Shield Termination



Introduction

TE SolderSleeve shield grounding terminators provide an environmentally sealed, insulated, and encapsulated solder connection for a variety of applications. SolderSleeve terminators are available in many styles.

Designed for a wide variety of temperature applications ranging from -65°C to 200°C [-85°F to 392°F], the products in this section include:

- B-155-X and CWT-X SolderSleeve terminators, designed for low-temperature cables with operating temperatures up to 125°C [257°F] and suitable for most commercial environments.
- MIL-S-83519 SolderSleeve terminators, which are immersion resistant and available with or without a preinstalled ground lead.
- SO Series SolderSleeve terminators, which also are immersion resistant and feature the TE BiAlloy temperature indication system.
- S200 Shield terminators are offered in various sizes and ground lead configurations.

All SolderSleeve products are reliable, versatile, and easy to install, resulting in lower installed costs.





RUGGED

 Transparent insulation sleeve provides encapsulation, inspectability, strain relief, and insulation

VERSATILE

• Prefluxed solder preform provides a controlled soldering process

EASY TO USE

- One-piece design means easy installation and lower installed cost
- Optional preinstalled ground leads provide convenience and ease of installation

APPLICATIONS

• Used for shield-to-ground termination

SolderSleeve Shield Terminators

Product Selection Process

- 1. Select product series from the Product Options table below.
- 2. Determine cable dimensions.
- 3. Optional: Select preinstalled wire lead type (see Table G on page 53 for type descriptions).
- 4. Select part number (use the selection table indicated for your product series in the Product Options table below).
- 5. Refer to Table H on page 53 for cross-reference information.



Product Options (Refer to Table G on Page 53 for Additional Information)

Product Series	System Oper. Temperature (Max.)	Used on Cables Rated (Min.)	Environmental Protection	Solder Alloy	Flux Type	Insulation Material	Part No. Selection Table
B-155	125°C [257°F]	85°C [185°F]	Splash resistant	Bi58	PA	Polyolefin	A
CWT	125°C [257°F]	85°C [185°F]	Splash resistant	Cd18	RA	Polyolefin	A
SO63*	150°C [302°F]	125°C [257°F]	Immersion resistant	Sn63	RMA	Polyvinylidene fluoride	В
S01/S02**, S03	150°C [302°F]	125°C [257°F]	Immersion resistant	Sn63	RMA	Polyvinylidene fluoride	C, D
SO96***	175°C [347°F]	150°C [302°F]	Immersion resistant	Sn96	RA	Polyvinylidene fluoride	E
SO175****	175°C [347°F]	150°C [302°F]	Immersion resistant	Sn96	RA	Polyvinylidene fluoride	F
S200****	200°C [392°F]	150°C [302°F]	Immersion resistant	Sn96	RA	Fluoropolymer	G

*Meets performance requirements of SAE-AS83519 (formerly MIL-S-83519) and NAS 1747, supplied with BiAlloy temperature indicator.

**Qualified to SAE-AS83519 (formerly MIL-S-83519), supplied with thermochromic temperature indicator.

***Meets performance requirements of SAE-AS83519 (formerly MIL-S-83519) and NAS 1747, supplied with thermochromic temperature indicator.

****Meets performance requirements of SAE-AS83519 (formerly MIL-S-83519), supplied with BiAlloy temperature indicator.

Note: Cadmium-free option (B-152 series) is available for operating temperature of 125°C [257°F]. Consult TE for details.





ECONOMICAL

- One-piece design allows for a singlestep, simplified installation and a low total installed cost
- Bi-alloy or thermochromic temperature indicator works as a process control aid and simplifies operator training
- Offered in various sizes and ground lead configurations

CAPABLE

- Provides a completely soldered, strain-relieved termination
- Heat-shrinkable sleeve helps provide insulation, inspectability, and strain relief
- Designed for high-temperature applications up to 200°C
- Sealing inserts helps ensure reliable, environmental protection

APPLICATIONS

- Shield termination of cables subjected to a minimum temperature rating of 150°C and maximum operating temperature of 200°C
- Protecting and sealing for BMS 13-60 PTFE wrapped cables and M27500 cables with PTFE/polyimide jackets

Raychem S200 Shield Terminators

High-Performance, High-Temperature Cable Terminators

An important extension of the Raychem SolderSleeve family, S200 shield termination devices were developed specifically to address the need for high-temperature connecting, insulating, and sealing for applications in the aerospace and defense industry.

Wide Selection

Offered in various sizes and ground lead configurations, our S200 shield termination devices provide environmentally protected shield termination on cables with a minimum temperature rating of 150°C, and silver or nickel-plated shields. They are also available with bi-alloy or thermochromic indicators

Fast Installation and Lower Costs

Convenient to use, the one-piece design of S200 shield termination devices help ensure reliable environmental protection and greatly simplified installation for a lower total installed cost.

MATERIALS

- Solder: Tin 96%/Silver 4% bi-alloy solder
- Tubing: Heat-shrinkable modified fluoropolymer
- Inserts: Thermoplastic fluoropolymer

STANDARDS AND SPECIFICATIONS

- Industry Standards: SAE-AMS-DTL-23053/13 (applies to heat-shrinkable insulation sleeve only) SAE-AS83519 (modified for 200°C applications) EU RoHS/ELV compliant
- TE Instruction Sheet: RCPS-100-71
- TE Qualification and Test Report: Available on request

MECHANICAL/ENVIRONMENTAL

- Operating Temperature: 150°C to 200°C
- **Durability**: Heat-shrinkable sleeve adheres and seals to provide a completely soldered, strain-relieved termination

ORDERING INFORMATION (TC indicates that this part has a thermochromic indicator)

Without ground lead

Jacket OD (mm)	Shield (mm)	Product Description	Raychem Part Number	SAE AS83519
1.90	0.90	S200-1-00	F92583-000	
1.90	0.90	S200-1-00-TC	CN5417-000	
2.67	1.40	S200-2-00	F94898-000	
2.67	1.40	S200-2-00-TC	CN5418-000	
4.32	2.15	S200-3-00	A65903-000	
4.32	2.15	S200-3-00-TC	CN5419-000	
5.97	3.30	S200-4-00	E32454-000	
5.97	3.30	S200-4-00-TC	CN5420-000	
6.98	4.30	S200-5-00	D12074-000	
6.98	4.30	S200-5-00-TC	CN5421-000	

With pre-installed braid: Nickel-plated copper strands in accordance to AA59569F36N0031. (6 Inches)

Jacket OD (mm)	Shield (mm)	Product Description	Raychem Part Number	SAE AS83519
1.90	0.90	S200-1-01	CS5526-000	M83519/5-1
2.67	1.40	S200-2-01	D08259-000	M83519/5-2
4.32	2.15	S200-3-01	A77145-000	M83519/5-3
5.97	3.30	S200-4-01	F26506-000	M83519/5-4
6.98	4.30	S200-5-01	A18826-000	M83519/5-5

With pre-installed braid: Ni-plated copper strands per ASTM B355, Class 4. CMA = 1200. (6 Inches)

Jacket OD (mm)	Shield (mm)	Product Description	Raychem Part Number	SAE AS83519
1.90	0.90	S200-1-9020	CJ1037-000	M83519/5-11
1.90	0.90	S200-1-9020-TC	CP7589-000	M83519/5-16
2.67	1.40	S200-2-9020	CJ1039-000	M83519/5-12
2.67	1.40	S200-2-9020-TC	CP4262-000	M83519/5-17
4.32	2.15	S200-3-9020	CJ1041-000	M83519/5-13
4.32	2.15	S200-3-9020-TC	CP6063-000	M83519/5-18
5.97	3.30	S200-4-9020	CJ1042-000	M83519/5-14
5.97	3.30	S200-4-9020-TC	CP6893-000	M83519/5-19
6.98	4.30	S200-5-9020	CJ1043-000	M83519/5-15
6.98	4.30	S200-5-9020-TC	CP7313-000	M83519/5-20

With pre-installed braid: Ni-plated copper strands per ASTM B355, Class 4. CMA = 1800. (6 Inches)

Jacket OD (mm)	Shield (mm)	Product Description	Raychem Part Number	SAE AS83519
1.90	0.90	S200-1-9030	CA7639-000	
2.67	1.40	S200-2-9030	CA7640-000	
4.32	2.15	S200-3-9030	CA7641-000	
5.97	3.30	S200-4-9030	CA7642-000	
6.98	4.30	S200-5-9030	CA7643-000	
6.98	4.30	S200-5-9030-TC	CP7417-000	

With pre-installed braid: High nickel-plated copper strands per ASTM-B355 Class 7. CMA = 640. (10 Inches)

Jacket OD (mm)	Shield (mm)	Product Description	Raychem Part Number	SAE AS83519
1.90	0.90	S200-1-01-100HN	D89883-000	
2.67	1.40	S200-2-01-100HN	A87947-000	
4.30	2.15	S200-3-01-100HN	A59779-000	
5.95	3.30	S200-4-01-100HN	C69495-000	
6.90	4.30	S200-5-01-100HN	D92195-000	

With pre-installed braid: Stranded nickel-plated copper wire in accordance with SAE-AS22759/41.

Jacket OD (mm)	Shield (mm)	Product Description	Raychem Part Number	SAE AS83519
1.90	0.90	S200-1-55-22-9	EH1934-000	
2.67	1.40	S200-2-55-22-9	EH1935-000	
4.30	2.15	S200-3-55-22-9	EH1936-000	
5.95	3.30	S200-4-55-22-9	EH1938-000	
6.90	4.30	S200-5-55-22-9	EH1939-000	

With pre-installed braid: Stranded nickel-plated copper wire in accordance with SAE-AS22759/41.

Jacket OD (mm)	Shield (mm)	Product Description	Raychem Part Number	SAE AS83519
1.90	0.90	S200-1-55-20-9	EH1940-000	
2.67	1.40	S200-2-55-20-9	EH1941-000	
4.30	2.15	S200-3-55-20-9	EH1942-000	
5.95	3.30	S200-4-55-20-9	EH1943-000	
6.90	4.30	S200-5-55-20-9	EH1944-000	

With pre-installed braid: Stranded nickel-plated copper wire in accordance with SAE-AS22759/41.

Jacket OD (mm)	Shield (mm)	Product Description	Raychem Part Number	SAE AS83519
1.90	0.90	S200-1-55-18-9	EH1945-000	
2.67	1.40	S200-2-55-18-9	EH1946-000	
4.30	2.15	S200-3-55-18-9	EH1948-000	
5.95	3.30	S200-4-55-18-9	EH1949-000	
6.90	4.30	S200-5-55-18-9	EH1950-000	



Table A. B-155 Series (125°C [257°F] rated)

Cab	Cable OD		los.
Jacket OD Max.	Shield OD Min.	No Preinstalled Lead	With Preinstalled Lead (22AWG/0.38 mm ² green)
1.7 [.065]	0.9 [.035]	B-155-3801	_
1.95 [.075]	1.1 [.043]	B-155-3802	_
2.7 [.105]	1.5 [.059]	B-155-3	B-155-03-35-22-5
4.5 [.180]	2.0 [.079]	B-155-5	B-155-05-35-22-5
6.0 [.235]	3.3 [.130]	B-155-6	B-155-06-35-22-5
7.0 [.275]	3.3 [.130]	B-155-7	B-155-07-35-22-5
8.7 [.340]	4.5 [.177]	B-155-9	B-155-09-35-22-5
10.7 [.420]	4.5 [.177]	B-155-11	B-155-11-35-22-5
13.0 [.510]	7.0 [.276]	B-155-13	B-155-13-35-22-5

*See Table G on page 53 for lead description.

Note: The B-155 series is suitable for applications using low-temperature wires (typically rated at 85°C [185°F] to 125°C [257°F]) with bare copper or tin plating.

Table B. SO63 Series

BiAlloy Temperature Indication System

This system greatly enhances the reliability and repeatability of SO63 series terminators while reducing installed cost. The heat-shrinkable thermoplastic sleeve contains a precisely engineered, fluxed solder band that is visible through the sleeve. The band provides exactly the amount of solder and flux required to terminate the ground lead to the cable shield. Encircling the band is a small temperature indicator ring. This ring melts only when the surfaces to be joined have reached the correct soldering temperature, thus ensuring a properly soldered connection. Process control is built into each sleeve.

Cable OD				Part Nos.				
Jacket OD Shield O		No		Preinstalled Lead Option*				
Max.	Min.	Lead	20 AWG	22 AWG	24 AWG	26 AWG	Nickel Plated Tin	Plated
1.95 [0.075]	0.90 [.035]	SO63-1-00	SO63-1-55-20-90	SO63-1-55-22-90	SO63-1-55-24-90	SO63-1-55-26-90	SO63-1-01 SO63	-1-9030
2.7 [0.105]	1.40 [.055]	SO63-2-00	SO63-2-55-20-90	SO63-2-55-22-90	SO63-2-55-24-90	SO63-2-55-26-90	SO63-2-01 SO63	-2-9030
4.3 [0.170]	2.15 [.085]	SO63-3-00	SO63-3-55-20-90	SO63-3-55-22-90	SO63-3-55-24-90	SO63-3-55-26-90	SO63-3-01 SO63	-3-9030
6.0 [0.235]	3.30 [.130]	SO63-4-00	SO63-4-55-20-90	SO63-4-55-22-90	SO63-4-55-24-90	SO63-4-55-26-90	SO63-4-01 SO63	-4-9030
7.0 [0.275]	4.30 [.170]	SO63-5-00	SO63-5-55-20-90	SO63-5-55-22-90	SO63-5-55-24-90	SO63-5-55-26-90	SO63-5-01 SO63	-5-9030

*See Table G on page 53 for lead description. Color of wire lead is denoted by the last two digits of the part number as follows:

90 = White with a black stripe 9 = White 0 = Black 6 = Blue (24 AWG only) 5 = Green (20, 22, 24 AWG) The SO63 series is immersion resistant, features the TE BiAlloy temperature indication system, and meets the performance requirements of SAE-AS83519 (formerly MIL-S-83519).



Table C. S01/S02 M83519 Series

Thermochromic Temperature Indicator

The M83519 (S01 and S02) series terminators contain a colored thermochromic temperature indicator that exhibits a distinct color change when surfaces have reached wetting temperature. This color change gives both manufacturing and Quality Control an aid in the inspection of the completed termination.

Cable	OD				Part No. (MIL Pa	art Number and TE Part No.) by Lead Option
		No Preins	talled I ead			Preinstal	led Lead Option*
Jacket OD	Shield OD			20 AV	VG	22 AWG	
Max	Min	MIL	TE	MIL	TE	MIL	TE
1.95 [0.075]	0.9 [.035]	M83519/1-1	S01-01-R	M83519/2-1	S02-01-R	M83519/2-6	S02-06-R
2.7[0.105]	1.40 [.055]	M83519/1-2	S01-02-R	M83519/2-2	S02-02-R	M83519/2-7	S02-07-R
4.3 [0.170]	2.15 [.085]	M83519/1-3	S01-03-R	M83519/2-3	S02-03-R	M83519/2-8	S02-08-R
6.0 [0.235]	3.30 [.130]	M83519/1-4	S01-04-R	M83519/2-4	S02-04-R	M83519/2-9	S02-09-R
7.0 [0.275]	4.30 [.170]	M83519/1-5	S01-05-R	M83519/2-5	S02-05-R	M83519/2-10	S02-10-R
Jacket OD	Shield OD					Preinstal	led Lead Option*
Max.	Min.			24 AV	VG	26 AWG	
1.95 [0.075]	0.9 [.035]	_		M83519/2-11	S02-11-R	M83519/2-16	S02-16-R
2.7 [0.105]	1.40 [.055]	_		M83519/2-12	S02-12-R	M83519/2-17	S02-17-R
4.3[0.170]	2.15 [.085]			M83519/2-13	S02-13-R	M83519/2-18	S02-18-R
6.0 [0.235]	3.30 [.130]	_		M83519/2-14	S02-14-R	M83519/2-19	S02-19-R
7.0 [0.275]	4.30 [.170]	_		M83519/2-15	S02-15-R	M83519/2-20	S02-20-R

*See Table G for lead description.

Series

M83519 is the qualified product listed in SAE-AS83519 (formerly MIL-S-83519). The series features a thermochromic temperature indicator to assist in termination and inspection. The part number is permanently marked on the sleeve.

Table D. S03 Thermochromic Temperature Indicator

The S03 series terminators contain a colored thermochromic temperature indicator that exhibits a distinct color change when surfaces have reached wetting temperature. This color change gives both Manufacturing and Quality Control an aid in the inspection of the completed termination. These parts now have qualification to /3 SOLDER SLEEVE SHIELD TERMINATORS S03-01-R 257305-000 M83519/3-1 SAE AS83519 S03-02-R 065762-000 M83519/3-2 SAE AS83519 S03-03-R 676516-000 M83519/3-3 SAE AS83519 S03-04-R 689088-000 M83519/3-4 SAE AS83519 S03-05-R 531872-000 M83519/3-5 SAE AS83519 S03-06-R 022926-000 M83519/3-6 SAE AS83519 S03-07-R 101273-000 M83519/3-7 SAE AS83519 S03-08-R 587725-000 M83519/3-8 SAE AS83519 S03-09-R 751586-000 M83519/3-9 SAE AS83519 S03-10-R 621833-000 M83519/3-10 SAE AS83519

Cable	OD	Part	No.	
Jacket OD	Shield OD	Preinstalled L	ead Option*	
Max.	Min.	Tin plated Braid Strap	Nickel plated Braid Strap	
1.95 [0.075]	0.9 [.035]	S03-01-R	S03-06-R	
2.7 [0.105]	1.40 [.055]	S03-02-R	S03-07-R	
4.3 [0.170]	2.15 [.085]	S03-03-R	S03-08-R	
6.0 [0.235]	3.30 [.130]	S03-04-R	S03-09-R	
7.0 [0.275]	4.30 [.170]	S03-05-R	S03-10-R	

*See Table G for lead description.



Table E. SO96 Series (175°C [347°F] rated)

Thermochromic Temperature Indicator

The SO96 series terminators contain a colored thermochromic temperature indicator that exhibits a distinct color change when surfaces have reached wetting temperature. This color change gives both manufacturing and Quality Control an aid in the inspection of the completed termination.

Cable	Cable OD		Part No.			
Jacket OD	Shield OD	No	Preinstalled Lead Option*			
Max.	Min.	Preinstalled Lead	22 AWG	Braid Strap		
1.95 [0.075]	0.9 [.035]	SO96-1-00	SO96-1-55-22-90	SO96-1-01		
2.7 [0.105]	1.40 [.055]	SO96-2-00	SO96-2-55-22-90	SO96-2-01		
4.3 [0.170]	2.15 [.085]	SO96-3-00	SO96-3-55-22-90	SO96-3-01		
6.0 [0.235]	3.30 [.130]	SO96-4-00	SO96-4-55-22-90	SO96-4-01		
7.0 [0.275]	4.30 [.170]	SO96-5-00	SO96-5-55-22-90	SO96-5-01		

*See Table G for lead description.

The SO96 series is designed for high-temperature applications with operating temperature requirements up to 200°C [392°F]. This series features a

thermochromic temperature indicator and meets performance requirements of SAE-AS83519 (formerly MIL-S-83519). The solder is Sn96 with RA flux compatible with nickel-plated shields.

Table F. SO175 Series (175°C [347°F] rated)

BiAlloy Temperature Indication System

This system greatly enhances the reliability and repeatability of SO175 series terminators while reducing installed cost. The temperature indicator ring, encircling the solder preform, melts to indicate the very minimum amount of heat.

Cable OD		Part No.			
Jacket OD	Shield OD	No	Preinstalled Le	ad Option*	
Max.	Min.	Preinstalled Lead	22 AWG	Braid Strap	-
1.95 [0.075]	0.90 [0.035]	SO175-1-00	SO175-1-55-22-90	SO175-1-01	
2.7 [0.105]	1.40 [0.055]	SO175-2-00	SO175-2-55-22-90	SO175-2-01	
4.3 [0.170]	2.15 [0.085]	SO175-3-00	SO175-3-55-22-90	SO175-3-01	
6.0 [0.235]	3.30 [0.130]	SO175-4-00	SO175-4-55-22-90	SO175-4-01	
7.0 [0.275]	4.30 [0.170]	SO175-5-00	SO175-5-55-22-90	SO175-5-01	

*See Table H for lead description.

Table G. S200 Series (200°C [392°F] rated)

BiAlloy Temperature Indication System

This system greatly enhances the reliability and repeatability of S200 series terminators while reducing installed cost. The temperature indicator ring, encircling the solder preform, melts to indicate the very minimum amount of heat.

Cable OD		Part No.			
Jacket OD	Shield OD	No	Preinstalled Lead Option*		
Max.	Min.	Preinstalled Lead	22 AWG	Braid Strap	_
1.95 [0.075]	0.90 [0.035]	S200-1-00	S200-1-55-22-9	S200-1-01	
2.7 [0.105]	1.40 [0.055]	S200-2-00	S200-2-55-22-9	S200-2-01	
4.3 [0.170]	2.15 [0.085]	S200-3-00	S200-3-55-22-9	S200-3-01	
6.0 [0.235]	3.30 [0.130]	S200-4-00	S200-4-55-22-9	S200-4-01	
7.0 [0.275]	4.30 [0.170]	S200-5-00	S200-5-55-22-9	S200-5-01	

*See Table H for lead description.

Table H. Preinstalled Lead Description

Series	Lead Type	Remarks	Plating	Stranding	Min. Length
S200	M22759/91	MIL-W-22759/91	Silver	Stranded	150 (6.00)
M83519, SO63	55A0111	MIL-W-22759/32	Tin	Stranded	150 [6.00]
SO96, SO175	55A0813	MIL-W-22759/41	Nickel	Stranded	150 [6.00]
SO63, SO96, S03	Braid strap	Uninsulated	Nickel	40 x 38 AWG	150 [6.00]
B-155	XL polyethylene	RoHS	Tin	Stranded (W2)	150 [6.00]
CWT	XL polyethylene	UL Listed	Tin	Stranded (W1)	150 [6.00]
SO63, S03	Braid Strap	Uninsulated	Tin	Stranded	150 [6.00]

Product Characteristics

Material				
Insulation				
S200	Radiation-crosslinked,	Radiation-crosslinked, heat-shrinkable, modified fluoropolymer		
SO, M83519	Radiation-crosslinked,	heat-shrinkable polyvinylidene fluoride		
B-155	Radiation-crosslinked,	heat-shrinkable polyolefin		
Solder and flux				
SO63, M83519, S03	Solder: Sn63 Pb37	Flux: ROL1 per ANSI - J - 004 (RMA Flux)		
S200, SO96, SO175 series	Solder: Sn96 Ag4	Flux: ROM1 per ANSI - J - 004 (RA Flux)		
B-155	Solder: SN42Bi58	Flux: ROM1 per ANSI - J - 004 (RA Flux)		
Ground lead				
B-155 series	XL polyethylene			
S200 series	MIL-C-22759/91 or /87			
SO, M83519, SO175	MIL-W-22759/32 or /41	MIL-W-22759/32 or /41		
Typical Performance				
Voltage drop	2.5 mV			
Tensile strength	Exceeds strength of gr	ound lead		
Dielectric strength	1.0 kV immersed			
Temperature rating				
B-155	-55°C to 125°C [-67°F	to 257°F]		
SO63/M83519/S03	-55°C to 150°C [-67°F	-55°C to 150°C [-67°F to 302°F]		
SO96/SO175 series	-55°C to 175°C [-67°F	-55°C to 175°C [-67°F to 347°F]		
S200	-55°C to 200°C [-67°F	-55°C to 200°C [-67°F to 392°F]		
Insulation resistance	1000 megohms	1000 megohms		

Specifications/ **Approvals**

Series	Agency	TE	
B-155	-	RT-1404	
SO63*	NAS 1747	RT-1404	
M83519**	MIL-S-83519/1&/2	RT-1404	
SO96***	NAS 1747	RT-1404	
SO175		RT-1404	
S200**	_	RT-1404	

* Meets performance requirements of SAE-AS83519 (formerly MIL-S-83519) and NAS 1747,

supplied with BiAlloy temperature indicator. ** Qualified to SAE-AS83519 (formerly MIL-S-83519), supplied with thermochromic temperature indicator. ***Meets performance requirements of SAE-AS83519 (formerly MIL-S-83519) and NAS 1747, supplied with thermochromic temperature indicator.

For proper installation of

these devices, the correct

heating tool and reflector

Installation Requirements

For detailed instructions and recommended reflector attachments, refer to the appropriate TE installation procedure:

Any one of the following	Series	Procedure
TE heating tools	B-155	RPIP-824-000
is recommended:	CWT	RPIP-655-00-D
■ HL1920E/HL2020E	SO63	RCPS-100-70
AA-400 Super Heater	M83519 (S01/S02)	RCPS-100-70
■ CV-1981	SO96	RCPS-100-70
■ MiniRay	S03	RCPS-100-70
∎ IR-1759	SO175	RCPS-100-70
	S200	RCPS-100-71



Table H. NAS,	NAS	TE D Series	NAS
M83519, and	Part No.	Part No.	Comment
IE Cross-Reference	1744-1	D-1744-01	
	1744-2	D-1744-02	
	1744-4	D-1744-04	
	1744-5	D-1744-05	
	1744-6	D-1744-06	
	1744-7	D-1744-07	
	1745-1	D-144-25	Inactive, Use SAE-AS83519/1-1 (formerly MIL-S-83519)
	1745-2	D-100-00	Inactive, Use SAE-AS83519/1-2 (formerly MIL-S-83519)
	1745-3	D-101-00	Inactive, Use SAE-AS83519/1-3 (formerly MIL-S-83519)
	1745-5	D-144-26	
	1745-6	D-100-31	
	1745-7	D-101-31	
	1745-9	D-103-31	Obsolete - Use NAS1745-13
	1745-10		Obsolete - Use NAS1745-14
	1745-11		Obsolete - Use NAS1745-15
	1/45-12	D-142-83	Ubsolete - Use NAS1/45-16
	1745-14	D-142-50	Inactive, Use SAE-AS83519/1-2(formerly MIL-S-83519)
	1745-15	D-142-51	Inactive, Use SAE-AS83519/1-3 (formerly MIL-S-83519)
	1745-16	D-142-52	Inactive, Use SAE-AS83519/1-5 (formerly MIL-S-83519)
	1745-17	D-107-00	Inactive, Use SAE-AS63519/1-4 (tornieny MiL-S-83519)
	1745-19	D-105-00	
	1745-20	D-107-31	
	1745-21	D-104-31	
	1745-22	D-105-31 D-142-56	Inactive, Use SAE-AS83519/1-4 (formerly MIL-S-83519)
	1745-24	D-142-65	
	1745-25	D-142-66	
	1746-1	D-144-25	Inactive, Use SAE-AS83519/1-1 (formerly MiL-S-83519)
	1746-3	D-144-01	Inactive, Use SAE-AS83519/1-3 (formerly MIL-S-83519)
	1746-4	D-144-02	Inactive, Use SAE-AS83519/1-5 (formerly MIL-S-83519)
	1746-5	D-144-26	
	1746-7	D-144-03	
	1746-8	D-144-05	
	1746-9	D-144-46	Inactive, Use SAE-AS83519/1-4 (formerly MIL-S-83519)
	1746-10	D-144-37 TE	TE
	Military	S01/S02 Series*	SO63 Series**
	Part No.	Part No.	Part No.
	M83519/1-1 M83519/1-2	S01-01-R S01-02-R	<u> </u>
	M83519/1-3	S01-03-R	SO63-3-00
	M83519/1-4	S01-04-R	SO63-4-00
	M83519/1-5	S01-05-R	SO63-5-00 SO63-1-55-20-00
	M83519/2-2	S02-01-R	SO63-2-55-20-90
	M83519/2-3	S02-03-R	SO63-3-55-20-90
	M83519/2-4	S02-04-R	SO63-4-55-20-90
	M83519/2-5 M83519/2-6	S02-05-R S02-06-R	<u> </u>
	M83519/2-7	S02-07-R	SO63-2-55-22-90
	M83519/2-8	S02-08-R	SO63-3-55-22-90
	M83519/2-9 M83519/2-10	S02-09-R S02-10-B	SO63-4-55-22-90 SO63-5-55-22-90
	M83519/2-11	S02-11-R	SO63-1-55-24-90
	M83519/2-12	S02-12-R	SO63-2-55-24-90
	M83519/2-13	S02-13-R	SO63-3-55-24-90
	M83519/2-14	S02-14-H S02-15-R	SO63-5-55-24-90
	M83519/2-16	S02-16-R	SO63-1-55-26-90
	M83519/2-17	S02-17-R	SO63-2-55-26-90
	M83519/2-18 M83519/2-19	502-18-K S02-19-R	SO63-4-55-26-90 SO63-4-55-26-90
	M83519/2-20	S02-20-R	SO63-5-55-26-90

* QPL listed to SAE-AS83519 (formerly MIL-S-83519) ** Meets performance requirements of SAE-AS83519 (formerly MIL-S-83519)