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DWG. NO. 500-88169 SHEET 1 REV. N/C

REVISIONS						
ECN	SHEET	ZONE	REV.	BRIEF DESCRIPTION (SEE ECN FOR COMPLETE CHANGE DETAILS)	DATE	APPROVED
14218			N/C	NEW RELEASE	8/17/01	<i>[Signature]</i>

NOTES: UNLESS OTHERWISE SPECIFIED

MANUFACTURING NOTES:

- 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
 500-88169-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.
 STRAPPING REQUIRED IF DIFFERENTIAL DELAY EXCEEDS 50ns. (SEE NOTE 6, CALCULATION OF DIFFERENTIAL DELAY)
- 5. INCLUDE APPROPRIATE TEST DOCUMENTATION WITH EACH CABLE.

INSTALLATION NOTES: (REFERENCE)

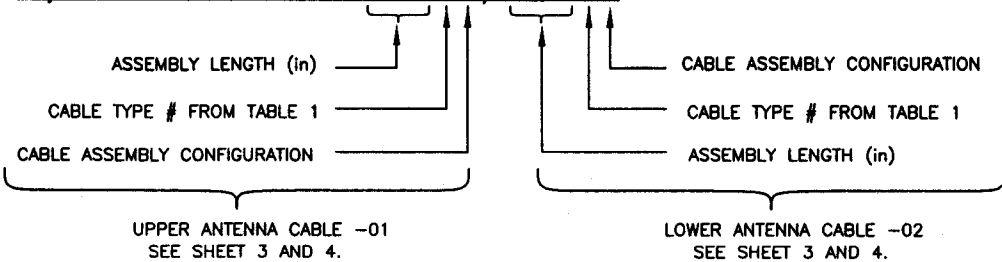
- 6. CALCULATION OF DIFFERENTIAL DELAY
 - A. OBTAIN ELECTRICAL DELAY VALUE FROM TABLE 1 FOR EACH CABLE TYPE USED IN KIT.
 - B. CALCULATE DELAY FOR UPPER AND LOWER CABLE RUNS BY MULTIPLYING THE DELAY VALUE TIMES THE CABLE LENGTH.
 - C. DETERMINE ONE-WAY DIFFERENTIAL DELAY BY SUBTRACTING THE SMALLER DELAY FROM THE LARGER DELAY CALCULATED IN STEP B.
 - D. DOUBLE THE DIFFERENTIAL DELAY OF STEP C TO DETERMINE THE ROUND TRIP (RECEIVE/TRANSMIT) DELAY DIFFERENCE.

ALL LENGTHS IN INCHES		ECS		ELECTRONIC CABLE SPECIALISTS FRANKLIN, WI 53132 PHONE: (414) 421-5300	
APPROVALS	DATE	TITLE			
<i>[Signature]</i>	08/15/01	ARINC 600 MODE-S RF COAX KITS			
DESIGNED BY:		SIZE	CAGE CODE	LEVEL	DWG NO.
PROJECT ENG:		C	66197		500-88169
ENG. MGR:	8/17/01	SCALE:	EFFECTIVITY:	SHEET: 1 OF 4	

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ARINC 600 MODE-S EXAMPLE KIT PART NUMBER

P/N 500-88169-3006A/2404A



(SEE SHEET 3 & 4)
500-88169-XXX-XX-01

ARINC 600
MODE-S



(SEE SHEET 3 & 4)
500-88169-XXX-XX-02



1	500-88169-XXX-XX-02	LWR MODE-S COAX CABLE	2
1	500-88169-XXX-XX-01	UPR MODE-S COAX CABLE	1
QTY REQ'D	COMPONENTS PART NO. OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	ITEM NO.
XXXXX/XXXXX			
KIT PART NO.	PART LIST		

NOTES: SEE SHEET 1

 ECS ELECTRONIC CABLE SPECIALISTS FRANKLIN, WI 53132 PHONE: (414) 421-5300			
SIZE	CAGE CODE	LEVEL	DWG NO.
C	66197C/A		500-88169
SCALE:	EFFECTIVITY:	SHEET 2 OF 4	

CABLE ASSEMBLY PART NUMBER

P/N 500-88169-XXX-XX-XX (ALL LENGTHS IN INCHES)

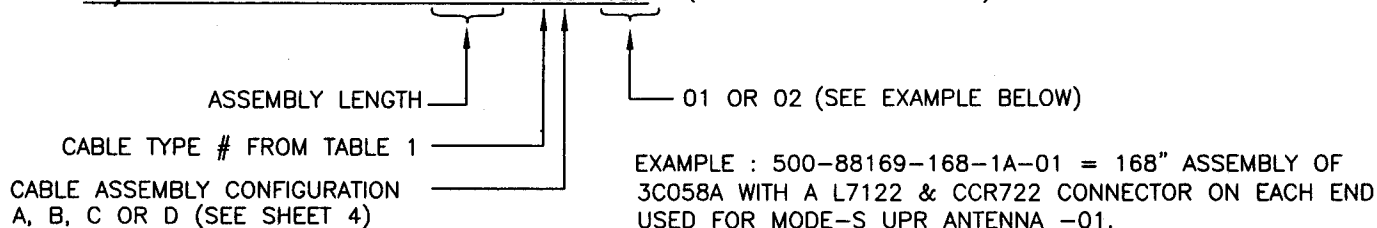


TABLE 2 (ECS COAX CONNECTORS)

30	LQ122	CONN.,ARINC 600 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	L1122	CONN.,ARINC 600 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	L9122	CONN.,ARINC 600 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	L35122	CONN.,ARINC 600 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	L5122	CONN.,ARINC 600 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	L7122	CONN.,ARINC 600 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)

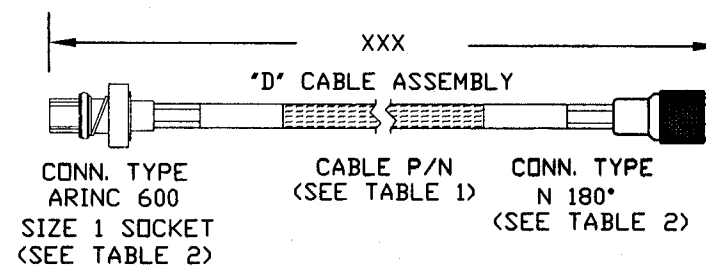
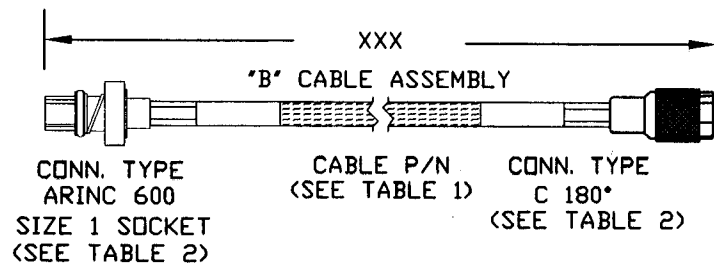
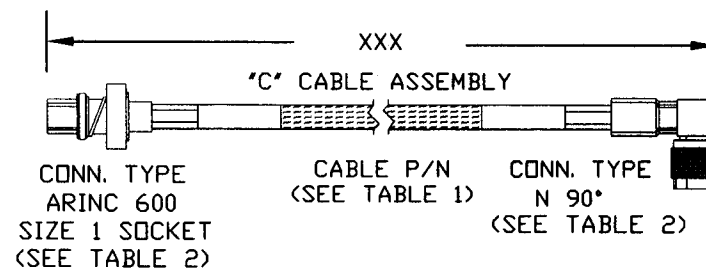
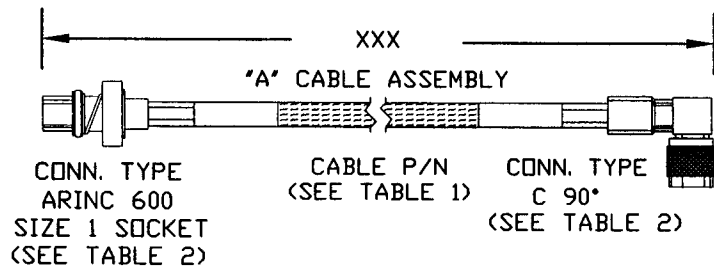
9	310801	384 TO 852 INCHES	0.1042
8	311201	240 TO 576 INCHES	0.1042
7	311501	186 TO 456 INCHES	0.1042
6	311601	144 TO 372 INCHES	0.1117
5	352001	108 TO 276 INCHES	0.1042
4	311901	102 TO 276 INCHES	0.1217
3	3C142B	90 TO 234 INCHES	0.1217
2	432101	90 TO 220 INCHES	0.1117
1	3C058A	80 TO 180 INCHES	0.1217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

ECS ELECTRONIC CABLE SPECIALISTS
FRANKLIN, WI 53132
PHONE: (414) 421-5300

SIZE	DATE CODE	LEVEL	DWG NO.
C	66197		500-88169
SCALE:	EFFECTIVITY:	SHEET 3 OF 4	

NOTES: SEE SHEET 1

CABLE ASSEMBLY CONFIGURATIONS



CABLE LABELING

500-88169-XXX-XX-01
SER# EXXXX
UPR MODE-S ANT

500-88169-XXX-XX-02
SER# EXXXX
LWR MODE-S ANT

NOTES: SEE SHEET 1

ELECTRONIC CABLE SPECIALISTS <small>FRANKLIN, MI 48132</small> <small>PHONE: (414) 421-5300</small>			
SIZE	CAGE CODE	LEVEL	DWG NO.
C	66197		500-88169
SCALE:	EFFECTIVITY:	SHEET: 4 of 4	