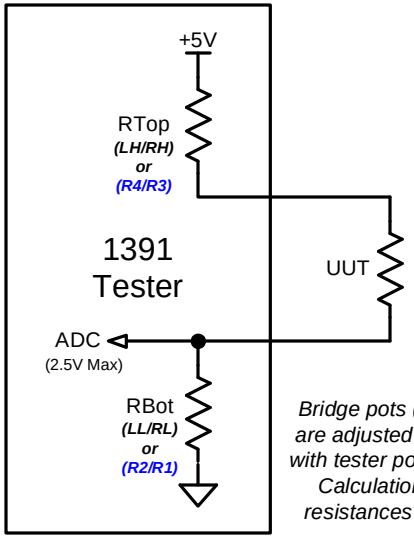
RECEIVER (SPEAKER) RUN TO FAIL STRESS TEST SETUP

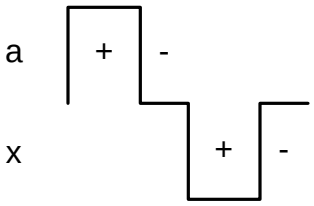


	4X 53mA 85mW	10X 82mA 200mW
RT	26.5Ω	6.58Ω
UUT	30.0Ω	30.0Ω
RB	37.8Ω	24.4Ω
	94.3Ω Total	61.0Ω Total

Bridge pots (LH/RH/LL/RL) are adjusted for test current with tester power unplugged. Calculation example of resistances shown below.

	Sonion #2	AAC	Sanyo
85mW	1,679K (Fail)	13,752K (NoFail)	62,357K (Fail)
200mW	113K (Fail)	2,414K (Fail)	32,516K (Fail)

Receivers run on fixture until they fail open (Or test stopped)



Screen 1

a: +06-00 — 6mS on / 0mS dead time

x: +06-00 — 6mS on / 0mS dead time

Screen 2

Thr: 0592 — ADC current reading at least 592 counts to run

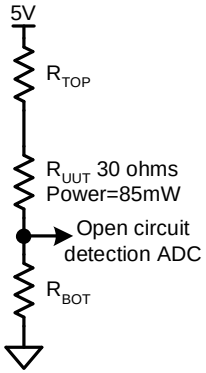
Stp: 0016 — Halt after ADC falls below Thr for 16 consecutive cycles.

The test threshold of 592 shown above computes as follows:
(592Counts / 1023CountsFullScale) x 2.5VFullScale = 1.45V
In other words, any voltage at R_{BOT} at or below 1.45V indicates an open UUT.

Press and hold the Run and Stop buttons on the fixture at the same time for > 5 seconds to display the current settings as shown above on the LCD screen or use a terminal program (115,200,n,8,1) to read and set the test parameters via RS232. Type $00FF[cr] to display the controller protocol menu.

Stress tester resistance (Pots) calculation example

This tester drives a resistive load at some power level and waits for the current to drop below some threshold that indicates an open circuit, counting the number of cycles to failure. Before a test cycle can begin, the pots in the fixture must be set to values that will deliver the expected test power as well as generate a voltage that signals to the control processor that a transition from operation to failure has occured. This example assumes a 30Ω UUT load and a 85mW test power.



1: Determine the current through the UUT which will deliver the desired power level (Assume 100% duty cycle):

$I_{UUT} = \sqrt{85mW/30\Omega}$
$I_{UUT} = 53mA$

2: Compute the bridge bottom resistance to generate approximately 2V for open circuit detection at the current from step 1:

$R_{BOT} = 2V/53mA$
$R_{BOT} = 37.8\Omega$

3: Compute the bridge top resistance to allow the test current of step 1 to flow through the entire network, where the applied voltage is always 5V:

$R_{TOT} = 5V/53mA$
$R_{TOT} = 94.3\Omega$
$R_{TOP} = 94.3\Omega - R_{BOT} - R_{UUT}$
$R_{TOP} = 26.5\Omega$

4. Set R1 and R2 to 37.8Ω and set R3 and R4 to 26.5Ω.