SHIVA AMVAJ Astronomical Watch

MODEL: AWB-6 AM
CODE:12B2
WEIGHT : 160 gr
(72x86x60)mm
IP 30

SCAN QR TO VIEW THE PRODUCT

MODEL: AWB-20 AM
CODE:12B2
WEIGHT : 160 gr
(72x86x60)mm
IP 30

Introduction

Without requiring light, this device relies on a microprocessing program to accurately determine the sunrise and sunset times on each day of the year and control the lighting system accordingly. It has no optic sensor and can be installed in a roofed area, eliminating potential errors in overcast days and preventing unauthorized tinkering. Further, it can switch the outputs on or off 120 minutes before/after the sunrise/sunset.

Features of Shiva Amvaj 6A/20A Astronomical Watch

- Equipped with a microprocessing unit for controlling the lighting system at sunrise and sunset according to longitude and latitude;
- Protected against voltage fluctuations;
- Adjustable lighting system switch-off time at a specific hour or setting the timer between 1 and 12 hours after sunset.
- Remembers the date, hour, and all settings after cutting the input power off (for up to 5 years);
  Rotating display: date, hour, switch off/on time.
- Changing on/off time of lamps up to ±120 minutes versus sunrise and sunset
- Replaceable lithium battery with a life expectancy of 5 years.

- Capabilities
  - Grid voltage display;
  - Setting or not setting the clock according to summer or winter clock
  - Selecting the manual mode
  - Thirty-one preset codes for different cities to facilitate the configuration.
- Errors
  - Batt: battery depleted
  - Over: over-voltage
  - Under: under voltage

Technical Specifics of Shiva Amvaj 6A/20A Astronomical Watch

- Input Voltage: 165-260 VAC/50-60 Hz
- Switch off for:
  - Over-voltage: 255 V
  - Under-voltage: 170 V
- Working conditions
  - Temperature: -20 to +65
  - Humidity: 70%
- Output:
  - 6A : Model AWB-6AC4
  - 20 A : Model AWB-20 AC5

Configuration and Programming

The device requires the following parameters to be set to function properly:

1. Year (for the automatic detection of leap years);
2. Date (day and month);
3. Time: hour and minutes;
4. The time to switch the lighting system on/off, ±120 minutes before or after sunrise or sunset;
5. The provincial capital code or longitude and latitude (refer to provincial capital codes table);
6. Timer for switching the system on/off after sunset (1-12 hours), or accurate power-off time.

Device Performance

In normal mode the device switches between lighting system power-on time (ᑎ),lighting system power-off time (ᒋ) ,official time (ᑕ),and the date (ᑯ)

Note: if the lighting system power-off is set from sunrise, power-off time will be indicated by (ᒋ), but if it is controlled by the timer, the power-off time will be represented by (ᑌ).

Grid Voltage Display

Pressing the (▲) button will show grid voltage with the (ᑌ) symbol. Pressing any other button returns the device to normal.

Manual and Automatic Modes

When the lighting system is in need of maintenance, the device must be switched to the manual mode from the auto. In the manual mode, the relay remains connected and lighting system remains active for 4 hours.

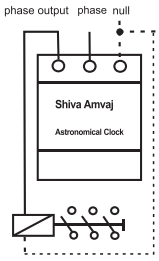
For this purpose,press and hold the▼key for the device to show the HAnd symbol. Then, counting down starts from 5 and, upon reaching zero, the relay connects, powering the lighting system on, with the display remaining in the same mode. To return to auto mode, press and hold the ▼ button for the device to show the AUtO symbol. After counting down from 5, the auto mode will be activated and the device returns to normal operation when reaching to zero.

Load Table

Astronomical Watch 20 A	Astronomical Watch 6 A	Model / Load
10	10	incandescent lamp 100 w
10	10	fluorescent lamp 80W
10	—	Low power 20W
150W	—	LED drivers/ switching feed

Warning: make sure to compare the system output load with

Installation guide



Device Configuration

Press and hold the↵ button to display the SEt symbol. After the countdown from 5, the device enters configuration mode when reaching to zero. At each step (according to table), the configurable section starts blinking and can be set via ▲and▼ buttons. Press↵ to confirm each parameter.

Configurable parameters are as follows:

Description	Large display	Large display	
Year	Y	1386	1
Month	d	05.11	2
Day	d	05.11	3
Hour	C	12.35	4
Minutes (the clock changes after confirming this section)	C	12.35	5

The time for the output relay to stay on (in hours) after sunset that has 3 states can be set here. "off" keeps the relay on until sunrise. Numbers between 1-12 keep the device on for the set time (in hours) after sunset, after which it switches off. Choose "clc" mode to determine the hour and minute at which system powers off (steps 7 and 8). In the two previous modes, after selecting "off" or a number between 1-12, the device goes to step 9.	t*	oFF	6
Sets the power-off hour for the output relay (if "clc" is selected)	t	23.25	7
Set the power-off minute for the output relay (if "clc" is selected)	t	23.25	8
Sets the power-off delay or haste (for 120 minutes). Negatives and positive signs indicate delay and hastening, respectively	r	0	9

Sets the power-on delay or haste (for 120 minutes). Negatives and positive signs indicate delay and hastening, respectively.	n	0	10
Sets automatic clock change in the first and second half of the year. Selecting Add 0 disables the change while Add 1 sets the clock to move forward for an hour at the beginning of spring and an hour backward at the beginning of fall.		Add 0	11
Sets the positioning mode: CodE indicates configuring the city code (step 13), while L-y mode indicates setting longitude and latitude (step 14). (Use ▲ and ▼ buttons to switch between the two modes)		CodE L-y	12

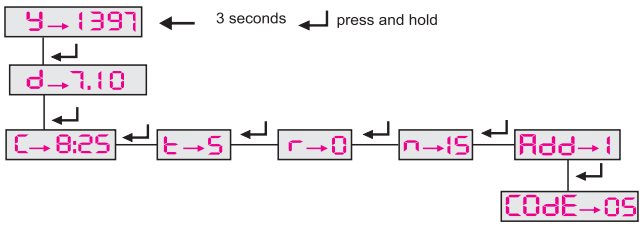
Set the respective city code (according to the table of cities). After confirming the changes and displaying SAVE in CodE mode the configurations are complete.	o	04	13
Sets the longitude	L	51.6	14
Sets the latitude. After confirming and displaying SAVE , in L-y mode the configurations are complete.	y	32.7	15

*If the timer (t) is set at a greater time than the time interval between sunrise and sunset, sunrise time takes priority. If the hour is set by the "clc" mode and the time is not set between sunset and sunrise, the relay powers off at sunrise when the time is closer to sunrise, while powering off at 24:00 when it is set closer to sunset.

** Bold font indicates blinking.

*** If before completing the configuration no buttons are pressed for 10 seconds, the device leaves the configuration mode and previous settings will be retained.

Example: assume it is 8:25 AM on 10/2/2018 and you'd like to set the device to switch on 15 minutes after sunset and off 5 hours after that. The following parameters need to be set:



Note: In case of over or undervoltage, the device disconnects the power output, serving as a protector. It displays the respective oUEr or undr symbols for overvoltage and undervoltage. When the internal battery is depleted, it displays bAtt when switched on. After replacing the battery, the same symbol is displayed in the first reboot of the system, disappearing after the clock is reset.

Provincial capital codes

	25		17		09		01
	26		18		10		02
	27		19		11		03
	28		20		12		04
	29		21		13		05
	30		22		14		06
	31		23		15		07
			24		16		08