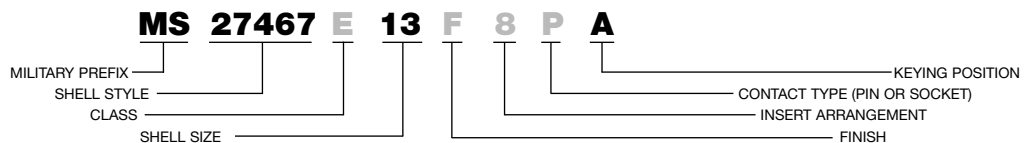
SPECIFICATIONS:

COUPLING METHOD: BAYONET
KEYING POSITIONS: BLANK (NORMAL),
 A, B, C, D
ALTERNATE KEYING METHOD: ROTATION OF MASTER
 KEY – MINOR KEYS
 REMAIN STATIONARY
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING
 FINGERS MAY NOT
 BE AVAILABLE ON
 ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Bright Cadmium Over Nickel Cadmium Olive Drab Over Nickel Anodize Nickel
STAINLESS STEEL	Passivated Nickel
STEEL	Fused Tin

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
MS27467 /Straight, EMI grounding	9	ALL	CM389L-9	BLUE	MS27466 /Wall mount	9	ALL	CM389LR-9	BLUE
MS27498 /90°	11	ALL	CM389L-11	BLUE	MS27468 /Jam nut	11	ALL	CM389LR-11	BLUE
MS27653 /Straight, EMI grounding	13	ALL	CM389L-13	BLUE	MS27469 /Hermetic wall mount	13	ALL	CM389LR-13	BLUE
MS27661 /Straight plug, lanyard release	15	ALL	CM389L-15	BLUE	MS27470 /Hermetic jam nut	15	ALL	CM389LR-15	BLUE
	17	ALL	CM389L-17	BLUE	MS27471 /Hermetic solder mount	17	ALL	CM389LR-17	BLUE
	19	ALL	CM389L-19	BLUE	MS27496 /Box mount	19	ALL	CM389LR-19	BLUE
	21	ALL	CM389L-21	BLUE	MS27505 /Box mount, (rear panel mounting)	21	ALL	CM389LR-21	BLUE
	23	ALL	CM389L-23	BLUE	MS27515 /Wall mount, (rear panel mounting)	23	ALL	CM389LR-23	BLUE
	25	ALL	CM389L-25	BLUE	MS27652 /Wall mount	25	ALL	CM389LR-25	BLUE
					MS27654 /Wall mount, (rear panel mounting)				
					MS27656 /Wall mount, (rear panel mounting)				
					MS27662 /Thru-bulkhead				

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-389L	9	9 THRU 25

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-389LR	9	9 THRU 25

MIL-C-38999 SERIES II



MANUFACTURER:	SERIES:
AMPHENOL	418
BENDIX	JT
CONNECTOR INDUSTRIES	G, H
DETRONICS	DJT
ELECTRONIC SEALS	SERIES II
GLASSEAL	800
HERMETIC SEAL CORP.	900000
ITT CANNON	KJ, KJJ
MATRIX SCIENCE	MB92
PLESSEY	CT
SAE	HM (SERIES II)
SEALTRON	9800
SOURIAU	8T

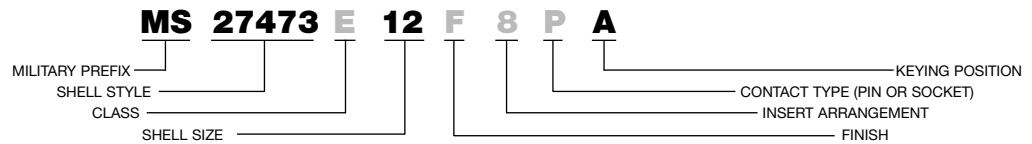
SPECIFICATIONS:

COUPLING METHOD: BAYONET
KEYING POSITIONS: BLANK (NORMAL), A, B, C, D
ALTERNATE KEYING METHOD: MASTER KEY ROTATES – MINOR KEYS REMAIN STATIONARY
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Nickel Bright Cadmium Over Nickel Cadmium Olive Drab Over Nickel Anodize
STAINLESS STEEL	Passivated Nickel
STEEL	Fused Tin

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
MS27473 /Straight	8	ALL	CM389S-8	GRAY	MS27472 /Wall mount	8	ALL	CM264R-8	ORANGE
MS27480 /Straight	10	ALL	CM389S-10	GRAY	MS27474 /Jam nut	10	ALL	CM264R-10	ORANGE
MS27484 /Straight, EMI grounding	12	ALL	CM389S-12	GRAY	MS27475 /Hermetic wall mount	12	ALL	CM264R-12	ORANGE
MS27500 /90°	14	ALL	CM389S-14	GRAY	MS27476 /Hermetic box nut	14	ALL	CM264R-14	ORANGE
	16	ALL	CM389S-16	GRAY	MS27477 /Hermetic jam mount	16	ALL	CM264R-16	ORANGE
	18	ALL	CM389S-18	GRAY	MS27478 /Hermetic solder mount	18	ALL	CM264R-18	ORANGE
	20	ALL	CM389S-20	GRAY	MS27479 /Wall mount	20	ALL	CM264R-20	ORANGE
	22	ALL	CM389S-22	GRAY	MS27481 /Jam mount	22	ALL	CM264R-22	ORANGE
	24	ALL	CM389S-24	GRAY	MS27482 /Hermetic wall mount	24	ALL	CM264R-24	ORANGE
					MS27483 /Hermetic jam nut				
					MS27497 /Wall mount, back panel mounting				
					MS27499 /Box mount				
					MS27503 /Hermetic solder mount				
					MS27504 /Box mount				
					MS27508 /Box mount, back panel mounting				
					MS27513 /Box mount, long grommet				
					MS27664 /Wall mount, back panel mounting				

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-389S	9	8 THRU 24	CM-S-264R	9	8 THRU 24

MIL-C-38999 SERIES III



MANUFACTURER:
BENDIX
DEUTSCH
ELECTRONIC SEALS
ITT CANNON
MATRIX SCIENCE
PLESSEY
PYLE-NATIONAL
SEALTRON

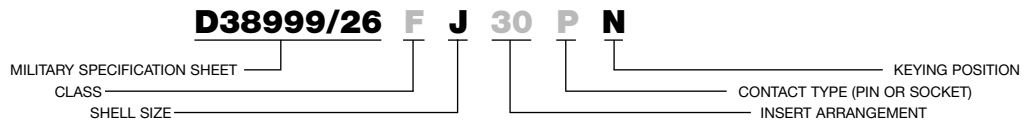
SERIES:
 TV, 5565
 DTS
 SERIES III
 KJA
 MT93
 TCT
 T3
 9900

SPECIFICATIONS:
COUPLING METHOD: THREADED, TRIPLE START SELF-LOCKING
KEYING POSITIONS: N (NORMAL), A, B, C, D, E
ALTERNATE KEYING METHOD: STATIONARY – MINOR KEYS ROTATE INDEPENDENTLY
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Anodize Nickel Cadmium Olive Drab
STEEL	Passivated Nickel

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
D38999/26 / Straight	9(A)	N, C, E	CM389T-9A	LAVENDER	D38999/20 / Wall mount	9(A)	N	CM389TR-9A	LAVENDER
D38999/29 / Lanyard release	9(A)	A, B, E	CM389T-9B	LAVENDER	D38999/21 / Hermetic seal box mount	11(B)	N	CM389TR-11A	LAVENDER
D38999/30 / Lanyard release	11(B)	N, D, E	CM389T-11A	LAVENDER	D38999/23 / Hermetic seal jam nut	13(C)	N	CM389TR-13A	LAVENDER
D38999/31 / Lanyard release	11(B)	A, B, C	CM389T-11B	LAVENDER	D38999/24 / Jam nut	15(D)	N	CM389TR-15A	LAVENDER
	13(C)	N, D, E	CM389T-13A	LAVENDER	D38999/25 / Hermetic seal solder mount	17(E)	N	CM389TR-17A	LAVENDER
	13(C)	A, B, C	CM389T-13B	LAVENDER	D38999/27 / Hermetic seal weld mount	19(F)	N	CM389TR-19A	LAVENDER
	15(D)	N, D, E	CM389T-15A	LAVENDER		21(G)	N	CM389TR-21A	LAVENDER
	15(D)	A, B, C	CM389T-15B	LAVENDER		23(H)	N	CM389TR-23A	LAVENDER
	17(E)	N, A, B	CM389T-17A	LAVENDER		25(J)	N	CM389TR-25A	LAVENDER
	17(E)	C, D, E	CM389T-17B	LAVENDER		9(A)	A, B, C, D, E	CM389TR-9B	LAVENDER
	19(F)	N, A, B	CM389T-19A	LAVENDER		11(B)	A, B, C, D, E	CM389TR-11B	LAVENDER
	19(F)	C, D, E	CM389T-19B	LAVENDER		13(C)	A, B, C, D, E	CM389TR-13B	LAVENDER
	21(G)	N, A, B	CM389T-21A	LAVENDER		15(D)	A, B, C, D, E	CM389TR-15B	LAVENDER
	21(G)	C, D, E	CM389T-21B	LAVENDER		17(E)	A, B, C, D, E	CM389TR-17B	LAVENDER
	23(H)	N, A, B	CM389T-23A	LAVENDER		19(F)	A, B, C, D, E	CM389TR-19B	LAVENDER
	23(H)	C, D, E	CM389T-23B	LAVENDER		21(G)	A, B, C, D, E	CM389TR-21B	LAVENDER
	25(J)	N, A, B	CM389T-25A	LAVENDER		23(H)	A, B, C, D, E	CM389TR-23B	LAVENDER
	25(J)	C, D, E	CM389T-25B	LAVENDER		25(J)	A, B, C, D, E	CM389TR-25B	LAVENDER

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-389T	18	9 THRU 25

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-389TR	18	9 THRU 25

MIL-C-38999 SERIES IV



MANUFACTURER:
DEUTSCH
ELECTRONIC SEALS
FLIGHT CONNECTOR
G & H TECHNOLOGY
MATRIX SCIENCE
TRW

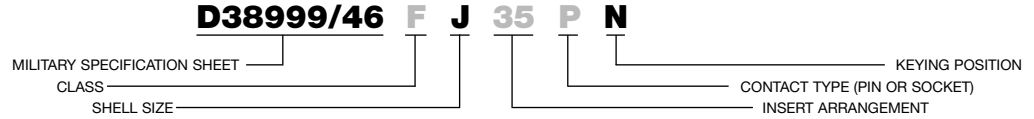
SERIES:
DIV
SERIES IV
PL
BL
ML94
CN

SPECIFICATIONS:
COUPLING METHOD: BREECH-LOCK (SELF LOCKING)
KEYING POSITIONS: N (NORMAL), A, B, C, D
ALTERNATE KEYING METHOD: MASTER KEY REMAINS STATIONARY – INTERLOCKING SECTIONS ROTATE INDEPENDENTLY
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Anodize Nickel Cadmium Olive Drab
STEEL	Passivated Nickel

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
D38999/46 /EMI straight	11(B)	ALL	CM389B-11	BEIGE	D38999/40 /Wall mount	11(B)	ALL	CM389BR-11	BEIGE
D38999/47 /Straight	13(C)	ALL	CM389B-13	BEIGE	D38999/41 /Hermetic box mount	13(C)	ALL	CM389BR-13	BEIGE
	15(D)	ALL	CM389B-15	BEIGE	D38999/42 /Box mount	15(D)	ALL	CM389BR-15	BEIGE
	17(E)	ALL	CM389B-17	BEIGE	D38999/43 /Hermetic jam nut	17(E)	ALL	CM389BR-17	BEIGE
	19(F)	ALL	CM389B-19	BEIGE	D38999/44 /Jam nut	19(F)	ALL	CM389BR-19	BEIGE
	21(G)	ALL	CM389B-21	BEIGE	D38999/45 /Hermetic solder mount	21(G)	ALL	CM389BR-21	BEIGE
	23(H)	ALL	CM389B-23	BEIGE	D38999/48 /Hermetic weld mount	23(H)	ALL	CM389BR-23	BEIGE
	25(J)	ALL	CM389B-25	BEIGE	D38999/49 /In-line	25(J)	ALL	CM389BR-25	BEIGE

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-389B	8	11 THRU 25	CM-S-389BR	8	11 THRU 25

MIL-C-81511 SERIES I & III



MANUFACTURER: AMPHENOL
DEUTSCH
HERMETIC SEAL CORP.

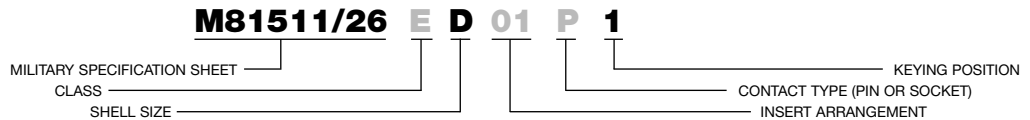
SERIES: 348
815
10-00000

SPECIFICATIONS:
COUPLING METHOD: BAYONET
KEYING POSITIONS: 1, 2, 3, 4, 5, 6
ALTERNATE KEYING: MASTER KEY REMAINS STATIONARY – MINOR KEYS ROTATE INDEPENDENTLY
EMI/RFI GROUNDING: YES – PLUGS CONTAIN EMI/RFI GROUNDING FINGERS

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Nickel Cadmium Olive Drab Over Nickel Cadmium Olive Drab
STAINLESS STEEL	Passivated
STEEL	Tin

**TYPICAL CONNECTOR
PART NUMBER
BREAKDOWN**



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
M81511/26 /Straight	8(A)	1, 2, 3	CM815L-8A	YELLOW	M81511/21 /Wall mount	8(A)	ALL	CM815R-8	YELLOW
M81511/38 /Straight, potting seal	8(A)	4, 5, 6	CM815L-8B	YELLOW	M81511/22 /Hermetic seal solder mount	10(B)	ALL	CM815R-10	YELLOW
M81511/46 /Straight	10(B)	1, 2, 6	CM815L-10A	YELLOW	M81511/23 /Jam nut	14(D)	ALL	CM815R-14	YELLOW
	10(B)	3, 4, 5	CM815L-10B	YELLOW	M81511/24 /Hermetic seal jam nut	16(E)	ALL	CM815R-16	YELLOW
	14(D)	1, 2, 6	CM815L-14A	YELLOW	M81511/25 /In-line	18(F)	ALL	CM815R-18	YELLOW
	14(D)	3, 4, 5	CM815L-14B	YELLOW	M81511/27 /Hermetic seal jam nut	20(G)	ALL	CM815R-20	YELLOW
	16(E)	1, 2, 3	CM815L-16A	YELLOW	M81511/35 /Wall mount, potting seal	22(H)	ALL	CM815R-22	YELLOW
	16(E)	4, 5, 6	CM815L-16B	YELLOW	M81511/36 /Jam nut, potting seal	24(J)	ALL	CM815R-24	YELLOW
	18(F)	1, 2, 3	CM815L-18A	YELLOW	M81511/37 /In-line, potting seal				
	18(F)	4, 5, 6	CM815L-18B	YELLOW	M81511/41 /Wall mount				
	20(G)	1, 2, 3	CM815L-20A	YELLOW	M81511/42 /Hermetic seal solder mount (class D)				
	20(G)	4, 5, 6	CM815L-20B	YELLOW	M81511/44 /Hermetic seal jam nut (class D)				
	22(H)	1, 2, 3	CM815L-22A	YELLOW	M81511/45 /In-line				
	22(H)	4, 5, 6	CM815L-22B	YELLOW	M81511/47 /Hermetic seal solder mount (class L)				
	24(J)	1, 2, 3	CM815L-24A	YELLOW	M81511/48 /Hermetic seal jam nut (class L)				
	24(J)	4, 5, 6	CM815L-24B	YELLOW	M81511/49 /Jam nut				

N/A (Not available at time of printing – consult factory)

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-815L	16	8 THRU 24	CM-S-815R	8	8 THRU 24

MIL-C-81511 SERIES II & IV



MANUFACTURER:
AMPHENOL
DEUTSCH
HERMETIC SEAL CORP.

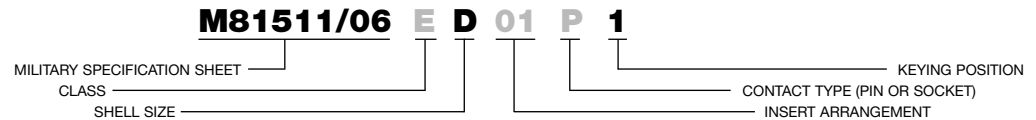
SERIES:
348
815
10-0000

SPECIFICATIONS:
COUPLING METHOD: BAYONET
KEYING POSITIONS: 1, 2, 3, 4, 5, 6
ALTERNATE KEYING METHOD: MASTER KEY REMAINS STATIONARY – MINOR KEYS ROTATE INDEPENDENTLY
EMI/RFI GROUNDING: YES

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Nickel Cadmium Olive Drab Over Nickel Cadmium Olive Drab
STAINLESS STEEL	Passivated
STEEL	Tin

**TYPICAL CONNECTOR
PART NUMBER
BREAKDOWN**



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
M81511/06 /Straight	8(A)	ALL	CM815S-8	RED	M81511/01 /Wall mount	8(A)	ALL	CM815R-8	YELLOW
M81511/34 /Straight, potting seal	10(B)	1, 4, 5	CM815S-10A	RED	M81511/02 /Hermetic seal solder mount	10(B)	ALL	CM815R-10	YELLOW
M81511/56 /Straight	10(B)	2, 3, 6	CM815S-10B	RED	M81511/03 /Jam nut	14(D)	ALL	CM815R-14	YELLOW
	14(D)	1, 4, 5	CM815S-14A	RED	M81511/04 /Hermetic seal jam nut	16(E)	ALL	CM815R-16	YELLOW
	14(D)	2, 3, 6	CM815S-14B	RED	M81511/05 /In-line	18(F)	ALL	CM815R-18	YELLOW
	16(E)	1, 2, 4	CM815S-16A	RED	M81511/28 /Hermetic seal jam nut	20(G)	ALL	CM815R-20	YELLOW
	16(E)	3, 5, 6	CM815S-16B	RED	M81511/31 /Wall mount, potting seal	22(H)	ALL	CM815R-22	YELLOW
	18(F)	1, 2, 4	CM815S-18A	RED	M81511/32 /Jam nut, potting seal	24(H)	ALL	CM815R-24	YELLOW
	18(F)	3, 5, 6	CM815S-18B	RED	M81511/33 /In-line, potting seal				
					M81511/50 /Hermetic seal jam nut (class L)				
					M81511/51 /Wall mount				
					M81511/52 /Hermetic seal solder mount (class D)				
					M81511/53 /Jam nut				
					M81511/54 /Hermetic seal jam nut (class L)				
					M81511/55 /In-line				
					M81511/57 /Hermetic seal solder mount (class L)				

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-815S	9	8 THRU 18	CM-S-815R	8	8 THRU 24

MIL-C-83723 SERIES I (REF: MIL-C-26482)



MANUFACTURER:	SERIES:
AERO ELECTRIC	AE77
AMPHENOL	118
BENDIX	DC, FPT(21-), PT, PT*CE, SP*CE, PT*SE, PTS*DR, SP
BURNDY	BT, L*T
CONNECTOR INDUSTRIES	C, K
DETRONICS	DT
DEUTSCH	AFD, DBC, RBC, 450, 460, 810, 880
ELECTRONIC SEALS	9-
GENERAL CONNECTOR	GC, GC*C
GLASSEAL	BE, GB
HERMETIC SEAL CORP.	S*A-7000, 7000
ITT CANNON	KPD, KPSE, KSSE, KP*, KS*, KPT, KSP, KPTM, KSPM, PV, PVA, PVJ, PVW, PVX
MATRIX SCIENCE	MB1
SEALTRON	6300, 8100, 8300
S.E.C.	PW
SOURIAU	851, 851*R, 8526
VEAM/LITTON	VPT, VPT*SE, VUT

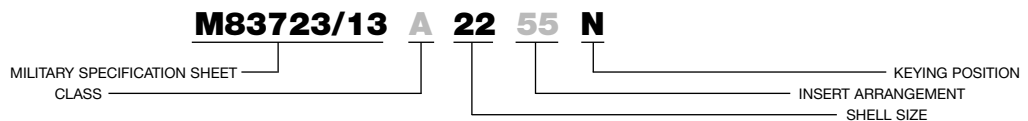
SPECIFICATIONS:

COUPLING METHOD: BAYONET
KEYING POSITIONS: N (NORMAL), W, X, Y, Z
ALTERNATE KEYING METHOD: KEYS REMAIN STATIONARY
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Anodize Nickel
STAINLESS STEEL	Passivated
STEEL	Tin

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
M83723/13 /Straight	8	ALL	CM264-8	ORANGE	M83723/01 /Narrow flange wall mount	8	ALL	CM264R-8	ORANGE
M83723/14 /Straight	10	ALL	CM264-10	ORANGE	M83723/02 /Narrow flange wall mount	10	ALL	CM264R-10	ORANGE
M82723/36 /Prewired size 8 straight	12	ALL	CM264-13	ORANGE	M83723/03 /Wide flange wall mount	12	ALL	CM264R-12	ORANGE
M83723/37 /Prewired size 8 straight	14	ALL	CM264-14	ORANGE	M83723/04 /Wide flange wall mount	14	ALL	CM264R-14	ORANGE
M83723/42 /Straight, RFI grounding	16	ALL	CM264-16	ORANGE	M83723/05 /Jam nut	16	ALL	CM264R-16	ORANGE
M83723/43 /Straight, RFI grounding	18	ALL	CM264-18	ORANGE	M83723/06 /Jam nut	18	ALL	CM264R-18	ORANGE
M83723/48 /Prewired size 8 straight, RFI grounding	20	ALL	CM264-20	ORANGE	M83723/07 /In-line	20	ALL	CM264R-20	ORANGE
M83723/49 /Prewired size 8 straight, RFI grounding	22	ALL	CM264-22	ORANGE	M83723/08 /In-line	22	ALL	CM264R-22	ORANGE
	24	ALL	CM264-24	ORANGE	M83723/09 /Hermetic narrow flange box mount	24	ALL	CM264R-24	ORANGE
					M83723/10 /Hermetic wide flange box mount				
					M83723/11 /Hermetic solder mount				
					M83723/12 /Hermetic jam nut				
					M83723/38 /Prewired size 8 narrow flange wall mount				
					M83723/39 /Prewired size 8 narrow flange wall mount				
					M83723/40 /Prewired size 8 wide flange wall mount				
					M83723/41 /Prewired size 8 wide flange wall mount				

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-815S	9	8 THRU 24

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-815R	8	8 THRU 24

MIL-C-83723 SERIES II (REF: MIL-C-5015)



MANUFACTURER:

AERO ELECTRIC
AMPHENOL
BENDIX

BURNDY
CONNECTOR INDUSTRIES
DETORONICS
ELECTRONIC SEALS
FLIGHT CONNECTOR
GLASSEAL
HERMETIC SEAL CORP.
ITT CANNON

MATRIX SCIENCE
SAE
SEALTRON
VEAM/LITTON

SERIES:

AE55, AE723
69, 72, 97, 157, 172, 173, 179, 208, 238, 246
BT-M, BT-RA, HT, SCP, TBF, 10-72, 10-214, 10-244, 10-741,
10-747, 10-873, 10-874, 5015
LM°C
A
DS
5015
FC, FH, FF0, FF5, FZC, FZH
GSP
HS06, S*A-2000, 2000
BFH, BFR, CA, CA-EA, CA-EB, CA-HR, CA-KE, CA-RX, CV,
CVA, EX-A, FRA, FRF, FVA, FVF, FW, GS, MR, TBF, TBFH, WFS
MFR, M723, 944, 981
M0, M5, SA
6000, 8000
VE, VS, VTBF, 10/71, 75

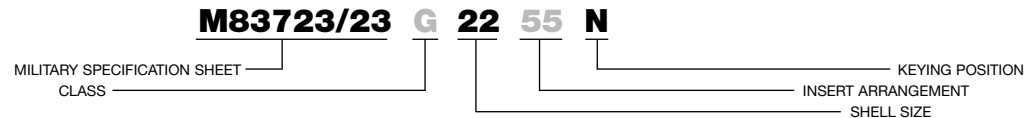
SPECIFICATIONS:

COUPLING METHOD: THREADED
KEYING POSITIONS: N (NORMAL), W, X, Y, Z
ALTERNATE KEYING METHOD: ROTATION OF INSERT - KEYS REMAIN STATIONARY
EMI/RFI GROUNDING: NO

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Anodize Nickel
STEEL	Tin
STAINLESS STEEL	Passivated

**TYPICAL CONNECTOR
PART NUMBER
BREAKDOWN**



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
M83723/23/Straight	8	ALL	CM5015-8	CHROME	M83723/17/In-line	8	ALL	CM5015R-8	CHROME
M83723/24/Straight	10	ALL	CM5015-10	CHROME	M83723/18/In-line	10	ALL	CM5015R-10	CHROME
M83723/52/Straight, self-locking coupling nut	12	ALL	CM5015-12	CHROME	M83723/19/Wall mount	12	ALL	CM5015R-12	CHROME
M83723/53/Straight, self-locking coupling nut	14	ALL	CM5015-14	CHROME	M83723/20/Wall mount	14	ALL	CM5015R-14	CHROME
	16	ALL	CM5015-16	CHROME	M83723/21/Box mount	16	ALL	CM5015R-16	CHROME
	18	ALL	CM5015-18	CHROME	M83723/22/Box mount	18	ALL	CM5015R-18	CHROME
	20	ALL	CM5015-20	CHROME	M83723/25/Box mount hermetic	20	ALL	CM5015R-20	CHROME
	22	ALL	CM5015-22	CHROME	M83723/26/Solder mount hermetic	22	ALL	CM5015R-22	CHROME
	24	ALL	CM5015-24	CHROME		24	ALL	CM5015R-24	CHROME
	28	ALL	CM5015-28	CHROME		28	ALL	CM5015R-28	CHROME
	32	ALL	CM5015-32	CHROME		32	ALL	CM5015R-32	CHROME
	36	ALL	CM5015-36	CHROME		36	ALL	CM5015R-36	CHROME
	40	ALL	CM5015-40	CHROME		40	ALL	CM5015R-40	CHROME
	44	ALL	CM5015-44	CHROME		44	ALL	CM5015R-44	CHROME
	48	ALL	CM5015-48	CHROME		48	ALL	CM5015R-48	CHROME

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-5015	15	8 THRU 48	CM-S-5015R	15	8 THRU 48

MIL-C-83723 SERIES III (REF: MIL-C-26500)



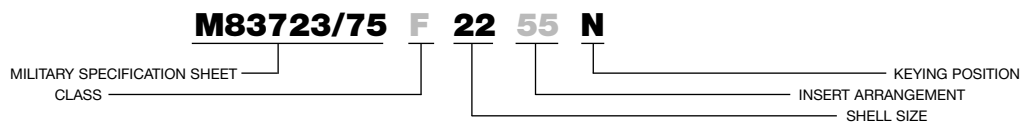
MANUFACTURER:	SERIES:
AMPHENOL	48, 518
BOEING	BACC45F
CONNECTOR INDUSTRIES	MIL-C-83723 SERIES III
DETRONICS	DX
DEUTSCH	DB, DL, 94603
GLASSEAL	50
HERMETIC SEAL CORP.	83723
ITT CANNON	HTMF
MATRIX SCIENCE	MB3, MT3
PYLE-NATIONAL	B, BFH
SEALTRON	6500, 6600
SOURIAU	83723, 8530
TRW	CN0930, CN0966, CN0967

SPECIFICATIONS:
COUPLING METHOD: BAYONET OR THREADED
KEYING POSITIONS: N (NORMAL), 1, 2, 3, 4, 5, 6, 7, 8, 9, 10
ALTERNATE KEYING METHOD: INSERT ROTATION IN POSITIONS 1 THRU 5, MINOR KEY ROTATION IN POSITIONS 6 THRU 10
EMI/RFI GROUNDING: YES (EMI/RFI FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Black anodize Cadmium
STAINLESS STEEL	Passivated Nickel
STEEL	Tin

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)*				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
MS83723/75 /Straight	8	N, 8, 9	CM837-8A*	GREEN	MS83723/71 /Wall mount	8	ALL	CM837RB-8	GREEN
MS83723/76 /Straight	8	6, 7	CM837-8B*	GREEN	MS83723/72 /Wall mount	10	ALL	CM837RB-10	GREEN
MS83723/86 /Straight	8	N, 8, 9	CM837-8C**	GREEN	MS83723/82 /Wall mount	12	ALL	CM837RB-12	GREEN
MS83723/87 /Straight	8	6, 7	CM837-8D**	GREEN	MS83723/83 /Wall mount	14	ALL	CM837RB-14	GREEN
MS83723/77 /Straight, EMI grounding	10	N, 8, 9	CM837-10A	GREEN	MS83723/79 /Box mount, hermetic seal	16	ALL	CM837RB-16	GREEN
MS83723/78 /Straight, EMI grounding	10	6, 7, 10	CM837-10B	GREEN	MS83723/88 /Box mount, hermetic seal	18	ALL	CM837RB-18	GREEN
MS83723/91 /Straight, EMI grounding	12	N, 6, 8	CM837-12A	GREEN	MS83723/73 /Jam nut	20	ALL	CM837RB-20	GREEN
MS83723/92 /Straight, EMI grounding	12	7, 9, 10	CM837-12B	GREEN	MS83723/74 /Jam nut	22	ALL	CM837RB-22	GREEN
MS83723/95 /Straight, self-locking coupling nut	14	N, 6, 8	CM837-14A	GREEN	MS83723/81 /Jam nut, hermetic seal	24	ALL	CM837RB-24	GREEN
MS83723/96 /Straight, self-locking coupling nut	14	7, 9, 10	CM837-14B	GREEN	MS83723/89 /Jam nut, hermetic seal				
MS83723/97 /Straight, self-locking coupling nut, EMI grounding	16	N, 6, 8	CM837-16A	GREEN	MS83723/94 /Jam nut, hermetic seal				
MS83723/98 /Straight, self-locking coupling nut, EMI grounding	16	7, 9, 10	CM837-16B	GREEN	MS83723/65 /Jam nut, hermetic seal				
MS83723/66 /Straight, push-pull quick disconnect	18	N, 6, 8	CM837-18A	GREEN	MS83723/80 /Solder mount, hermetic seal				
MS83723/67 /Straight, push-pull quick disconnect	18	7, 9, 10	CM837-18B	GREEN	MS83723/90 /Solder mount, hermetic seal				
MS83723/68 /Straight, push-pull quick disconnect, lanyard	20	N, 6, 8	CM837-20A	GREEN	MS83723/93 /Solder mount, hermetic seal				
MS83723/69 /Straight, push-pull quick disconnect, lanyard	20	7, 9, 10	CM837-20B	GREEN					
	22	N, 6, 8	CM837-22A	GREEN					
	22	7, 9, 10	CM837-22B	GREEN					
	24	N, 6, 8	CM837-24A	GREEN					
	24	7, 9, 10	CM837-24B	GREEN					
	28	N, 6, 8	CM837-28A	GREEN					
	28	7, 9, 10	CM837-28B	GREEN					

* For bayonet coupling only. **For threaded coupling connectors only.

* Bayonet coupling only. Adaptors not available for connectors with threaded coupling.

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-837	22	8 THRU 28

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-837RB*	9	8 THRU 24

PATTERN 602

PAN 6432-4, EL2112



MANUFACTURER:
AMPHENOL
CANNON ELECTRIC GB
HELLERMANN DEUTSCH
SOURIAU

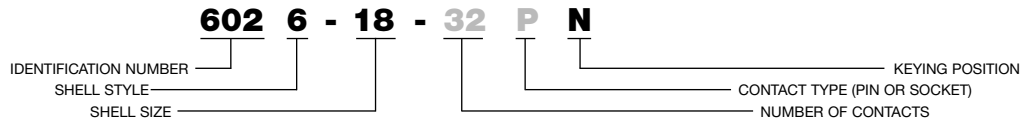
SERIES:
602GB
PVX
RR
8526

SPECIFICATIONS:
COUPLING METHOD: BAYONET
KEYING POSITIONS: N (NORMAL), B, C, E, F FOR SHELL;
N (NORMAL), W, X, Y, Z FOR INSERT
ALTERNATE KEYING METHOD: MASTER KEY REMAINS STATIONARY – MINOR KEYS AND BAYONET PINS ROTATE. ALSO, INSERT ROTATES
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Cadmium Olive Drab

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



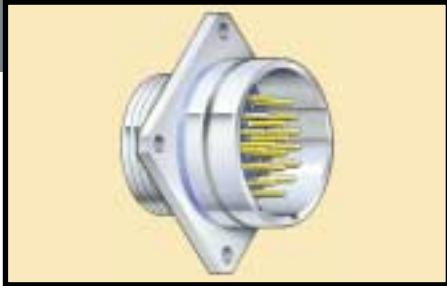
ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
6026 / Plug	8	N	CM602-8A	PURPLE	6020 / Square flange 6027 / Jam nut 6021H / Solder fixing hermetic 6027H / Jam nut hermetic	8	ALL	CM264R-8	ORANGE
	8	E, F	CM602-8B	PURPLE		10	ALL	CM264R-10	ORANGE
	10	N, B, C	CM602-10A	PURPLE		12	ALL	CM264R-12	ORANGE
	10	E, F	CM602-10B	PURPLE		14	ALL	CM264R-14	ORANGE
	12	N, B, C	CM602-12A	PURPLE		16	ALL	CM264R-16	ORANGE
	12	E, F	CM602-12B	PURPLE		18	ALL	CM264R-18	ORANGE
	14	N, B, C	CM602-14A	PURPLE		20	ALL	CM264R-20	ORANGE
	14	E, F	CM602-14B	PURPLE		22	ALL	CM264R-22	ORANGE
	16	N, B, C	CM602-16A	PURPLE		24	ALL	CM264R-24	ORANGE
	16	E, F	CM602-16B	PURPLE					
	18	N, B, C	CM602-18A	PURPLE					
	18	E, F	CM602-18B	PURPLE					
	20	N, B, C	CM602-20A	PURPLE					
	20	E, F	CM602-20B	PURPLE					
	22	N, B, C	CM602-22A	PURPLE					
	22	E, F	CM602-22B	PURPLE					
	24	N, B, C	CM602-24A	PURPLE					
	24	E, F	CM602-24B	PURPLE					

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)	ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-602	18	8 THRU 24	CM-S-264R	9	8 THRU 24

PATTERN 615

PAN 6433-2



MANUFACTURER:
BENDIX
PLESSEY

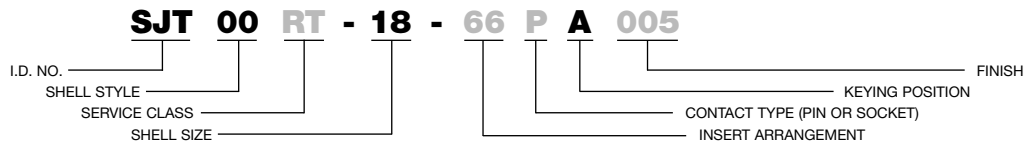
SERIES:
SJT
MK26

SPECIFICATIONS:
COUPLING METHOD: BAYONET
KEYING POSITIONS: BLANK (NORMAL),
A, B, C, D
ALTERNATE KEYING METHOD: MASTER KEY ROTATES - MINOR KEYS REMAIN STATIONARY
EMI/RFI GROUNDING: YES (EMI/RFI GROUNDING FINGERS MAY NOT BE AVAILABLE ON ALL MODELS)

SHELL MATERIAL & FINISH:

SHELL	FINISH
ALUMINUM	Cadmium Over Nickel Bright Cadmium Cadmium Olive Drab Gray Anodize Anodic Coating (Alumilite) Bright Nickel Chromate Treated (Iridite 14-2) Cadmium Olive Drab Over Nickel Nickel
STEEL	Tin
STAINLESS STEEL	Passivated

TYPICAL CONNECTOR PART NUMBER BREAKDOWN



ADAPTOR TOOLS

PLUG (REMOVABLE PORTION)					RECEPTACLE (STATIONARY PORTION)				
BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR	BASIC IDENT. #/DESCRIPTION	SHELL SIZE	KEYING POSITIONS	ADAPTOR TOOL NUMBER	COLOR
SJT06RT /Straight	8	ALL	CMSJT-8	GOLD	SJT00RT /Wall mount	8	ALL	CM264R-8	ORANGE
SJT06RT /Straight, RFI grounding fingers	10	ALL	CMSJT-10	GOLD	SJTP02RE /Box mount	10	ALL	CM264R-10	ORANGE
	12	ALL	CMSJT-12	GOLD	SJT00RT /Wall mount	12	ALL	CM264R-12	ORANGE
	14	ALL	CMSJT-14	GOLD	SJT07RT /Jam nut	14	ALL	CM264R-14	ORANGE
	16	ALL	CMSJT-16	GOLD	SJT1Y /Solder mount hermetic	16	ALL	CM264R-16	ORANGE
	18	ALL	CMSJT-18	GOLD	SJT07Y /Jam nut hermetic	18	ALL	CM264R-18	ORANGE
	20	ALL	CMSJT-20	GOLD		20	ALL	CM264R-20	ORANGE
	22	ALL	CMSJT-22	GOLD		22	ALL	CM264R-22	ORANGE
	24	ALL	CMSJT-24	GOLD		24	ALL	CM264R-24	ORANGE

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-SJT	9	8 THRU 24

ADAPTOR SET PART NO.	ADAPTORS IN SET	COVERAGE (SHELL SIZE)
CM-S-264R	9	8 THRU 24

ADAPTOR TOOL COMPATIBILITY WITH OTHER BETA SYSTEM PRODUCTS

Adaptor tools and other accessory tools which comprise the **DMC Beta™** product line are used in a variety of combinations to afford the user an efficient and flexible system of connector/accessory assembly. The following illustrations depict a few of the products which are combined in use. Certainly there are many applications which are not described. The selection of tools and the ways in which they are used are both dependent upon the types of connectors and accessory components as well as production and quality considerations. **DMC** will help with any application questions you may have.

SIMPLE HAND TIGHTENING

In the most basic operation, the adaptor is mated with the connector, and held in one hand. This stabilizes the connector while the backshell accessory is tightened with the other hand.

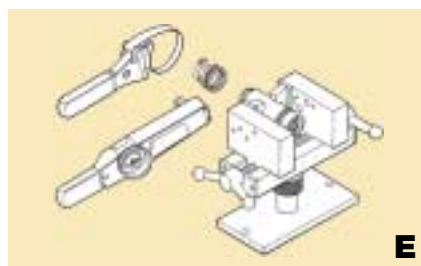
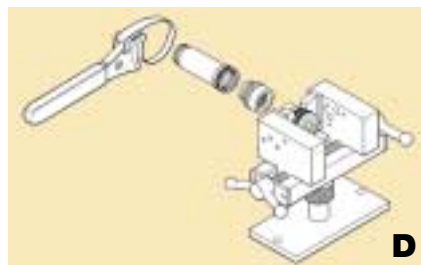
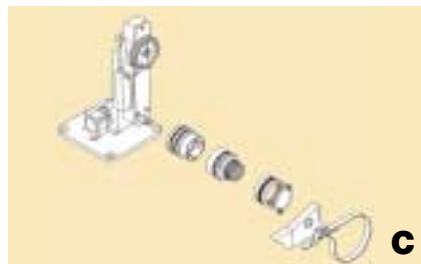
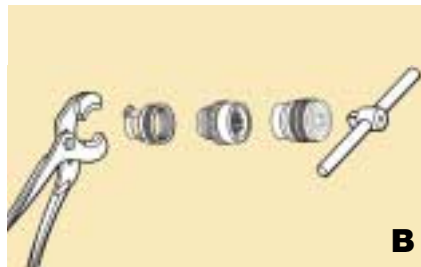
ILLUSTRATION A: Strain relief, connector, adaptor.

SIMPLE MECHANICAL ASSIST

When mechanical assistance is necessary to sufficiently tighten the accessory onto the connector, the stabilizing effect of the adaptor can be reinforced with one of several tools — in the operation shown, the connector is held stationary by the use of a “T” handle in the drive hole of the adaptor, while soft jaw pliers are being used on the accessory. Another tool, such as a strap wrench, could have been selected.

NOTE: Rotating the connector is not recommended — due to the stress which it imposes on the wire, contacts and sealing components. Adaptors and their associated tools that are designed to hold the connector stationary while the backshell accessory is turned.

ILLUSTRATION B: Soft jaw pliers, strain relief, connector, adaptor, T-handle.



PRODUCTION STATION APPLICATIONS

When the measurement of torque is a requirement of a particular cable assembly operation, this can be easily accomplished with the use of the static torque meter. The adaptor is attached to the square drive on the torque meter, and this arrangement holds the connector while the backshell accessory is torqued onto the connector, with a strap wrench. When the torque reaches the value set on the dial, a signal light advises the operator that the desired torque value has been applied.

ILLUSTRATION C: Static torque meter, adaptor tool, connector, strain relief, strap wrench.

When optimum repeatability and production efficiency demand, the assembly station vise can be used to complement the ability of adaptor tools to stabilize the connector. As shown, the vise is being used to firmly hold the adaptor tool, while a strap wrench is being used to tighten the backshell onto the connector.

ILLUSTRATION D: Strap wrench, backshell, connector, adaptor, vise.

On multi-piece backshells, the correct torque on each accessory can only be achieved by efficiently holding adjacent parts. In the example shown, the assembly station vise is being used to hold the backshell segment already torqued onto the connector, while the strain relief is tightened with a strap wrench and a torque meter. Thus, the correct torque can be applied to the backshell segments without affecting the torque value already applied to prior connector/accessory components.

ILLUSTRATION E: Strap wrench, strain relief, backshell (in vise jaws), connector, vise, torque meter.

CONNECTOR IDENTIFICATION

THIS TABLE CAN BE USED TO IDENTIFY THE ADAPTOR TOOL SERIES REQUIRED FOR A PARTICULAR CONNECTOR. IF YOU KNOW THE COMMERCIAL OR MILITARY PREFIX OF THE CONNECTOR PART NUMBER, FIND IT IN THE LEFT COLUMN. LISTED OPPOSITE WILL BE THE APPLICABLE PAGE NUMBER FOR THE ADAPTOR TOOL SERIES, ALONG WITH MANUFACTURER AND SPECIFICATION REFERENCE INFORMATION.

PREFIX	PAGE	MANUFACTURER	CONNECTOR SERIES (REFERENCE)
10-00000	14	HERMETIC SEAL CORP.	MIL-C-81511 SERIES 1 & 3
10-00000	15	HERMETIC SEAL CORP.	MIL-C-81511 SERIES 2 & 4
10-194	5	BENDIX	MIL-C-22992 CLASSES C, J, R
10-214	4	BENDIX	MIL-C-5015
10-214	17	BENDIX	MIL-C-83723 SERIES II
10-244	4	BENDIX	MIL-C-5015
10-244	17	BENDIX	MIL-C-83723 SERIES II
10-473	6	BENDIX	MIL-C-22992 CLASS L
10-72	4	BENDIX	MIL-C-5015
10-72	17	BENDIX	MIL-C-83723 SERIES II
10-741	4	BENDIX	MIL-C-5015
10-741	17	BENDIX	MIL-C-83723 SERIES II
10-747	4	BENDIX	MIL-C-5015
10-747	17	BENDIX	MIL-C-83723 SERIES II
10-873	4	BENDIX	MIL-C-5015
10-873	17	BENDIX	MIL-C-83723 SERIES II
10-874	4	BENDIX	MIL-C-5015
10-874	17	BENDIX	MIL-C-83723 SERIES II
10/71	4	VEAM/LITTON	MIL-C-5015
10/71	17	VEAM/LITTON	MIL-C-83723 SERIES II
118	7	AMPHENOL	MIL-C-26482 SERIES 1 & 2
118	16	AMPHENOL	MIL-C-83723 SERIES I
157	4	AMPHENOL	MIL-C-5015
157	17	AMPHENOL	MIL-C-83723 SERIES II
172	4	AMPHENOL	MIL-C-5015
172	17	AMPHENOL	MIL-C-83723 SERIES II
173	4	AMPHENOL	MIL-C-5015
173	17	AMPHENOL	MIL-C-83723 SERIES II
179	4	AMPHENOL	MIL-C-5015
179	17	AMPHENOL	MIL-C-83723 SERIES II
2000	4	HERMETIC SEAL CORP.	MIL-C-5015
2000	17	HERMETIC SEAL CORP.	MIL-C-83723 SERIES II
208	4	AMPHENOL	MIL-C-5015
208	17	AMPHENOL	MIL-C-83723 SERIES II
229	6	AMPHENOL	MIL-C-22992 CLASS L
238	4	AMPHENOL	MIL-C-5015
238	17	AMPHENOL	MIL-C-83723 SERIES II
246	4	AMPHENOL	MIL-C-5015
246	17	AMPHENOL	MIL-C-83723 SERIES II
26500	8	CONNECTOR INDUSTRIES	MIL-C-26500
26500	8	ELECTRONIC	MIL-C-26500
26500	8	HERMETIC SEAL CORP.	MIL-C-26500
348	14	AMPHENOL	MIL-C-81511 SERIES 1 & 3
348	15	AMPHENOL	MIL-C-81511 SERIES 2 & 4
416	10	AMPHENOL	MIL-C-38999 SERIES I
418	11	AMPHENOL	MIL-C-38999 SERIES II
450	7	DEUTSCH	MIL-C-26482 SERIES 1 & 2
450	16	DEUTSCH	MIL-C-83723 SERIES I
460	7	DEUTSCH	MIL-C-26482 SERIES 1 & 2
460	16	DEUTSCH	MIL-C-83723 SERIES I
48	8	AMPHENOL	MIL-C-26500
48	18	AMPHENOL	MIL-C-83723 SERIES III

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48-7005	8	AMPHENOL	MIL-C-26500
50	8	GLASSEAL	MIL-C-26500
50	18	GLASSEAL	MIL-C-83723 SERIES III
5015	4	BENDIX	MIL-C-5015
5015	4	ELECTRONIC SEALS	MIL-C-5015
5015	17	BENDIX	MIL-C-83723 SERIES II
5015	17	ELECTRONIC SEALS	MIL-C-83723 SERIES II
518	8	AMPHENOL	MIL-C-26500
518	18	AMPHENOL	MIL-C-83723 SERIES III
5388	10	BENDIX	MIL-C-38999 SERIES I
5565	12	BENDIX	MIL-C-38999 SERIES III
6000	4	SEALTRON	MIL-C-5015
6000	17	SEALTRON	MIL-C-83723 SERIES II
602GB	19	AMPHENOL	PATTERN 602
6300	7	SEALTRON	MIL-C-26482 SERIES 1 & 2
6300	16	SEALTRON	MIL-C-83723 SERIES I
6500	8	SEALTRON	MIL-C-26500
6500	18	SEALTRON	MIL-C-83723 SERIES III
6600	8	SEALTRON	MIL-C-26500
6600	18	SEALTRON	MIL-C-83723 SERIES III
69	4	AMPHENOL	MIL-C-5015
69	17	AMPHENOL	MIL-C-83723 SERIES II
700	10	GLASSEAL	MIL-C-38999 SERIES I
7000	7	HERMETIC SEAL CORP.	MIL-C-26482 SERIES 1 & 2
7000	16	HERMETIC SEAL CORP.	MIL-C-83723 SERIES I
72	4	AMPHENOL	MIL-C-5015
72	17	AMPHENOL	MIL-C-83723 SERIES II
75	4	VEAM/LITTON	MIL-C-5015
75	17	VEAM/LITTON	MIL-C-83723 SERIES II
800	11	GLASSEAL	MIL-C-38999 SERIES II
8000	4	SEALTRON	MIL-C-5015
8000	17	SEALTRON	MIL-C-83723 SERIES II
810	7	DEUTSCH	MIL-C-26482 SERIES 1 & 2
810	16	DEUTSCH	MIL-C-83723 SERIES I
8100	7	SEALTRON	MIL-C-26482 SERIES 1 & 2
8100	16	SEALTRON	MIL-C-83723 SERIES I
815	14	DEUTSCH	MIL-C-81511 SERIES 1 & 3
815	15	DEUTSCH	MIL-C-81511 SERIES 2 & 4
8300	7	SEALTRON	MIL-C-26482 SERIES 1 & 2
8300	16	SEALTRON	MIL-C-83723 SERIES I
83723	18	HERMETIC SEAL CORP.	MIL-C-83723 SERIES III
83723	18	SOURIAU	MIL-C-83723 SERIES III
83723 III	18	CONNECTOR INDUSTRIES	MIL-C-83723 SERIES III
8500	8	SEALTRON	MIL-C-26500
851	7	SOURIAU	MIL-C-26482 SERIES 1 & 2
851	16	SOURIAU	MIL-C-83723 SERIES I
851*R	7	SOURIAU	MIL-C-26482 SERIES 1 & 2
851*R	16	SOURIAU	MIL-C-83723 SERIES I
8526	7	SOURIAU	MIL-C-26482 SERIES 1 & 2
8526	16	SOURIAU	MIL-C-83723 SERIES I
8526	19	SOURIAU	PATTERN 602
8530	8	SOURIAU	MIL-C-26500
8530	18	SOURIAU	MIL-C-83723 SERIES III

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8600	8	SEALTRON	MIL-C-26500
88-194	5	BENDIX	MIL-C-22992 CLASSES C, J, R
880	7	DEUTSCH	MIL-C-26482 SERIES 1 & 2
880	16	DEUTSCH	MIL-C-83723 SERIES I
8LT	10	SOURIAU	MIL-C-38999 SERIES I
IT	11	SOURIAU	MIL-C-38999 SERIES II
9—	7	ELECTRONIC SEALS	MIL-C-26482 SERIES 1 & 2
9—	16	ELECTRONIC SEALS	MIL-C-83723 SERIES I
900000	10	HERMETIC SEAL CORP.	MIL-C-38999 SERIES I
900000	11	HERMETIC SEAL CORP.	MIL-C-38999 SERIES II
944	4	MATRIX SCIENCE	MIL-C-5015
944	17	MATRIX SCIENCE	MIL-C-83723 SERIES II
94603	8	DEUTSCH	MIL-C-26500
94603	18	DEUTSCH	MIL-C-83723 SERIES III
97	4	AMPHENOL	MIL-C-5015
97	17	AMPHENOL	MIL-C-83723 SERIES II
9700	10	SEALTRON	MIL-C-38999 SERIES I
9800	11	SEALTRON	MIL-C-38999 SERIES II
981	4	MATRIX SCIENCE	MIL-C-5015
981	17	MATRIX SCIENCE	MIL-C-83723 SERIES II
9900	12	SEALTRON	MIL-C-38999 SERIES III
A	4	CONNECTOR INDUSTRIES	MIL-C-5015
A	17	CONNECTOR INDUSTRIES	MIL-C-83723 SERIES II
AE55	4	AERO ELECTRIC	MIL-C-5015
AE55	17	AERO ELECTRIC	MIL-C-83723 SERIES II
AE723	4	AERO ELECTRIC	MIL-C-5015
AE723	17	AERO ELECTRIC	MIL-C-83723 SERIES II
AE77	7	AERO ELECTRIC	MIL-C-26482 SERIES 1 & 2
AE77	16	AERO ELECTRIC	MIL-C-83723 SERIES I
AFD	7	DEUTSCH	MIL-C-26482 SERIES 1 & 2
AFD	16	DEUTSCH	MIL-C-83723 SERIES I
B	8	PYLE-NATIONAL	MIL-C-26500
B	18	PYLE-NATIONAL	MIL-C-83723 SERIES III
B555	6	BURNDY	MIL-C-22992 CLASS L
B556	6	BURNDY	MIL-C-22992 CLASS L
B557	6	BURNDY	MIL-C-22992 CLASS L
B558	6	BURNDY	MIL-C-22992 CLASS L
BACC45F	8	BOEING	MIL-C-26500
BACC45F	18	BOEING	MIL-C-83723 SERIES III
BACC63	8	BOEING	MIL-C-26500
BE	7	GLASSEAL	MIL-C-26482 SERIES 1 & 2
BE	16	GLASSEAL	MIL-C-83723 SERIES I
BFH	4	ITT CANNON	MIL-C-5015

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BFH	8	PYLE-NATIONAL	MIL-C-26500
BFH	17	ITT CANNON	MIL-C-83723 SERIES II
BFH	18	PYLE-NATIONAL	MIL-C-83723 SERIES III
BFR	4	ITT CANNON	MIL-C-5015
BFR	17	ITT CANNON	MIL-C-83723 SERIES II
BL	13	G & H TECHNOLOGY	MIL-C-38999 SERIES IV
BT	7	BURNDY	MIL-C-26482 SERIES 1 & 2
BT	16	BURNDY	MIL-C-83723 SERIES I
BT-M	4	BENDIX	MIL-C-5015
BT-MA	17	BENDIX	MIL-C-83723 SERIES II
BT-RA	4	BENDIX	MIL-C-5015
BT-RA	17	BENDIX	MIL-C-83723 SERIES II
C	7	CONNECTOR INDUSTRIES	MIL-C-26482 SERIES 1 & 2
C	16	CONNECTOR INDUSTRIES	MIL-C-83723 SERIES I
C48	8	TRW	MIL-C-26500
CA	4	ITT CANNON	MIL-C-5015
CA	17	ITT CANNON	MIL-C-83723 SERIES II
CA-EA	4	ITT CANNON	MIL-C-5015
CA-EA	17	ITT CANNON	MIL-C-83723 SERIES II
CA-EB	4	ITT CANNON	MIL-C-5015
CA-EB	17	ITT CANNON	MIL-C-83723 SERIES II
CA-HR	4	ITT CANNON	MIL-C-5015
CA-HR	17	ITT CANNON	MIL-C-83723 SERIES II
CA-KE	4	ITT CANNON	MIL-C-5015
CA-KE	17	ITT CANNON	MIL-C-83723 SERIES II
CA-RX	4	ITT CANNON	MIL-C-5015
CA-RX	17	ITT CANNON	MIL-C-83723 SERIES II
CN	13	TRW	MIL-C-38999 SERIES IV
CN0915	8	TRW	MIL-C-26500
CN0930	8	TRW	MIL-C-26500
CN0930	18	TRW	MIL-C-83723 SERIES III
CN0942	8	TRW	MIL-C-26500
CN0966	8	TRW	MIL-C-26500
CN0966	18	TRW	MIL-C-83723 SERIES III
CN0967	8	TRW	MIL-C-26500
CN0967	18	TRW	MIL-C-83723 SERIES III
CT	10	PLESSEY	MIL-C-38999 SERIES I
CT	11	PLESSEY	MIL-C-38999 SERIES II
CTC	10	DEUTSCH	MIL-C-38999 SERIES I
CV	4	ITT CANNON	MIL-C-5015
CV	17	ITT CANNON	MIL-C-83723 SERIES II
CVA	4	ITT CANNON	MIL-C-5015
CVA	17	ITT CANNON	MIL-C-83723 SERIES II
CWLD	5	ITT CANNON	MIL-C-22992 CLASSES C, J, R
D38999/20	12	MILITARY	MIL-C-38999 SERIES III
D38999/21	12	MILITARY	MIL-C-38999 SERIES III
D38999/23	12	MILITARY	MIL-C-38999 SERIES III
D38999/24	12	MILITARY	MIL-C-38999 SERIES III
D38999/25	12	MILITARY	MIL-C-38999 SERIES III
D38999/26	12	MILITARY	MIL-C-38999 SERIES III
D38999/27	12	MILITARY	MIL-C-38999 SERIES III
D38999/29	12	MILITARY	MIL-C-38999 SERIES III
D38999/30	12	MILITARY	MIL-C-38999 SERIES III
D38999/31	12	MILITARY	MIL-C-38999 SERIES III
D38999/40	12	MILITARY	MIL-C-38999 SERIES III
D38999/41	12	MILITARY	MIL-C-38999 SERIES III
D38999/42	12	MILITARY	MIL-C-38999 SERIES III
D38999/43	12	MILITARY	MIL-C-38999 SERIES III
D38999/44	12	MILITARY	MIL-C-38999 SERIES III
D38999/45	12	MILITARY	MIL-C-38999 SERIES III
D38999/46	12	MILITARY	MIL-C-38999 SERIES III
D38999/47	12	MILITARY	MIL-C-38999 SERIES III
D38999/48	12	MILITARY	MIL-C-38999 SERIES III
D38999/49	12	MILITARY	MIL-C-38999 SERIES III

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DB	8	DEUTSCH	MIL-C-26500
DB	18	DEUTSCH	MIL-C-83723 SERIES III
DBC	7	DEUTSCH	MIL-C-26482 SERIES 1 & 2
DBC	16	DEUTSCH	MIL-C-83723 SERIES I
DC	7	BENDIX	MIL-C-26482 SERIES 1 & 2
DC	16	BENDIX	MIL-C-83723 SERIES I
DIV	13	DEUTSCH	MIL-C-38999 SERIES IV
DJT	10	DEUTSCH	MIL-C-38999 SERIES I
DJT	11	DETORONICS	MIL-C-38999 SERIES II
DL	8	DEUTSCH	MIL-C-26500
DL	18	DEUTSCH	MIL-C-83723 SERIES III
DS	4	DETORONICS	MIL-C-5015
DS	17	DETORONICS	MIL-C-83723 SERIES II
DT	7	DETORONICS	MIL-C-26482 SERIES 1 & 2
DT	16	DETORONICS	MIL-C-83723 SERIES I
DTS	12	DEUTSCH	MIL-C-38999 SERIES III
DX	8	DETORONICS	MIL-C-26500
DX	18	DETORONICS	MIL-C-83723 SERIES III
EX-A	4	ITT CANNON	MIL-C-5015
EX-A	17	ITT CANNON	MIL-C-83723 SERIES II
F	8	PYLE-NATIONAL	MIL-C-26500
FC	4	FLIGHT CONNECTOR	MIL-C-5015
FC	17	FLIGHT CONNECTOR	MIL-C-83723 SERIES II
FF0	4	FLIGHT CONNECTOR	MIL-C-5015
FF0	17	FLIGHT CONNECTOR	MIL-C-83723 SERIES II
FF5	4	FLIGHT CONNECTOR	MIL-C-5015
FF5	17	FLIGHT CONNECTOR	MIL-C-83723 SERIES II
FH	4	FLIGHT CONNECTOR	MIL-C-5015
FH	17	FLIGHT CONNECTOR	MIL-C-83723 SERIES II
FPT(21-)	7	BENDIX	MIL-C-26482 SERIES 1 & 2
FPT(21-)	16	BENDIX	MIL-C-83723 SERIES I
FRA	4	ITT CANNON	MIL-C-5015
FRA	17	ITT CANNON	MIL-C-83723 SERIES II
FRF	4	ITT CANNON	MIL-C-5015
FRF	17	ITT CANNON	MIL-C-83723 SERIES II
FVA	4	ITT CANNON	MIL-C-5015
FVA	17	ITT CANNON	MIL-C-83723 SERIES II
FVF	4	ITT CANNON	MIL-C-5015
FVF	17	ITT CANNON	MIL-C-83723 SERIES II
FW	4	ITT CANNON	MIL-C-5015
FW	17	ITT CANNON	MIL-C-83723 SERIES II
FZC	4	FLIGHT CONNECTOR	MIL-C-5015
FZC	17	FLIGHT CONNECTOR	MIL-C-83723 SERIES II
FZH	4	FLIGHT CONNECTOR	MIL-C-5015
FZH	17	FLIGHT CONNECTOR	MIL-C-83723 SERIES II
G	10	CONNECTOR INDUSTRIES	MIL-C-38999 SERIES I
G	11	CONNECTOR INDUSTRIES	MIL-C-38999 SERIES II
GB	7	GLASSEAL	MIL-C-26482 SERIES 1 & 2
GB	16	GLASSEAL	MIL-C-83723 SERIES I
GC	7	GENERAL CONNECTOR	MIL-C-26482 SERIES 1 & 2
GC	16	GENERAL CONNECTOR	MIL-C-83723 SERIES I
GC*C	7	GENERAL CONNECTOR	MIL-C-26482 SERIES 1 & 2
GC*C	16	GENERAL CONNECTOR	MIL-C-83723 SERIES I
GS	4	ITT CANNON	MIL-C-5015

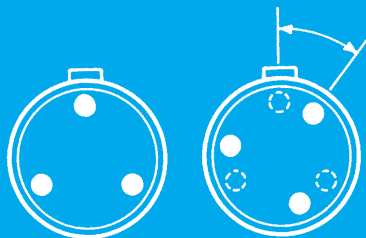
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GS	9	HUGHES	MIL-C-28840
GS	17	ITT CANNON	MIL-C-83723 SERIES II
GSP	4	GLASSEAL	MIL-C-5015
GSP	17	GLASSEAL	MIL-C-83723 SERIES II
GT	9	HUGHES	MIL-C-28840
H	11	CONNECTOR INDUSTRIES	MIL-C-38999 SERIES II
HD	9	IPI (SAE)	MIL-C-28840
HK	5	BENDIX	MIL-C-22992 CLASSES C, J, R
HM SERIES I	10	IPI (SAE)	MIL-C-38999 SERIES I
HM SERIES II	11	IPI (SAE)	MIL-C-38999 SERIES II
HS06	4	HERMETIC SEAL CORP.	MIL-C-5015
HS06	17	HERMETIC SEAL CORP.	MIL-C-83723 SERIES II
HT	4	BENDIX	MIL-C-5015
HT	17	BENDIX	MIL-C-83723 SERIES II
HTMF	8	ITT CANNON	MIL-C-26500
HTMF	18	ITT CANNON	MIL-C-83723 SERIES III
JT	11	BENDIX	MIL-C-38999 SERIES II
K	7	CONNECTOR INDUSTRIES	MIL-C-26482 SERIES 1 & 2
K	16	CONNECTOR INDUSTRIES	MIL-C-83723 SERIES I
KFS	9	ITT CANNON	MIL-C-28840
KJ	11	ITT CANNON	MIL-C-38999 SERIES II
KJA	12	ITT CANNON	MIL-C-38999 SERIES III
KJJ	11	ITT CANNON	MIL-C-38999 SERIES II
KJL	10	ITT CANNON	MIL-C-38999 SERIES I
KJL	10	ITT CANNON	MIL-C-38999 SERIES I
KP*	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KP*	16	ITT CANNON	MIL-C-83723 SERIES I
KPD	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KPD	16	ITT CANNON	MIL-C-83723 SERIES I
KPSE	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KPSE	16	ITT CANNON	MIL-C-83723 SERIES I
KPT	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KPT	16	ITT CANNON	MIL-C-83723 SERIES I
KPTM	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KPTM	16	ITT CANNON	MIL-C-83723 SERIES I
KS*	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KS*	16	ITT CANNON	MIL-C-83723 SERIES I
KSP	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KSP	16	ITT CANNON	MIL-C-83723 SERIES I
KSPM	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KSPM	16	ITT CANNON	MIL-C-83723 SERIES I
KSSE	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
KSSE	16	ITT CANNON	MIL-C-83723 SERIES I
L*T	7	BURNDY	MIL-C-26482 SERIES 1 & 2
L*T	16	BURNDY	MIL-C-83723 SERIES I
LCT	10	PLESSEY	MIL-C-38999 SERIES I
LJT	10	BENDIX	MIL-C-38999 SERIES I
LM*C	4	BURNDY	MIL-C-5015
LM*C	17	BURNDY	MIL-C-83723 SERIES II
M0	4	IPI (SEA)	MIL-C-5015
M0	17	IPI (SAE)	MIL-C-83723 SERIES II
M28840/10	9	MILITARY	MIL-C-28840
M28840/11	9	MILITARY	MIL-C-28840
M28840/12	9	MILITARY	MIL-C-28840
M28840/14	9	MILITARY	MIL-C-28840
M28840/16	9	MILITARY	MIL-C-28840
M28840/17	9	MILITARY	MIL-C-28840
M28840/18	9	MILITARY	MIL-C-28840
M28840/19	9	MILITARY	MIL-C-28840
M28840/20	9	MILITARY	MIL-C-28840
M28840/21	9	MILITARY	MIL-C-28840
M28840/26	9	MILITARY	MIL-C-28840

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MS3142	4	MILITARY	MIL-C-5015
MS3143	4	MILITARY	MIL-C-5015
MS3400	4	MILITARY	MIL-C-5015
MS3401	4	MILITARY	MIL-C-5015
MS3402	4	MILITARY	MIL-C-5015
MS3404	4	MILITARY	MIL-C-5015
MS3406	4	MILITARY	MIL-C-5015
MS3408	4	MILITARY	MIL-C-5015
MS3409	4	MILITARY	MIL-C-5015
MS3412	4	MILITARY	MIL-C-5015
MS3436	4	MILITARY	MIL-C-5015
MS3440	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3442	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3443	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3447	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3450	4	MILITARY	MIL-C-5015
MS3451	4	MILITARY	MIL-C-5015
MS3452	4	MILITARY	MIL-C-5015
MS3454	4	MILITARY	MIL-C-5015
MS3456	4	MILITARY	MIL-C-5015
MS3459	4	MILITARY	MIL-C-5015
MS3470	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3471	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3472	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3473	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3474	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3475	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3476	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3477	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3479	7	MILITARY	MIL-C-26482 SERIES 1 & 2
MS3507	4	MILITARY	MIL-C-5015
MS90555	6	MILITARY	MIL-C-22992 CLASS L
MS90556	6	MILITARY	MIL-C-22992 CLASS L
MS90557	6	MILITARY	MIL-C-22992 CLASS L
MS90558	6	MILITARY	MIL-C-22992 CLASS L
MT3	8	MATRIX SCIENCE	MIL-C-26500
MT3	18	MATRIX SCIENCE	MIL-C-83723 SERIES III
MT93	12	MATRIX SCIENCE	MIL-C-38999 SERIES III

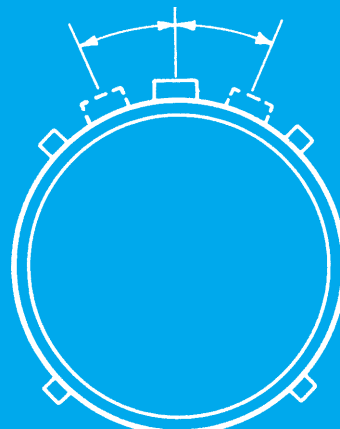
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NC	9	G & H TECHNOLOGY	MIL-C-28840
P	10	CONNECTOR INDUSTRIES	MIL-C-38999 SERIES I
PL	13	FLIGHT CONNECTOR	MIL-C-38999 SERIES IV
PT	7	BENDIX	MIL-C-26482 SERIES 1 & 2
PT	16	BENDIX	MIL-C-83723 SERIES I
PT*CE	7	BENDIX	MIL-C-26482 SERIES 1 & 2
PT*CE	16	BENDIX	MIL-C-83723 SERIES I
PT*SE	7	BENDIX	MIL-C-26482 SERIES 1 & 2
PT*SE	16	BENDIX	MIL-C-83723 SERIES I
PTS*DR	7	BENDIX	MIL-C-26482 SERIES 1 & 2
PTS*DR	16	BENDIX	MIL-C-83723 SERIES I
PV	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
PV	16	ITT CANNON	MIL-C-83723 SERIES I
PVA	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
PVA	16	ITT CANNON	MIL-C-83723 SERIES I
PVJ	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
PVJ	16	ITT CANNON	MIL-C-83723 SERIES I
PVW	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
PVW	16	ITT CANNON	MIL-C-83723 SERIES I
PVX	7	ITT CANNON	MIL-C-26482 SERIES 1 & 2
PVX	16	ITT CANNON	MIL-C-83723 SERIES I
PVX	19	CANNON ELECTRIC GB	PATTERN 602
PW	7	S.E.C.	MIL-C-26482 SERIES 1 & 2
PW	16	S.E.C.	MIL-C-83723 SERIES I
QWLD	5	BENDIX	MIL-C-22992 CLASSES C, J, R
RBC	7	DEUTSCH	MIL-C-26482 SERIES 1 & 2
RBC	16	DEUTSCH	MIL-C-83723 SERIES I
RR	19	HELLERMANN DEUTSCH	PATTERN 602
S*A-2000	4	HERMETIC SEAL CORP.	MIL-C-5015
S*A-2000	17	HERMETIC SEAL CORP.	MIL-C-83723 SERIES II
S*A-7000	7	HERMETIC SEAL CORP.	MIL-C-26482 SERIES 1 & 2
S*A-7000	16	HERMETIC SEAL CORP.	MIL-C-83723 SERIES I
SA	4	IPI (SAE)	MIL-C-5015

PREFIX	PAGE	MANUFACTURER	CONNECTOR SERIES (REFERENCE)
SA	17	IPI (SAE)	MIL-C-83723 SERIES II
SCP	4	BENDIX	MIL-C-5015
SCP	17	BENDIX	MIL-C-83723 SERIES II
SERIES I	10	ELECTRONIC SEALS	MIL-C-38999 SERIES I
SERIES II	11	ELECTRONIC SEALS	MIL-C-38999 SERIES II
SERIES III	12	ELECTRONIC SEALS	MIL-C-38999 SERIES III
SERIES IV	13	ELECTRONIC SEALS	MIL-C-38999 SERIES IV
SJT	20	BENDIX	SJT
SP	7	BENDIX	MIL-C-26482 SERIES 1 & 2
SP	16	BENDIX	MIL-C-83723 SERIES I
SP*CE	7	BENDIX	MIL-C-26482 SERIES 1 & 2
SP*CE	16	BENDIX	MIL-C-83723 SERIES I
T3	12	PYLE-NATIONAL	MIL-C-38999 SERIES III
TBF	4	BENDIX	MIL-C-5015
TBF	4	ITT CANNON	MIL-C-5015
TBF	17	BENDIX	MIL-C-83723 SERIES II
TBF	17	ITT CANNON	MIL-C-83723 SERIES II
TBFH	4	ITT CANNON	MIL-C-5015
TBFH	17	ITT CANNON	MIL-C-83723 SERIES II
TCT	12	PLESSEY	MIL-C-38999 SERIES III
TV	12	BENDIX	MIL-C-38999 SERIES III
VE	4	VEAM/LITTON	MIL-C-5015
VE	17	VEAM/LITTON	MIL-C-5015
VG	4	VEAM/LITTON	MIL-C-5015
VPT	7	VEAM/LITTON	MIL-C-26482 SERIES 1 & 2
VPT	16	VEAM/LITTON	MIL-C-83723 SERIES I
VPT*SE	7	VEAM/LITTON	MIL-C-26482 SERIES 1 & 2
VPT*SE	16	VEAM/LITTON	MIL-C-83723 SERIES I
VS	4	VEAM/LITTON	MIL-C-5015
VS	17	VEAM/LITTON	MIL-C-83723 SERIES II
VTBF	4	VEAM/LITTON	MIL-C-5015
VTBF	17	VEAM/LITTON	MIL-C-83723 SERIES II
VUT	7	VEAM/LITTON	MIL-C-26482 SERIES 1 & 2
VUT	16	VEAM/LITTON	MIL-C-83723 SERIES I
WFS	4	ITT CANNON	MIL-C-5015
WFS	17	ITT CANNON	MIL-C-83723 SERIES II
ZZ	8	PYLE-NATIONAL	MIL-C-26500

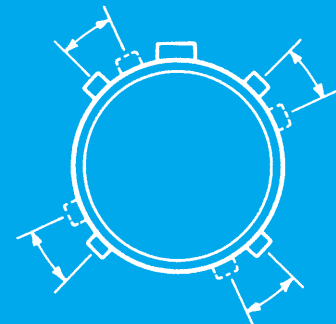
TYPICAL METHODS FOR ALTERNATE KEYING



INSERT ROTATION
 (KEYS REMAIN STATIONARY)



MASTER KEY ROTATION



MINOR KEY ROTATION

CONNECTOR MATE[®] ASSEMBLY VISE

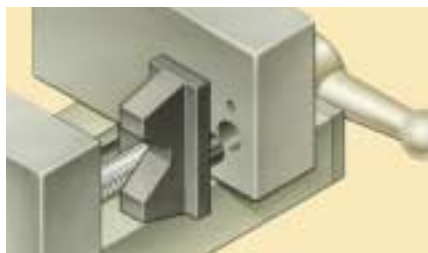


CONNECTOR
MATE



The continuing demands of electrical system designers have imposed such rapid development in the field of interconnection technology that new and different hardware is emerging to meet those demands. Along with the introduction of these new, and often more complex connectors and accessories, the challenge for versatile and reliable production tooling becomes apparent. To this end, **DMC** has accepted the challenge by developing the assembly station vise which provides a reliable and repeatable holding method for countless combinations of connectors and accessories. The use of removable soft-grip jaw inserts allows the vise to easily accommodate all popular connector diameters.

This is a reliable method of retaining circular parts, which avoids damage to critical platings and retains the circular shape of delicate parts.



HOW THE ASSEMBLY VISE WORKS

The system consists of non-marring jaw inserts and a specially designed vise to hold them. They can be used to hold any circular part within the size range available, including connectors, backshell accessories and adaptor tools.

In a conventional vise, one jaw is stationary, while the other moves on the thread mechanism. The assembly station vise is different in that it employs an *opposing thread design* — that is, both jaws move in synchronization. This design has several advantages for connector assembly:

FAST TIGHTENING: A part can be secured faster, a benefit to production procedures.

HIGH STRENGTH: A substantial increase in strength and thread life is achieved by the double-thread arrangement.

SELF-CENTERING: Because the jaws move towards each other, the work is always centered in the vise, and therefore, lateral stress and unnecessary movement of the work pieces are not introduced into the process.



ADJUSTABLE STOP: An added feature for convenience and efficiency of operation is the adjustable stop on the vise. This provides for extra gripping stability and a repeatable reference for production line applications.

JAW SETS

A set of jaws is designed to accommodate diameters from .375" to 3.00" (3/8" to 3"), within six different jaw sizes. This provides for flexibility of application — the same system can be used for most or all of the circular connectors and accessories in a cable assembly operation.



Jaws are available in two gripping widths — .400" and 1.000". The narrow jaws allow access to accessories which are smaller in diameter than adjacent components, whereas the wider jaws allow for a large grip area when higher torque values are required.

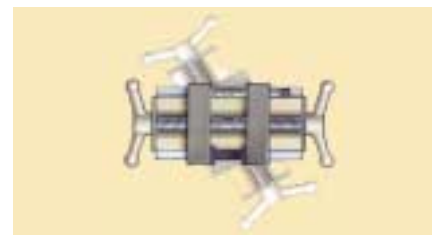
Jaws are made from high-friction material which will not damage connectors or accessories, yet will provide sufficient grip for most operations.



Prevents deformation of circular connectors and accessories by applying holding pressure evenly at four points on the circumference. That is, the jaws apply a force radially at four points equally spaced around the circumference such that the mono-coque structure readily accepts it without deformation.

If the force is applied on opposite sides (only two pressure points), the shell will tend to collapse, and this will in turn produce false torque readings because of increased friction between the components where the threads have been forced together.

A square drive on the thread handle allows the use of a torque device to minimize the possibility of overtightening.



The position of the jaw inserts in the vise can be changed to hold the work in the most convenient location for assembly.

The jaw inserts come packaged in a convenient metal container which keeps them clean, orderly and readily available for use. Also provided are instructions for their proper use. There are twelve pairs of jaw inserts in the container which accommodate diameters from 3/8" to 3".

ASSEMBLY VISE	
BT-VS-511	ASSEMBLY VISE WITH 24-PIECE SET OF JAW INSERTS
BT-VS-500	ASSEMBLY VISE ONLY (WITHOUT JAW INSERTS)
BT-S-550	24-PIECE SET OF JAW INSERTS, FOR USE WITH VISE BT-VS-500

TORQUE TOOLS

Today's advanced technology has created the need for high-precision, high-reliability cable assemblies, making it necessary to maintain consistency through every facet of the assembly procedure. This often requires the assurance of precise torque values.

Normally, torque requirements are only thought of as a means to prevent an assembly from loosening under vibration or other external forces. But in the present electronics environment, it is equally important not to overtighten an assembly risking damage to the sensitive components necessary in sophisticated connectors, damaging threads and protective plating, and creating stresses in the structures, thus reducing their effectiveness and service life.

DMC offers a range of torque tools which provide technicians with a simple and efficient way of measuring the torque values of their cable assembly components. These tools were selected and developed specially to meet the demands of connector wiring applications.

The actual torque values required for a particular connector or accessory may vary from one installation to the

next as torque values are mostly application dependent. Wiring system design drawings, process specifications, or component manufacturers' recommendations should serve as guidelines for specific torque limits.

STATIC VS. HAND-HELD TORQUE DEVICES

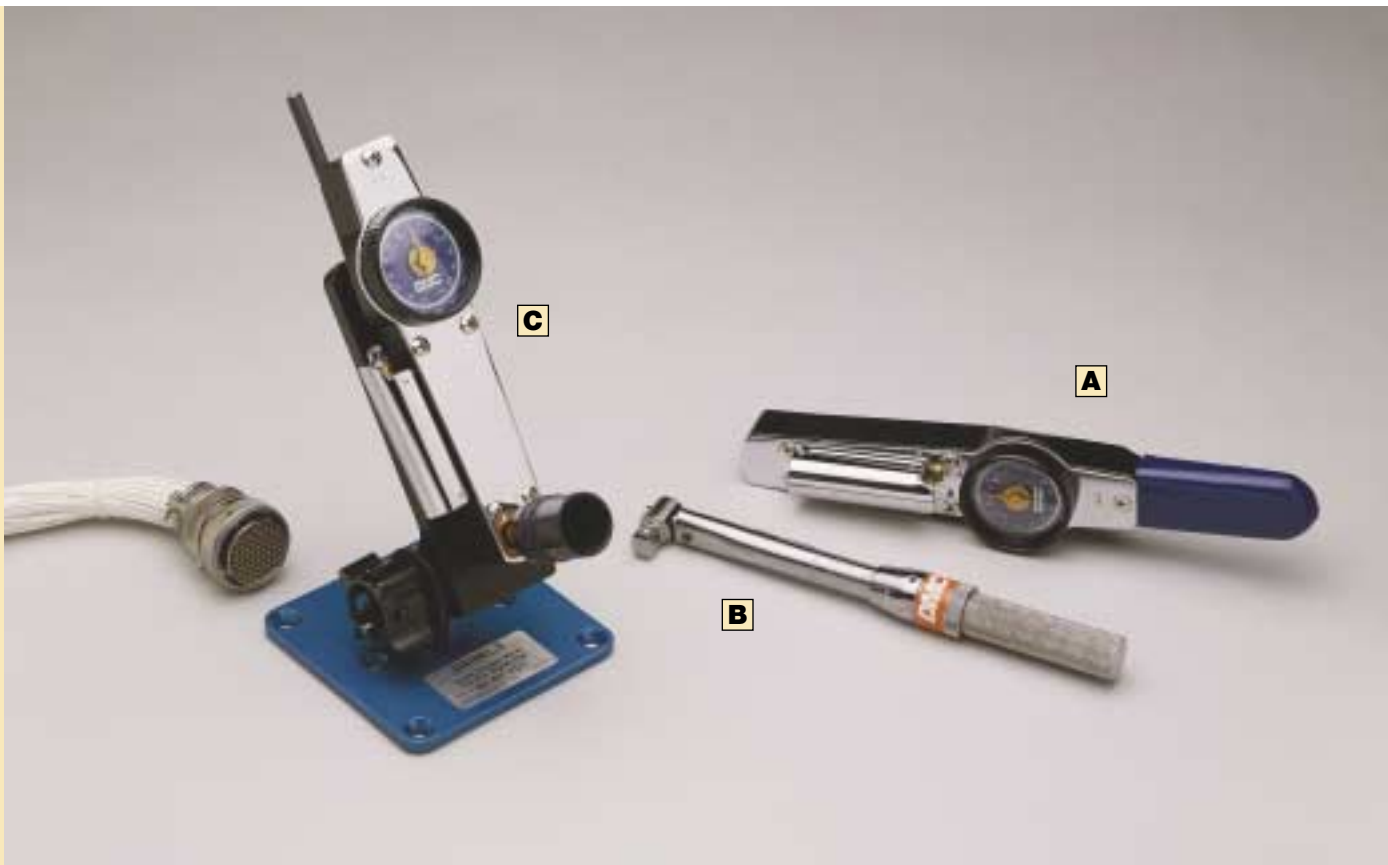
Static (or stationary) units have found fast acceptance because they can be used hands-free for accurate torque measurement. This is especially beneficial on production lines and for quality control verification of torque values. Because of their compact size and lightweight construction, they can be mounted in a variety of locations either on workbench or even on harness form board.

Of course, there will sometimes be applications where the use of a static unit is impractical, and accuracy and ease of operation can still be achieved with the use of the correct hand-held torque device.

NOTE: All dial indicator torque tools are supplied with an adaptor which enables them to be used in 1/4" and 3/8" applications.

HAND-HELD TORQUE TOOLS		
A.	BT-ST-751	DIAL INDICATOR TYPE TORQUE TOOL WITH LIGHT, 0-200 INCH POUNDS*
B.	SCTD0001	MICROMETER ADJUSTABLE, "CLICK" TYPE TORQUE WRENCH, WITH 3/8" DRIVE, 20-150 INCHES POUNDS
STATIONARY-MOUNT TORQUE TOOL		
C.	BT-ST-701	DIAL INDICATOR TYPE TORQUE TOOL WITH LIGHT (COMPLETE WITH MOUNTING BASE), 0-200 INCH POUNDS*
NOT PICTURED	BT-D-0551	ADAPTER - 3/8" DRIVE TO 1/4" SOCKET
	BT-D-0622	ADAPTER - 1/4" DRIVE TO 3/8" SOCKET

***ACCURACY:** 4% between 20% and full scale. Accuracy is not controlled below 20% of scale. DMC torque wrench calibration data is traceable to NIST.



STRAP WRENCHES

STRAP WRENCHES					
Group	Wrench P/N	Strap P/N	Strap Width (Color)	Strap Looped	Gripping Diameter
A	BT-BS-609	BT-A-6010	1/2" (Black)	Yes	.50" to 2.50"
	BT-BS-609B*	BT-A-6010B*	1/2" (Blue)	Yes	.50" to 2.50"
	BT-BS-609W	BT-A-6010W	1/2" (White)	Yes	.50" to 2.50"
A	BT-BS-610	BT-A-6010	1/2" (Black)	Yes	.50" to 2.50"
	BT-BS-610B*	BT-A-6010B*	1/2" (Blue)	Yes	.50" to 2.50"
	BT-BS-610W	BT-A-6010W	1/2" (White)	Yes	.50" to 2.50"
B	BT-BS-611	BT-A-6175	5/8" (Black)	Yes	2.00" to 4.00"
	BT-BS-611B*	BT-A-6175B*	5/8" (Blue)	Yes	2.00" to 4.00"
	BT-BS-611W	BT-A-6175W	5/8" (White)	Yes	2.00" to 4.00"
B	BT-BS-618	BT-A-6185	1" (Black)	Yes	2.00" to 4.00"
	BT-BS-618B*	BT-A-6185B*	1" (Blue)	Yes	2.00" to 4.00"
	BT-BS-618W	BT-A-6185W	1" (White)	Yes	2.00" to 4.00"
C	BT-BS-609SS	BT-A-6010-BK	1/2" (Black)	No	.50" to 2.50"
	BT-BS-609BSS*	BT-A-6010B-BK*	1/2" (Blue)	No	.50" to 2.50"
C	BT-BS-610SS	BT-A-6010-BK	1/2" (Black)	No	.50" to 2.50"
	BT-BS-610BSS*	BT-A-6010B-BK*	1/2" (Blue)	No	.50" to 2.50"
D	BT-BS-611SS	BT-A-6175-BK	5/8" (Black)	No	2.00" to 4.00"
	BT-BS-611BSS*	BT-A-6175B-BK*	5/8" (Blue)	No	2.00" to 4.00"
D	BT-BS-618SS	BT-A-6185-BK	1" (Black)	No	2.00" to 4.00"
	BT-BS-618BSS*	BT-A-6185B-BK*	1" (Blue)	No	2.00" to 4.00"

*The blue series strap wrench and replacement straps are preferred for connector/accessory use.

DMC strap wrenches have been specifically designed for connector assembly, rather than merely adapted from another use. The combination of lightweight materials, torque sensitive threads, and critical platings on modern connectors has mandated the requirement for precision made strap wrenches, which apply a uniform grip around the diameter and avoid pressure points or metal-to-metal contact.

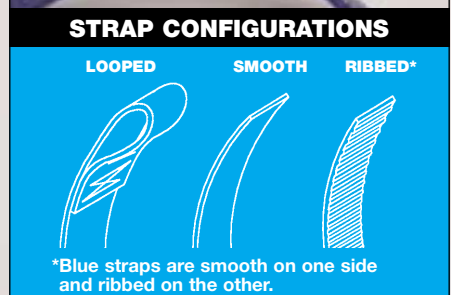
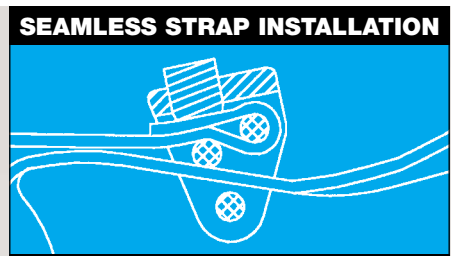
A variety of widths and lengths of straps is available, in several different handle configurations, so the system is suited to all common connector applications.

RETROFIT KITS To Convert Looped Strap Tools to Seamless Strap Tools					
Group	Wrench P/N	Strap P/N	Strap Width (Color)	Strap Looped	Gripping Diameter
E	BT-BS-625	BT-A-6250	1/2" (Black)	Yes	.50" to 2.0"
	BT-BS-630	BT-A-6300	7/16" (Black)	Yes	.50" to 2.0"
F	BT-BS-609SS-RK	BT-A-6010-BK	1/2" (Black)	No	.50" to 2.50"
	BT-BS-610SS-RK	BT-A-6010-BK	1/2" (Black)	No	.50" to 2.50"
	BT-BS-611SS-RK	BT-A-6175-BK	5/8" (Black)	No	2.00" to 4.00"
	BT-BS-618SS-RK	BT-A-6185-BK	1" (Black)	No	2.00" to 4.00"
	BT-BS-609BSS-RK	BT-A-6010-B	1/2" (Blue)	No	.50" to 2.50"
	BT-BS-610BSS-RK	BT-A-6010-B	1/2" (Blue)	No	.50" to 2.50"

TORQUE CONVERSION CHART FOR BT-BS-609 AND 610 SERIES												
Conversion Factor (Intersection of 2 Columns)		Desired Torque Value (In Lbs.)										
		40	60	80	100	120	140	168	180	200		
Diameter of Part Being Tightened (Inches)	.50	33	49	65	82	-	-	-	-	-	-	-
	.75	35	52	69	87	104	-	-	-	-	-	-
	1.00	34	51	68	85	102	120	-	-	-	-	-
	1.50	33	50	67	83	100	117	133	-	-	-	-
	1.75	33	49	66	82	99	115	132	148	-	-	-
	2.00	33	49	65	81	97	114	130	146	162	-	-
	2.25	32	48	65	80	96	112	128	144	160	-	-
	2.50	32	48	63	79	95	111	127	143	158	-	-

TORQUE CONVERSION CHART FOR BT-BS-611 AND 618 SERIES												
Conversion Factor (Intersection of 2 Columns)		Desired Torque Value (In Lbs.)										
		40	60	80	100	120	140	168	180	200		
Diameter of Part Being Tightened (Inches)	.50	33	49	65	82	-	-	-	-	-	-	-
	.75	32	48	64	81	97	113	-	-	-	-	-
	1.00	32	48	64	80	96	112	128	-	-	-	-
	1.50	31	47	62	78	93	109	125	140	-	-	-
	1.75	31	46	62	77	92	108	123	139	154	-	-
	2.00	30	46	61	76	91	107	122	137	152	-	-
	2.25	30	45	60	75	90	105	120	135	150	-	-
	2.50	30	45	59	74	89	104	119	134	149	-	-
	2.75	29	44	59	74	88	103	118	132	147	-	-
	3.00	29	44	58	73	87	102	116	131	145	-	-
3.25	29	3	58	72	86	101	115	129	143	-	-	
3.50	28	43	57	71	85	100	114	128	142	-	-	
3.75	28	42	56	70	84	99	113	127	140	-	-	
4.00	28	42	56	70	84	98	111	125	139	-	-	

THESE FACTORS ARE CALCULATED USING A MATHEMATICAL FORMULA. SEVERAL VARIABLES INFLUENCE THE ACTUAL VALUE AND THE FACTORS ARE PUBLISHED AS A GUIDE ONLY.



JAM NUT SOCKETS



The correct application of torque is essential to most connector applications where Jam Nut receptacle connectors are used. The sealing components (usually an "O" ring) must be compressed, but not to the point of damage. Another consideration when tightening Jam Nuts is the thread strength. This is extremely important in the various types of aluminum and composite connectors.

JAM NUT SOCKETS

DMC Jam Nut Socket tools have been developed specifically for the installation of Jam Nut receptacle connectors. They are available in a versatile composite construction which is an

excellent choice for OEM assembly areas due to their light weight, and the non-marking surfaces, a durable machined aluminum series and the traditional "General Purpose" formed steel socket for non-torque specific applications.

COMPOSITE JAM NUT SOCKETS

A unique process was developed to mold this composite material which contains a higher percentage of fiber-glass than is customarily used in conventional molding technology. This makes them as light and as strong as possible.

The material will not scratch plating, or damage the finish on cabinets, panels, or bulkheads when used properly.

ALUMINUM JAM NUT SOCKETS

When a metal socket is required, the anodized aluminum series jam nut sockets are a good choice. They are machined to the same configuration as the composite jam nut sockets with the square hold drive for torquing.

STEEL JAM NUT SOCKETS

Also available are formed Steel Jam Nut sockets. These are plated for corrosion resistance, and have drive

holes to accommodate a metal rod, or similar, drive tool.

We also recommend that you consider DMC **Safe-T-Cable™** to secure Jam Nut receptacles where lockwire holes are provided.

TO FIND THE CORRECT JAM NUT SOCKET FOR YOUR APPLICATION, MEASURE ACROSS THE FLATS OF THE JAM NUT YOU ARE WORKING WITH. NEXT, FIND THE SIZE RANGE IN THE ADJACENT TABLE. LISTED BESIDE IT WILL BE THE SOCKET YOU NEED.



PART NUMBER

BT-J - XXX XX X

BASIC P/N
 SIZE DESIGNATOR (SEE CHART BELOW)

SPECIAL CONFIGURATION: BLANK = STANDARD; 1 THRU X = NON-STANDARD
 MATERIAL: BLANK = COMPOSITE; AL = ALUMINUM; S = STEEL

COMPOSITE OR METAL JAM NUT SOCKETS

SIZE DESIGNATOR	FITS JAM NUT SIZE: INCHES	FITS JAM NUT SIZE: MILLIMETERS	SQUARE DRIVE	OUTSIDE DIA. REF.
117	.608 to .628	15.41 to 15.95	1/4"	.914"
118	.628 to .649	15.95 to 16.48	1/4"	.955"
120	.671 to .693	17.04 to 17.60	1/4"	.010"
121	.693 to .717	17.60 to 18.21	1/4"	1.04"
123	.741 to .765	18.82 to 19.43	1/4"	1.10"
124	.765 to .791	19.43 to 20.09	1/4"	1.13"
125	.791 to .818	20.09 to 20.77	1/4"	1.16"
126	.818 to .845	20.77 to 21.46	1/4"	1.19"
127	.845 to .873	21.46 to 22.17	1/4"	1.22"
128	.873 to .902	22.17 to 22.91	1/4"	1.26"
129	.902 to .933	22.91 to 23.69	1/4"	1.29"
130	.933 to .964	23.69 to 24.48	3/8"	1.33"
131	.964 to .996	24.48 to 25.29	3/8"	1.36"
132	.996 to 1.030	25.29 to 26.16	3/8"	1.41"
133	1.030 to 1.064	26.16 to 27.02	3/8"	1.45"
134	1.064 to 1.100	27.02 to 27.94	3/8"	1.51"
135	1.100 to 1.137	27.94 to 28.87	3/8"	1.55"
136	1.137 to 1.175	28.87 to 29.84	3/8"	1.59"
137	1.175 to 1.214	29.84 to 30.83	3/8"	1.63"
138	1.214 to 1.255	30.83 to 31.87	3/8"	1.69"
139	1.255 to 1.297	31.87 to 32.94	3/8"	1.73"
140	1.297 to 1.340	32.94 to 34.03	3/8"	1.78"
141	1.340 to 1.385	34.03 to 35.17	3/8"	1.84"
142	1.385 to 1.432	35.17 to 36.37	3/8"	1.89"
143	1.432 to 1.480	36.37 to 37.59	3/8"	1.95"
144	1.480 to 1.529	37.59 to 38.83	3/8"	2.00"
145	1.529 to 1.580	38.83 to 40.13	3/8"	2.06"
146	1.580 to 1.633	40.13 to 41.47	3/8"	2.12"
147	1.633 to 1.688	41.47 to 42.87	3/8"	2.19"
148	1.688 to 1.745	42.87 to 44.32	3/8"	2.25"
149	1.745 to 1.803	44.32 to 45.79	3/8"	2.32"
150	1.803 to 1.864	45.79 to 47.34	3/8"	2.39"
151	1.864 to 1.926	47.34 to 48.92	3/8"	2.46"
152	1.926 to 1.991	48.92 to 50.57	3/8"	2.54"
153	1.991 to 2.057	50.57 to 52.24	3/8"	2.61"
154	2.057 to 2.126	52.24 to 54.00	3/8"	2.69"
155	2.126 to 2.197	54.00 to 55.80	3/8"	2.78"
156	2.197 to 2.271	55.80 to 57.68	3/8"	2.87"
157	2.271 to 2.347	57.68 to 59.61	3/8"	2.95"
158	2.347 to 2.426	59.61 to 61.62	3/8"	3.04"
159	2.426 to 2.507	61.62 to 63.67	3/8"	3.14"
160	2.507 to 2.591	63.67 to 65.81	3/8"	3.24"
161	2.591 to 2.678	65.81 to 68.02	3/8"	3.34"
162	2.678 to 2.769	68.02 to 70.33	3/8"	3.44"
163	2.769 to 2.860	70.33 to 72.64	3/8"	3.54"
164	2.860 to 2.956	72.64 to 75.08	3/8"	3.66"
165	2.956 to 3.055	75.08 to 77.59	3/8"	3.77"
166	3.055 to 3.157	77.59 to 80.18	3/8"	3.89"

GENERAL PURPOSE JAM NUT SOCKET

DMC PART NUMBER	FITS JAM NUT SIZE: INCHES	AMPHENOL BCO PART NUMBER	HEX REF. DIM: INCHES	EQUIVALENT COMPOSITE
CS8	.755 to .763	11-6266-3	3/4"	N/A
CS10	.880 to .888	11-6266-5	7/8"	BT-J-128
CS12	1.068 to 1.077	11-6266-8	1 1/16"	BT-J-134
CS14	1.194 to 1.204	11-6266-10	1 3/16"	BT-J-137
CS16	1.320 to 1.331	11-6266-12	1 5/16"	BT-J-140
CS18	1.446 to 1.457	11-6266-14	1 7/16"	BT-J-143
CS20	1.571 to 1.580	11-6266-16	1 9/16"	BT-J-145
CS22	1.696 to 1.708	11-6266-18	1 11/16"	BT-J-148
CS24	1.822 to 1.835	11-6266-20	1 13/16"	BT-J-150
CS22-1	2.011 to 2.025	11-6266-23	2"	BT-J-153
CS24-1	2.137 to 2.151	11-6266-25	2 1/8"	BT-J-155
CS32	2.640 to 2.687	11-6266-33	2 5/8"	BT-J-161 & BT-J-162

NA (Not available at time of printing — consult factory)

GENERAL PURPOSE BACKSHELL/ACCESSORY TOOLS



ADJUSTABLE JAM NUT WRENCH

SOFT JAW ADJUSTABLE PLIERS

CIRCULAR RING PLIERS

CONNECTOR HOLDING PLIERS

ADJUSTABLE JAM NUT WRENCH

The JR700 adjustable jam nut wrench is a versatile tool for maintenance and low volume production. The rugged all steel construction makes this tool a good choice for heavy duty applications.

The tool may be adjusted to accommodate hex nuts from .75 inch to 3.25 inch (across flat) dimensions. The maximum working depth is 1.0 inch. This range has been found to accommodate most common connectors.

A standard 3/8 inch drive torque wrench may be used in conjunction with this tool to limit the possibility of overtightening.

TORQUE CONVERSION CHART FOR JR700 TOOL										
Conversion Factor (Intersection of 2 Columns)		Desired Torque Value (In Lbs.)								
		40	60	80	100	120	140	168	180	200
Diameter of Part Being Tightened (Inches)	.50	7.04	10.57	14.09	17.62	-	-	-	-	-
	.75	7.23	10.84	14.46	18.08	21.69	-	-	-	-
	1.00	7.42	11.13	14.85	18.56	22.27	25.99	-	-	-
	1.50	7.84	11.77	15.69	19.61	23.54	27.46	31.39	-	-
	1.75	8.07	12.11	16.15	20.18	24.22	28.26	32.30	36.34	-
	2.00	8.31	12.47	16.63	20.79	24.95	29.11	33.27	37.43	41.59
	2.25	8.57	12.86	17.15	21.44	25.72	30.01	34.30	38.59	42.88
	2.50	8.83	13.24	17.66	22.07	26.49	30.90	35.32	39.73	44.15
	2.75	9.14	13.71	18.28	22.85	27.42	31.99	36.56	41.13	45.70
	3.00	9.45	14.18	18.90	23.63	28.36	33.08	37.81	42.54	47.27
3.25	9.78	14.68	19.57	24.46	29.36	34.25	39.14	44.04	48.93	

The overall length is 11.5 inches and the approximate weight is 2 lbs.

SOFT JAW ADJUSTABLE PLIERS

The BT-SJ-468 soft jaw adjustable pliers are a handy addition to general maintenance tool stations. This tool can provide a reliable gripping function for assembly, disassembly, and positioning of circular and oval parts.

The soft jaw inserts are replaceable and may be ordered as separate parts (part number BT-SJ-468-1). This part number applies to an individual jaw (two pieces are required per tool).

The overall length is 9.5 inches and the approximate weight is .5 lb.

CIRCULAR RING PLIERS

The DRP-XX circular ring pliers are specifically designed to grip circular connector and backshell components which would be deformed by other gripping methods. The nonmarring rubber jaw lining material is available in strip form and may be used to replace worn jaw inserts. It is held in place by interlocking fingers which are molded into the material.

The following chart defines the working diameters and the tools which are available in this series.

REFERENCE DIAMETER		TOOL PART NUMBER
INCH	METRIC	
.618	15.69	DRP-08
.734	18.64	DRP-10
.858	21.79	DRP-12
.954	24.23	DRP-14
1.112	28.24	DRP-16
1.198	30.42	DRP-18
1.322	33.57	DRP-20
1.448	36.77	DRP-22
1.574	39.97	DRP-24
1.674	42.51	DRP-26
1.970	50.03	DRP-28

Each tool has an overall length of 9 inches, and an approximate weight of .5 lb.

CONNECTOR HOLDING PLIERS

The CW100-X connector holding plier series of tools are appropriately suited to connector maintenance and assembly operations where the connector and related hardware must be stabilized. For further assembly or disassembly. These operations include installation/removal of contacts, soldering, applying safety wires, installing saddle clamps or other strain relief components, mounting screws which hold receptacle connectors in place, and many other functions.

The split ring design is capable of gripping a range of diameters and includes a split ring of a different diameter on the opposite side of the tool head. In most cases, the smaller diameter grips the plug portion of the connector, while the larger diameter is usually compatible with the mating receptacle connector.

NOTE: Applications requiring rotational force such as torquing of backshell components should be performed with other types of tooling such as adaptor tools (featured on page two of this catalog).

The following chart lists tool diameters and approximate connector application.

Tool Part Number	Large Inch	Diameter Metric	Small Inch	Diameter Metric	Approximate Shell Size*
CW100-1	.605	1.54	.415	1.05	8-11
CW100-2	.690	1.75	.530	1.35	12-15
CW100-3	.930	2.36	.800	2.03	16-19
CW100-4	1.172	2.98	1.022	2.60	20-23
CW100-5	1.388	3.53	1.280	3.25	24-25
CW100-6	1.551	3.94	1.530	3.89	26-28

*Actual shell size may differ in some applications.
 Each tool has an overall length of 7.5 inches, and an approximate weight of .75 lb.

TOOL IDENTIFICATION CHART (SEE PHOTO)		
A.	BT-HT-110	1/4" Socket Driver Handle
B.	BT-HT-210	1/4" Stationary Drive Mounting Arm
	BT-HT-211	3/8" Stationary Drive Mounting Arm
C.	BT-D-0551	3/8" to 1/4" Adaptor
	BT-D-0622	1/4" to 3/8" Adaptor
D.	BT-HT-107	3/8" Square Drive T-Handle Wrench
E.	BT-HT-100	1/4" Square Drive T-Handle Wrench
F.	BT-A-0513	Ratchet 3/8" Drive
G.	4-1149	Illuminated Magnifier

Consult the factory or authorized DMC distributor for more information.



KITS

Efficient wiring system support, production line readiness, and other considerations often mandate the availability of combinations of tools, accessories, and user instructions. This tooling and data must be well-organized and packaged properly for its intended environment. DMC has designed and manufactured system service kits longer than anyone in the connector tooling industry. We offer an extensive line of maintenance/repair kits, production (work station) kits, and tool sets, many of which contain combinations of tools from the BETA product line.

Many items in this catalog are available in configurations other than those shown, and are also available in combination with other DMC products. Please consult the factory for your specific requirements.



OTHER PRODUCTS FROM **DMC** ...



COMPLETE MAINTENANCE TOOL KITS

Contact our knowledgeable staff of customer service application experts for details on other quality products from DMC.

DMC tools have become the standard for Military, Aircraft, Aerospace and Industrial use.

DMC can meet your needs for connector system production and maintenance, fastener retention system and test/verification equipment for compliance with SPC/ISO standards.



HAND OPERATED CRIMP TOOLS



Safe-T-Cable™ FASTENER RETENTION SYSTEM



ALPHATRON WIRE CRIMP PULL TESTERS



PNEUMATIC CRIMP TOOLS



WIRE STRIPPERS AND REPLACEMENT BLADES

DMC DANIELS
MANUFACTURING
CORPORATION

526 THORPE ROAD • ORLANDO, FLORIDA 32824 USA
PHONE: 407-855-6161 • FAX: 407-855-6884
E-MAIL: DMC@DMCTOOLS.COM • WWW.DMCTOOLS.COM

NATIONAL STOCK NUMBERS FOR BETA™ SERIES TOOLING

<i>DMC P/N</i>	<i>NSN P/N</i>	<i>DMC P/N</i>	<i>NSN P/N</i>	<i>DMC P/N</i>	<i>NSN P/N</i>	<i>DMC P/N</i>	<i>NSN P/N</i>
BT-AT-1500	5120-01-376-9839	CM288-33B	5120-01-377-4586	CM389S-8	5120-01-377-1273	CM5015R-32	5120-01-377-1333
BT-BS-601	5120-01-335-8841	CM288R-11A	5120-01-377-4603	CM389T-11A	5120-01-377-1302	CM5015R-36	5120-01-377-1298
BT-BS-609	5120-01-335-8842	CM288R-11B	5120-01-377-4534	CM389T-11B	5120-01-377-1178	CM5015R-40	5120-01-377-1316
BT-BS-610	5120-01-335-8843	CM288R-13A	5120-01-377-4545	CM389T-13A	5120-01-377-1215	CM5015R-44	5120-01-377-1202
BT-BS-611	5120-01-335-8844	CM288R-13B	5120-01-377-1327	CM389T-13B	5120-01-377-1297	CM5015R-48	5120-01-379-0200
BT-BS-618	5120-01-335-8845	CM288R-15A	5120-01-377-1269	CM389T-15A	5120-01-377-1172	CM5015R-8	5120-01-377-1238
BT-BS-625	5120-01-335-8846	CM288R-15B	5120-01-379-0154	CM389T-15B	5120-01-377-1200	CM815L-10A	5120-01-377-1312
BT-BS-630	5120-01-335-8847	CM288R-17A	5120-01-377-1182	CM389T-17A	5120-01-379-0146	CM815L-10B	5120-01-377-1264
BT-J-132	5120-01-368-4132	CM288R-17B	5120-01-377-1321	CM389T-17B	5120-01-377-1263	CM815L-14A	5120-01-377-1169
BT-ST-701	5120-01-335-8179	CM288R-19A	5120-01-377-1301	CM389T-19A	5120-01-377-4604	CM815L-14B	5120-01-377-1328
BT-ST-725	5120-01-335-8177	CM288R-19B	5120-01-377-1314	CM389T-19B	5120-01-377-1311	CM815L-16A	5120-01-377-1170
BT-ST-751	5120-01-335-8178	CM288R-23A	5120-01-377-1227	CM389T-21A	5120-01-377-1207	CM815L-16B	5120-01-377-4583
CM229-12	5120-01-377-1198	CM288R-23B	5120-01-377-1251	CM389T-21B	5120-01-377-1224	CM815L-18A	5120-01-377-4530
CM229-14	5120-01-377-1250	CM288R-25A	5120-01-377-1294	CM389T-23A	5120-01-377-1245	CM815L-18B	5120-01-377-4567
CM229-16	5120-01-377-1284	CM288R-25B	5120-01-377-1171	CM389T-23B	5120-01-377-1158	CM815L-20A	5120-01-377-1335
CM229-18	5120-01-377-1157	CM288R-29A	5120-01-377-1197	CM389T-25A	5120-01-377-4525	CM815L-20B	5120-01-377-1189
CM229-20	5120-01-377-4529	CM288R-29B	5120-01-377-1240	CM389T-25B	5120-01-377-1320	CM815L-22A	5120-01-377-4553
CM229-22	5120-01-377-1324	CM288R-33A	5120-01-377-4523	CM389T-9A	5120-01-377-1230	CM815L-22B	5120-01-377-4570
CM229-24	5120-01-377-1257	CM288R-33B	5120-01-377-1318	CM389T-9B	5120-01-379-0194	CM815L-24A	5120-01-377-1334
CM229-36	5120-01-377-1272	CM389B-11	5120-01-377-1234	CM389TR-11A	5120-01-377-1288	CM815L-24B	5120-01-377-4508
CM229-40	5120-01-377-4507	CM389B-13	5120-01-368-4117	CM389TR-11B	5120-01-379-0139	CM815L-8A	5120-01-377-4595
CM229L-28	5120-01-377-1319	CM389B-15	5120-01-368-4133	CM389TR-13A	5120-01-377-1252	CM815L-8B	5120-01-377-4543
CM229L-32	5120-01-377-1223	CM389B-17	5120-01-377-1261	CM389TR-13B	5120-01-379-0171	CM815L-10A	5120-01-377-4569
CM229L-44	5120-01-377-4578	CM389B-19	5120-01-377-1305	CM389TR-15A	5120-01-377-1188	CM815L-10B	5120-01-377-4519
CM229L-48	5120-01-377-1287	CM389B-21	5120-01-377-1208	CM389TR-15B	5120-01-379-0140	CM815S-14A	5120-01-377-4552
CM229L-52	5120-01-377-1187	CM389B-23	5120-01-377-1236	CM389TR-17A	5120-01-379-0193	CM815S-14B	5120-01-377-4581
CM264-10	5120-01-377-4551	CM389B-25	5120-01-377-1152	CM389TR-17B	5120-01-379-0191	CM815S-16A	5120-01-377-1308
CM264-12	5120-01-368-4118	CM389BR-11	5120-01-377-1186	CM389TR-19A	5120-01-379-0172	CM815S-16B	5120-01-377-1216
CM264-14	5120-01-368-4119	CM389BR-13	5120-01-377-1210	CM389TR-19B	5120-01-379-0161	CM815S-18A	5120-01-377-1310
CM264-16	5120-01-368-4120	CM389BR-15	5120-01-377-1244	CM389TR-21A	5120-01-379-0142	CM815S-18B	5120-01-377-1211
CM264-18	5120-01-377-4564	CM389BR-17	5120-01-377-1300	CM389TR-21B	5120-01-379-0180	CM815S-8	5120-01-377-1331
CM264-20	5120-01-368-4121	CM389BR-19	5120-01-377-1181	CM389TR-23A	5120-01-379-0173	CM837-10A	5120-01-368-4124
CM264-22	5120-01-377-4584	CM389BR-21	5120-01-377-1214	CM389TR-23B	5120-01-377-4535	CM837-10B	5120-01-377-1296
CM264-24	5120-01-377-4513	CM389BR-23	5120-01-377-1190	CM389TR-25A	5120-01-377-4605	CM837-12A	5120-01-377-1313
CM264-8	5120-01-377-1212	CM389BR-25	5120-01-377-1249	CM389TR-25B	5120-01-377-4568	CM837-12B	5120-01-377-1307
CM264R-10	5120-01-377-1233	CM389L-11	5120-01-377-1156	CM389TR-9A	5120-01-377-4600	CM837-14A	5120-01-368-4125
CM264R-12	5120-01-368-4123	CM389L-13	5120-01-377-1192	CM389TR-9B	5120-01-377-4527	CM837-14B	5120-01-377-1193
CM264R-14	5120-01-368-4122	CM389L-15	5120-01-377-1225	CM5015-10	5120-01-377-4562	CM837-16A	5120-01-368-4126
CM264R-16	5120-01-377-1256	CM389L-17	5120-01-377-1266	CM5015-12	5120-01-377-4602	CM837-16B	5120-01-377-1231
CM264R-18	5120-01-377-1291	CM389L-19	5120-01-377-1151	CM5015-14	5120-01-377-4536	CM837-18A	5120-01-368-4127
CM264R-20	5120-01-377-1149	CM389L-21	5120-01-377-1180	CM5015-16	5120-01-377-4547	CM837-18B	5120-01-377-1260
CM264R-22	5120-01-377-1203	CM389L-23	5120-01-368-4143	CM5015-18	5120-01-368-4147	CM837-20A	5120-01-368-4128
CM264R-24	5120-01-377-1222	CM389L-25	5120-01-368-4142	CM5015-20	5120-01-377-4587	CM837-20B	5120-01-377-1285
CM264R-8	5120-01-377-1239	CM389L-9	5120-01-377-1226	CM5015-22	5120-01-377-4526	CM837-22A	5120-01-368-4131
CM288-11A	5120-01-377-1271	CM389LR-11	5120-01-377-1259	CM5015-24	5120-01-377-4559	CM837-22B	5120-01-368-4129
CM288-11B	5120-01-377-1150	CM389LR-13	5120-01-377-1292	CM5015-28	5120-01-368-4146	CM837-24A	5120-01-368-4130
CM288-13A	5120-01-377-1179	CM389LR-15	5120-01-377-1161	CM5015-32	5120-01-377-4588	CM837-24B	5120-01-377-1162
CM288-13B	5120-01-377-1204	CM389LR-17	5120-01-377-1213	CM5015-36	5120-01-377-4518	CM837-8A	5120-01-377-1194
CM288-15A	5120-01-377-1235	CM389LR-19	5120-01-377-1267	CM5015-40	5120-01-377-1209	CM837-8B	5120-01-377-4560
CM288-15B	5120-01-377-1258	CM389LR-21	5120-01-377-1329	CM5015-44	5120-01-377-4574	CM837-8C	5120-01-377-1330
CM288-17A	5120-01-377-1332	CM389LR-23	5120-01-368-4145	CM5015-48	5120-01-377-1306	CM837-8D	5120-01-377-1147
CM288-17B	5120-01-377-1177	CM389LR-25	5120-01-368-4144	CM5015-8	5120-01-377-1201	CM837RB-10	5120-01-377-4571
CM288-19A	5120-01-377-4548	CM389LR-9	5120-01-377-1295	CM5015R-10	5120-01-377-4579	CM837RB-12	5120-01-368-4135
CM288-19B	5120-01-377-4656	CM389S-10	5120-01-377-4549	CM5015R-12	5120-01-377-4506	CM837RB-14	5120-01-368-4136
CM288-23A	5120-01-377-4609	CM389S-12	5120-01-377-4573	CM5015R-14	5120-01-368-4134	CM837RB-16	5120-01-368-4137
CM288-23B	5120-01-377-4524	CM389S-14	5120-01-377-1309	CM5015R-16	5120-01-377-1315	CM837RB-18	5120-01-368-4138
CM288-25A	5120-01-377-1326	CM389S-16	5120-01-377-1183	CM5015R-18	5120-01-377-1217	CM837RB-20	5120-01-368-4139
CM288-25B	5120-01-377-1278	CM389S-18	5120-01-377-1323	CM5015R-20	5120-01-377-1253	CM837RB-22	5120-01-368-4140
CM288-29A	5120-01-377-4514	CM389S-20	5120-01-377-1268	CM5015R-22	5120-01-368-4149	CM837RB-24	5120-01-368-4141
CM288-29B	5120-01-377-1317	CM389S-22	5120-01-377-4598	CM5015R-24	5120-01-368-4148	CM837RB-8	5120-01-377-1185
CM288-33A	5120-01-377-1243	CM389S-24	5120-01-377-1325	CM5015R-28	5120-01-377-1218		

Additional NSNs may be available, consult DMC.

LIMITATION OF LIABILITY/LIMITED WARRANTY*

DANIELS MANUFACTURING CORPORATION IS NOT LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY NATURE OR KIND RESULTING FROM THE USE OF ANY OF ITS PRODUCTS. OWNERS AND USERS OF DMC PRODUCTS ASSUME FULL RESPONSIBILITY FOR INSTRUCTING THEIR EMPLOYEES IN THE PROPER AND SAFE USE OF SUCH PRODUCTS.

Daniels Manufacturing Corporation warrants each new unit sold by it to be free from defects in material and workmanship under normal use and service. Its obligation under this warranty is limited to the free correction or, at its option, the refund of the purchase price of any such unit which proves defective within ninety (90) days after delivery to the first user, provided that the unit is returned to it with all transportation charges prepaid, and which shall appear to its satisfaction, upon inspection by it, to have been defective in material or workmanship. This warranty shall not cover any damage to such products, which in the opinion of Daniels Manufacturing Corporation, was caused by normal wear, misuse, improper operation or accident. This warranty is in lieu of all other warranties express or implied. No warranty, express or implied, is made or authorized to be made or assumed with respect to products of Daniels Manufacturing Corporation, other than that herein set forth.

*as defined by PL93-637



526 Thorpe Road • Orlando, Florida 32824 USA

Phone: 407-855-6161 • Fax: 407-855-6884

E-Mail: dmc@dmctools.com

WWW.DMCTOOLS.COM