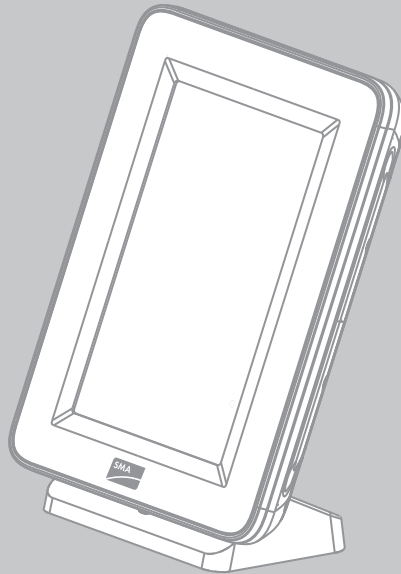




Device for plant monitoring

# **SUNNY VIEW**

**User Manual**





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# 1 Information on this Manual

## Validity

This manual is valid for the Sunny View type VIEW-10.GR1.

The type designation can be found on the type label on the back of the Sunny View.

## Target group

This manual is intended for end users.





## Additional information

Additional information is available at [www.SMA.de/en](http://www.SMA.de/en).

Title	Document type
Sunny View	Quick reference guide
SMA CT Meter*	Installation manual

\* For Japan only

## Symbols

Symbol	Explanation
 <b>DANGER</b>	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
 <b>WARNING</b>	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
 <b>CAUTION</b>	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
<b>NOTICE</b>	Indicates a situation which, if not avoided, can result in property damage.
	Indicates information that is important for a specific topic or objective, but is not safety-relevant.
<input type="checkbox"/>	Indicates a requirement for meeting a specific goal.
<input checked="" type="checkbox"/>	Desired result.
<b>×</b>	A problem that could occur.

## Typographies

Typography	Usage	Example
"light"	<ul style="list-style-type: none"> <li>• Display messages</li> <li>• Parameters</li> <li>• Connections</li> <li>• Slots</li> <li>• Text boxes</li> </ul>	<ul style="list-style-type: none"> <li>• Enter your e-mail address and password in the "E-mail" and "Password" text boxes.</li> </ul>
<b>bold</b>	<ul style="list-style-type: none"> <li>• Elements to be selected.</li> <li>• Elements to be entered.</li> </ul>	<ul style="list-style-type: none"> <li>• Enable the <b>dynamic</b> option.</li> </ul>
>	<ul style="list-style-type: none"> <li>• Series of elements that are to be selected on the software user interface or display.</li> </ul>	<ul style="list-style-type: none"> <li>• Select <b>Settings &gt; Date</b>.</li> </ul>
[Button/Key]	<ul style="list-style-type: none"> <li>• Buttons</li> <li>• Keys</li> </ul>	<ul style="list-style-type: none"> <li>• Select [Next].</li> </ul>

## Nomenclature

The following nomenclature is used in this manual:

Complete designation	Designation in this manual
System comprising PV array, devices to monitor plants, and inverters	Plant
SMA Bluetooth® Wireless Technology	<i>Bluetooth</i>

## Abbreviations

Abbreviation	Description	Explanation
NetID	Network Identification	Identification number for SMA <i>Bluetooth</i> network
MSL	Mean Sea Level	-
PUK	Personal Unlocking Key	Code number, which enables access to SMA <i>Bluetooth</i> devices, after the loss of the password
PV	Photovoltaics	-
SDHC	Secure Digital High Capacity	Memory card with a storage capacity up to
WLAN	Wireless Local Area Network	-
Wi-Fi		



## 2 Safety

### 2.1 Intended Use

The Sunny View is a communication device that receives, displays and stores data from SMA inverters.

The Sunny View is only suitable for indoor use.

The Sunny View may only be used with accessories that are produced or recommended by SMA Solar Technology AG.

The data collected by Sunny View on the amount of power generated by your plant may deviate from the electricity meter data.

- The Sunny View data cannot be used for billing purposes.

The Sunny View may only be used in accordance with the enclosed documentation. Any other use can result in personal injury or property damage.

- The Sunny View is only to be operated using the supplied plug-in power supply and in the voltage range intended for this (see Section 12 "Technical data", page 45).

The enclosed documentation is an integral part of this product.

- Read and follow the documentation for the proper and optimum use of the Sunny View.
- Keep the documentation (quick reference guide and user manual CD) in a convenient place for future reference.

### 2.2 Safety Precaution

#### Preventing unauthorised access

Plants are delivered with "0000" as the default password. In other words, unauthorised users can gain access to the data of the plant.

- Change the default plant password (see Section 8.14).

## 3 Product Description

### 3.1 Sunny View

The Sunny View is a communication device that receives, displays and stores data from SMA inverters. The Sunny View displays plant data in the form of slides on the display.

The Sunny View can be connected to the Internet via a WLAN. If there is a connection to the Internet, the Sunny View can display data from Facebook and Twitter, as well as newsfeeds.

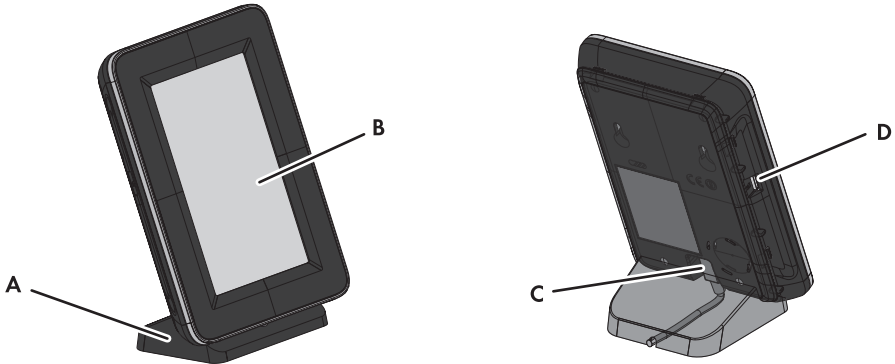


Figure 1: Sunny View design

Position	Designation
A	Tabletop stand
B	Display
C	Grid connection
D	SDHC card slot

The display is used for operation and displays.

The Sunny View communicates with inverters and the SMA CT Meter (for Japan only) via *Bluetooth*.

The Sunny View saves plant data in its internal memory. If an SDHC card is available, save the plant data on the SDHC card.

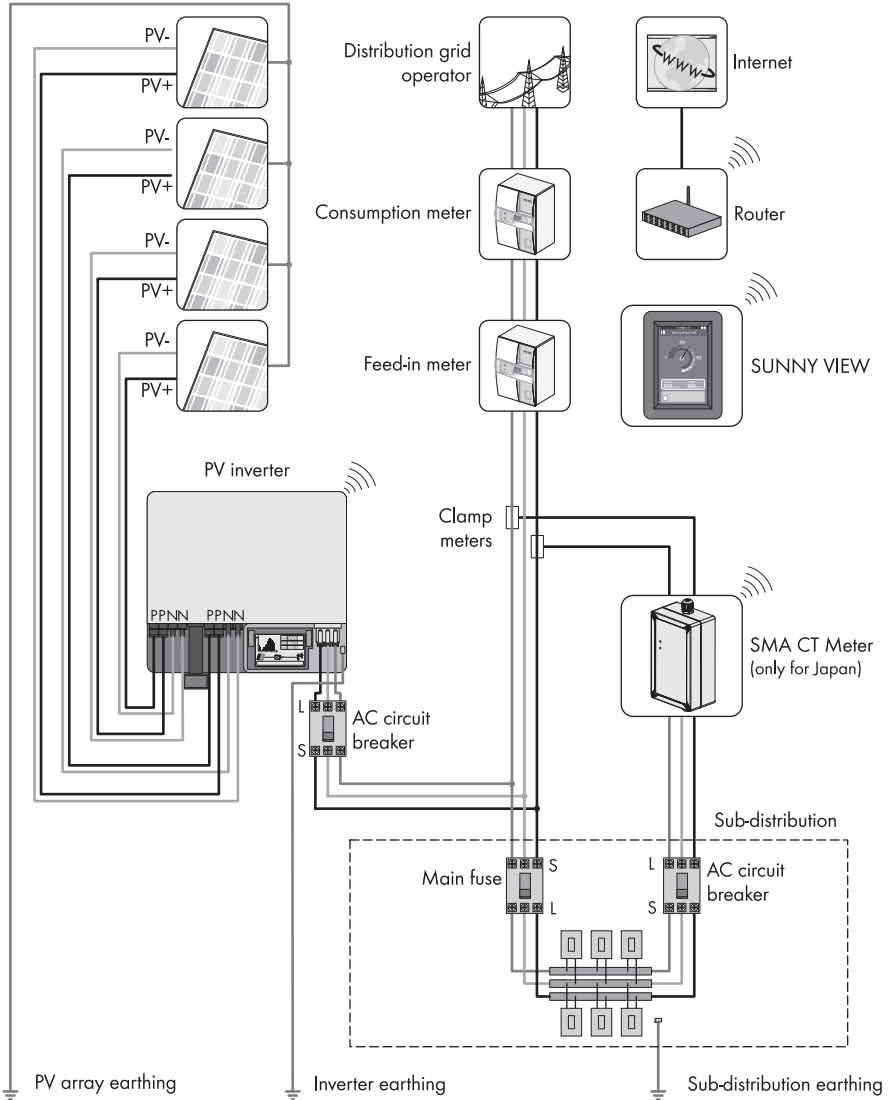


Figure 2: Illustration of a plant with Sunny View (example)

## 3.2 Type Label

You can identify the Sunny View by the type label. The type label can be found on the rear of the Sunny View. If the Sunny View is positioned on the tabletop stand, you must remove it from the tabletop stand to see the type label.


The information on the type label is intended to help you use the Sunny View safely and receive better customer support from the SMA Service Line. The type label must be permanently affixed to the Sunny View. You can read out the following information from the type label:

- Type designation
- Serial number
- WLAN MAC address
- Operating temperature

## 4 Operation

### 4.1 Menu Structure

The menu consists of several menu items. Using the menu items, you can control the slides displayed and configure the Sunny View settings.

You can call up the menu using .

Home			
Charts			
Events			
Settings	General	Display	Brightness
			Display activity
			Scaling of day charts
		Sounds	Error alert
			Key clicks
			Information
		Date & time	Serial number
			Firmware version
			Hardware
			Bluetooth version
			WLAN Mac ID
		International	Automatic
			24-hour format
			Time zone
	Date		
	Slide show	Time	
		International	
	Wireless	Language	
		Country	
		Slide duration	
		PV visualization	
		Online Data	Newsfeed
			Facebook
	Twitter		
	Weather		
	Bluetooth	Connection quality	
		NetID	
Refresh after			
Wi-Fi networks			
Refresh after			
PV plant	Other networks		
	New search		
	Plant search		
	Device search		
Service	Information		
	Plant password		
	Update		
Factory settings			

		Back-up file	Generate back-up file
			Restore back-up file




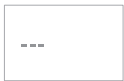






## 4.2 Operating the Sunny View

Touch the display with your finger or the supplied touch-screen stylus pen to navigate the Sunny View and to enter information.

### NOTICE

**Sharp or pointed objects can damage the display.**


- Use your finger or the touch-screen stylus pen to control the Sunny View.

Symbol	Name	Description
	Button	To activate a button, simply tap it once.
	Menu	Tap this button to access the menu.
	Back	Tap this button to go back to the previous menu.
	Text box	To enter numbers or text, tap the text box. A keyboard will appear on the display.
	Drop-down list	Simply tap drop-down lists once to open up lists.
	List	Lists are marked by a bar on the right-hand side of the display. You can scroll through lists by sliding your finger up or down to any position on the display.
	Option	To enable an option, simply tap it. Enabled options are coloured. Only one option may be enabled at any one time.
	Checkbox	You can enable or disable a checkbox by tapping it. Enabled checkboxes are coloured.
	Slider	You can move the slider by dragging your finger to the left or right.
	Info symbol	Press this symbol to display additional information.

## 5 "Home" Menu Item

### 5.1 Layout of the "Home" Slides

The slides in the "Home" menu item display the status of the plant and the plant data. If there is a connection to the Internet, the "Home" slides display online data from the Internet. The slides in the slide-show automatically change after a preset display time (see Section 8.21). You can manually scroll through the "Home" slides by dragging your finger from the left or right.

You can call up the "Home" slides using  > **Home**.

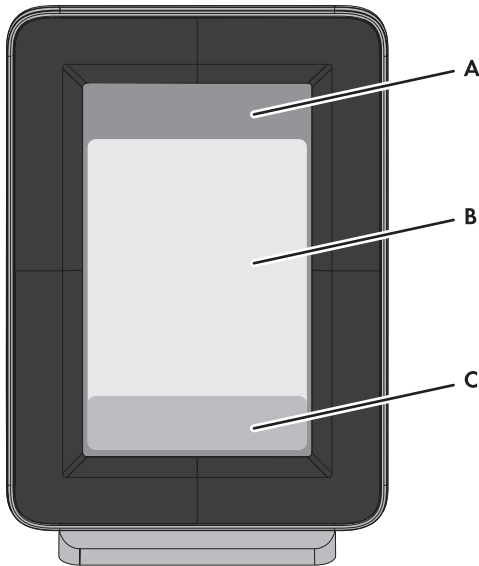


Figure 3: Layout of the "Home" slides

Position	Designation
A	Header
B	Plant data
C	Online Data

## 5.2 Header layout

The header of the "Home" slides is located in the top section of the display.

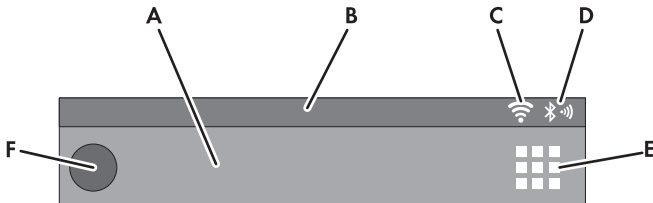


Figure 4: Header layout

Position	Designation	Description
A	Name	Name of the slide
B	Date and time	Current date and time
C	WLAN	Quality of the WLAN connection
D	Bluetooth signal strength	Quality of the Bluetooth connection
E	Menu	Tap this button to access the menu.
F	Event symbol	If there is an unread event, the symbol for the relevant event is displayed (see Section 7 "Events" Menu Item", page 22). If there are several unread events, the symbol for the most serious event is displayed. Tip: tap the symbol to access the "Events" view.

## 5.3 Plant Data

Plant data is divided into multiple slides. You can scroll through the slides to the left or right. The slides change automatically after a preset time. You can change the preset time (see Section 8.21 "Changing the Duration of the Slide Show", page 33).

You can enable or disable the slides under settings (see Section 8.22 "Selecting PV Visualisation", page 33). If an SMA CT Meter is connected, additional slides will be available with information on household power consumption.



### 5.3.1 Slides without SMA CT Meter

Designation	Description
Overview	This slide provides an overview of the entire yield of your plant.
Power and energy	This slide shows the current power, the daily power and the total energy yield of the plant.
Power chart	This chart shows the daily power of the plant.
Yield estimate	This slide shows the total and daily remuneration for grid feed-in.
CO <sub>2</sub> avoidance	This slide shows the daily and overall amount of CO <sub>2</sub> saved.
Kilometres/miles saved	This slide shows the daily and overall amount of kilometres/miles saved.
Errors and warnings	<p>This slide appears automatically when an error or warning occurs. An alarm only sounds when an error event occurs and the inverter stops feeding power to the grid (see Section 8.4 "Setting the Error Alert", page 25).</p> <p>Press the [Close] button to acknowledge the event. Press the [Details] button to access the event list (see Section 7). If not acknowledged, the alarm will sound again after a preset interval.</p>
Weather	<p>If meteorological data is available from the Internet, this slide shows the following meteorological data for the preset location:</p> <ul style="list-style-type: none"> <li>• Current weather</li> <li>• Forecast for the next 3 days</li> </ul>

### 5.3.2 Slide with SMA CT Meter

Designation	Description
Overview	This slide provides an overview of the entire yield of your plant.
Current power overview	This slide shows the current power of the plant, the energy currently being used, the grid feed-in and the purchased electricity.
Power chart	This chart shows the purchased electricity (grey) as well as the grid feed-in (blue) and the level of self-consumption (green) from the plant yield (for the meanings of the colours see Section 6 ""Charts" Menu Item", page 20).
Today's energy overview	This slide provides you with an overview of the purchased electricity (grey) as well as the amount of daily power (blue) and self-consumption (green) from the plant's daily yield.
Yield estimate	This slide shows the total and daily remuneration for grid feed-in. To calculate the remuneration, you must enter the feed-in tariff and the invoice amount in kWh (see Section 8.22 "Selecting PV Visualisation", page 33). By specifying the invoice amount, you can view the purchased electricity costs. The amount may differ from that invoiced by your electric utility company.
Maximum daily consumption	This slide shows the current rate of daily consumption in relation to target consumption rate. You can set the target consumption rate (see Section 8.22).
CO2 avoidance	This slide shows the daily and overall amount of CO <sub>2</sub> saved.
Kilometres/miles saved	This slide shows the daily and overall amount of kilometres/miles saved.
Errors and warnings	<p>This slide appears automatically when an error or warning occurs. An alarm only sounds when an error event occurs and the inverter stops feeding power to the grid (see Section 8.4 "Setting the Error Alert", page 25).</p> <p>Press the [Close] button to acknowledge the event. Press the [Details] button to access the event list (see Section 7). If not acknowledged, the alarm will sound again after a preset interval.</p>
Weather	<p>If meteorological data is available from the Internet, this slide shows the following meteorological data for the preset location:</p> <ul style="list-style-type: none"> <li>• Current weather</li> <li>• Forecast for the next 3 days</li> </ul>

## 5.4 Online Data

### Requirement for displaying online data:

- An Internet connection must be established (see Section 8.18 "Setting Up a WLAN Connection", page 32).

The online data changes after a set interval. You can scroll through the data to the left or right. By tapping the online data you can zoom to a full-screen view. Tap the [Close] button to minimise the view.

The following types of online data are available:

- Facebook
- Twitter
- Newsfeed


The Sunny View only displays the last 10 messages if these are less than 7 days old. Control elements within the messages (e.g. hyperlinks) do not work. The displays can be enabled or disabled individually (see Section 8.20 "Configuring Online Data", page 33).

You **cannot** send data via the Internet using the Sunny View.

## 6 "Charts" Menu Item

The "Charts" menu item presents the yield of the entire plant or an individual inverter depending on the selected time period.

For Japan only: if the SMA CT Meter is connected via *Bluetooth*, the Sunny View will also show the self-consumption and the purchased electricity.

You can call up the "Charts" menu item using  > **Charts** > **My plant**.

You can scroll through the daily, monthly and annual charts by dragging your finger from the left or right.

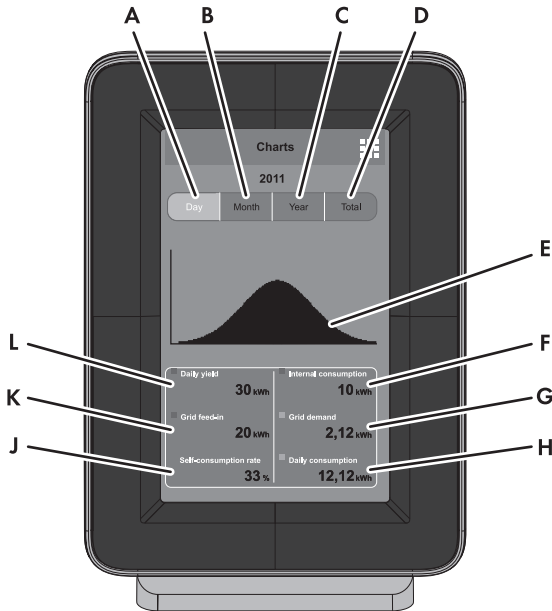


Figure 5: Chart layout

Position	Designation
A	Button for displaying the daily yield
B	Button for displaying the monthly yield
C	Button for displaying the annual yield
D	Button for displaying the total yield
E	Chart
F	Self-consumption*
G	Purchased electricity*

<b>Position</b>	<b>Designation</b>
H	Daily, monthly, annual or total consumption *
J	Rate of self-consumption *
K	Grid feed-in *
L	Daily, monthly, annual or total yield **

\* Requires the SMA CT Meter


\*\* If not connected to the SMA CT Meter, the Sunny View will also show the current power in the daily chart.

### **Meaning of chart colours when SMA CT Meter is connected:**

<b>Colour</b>	<b>Meaning</b>
Blue	Grid feed-in
Green	Self-consumption of electricity generated by the plant
Grey	Purchased electricity
Blue+green	Plant yield
Green+grey	Household consumption

## 7 "Events" Menu Item

The "Events" menu item shows all error messages, warnings and information.

You can call up the "Events" menu item using  > **Events**.

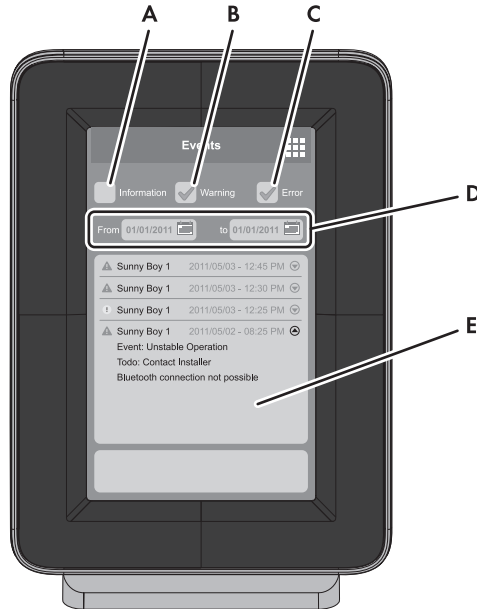


Figure 6: Layout of an event message

Position	Designation
A	Checkbox to display information
B	Checkbox to display warnings
C	Checkbox to display errors
D	Buttons for selecting the time period
E	List of events










### Types of event:

Sunny View displays symbols to indicate the 3 types of event.

Type of event	Description
Error	The inverter is not working properly and is not feeding power to the grid. <ul style="list-style-type: none"> <li>Open the event details for more information.</li> <li>Contact your installer and inform him/her about the event message and the serial number of the inverter in which the event occurred.</li> </ul>
Warning	The inverter is not working properly, but is still feeding power to the grid. The warning symbol is displayed if, for example, there is a frequent grid overvoltage.
Information	Settings have been configured on the inverter (e.g. parameters have been changed).

### Symbols and meaning of event types


- Incoming: the event is occurring.
- In progress: the event has existed for some time and could not yet be automatically remedied.
- Outgoing: the event does not exist any longer.

Symbol	Designation
	Error in progress
	Incoming error
	Outgoing error
	Warning in progress
	Incoming warning
	Outgoing warning
	Information in progress
	Incoming information
	Outgoing information

## 8 "Settings" Menu Item



### 8.1 Adjusting the Brightness

The display may be too bright or too dark depending on lighting conditions. If this is the case, you can adjust the brightness of the Sunny View.

1. Select  > **Settings** > **General** > **Display**.
2. Drag the brightness slider to the right or left to adjust the brightness to the preferred level.


### 8.2 Disabling the Display


You can disable the display or configure the settings in such way that it automatically disables after a preset time. When disabled, the display is switched off. This means the Sunny View requires less electricity.

1. Select  > **Settings** > **General** > **Display**.
2. Set the desired time period for disconnection.
3. If you would like to disconnect after a preset time:
  - Enable the **Off after** option.
  - Select the desired time in the appropriate drop-down list.
4. If you do not wish to configure any other settings, select .
  - After the preset time, the display will be disabled.
5. Simply touch the display to re-enable it.

### 8.3 Setting the Scaling of the Daily Chart

You can choose between static or dynamic scaling for the daily chart. If static scaling is selected, the chart can be scaled to a set maximum threshold (e.g. the maximum power of your plant). With dynamic scaling, the maximum thresholds of the measured values are used as the basis for scaling.



1. Select  > **Settings** > **General** > **Display**.
2. If you prefer static scaling for the daily chart:
  - Enable the **Static** option.
  - Enter the power of your plant in the appropriate text box.

Tip: You can reset the scaling to match the maximum power of your plant's inverter by pressing the [Reset to plant power] button. This value can deviate from the actual maximum power of your plant.
3. If you prefer dynamic scaling for the daily chart, enable the **Dynamic** option.
4. If you do not wish to configure any other settings, select .





## 8.4 Setting the Error Alert



The error alert sounds when an error occurs. If the error is not eliminated, the error alert will sound again after a preset interval.

1. Select  > **Settings > General > Sounds**.
2. To enable the error alert, enable the **Error alert** checkbox.
3. To disable the error alert, disable the **Error alert** checkbox.
4. Select the repetition interval for the error alert in the "Alarm tones every" drop-down list.
5. Drag the volume slider to the left or right until you reach the preferred volume.
6. Select the alarm tone in the "Alarm tone" drop-down list.
7. If you do not wish to configure any other settings, select .



## 8.5 Setting the Key Clicks

1. Select  > **Settings > General > Sounds**.
2. To enable the key clicks, enable the **Key clicks** checkbox.
3. To disable the key clicks, disable the **Key clicks** checkbox.
4. Drag the volume slider to the left or right until you reach the preferred volume.
5. If you do not wish to configure any other settings, select .



## 8.6 Identifying the Sunny View

1. Select  > **Settings > General > Information**.
  - A list containing the following information will open:
    - "Serial number"
    - "Firmware version"
    - "Hardware"
    - "Bluetooth version"
    - "WLAN Mac ID"
2. To return to the menu, select .

## 8.7 Setting the Language

1. Select  > **Settings > General > International > Language**.
2. Select the desired language.
3. If you do not wish to configure any other settings, select .

## 8.8 Country Settings

1. Select  > **Settings > General > International > Country**.
2. Select the desired country.
3. Check the country settings. Change the country settings if necessary.  
Tip: Press the [Reset] button to restore the default country settings.
4. Select [Next].
5. If you do not wish to configure any other settings, select .

## 8.9 Setting the Date and Time

The Sunny View can be set for automatic time synchronisation if a WLAN connection is available (see Section 8.18 "Setting Up a WLAN Connection", page 32) and the "Automatic" checkbox is enabled.



You can choose between a 12-hour or 24-hour time format by selecting the "24-hour format" checkbox accordingly.



### Charts may be incorrectly displayed

Changing the set time while the inverter is feeding in can cause charts to be displayed with permanent errors.


- Only change the set time when the inverter is **not** feeding in (e.g. when it is dark).

1. Select  > **Settings > General > Date & time**.
2. In the "Time zone" field select the desired time zone.
3. In the "Date" field, select the date.
4. Set the date using [+] and [-].
5. Select [Accept].
6. In the "Time" field, select the time.
7. Set the time using [+] and [-].
8. Select [Set].
9. If you do not wish to configure any other settings, select .

## 8.10 Searching for a New Plant

If you want the Sunny View to monitor a different plant, you can search for a new plant.

### Requirements:

- The plant may have a maximum of 12 inverters.
- 1. Select  > **Settings > PV plant > New search > Plant search.**
- 2. Select [Search].



### Settings and CSV files

All Sunny View settings are saved. If an SDHC card is inserted, it will also contain the CSV files of the previous plant.

- The Sunny View searches for plants within its range.
- The Sunny View shows all plants found in the search with their NetIDs.
- 3. Select the desired plant.
- 4. Select [Next].



### Possible restart of Sunny View


If the Sunny View was previously connected to another plant, it will restart itself.

- 5. Enter the plant password.
- 6. Select [Next].
- 7. If you want to use the 24-hour format for the time display, enable the **24-hour format** checkbox.
- 8. Set the time zone, date format and time.
- 9. Select [Next].
- 10. Select the desired slides for the plant.
- 11. Select [Next].

## 8.11 Adding a New Device

If you are commissioning a new device and the Sunny View does not automatically add the device to the plant, you need to carry out a device search.

### Requirements:

- The plant may have a maximum of 12 inverters.
  - The new device must have the same NetID as all the other plant devices (see manual for the *Bluetooth* device).
1. Select  > **Settings > PV plant > New search > Device search.**
    - The Sunny View lists the new devices.
  2. Select the desired device.
  3. Select [Next].
  4. Enable the **as a device replacement** option.
  5. Select [Next].
  6. Enter the password for the new device.



### Default password on delivery

The default password on delivery is 0000.


- The Sunny View connects with the new device and transfers the existing plant password to the new device.
7. Select [Next].
  8. Enter the device name.
  9. Select [Next].
  10. If you want to add another device, select [Add] and proceed to Item 2.
  11. Select [Home].

## 8.12 Replacing an Existing Device with a New Device

If you want to replace an existing device with a new device, you will have to perform a device search in the Sunny View.


### Requirements:

- The new device must have the same NetID as all the other plant devices (see manual for the *Bluetooth* device).

1. Select  > **Settings** > **PV plant** > **New search** > **Device search**.
2. Select [Search].
  - The Sunny View searches for devices within its range.
  - The Sunny View shows all the devices in your plant that were found in the search.
3. Select the desired device.
4. Select [Next].
5. Enable the **as a device replacement** option.
6. Select [Next].
7. Select the device you want to replace.
8. Select [Next].
9. Enter the device password.
10. Select [Next].
11. Enter the plant password.
12. Select [Next].
13. Enter the device name.
14. Select [Next].
15. If you want to replace another device, select [Add].
16. Select [Home].


## 8.13 Changing the Device Name

The default name of the device is the serial number of the inverter. You can assign a unique name to the device.

1. Select  > **Settings** > **PV plant** > **Information**.
2. Select the desired device.
3. Select [Device name].
4. Enter a device name.
5. Select [Save].

## 8.14 Changing the Plant Password

The plant password is used for all devices in the plant to prevent unauthorised access. The plant password can have a maximum of 12 characters. The password may contain the following characters: A ... Z, a ... z, 0 ... 9, ?, \_ , ! and - .

1. Select  > **Settings > PV plant > Plant password.**
2. Enter a new password in the "Set password" and "Confirm password" text boxes.
3. Select [Save].


## 8.15 What to Do in Case of Lost Plant Password

If you have forgotten the plant password, contact the SMA Service Line. You will be given a personal unlocking key (PUK) for each device which can then be used to unblock the device. After you enter the PUK, the password for each device must be changed to a shared plant password (see Section 8.16).


If you are not the plant owner, you must communicate the new plant password to the plant owner.

## 8.16 Changing the Device Password







The device password can have a maximum of 12 characters. The password may contain the following characters: A ... Z, a ... z, 0 ... 9, ?, \_ , ! and - .

1. Select  > **Settings > PV plant > Information.**
2. Select the desired device.
3. Select [Device password].
4. Enter a new password in the "Set password" and "Confirm password" text boxes.
5. Select [Save].

## 8.17 Displaying Connected Devices

1. Select  > **Settings > PV plant > Information.**

The Sunny View displays a list of connected devices with the following symbols:

Symbol	Status	Meaning
	Neutral	The status of the device is currently being updated.
	OK	The device is operational and working properly.
	Warning	The device is not working properly, but can still feed power to the grid.
	Error	The device is not working properly and does not feed power to the grid.
	Communication error	Unable to communicate with the device at the moment. Possible causes include the overnight shutdown setting for the inverter.
	Lock	A password other than the plant password has been entered for the device. Unable to access the device.



2. Select the desired device.

Sunny View displays the type, serial number and software version of the device.

## 8.18 Setting Up a WLAN Connection



The WLAN router is used to establish a wireless connection to the Internet. You can define the interval in which the Sunny View updates online data. The WLAN connection is disabled by default.

### Router requirements:

- The router must support DHCP and DHCP must be enabled for the router.
  - The router must support the transmission standard IEEE 802.11b or IEEE 802.11g.
1. Select  > **Settings > Wireless**.
  2. Enable the **Wi-Fi networks** checkbox.
  3. If the desired network is not displayed, search for the network:
    - Select [Other networks].
    - In the "Name" field, enter the name of the network.
    - In the "Security" field, select the desired encryption method.
    - Select [Accept].
  4. If the network is password-protected, enter the password in the text box.
  5. Using the drop-down list "Refresh after", set how often the Sunny View online data is updated from the Internet.
  6. If you do not wish to configure any other settings, select .



## 8.19 Checking and Setting Up a Bluetooth Connection

The connection to your plant is established via *Bluetooth*. You can check the quality of your *Bluetooth* connection and the NetID, and set how often the Sunny View plant data is updated.

1. Select  > **Settings > Wireless**.
  - The quality of the *Bluetooth* connection and the NetID is displayed.
2. Using the drop-down list "Refresh after", set how often the Sunny View plant data is updated.
3. If you do not wish to configure any other settings, select .





## 8.20 Configuring Online Data

1. Select  > **Settings** > **Slide show** > **Online data**.
2. If you want a newsfeed:
  - Enable the **Newsfeed** checkbox.
  - Type the Internet address of the RSS or Atom feed in the "URL" text box.
3. If you want to connect to Facebook:
  - Enable the **Facebook** checkbox.
  - Enter the e-mail address and password of the Facebook account in the "E-mail" and "Password" text boxes.
  - Select [Sign in].
4. If you want to connect to Twitter:
  - Enable the **Twitter** checkbox.
  - Enter the user name/e-mail address and password of the Twitter account in the "User name or e-mail" and "Password" text boxes.
  - Select [Sign in].
5. If you want to display the weather:
  - Enable the **Weather** checkbox.
  - Enter the city or postcode in the "City/postcode" text box.
6. If you do not wish to configure any other settings, select .



## 8.21 Changing the Duration of the Slide Show

The slides in the slide show change after a preset display time.

1. Select  > **Settings** > **Slide show**.
2. Select the desired display time in the "Slide duration" drop-down list.
3. If you do not wish to configure any other settings, select .

## 8.22 Selecting PV Visualisation

Sunny View only shows the slide show with slides that you have selected. For some slides you will need to specify additional information using the text boxes, checkboxes and sliders. Tap the Info symbol for more information. You will find an overview of the slides in the "Plant data" section (see Section 5.3).



1. Select  > **Settings** > **Slide show** > **PV visualization**.
  - A list of all slides will open.
2. Select and enable the slides you want to display.
3. If you do not wish to configure any other settings, select .

## 8.23 Activating Demo Mode

The demo mode simulates the process of operating a plant. It can therefore be used to demonstrate how the Sunny View operates. The Sunny View simulates a plant with a capacity of 4.5 kWp. If the country setting is set to Japan, the Sunny View will also simulate an SMA CT Meter.

### Activating demo mode after commissioning

#### Requirements:

- The Sunny View must not be connected to a plant.
- 1. Select  > **Settings** > **PV plant** > **New search** > **Plant search**.
- 2. Select [Demo mode].
- 3. If you do not wish to configure any other settings, select .

## 9 Maintenance and Care

### 9.1 Safe removal of the SDHC card


Always remove the SDHC card according to the following procedure.

#### NOTICE

##### Damage to the SDHC card

If the SDHC card is removed while data is being written to it, it may be damaged and data may be lost.

- Safely remove the SDHC card.


1. Call up the menu using .
2. In the lower section of the menu, select **Safely remove the SDHC card**.
  - The message "The SDHC card can now be removed." appears.
3. Remove the SDHC card.

### 9.2 Performing an Update

Perform an update so that the Sunny View can download the latest data. When the Sunny View is updated, all plant data and display settings will be saved.

#### Necessary equipment:

- Computer with Internet connection and an SDHC card slot.
- SDHC card

1. If you have not previously carried out an update using the SDHC card, you must connect the SDHC card to the computer and create a folder labelled **UPDATE** on the SDHC card.
2. Download the update file in the download section of [www.SMA.de/en](http://www.SMA.de/en) and save it on the SDHC card in the "UPDATE" folder.
3. Remove the SDHC card from the computer.
4. Insert the SDHC card into the slot on the Sunny View.
5. Select  > **Settings > Service > Update**.

The following message appears: "New update file found on the SDHC card. Do you wish to start the update?"

If the message is not shown:

The SDHC card does not contain an update file. The update file or SDHC card is defective.

- Perform update again.
- If the update fails after several attempts, contact the SMA Service Line.

6. Select [Start update].
- The update procedure starts. The Sunny View displays the message "Update successful!" and restarts.
- "Update failed!" message appears on the display.  
The update file or SDHC card is defective.
  - Perform update again.
  - If the update fails after several attempts, contact the SMA Service Line.

**NOTICE**

### Damage of the Sunny View due to disconnection from the electricity supply


Disconnecting the Sunny View from the electricity supply during the update procedure or when restarting may cause damage to the Sunny View.

- Do **not** remove the plug-in power supply from the socket during the update procedure or when restarting.

## 9.3 Restoring Default Settings

If you wish to restore the default settings of the Sunny View, note that all plant data and display settings will be deleted. The saved plant data and CSV files will remain on the SDHC card.

Restoring the default settings can take several minutes.


1. Select  > **Settings** > **Service** > **Factory settings**.
  - The following message appears: "After a reset to factory settings, your plant data and settings are deleted."
2. Select [Reset].

## 9.4 Generating a Back-up File

When you generate a back-up file, the Sunny View will save all plant data and settings to your SDHC card. A back-up file will allow you to restore all your data when you replace the Sunny View or reset the device to the default settings.

You can generate back-up files automatically or manually. In automatic mode the Sunny View will automatically generate a back-up file at regular intervals.

### Requirements:

- An SDHC card must be inserted in the slot.
1. Select  > **Settings** > **Service** > **Back-up file** > **Generate back-up file**.
  2. If you prefer automatically generated back-up files:
    - Enable the **Automatic** option.
    - Select the desired interval from the drop-down list.
  3. If you would like to generate a back-up file manually, enable the **Manual** option.

## 4. Select [Next].

- The following message appears: "Back-up file was generated successfully!"
- The following message appears: "Please insert an SDHC card with at least xx MB free space."

The SDHC card does not have enough memory available or is not inserted into the device.

- Insert a SDHC card with enough memory.
- Select [Repeat].


## 9.5 Restoring Sunny View Data from Back-up File



### Overwriting plant data and settings

When you restore a back-up file, all plant data and display settings will be overwritten.

#### Requirements:

- An SDHC card containing the back-up file must be inserted in the slot.
- 1. Select  > **Settings > Service > Back-up file > Restore from back-up file.**
  - The following message appears: "Do you want to restore the back-up file with all data and settings on this Sunny View?"
- 2. Select [Restore].
  - The following message appears: "The data and settings were successfully restored from the back-up file!"
  - The following message appears: "No back-up file found".
    - Make sure an SDHC card with the back-up file is inserted into the device.

## 10 Decommissioning

### 10.1 Decommissioning the Sunny View

- Remove the plug-in power supply from the Sunny View and the socket.

### 10.2 Disposing of the Sunny View

- Be sure to observe all applicable regulations when disposing of the Sunny View.
- To have SMA dispose of the Sunny View, send the Sunny View back to SMA Solar Technology AG at your own cost, labelled "ZUR ENTSORGUNG" ("FOR DISPOSAL").

# 11 Troubleshooting

Problem	Cause
<p>Sunny View does not list the NetID of your plant.</p>	<p>In your plant, no device is within the radio range of the Sunny View.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Reduce the distance between the Sunny View and the plant device.</li> </ul>
	<p>Devices of your plant are not in operation.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Commission the devices.</li> </ul>
	<p>The NetID 0 (<i>Bluetooth</i> off) is set for the devices.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Set the NetID of your plant for the devices.</li> </ul>
<p>Sunny View does not list all the devices of your plant.</p>	<p>Sunny View completed the plant search before all devices were connected to one another. For plants with many devices, it may take several minutes for all devices to be connected to one another.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Repeat plant search.</li> </ul>
	<p>Not all devices are connected to one another. The wireless connection of certain devices may be disturbed by ambient conditions.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Check the connection quality of the devices (see the appropriate manual). The connection quality of all devices must be at least "Good".</li> </ul>
	<p>Not all devices are connected to one another. The NetID of your plant may not be configured on certain devices.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Make sure that the NetID of your plant is configured on the devices.</li> </ul>



Problem	Cause
	<p>Inverters with retrofitted SMA <i>Bluetooth</i> Piggy-Back (if applicable) shut down overnight. Therefore, the Sunny View cannot establish a connection to these inverters at night.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>As soon as the inverters switch on in the morning, the Sunny View is able to establish a connection to them.</li> </ul>
<p>The Sunny View lists your inverters as well as other inverters from other plants.</p>	<p>A different <i>Bluetooth</i> plant within the radio range of the Sunny View uses the same NetID as your <i>Bluetooth</i> plant.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>Determine a free NetID for your plant and configure it on all devices.</li> </ul>
<p>The Sunny View is not connecting with the <i>Bluetooth</i> devices.</p>	<p>A different NetID is configured for the Sunny View than for the other <i>Bluetooth</i> devices.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>Make sure that the NetID configured on the Sunny View is the same as on the other <i>Bluetooth</i> devices.</li> </ul> <p>There are too many masters in the <i>Bluetooth</i> plant (e.g. Sunny Beam, Sunny WebBox with <i>Bluetooth</i>).</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>For plants with up to 2 inverters, a maximum of 2 masters can be used.</li> <li>For plants with 3 or more inverters, a maximum of 4 masters can be used.</li> </ul>
<p><i>Bluetooth</i> connection quality of the Sunny View is worse than "Good".</p>	<p>The Sunny View is too far away from your plant or there is interference with the wireless connection. Disturbances can be caused by, for example, walls or ceilings that shield the wireless signal too effectively.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>Place the Sunny View closer to a device of your plant.</li> </ul> <p>Instead of the plug-in power supply provided, you are using a plug-in power supply that is not suitable for the Sunny View.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>Only use the plug-in power supply provided.</li> </ul>

Problem	Cause
An alarm sound can be heard.	<p>An error has occurred in an inverter.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Call up the error details.</li> <li>• Contact your installer and inform him/her about the event message and the serial number of the inverter in which the event occurred.</li> </ul> <p>Tip: If you no longer wish to be notified of errors, you can switch off the alarm sound (see Section 8.4 "Setting the Error Alert", page 25).</p>
Alarm does not sound when an error occurs.	<p>The alarm sound is disabled or the volume is too low.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Set the alarm sound (see Section 8.4).</li> </ul>
	<p>Instead of the plug-in power supply provided, you are using a plug-in power supply that is not suitable for the Sunny View.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Only use the plug-in power supply provided.</li> </ul>
The display does not switch on.	<p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Check the grid connection.</li> </ul>
	<p>Instead of the plug-in power supply provided, you are using a plug-in power supply that is not suitable for the Sunny View.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Only use the plug-in power supply provided.</li> </ul>

Problem	Cause
None or only some of the online data is displayed.	<p>WLAN connection is not enabled.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Make sure the router is switched on.</li> <li>• Make sure the router supports DHCP.</li> <li>• Make sure DHCP is enabled for the router.</li> <li>• Check the WLAN connection (see Section 8.18) and your access data (see Section 8.16).</li> </ul>
	<p>WLAN connection is too weak. The wireless connection may be disturbed by ambient conditions.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Check the quality of the WLAN connection on the Sunny View. Place the Sunny View closer to the router, if necessary.</li> </ul>
	<p>Online data is not enabled.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Make sure that online data is configured properly (see Section 8.20).</li> </ul>
	<p>Instead of the plug-in power supply provided, you are using a plug-in power supply that is not suitable for the Sunny View.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Only use the plug-in power supply provided.</li> </ul>
Consumption data is not properly displayed or not displayed at all (only valid in Japan for plants with the SMA CT Meter).	<p>SMA CT Meter is not connected properly or the <i>Bluetooth</i> connection is too weak.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Reduce the distance between the Sunny View and the SMA CT Meter.</li> <li>• Make sure the SMA CT Meter is installed properly (see installation manual of the SMA CT Meter).</li> </ul>
Charts are displayed with gaps or pointed forms.	<p>After the Sunny View was commissioned, the time in the Sunny View was set forwards or backwards.</p> <p>This action only affects the chart display, not the calculated energy values.</p>

Problem	Cause
The "Home" slides do not change.	<p>Only one slide is enabled.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Select other slides for display (see Section 8.22 "Selecting PV Visualisation", page 33).</li> </ul>
Unable to activate demo mode.	<p>Demo mode is only available when the Sunny View is not connected to a plant.</p> <p><b>Corrective measures:</b></p> <ul style="list-style-type: none"> <li>• Restore the default settings (see Section 9.3).  <b>IMPORTANT:</b> If you restore the default settings of the Sunny View, all plant data and display settings will be deleted.</li> </ul>

## 12 Technical data

### Mechanical dimensions

Width x height x depth without tabletop stand	151.9 mm x 109 mm x 23.5 mm
Width x height x depth with tabletop stand	151.9 mm x 109 mm x 25.5 mm
Weight without tabletop stand	245 g
Weight with tabletop stand	293 g

### Voltage supply

Voltage supply	Plug-in power supply
Input voltage	90 V ... 240 V AC, 50 Hz/60 Hz
Typical power consumption	3.75 W
Maximum power consumption	8 W
Maximum current consumption	1.6 A

### Ambient conditions

Ambient temperature	0°C ... +40°C
Humidity, non-condensing	5% ... 95%
Degree of protection*	IP20
Installation site	Indoors

\* Degree of protection as required by DIN EN 60529

### Communication

Inverter communication	<i>Bluetooth</i> Wireless Technology Class 1
Maximum number of devices: inverters	12
Maximum number of devices: SMA CT Meter	1
Maximum range in free-field conditions	100 m

## Features

Display	LCD display
Resolution	480 px x 800 px
Operation	Touch screen
Memory	Ring buffer*
Internal memory for plant data	16 MB
SDHC card type	MicroSD
Minimum memory of the SDHC card	512 MB
Recommended maximum memory of the SDHC card	8 GB
Minimum data volumes depending on SDHC card memory	Daily yields: 90 days Monthly yields: 30 years Events: 50

\* Always contains the last 13 monthly files and 90 daily files.

## 13 Contact

If you encounter technical problems with our products, contact the SMA Service Line. We require the following information in order to provide you with the necessary assistance:

- Hardware version of the Sunny View
- Firmware version of the Sunny View
- Hardware version and firmware version of the SMA CT Meter (if available)
- Firmware version of the SMA *Bluetooth* Piggy-Back in the inverter (if available)
- Type of inverter and serial number

### **SMA Solar Technology AG**

Sonnenallee 1  
34266 Niestetal, Germany  
[www.SMA.de](http://www.SMA.de)

### **SMA Service Line**

Inverters: +49 561 9522 1499  
Communication: +49 561 9522 2499  
Fax: +49 561 9522 4699  
E-Mail: [ServiceLine@SMA.de](mailto:ServiceLine@SMA.de)





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The current warranty regulations are included with your device. You can download the version on the Internet at [www.SMA.de](http://www.SMA.de) or obtain a printed version from the regular distribution channels.

## SMA Manufacturer Warranty

The current warranty regulations are included with your device. You can download the version on the Internet at [www.SMA.de](http://www.SMA.de) or obtain a printed version from the regular distribution channels.

## Online services, libraries, open source licences

When using this equipment you will also be using online services from other providers. These are listed in the section "Online services". The use of these services is governed by the current terms of use of each of the providers listed in the section "Online services". By using the online services you also declare your agreement with the regulations listed. The use of libraries and software provided by 3rd parties is governed in the same way as that of online services.

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- Facebook Platform Policies: <http://developers.facebook.com/policy/>
- Twitter Terms of Service: <http://twitter.com/tos>
- Twitter API Terms of use: <https://dev.twitter.com/terms/api-terms>
- Google Weather <http://www.google.com>

Customer accepts that these terms and conditions shall be applied to this software. Same applies for the use of the chosen Newsfeed service.

### Libraries

The Sunny View software uses the AChartEngine library licensed under ASL 2.0, the microlog4android library licensed under Apache 2.0 and MIT, and the twitter4j-core-android library licensed under JSON.

### Open source licences

Sunny View is based on the Android 2.6.35.3 kernel and the U-Boot 2009.08 version, which are licensed under the GPLv2 Open Source Licence. A copy of the GPLv2 Licence is provided on the included CD. You can request the source code with modifications from the SMA Service Line. Copyright notices are integrated into the source code.

In addition, the Sunny View uses the Apache Licence 2.0 with Android 2.2 (API level 8, revision 2). A copy of the Apache Licence 2.0 is provided on the included CD.

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### **SMA Solar Technology AG**

Sonnenallee 1

34266 Niestetal

Germany

Tel. +49 561 9522-0

Fax +49 561 9522-100

[www.SMA.de](http://www.SMA.de)

E-mail: [info@SMA.de](mailto:info@SMA.de)

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**www.SMA-Solar.com**

**SMA Solar Technology AG**

[www.SMA.de](http://www.SMA.de)

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