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**CAD GENERATED DOCUMENT**

ANY CHANGES TO THIS DOCUMENT MUST BE SUBMITTED TO THE DESIGN/DRAFTING DEPARTMENT FOR PROPER UPDATE

REVISIONS						
EDN	SHEET	ZONE	REV.	BRIEF DESCRIPTION (SEE EDN FOR COMPLETE CHANGE DETAILS)	DATE	APPROVED
14218			N/C	NEW RELEASE	8/17/01	<i>Paul S. Hall</i>

NOTES: UNLESS OTHERWISE SPECIFIED

- 1. LABEL BOTH ENDS OF CABLE.  
COVER ALL LABELS WITH CLEAR HEAT SHRINK.  
APPLY BLACK ADHESIVE SHRINK TUBING ACCORDING TO ECS WORK INSTRUCTION W1007.
- 2. MARK OUTSIDE OF BOX WITH P.O. #, SERIAL #, AND CONTENTS DESCRIPTION PER EXAMPLE:  
MODE-S RF COAX KIT  
500-88170-XXXXX/XXXXX  
P.O. # XXXXX  
SER # EXXXX
- 3. COAXIAL CABLE ASSEMBLY LENGTH TOLERANCE, UNLESS OTHERWISE NOTED:
 

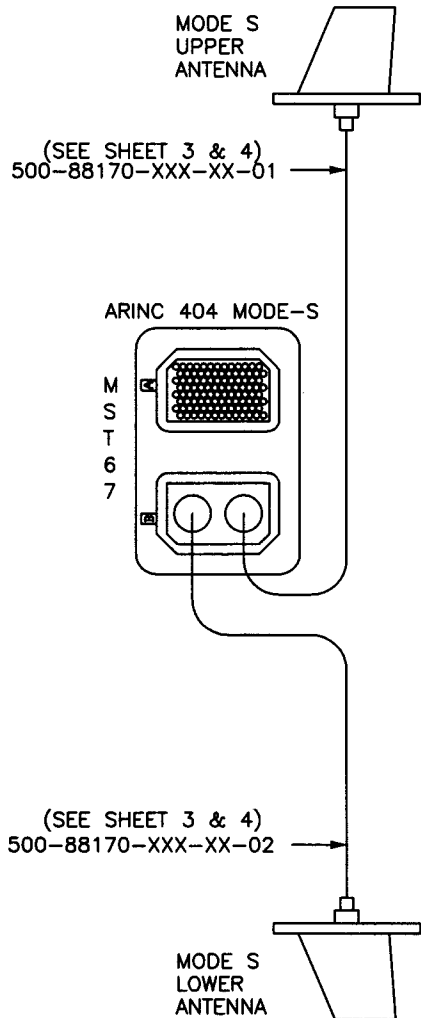
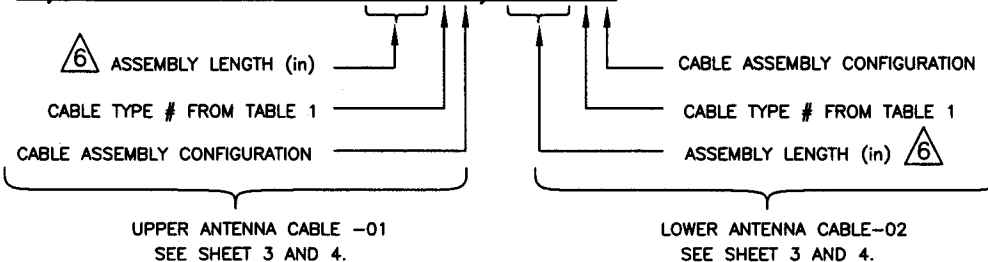
LENGTH	≤ 12	12-120	> 120
TOL	+0.5/-0.0	+3.5/-0.0	+5.5/-0.0
- 4. TEST WITH MARKERS SET AT 1030 AND 1090 MHz.  
ATTENUATION: 1.0 - 3.0 dB FOR EACH ANT. RUN.  
VSWR: ≤ 1.35:1 FOR EACH ANT RUN.  
DIFFERENTIAL DELAY: THE MAX ROUND TRIP (RECEIVE/TRANSMIT)  
DELAY DIFFERENCE BETWEEN THE UPPER AND LOWER ANTENNA RUNS IS 50ns.
- 5. INCLUDE APPROPRIATE TEST DOCUMENTATION WITH EACH CABLE.
- 6. THE DIFFERENCE IN LENGTH BETWEEN THE UPPER AND LOWER ANTENNAS MUST BE LESS THAN 200 INCHES TO MEET THE DIFFERENTIAL DELAY REQUIREMENT.

ALL LENGTHS IN INCHES		ECS ELECTRONIC CABLE SPECIALISTS FRANKLIN, WI 53132 PHONE: (414) 421-5300	
APPROVALS	DATE	TITLE	
<i>C. Chapman</i>	08/15/01	MST67A MODE-S RF COAX KITS	
DESIGNED BY:	<i>Paul S. Hall</i>	SIZE	DWG NO.
PROJECT ENG:		C 66197	500-88170
DATE:	8/17/01	SCALE:	EFFECTIVITY:
			SHEET: 1 OF 4

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## MST67A MODE-S EXAMPLE KIT PART NUMBER

### P/N 500-88170-3006A/2404A



1	500-88170-XXX-XX-02	LWR MODE-S COAX CABLE	2
1	500-88170-XXX-XX-01	UPR MODE-S COAX CABLE	1
QTY REQ'D	COMPONENTS PART NO.	NOMENCLATURE	ITEM
XXXXX/XXXXX	OR IDENTIFYING NO.	OR DESCRIPTION	NO.
KIT PART NO.			
P A R T L I S T			

<b>ELECTRONIC CABLE SPECIALISTS</b> FRANKLIN, WI 53132 PHONE: (414) 421-8300			
SIZE	CAGE CODE	LEVEL	DRG. NO.
C	66197	C/A	500-88170
SCALE:	EFFECTIVITY:	SHEET 2 OF 4	

NOTES: SEE SHEET 1

### CABLE ASSEMBLY PART NUMBER

P/N 500-88170-XXX-XX-XX (ALL LENGTHS IN INCHES)

ASSEMBLY LENGTH

01 OR 02 (SEE EXAMPLE BELOW)

CABLE TYPE # FROM TABLE 1

CABLE ASSEMBLY CONFIGURATION  
A, B, C OR D (SEE SHEET 4)

EXAMPLE : 500-88170-168-1A-01 = 168" ASSEMBLY OF  
3C058A WITH A LM722 & CCR722 CONNECTOR ON EACH END  
USED FOR MODE-S UPR ANTENNA -01.


**TABLE 2 ( ECS COAX CONNECTORS )**

30	LM022	CONN.,ARINC 404 SIZE 1 FOR 310801	
29	CNS022	CONN.,N, 180 DEG. FOR 310801	
28	CNR022	CONN.,N, 90 DEG. FOR 310801	
27	CCS022	CONN.,C, 180 DEG. FOR 310801	
26	CCR022	CONN.,C, 90 DEG. FOR 310801	
25	LM122	CONN.,ARINC 404 SIZE 1 FOR 311201	
24	CNS122	CONN.,N, 180 DEG. FOR 311201	
23	CNR122	CONN.,N, 90 DEG. FOR 311201	
22	CCS122	CONN.,C, 180 DEG. FOR 311201	
21	CCR122	CONN.,C, 90 DEG. FOR 311201	
20	LM922	CONN.,ARINC 404 SIZE 1 FOR 311501,311601	
19	CNS922	CONN.,N, 180 DEG. FOR 311501,311601	
18	CNR922	CONN.,N, 90 DEG. FOR 311501,311601	
17	CCS922	CONN.,C, 180 DEG. FOR 311501,311601	
16	CCR922	CONN.,C, 90 DEG. FOR 311501,311601	
15	LM3522	CONN.,ARINC 404 SIZE 1 FOR 352001	
14	CNS3522	CONN.,N, 180 DEG. FOR 352001	
13	CNR3522	CONN.,N, 90 DEG. FOR 352001	
12	CCS3522	CONN.,C, 180 DEG. FOR 352001	
11	CCR3522	CONN.,C, 90 DEG. FOR 352001	
10	LM522	CONN.,ARINC 404 SIZE 1 FOR 432101	
9	CNS522	CONN.,N, 180 DEG. FOR 432101	
8	CNR522	CONN.,N, 90 DEG. FOR 432101	
7	CCS522	CONN.,C, 180 DEG. FOR 432101	
6	CCR522	CONN.,C, 90 DEG. FOR 432101	
5	LM722	CONN.,ARINC 404 SIZE 1 FOR 3C142B,311901,3C058A	446549-1/446921-2/985184-1,320-1066-015/320-1066-012
4	CNS722	CONN.,N, 180 DEG. FOR 3C142B,311901,3C058A	M39012/01-0503,1-225661-5,82-4427,KN-59-242
3	CNR722	CONN.,N, 90 DEG. FOR 3C142B,311901,3C058A	M39012/05-0503,225394-2,82-4442,KN-59-345
2	CCS722	CONN.,C, 180 DEG. FOR 3C142B,311901,3C058A	M39012/26-0503,225555-6,31-4452,KA-59-292
1	CCR722	CONN.,C, 90 DEG. FOR 3C142B,311901,3C058A	M39012/30-0503,225554-6,31-4474,KA-59-273,KA-59-236
#	ECS P/N	DESCRIPTION	

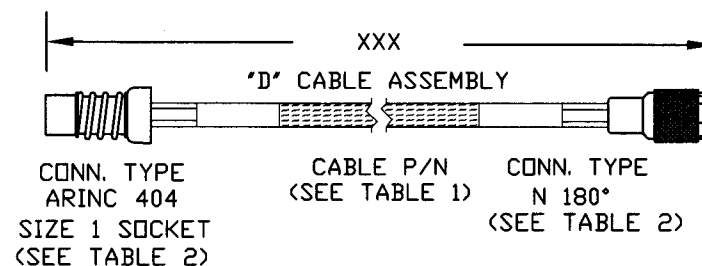
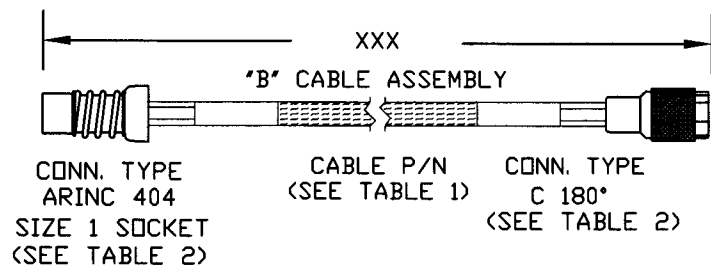
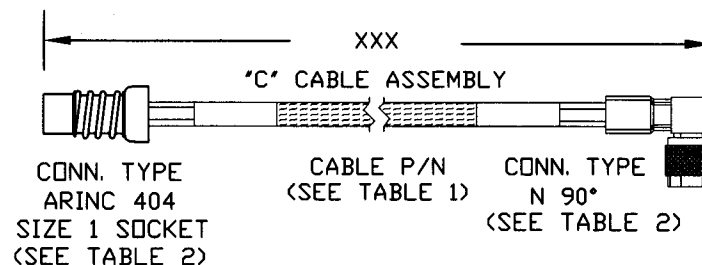
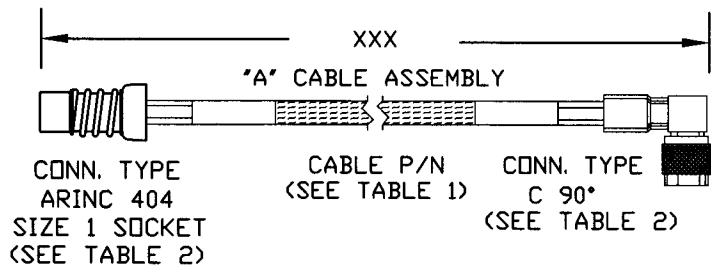
**TABLE 1 ( ECS COAX CABLE )**

9	310801	384 TO 852 INCHES	0.1042
8	311201	240 TO 576 INCHES	0.1042
7	311501	186 TO 456 INCHES	0.1042
6	311601	144 TO 372 INCHES	0.1117
5	352001	108 TO 276 INCHES	0.1042
4	311901	102 TO 276 INCHES	0.1217
3	3C142B	90 TO 234 INCHES	0.1217
2	432101	90 TO 220 INCHES	0.1117
1	3C058A	80 TO 180 INCHES	0.1217
#	ECS P/N	LENGTH	DELAY ns/in

NOTES: SEE SHEET 1

 <b>ELECTRONIC CABLE SPECIALISTS</b> <small>FRANKLIN, WI 53132 PHONE: (414) 421-5300</small>			
SIZE	DWG. CODE	LEVEL	DWG. NO.
C	66197		500-88170
SCALE:	EFFECTIVITY:	SHEET: 3 of 4	

### CABLE ASSEMBLY CONFIGURATIONS



### CABLE LABELING

500-88170-XXX-XX-01  
SER# EXXXX  
UPR MODE-S ANT

500-88170-XXX-XX-02  
SER# EXXXX  
LWR MODE-S ANT

NOTES: SEE SHEET 1

<b>ELECTRONIC CABLE SPECIALISTS</b> FRANKLIN, WI 53132 PHONE: (414) 421-5300			
SIZE	DWG CODE	LEVEL	DWG NO.
C	66197		500-88170
SCALE:	EFFECTIVITY:	SHEET: 4 OF 4	