

Supersedes:

None

HP MODEL 5345A
A10 GATE CONTROL ASSEMBLY
TROUBLESHOOTING PROCEDURE

This troubleshooting procedure is written specifically for A10 boards with part number 05345-60010, series 1436A. The series 1340A differs in that the cathode of CR1 connects to the output of U20B, rather than U20C.

The troubleshooting is divided into two parts: the Function Selection and Decoding portion and the Arming Control portion. **Always perform the Function Selection and Decoding troubleshooting first.** This will take only a few minutes to check but may save several hours. The only circuits that are not covered are those associated with external arming and gating and the gate amplifier circuit. The symptoms and failures should be readily associated to these circuits.

NOTE

This procedure assumes the problem is on the A10 board.

RG/ka/WN

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For more information, call your local HP Sales Office or East (201) 265-5000 • Midwest (312) 677-0400 • South (404) 434-4000 • West (213) 877-1282 Or, write: Hewlett-Packard, 1501 Page Mill Road, Palo Alto, California 94304. In Europe, Post Office Box 85, CH-1217 Meyrin 2, Geneva, Switzerland. In Japan, Yokogawa-Hewlett-Packard, 1-59-1, Yoyogi, Shibuya-Ku, Tokyo, 151.

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FUNCTION SELECTION AND DECODING

Set: FUNCTION to FREQ A
 GATE TIME to 1S
 SAMPLE RATE to HOLD
 CHK-COM-SEP to CHECK
~~ACCUM MODE START/STOP~~ to A-B (rear panel)
 Remove plug-in from compartment.

Check the lines located on the left side of the white cut out in the center of the schematic.
 The proper conditions of these lines are as follows:

SCH - 0 (P1A pin 13): ECL High

TI + EVT (P1B pin $\overline{13}$): EECL Low (-.6V) (Line should go High (0V) if FUNCTION switch is changed to TIME INT A to B.)

PI • [SIGN -] + \overline{PI} • [CHK + (A - B) SW] (P1A pin 16): TTL High (Line should go Low if CHECK switch is changed to COM A position.)

\overline{TI} + EVT (P1^B pin 15): EECL High (0V) (Line should go Low (-.6V) if FUNCTION switch is changed to TIME INT A to B.)

\overline{PI} SEL (P1A pin $\overline{21}$): TTL High (Line should go to TTL Low if FUNCTION switch is changed to PLUG-IN.)

\overline{HZ} LITE (P1A pin 7): TTL Low (Line should go to TTL High if FUNCTION switch is changed to PERIOD A.)

NANO MULT (P1A pin $\overline{22}$): TTL Low (Line should go to TTL High if FUNCTION switch is changed to PERIOD A.)

\overline{SEC} LITE (P1A pin 10): TTL High (Line should go to TTL Low if FUNCTION switch is changed to PERIOD A.)

EVT + RAT + ST + STP (P1B pin 4): TTL Low (Line should go to TTL High if FUNCTION switch is changed to RATIO B/A.)

EXT AB (P1A pin 20): EECL Low (-.6V)

PER + TI (P1A pin 11): TTL Low (Line should go to TTL High if FUNCTION switch is changed to PERIOD A or TIME INT A to B.)

RATIO + ST (P1B pin 16): ~~TTL~~^{ECL} Low (Line should go to ~~TTL~~^{ECL} High if FUNCTION switch is changed to RATIO B/A or START.)

EXT C (P1B pin 14): EECL Low (-.6V)

\overline{ST} + STP (P1B pin $\overline{10}$): TTL High (Line should go to TTL Low if FUNCTION switch is changed to START or STOP.)

\overline{NOISE} CONTROL (P1B pin 15): TTL High (Line should go to TTL Low if FUNCTION switch is changed to TIME INT A to B.)

TEST (P1B pin 17): EECL High (0V) (Line should go to EECL Low (-.6V) if CHK-COM-SEP switch is set to COM A.)

Proceed to ARMING CONTROL Troubleshooting, page 3.





