

RELAY PANEL

MODEL AR176

TITLE

MODEL
TSTE-10KUSED ON
SECTIONQTY
1

LIST SECTIONS

- 1.SUPPORTING NOTES
- 2.SUPPORTING LISTS
- 3.ELECTRICAL/MECHANICAL
- 4.SUPP ASSY/REF DWGS
- 5.SPECIFICATIONS
- 6.LOOSE ITEMS
- 7.PARTS PECULIAR

SHEET NO.

SEE BELOW

NONE
1-12
12-14
NONE
NONE
NONE

LAST SYMBOLS

C701 R712
E711 S700
F705 XF705
I706 XI706
J701
K708
M702

COMPILED F. LEVI

CHECKED L. GABEL

APPROVED

FNL APPR *L. Gabel*

ISS DATE 1-31-66

MISSING SYMBOLS

I705
XI705

NOTE 1. THE FOLLOWING SYMBOL, #, IN THE REMARKS COLUMN INDICATES THAT THE PART NUMBER IMMEDIATELY FOLLOWING IT IS THE TMC PROPRIETARY MANUFACTURING DRAWING FOR THE CORRESPONDING NUMBER IN THE PART NUMBER COLUMN.

NOTE 2. PX806-IS A PRODUCTION AID.
PURCHASE ONLY AS REQUIRED.

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 1 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
BI103-2	LAMP, GLOW	AR176			6	I700, 701, 702, 703, 704 I706	
BS100	SOLDER, TIN ALY	AR100 AR101 AR102 AR103 AR105 AR106 AR107 AR108 AR175 AR176					
CE63C500G	CAP., FXD, ELECT.	AR176			1	C700	
CE105-20-100	CAP., FXD, ELECT.	AR176			1	C701	
CD101-1MW	CD, NYLON, LACING	CA828 CA1132					
CU102-5	CLAMP, LOOP	AR176			1		
CU102-6	CLAMP, LOOP	AR176			1		
CU102-11	CLAMP, LOOP	AR176			1		
FH104-3	FUSEHOLDER, IND	AR176			6	XF700, 701, 702, 703, XF704, 705	
FU102-1	FUSE, CTG, 1A	AR176			1	F704	
FU102-5	FUSE, CTG, 5A	AR176			5	F700, 701, 702, 703, F705	
FW06HBN	WASH., FLAT	TE175		1x6	6		

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET

2

OF

14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
FW25HBN	WASH., FLAT	AR176			10		
HB101-2G	BUTTON, PLUG	AR176			1		
IM179-12	INS SH, ELEC	A1805			1		
IM180	INS SH, ELEC	AR176			1		
LA101-1 THRU 6	BAND, MARKER, CBL	CA440			6		
LA101-7 THRU 14	BAND, MARKER, CBL	CA441			8		
LA101-15 THRU 20	BAND, MARKER, CBL	CA442			6		
LA101-25	BAND, MARKER, CBL	CA443			1		
LA101-26	BAND, MARKER, CBL	CA443			1		
LA101-27 THRU 32	BAND, MARKER, CBL	CA1132			6		
LA101-33 THRU 37	BAND, MARKER, CBL	CA446			5		
LA101-41 THRU 48	BAND, MARKER, CBL	CA447			8		
LA101-49 THRU 56	BAND, MARKER, CBL	CA448			8		
LA101-57 THRU 62	BAND, MARKER, CBL	CA445			6		
LA101-E706	BAND, MARKER, CBL	CA442		1			
		CA443		1	2		
LA101-E707	BAND, MARKER, CBL	CA442			1		
LA101-E708	BAND, MARKER, CBL	CA443			1		

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 3 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
LA101-E709	BAND, MARKER, CBL	CA446			1		
LA101-E710	BAND, MARKER, CBL	CA446			1		
LA101-E711	BAND, MARKER, CBL	CA446			1		
LD522/MS1518	CHAS, FUSE	AR176			1		
LD523/MS1510	PLATE, MTG, CONN	AR176			1		
LD524/MS1566	PNL, MTG, REL	AR176			1		
LD1380/MS1499	PNL, MAIN	AR176			1		
LWE06MRN	WASH., LK, EXT	AR102		4			
		AR103		4			
		AR108		4			
		TE175		2x6	24		
MR125-2	METER, TIME TOTAL	AR176			2	M700,702	
MS154-1	PL, MTG, TERM. BD	AR176			12		
MS1499	PANEL, MAIN	LD1380			1		
MS1510	PLATE, MTG, CONN	LD523			1		
MS1518	CHAS, FUSE	LD522			1		
MS1566	PNL, MTG, REL	LD524			1		
MS1576	PLATE, MTG, REL	AR105		1			
		AR106		1	2		
MS1631	COVER, REL	A1805			1		

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 4 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
MS1664	PL,MTG, BRKT	AR176			1		
MS3102A22-9P	CONN, RECP, ML	AR176			1	J701	
MS3102A32-7P	CONN, RECP, ML	AR176			1	J700	
MS4596	PLATE, MTG, REL	AR175			1		
MWC16/19/U2	WIRE, ELEC, INS	CA443 CA446					
MWC16/19/U4	WIRE, ELEC, INS	CA442					
MWC16/19/U6	WIRE, ELEC, INS	CA1129					
MWC16/19/U8	WIRE, ELEC, INS	CA1129					
MWC16/19/U9	WIRE, ELEC, INS	CA442 CA443 CA446					
MWC16/19/U97	WIRE, ELEC, INS	CA1129					
MWC16/19/U98	WIRE, ELEC, INS	CA1129					
MWC18/16/U1	WIRE, ELEC, INS	CA441 CA1129					
MWC18/16/U2	WIRE, ELEC, INS	CA1129					
MWC18/16/U3	WIRE, ELEC, INS	CA445 CA1129					

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET

5

OF

14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
MWC18/16/U4	WIRE,ELEC,INS	CA440 CA443 CA445 CA1129					
MWC18/16/U5	WIRE,ELEC,INS	CA446 CA1129					
MWC18/16/U6	WIRE,ELEC,INS	CA443 CA446 CA1129					
MWC18/16/U7	WIRE,ELEC,INS	CA1129					
MWC18/16/U9	WIRE,ELEC,INS	CA441 CA446 CA1129					
MWC18/16/U90	WIRE,ELEC,INS	CA1129					
MWC18/16/U92	WIRE,ELEC,INS	CA445 CA446					
MWC18/16/U97	WIRE,ELEC,INS	CA446					
MWC20/7/U0	WIRE,ELEC,INS	CA448 CA1129					
MWC20/7/U1	WIRE,ELEC,INS	CA440 CA442 CA445 CA1129 CA1132					

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 6 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
MWC20/7/U2	WIRE ,ELEC ,INS	CA441 CA446 CA447 CA1132					
MWC20/7/U3	WIRE ,ELEC ,INS	CA1129					
MWC20/7/U4	WIRE ,ELEC ,INS	CA441 CA442 CA447 CA448 CA1132					
MWC20/7/U5 MWC20/7/U6	WIRE ,ELEC ,INS WIRE ,ELEC ,INS	CA1132 CA1132 CA440 CA441 CA442 CA447 CA448 CA1129 CA1132					
MWC20/7/U7	WIRE ,ELEC ,INS	CA1129					
MWC20/7/U9	WIRE ,ELEC ,INS	CA440 CA442 CA447					
MWC20/7/U90	WIRE ,ELEC ,INS	CA448					
MWC20/7/U91	WIRE ,ELEC ,INS	CA440 CA441 CA442 CA445 CA447 CA448					

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 7 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
MWC20/7/U92	WIRE ,ELEC , INS	CA447					
MWC20/7/U94	WIRE ,ELEC , INS	CA1129					
		CA440					
		CA441					
		CA442					
		CA445					
		CA447					
		CA448					
		CA1129					
MWC20/7/U96	WIRE ,ELEC , INS	CA448					
MWC20/7/U0	WIRE ,ELEC , INS	CA1129					
MWC20/7/U1	WIRE ,ELEC , INS	CA1129					
MWC22/7/U2	WIRE ,ELEC , INS	CA1129					
MWC22/7/U3	WIRE ,ELEC , INS	CA1129					
MWC22/7/U4	WIRE ,ELEC , INS	CA1129					
MWC22/7/U5	WIRE ,ELEC , INS	CA1129					
MWC22/7/U6	WIRE ,ELEC , INS	CA1129					
MWC22/7/U7	WIRE ,ELEC , INS	CA1129					
MWC22/7/U8	WIRE ,ELEC , INS	CA1129					
MWC22/7/U9	WIRE ,ELEC , INS	CA1129					
MWC22/7/U90	WIRE ,ELEC , INS	CA1129					
MWC22/7/U91	WIRE ,ELEC , INS	CA1129					
MWC22/7/U92	WIRE ,ELEC , INS	CA1129					
MWC22/7/U93	WIRE ,ELEC , INS	CA1129					

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET

8

OF

14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
MWC22/7/U94	WIRE,ELEC,INS	CA1129					
MWC22/7/U95	WIRE,ELEC,INS	CA1129					
MWC22/7/U96	WIRE,ELEC,INS	CA1129					
MWC22/7/U97	WIRE,ELEC,INS	CA1129					
MWC22/7/U98	WIRE,ELEC,INS	CA1129					
NS3W0104	INS,STANDOFF	AR176			1		
NT124	NUT,PLN,SPLINE	MS1499			2		
NTC2520SSL	NUT,PLN,CAP	AR176			2		
NTH0632BN8	NUT,PLN,HEX	AR108			4		
NTH0632BN10	NUT,PLN,HEX	TE175		1x6	6		
PX100-1-118	INS SLVG-	CA1129					
PX100-1-148	INS SLVG-	CA1129					
PX100-1-234	INS SLVG-	CA1132					
PX100-1-315	INS SLVG-	CA440 CA445 CA447 CA448					
PX100-1-375	INS SLVG-	CA443					

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 9 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
PX100-1-438	INS SLVG-	CA441 CA442 CA446					
PX100-1-625	INS SLVG-	CA1129					
PX337-8	INS ,TERM.BD	AR176			3		
PX337-10	INS ,TERM.BD	AR176			1		
PX337-14	INS ,TERM.BD	AR176			2		
PX456	PLATE ,INS	AR108			1		
PX462	INS ,SPACER	AR176			1		
PX463	PLATE ,INS	AR102 AR103			1 2		
PX469	BD ,MTG ,CAP .	AR176			1		
PX806	COVER ,PLSTC	AR176			1		NOTE 2
RA75AXA150AK25	RES ,VAR-WW ,25W	AR176			1	R711	
RA75AXC252AK25	RES ,VAR-WW ,25W	AR176			1	R709	
RA75ASA501AK25	RES ,VAR-WW ,25W	AR176			1	R707	
RA107TXA1ROA	RES ,VAR-WW ,4W	AR176			1	R705	
RC32GF392J	RES ,FXD ,COMP	AR176			1	R712	
RC42GF153J	RES ,FXD ,COMP	AR176			1	R700	
RC42GF224J	RES ,FXD ,COMP	AR176			1	R702	

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 10 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
RC42GF301J	RES ,FXD ,COMP	AR176			1	R701	
RL122	REL ,ARM. -LATCH	AR100			1		
RL123	REL ,ARM. -LATCH	AR101			1		
RL124	REL ,ARM. -LATCH	AR102		1	1		
		AR103		1	2		
RL126	REL ,ARM.	AR105		1	1		
		AR106		1	2		
RL127	REL ,ARM. -LATCH	AR107			1		
RL128	REL ,ARM.	AR108			1		
RL165I4	REL ,ARM. -LATCH	AR175			1		
RV4LAYS5A503A	RES ,VAR-COMP	AR176			1	R703	
RW107-23	RES ,FXD ,WW-5W	AR176			2	R706,708	
RW107-54	RES ,FXD ,WW-5W	AR176			1	R704	
RW109-4	RES ,FXD ,WW-10W	AR176			1	R710	
SC128-0632-8	THUMBSCREW	AR176			4		
SC139	SCR,EXT REL BODY	AR176			2		
SCBP0440BN6	SCR,MACH	AR176			24		
SCBP0632BN5	SCR,MACH	AR102		4	16		
		AR103		4			
		AR105		4			
		AR106		4			

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 11 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
SCBP0632BN8	SCR, MACH	AR108			4		
SCBP0632BN20	SCR, MACH	TE175		1x6	6		
SCHH2520SS8	BOLT, MACH	AR176			2		
SH102	MOUNT, RESILIENT	AR176			4		
ST22K	SW, TOGGLE -DPST	AR176			1	S700	
TE0632AE18H	POST, ELEC -MECH	AR176			4		
TE0632AE36H	POST, ELEC -MECH	AR176			4		
TE101-3	INS, FDTHRU	TE175		1x6	6		
TE111-2	TERM., LUG-3/8D	AR176			1		
TE120-2	TERM., LUG-SPADE	CA440			6		
		CA441			8		
		CA442			8		
		CA443			4		
		CA445			6		
		CA446			8		
		CA447			8		
		CA448			8		
		CA1129			16		
		CA1132			6		
TE141-1	TERM., LUG-NO. 6	AR176	CE105		2	80	
		CA409-78				2	
TE149-144	TERM., LUG-NO. 6	TE175		1x6	6		

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 12 OF 14

PART NO.	DESCRIPTION ELECTRICAL/MECHANICAL	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
TI101-5	TIMER, INTERVAL	AR176			1	M701	
TM100-8	TERM. BD -BARR	AR176			3	E701,702,703	
TM100-10	TERM. BD -BARR	AR176			1	E704	
TM100-14	TERM. BD -BARR	AR176			2	E700,705	
TM117-11	TERM. BD -LUG	AR176			3		
TS137-7FB4	LIGHT, IND -CLEAR	AR176			6	XI700,701,702,703 XI704,706	
WA101-6	WASH., NM	TE175		1x6	6		
WA109-36	WASH., NM	TE175		1x6	6		
WL100-7	WIRE, ELEC, BUSS	AR100 AR101 AR102 AR105 AR106 AR107 AR108					
WL103-4	BRD, WIRE, FLAT	CA409-78			4		
A1805	COVER, REL INS	AR176			1		

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 13 OF 14

PART NO.	DESCRIPTION SUPP ASSY/REF DWGS	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
AR100	PA PL OVLD	AR176			1	K701	#A1667
AR101	IPA PL OVLD	AR176			1	K707	#A1668
AR102	PA SCR N ON-OFF	AR176			1	K703	#A1669
AR103	TUNE -OPERATE	AR176			1	K705	#A1702
AR105	PA BIAS	AR176			1	K700	#A1704
AR106	IPA BIAS	AR176			1	K708	#A1705
AR107	IPA SCR N OVLD	AR176			1	K706	#A1706
AR108	PA SCR N OVLD	AR176			1	K702	#A1707
AR175	DIODE PROTECT	AR176			1	K704	
CA409-78-3.25	LEAD ,ELEC	AR176			1		
CA440	WRG HARN ,BRCHD	AR105			1		
CA441	WRG HARN ,BRCHD	AR100			1		
CA442	WRG HARN ,BRCHD	AR108			1		
CA443	WRG HARN ,BRCHD	AR102			1		
CA445	WRG HARN ,BRCHD	AR106			1		
CA446	WRG HARN ,BRCHD	AR103			1		
CA447	WRG HARN ,BRCHD	AR107			1		

THE TECHNICAL MATERIEL CORPORATION

MAMARONECK, NEW YORK

**MATERIAL LIST /
NUMERICAL PARTS LIST**

REV.

A

MODEL:

AR176

SHEET 14 OF 14

PART NO.	DESCRIPTION SUPP ASSY/REF DWGS	ITEM LOCATION			QTY. PER UNIT	REFERENCE SYMBOLS	REMARKS
		USED ON ASSEMBLY	USED TO MOUNT	QTY. PER USED TO MOUNT			
CA448	WRG HARN, BRCHD	AR101			1		
CA1129	WRG HARN, BRCHD	AR176			1		
CA1132	WRG HARN, BRCHD	AR175			1		
CK936	DIAG, SCHEM	AR176			1		
TE175	INS, FDTHRU	AR176			6	E706,707,708,709, E710,711	#A1720

REVISION SHEET

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

AR176
LIST NO.

DATE	REV.	SHEET	EMN #	DESCRIPTION	APP.
4/12/66	A	6, 1, 11	16083	Revised per EMN	WJ