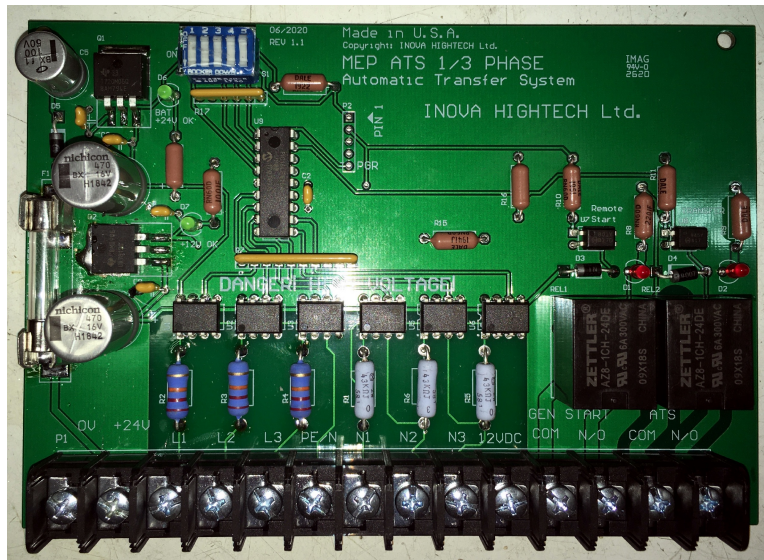


INOVA HIGHTECH Ltd.

MEP Automatic Transfer Systems KIT 1Phase 120/240 VAC or 3Phase 208/230 VAC Manual



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WARNING!

**THIS CIRCUIT BOARD CARRIES
LIVE HIGH VOLTAGE WHEN INSTALLED !**



**Disconnect All MAIN POWER HIGH VOLTAGE
and
GENERATOR HIGH VOLTAGE
before servicing this Device!**

**Severe Injury or Death could occur if proper safety precautions are not obeyed
when working with High Voltage Equipment!**

**If in doubt on how to install or service this device, please consult a licensed
electrician and comply with all Local, State and Federal Rules and Regulations!**

Principle of Operation:

This unit can be operated on 24 VDC only! The LED BAT +24V OK and +12V OK will be turned ON as soon as 24 VDC are applied to TB#1 and TB#2.

The two Phases L1 and L2 from the Main / Utility Power are monitored on TB# 3 L1 and TB# 4 L2 in single Phase Mode or L1, L2 and L3 from the Main / Utility Power are monitored on TB# 3 L1, TB# 4 L2, TB#5 L3 in Three Phase Mode. If either or two of the two phase drop out then the Device will, after 0.25 seconds brownout delay, start the Power Transfer Sequence.

Depending on the settings of DIP Switch 1 and 2, the unit will recheck if the Main Power has been restored after 15 or 30 or 45 or 60 seconds. If the power outage still persists after this delay then the unit will activate the Generator START/RUN Relay and close the contact on TB#11 and TB#12 and the RED LED REMOTE START will be ON. This contact remains closed until Main Power is restored.

Once Generator Power becomes available, which is monitored on TB#7 N1 and TB#8 N2 (with Jumper to TB#9 N3) in single Phase System and TB#7 N1, TB#8 N2 and TB#9 N3 in three Phase System, then depending on settings of DIP Switch 3 and 4, the Transfer Relay will close it's contacts on TB#13 and TB#14 after a 15 or 30 or 45 or 60 seconds delay and the Red LED TRANSFER will be ON. The Transfer Relay can be activated for 15 seconds only or be continuously ON, depending on setting of DIP Switch 5 .

For most Transfer Panels the continues operation of the Transfer Relay will be required. Only a very few Load Transfer Center's will require the momentary operation of the Transfer Relay for 15 seconds. The Transfer Relay will turn off immediately once MAIN POWER L1 and L2 are sensed on TB#3 and TB#4 in single Phase System or MAIN POWER L1, L2 and L3 are sensed on TB#3, TB#4 and TB5 in three Phase System .

The Device will revert to it's idle (monitoring state) once Main Power is sensed on TB#3 L1 and TB#4 L2 (and TB#5 L3 3 Phase System).

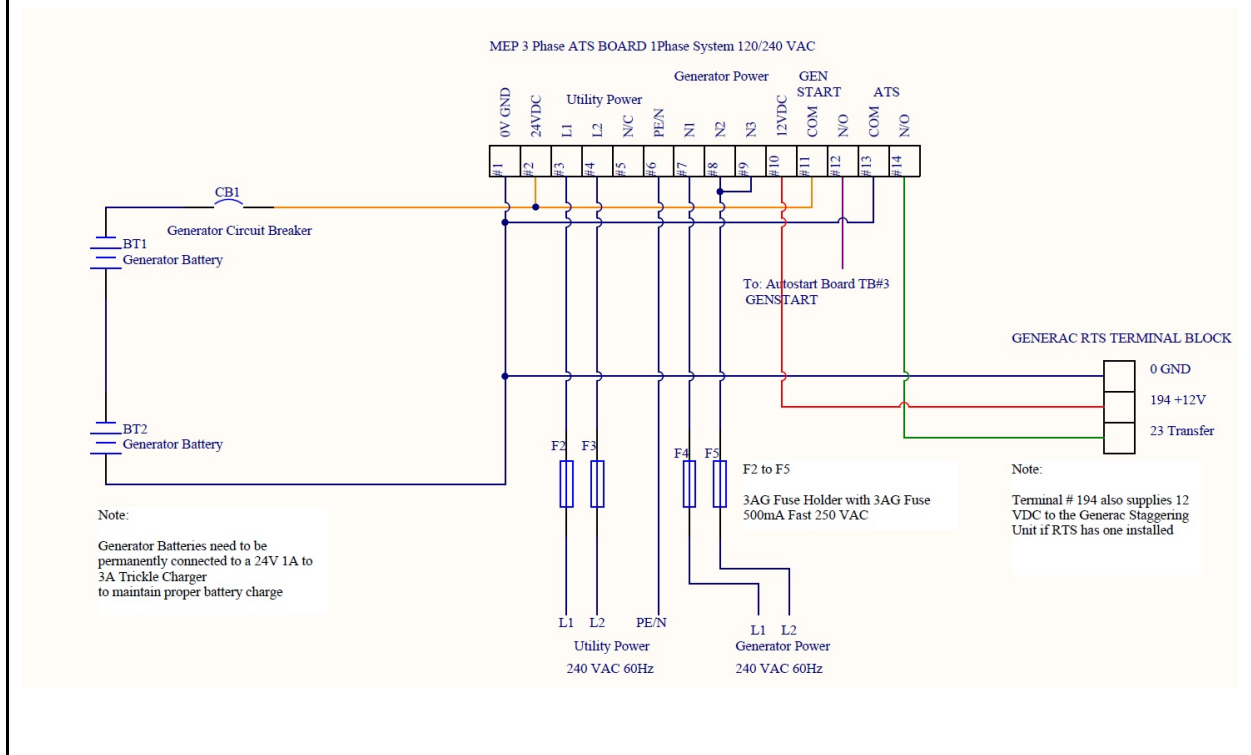
Please contact us at (913) 416 0462 or via e-mail sales@inovahightech.com if you have any further questions. Thank you for purchasing our Kit and we appreciate you as customer.

Note: 12 VDC Supply for the internal ATS Panel Control Relay which activates the main contactor is provided for your convenience on Terminal TB# 10 - Maximum Output Current is 1 Amp at 12 VDC

DIP Switch Settings			
DIP SWITCH	Function	DIP SWITCH OFF POSITION	DIP SWITCH ON POSITION
1	Main Power Out Delay	15 sec DIP 1 OFF + DIP 2 OFF	30 sec DIP 1 ON + DIP 2 OFF
2	Main Power Out Delay	45 sec DIP 1 OFF + DIP 2 ON	60 sec DIP 1 ON + DIP 2 ON
3	Generator Power Delay	15 sec DIP 3 OFF + DIP 4 OFF	30 sec DIP 3 ON + DIP 4 OFF
4	Generator Power Delay	45 sec DIP 3 OFF + DIP 4 ON	60 sec DIP 3 ON + DIP 4 ON
5	ATS Transfer Activation	ON (Steady)	15 sec ON

Connections (I/O Descriptions)	
I/O Terminal Block	Function
TB #1 OV Supply:	Ground (0V)
TB #2 +24 VDC Supply :	+ 24 VDC Supply
TB #3 M1 Main Power Phase L1:	Monitored Input from Main Power L1 Please check use wiring diagram on Page 4 for 1 Phase Please check use wiring diagram on Page 5 for 3 Phase
TB #4 M2 Main Power Phase L2:	Monitored Input from Main Power L2 Please check use wiring diagram on Page 4 for 1 Phase Please check use wiring diagram on Page 5 for 3 Phase
TB #5 M3 Main Power Phase L3:	Monitored Input from Main Power L3 Please check use wiring diagram on Page 4 for 1 Phase Please check use wiring diagram on Page 5 for 3 Phase
TB #6 N Main Power Neutral / PEN:	Monitored Input from Main Power PEN Please check use wiring diagram on Page 4 for 1 Phase Please check use wiring diagram on Page 5 for 3 Phase
TB #7 N1 Generator Power Phase L1:	Monitored Input from Generator Power L1 Please check use wiring diagram on Page 4 for 1 Phase Please check use wiring diagram on Page 5 for 3 Phase
TB #8 N2 Generator Power Phase L2:	Monitored Input from Generator Power L2 Please check use wiring diagram on Page 4 for 1 Phase Please check use wiring diagram on Page 5 for 3 Phase
TB #9 N3 Generator Power Phase L3:	Monitored Input from Generator Power L3 Please check use wiring diagram on Page 4 for 1 Phase Please check use wiring diagram on Page 5 for 3 Phase
TB #10 N3 12VDC Output for 12V ATS	12VDC Output for 12V ATS Connect on Generac to TB #194
TB #11 Remote Start COM Contact:	Dry Relay Com Contact for Generator Start/RUN
TB #12 Remote Start N/O Contact:	Dry Relay N/O Contact for Generator Start/RUN
TB #13 Transfer Activation COM Contact:	Dry Relay Com Contact for Transfer Switch
TB #14 Transfer Activation N/O Contact:	Dry Relay N/O Contact for Transfer Switch
<p>Note *: Please use a 500mA / 250V FAST 3AG Inline Fuse to connect to Power for additional protection. You can purchase those 3AG Inline Fuse Holder's and Fuses at your local Electrical Supply Store.</p>	

Wiring Diagram for Single Phase 120/240 VAC Systems



Wiring Diagram for Three Phase 208/230 VAC Systems

