



COMPUTER CONVERSIONS CORPORATION

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SYNCHRO - RESOLVER TO ACP/ARP CONVERTER STAND-ALONE CHASSIS

Base Model: **SDCACP21** - **6** **H** **FR** **P**
a. b. c. d. e.

a. Select Base Model:

SDCACP21 = Synchro Input
RDCACP21 = Resolver Input

b. Select Frequency Range:

Code	Frequency	Tolerance
6	60Hz.	47 to 1000Hz.
4	400Hz.	360 to 2000Hz.

c. Select Signal Code:

Code	Reference	Signals
H	115VAC	90V.L-L
M	26VAC	26V.L-L
L	26VAC	11.8V.L-L
Y/X	X VAC	Y V.L-L
Tolerance: +20% -70%		+10%

d. Select Chassis Mount:

Code	Size	
FR	3.5" x 19 x 8"D	19" rack mount
HR	3.5 x 9.5 x 8"D	1/2 rack, panel mount, and backplane mount (Panel is blank).

e. Select Power Source:

P = 115VAC @ 60Hz.
EP = 220VAC @ 50Hz.
4P = 115VAC @ 47 to 440Hz.

f. Dynamics

Standard 400Hz. unit is 10RPS = Sweep of .1 seconds.
Standard 60Hz. unit is 2.5RPS = Sweep of .4 seconds.
To provide extra fine stability with significantly slower rates add a "-NRPS" suffix to the end of part number where N = tracking rate in RPS, use tracking rate of at least 2 times faster than desired sweep rate.
example **-1RPS** = 60RPM top speed = Sweep of 1 sec.,
use this **for a 2 second sweep.**

A678G

Function: Accepts choice of synchro-resolver input options, power input, and mounting configuration, converts synchro/resolver input into ACP (Azimuth Change Pulse) and ARP (Azimuth Reference Pulse) type outputs suitable for 75 ohm drive.

Outputs: ACP and ARP format outputs provided on separate BNC MIL-C-39012 75 ohm style coaxial connectors mounted to chassis rear for 75 ohm coaxial cable type interface. outputs utilize 75121 type single ended line drivers designed for 50 ohm to 500 ohm transmission lines. Line drivers are short circuit protected and capable of driving multiple source loads using a 75 ohm terminator at the far end.

Resolution: 4096 ACP's per revolution, 1 ARP reference north marker per revolution, having a duration of 1 part in 4096. ARP is logic level 1 = high for duration active north indication = 0° synchro input, is synchronized to be high coinciding with ACP being low @ 0°. Transition resolution is 1 part in 16,384.

Accuracy: ±2.7 arc. minutes (worse case)

Repeatability: Uni-directional: 1.3 arc. minutes.
Bi-directional: ±1.3 arc. minutes.

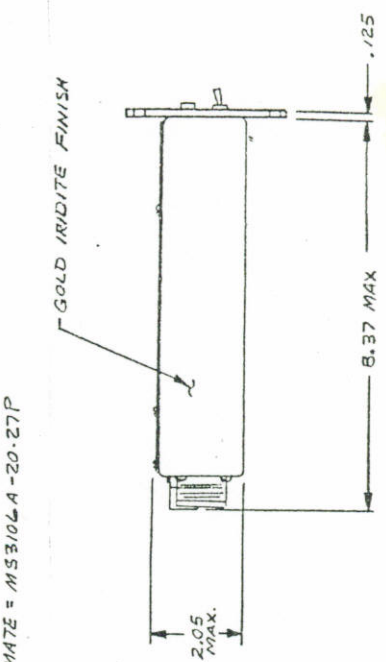
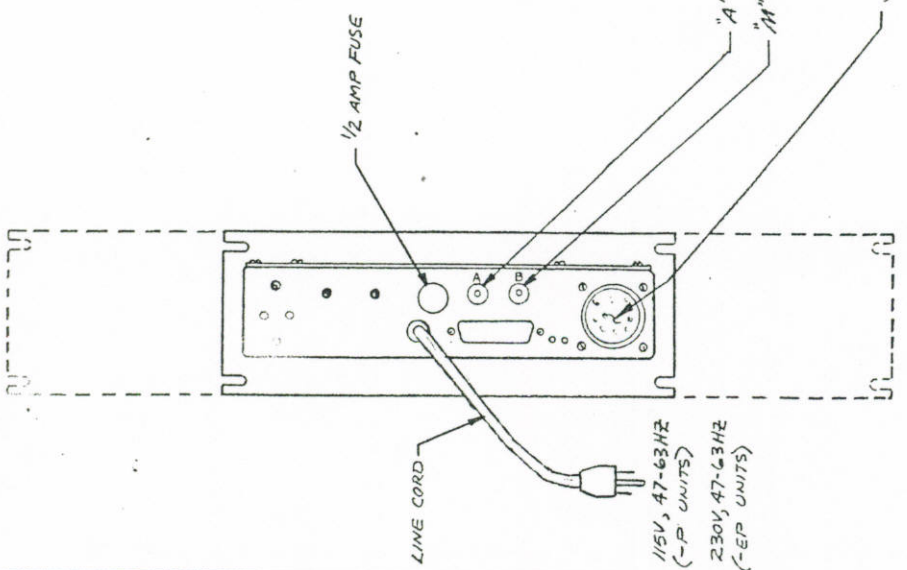
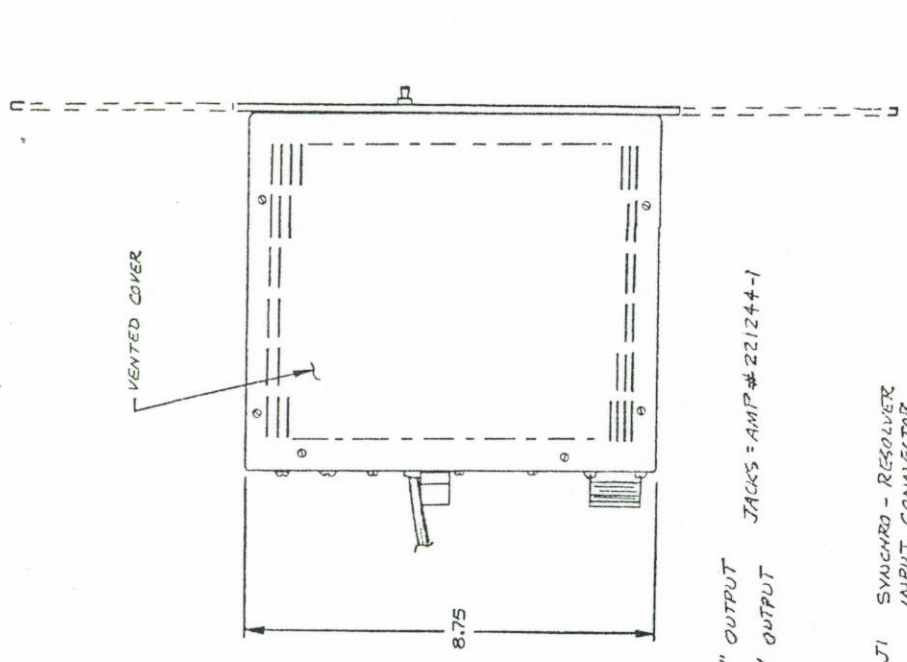
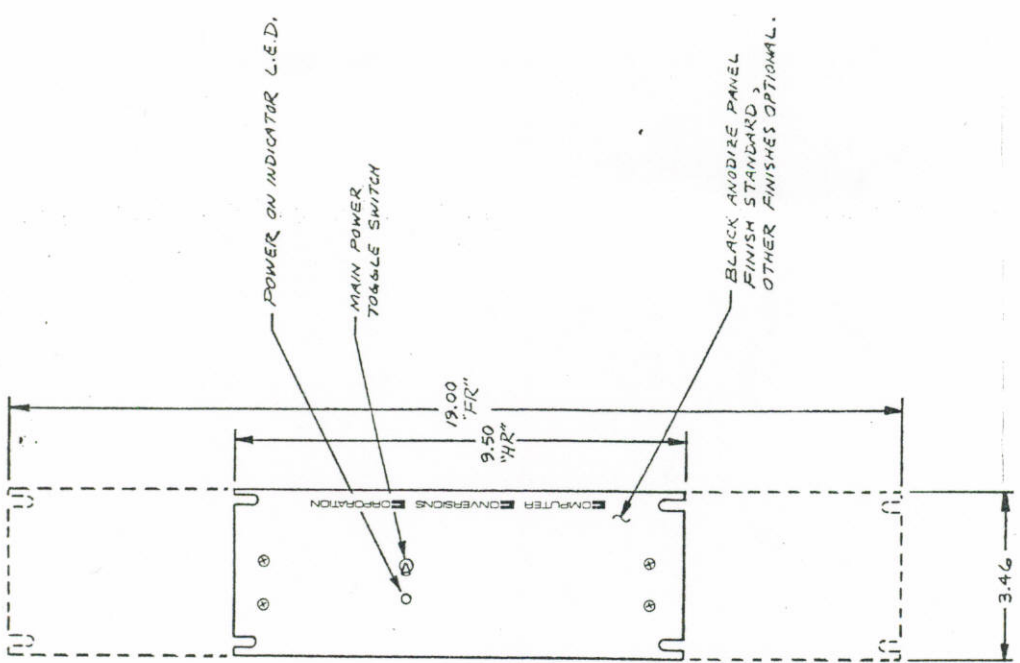
Power cycling: No spurious output pulses during power-ups. Allow 2 seconds or data.

Chassis: Vented aluminum 19" rack mount or 1/2 rack vented aluminum chassis, blank front panel for suitable backplane mount. Fuse-block and line-cord for AC power input, D style 15 pin connector for synchro I/O and BNC connectors for ACP/ARP outputs.

Isolation: AC power input: internally transformer isolated to 500VDC min.
Synchro I/O: internally transformer isolated to 500VDC min. reference and all signals.
ACP/ARP Outputs: ground referenced,
BNC connectors are chassis grounded.

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REVISIONS	
DATE	DESCRIPTION
7-7-97	ORIGINAL RELEASE



PIN	FUNCTION
K	RH (RI)
L	RL (RE)
M	SHIELD
E	S1
F	S3
G	SHIELD
C	S2
B	S4
D	SHIELD
A	CMSE
H	---
J	---
N	---

RESOLVER INPUT ONLY "RDCA"

COMPUTER CONVERSIONS CORP
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SCALE: 1/2 APPROVED BY: _____

DATE: 7-7-97 DRAWN BY: _____

REVISED _____

SYNCHRO OR RESOLVER TO ACP/ARP CONVERTER
 "SUCACIP21-G-H-FR-P-5RFS" SERIES

DRAWING NUMBER: C2704-1

MECHANICAL OUTLINE

SHEET 1 OF 1