

User's Manual

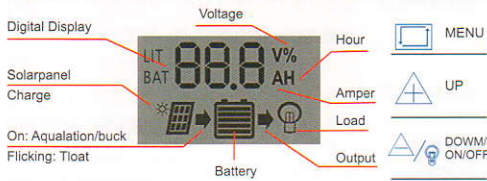
SAFETY INSTRUCTIONS

1. Make sure your battery has enough voltage for the controller to recognize the battery type before first installation.
2. The battery cable should be as short as possible to minimize loss.
3. This controller is suitable for lithium batteries and all kinds of lead-acid batteries (OPEN, AGM, GEL).
4. The charge regulator is only suitable for regulating solar modules. **Never connect another charging source to the charge regulator.**
5. The controller will be hot when running. Please note that the controller is installed on a flat, well ventilated surface.

PRODUCT FEATURES

1. Build-in industrial micro controller, all adjustable parameter.
2. Fully 3-stage PWM charge management.
3. Build-in short-circuit protection, open-circuit protection, reverse protection, over-load protection.
4. Dual MOSFET Reverse current protection, low heating dissipation.
5. There are lithium battery and lead-acid battery switching function (at the battery type interface, 3 seconds into the switch settings), the default is lithium battery.

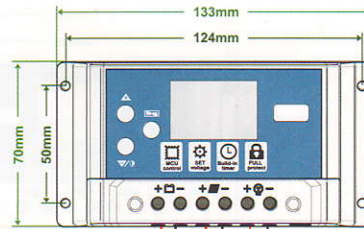
LCD DISPLAY / KEY



MENU : Switch between different display or to enter / exit setting by long press.
 UP : Press to increase value.
 DOWN : Press to decrease value

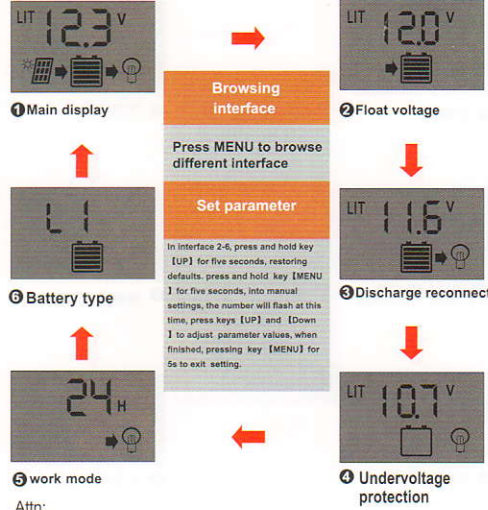
SYSTEM CONNECTION

1. Connect the battery to the charge regulator-plus and minus.
2. Connect the photovoltaic module to the regulator-plus and minus.
3. Connect the consumer to the charge regulator-plus and minus.



The reverse step applies when uninstalling!
 An incorrect sequence step can damage the controller!

LCD DISPLAY / SETTING



Attn:

1. press the [DOWN] button to ON/OFF load manually at main display.
2. The work mode is working as below.
 [OH] Dusk to dawn [24H] load output 24 hours
 [1-23H] load on after sunset and close after setting hours.

TROUBLE SHOOTING

Situation	Probable cause	Situation
Charge icon not on when sunny	Solar panel opened or reversed	Reconnect
Load icon off	Mode setting wrong	Set again
	Battery low	Recharge
Load icon slow flashing	Over load	Reduce load watt
Load icon slow flashing	Short circuit protection	Auto reconnect
Power off	Battery too low reverse	Check battery/connection

TECHNICAL PARAMETER

MODEL	KYZ 10	KYZ 20	KYZ 30
Batt voltage	12V / 24V auto adapt		
Charge current	10A	20A	30A
Discharge current	10A	10A	10A
Max Solar Input	<41V		
Equalization	Ternary lithium battery (L1) : 12.0V Lithium iron phosphate battery (L2) : 13.8V Lead acid battery (bA) : 13.7V		
Undervoltage protection	Ternary lithium battery: 10V (Adjustable range 9.0-11.0V) Lithium iron phosphate battery: 12V (Adjustable range 10.3-12.8V) Lead acid battery (bA) : 10.7V (Adjustable range 9.5-11.5V)		
Discharge reconnect	Ternary lithium battery: 11.6V (Adjustable range 11.0-11.7V) Lithium iron phosphate battery: 13.5V (Adjustable range 12.8-13.8V) Lead acid battery (bA) : 12.6V (Adjustable range 11.5-13.0V)		
Standby current	< 10mA		
USB output	5V / 2A Max		
Operating Temperature	-35~+60 °C		
Size / Weight	133*70*35mm/140g		

- all red color voltage X2, X4w hile using 24V system.
- Product specifications are subject to change without notice.