Siera Electronics



SXM 200-W

Dashcam with AI 4G and GPS

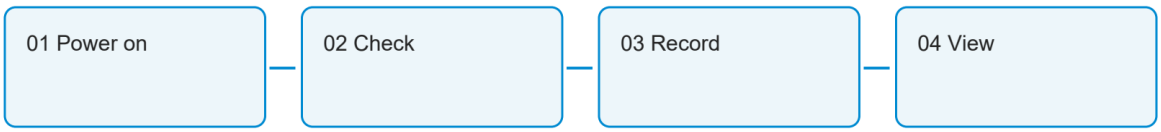
User Manual

1 Getting started with the SXM 200-W

SXM 200-W records the road and vehicle interior and lets you view video and location from a phone or a Siera platform. This manual explains daily use, initial setup and low-power parking monitoring.

Before your first trip

1. Have a trained installer mount and wire the unit. Power wiring and sensors require qualified personnel.
2. With the vehicle stationary, turn on ignition ACC and wait for the unit to start.
3. Check that the recording indicator flashes. If it is off, check the card before driving.
4. Connect SXM Dashcam, view both channels and confirm date, time and camera alignment.
5. Make a test recording and check that it plays back.



Basic workflow

How to use this manual

Topic	Section
Controls and daily use	2–3
Installation and wiring	4–5
Phone network and platform	6–8
Low power and updates	9–11
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Do not adjust the unit or use your phone while driving. English labels in parentheses help identify app controls; their location may vary by version.

2 Identifying the unit and its indicators



SXM 200-W with mounting bracket and interior camera

The front camera faces the road and the interior camera faces the cabin. The bracket attaches to the windshield. The vents release heat; keep them clear. The side contains the microphone, Nano SIM and MicroSD cover, Reset button and bracket screws.

Indicator	Steady on	Flashing	Off
Power	Unit powered on	—	Off or low power
Recording	Card detected	Recording	Card not detected
GPS	Position available	Module without signal	Module not detected
Network	Connected	Not connected	No module or functions disabled
Alarm	Alarm generated	—	No alarm

In low-power mode the indicators stay off; this alone does not indicate a fault. The configuration button enables WiFi access for setup. Reset restores factory settings; do not use it as the first troubleshooting step.

3 Recording viewing and intelligent functions

During a trip

With automatic recording configured, the unit starts recording at power-on or when ACC is applied. Check the recording indicator before driving. Recording may be triggered by ignition, alarms or other settings. Video availability depends on a recognized card and usable storage.

View live video and recordings

1. With the vehicle stationary, connect your phone to the unit WiFi and sign in to SXM Dashcam.

2. Open Video and tap play to view available channels. Check the road and cabin views.

3. To view saved files, open Playback when available. Select the period and channel offered by your version.

4. To preserve an incident, use the download or export function available in your Siera app or platform. Check the file before deleting or formatting the card.

SOS audio and driver assistance

The unit includes SOS and supports two-way audio. Alarm upload and remote communication require a configured network and platform; test these functions with Siera before relying on them.

ADAS can warn about forward collision, lane departure, following distance and pedestrians. DMS/DSM can detect distraction, drowsiness, phone use, smoking, driver absence or camera obstruction and supports facial recognition. Enabling and calibration depend on configuration. These alerts support driver attention.

4 Installing cards antenna and bracket

Preparation

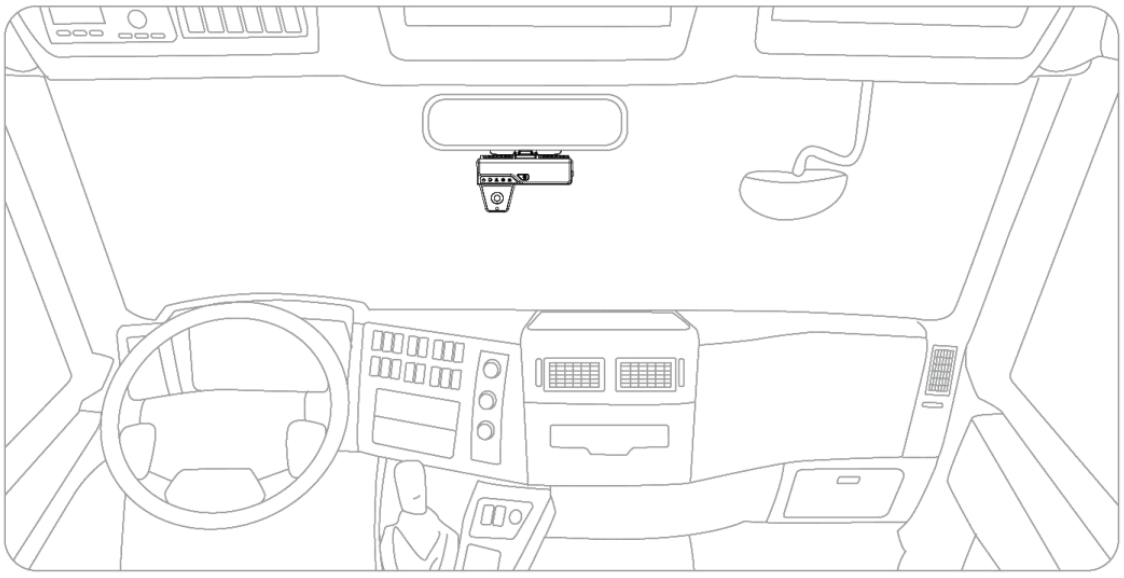
Install with the vehicle stationary and power disconnected. Do not open the unit housing. Keep cameras, cables and accessories away from passengers, driving controls and airbag areas.

1. Open the side cover using the hex tool. Insert the Nano SIM and MicroSD cards in the orientation marked at the slots. Do not force the contacts.

2. Use two cards up to 1 TB each. A minimum of 64 GB and A2/U3 type is recommended. Close the cover after installation.

3. Place the bracket on the windshield for a clear view without blocking the driver sightline. Clean the surface and use the supplied adhesive. Adjust and secure the bracket.

4. Place the GPS antenna with a clear view of the sky. Avoid covering it with metal. Connect additional cameras or sensors only with power disconnected.

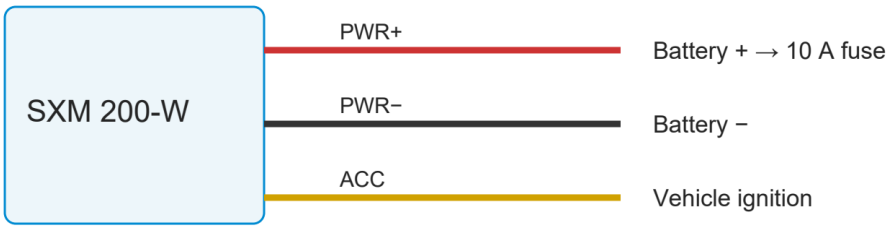


Reference windshield position

Leave ventilation around the unit; the installation guide recommends about 15 cm from other objects in the same plane. Avoid moisture, poor ventilation and excessive vibration. Keep the mounting level.

5 Power and installer connections

SXM 200-W uses 9 to 36 V DC. The installer must check polarity and voltage before connecting. Do not connect directly to the generator or alternator. Use a protected battery connection.



Typical ACC-controlled connection

Wire or label	Connection or function
Red PWR+ / B+	Battery positive with a 10 A fuse near the battery
Black PWR– / B–	Battery negative
Yellow ACC	Vehicle ignition signal
GND	Signal ground reference
Sensor In1–In4	Sensor inputs IO1–IO4 according to configuration
RX1 TX1 RX2 TX2	Two RS232 interfaces for compatible peripherals
5V 12V SPEED_IN ALMOUT	Peripheral power outputs speed sensor and alarm output

Size the supply and wiring for the installed accessories. The installation guide requires more than 30 W available with cameras and wiring rated for at least 60 W; for example, 5 A at 12 V. This is not the unit-only consumption, which is below 5 W. Protect wiring from abrasion, heat, water and oil.

For a main-switch bench test, the installer may connect red and yellow to positive and black to negative, retaining the fuse. This does not provide a separate ACC signal to detect parking. AV3/AV4 and VOUT extensions depend on version; check the supplied harness labels before connecting.

6 Connecting your phone to the unit

Use SXM Dashcam for local access and SXM Siera Xtreme Mobile for available platform functions. Obtain the installer and credentials for your version from Siera. Local WiFi lets you configure the unit without a server connection.

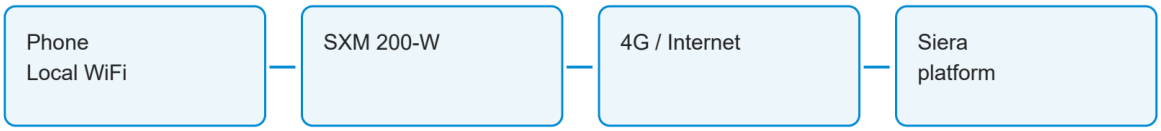
1. Install the Android app supplied by Siera. If installation permission is requested, follow the instructions for that package.

2. Power on the unit. Hold the configuration button until you hear the configuration-mode announcement.

3. Open phone WiFi settings and select the SXM 200-W network. Identify it by the unit and its unique suffix; the advertised name may vary with firmware. The documented initial WiFi password is 1122334455.

4. Stay connected even if the phone reports no Internet. Open SXM Dashcam and tap Login using the credentials supplied by Siera.

5. Open Video and tap play. Review storage, GPS and network in unit information. Change initial credentials when your version supports it.



Local WiFi and remote access serve different purposes

Setup contains settings; Maintenance contains restart and upgrade functions; Information/About shows versions and status. Do not use account or server values shown in sample images.

7 Configuring identification 4G and server

Device identification

Open Setup and device information (DevInfo). Enter the ID agreed with Siera and save. The unit ID and the platform ID must match exactly. For the platform 808 protocol, use a 12-digit identifier.

Mobile data

1. Confirm that the Nano SIM has active data service. If needed, test it in a phone with WiFi turned off.

2. Open Setup and the 4G network settings (Dialing/4G). Enable the connection and enter the operator APN.

3. Enter dial number, username and password only as specified by the operator. Leave username and password empty if not required. Save and check 4G status.

Platform connection

Field	What to enter
Protocol	Protocol agreed with Siera; JT808/1078 according to platform
Server1 Server2	Server IP or name supplied by Siera
Port1 Port2	Port supplied by Siera; reference value 6608

The setup guide uses 2019 JT808/1078 for Server 1 and 2013 for Server 2 as reference values. Your platform determines the correct settings. Open Systeminfo: BasicStatus shows center connection and XgStatus/4G Status shows the mobile link. Save changes and confirm that the vehicle appears online.

8 Registering the vehicle on the Siera platform

This section is for the platform administrator. A user account may view vehicles without permission to add them. For a managed service, ask Siera to register the unit and provide access.

1. Sign in to SXM Siera Xtreme Mobile with an authorized administrator account.

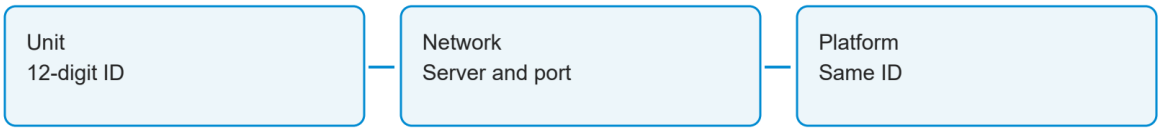
2. Open Manage → Operations → Vehicle and select Quick Add if your version uses these labels.

3. Enter the device number and license plate. Confirm a 12-digit ID for 808 and an exact match with DevInfo.

4. Select the protocol and Video Terminal type. For 808, the reference option is Ministry Standard 1078 (Video); for a private protocol, use the option specified by Siera.

5. Select the compatible manufacturer/terminal profile specified by Siera. The reference technical form code is ZY70; confirm its use for your platform. Assign company, fleet and icon and save.

6. Confirm online status, video and location. If 4G works but the unit is absent, check protocol, ID, server and port on both sides.



Unit and platform identifiers must match

Permissions, menu labels and profiles may vary by platform version. A novice user does not need to change these parameters for daily use.

9 Configuring parking monitoring

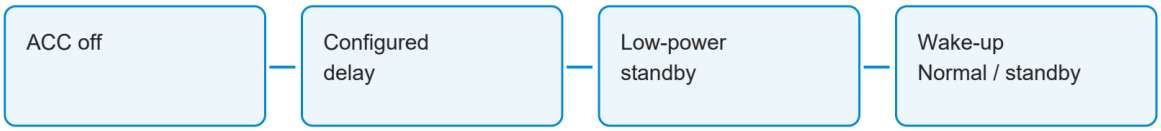
Current SXM 200-W firmware supports low-power operation. While parked, the unit can remain in standby and wake on ACC, motion, a sensor input or a remote command. Low power does not mean continuous normal recording: normal operation resumes when the unit wakes.

1. Connect SXM Dashcam and open Setup → System settings → Parking monitoring (P-Monitoring).

2. Turn Enable on. Set the parameters below and tap Save.

3. Configure ACC or scheduled power mode as explained in section 10. Test with the vehicle stationary.

Parameter	Meaning
IoWakeupMode	High or low level and IO1–IO4 inputs that wake the unit; must match wiring
GsnWakeupThr	Motion or vibration threshold that triggers wake-up
GpsUpInterval(s)	GPS position upload interval in seconds during standby
WakeupRunDur(min)	Operating minutes after wake-up; returns to low power when the time ends



Low-power mode sequence

With normal coverage, the unit reconnects to the platform about 30–40 seconds after entering standby and uploads GPS at the configured interval. Indicators remain off. Timing depends on the network; test connectivity before using remote wake-up.

10 Entering low power and waking the unit

ACC and scheduled modes

In Setup → Power, select ACC in Power Mode and set DelayOff(min). Turning ignition off starts the countdown; when it ends, the unit enters low power if parking monitoring is enabled.

For a schedule, select Timer and set start time STime and end time ETime. Outside that interval the unit enters low power. Check unit date and time before testing. Battery protection settings must be defined by the installer; do not copy thresholds from sample screens.

Method	How to wake	Effect during active time
ACC	Turn ignition on; the unit starts immediately	Normal ACC operation
Motion	After the shutdown delay wait about 25 s without movement then apply gentle test vibration	Another vibration restarts wake-up duration
IO1–IO4	Trigger the configured input with the correct electrical level	Another IO trigger does not restart duration
Remote command	With the vehicle online send #Wakeup# from the platform	Another command while active does not restart duration

Sending a remote command

1. Open the Siera platform map or live preview and select the online vehicle.

2. Open 808 Function Menu → Text Message Distribution/Text Information.

3. Select Terminal TTS Reading/Broadcast Reading and Emergency. Enter exactly #Wakeup# and send. Confirm wake-up.

11 Updating firmware and controllers

This task is for technical personnel. If current firmware works and supports low power, no upgrade is needed just to follow this manual. Use only Siera-authorized SXM 200-W packages; do not rename supplied files.

Preparing and upgrading MCU and MCU2

1. Obtain compatible firmware and both controllers from Siera. The documented function requires firmware T2026010899 or later and associated controllers; confirm the exact package with Siera.

2. Back up files on the card you will use. With a PC card reader, prepare a FAT32 card and create mdvr_upgrade at its root. Copy the authorized MCU and MCU2 files into that folder.

3. Safely eject the card. Insert it with the unit off. Power on with a stable supply, connect by WiFi and open Maintenance → Upgrade.

4. Select Disk Upgrade mode and MCU type. Tap Upgrade. Enable system sound to hear progress. Wait for the automatic restart.

5. After restart, repeat with MCU2 type. The order is MCU first, then MCU2. Wait for the next automatic restart.

6. Open basic information and compare versions with the supplied package. Test recording, network and low power before returning the vehicle to service.

Do not disconnect power or remove the card during an upgrade. FAT32 applies to the upgrade card in this procedure; recording cards are checked for exFAT. The brochure also supports remote FTP updates, to be managed with Siera.

12 Resolving common problems

Does not start or repeatedly restarts

First rule out low-power standby: turn ACC on. Check the power indicator, ignition and fuse. Have the installer check supply voltage and capacity. For testing, power off before removing the card and restart without it; if behavior changes, check the card.

Does not record

Check that the card appears in unit information, recording is enabled and the indicator flashes. Check exFAT format and possible read-only status. Back up video before formatting. A detected card with a steady indicator does not confirm active recording.

GPS has no position

Check with the unit in normal operation. Check antenna connection and sky-facing orientation. Test in an open area; buildings, tunnels, trees, overpasses or bad weather may weaken the signal.

4G fails or the vehicle is offline

Test the SIM in a phone with WiFi off. Check operator APN and credentials and inspect XgStatus/4G Status. The guide uses a signal stronger than –70 dBm as a favorable reference when the field is expressed in dBm. If data works but server connection fails, check protocol, ID, address and port. Try a known-working SIM or another operator.

Does not wake from low power

Check Enable in P-Monitoring, ACC/Timer mode and active duration. For motion wait about 25 s after the delay without vibration. For IO have the installer check level and selected input. For #Wakeup# wait for online connection and select Emergency and TTS. If it still fails, contact Siera before restoring factory settings.

13 Video system and network specifications

Feature	Specification
System	Linux; dual-core ARM at 1.2 GHz; 1.0 TOPS AI; 2 GB DDR and 2 GB flash
Front camera	1080P; angles D125° H106° V58°
Interior camera	720P; angles D148° H122° V63°
Additional cameras	Up to 2 AHD 720P depending on version
Video	H.264/H.265; 1080P 720P D1; 1-channel AV output
Recording	Automatic at power-on ignition alarm and other configured triggers
Audio	Integrated digital microphone; integrated 3 W speaker; G.711A; two-way audio
Connectivity	Integrated 4G LTE TDD/FDD and WiFi
Positioning	GPS BD GLONASS; external GPS antenna included
Motion	Integrated accelerometer
ADAS	FCW LDW HMW PCW
DMS DSM and FR	Smoking phone use yawning drowsiness distraction driver absence camera obstruction eyewear identification and facial recognition
Platforms and menu	Multilingual; SXM Siera Xtreme Mobile and SXM Dashcam

D means diagonal angle, H horizontal and V vertical. Additional cameras, sensors and available functions depend on the supplied version and configuration.

14 Storage and power specifications

Feature	Specification
Storage	2 MicroSD cards up to 1 TB each; recommended minimum 64 GB A2/U3
Ports	USB Type-C and Nano SIM
Updates	MicroSD or automatic remote FTP
Alarms	Integrated SOS; 5 alarm inputs and 1 alarm output
Expansion	2 RS232; 5 V and 12 V outputs; optional speed sensor
Power input	9–36 V DC
Consumption	Below 5 W without peripherals
Power management	Scheduled power-on and delayed shutdown; overload undervoltage short-circuit and reverse-polarity protection
Low power	Parking monitoring with ACC motion IO and remote-command wake-up on compatible firmware
Environment	–20 °C to +70 °C; humidity 20–80%
Access	Two password levels user and administrator
Protocols	SXM; JT/T808-2013/2019; JT/T1076-2016; JT/T1078-2016
Dimensions	114 × 65 × 69 mm

The Siera datasheet states a 3-year warranty subject to its terms. Check the applicable policy with Siera. Confirm accessories and optional cameras against the delivered package.

15 Useful terms checks and support

Term	Meaning
ACC	Signal indicating that vehicle ignition is on
APN	Operator setting that lets the SIM access mobile data
MicroSD or TF	Card that stores recordings
IO	Electrical input or output for sensors and alarms
MCU and MCU2	Internal controllers; MCU2 manages power
ID	Unique identifier linking the unit to the platform
TTS	Terminal text-to-speech reading

Checks after installation or upgrade

Check ACC startup, recording and playback, both camera views, date and time, GPS position, WiFi access and remote connection. If parking mode is enabled, test standby entry and every wake-up method you intend to use. Record versions and settings before handing over the vehicle.

What to report to Siera

Have the SXM 200-W model, device ID, firmware MCU and MCU2 versions, issue description, indicator status, installed cards and 4G/GPS status ready. State whether it occurs during driving, parking or an upgrade. Provide screenshots without passwords or private data.

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