

# FAAFTECH

LIMITLESS TECHNOLOGY

## USER MANUAL

### FT-BIRDVIEW 360°

REV 041018



## FT-BIRDVIEW 360°

360° vision parking assist system



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Congratulations for purchasing the 360° vision parking assist system FT-BIRDVIEW360.

Please, read this manual carefully before installing your device.

Keep this manual with you to check on the functioning procedures and the safety information.

We recommend to install this device by a professional specialized with installing automotive devices.

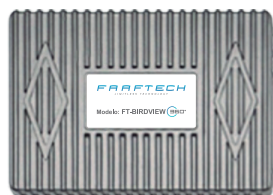
Beware to always disconnect the Ground pole from the battery before installing. This will reduce the chances of damage to your device.

Beware to connect the wires appropriately, according to the chart. Misconnecting might result in poor functioning or damage to the device and to your vehicle's electric components.

When connecting to the vehicle's electrical system, beware to the OEM components, such as the on-board computer. Do not use those wires to connect the device. When connecting to a terminal with a fuse, check if the current will supply every equipment. Energy supply failure might result on trouble with the device.

Pay attention not to allow the device's cables to touch the outside of the equipment. As the vehicle shakes, those wires might get cut, creating a short-circuit. Remember to always leave room for the wires to pass, preventing contact between the vehicle's cables and the device's wires.

## Package Contents



— Main module



— Wire Harnesses



— IR receptor extension cable



— Front camera



— Left camera



— Rear camera



— Right camera



— Angulated fixation rubber (2 units)




— Remote controller





— Hole Saw 22.5mm





 Power button: Access the 360° vision system\*

 Back button: Return

 Up arrow: menu navigation

 Left arrow: menu navigation

 Right arrow: menu navigation


 Down arrow: menu navigation


 OK / Play pause button

 Parameter adjustment + / Rewind button

 Parameter adjustment - / Forward button

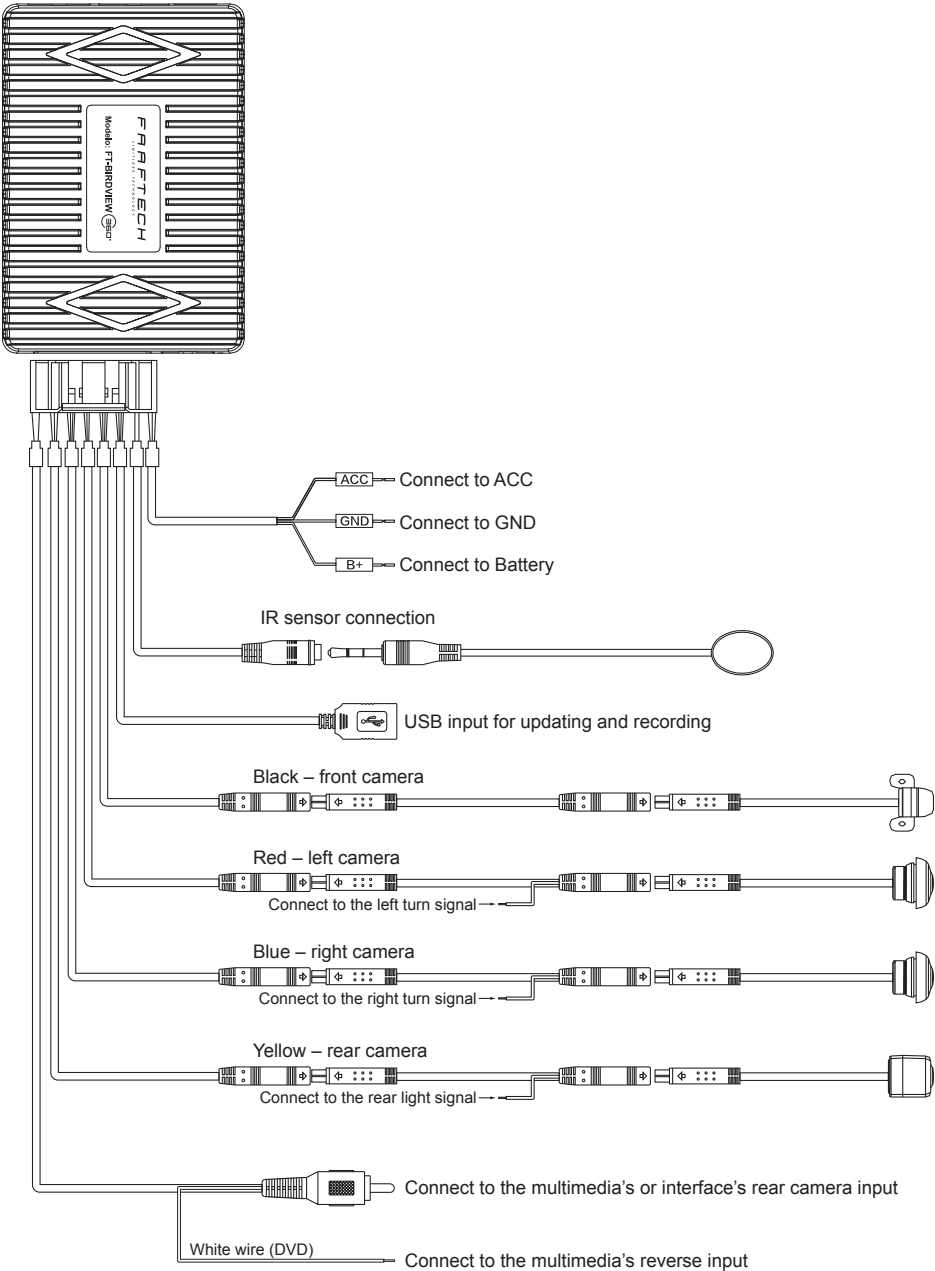
 Parameter adjustment +/- button

 Record button: save the parameters

  numeric keyboard

*\*Only when the device is installed on a system with a Reverse entry.*

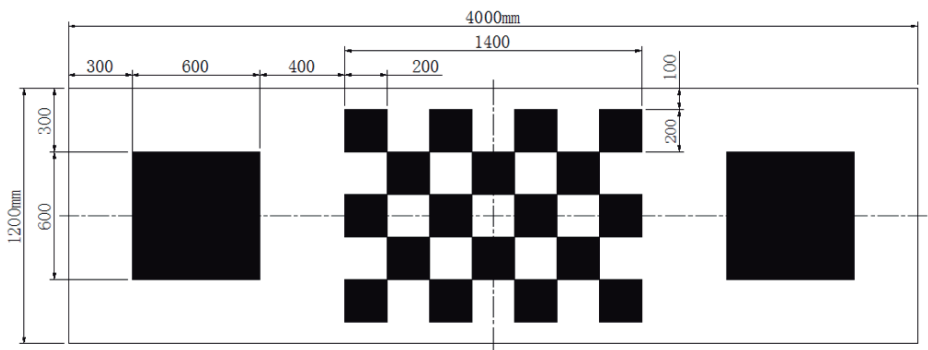
Connection Charts



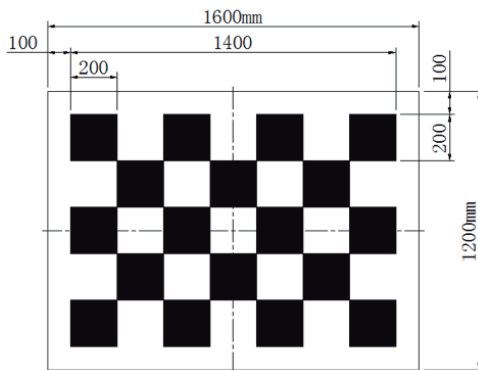
You will need the following tools to install the FT-BirdView360:

1. Basic tools to disassemble the vehicle;
2. Multimeter;
3. Electric Drill;
4. 7 meters (23 feet) measuring tape;
5. Calibration checkerboard with the following measurements:

2 units of 4,0 x 1,2 meters, according to the picture below:

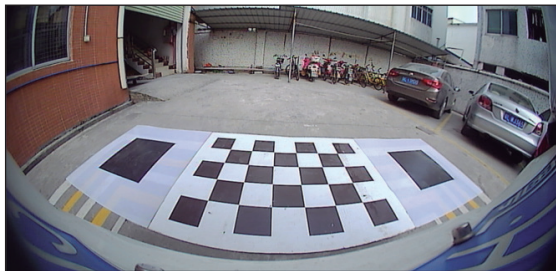


2 units of 1,6 x 1,2 meters, according to the picture below:





**Rear camera:** Install the camera on the rear bumper with a minimum height of 40 centimeters above the ground. Position the camera so that it shows a part of the rear end bumper, as seen on the image below.



**Front camera:** Install the camera on the front bumper with a minimum height of 40 centimeters above the ground. Due to the high temperatures on the motor compartment, the extension cable is coated with a corrugated tube. Avoid fixating that cable near parts that is too much heat (such as a radiator).



**Left camera:** Fixate the camera on the lower end of the left rear-view mirror (driver's).

**Right camera:** You must fixate it on the lower end of the right rear-view mirror (passenger's).



**Note:** If the rear-view mirror surface is not plain, replace the fixation rubbers by the angulated ones, so as to assure you have the correct vision angle.

Angulated  
fixation rubber

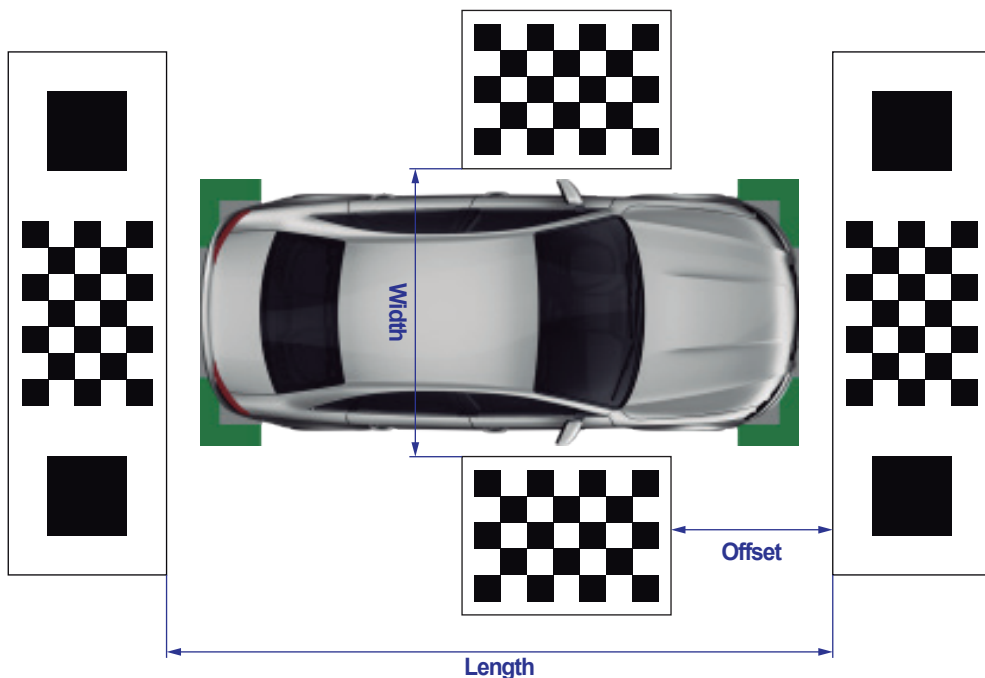


## System Calibrating

Place the checkerboard in the following way:

Front and back checkerboard should be centered to the vehicle;

Right and left checkerboards must be centered to their respective mirrors.



Use a metric tape to measure the Length, Width and Offset distances and write them down below so we can use them afterwards when calibrating the system.

Length: \_\_\_\_\_

Width: \_\_\_\_\_

Offset: \_\_\_\_\_

Using the remote controller, press the Power\* button to access the 360° camera system. Press OK to access the main menu, then choose the Calibrating (Calibração) option.

Calibração

Comprimento

550

Lente

Lente1

Largura

200

Sensor

Sensor1

Deslocamento

150

Calibração automática

Correção da lente

Calibração manual

Setup the Lenght (Comprimento), Width (Largura), and offset (Deslocamento) parameters using the measures from the previous page.

Calibração

Comprimento

550

Lente

Lente1

Largura

200

Sensor

Sensor1

Deslocamento


150


Calibração automática


Correção da lente


Calibração manual

Click on the Lens Correction (Correção da Lente) option and follow the steps below:

- 1°. Press the  button then press OK to correct the front camera lens;

2°. Press the  button then press OK to correct the rear camera lens;

3°. Press the  button then press OK to correct the left camera lens;

4°. Press the  button then press OK to correct the right camera lens.

Note: To successfully correct the lens, you must have set up the camera view according to the page 7 instructions.

*\*If you are installing this kit on a device that does not have a Reverse entry, you will need to put the car on the reverse gear to access the 360° vision system.*

After you have corrected the lens, you will need to do the Automatic Calibration (Calibração Automática) or the Manual Calibration (Calibração Manual) to finish calibrating system process.

Calibração

Comprimento550

Largura200

Deslocamento150

LenteLente1

SensorSensor1

Calibração automática

Correção da lente

Calibração manual

Automatic Calibration

Select this option to start the system calibration process. Once it's done, the system will automatically reboot.

If the calibration fails, check the following aspects:

- A. The cameras are at least 40cm above the ground;
- B. The protection peel has been removed from the lenses;
- C. There is nothing obstructing the cameras;
- D. You have input the Lenght, Width and Offset parameters correctly.

After you have checked all of those aspects above, retry the Automatic Calibration.

If it is still not successful, proceed with the Manual Calibration.

Calibração

Comprimento550

Largura200

Deslocamento150

LenteLente1

SensorSensor1

Calibração automática

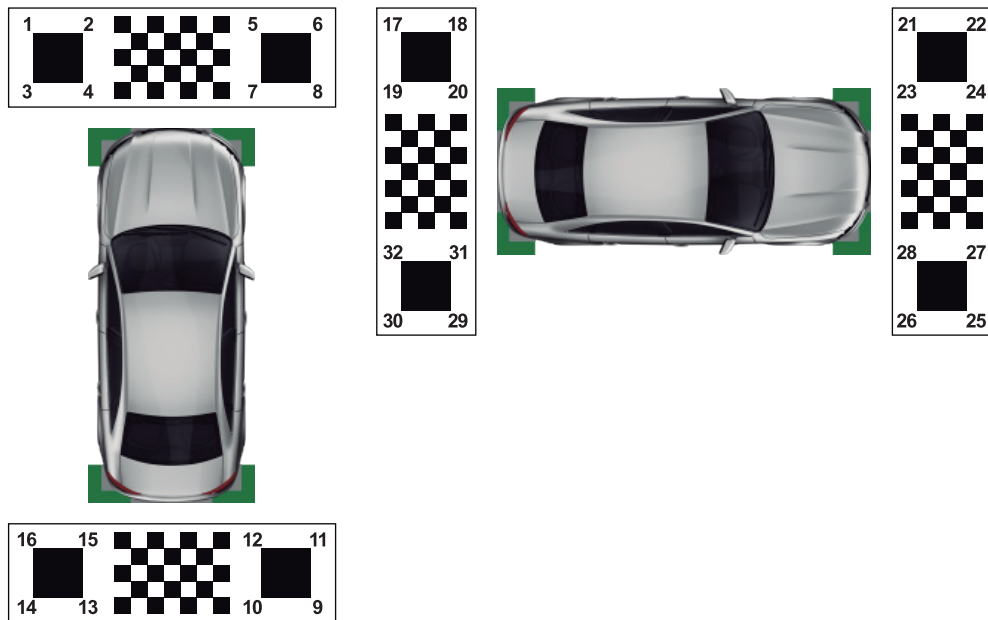
Correção da lente

Calibração manual

Manual Calibration

Select this option to start the manual calibration process.

Using the remote controller, move the selector to the corners of the big squares, confirm every one of the corners using the OK button following the sequence according is shown on the picture below.



After selecting the 32 points indicated on the image above, the manual calibration will be complete and the system will reboot automatically.

Press the OK button on the remote controller to view the Main Menu.



Gravação				
Índice	Nome do Arquivo	Data	Hora	Duração
001	A0000097.mp4	2018-09-01	11 : 41 : 00	00 : 45
002	A0000096.mp4	2018-09-01	11 : 40 : 45	04 : 15
003	A0000095.mp4	2018-09-01	11 : 36 : 30	01 : 30
004	A0000094.mp4	2018-09-01	11 : 36 : 00	01 : 00
005	A0000093.mp4	2018-09-01	11 : 35 : 00	02 : 45
006	A0000092.mp4	2018-09-01	11 : 32 : 15	02 : 15
007	A0000091.mp4	2018-09-01	11 : 30 : 00	05 : 00
008	A0000090.mp4	2018-09-01	11 : 25 : 00	02 : 15

## “Recording” Menu

While watching a video, use the remote controller arrow buttons to navigate between the different types of visualization (front camera, rear camera, left camera and right camera).

Configurações de gravação			
Gravação	Ligado	Armazenamento	USB
Modo estacionado	Desligado		
Ano	2016	Hora	00
Mês	01	Minute	02
Dia	01	Segundo	32

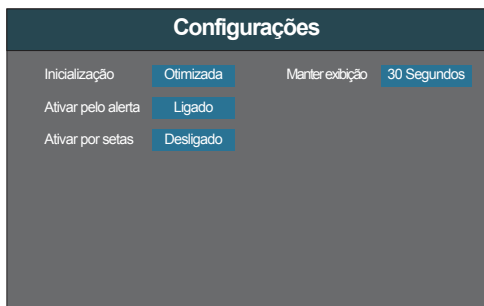
## “Recording setup” Menu

**Gravação:** Set as On to record videos or Off to not record;

**Modo estacionado:** Setup the recording time after turning off the ignition (ACC) to Off, 1, 2, 4, 8, 12 or 24 hours;

**Armazenamento:** Setup the recording storage either a USB (flash drive) or an SD card;

**Data e Hora:** Setup the year, month, day and the local time.



## “Setup” Menu

### Inicialização:

**Otimizada:** The image will not be shown as soon as you turn on the ignition; you will only see it when you place the car on reverse, when you turn on the warning signal, the turn signals, or manually using the remote controller;

**Automática\*:** The image will be shown automatically for 15 seconds as soon as you turn on the ignition;

**Ativar pelo alerta\*:** Turn on or off the system view when the warning signal is on.

**Ativar por setas\*:** Turn on or off the system view when the turn signals is on.

**Manter exibição:** Setup the system exhibition time once it is triggered by the reverse signal, warning signal or turn signals between 10 seconds, 30 seconds, 1 minute, 5 minutes or Always on;

\* Only when installing on a system with a Reverse input.



## “Calibrating” Menu

Check pages 9-11 about the procedure to calibrate the system.



### “Exhibition setup” Menu

**Modo de exibição:** Choose the perspective for the 360° vision. Only 2D+Camera is available;

**Sistema de vídeo:** Setup the output video format as NTSC or PAL;

**Idioma:** Chose the OSD language. Only Portuguese is available;

**Modelo:** Setup the type of car that is shown on

the 360° system. The options are Sedan, SUV, Pickup or Hatch;

**Cor:** Setup the color of car that is shown on the 360° vision system. The options are White (Branco), Red (Vermelho), Black (Preto) or Gray (Cinza);

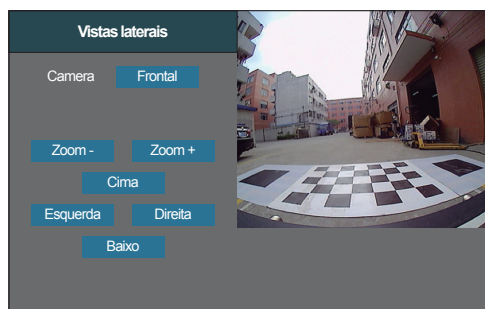
**Brilho:** Adjust the screen brightness;

**Saturação:** Adjust the screen saturation;

**Contraste:** Adjust the screen contrast;

**Nitidez:** Adjust the screen sharpness;

**Posição do Vídeo:** Use 0-9 keys to change the parameters and change the scale on the monitor. Use this setting only if the camera images is not rightfully framed.



### “Lateral view” Menu

**Camera:** Select a camera to adjust the screen positioning;

**Zoom -:** Zooms out of the image;

**Zoom +:** Zooms in on the image;

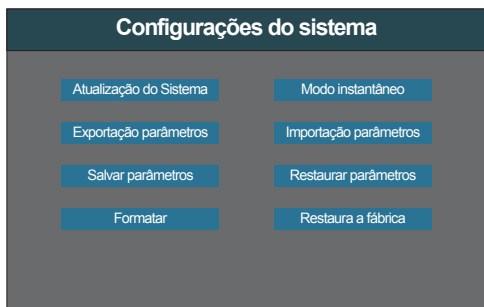
**Cima:** Moves the image up;

**Esquerda:** Moves the image left;

**Direita:** Moves the image right;

**Baixo:** Moves the image down;





### “System setup” Menu

**Atualização do Sistema:** Access to update the software;

**Exportação parâmetros:** Save the calibration parameter on the flash drive;

**Salvar parâmetros:** Save the current parameter as the pattern;

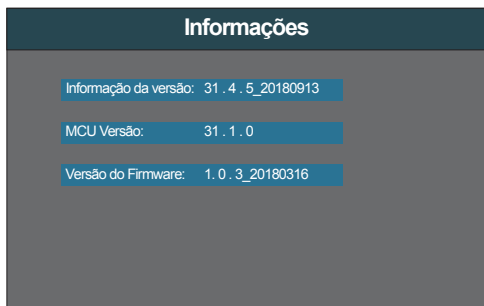
**Formatar:** Format the video storage device;

**Modo instantâneo:** Select to view the image of the 4 cameras instantly;

**Importação parâmetros:** Import the parameters from the flash drive;

**Restaurar parâmetros:** Restore the parameters that were previously saved;

**Restaurar a fábrica:** Restore the parameters to the factory standard.



### “Information” Menu

Show the software and firmware information.

Description		Specs
Camera	Sensor	1/3" CMOS
	SNR	>60dB
	Minimal lighting	0.001LUX
	Dynamic range	82dB
	Video output	AHD 720P
	Waterproof	IP67
	Vision angle	130° Vertical, 180° Horizontal
	Operating tension	3.4VDC
	Operating current	140±5mA
Modulo	Processor	High performance quadcore
	Video output	CVBS
	Video system	NTSC / PAL
	Video output	CVBS
	Video resolution	720x480
	Operating tension	9~16VDC
	Operating current	≤800mA
	Stand-by current	≤7mA
	Operating temperature	-30~75°C
	Storage temperature	-40~85°C

**FAAFTECH** assures their clients a 01 (one) year period against defects in materials and workmanship, proved by presenting both the receipt of purchase from the reseller to the costumer and the present Warranty Certificate filled, observing the following:

1. **FAAFTECH** will null the warranty if Faafttech or their authorized technical assistance concludes that the equipment suffered from damage caused by poor usage, by inadequate installing, by accidents (crashes, falls, and others), or if there are any signs of the product having been violated, adjusted or fixed by non-authorized personnel;
2. The **Warranty Certificate** is only valid when filled and presented together with the **receipt** from the reseller to the costumer, as well as the **attendance number** that is generated by our Technical Support, which can be reached from the number +55 62 3241-4600 from Mondays to Fridays, from 8 a.m. to 6 p.m. (GMT -03:00);
3. Any repairs and maintenances of the equipment still covered by the warranty will be exclusively handled by **FAAFTECH**;
4. This warranty will not cover any products with unreadable or adulterated serial code numbers;
5. The expenses with shipping, assurance and packaging are not covered by this warranty, and they are the full responsibility of the owner of this equipment;

<b>FAAFTECH</b> <small>LIMITLESS TECHNOLOGY</small>	Warranty Certificate Model: FT-BIRDVIEW360	<b>1 Year</b>
Buyer's name: _____		
Phone number: (    ) _____	City: _____	State/Province: _____
Address: _____		
Date of purchase: _____	Receipt number: _____	
Serial Number: _____	Attendance number: _____	
<i>Attention: This Warranty Certificate is only valid when filled and presented together with the receipt from the reseller to the costumer. Keep this in a safe place.</i>		



## Technical Support

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