



MATERIAL LIST		REV.	A	B	C	D												MODEL	RAK-19D		
																		SHEET	1	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS														
				USED ON	USED TO MOUNT	QUAN.															
1	AD-103-5	Filter, Air	Top				MP702														
1	AD-103-9	Filter, Air	Rear				MP701														
1	BB-117-2	Bearing, Nylon		AS-116		1															
2	BL-106-2	Fan, Axial		A-2079-10		2	B701,702														
1	CU-101-9	Ferrule		AS-116		1															
6	CU-102-3	Clamp, 1/4 ID		A-2080		5															
				CA-736		1															
4	CU-102-5	Clamp, 3/8 ID		A-3088		2															
				CA-737		2															
1	CU-102-9	Clamp, Cable		A-3088		1															
2	CU-102-10	Clamp, Cable		A-3088		2															
1	CU-113	Clamp, Cable, Conduit		AX-671		1															
1	CU-131-7	Clamp, Cable, 3/4 ID		A-3088		1															
8	EY-102-20	Grommet, Elastic		A-2079-10		8															
1	GA-144-122	Gasket, Extruded		MS-2516		1	Assem. by Rack Mfr.														
1	HA-114-1	Handle, Flush Type		MS-2516		1	Assem. by Rack Mfr.														
1	JJ-175	Connector, Receptacle, AC, 2 Prong					J702														
5	JJ-337	Connector, Receptacle, Twist Lock		AX-671		5	J703 thru J707														
2	MS-154-1	Plate, Straddle		A-2079-10		2															
4	MS-1850-S	Plate, Access																			
1	MS-1879	Arm, Spring Retaining		AS-116		1															

MATERIAL LIST		REV.	A	B	C	D									MODEL	RAK-19D	
														SHEET	2	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS										
				USED ON	USED TO MOUNT	QUAN.											
1	MS-2306	Channel, AC Strip		AX-671		1	Modified PO-160										
1	MS-2509-1	CAB., ELEC EQUIP		LD633		1	Mod. per MS-3072										
1	MS-2516	Door, RAK-19															
1	MS-2527	Bracket, Retractor Spring Mtg.	LD-633														
2	MS-2529	Bracket, Mtg., Coupler Unit															
1	MS-2537	Chassis, Blower		LD892		1											
1	MS3057-6A	Clamp, Cable		CA-607-2		1	For P712										
1	MS3057-16	Clamp, Cable		CA-737		1	For P705										
1	MS-3072	CAB., ELEC EQUIP					Modify MS-2509-1										
1	MS3106A14S-1S	Connector, Plug, Female		CA-607		1	P712										
1	MS3106B28-11P	Connector, Plug, Male		CA-737		1	P705										
1	MS3420-8A	Bushing, Cable		CA-737		1	For P705										
1	MS3420-12A	Bushing, Cable		CA-737		1	For P705										
1	MS3420-16A	Bushing, Cable		CA-737		1	For P705										
1	NP-103-42	Nameplate, Identification	Comm.				When Required										
2	PL-176	Conn, PL, FML		CA751-		1	P401										
1	PL-133-NG	Connector, Receptacle, AC, Male, 3 Prong		CA555-3		1	P103										
1	PL-259A-TEF	Connector, Plug, RF		CA-604		1	J701										
2	PL-218	Conn, Pl, ML		CA-512-7		1	P707										
2	PM-531B20.75	Rod, Door Latch		CA575-5		1	P709										
				CA555-3		1	P104										
				MS2516		2	Supp. & Assem. by Rack Mfr.										

MATERIAL LIST		REV.	ABCD												MODEL	RAK-19D
															SHEET	3 OF 13
QUAN. PER UNIT	PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS									
				USED ON	USED TO MOUNT	QUAN.										
1	PO-160	Strip, Connector					Mod. per MS-2306									
1	PO-161	End Fitting, Blank		AX-671		1										
1	PO-162	End Fitting, Cable Entry		AX-671		1										
1	PO-163-6.250	Cover, AC Strip		AX-671		1										
1	PO-163-2.750	Cover, AC Strip		AX-671		1										
1	PO-163-9.250	Cover, AC Strip		AX-671		1										
1	PO-163-14.750	Cover, AC Strip		AX-671		1										
1	PO-186	Cam, 2 Point Catch		MS2516		1	Supp. & Assem. by Rack Mfr.									
1	PX336-4	INS, TERM. BD		A2079-10		1										
1	PX-544-4	Insulator, Terminal Strip		LD880		1										
1	SP-137-2	Spring, Retracting		AS-116		1										
1	SW-230	Switch, Interlock					S701									
1	TK-106-18	Set, Slide, Stationary		A-2059		1	For PSP-350									
2	TK-107-18	Set, Slide, Tilt Lock		A-2059		2	For VOX, SBE									
2	TK-108-18	Set, Slide, Tilt Lock		A-2059		2	For RFA, TIS									
1	TM-102-4	Terminal Board, Barrier Type		A-2079-10		1	E701									
1	TM-105-6-AR	Fanning Strip		CA-736		1	E702									
2	TM-105-14-AR	Fanning Strip		CA-737		2	E703, 704									
1	UG-59*/U	Connector, Plug, RF		CA-512-7		1	P713									
1	UG-177/U	Connector, Plug, RF		CA-480-6-102		2	P703, 704									
4	UG-260/U	Connector, Plug, RF		CA-480-6-96		2	P710, 711									

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

MATERIAL LIST		REV.	A	B	C	D									MODEL	RAK-19D		
															SHEET	4	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION HARDWARE	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS											
				USED ON	USED TO MOUNT	QUAN.												
4	FS-102-1	Spring, "S" Type		MS-3072		4	Assem. by Rack Mfr.											
4	FS-109-3	Ring, Retaining		MS-1900		4	Assem. by Rack Mfr.											
4	FS-110-1	Stud, Slotted Head		MS-1900		4	Assem. by Rack Mfr.											
8	FW06HBN	Washer, Flat		A-2079 -10		8												
8	FW08HBN	Washer, Flat		A-3088		8												
8	FW25HBN	WASH., FLAT		A2079-10		8												
8	LWE04MRN	Washer, Lock, External		A-2079-10		8												
18	LWE06MRN	Washer, Lock, External		A-2079-10		8												
				A-3088		4												
				AS-116	AS-116	1												
				CA-736		1												
				CA-737		2												
					JJ-175	2												
17	LWE08MRN	Washer, Lock, External		A-3088		13												
					CU-2	4												
92	LWE10MRN	Washer, Lock, External		A-2059		92												

MATERIAL LIST		REV.	A	B	C	D												MODEL	RAK-19D		
																		SHEET	5	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION HARDWARE	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS														
				USED ON	USED TO MOUNT	QUAN.															
8	LWS03MRN	Washer, Lock, Split				FS-102	8	Assem. by Rack Mfr.													
48	LWS04MRN	Washer, Lock, Split				NT-117	48	Assem. by Rack Mfr.													
24	NT-117-2520A	Nut, Floating Anchor				MS-1850	4	Assem. by Rack Mfr.													
4	NT-129-440-3	Nut, Round, Swage				MS-1876	2														
4	NT-129-632-3	Nut, Round, Swage				MS-2306	4														
15	NT-129-832-4	Nut, Round, Swage				MS-2527	3														
						MS-2537	12														
4	NT-129-1032-4	Nut, Round, Swage				MS-2529	2														
8	NTH0348BN6	Nut, Hexagon				FS-102	8	Assem. by Rack Mfr.													
56	NTH0440BN6	Nut, Hexagon				A-2079 -10	8														
14	NTH0632BN8	Nut, Hexagon				NT-117	48	Assem. by Rack Mfr.													
						A-2079 -10	8														
						AS-116	1														
						CA-736	1														
						CA-737	2														
						JJ-175	2														
11	NTH0832BN10	Nut, Hexagon				A-3088	11														
4	SCBP0440BN12	Screw, Machine				A-2079 -10	4														
16	SCBP0440BN12	Screw, Machine				A-2079 -10	16														

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MATERIAL LIST		REV.	A	B	C	D											MODEL	RAK-19D		
																	SHEET	6	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION HARDWARE	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS													
				USED ON	USED TO MOUNT	QUAN.														
8	SCBP0632BN4	Screw, Machine		A-3088	JJ-175	4 4														
1	SCBP0632BN6	Screw, Machine		GA-736		1														
3	SCBP0632BN8	Screw, Machine		AS-116		1														
8	SCBP0632BN14	Screw, Machine		CA-737		2														
11	SCBP0832BN4	Screw, Machine		A-2079 -10		8														
30	SCBP0832BN6	Screw, Machine		A-3088		1														
				AX671		10														
				A3088		14														
					CU-2	4														
					MS-2537	12														
4	SCBP1032BN8	Screw, Machine			MS-2529	4														
24	SCBP2520BN16	Screw, Machine			MS-1850	24	Assem. by Rack Mfr.													
8	SCFP0348EN6	Screw, Machine			FS-102	8	Assem. by Rack Mfr.													
48	SCFP0440BN8	Screw, Machine			NT-117	48	Assem. by Rack Mfr.													
92	SCHH1032SN8	Screw, Machine		A-2059		92														
1	TE-104-3	Terminal, Lug, No. 8		A-3088		1														
10	TE-112-3	Terminal, Lug		AX-671		10														
8	TE-117-30	Spacer,		A-2079 -10		8														
13	TE-120-2	Terminal, Lug		CA-409		4														
				CA-550		4														
				CA-575		3														
				CA-607		2														
8	TE-155-34170	Terminal, Lug		CA-588		2														
				CA-604		6														

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

**MATERIAL LIST**

REV.

A B C D

MODEL RAK-19D

SHEET 7 OF 13

QUAN. PER UNIT	PART NO.	DESCRIPTION HARDWARE	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS
				USED ON	USED TO MOUNT	QUAN.	
6	TE-159-32957	Terminal, Lug, Size 6		CA-736		4	
				CA409-209		2	
1	TE-159-34161	Terminal, Lug, Size 1/4		CA-736		1	
2	TE-159-34160	Terminal, Lug, Size 8		CA-736		2	
8	WA-101-4	Washer, Fiber, Flat		A-2079 -10		8	



MATERIAL LIST		REV.	A	B	C	D										MODEL	RAK-19D	
															SHEET	8	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION	RAW MATERIALS	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS										
					USED ON	USED TO MOUNT	QUAN.											
X	BS-100	Solder, Soft																
X	CD-101-1-MW	Cord, Lacing		Black	CA-550 CA-736 CA-737													
2-3	HWC10(37)B9	Wire, Electrical, Fiberglass		White	CA-604		2-3											
2-6	HWC10(37)B90	Wire, Electrical, Fiberglass		Wh/Black	CA-604		2-6											
2-6	HWC14(19)B0	Wire, Electrical, Fiberglass		Black	CA-604		2-6											
X	HWC14(19)U9	Wire, Electrical		White	CA-736													
X	HWC14(19)U90	Wire, Electrical		Wh/Black	CA-736													
X	MWC14(19)U0	Wire, Electrical		Black	AX-671													
X	MWC14(19)U9	Wire, Electrical		White	AX-671													
X	MWC16(19)U0	Wire, Electrical		Black	CA409-209													
0-7	MWC20(7)U0	Wire, Electrical		Black	CA-550		0-7											
0-7	MWC20(7)U4	Wire, Electrical		Yellow	CA-550		0-7											
0-7	MWC20(7)U7	Wire, Electrical		Violet	CA-550		0-7											
0-7	MWC20(7)U9	Wire, Electrical		White	CA-550		0-7											
X	MWC22(7)SJ1	Cable, Insulated, w/Shield		Brown	CA-737													
X	MWC22(7)SJ2	Cable, Insulated, w/Shield		Red	CA-737													
X	MWC22(7)SJ3	Cable, Insulated, w/Shield		Orange	CA-737													
X	MWC22(7)SJ4	Cable, Insulated, w/Shield		Yellow	CA-737													
X	MWC22(7)SJ5	Cable, Insulated, w/Shield		Green	CA-737													
X	MWC22(7)SJ7	Cable, Insulated, w/Shield		Violet	CA-737													
X	MWC22(7)SJ8	Cable, Insulated, w/Shield		Gray	CA-737													

MATERIAL LIST		REV.	A	B	C	D									MODEL	RAK-19D	
														SHEET	9	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS										
				USED ON	USED TO MOUNT	QUAN.											
RAW MATERIALS																	
X	MWC22(7)S J91	Cable, Insulated, w/Shield	Wh/Brown	GA-737													
X	MWC22(7)S J96	Cable, Insulated, w/Shield	Wh/Blue	CA-737													
X	MWC22(7)S J97	Cable, Insulated, w/Shield	Wh/Violet	CA-737													
X	MWC22(7)S J98	Cable, Insulated, w/Shield	Wh/Gray	CA-737													
X	MWC22(7)U0	Wire, Electrical	Black	CA-409		0-4											
				CA-736													
				CA-737													
X	MWC22(7)U4	Wire, Electrical	Yellow	CA-736													
				CA-737													
X	MWC22(7)U5	Wire, Electrical	Green	CA-736													
				CA-737													
X	MWC22(7)U6	Wire, Electrical	Blue	CA-736													
				CA-737													
X	MWC22(7)U7	Wire, Electrical	Violet	CA-736													
X	MWC22(7)U8	Wire, Electrical	Gray	CA-736													
X	MWC22(7)U9	Wire, Electrical	White	CA-736													
				CA-737													
X	PX-100-1- 133	Sleeving, Size 8	Black	CA-736													
X	PX-100-1- 208	Sleeving, Size 4	Black	CA-736													
X	PX-100-1- 263	Sleeving, Size 2	Black	CA-736													
X	PX-100-1- 375	Sleeving, Size 3/8	Black	CA-737													
1-0	PX-100-1- 500	Sleeving, Size 1/2	Black	CA-604		1-0											
2-8	RG-8/U	Cable, RF		CA-512-7		2-8											
16-6	RG-59/U	Cable, RF		CA-480-6-96		8-0											
				CA-480-6-102		8-6											
3-0	WI-121-6	Cable, AC		CA-588		3-0											
1	WI-130-2-20-78	Cable, 2 Conductor		CA-607-2		1											
1	WI-134-6-12	Cable, AC, Coiled		CA-575-5		1											
1	WI-134-6-7	Cable, AC, Coiled		CA555-3		1											
1	WI-121-9	Cable, AC, Coiled		CA751		30											

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

MATERIAL LIST		REV.	A	B	C	D											MODEL	RAK-19D	
																SHEET	10	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION	SUPPORTING DRAWINGS	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS											
					USED ON	USED TO MOUNT	QUAN.												
1	A-2059	Slide Locations																	
1	A-2079-10	Blower and Chassis Assembly																	
1	A-3088	Installation, Cables and AC Strip																	
1	AS-116 (2A-1787)	Retractor Spring Assembly																	
1	AX-671 (2A-2051)	AC Power Strip																	
1	CA346-8-9	Cbl Assy, Pwr							RAK-19D										
2	CA-409-32-2.00	Lead, Electrical							A-2079 -10										
1	CA409-209-3.00	Lead, Electrical								JJ175									
1	CA-480-6-96	Cable, RF, SBE to VOX																	W704 (P710,711)
1	CA-480-6-102	Cable, RF, SBE to RFA																	W703 (P703,704)
1	CA-512-7	Cable, RF, RFA to CU-2																	W709 (P707,713)
1	CA-550	Cable, Blower							A-2079 -10										
1	CA555-3	Cbl Assy, Pwr							RAK-19D										W102
1	CA-575-5	Cable, AC, Coiled, Blower							A-2079 -10										W702 (P709)
1	CA-588-1	Cable, AC, Strip to APP-5							AX-671										
1	CA-604	Cable, AC Input to APP-5																	W701 (J701)
1	CA-607-2	Cable, Interlock, MCU-2 to APP-5																	W708 (P712)
1	CA-736	Cable, Main																	W705 (E702)
1	CA-737	Cable, Interconnect, SBE to TLS to APP-5																	W710 (E703,704,P705)
1	CA751-A-30	Cbl Assy, Pwr							RAK-19D										W401
1	CK-608	Wiring Diagram																	
1	LD-633 /MS2509-1	Lettering, MS-2509-1							MS3072										
1	LD-880 /PX544-4	Lettering, PX-544 -4							A-2079 -10										
1	LD-892 /MS2537	Lettering, MS-2537							A-2079 -10										

**MATERIAL LIST**

REV.

A B C D

MODEL

RAK-19D

SHEET

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QUAN. PER UNIT	PART NO.	DESCRIPTION SPECIFICATIONS	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS
				USED ON	USED TO MOUNT	QUAN.	
1	S-	Test Procedure See <u>Appropriate SBT-350 Material List</u> For <u>Test Procedure</u>					

MATERIAL LIST		REV.	A	B	C	D											MODEL	RAK-19D		
																	SHEET	12	OF	13
QUAN. PER UNIT	PART NO.	DESCRIPTION PARTS PECULIAR	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS													
				USED ON	USED TO MOUNT	QUAN.														
		<u>RAK-19D BASE MOUNTED</u>																		
4	LWS37MRN	Washer, Lock, Split			MS-1901	4														
1	MS-1901	Base, Rack																		
4	SCHH3716SN16	Bolt, Hexagon Head			MS-1901	4														

**MATERIAL LIST**

REV.

A B C D

MODEL

RAK-19D

SHEET

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OF

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QUAN. PER UNIT	PART NO.	DESCRIPTION PARTS PECULIAR	REF.	ITEM LOCATION			REF. SYMBOLS AND/OR REMARKS
				USED ON	USED TO MOUNT	QUAN.	
		<u>RAK-19D SHOCK MOUNTED</u>					
6	LWS37MRN	Washer, Lock, Split			SH-104-4	1	
6	SCHH3716SN16	Bolt, Hexagon Head			SH-104-4	1	
6	SH-104-4T6	Isolator, Shock					

REVISION SHEET

THE TECHNICAL MATERIEL CORP.  
MAMARONECK NEW YORK

RAK-19D

LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
4/1/63	A	1	None	Dele. 5 ea. CU-102-7	✓
				Add 1 ea. CU-102-9	✓
				Add 2 ea. CU-102-10	✓
				On CU-131-7, Chg. Quan. from 2 to 1	✓
				Add 8 ea. EY-102-20	✓
				Clarify Ref's.	✓
		2		Chg. MS-2528 to MS-3072	✓
				On PL-259A-TEF, Chg. Quan. from 2 to 1 (Dele. Sym. P703)	✓
				Clarify Ref's.	✓
		3		On PO-160, Chg. Quan. from 4 to 1	✓
				Chg. PO-163-2.625 to 2.250	✓
				Chg. 8 ea. PO-163-3.000 to 9 ea. PO-163-2.937	✓
				Chg. PO-163-5.000 to 2.750	✓
				Dele. 1 ea. UG-176/U (For P704)	✓
				On UG-260/U, Chg. Quan. from 3 to 4 (Add Sym. P703)	✓
				Clarify Ref's.	✓
		4		Add 8 ea. FW06HBN	✓
				Add 8 ea. FW08HBN	✓
				On LWE08MRN, Chg. Quan. from 22 to 17	✓
				Clarify Ref's.	✓
		5		Chg. NT-129-632-4 to NT-129-632-3	✓
				On NTH0632BN8, Chg. Quan. from 13 to 14	✓
				On NTH0832BN10, Chg. Quan. from 15 to 11	✓
				Clarify Ref's.	✓
		6		On SCBP0632BN8, Chg. Quan. from 11 to 3	✓
				Add 8 ea. SCBP0632BN14	✓
				On SCBP0832BN6, Chg. Quan. from 32 to 30	✓
				Dele. SCBP0832BN8	✓
				Add 1 ea. SCBP0832BN4	✓
				Add 8 ea. TE-117-30	✓
				Clarify Ref's.	✓
		7		Clarify Ref's.	✓
		8		Add wire lengths to "MWC20'S"	✓
				Dele. MWC22(7)S0	✓
				Dele. MWC22(7)S6	✓
				Clarify Ref's.	✓
		9		On PX-100-1-.500, add Quan. 1-0	✓
				On RG-59/U, Chg. Quan. from 15-1 to 16-6	✓
				Chg. WI-130-2-20-65 to WI-130-2-20-78. Clarify Ref's.	✓

**REVISION SHEET**

**THE TECHNICAL MATERIEL CORP.  
MAMARONECK NEW YORK**

RAK-19D

LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
4/1/63	A	10	None	Chg. CA-383-8F to CA-480-6-102 (Sym. W703(P703,704)	✓
				Chg. CA-480-6-85 to CA-480-6-96 (Sym. W704(P710,711)	✓
				Chg. CA-512-5 to CA-512-7 (Sym. W709(P707,713)	✓
				Chg. CA-603 to CA-736 (Sym.W705(E702)	✓
				Chg. CA-607-1 to CA-607-2 (Sym.W708(P712)	✓
				Chg. CA-650 to CA-737 (Sym.W710(E703,704,P705)	✓
				Clarify Ref's.	✓
		12		Dele. sheet 12 LOOSE ITEMS (transfer to SBT ML)	✓
				Renumber sheets accordingly	✓
12/4/64	B	as noted		Revised sheets 1,2,3,4,5,6,7,8,9 and 10 per EMN #12972	✓
12/27/66	C	6,7	17521	Revised per EMN	✓
5/11/67	D	as noted	-----	Revised sheets 1,2,3,4,5,6,7,8,9, and 10 per EMN #18206	✓