

Check-Out Sequence, AV-156G-B Modification

	Test step	Control	Setting or expected results
1.	Identification	Model:	AV-156G-B
		Serial Number:	
		Client:	
		Date:	
2.	Check PA04 orientation		Confirm with Fluke 75 that resistance between pins 4 and 5 of the PA04 is 100 k Ω . If higher, the PA04 may be installed incorrectly.
3.	Disconnect DC	PG:	Slide off PG card edge connector, and un-solder white and black PG power lines.
		DC fuse:	Remove DC fuse.
4.	Rear panel set-up	120/240:	120V
		Line fuse:	1.5A
		DC fuse:	2.0A
5.	R _{OL}	R _{OL} :	5.1 k Ω
6.	R _{MON}	PCB 116:	Change R3 on PCB 116 from 1k to 2k.
		PCB 142:	Change 0.47/2 to 0.47/4 on PCB 142B.
7.	R _{SENSE}	PCB 142:	Change 0.33/4 to 0.33/8 on PCB 142B.
8.	Bring to life	I ₆₀ :	record current here: (expect 420 mA)
		V _{TPS} :	(expect +24V)
			If power-up is OK, power down and install Z2B.
			Program memory as a 156G.
			Run timing calibration sequence.
9.	Re-install parts	DC fuse:	Turn off power. Install DC fuse. Apply power.
		Cap bank:	V _{CAPBANK} = (expect +24V)
		PG:	Turn off power. Install PG card-edge conn. Apply power.
		I ₆₀ :	record current here: (expect 430 mA)
10.	Test with Lab PS		Turn off power.
			Connect PG HV+ to Lab PS, off, set to +24V.
			Connect PG HV- to Lab PS, off, set to -15V.
			Turn on 156G AC power. Turn on lab PS. Confirm Lab PS +/- current is < 100 mA.
11.	Re-connect DC power.		Remove AC and Lab PS power. Disconnect Lab PS.
			Re-solder white and black PG power lines.
		I ₆₀ :	record current here: (expect 460 mA)
12.	Tweak V _{TPS} .		Disconnect AC power cord. Rotate TPS80 adjust trimpot 1/8 turn clockwise. Turn power on and measure V _{TPS} . Repeat until V _{TPS} = 26V.
13.	Calibration		Turn off, then back on.
			Add temporary jumper across 95SQ015 diode.
			Quick-test of main output. 10 Hz, 100 us, 10A, 1.0 and 1.5 Ohms.
			Adjust ampl-dependent OS trimpot, R37.
			Adjust ampl-independent OS trimpot, R34.
		Adjust Zout trimpots, relying on the monitor BNC output to	

			judge when Zout is nulled. Perform at: 100 mA (1 to 80 Ohms), adjust R31 and 10 A (0 and 1 Ohms), adjust R28
			Calibrate all amplitude points, in both ranges.
			Calibrate all OS points, in both ranges.
			Null out remaining offset, in software.
			Remove 95SQ015 jumper
			Calibrate monitor on BNC, then on LCD.
			100 Hz, 10 us, 10-100 mA to 2.5 Ohms. Confirm PW is approx 10 us +/- 0.3 us.
			100 Hz, 300 us, 100 mA to 80 Ohms. Check t_R , t_F .
14.	Seal up		To Dave to seal 2901
15.	GPIB Cal		To MJC to complete -B calibration check-sheet.
16.	Chassis Photo		