XIRGO

VIDEO TELEMATICS

CP4S

PRO INSTALLATION GUIDE

VERSION 1.1.1 | LAST UPDATED 2/6/2026

Please read this entire guide and refer to our installation materials before using your CP4S.

CP4S

PRO INSTALLATION GUIDE

TABLE OF CONTENTS

Please read this entire guide before installation and use.

PACKAGE CONTENTS

CP4S VEHICLE RECORDER

Power cable
BAT(+), IGN+, BAT(-)

Remote controller
(Panic button) with 3M adhesive

Video output cable and I/O triggers

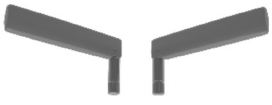
Camera input cable
(4x input)

GPS antenna module

Audio microphone

Wire splice clip, hook-and-loop adhesive, Torx® screw (x2) and Torx screwdriver

Mounting bracket and 4x self-tapping screws



2x stubby antennas

OVERVIEW

The Xirgo CP4S is the world's smallest 4-channel LTE-enabled vehicle recorder. The CP4S, an in-vehicle drive recorder, offers commercial vehicle owners an effective risk-reducing means to aid in the investigation process, decrease collateral damages associated with car accidents, encourage safe driving, monitor driving behaviors and enhance overall safety on the road. The CP4S features 4 camera inputs for connecting 1, 2, 3 or 4 cameras. A 6-axis G-sensor, microphone, SD card (up to 256GB capacity), panic button, cellular modem and GPS receiver are included. The CP4S is powered up on vehicle ignition and automatically begins recording. Various camera options are available, making the amount of possible CP4S system combinations nearly endless.

The CP4S is small, lightweight, easy to use and simple to install compared to other complex and expensive mobile DVRs. The CP4S can be easily installed inside a glove box or purchased with a locking case to prevent unauthorized access to the recorded data. An LCD monitor is not required for use but can be added to provide added visibility in and around the vehicle for added security and safer operation.

WARNING

Xirgo installations should be performed by a qualified individual or installation professional only. Working with a vehicle's power system can be dangerous to both you and your vehicle. This installation is intended only to be a guide since vehicle designs and power/input sources can vary significantly from vehicle to vehicle.

If you need to schedule a professional installation service in the USA for your Xirgo device(s), please visit https://smartops.smartwitness.com and submit the online form.

All cellular-enabled CP4S devices must use the installation wizard for proper onboarding and activation. Please visit https://smartops.smartwitness.com to register, log in and use the SmartInstall wizard.

FEATURES

RECORDING FEATURES

1080p recording on channel 1 720p recording on channels 2~4	256GB SD storage capacity, record up to 270 hours of footage on 4-camera setup
Various camera options: wide angle, weatherproof, infrared, dome,side view, rugged, reverse cameras, etc.	Dual record mode (continuous + event); optional audio recording
Connects directly to vehicle ignition power, automated operation	Tamper-resistant locking case available; key required to access SD card data
GPS data records full time to provide location data, vehicle speed and accurate time/date	Three 12V alarm input triggers for advanced event recording
Delay power shutdown feature enables recording for up to 24 hours after ignition off	Built-in temperature logic for improved performance in high-temp environments
Adjustable resolution and frame rate. Built-in G-shock sensorand gyro (adjustable sensitivity)	Auto SD card format feature; CP4S automatically detects SD error/corruption, auto-formats itself and begins recording again

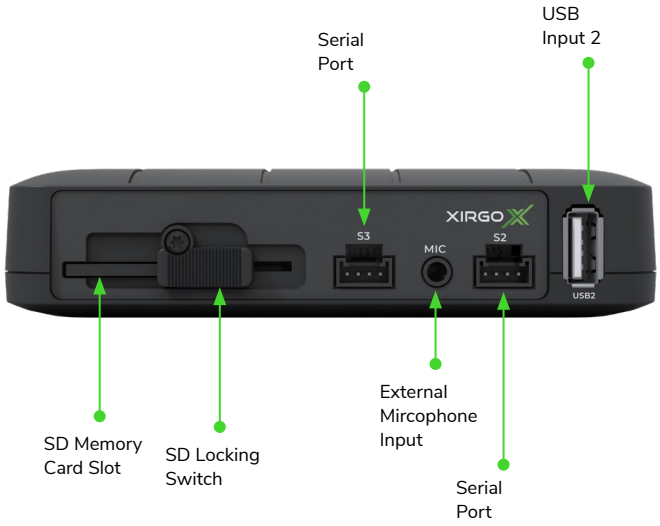
PLAYBACK AND ANALYSIS FEATURES

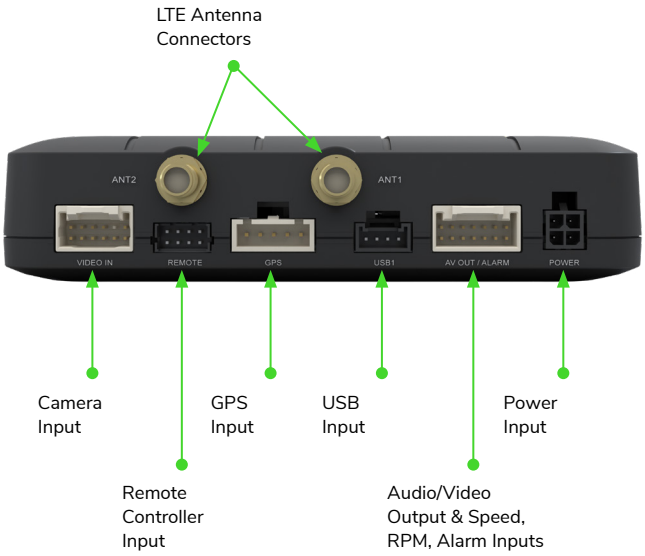
PC Analysis Software included, which can be downloaded at support.xirgo.com	Compatible with Xirgo SmartAPI for AVL/telematics integration
Filter data search by time/date, event, vehicle speed, G-force level	MP4 conversion tool; data remains watermarked
Google Maps integration for route tracking	Google Earth export tool for advanced route tracking and archiving
Privacy masking feature for blurring out faces or license plate numbers	31-day vehicle tracking history, showing vehicle location, speed and driving style regardless if event video was recorded or not
With optional LCD monitor connected, view all four cameras at once or play back recorded videos in the vehicle	OTA software and firmware updates; save/print event reports

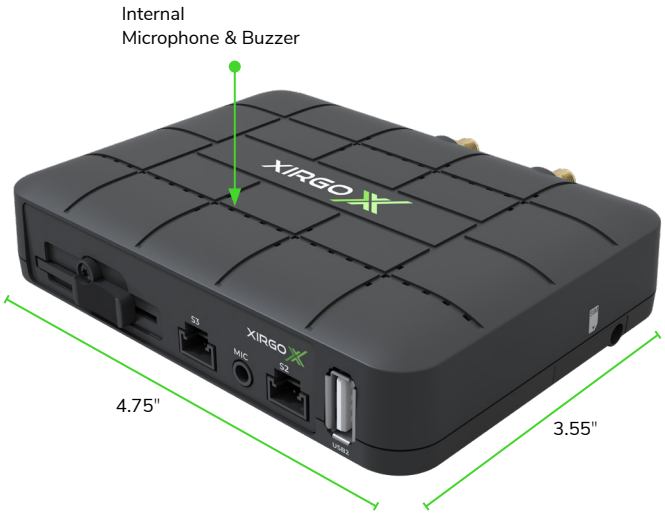
HARDWARE OVERVIEW

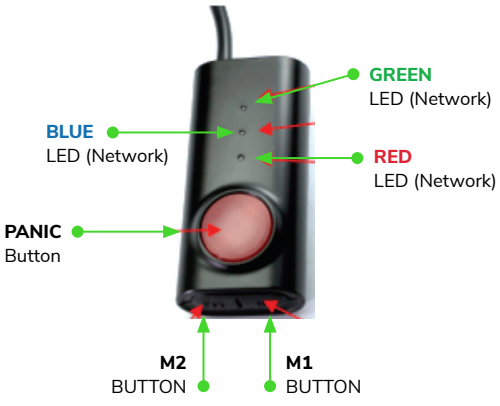
Watch 360° hardware overview video here:

https://youtu.be/cLmUPGLnqSM



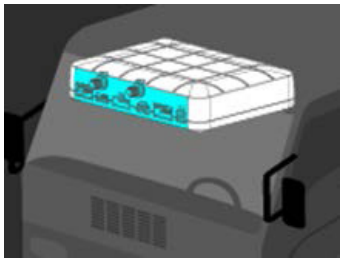






HOW TO INSTALL YOUR CP4S

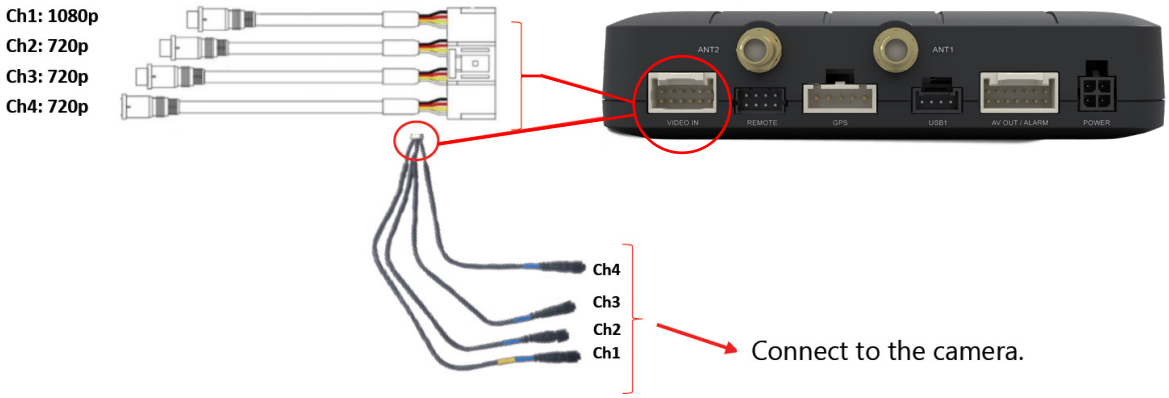
1. Park the vehicle on a flat surface. Turn off the engine before installing the CP4S.
   > The SD card and SIM is usually pre-inserted, but if it's not, you should be notified by the service provider and have been provided SIMs/SDs separately.



2. Find installation location for recorder and locking case (if applicable).
   > The default axis adjustments by device position are set as shown to the right.

NOTE: The device should be placed in a well ventilated area, away from any heating sources. Adequate space should be left around the device to provide sufficient air flow.

3. Install all the interior and exterior cameras with 3M dual-sided adhesive or hard mounting screws (confirm with customer as to the desired installation method).
   > All four cameras will be connected to the CP4S recorder via the Camera Input Cable



4. Install remote control onto dash next to the steering wheel and within reach of the driver.

HOW TO INSTALL YOUR CP4S (CONTINUED)

5. Run camera cable(s) and secure in headliner and/or other area so no cables are exposed. Use provided wire clips if necessary.

6. Connect all cables to the CP4S recorder. Secure the windshield-mounted camera cables into the headliner and down the A-pillar.

7. Route the GPS cable and LTE antenna cable (if applicable) up the side panel and on the dashboard, in view of the windshield (so it can have a view of the sky to acquire GPS signal).
   > Activate the product in an area without large buildings to improve GPS reception.
   > The temperature ranges for optimum operation of the GPS receiver in your vehicle is -10~50°C.

GPS RECEPTION MAY BE IMPAIRED UNDER THE FOLLOWING CIRCUMSTANCES	
1	If there is an object at the end of the GPS antenna
2	If the vehicle has metallic elements on the windshields
3	If equipment generating electromagnetic waves that interfere with the GPS signal is installed in the vehicle, e.g., other GPS devices such as certain types of wireless activated alarms, MP3/CD players and camera alarms using GPS
4	If you are using a receiver connected by cable, electric interference can be avoided by simply changing the location of the receiver (antenna).
5	On heavily overcast or cloudy days or if vehicle is in a covered location such as under a bridge or raised roadway, in a tunnel, underground roadway or parking area, inside a building or surrounded by high-rise buildings
6	If GPS signal reception is poor, it may take longer to locate your current position when the vehicle is moving than when it is stationary.

CP4S GPS antenna properly installed on the vehicle dash

ACCESSORY CAMERA TYPES

The CP4S has various accessory camera models available which should be installed in the appropriate location. A reference guide for the common camera models is below.

MODEL	IMAGE	INSTALLATION LOCATION	NOTES
SVA055-AM		Road + driver-facing dual camera	Road-facing camera is 1080p. Driver-facing camera is 720p. Driver camera has IR LEDs.
SVA027-A		Weatherproof side-mount camera	720p weatherproof camera, IR LEDs
SVA037-A		Rear view camera	720p weatherproof camera, IR LEDs
SVA050-A		Driver-facing camera	720p, IR LEDs
SVA041-AM		Road-facing camera	1080p

NOTE

Older model accessory cameras are compatible with the CP4S. To connect an older model accessory camera, please utilize adapter SVA-CNVRT-B.

CAMERA CHANNEL INPUTS

CP4S has some rules on which cameras can be connected to each input (1~4).

CONNECTING ONE 1080P CAMERA AND 3X 720P CAMERAS

CHANNEL	RESOLUTION	FPS
Ch1	1080p	15
Ch2	720p	10
Ch3	720p	10
Ch4	720p	10

CONNECTING 4X 720P CAMERAS

CHANNEL	RESOLUTION	FPS
Ch1	720p	15
Ch2	720p	15
Ch3	720p	15
Ch4	720p	15

IF USING D1 (720X480 OR VGA) CAMERA, IT MUST BE CONNECTED TO CH4

CHANNEL	RESOLUTION	FPS
Ch1	720p	15
Ch2	720p	15
Ch3	720p	15
Ch4	D1	30

CAMERA CHANNEL INPUTS (CONTINUED)

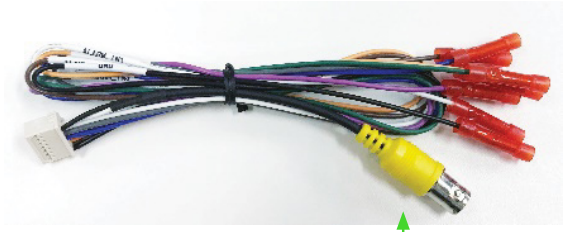
Lay out the power cable roughly where it will run once hidden behind the vehicle's interior panels. This gives you an idea of where to route the cable and how much slack to leave on the way down to the vehicle's power source.

Secure the power cable extension into the headliner and down the A-pillar. Route the power cable around the side and behind the rest of the interior panels down toward the fuse box/power source. Make sure the vehicle is off, then connect the required wires to the vehicle, as shown below in the wiring diagram.

Required:
Black – Ground BAT (-)
RED – Power BAT (+)
White – Ignition (IGN+)

Power Specifications
Input: DC 10~32V, 2000 mA
Output: DC 5V, 2500 mA

IMPORTANT NOTE
True ignition source should be used to connect the white wire.



Video output for connecting LCD monitor (BNC female)

White – Alarm In 1, voltage on/off (3~70V)

Purple – Alarm In 2, voltage on/off (3~70V)

Green – Alarm in 3, voltage on/off (3~70V)

Orange – Alarm in 4, NC/NO (open/close)

Blue – Speed (TACHO)

Gray – RPM (TACHO)

Brown – Alarm out, low (0V) to high (5V)

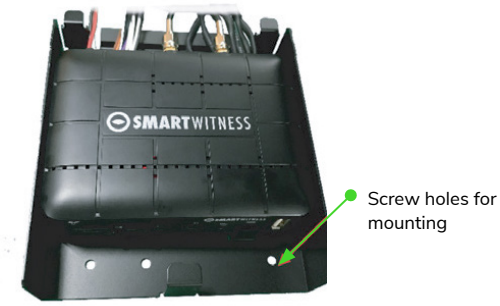
Black – Ground for Alarm In 4 (NC/NO circuit)

MOUNTING BRACKET INSTALLATION

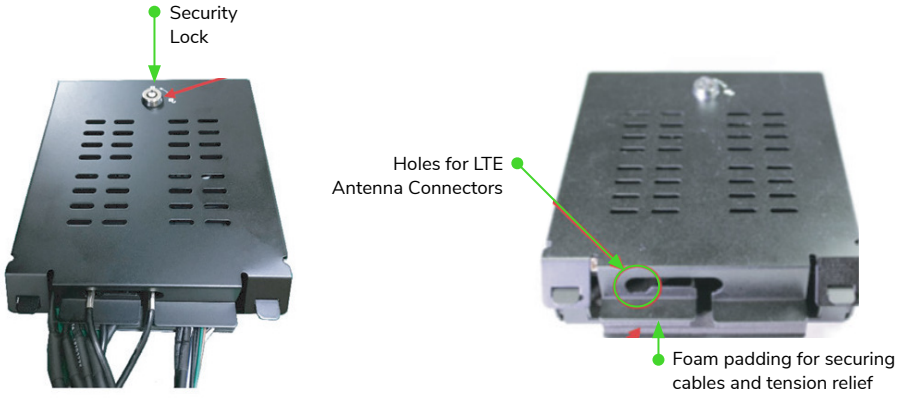
Place the CP4S inside the mounting bracket, and secure to the vehicle using the four provided self-tapping screws.

LOCKING ENCLOSURE (OPTIONAL)

Front view (open)



Rear view (closed)



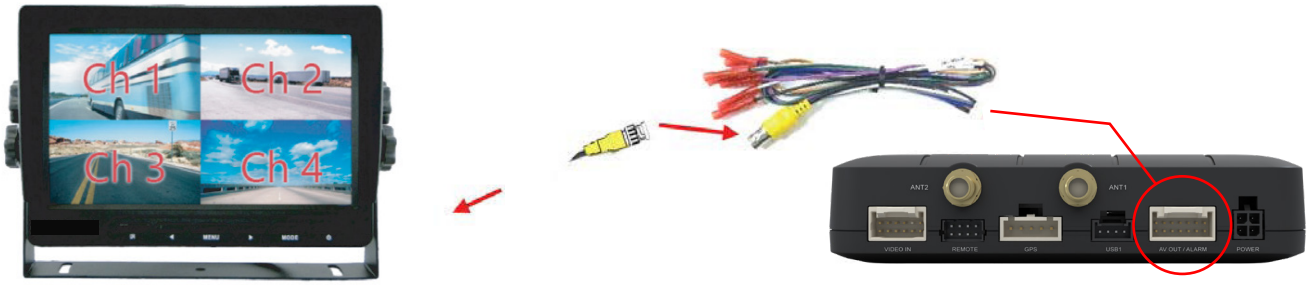
CONNECTING LCD MONITOR WITH VIDEO OUTPUT CABLE (OPTIONAL)

The following displays can only be seen when a monitor is connected.

1. Connect BNC/RCA cable (included with Xirgo LCD monitor) to CP4S video output (BNC female) and LCD V1 input (RCA female).

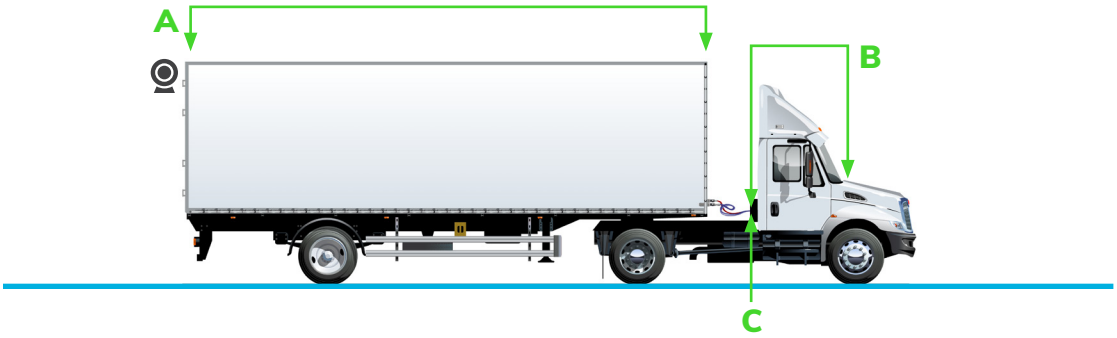
2. The LCD monitor should be installed in the cab. Follow installation instructions for your selected LCD monitor.

3. Connect the LCD power cable to a true ignition (IGN+) source and ground to BAT(-).



The default display is quad view (2x2) with all cameras shown. To change the video display channel, press the **M2** button to select which camera to view. Each press will change the camera on display with the last option being all camera views.

TRACTOR TRAILER QUICK CONNECT/DISCONNECT KIT



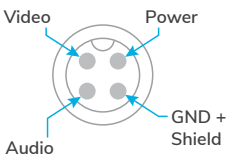
The Xirgo Tractor Trailer Quick Connect/Disconnect Kit enables you to install a rear-view camera at the back of a 53' trailer, with cable running back to a tethered truck. When tethering/untethering the trailer, a coiled cable supports rapid connection or disconnection.

A

Trailer cable (20 m/65.6')

Part A is a 20-meter cable that runs under the trailer with a mounting bracket for the front of the trailer.

Front View

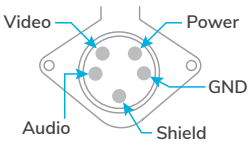


B

Truck cable (10 m/32.8')

Part B is a 10-meter cable that runs from the DVR or monitor in the cabin to the connection point behind the cab.

Back View



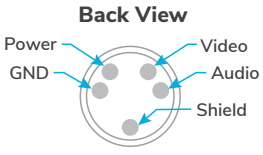
C

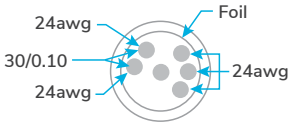
Connection cable

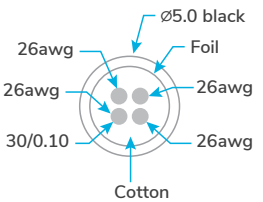
(5 m/16.4' max stretch)

Part C is a five-meter coiled pigtail cable that goes between the tractor and trailer.

Back View







SVA-ADPT-A (30 cm)

Connect this adapter between truck cable and DVR video harness.

SVA-CNVRT-B (30 cm)

Connect this adapter between the trailer cable and camera.

FINAL STEPS

After installation of the CP4S and accessories into the vehicle, you can turn on the ignition and the CP4S recorder will power on.

1. There will be a sequence of **red**, **blue** and **green** LED lights on the remote/panic button during the boot-up process.

2. Once boot-up is complete, the **red** light will turn off and there will be only solid **blue** and **green** (only for connected device) lights on. This indicates proper operation and recording.

3. If the **red** light is blinking, then there is an error. Please contact your supplier or visit xirgo.com/contact/support/ to create a support ticket. **Please see page 16 for more details on LED status indicators.**

4. Log in to https://smartops.smartwitness.com and complete the installation wizard to validate the installation and generate the installation report.

NOTE
To access https://smartops.smartwitness.com, you must first go through mandatory training with Xirgo. Once you complete the training (about a 30-minute webinar), you will be provided login credentials.

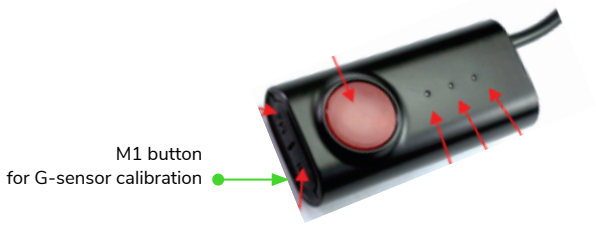
G-SENSOR CALIBRATION IS NEEDED AFTER INSTALLING THE CP4S.

1. Turn on the unit and wait until it starts recording.

2. Press and hold **M1** button (located at the remote controller) for more than 2 seconds.

3. You will hear a **beep** when you press **M1**, and then you will hear another **beep** after 2 seconds. Upon the second **beep**, you can release **M1** button.

4. Then the calibration will be done within 2 seconds.



TROUBLESHOOTING

THE CP4S HAS A SOLID RED LIGHT ON AS WELL AS SOLID GREEN AND BLUE.

> Solid red LED indicates that one of the connected cameras is not receiving view signal. Please check the camera's connection.

THE CP4S RED LED IS BLINKING.

> There is an SD card error/corruption. Please replace the SD card or contact Xirgo.
  - The new SD card must be initialized with the CP4S Configuration Tool for the device to function properly, and the right settings must be applied.
  - If the SD card is blank (not initialized), the CP4S will automatically initialize the SD card and apply the latest NAND settings during the rebooting process.

> There is a power issue. Please verify proper voltage and amperage are being supplied to the red (BAT+) and white (IGN+) cables on the power harness and that the black cable is properly connected to BAT(-)

THE CP4S GREEN LED IS BLINKING OR OFF.

> The SIM card is not registered with the cellular network. Please verify the SIM card is inserted correctly.

> If it looks to be inserted correctly, please remove and reinsert the SIM card and try again.

> Power cycle the camera.

REMOTE CONTROLLER INDICATORS AND LED SPECIFICATIONS

STATUS/STEP			LED			Buzzer	Sound To hear the Voice, please audio output cable to speaker
			Warning	Record	Communication		
			Red	Blue	Green		
Startup & power off	Booting step 1 (0~20)		On	Off	Off	-	-
	Booting step 2 (20~30)		On	On and off	Off	-	
	Booting finished (30, 1 second)		On	On	On	Beep (1000HZ, 200msec)	Beep (1 time)
	During power off		Off	Simultaneous flashing (blink rate: fast)		-	-
	Power off finished		Off	Off	Off	Beep (2 times) (500HZ, 150msec)	-
Record	Continuous record	Recording	-	On	-	-	-
	Event record	Standby	-	On	-	-	-
		Recording	-	Flashing (Blink rate: fast)	-	-	-
	Dual record	Continuous recording	-	On	-	-	-
		Event recording	-	Flashing (Blink rate: fast)	-	-	-
	No record	No recording	-	Off	-	-	-
Network	Network device ready		-	-	On	-	-
	Communication		-	-	On	-	-
Function	SD initialize (format)		Off	On and off	Off and on	-	Beep (1 time) continuously
	G-sensor calibration		-	-	-	-	Beep, after 2 seconds beep x 2
	FW upgrade		-	On/on and off/off	Off/off and on/on	-	
	Button press		-	-	-	Beep (2000Hz, 200msec)	Beep
Warning	System warning	SD card full	Flashing Blink rate: fast)	Off	-	-	Beep x 4 (3 times)
		Video loss, video STD error	On	-	-	-	
Error	Record error	SD error, no SD, write fail	Flashing (Blink rate: slow)	Off	-	-	Beep x 4 (3 times)
	Network error	Network device error, SIM error	-	-	Off	-	-
		Data network connection error	-	-	Flashing (Blink rate: slow)	-	-
		DMS communication error	-	-	Flashing (Blink rate: slow)	-	-
Event trigger	G-sensor, panic button, alarm-in		-	-	-	-	Dingdong x 2 (1 time)
	Over speed		-	-	-	-	Beep, beep x 2 (1 time)

XIRGO

 xir4701-0226