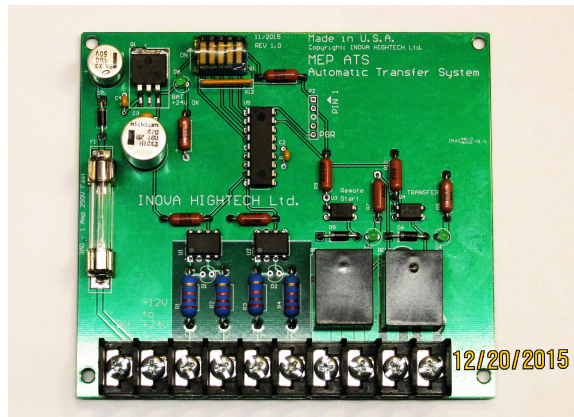


# INOVA HIGHTECH Ltd.

## MEP Automatic Transfer Systems KIT

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

The two Phases L1 and L2 from the Main Power are monitored on TB# 3 M1 and TB# 4 M2. If either or both 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#7 and TB#8 and the GREEN 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#5 N1 and TB#6 N2, then depending on settings of DIP Switch 3 and 4, the Transfer Relay will close it's contacts on TB#9 and TB#10 after a 15 or 30 or 45 or 60 seconds delay and the GREEN 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.

**The Device will revert to it's idle (monitoring state) once Main Power is sensed on TB#3 M1 and TB#4 M2.**

**Please contact us at (913) 728 2662 or via e-mail [sales@inovahightech.com](mailto:sales@inovahightech.com) if you have any further questions. Thank you for purchasing our Kit and we appreciate you as customer.**

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

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