

GE02 Driver Board troubleshooting

Rev	Date	Description	Prepared	Approved
0	28/08/2023	First Emission	C. Donati	R.G.
1	29/08/2023	Drawings transformed into Images	C. Donati	R.G.

Indice generale

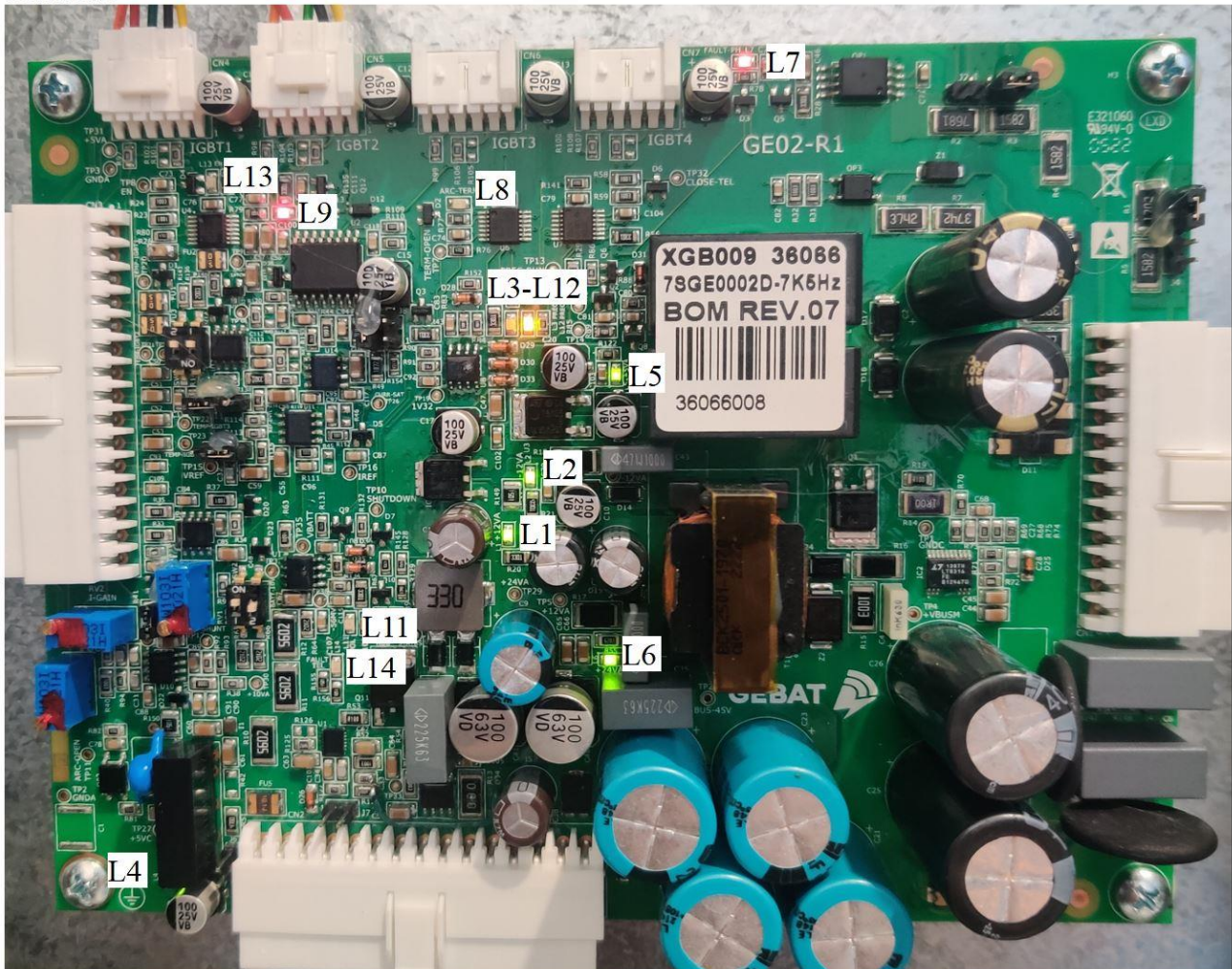
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Premise.

This document is intended to describe the configuration of the Board GE02 with Jumper and Dip-Switch and the decoding of the Leds.

LEDS Position and Name

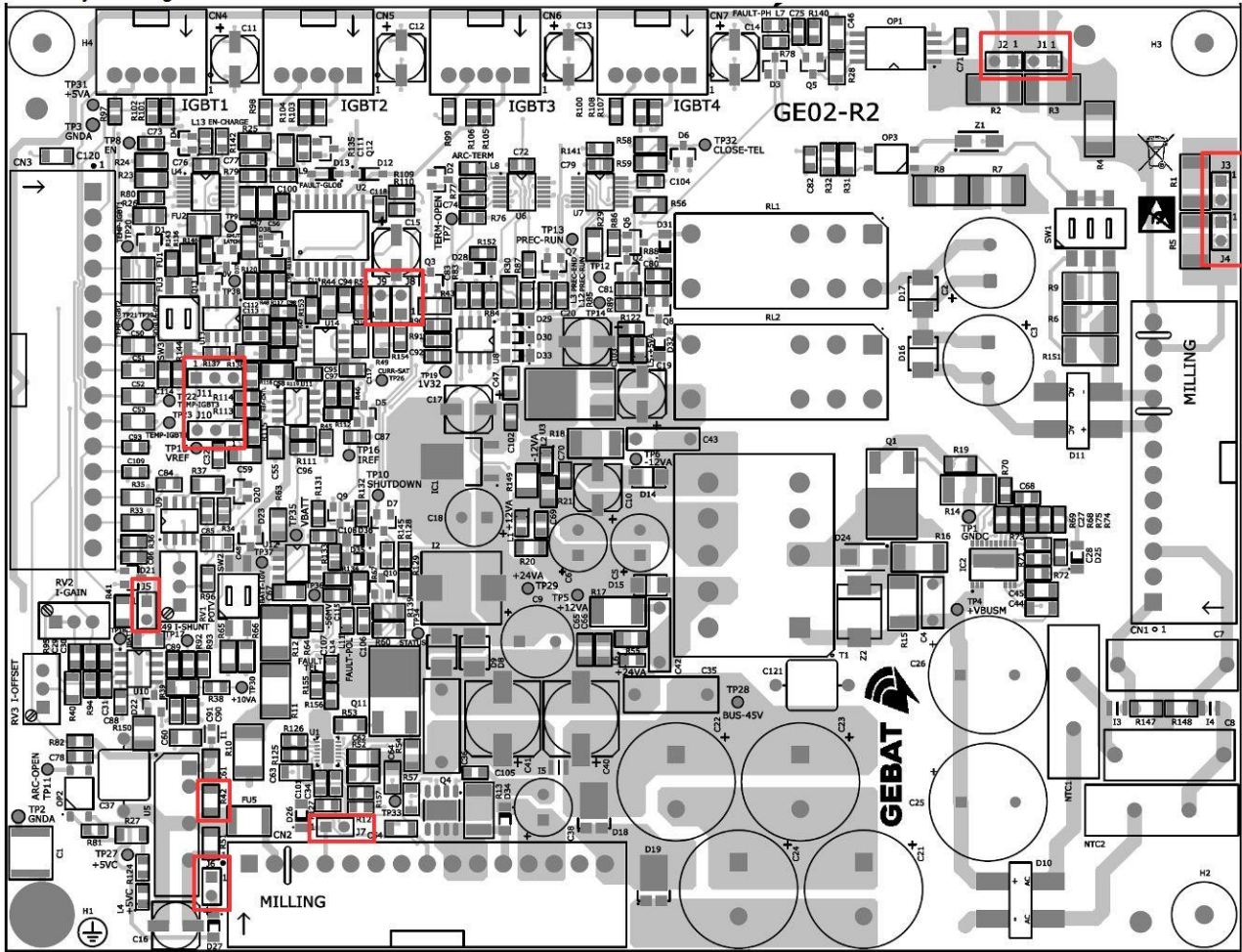
Real Picture



Name	Color	Description
L1	Green	ON → +12V present
L2	Green	ON → -12V present
L3	Green	ON → Precharge End
L4	Green	ON → +5VC present (Power supply for Antiarch)
L5	Green	ON → +5V present
L6	Green	ON → +24V present
L7	Red	ON → FAULT Phase Loss
L8	Red	ON → FAULT Antiarch or Thermal
L9	Red	ON → FAULT Global
L11	Red	ON → FAULT Polarity
L12	Yellow	ON → Precharge in Run
L13	Green	ON → Charge Enable present
L14	Red	ON → FAULT Output Contactor or Intelliswitch Q4

Jumper Configuration

Assembly Drawing



JC10	JC11	Voltage Function
1-2	1-2	Power Supply Control
2-3	2-3	Electronic Load Control

J5	Voltage Limit
OFF	External Control
ON	Fixed Value (F.S.)

J8	J9	PWM Frequency OUTSUM
OFF	OFF	7.5kHz ± 3%
OFF	ON	15kHz ± 3%
ON	OFF	23kHz ± 3%
ON	ON	30kHz ± 3%

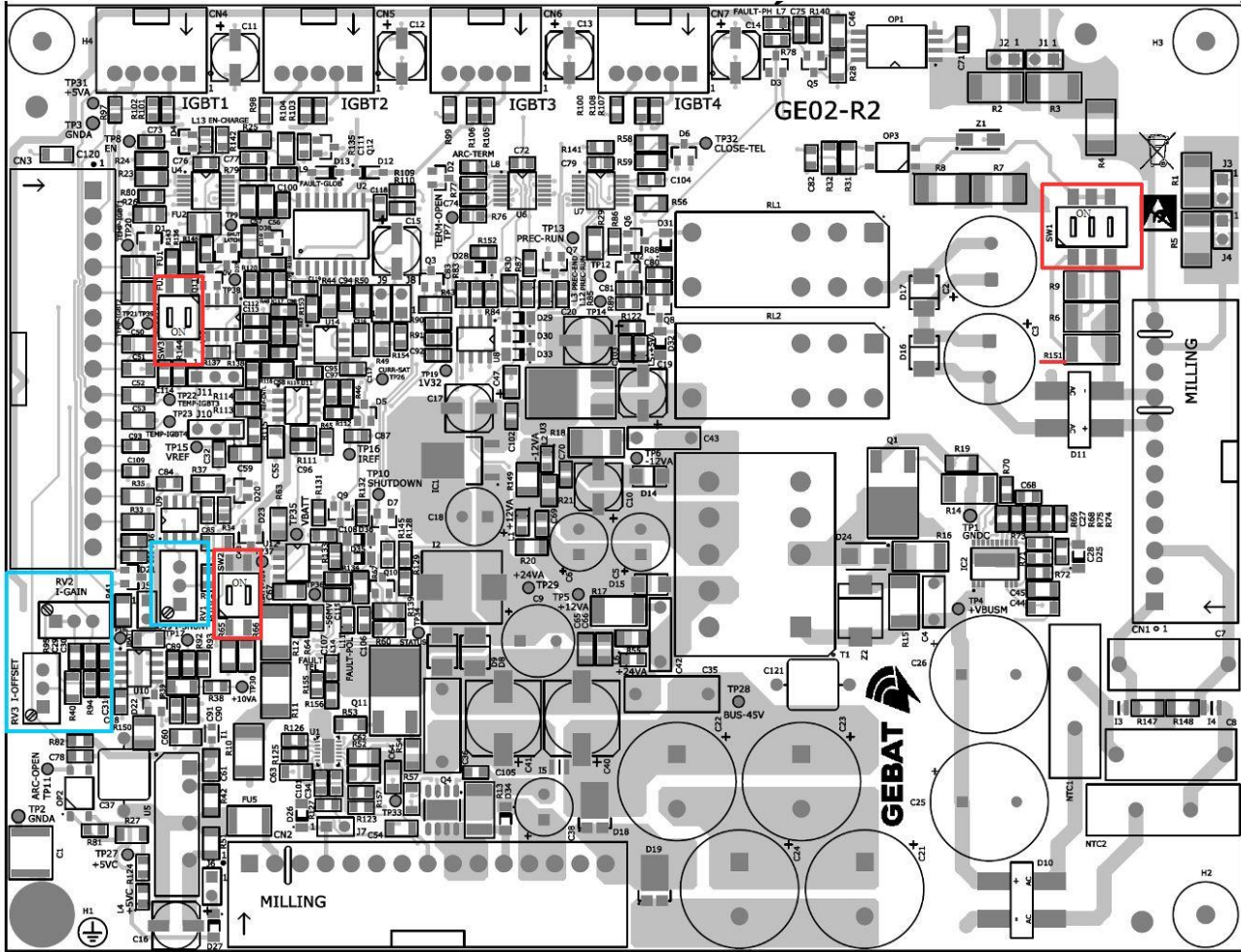
Vfase detection	JUMPER configuration				Min. Threshold presence
	J1	J2	J3	J4	
185 Vrms	OFF	OFF	OFF	OFF	72%
135 Vrms	OFF	ON	ON	OFF	72%
112 Vrms	ON	OFF	ON	OFF	72%
80 Vrms	ON	ON	OFF	ON	72%
50 Vrms	ON	ON	ON	ON	68%
38 Vrms	ON	ON	ON	ON	90%

J6=ON → Antiarch Fault disabled
 J7=ON → Thermal Fault disabled
 R42= Mounted → 1 Wire Antiarch
 R42= Not Mounted → 2 Wire Antiarch

Note: ON = Jumper Inserted OFF = No Jumper

Dip-Switch Configuration

Assembly Drawing



SW2.1	SW2.2	Full-Scale VBATT (10V)
OFF	OFF	90V
ON	OFF	170V
OFF	ON	170V
ON	ON	250V

SW3.1	SW3.2	Threshold OVER VOLT.	F.S. 90V	F.S. 170V	F.S. 250V
OFF	OFF	100% F.S.	90V	170V	250V
ON	OFF	90% F.S.	81V	153V	225V
OFF	ON	60% F.S.	54V	102V	150V
ON	ON	56% F.S.	50V	95V	140V

SW1.1	SW1.2	SW1.3	End Precharge with R151=100k	End Precharge with R151=33k
OFF	OFF	OFF	55V (Mohm)	55V (Mohm)
ON	OFF	OFF	80V (100k)	135V (33k)
OFF	ON	OFF	95V (68k)	95V (68k)
ON	ON	OFF	120V (40.5k)	175V (22.2k)
OFF	OFF	ON	125V (39k)	125V (39k)
ON	OFF	ON	155V (28k)	210V (17.8k)
OFF	ON	ON	165V (24.8k)	165V (24.8k)
ON	ON	ON	190V (19.8k)	245V (14.1k)

Trimmers

- RV1 → Voltage Gain (Normally used with J5=ON)
- RV2 → Current Gain
- RV3 → Current Offset