

REF : T980409/FVH.

Introduction new EHT Module /Quadrupler / Splitter.

A new EHT module R762716 was successfully tested and will now be gradually introduced in all 808S and 1208S/1209S projectors.

Attached you find a schematic diagram of the new board for your information.

You'll discover small differences in the circuit compared with the former version.

For a detailed information on the alignment and PCB layout, we refer to the service manual of the BG1209S in which this module is presented for the first time.

Some differences.

a) You find now **two red LEDs** on the board : D13 and D14.

D13 : same function as the EHT HOLD DOWN LED before.

D14 : Complementary information that the EHT HOLD DOWN problem is caused by the Mosfet overvoltage protection circuit, or, by too high EHT flyback pulses on the Mosfet.

Note that in this case the EHT HOLD DOWN LED itself (D13) is also on.

b) An LM393 is now utilised for two functions :

- overcurrent protection
- drive delay

c) Modified slow start circuit around Q4 for a slow start up at switching on and after a scan fail.

d) As we no more utilise a 33V zener reference, the +230V or 210V is not used any more.

e) The T_{on} and T_{off} times are both preset and hence the range of the oscillator is limited.

The most important change is the Drain connection (*DHV*) of the MOSFET.

As the new board R762716 is not compatible with the former one R7617427 the arrival of the *DHV* to the module is changed.

---> R7617427 (former version)

DHV arrives at contacts C27/C28 of the EHT 64-pin connector on the frame.

--> R762716 (new version)

DHV arrives at pins C29/C30 of this 64-pin connector.

As a conclusion you cannot simply swap the two versions !!! If you do so, there is no risk, but, there is no EHT (see table)

The reason for above change is the fact that we have developed a new quadrupler adapted for this new EHT board.

On the new frame there is a possibility to change the arrival of the *DHV* to either one of the above pins. A jumper can be removed and a new jumper soldered in the two other holes (note that to access the PCB the bottom cover of the projector must be removed....)

---> (New) QUADRUPLER.

Changing the EHT board implies a change of the quadrupler and vice versa. The new EHT board requires a new quadrupler as follows (see also table)

R762717 for the 808 series

R762833 for the 1209 series.

At the end of this paper we provide you an overview of the various possible and impossible "combinations".

---> New projector order number.

The projectors equipped with this new EHT board and quadrupler have got another name and order number.

a) The G808S series.

R9000903	BPS FG 808S/E + IRIS2
R9000906	BPS FG 808S/E + IRIS2 120V

b) The G1209S series.

R9000973	BPS FG 1209S/E + IRIS2
R9000976	BPS FG 1209S/E + IRIS2 120V

c) The G1208S series.

R9002290	BPS FG 1208S/E + IRIS2
R9002299	BPS FG 1208S/E + IRIS2 120V

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SPLITTER		QUADRUPLER		EHT module		FRAME		Symptom
NEW	OLD	NEW	OLD	NEW	OLD	NEW	OLD	
R762718	R7617447	R762717 R762833	R7622091 R761743	R762716	R7617427	R7625021 R7627581	R762502 R762758	808 series 1209 series
	X		X		X		X	OK, same as before
	X X X X X X X		X X X		X X	X X X X	X X X	no EHT no EHT oscillations Mosfet breaks (*) no EHT no EHT oscillations
X			X		X		X	OK, same as before
X X X X X X X			X X X		X X	X X X X	X X X	no EHT no EHT oscillations Mosfet breaks (*) no EHT no EHT OK same as before
(*) With a modification this combination is physically no more possible								