## LK-FP3 Fire Control Panel

Feature

- The control panel is used for the control of electric window opener to achieve natural ventilation and fire smoke removal
- Panel with open/stop/close auto/manual selection buttons and LED indicators
- Single channel 1-4 group(s) output
- Can be cascade control with LK-CP6/7/8 controllers to achieve the windows of single control, partition control and group control
- Can handle external input signals of Manual Switch, Remote Control, Timer, Smoke/Gas/ Rain /Temperature & Humidity Sensors
- Output fire feedback signal to fire centre
- Compatible with all Linkayl remote
- Output DC24V 30A-80A
- Size 500*400*200mm

LED & KEY
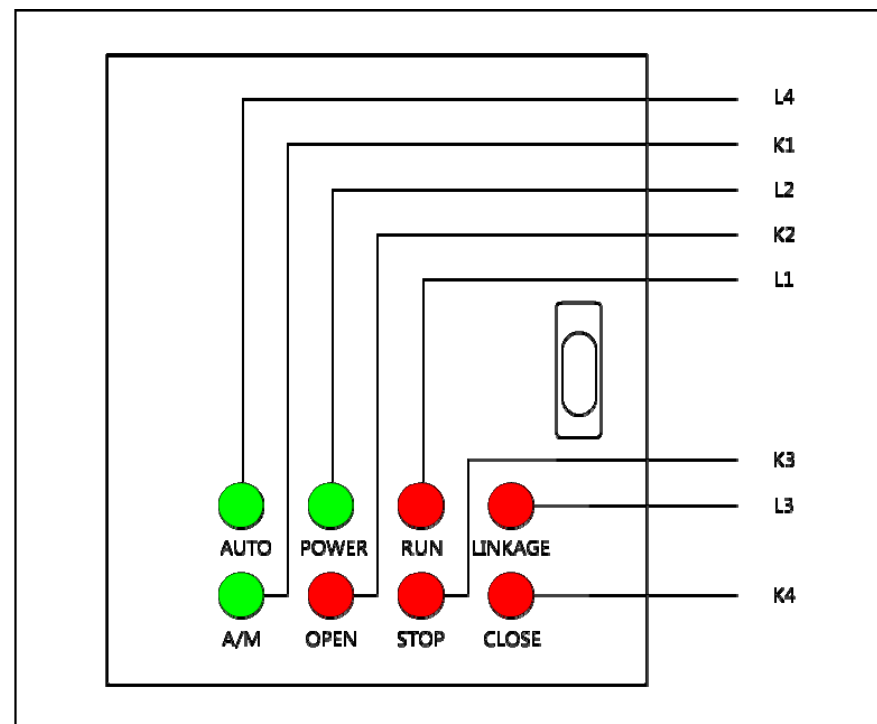
LED/KEY	Symbol	Color	Description
L1	Run	Red	Normally on when motor running
L2	Power	Green	Power indicator
L3	Linkage	Red	Burst flash, buzzer alarm after receiving a fire signal
L4	Auto	Green	Auto mode on, manual mode off
K1	A/M	Green	Default is automatic mode, press it to manual mode
K2	Open	Red	Open
K3	Stop	Red	Stop
K4	Close	Red	Close
K5			Reset switch, on the mother board

Wiring Description
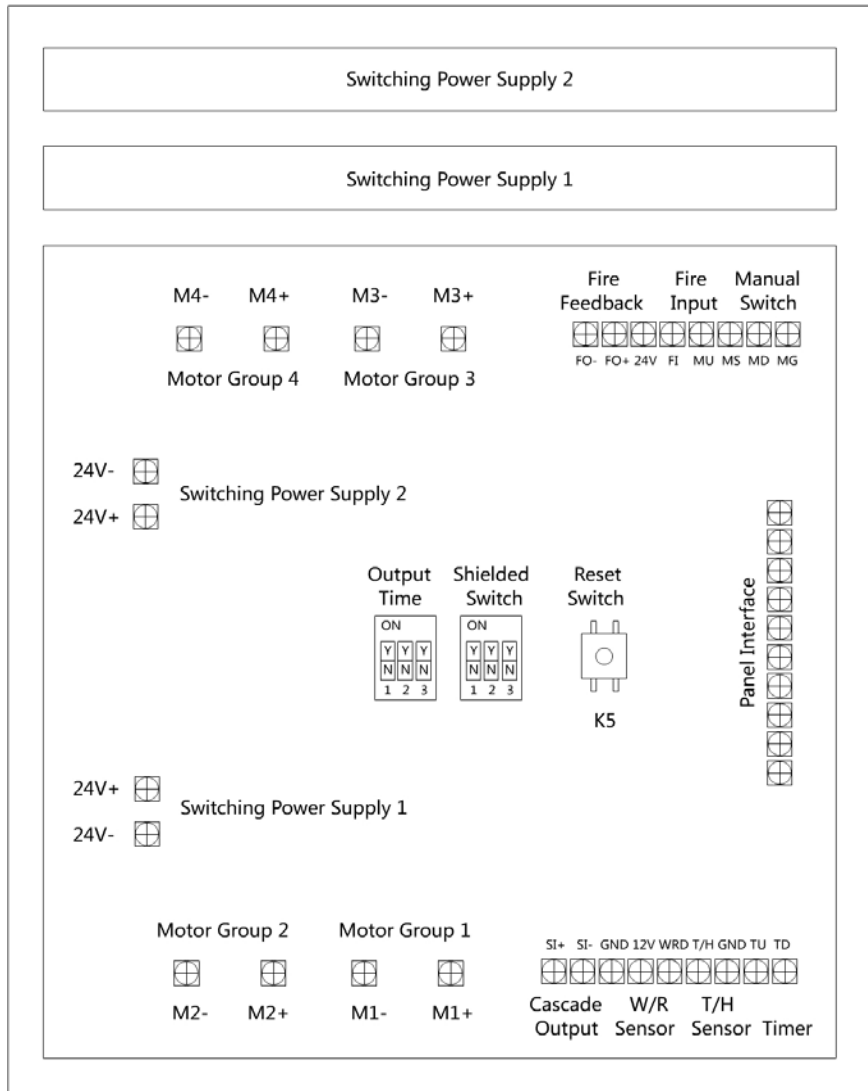
Terminals

Symbol	Description	Symbol	Description
L	AC Live wire	MU	Manual switch stop
N	AC Null wire	MS	Manual switch down
E	AC Earth wire	MD	Manual switch GND
24V+	DC24V Positive	MG	Manual switch GND
24V-	DC24V Negative	SI+	Slave control up
M1 + / M1 -	Motor Group 1 P/N	SI-	Slave control down
M2 + / M2 -	Motor Group 2 P/N	FI	Fire signal input
M3 + / M3 -	Motor Group 3 P/N	WRD	Rain sensor down
M4 + / M4 -	Motor Group 4 P/N	TU	Timer up
12V	DC12V+	TD	Timer down
24V	DC24V+	T/H	T/H sensor signal
GND	DC GND	FO+	Fire center feedback
		FO-	Fire center feedback

Peripheral Shielding

Switch	Option	Function
Option1	Y	Rain sensor shielded
	N	Not shield Rain sensor
Option2	Y	T&H sensor shielded
	N	Not shield T&H sensor
Option3	Y	Timer shielded
	N	Not shield Timer

Operating mode

- Control panel has automatic and manual modes, the default is automatic mode
- In automatic mode, the controller receives all external signals and can shield the external signal by switching
- In manual mode, the controller shields the fire signal and receives other inputs

Output Time

- Window opening output is 5 minutes when the fire signal and temperature and humidity sensor signal triggered, the other signals by the setting time
- window setting time has 8 levels, the default is 300S, the other is 20/30/40/50/60/70 / 80S

300S	20S	30S	40S	50S	60S	70S	80S
ON	ON	ON	ON	ON	ON	ON	ON
1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3

- Window closing output is 5 minutes

Manual control

- After power on all the LEDs light for 1 second and turn off, the power indicator LED and auto LED normally on
- When the controller receives the command of the fire input signal, the controller will flash, the buzzer will alarm, the fire feedback signal will be sent to the fire center, the alarm will be released after reset or power failure
- External manual switch is equivalent to controler panel switch
- The motor up / down switching time is 500ms
- Press UP button, the windows open, LED turns on until output finished
- Press DOWN button, the windows close, LED turns on until output finished
- Press STOP button, the motors stop

Remote control

- The controler encodes by 433MHz learning code, can store 10 sets of transmission codes

Matching Code

- Power the controler on
- Keep pressing STOP button on the controler for 5 seconds, LED flashes 3 times and turns off
- Press UP button on the remote within 15 seconds
- LED flashes 3 times and turns off,
- Code matched successfully

Clearing Single Code

- Power the controler on
- Keep pressing STOP button on the controler for 5S, LED flashes 3 times and turns off
- Press DOWN button on the remote within 15 seconds
- LED flashes 3 times and turns off,
- Code cleared successfully

Clearing All Codes

- Power the controler on, keep pressing STOP & DOWN button on the controler for 5 seconds
- LED flashes 3 times and turn off, all the codes will be deleted after this operation

Cascaded Control

- Can be used as a master controler, a slave controler or play a dual role of master & slave controler at the same time.
- As a master controler, connects to the motors or slave controlers to drive them
- As a slave controler, input terminals SI+ and SI- are connected to the output terminals M+ and M- of the master controler to receive the instructions to drive motors, or drive the motors independently
- Play a dual role of master & slave controler, not only controlled by higher-level controler, but also drive motors or lower-level controlers independently
- No matter master, slave or both, it can process all the external signals such as manual switch, remote and sensors

Signal Control

- Manual signal. Control the window by the buttons on itself, external dry contact manual switch and RF remote
- Cascaded signal. As a master controler sends signal to the slave controler, can also be used as slave controler to receive the signal from the master controler to drive the window
- Fire signal. Capable of receiving a signal from fire center, smoke sensor, gas detector open the window automatically, send feedback signal to fire centre
- Rain signal. After receiving the signal of rain sensor close the window
- Time signal. Control the window by working with external timer
- Temperature/humidity signal. Control the window by processing external temperature/humidity sensor

Signal and Priority

Priority	1	2	3	4	5
Signal	Manual Signal	Fire Signal	R Signal	Time Signal	T/H Signal
Device	Panel buttons Manual switch Remote Master controler	Smoke sensor Gas detector	Wired rain sensor	Wired timer	temperature sensor humidity sensor

Reset and Shielding

- After manual signal processed controler resets & receives input signal in real time
- After processing the signal from fire centre, smoke sensor or gas detector, the controler immediately shields all the input signals, the controler must be reset by pressing K1 manually.
- After wired rain sensor signal processed, the controler shields lower priority signal, only receives the higher priority signal until reset or manual signal processed
- After wired timer signal processed, the controler shields lower priority signal, only receives the higher priority signal until reset or manual signal processed
- After T&H sensor signal processed，the controler is in the reset state
- Option switch on the control board is for selection of shielding priority 3-5 signal Option 1-3 priorities 3-5 respectively. The setting takes effect after reset or restart
- **If the controler is not connected to a temperature and humidity sensor, the T/H port must be shielded (put option switch option 3 to "Y" position), otherwise it will affect the control of other input signal**

Installation instruction

- Please read the following instructions carefully before installing this product
- Installing this product must comply with the effective local electricity specifications
- The control system must be installed by the professional
- The main power must be cut off before wiring to ensure safe operation
- The control box can not be installed outdoors
- The maximum output power of the control box can not exceed the rated total power, otherwise it will burn the power
- The maximum output power of each group can not exceed the maximum rated power of the group
- Do not use metal objects to touch or cover the controler, otherwise it will affect the remote control signal reception
- The maximum transmission distance of the wireless signal can reach 50 meters or more in the open condition
- The distance between the controler and ground should be more than 1.5 meters
- The distance between the controler and ceiling should be more than 0.3 meters
- The distance between the controler and motor should be more than 1.5 meters
- Avoid static interference and prevent static damage to electronic components
- Please use the soft wire and cable, after installation ensure that the cable carrier is not affected by the longitudinal tension
- An external sensor must use a product that is compatible with this controler
- Non-professionals is not allowed to disassemble the controler. If any function is abnormal, please contact your local dealer

Troubleshooting

No.	Symptom	Solution
1	LED flashes, receiver shut down	1. Check the connection of wires 2. Check the receiver setting
2	LED on the transmitter is off or weak	1. Make sure battery installed well 2. Change the battery
3	The transmitter and the receiver work well, the motor does not work	1. Check the wiring of motor 2. Make sure the motor no failure

Model List

Model	Max Current（A）	Output Group	Input Volt (V)	Output Volt (V)	Freq（MHz）	Temp（℃）	Size (mm)
LK-FP31-30	30	1	AC220	DC24 DC12	433.92	-20 ～ +65	500（L）400（W）200（H）
LK-FP31-40	40	1					
LK-FP32-60	60	2					
LK-FP32-80	80	2					

Application

Model	LK-SCE-D	LK-LCD	LK-TC	LK-L	LK-L-S	LK-L38A 600/1000N	LK-L38A 1500N
LK-FP31-30	25	15	7	15	15	15	10
LK-FP31-40	33	20	10	20	20	20	13
LK-FP32-60	50	30	15	30	30	30	20
LK-FP32-80	66	40	20	40	40	40	26