

CONTROL PANEL CIRCUIT DIAGRAM

Be142 OEM's Manual

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Warranty

Bernini Design SRL (hereinafter "BD") warrants that Be142 shall be free from defect in material or workmanship for a period of 3 years from the BD delivery date. BD shall, at its discretion, repair or replace the product without charge. BD shall return the Be142 to the buyer with the Default parameters at no extra charge. The buyer shall provide sufficient information on any alleged defects in the product, so as to enable BD to determine their cause and existence. If the Be142 is not defective, or the product is defective for reasons other than covered by this warranty, the buyer will be charged accordingly. This warranty shall not apply if the Be142 has not been used in accordance with the User Manual and other operating instruction, particularly if any defects are caused by misuse, improper repair attempts, and negligence in use or handling.

This purchase is non-refundable.



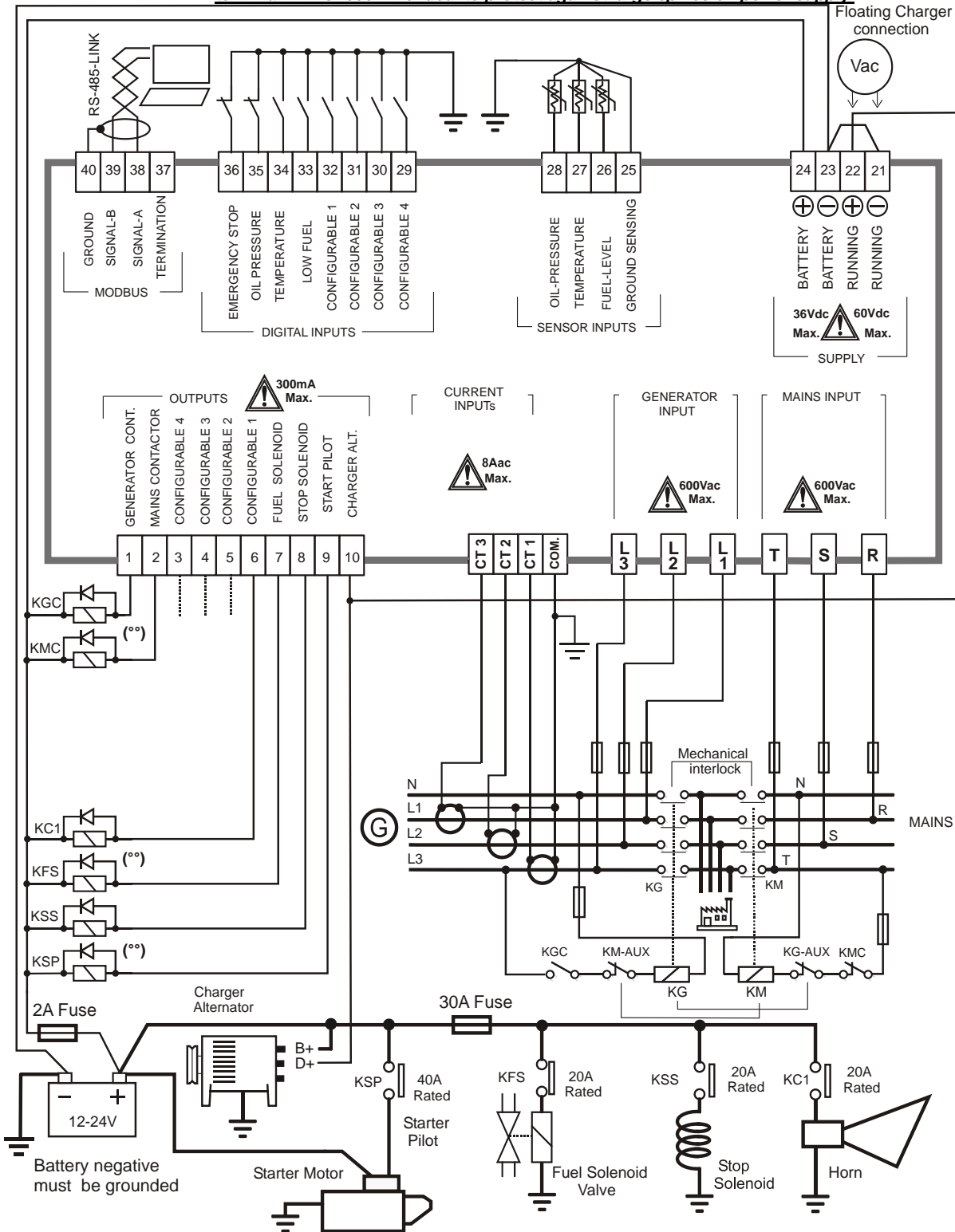
This equipment complies with EMC protection requirements

WARNING!! High voltage is present inside the Be142. To avoid electric-shock hazard, operating personnel must not remove the protective cover. Do not disconnect the Earth connection. The Be142 can start the engine at anytime. Do not work on equipment, which is controlled by the Be142. When servicing the engine, disconnect the battery and battery charger. We recommend that warning signs be placed on equipment indicating the above.

!! WARNING !! Relays and solenoids connected to the Be142 must be suppressed using flywheel diodes or suppression devices as indicated in section 18.0. In case the Vdc supply spuriously introduces spikes over 40 Vdc we recommend placing a 2 A (fast-blow fuse) in series with the terminal #24.

Control Panel Circuit Diagram PDF

NOTE: a minimum of 4 KVac insulation is recommended for the relays KGC and KMC. A fuse of 2 A (fast-blow) in series with terminal #24 is recommended to protect against large spikes on power supply.



(°) Relays connected to the Be142 must be suppressed using flywheel diodes

Connections description

Terminal	Description	Note	Section	
1	Generator Contactor output	300 mA Active 'Low'	2.21	
2	Mains Contactor output		7.09	
3	Programmable output '4'			
4	Programmable output '3'			
5	Programmable output '2'			
6	Programmable output '1'			
7	Fuel Solenoid output			18.0
8	Stop Solenoid output			
9	Crank Pilot output			
10	Alternator Excitement output	Positive Output 3 W	11.0	
CT3	Current Transformer 'L3' S1 input	5 Aac nominal; Max 8 Aac	7.02B ([P.18])	
CT2	Current Transformer 'L2' S1 input	5 Aac nominal; Max 8 Aac		
CT1	Current Transformer 'L1' S1 input	5 Aac nominal; Max 8 Aac		
COM	Current Transformer S2 input common input			
L3	Generator Voltage 'Phase L3' input	600 Vac rated	7.02B	
L3	Generator Voltage 'Phase L2' input			
L1	Generator Voltage 'Phase L1' input			
T	Mains Voltage 'Phase T' input		7.01A	
S	Mains Voltage 'Phase S' input			
R	Mains Voltage 'Phase R' input			
21	Engine Running Minus detect		Connect to ground	11.0
22	Engine Running Plus detect	D+ or W.L. sensing		
23	Supply Battery minus connection	-	14.0	
24	Supply +12 or +24V Battery connection	Internal 300 mA fuse		
25	Common Sender ground sense	-	19.0	
26	Fuel Level Sender input	2000 Ohm max	7.12	
27	Temperature Sender input		7.11	
28	Oil Pressure Sender input		7.10	
29	Programmable input Switch '4'	Active Low (<2 Vdc)	7.07	
30	Programmable input Switch '3'			
31	Programmable input Switch '2'			
32	Programmable input Switch '1'			
33	Low Fuel Switch input		18.0	
34	High Temperature Switch input			
35	Low Oil Pressure Switch input			
36	Emergency Stop Switch input			
37	RS485 Termination	See RS485 standard	See Be142 MODBUS user manual	
38	RS485 Signal A			
39	RS485 Signal B			
40	RS485 Common Ground			

!! WARNING !! Relays and solenoids connected to the Be142 must be suppressed using flywheel diodes or suppression devices as indicated in the wiring diagram We recommend that you connect a 2A Fuse (Fast-Blow type) in series with the terminal #24; it will protect the controller against large spikes on the power supply.