

LK-UP25X UPS Panel



LK-UP251

LK-UP252

LK-UP255

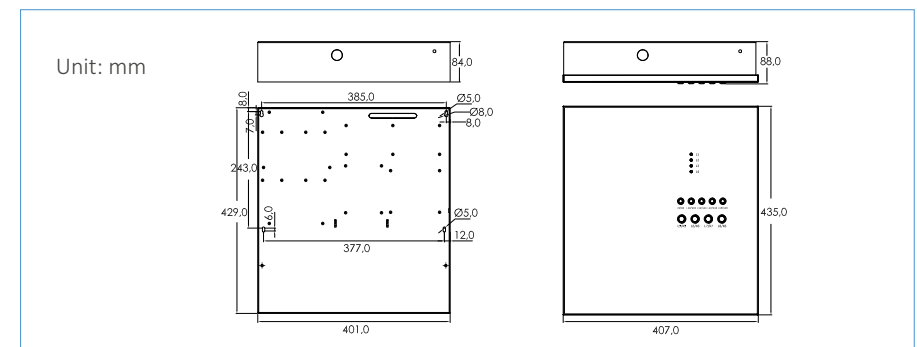
Feature

- UPS control panel, built-in UPS transformer 10/15/20/25/30/40A
- Batteries output when AC power failure, batteries are charged automatically
- Used in window opener, curtain motor and door opener 24VDC motor control
- 120/230VAC voltage input optional
- 4 working status LED indicators
- Power indicator/reset, Open/Stop/Close & channel selection buttons with backlight
- 1/2/5 channel outputs
- Cascade with LK-UP211, LK-UP22 and LK-UP24 control panel that achieves windows of zone control and group control
- Can handle external input signal of manual switch, remote control, smoke /gas/ rain /temperature sensors
- Output passive feedback signals when closing or opening
- Compatible with all Linkayl remote
- Inching mode and continued-run mode settable
- With stroke memory function

Ordering code

Model	Channel	Input Volt (VAC)	Output Volt (VDC)	Max Current (A)	Dimensions (mm)
LK-UP251-10A	1	120/230	24	10	407*435*88
LK-UP251-15A	1	120/230	24	15	407*435*88
LK-UP251-20A	1	120/230	24	20	407*435*88
LK-UP251-25A	1	120/230	24	25	407*435*88
LK-UP251-30A	1	120/230	24	30	407*435*88
LK-UP251-40A	1	120/230	24	40	407*435*88
LK-UP252-10A	2	120/230	24	10	407*435*88
LK-UP252-15A	2	120/230	24	15	407*435*88
LK-UP252-20A	2	120/230	24	20	407*435*88
LK-UP252-25A	2	120/230	24	25	407*435*88
LK-UP252-30A	2	120/230	24	30	407*435*88
LK-UP252-40A	2	120/230	24	40	407*435*88
LK-UP255-10A	5	120/230	24	10	407*435*88
LK-UP255-15A	5	120/230	24	15	407*435*88
LK-UP255-20A	5	120/230	24	20	407*435*88
LK-UP255-25A	5	120/230	24	25	407*435*88
LK-UP255-30A	5	120/230	24	30	407*435*88
LK-UP255-40A	5	120/230	24	40	407*435*88

Dimension



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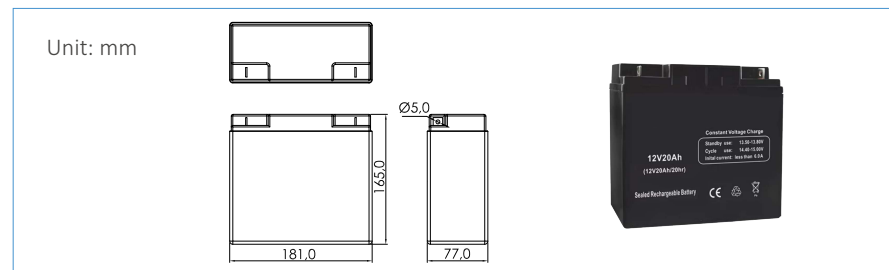
LED/KEY

LED/KEY	Color	Status	Function
L1	Red	On/Off	Working on AC
L2	Green	On/Off	Working on battery
L3	Yellow	On/Off/Flash	Battery status
L4	Blue	On/Off	Battery charging
L5 / K5	Blue	On/Off	AC power indicator, Reset
L6 / K6	Green	On/Off	Open
L7 / K7	Red	On/Off	Stop
L8 / K8	Yellow	On/Off	Close
L9 / K9	Blue	On/Off	Channel 1
L10/ K10	Blue	On/Off	Channel 2
L11 / K11	Blue	On/Off	Channel 3
L12 / K12	Blue	On/Off	Channel 4
L13 / K13	Blue	On/Off	Channel 5

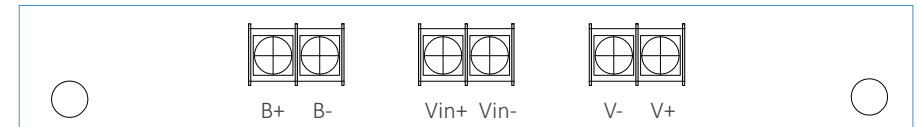
UPS description

- When working on AC power, L1 is on, outputs 24V to device, outputs 27.5V to charge batteries, L4 is on. It automatically stops charging when the batteries are full, L4 is off
- When AC power failure, batteries automatically work for the load to ensure that the device does not stop or restart, L2 is on
- Switch to AC mode whenever AC power on, without manual intervention
- Battery voltage is lower than 22V, L3 is on. Battery voltage goes up to 22V, L3 is off. Batteries stop output when voltage is lower than 20V. When the batteries are faulty, L3 flashes and will turns off after fault removal

Battery dimension

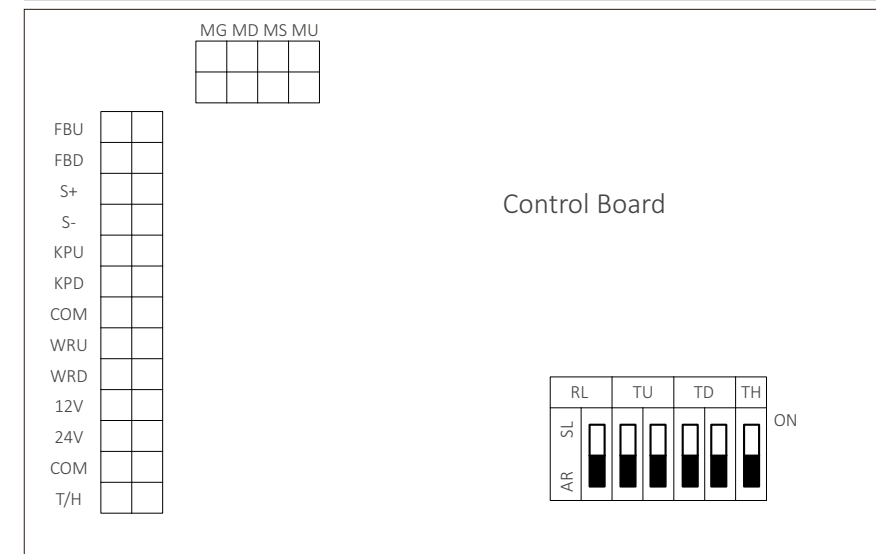
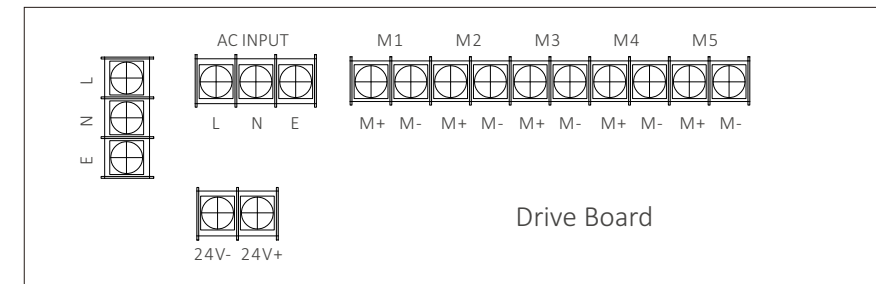


Wiring



B+	B-	Vin+	Vin-	V-	V+
Battery positive	Battery negative	24VDC input positive	24VDC input negative	24VDC output negative	24VDC output positive

Terminal



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Symbol	Description	Symbol	Description
L	AC live wire	FBU	Feedback signal up
N	AC null wire	FBD	Feedback signal down
E	AC earth wire	S+	Slave control up
24V+	24VDC input positive	S-	Slave control down
24V-	24VDC input negative	KPU	Keep pressing up
Mx	Motor	KPD	Keep pressing down
Mx +	24VDC motor positive	WRU	Sensor up
Mx-	24VDC motor negative	WRD	Sensor down
MU	Manual switch up	T/H	T/H signal
MS	Manual switch stop	12V	12VDC+ output
MD	Manual switch down	24V	24VDC+ output
MG	Manual switch GND	COM	GND

Control mode

- Controller has inching mode and continued-run mode which is default
- In the continued-run mode, press UP or DOWN button less than 1.5 seconds, the motor will run continuously, press UP or DOWN button more than 1.5 seconds, the motor will stop after running a very short moment
- In the inching mode, press UP or DOWN button less than 1.5 seconds, the motor will stop after running a very short moment, press UP or DOWN button more than 1.5 seconds, the motor will run continuously
- Only the manual buttons on the panel, manual switch LK-MS541, remote control and cascade signal have inching mode
- Keep pressing both of UP and STOP button on the controller for 5 seconds, LEDs flash 3 times and turn off it's inching mode for the controller, repeat the operation the controller turns to continued-run mode

Manual control

- After power on all the LEDs light for 1 second and turn off, the power indicator LED normally on
- Press reset button, all the LEDs light for 1 second and turn off, reset successfully
- External manual switch LK-MS541 is equivalent to controller panel switch
- The maximum running time of the motor is 5 minutes

Group control

- By default, L5 is normally on, the rest LEDs are off as group control status
- Press UP button, the windows open, LED turns on, turns off after 5 seconds
- Press DOWN button, the windows close, LED turns on, turns off after 5 seconds
- Press STOP button, the motors stop, LED turns on, LED turns off after 1 second

Single channel control

- Press channel selection keys the corresponding LED lights, channel selected
- Press the channel selection button again or no operation on controller thin 10 seconds, LED turns off, channel unselected
- In the process of opening/closing the current window, you can select another channel(s) to drive the window

Remote control

- The controller encodes by 433MHz learning code, can store 10 sets of transmission codes
- The controller defaults to multiple channel, single channel controller has the same way as multiple channel one

Matching code

- Power the controller on, choose the channel(s) you want to set, can be set to any combination of channel 1-5
- Pressing STOP button on controller for 5 seconds, LED flashes 3 times and turns off
- Choose the channel you want to set on the remote, press UP within 15 seconds
- LED flashes 3 times and turns off, code matched successfully

Clearing single code

- Power the controller on
- Keep pressing STOP key on the controller 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 controller on, pressing STOP /DOWN button on the controller for 5 seconds
- LEDs flash 3 times and turn off, all the codes will be deleted after this operation

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■ Signal control

- Manual signal. Control the window by the buttons on itself
- External dry contact manual switch LK-MS541 connected to MU MS MD MG for OPEN/STOP/CLOSE control
- External mechanical switch LK-MS542-1R connected to KPU KPD COM for keeping pressing control. Press and hold the switch to OPEN/CLOSE the window, release the switch to stop the motor
- Cascaded signal. As a master controller sends signal to the slave controller, can also be used as slave controller to receive the signal from the master controller to drive the window
- Sensor signal. After receiving the signal of sensors to OPEN/CLOSE the window
- Temperature/humidity signal. Control the window by processing external temperature/humidity sensor

□ Signal and priority

Priority	1	2	3
Signal	Manual Signal	Sensor Signal	T/H Signal
Device	Panel buttons Manual switch Remote Master controller	Smoke sensor Gas detector Rain sensor	Temperature sensor & humidity sensor

□ Reset and shielding

- After manual signal processed controller receives input signal in real time
- After sensor signal processed, the controller shields temperature signal, only receives the higher priority signal until reset or manual signal processed
- After T&H sensor signal processed, the controller is in the reset state
- **If the controller is not connected to a temperature and humidity sensor, the T/H port must be shielded (Put option switch to “ON” position)**

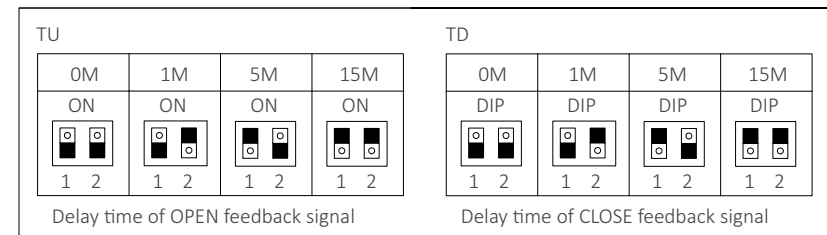
■ Cascaded control

- Can be used as a master controller, a slave controller or play a dual role of master & slave controller at the same time
- As a master controller, connects to the motors or slave controllers to drive them

- As a slave controller, input terminals S+ and S- are connected to the output terminals M+ and M- of the master controller to receive the instructions to drive motors, or drive the motors independently
- Play a dual role of master & slave controller, not only controlled by higher-level controller, but also drive motors or lower-level controllers independently
- No matter master, slave or both, it can process all the external signals such as manual switch, remote and sensors
- **Cascade use of the controller, if the master controller connected to an external sensor (such as smoke sensor, wind and rain sensor, etc.), the slave controller MUST NOT use inching mode, in case the master controller received the smoke signal to open the window, the slave controller will open the window for a very short moment and stop**

■ Signal feedback

- When OPEN/CLOSE signals are triggered the controller will send out feedback signal FBU/COM and FBD/COM
- The OPEN/CLOSE feedback signal can be switched between Auto-rest and Self-locking output through the sliding switch RL. Auto-rest output means that the output signal is disconnected immediately after being triggered. Self-locking output means that the output signal continues to be output uninterruptedly
- Slide the switch to AR to output Auto-rest signal. Slide the switch to SL to output self-lock signal
- The OPEN/CLOSE feedback signal can be set to 4 delay levels of 0/1/5/15 minutes via the DIP switch TU/TD
- TU is for OPEN feedback signal. TD is for CLOSE feedback signal



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■ Stroke memory

- The controller can set and memorize the opening stroke. Upon the stroke set, the window opening signal is triggered once, the motor will run the memorized stroke one time
- The default memorized stroke runs for 5 minutes
- Press both of UP /DOWN buttons on the controller for 3 seconds, LEDs flash 3 times and off, successfully entered the stroke memory setting state
- In the stroke memory setting state, the manual keys are forced to the continued-run mode, the remote control keys are forced to the inching mode
- Select the channel(S) to be set, the default is all selected, all the channel indicators light. Press the channel selection key(s), the indicators light, press the channel selection key(s) again the indicator is off, it is deselected. The setting is invalid without operation in 15 seconds
- After the channel selected, determine the stroke that needs to be memorized by pressing the manual key or the remote control key by moving or jogging
- The memorized stroke can be set to one channel or any combination of channel
- After the memorized strokes determined, turn on all the channel indicators for setting the memorized stroke. Press both of UP /DOWN buttons on the controller for 3 seconds, LEDs flash 5 times and off, the memorized strokes of all channels set successfully and exit the stroke memory setting state, manual buttons and remote control buttons restored to the original mode
- In stroke memory setting state, no operation is performed within 15 seconds, LEDs flash 3 times slowly and off, the stroke memory setting state is automatically exited, and the last memorized stroke is retained
- Stroke memory can be set repeatedly. The controller only retains the last successful stroke value and automatically clears the previous one
- In stroke memory setting state, press both of STOP /DOWN buttons on the controller for 3 seconds LEDs flash 3 times the memorized stroke is deleted and restored to the default output for 5 minutes
- When the memorized strokes of master controller and slave controller are not the same, the master controller will run its own memorized stroke. The slave controller will run the shorter stroke when it receives the cascade signal from the master controller
- The memorized stroke set for each channel is retained in case the controller is powered down or reset
- When closing the window, the output time is 5 minutes

■ Installation instruction

- Please read the following instructions carefully before installing this product
- The control system must be installed by the professional
- The main power must be cut off before wiring to ensure safe operation
- Two 12V20Ah lead-acid batteries connected in series
- Please confirm positive and negative polarities before turning on the batteries to ensure that it cannot be reversed
- The controller does not contain batteries, please purchase with correct size and specifications
- Control panel cannot be installed outdoors
- Additive maximum output power of each single channel of 5 channel controller MUST NOT exceed the total rated power of the controller, and the maximum output current of each channel MUST NOT exceed 10A
- Do not use metal objects to touch or cover the controller, 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 controller and ground should be more than 1.5 meters
- The distance between the controller and ceiling should be more than 0.3 meters
- The distance between the controller 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 controller
- Non-professionals is not allowed to disassemble the controller. If any function is unusual, 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 the right installation of the battery 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