

# THINKWARE

## BENELUX

### DESCRIPTION



#### General

Say hello to a clutter-free dashboard with Thinkware's F790.

Thanks to the all-new Plugin mount and its innovative design, cables have been neatly integrated into the dash cam mount itself to simplify installation and keep the dashboard looking tidy. Thinkware's proprietary Super Night Vision 3.0 technology, coupled with HDR, enhances the F790's Full HD night recording capabilities so you don't miss important details when driving in dark conditions.

The F790 also comes equipped with Dewarping Video technology to ensure that all front footage is recorded with minimal distortion, delivering a close-to-real view of the world. Boasting advanced video recording technology in an impeccable and sleek design, the F790 is the ultimate dash cam for your next road journey.

#### Features



- Full HD (1920 x 1080) @30fps
- 140° Wide Angle Lens
- Thinkware Dash Cam Plugin
- Ambarella Quad-Core CPU
- Super Night Vision 3.0
- Dewarping Video Technology
- Energy Saving Mode 2.0
- Built-in Dual-Band WiFi (2.4GHz & 5GHz) and GPS
- HEVC Format

- Advanced Video Clear Technology
- Supercapacitor
- Integrated Thermal Protection
- Anti-File Corruption
- Parking Surveillance Mode (Motion & Impact Detection, Time Lapse and Energy Saving Mode)\*
- Time Lapse (Record @2fps, Playback @10fps)\*
- Road Safety Warning System (LDWS/FCWS/uFCWS/FVDW)
- PC Viewer (Windows & Mac OS)
- Supports MicroSD Cards up to 256GB

\* Requires F790-specific Hardwiring Cable and installation for Parking Surveillance mode (professional installation recommended)

## **PLUG IN MOUNT**

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The trailblazing design of the Thinkware Dash Cam Plugin mount makes mounting the F790 safe and easy, and keeps the dashboard looking tidy since both the power cable and

GPS module are neatly integrated into the mount itself. Separating the power cable and GPS from the dash cam also reduces the risk of overheating.



Address concerns about attracting the wrong kind of attention on your dash cam by simply detaching your dash cam. (Dash cam theft, parking mode disabled)



Avoid mount screws becoming loose or constant re-adjusting due to movement of rear view mirror. Simply adjust the lens upwards and downwards.



Ensure there are no data loss or power failures by using a secure connecting mechanism that integrates the power connector and GPS in a clean manner.



Remove the dash cam main unit when you are unable to record due to privacy issues or when you travel to regions that prohibit mounting a dash cam on the windshield

## IMAGE

### HIGH DEFINITION VIDEO QUALITY

Image Sensors allow constant Full 1080p HD resolution recording during both daytime and nighttime along with a 140-degree wide angle lens view. This will minimize blind spots to assure recording of all events without fail.

### WIDE ANGLE VIEW

Front View Camera - 140°

Rear View Camera - 160°

Uncompromised video coverage with the wide viewing angles, so you never miss a moment.



### WIDE DYNAMIC RANGE

When you are driving under bright sunlight, coming out of a tunnel, or getting under the shadow of a tall building etc, a sudden change in frontal light exposure levels can result in excessively bright or dark recordings. The WDR function eliminates excessively bright spots on the recording to correct its color balance in order to ensure a clear image: [HOW IT WORKS](#)



### NIGHTTIME PICTURE QUALITY CORRECTION

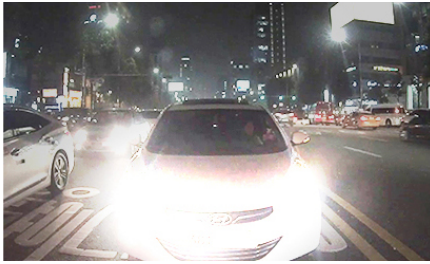
Images from the videos recorded during nighttime driving on dark streets are generally difficult to make out. The enhancement Sensors of THINKWARE DASH CAMs come with a standard function of brightness and color control as well as noise cancellation.



### AUTOMATIC EXPOSURE

A sudden rise of light exposure caused by strong sunlight or headlight beams of oncoming vehicle may cause difficulties to assess the situation. Also, lack of lighting in a dark tunnel or night driving may pose the same problem. The automatic light exposure function controls the level of light exposure to maintain vivid and clear video recordings in all circumstances.





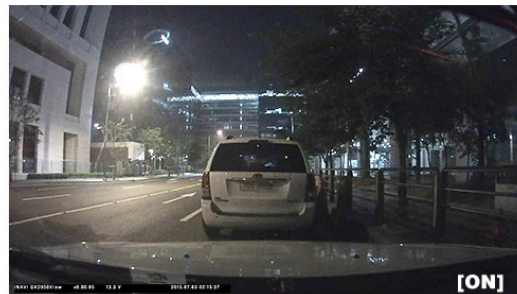
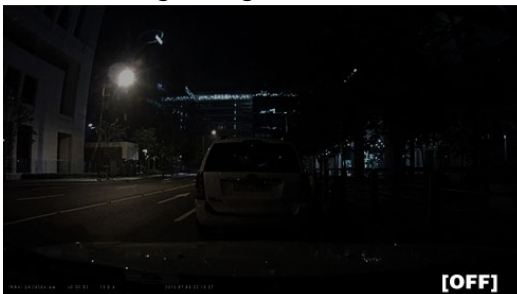
## DEWARPING VIDEO TECHNOLOGY

The F790's front camera utilizes Dewarping Technology to minimize image distortions typically caused by a wide angle lens, and delivers a close-to-real image of the world.



## SUPER NIGHT VISION 3.0\*

Ideal for late night drivers, the F790 comes equipped with Thinkware's latest Super Night Vision 3.0 technology, which boosts exposure levels in low light conditions and enhances video brightness so you don't miss important details while driving at night: [HOW IT WORKS](#)

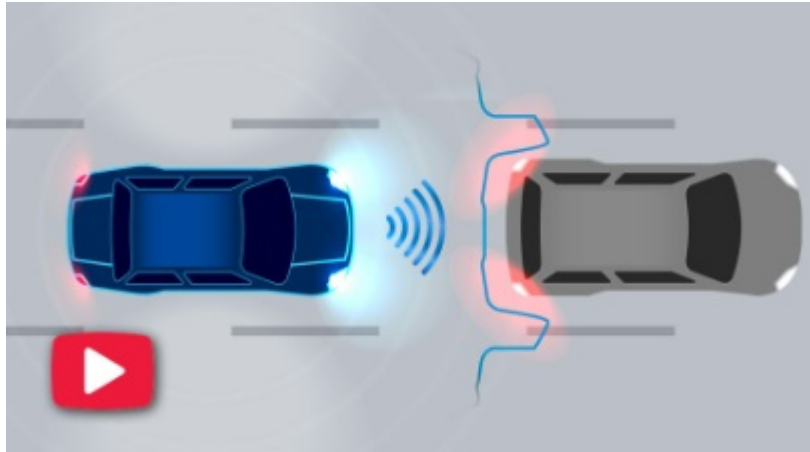


\*Requires Hardwiring Cable and installation for Parking mode (professional installation recommended)

## SAFETY

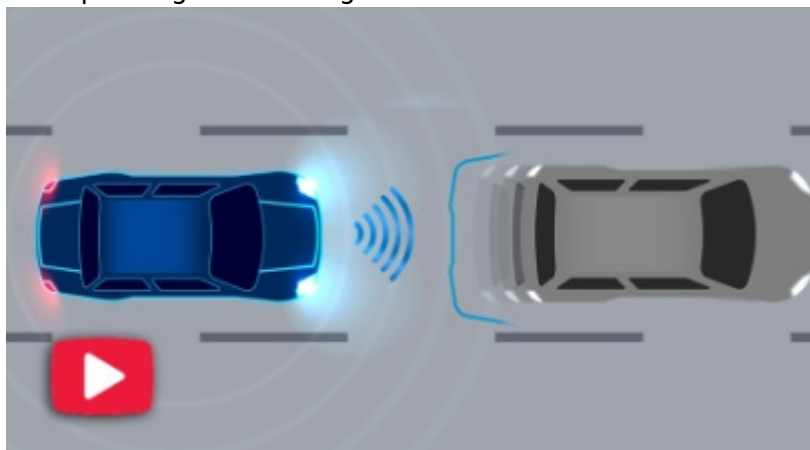
### FRONT VEHICLE DEPARTURE WARNING (FVDW)

When your car is stopped at an intersection or in traffic, the intelligent guidance system informs you that the vehicle in front has started to move, preventing a delayed response just in case you stop looking ahead.



#### HIGH SPEED / URBAN FORWARD COLLISION WARNING SYSTEM (FCWS/ uFCWS)

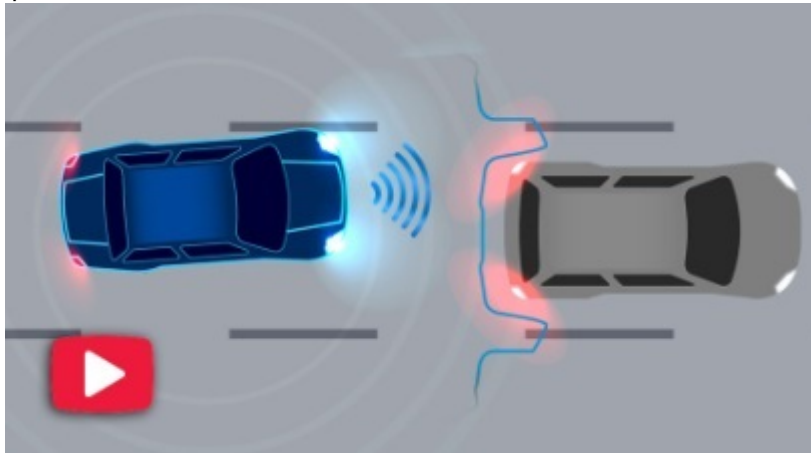
Accidents can be avoided by maintaining a safe following distance. Road Safety Warning System in the F200 PRO calculates the real-time distance between your vehicle and the vehicle in front of you, while driving above 30 km/h in expressways or under 30 km/h in a busy city, and issues a 3-level early warning to the driver depending on the danger of collision.



#### LANE DEPARTURE WARNING SYSTEM (LDWS)

Drowsy or distracted driving greatly increases the chance of an accident on the road. The Lane Departure Warning System will alert the driver when the vehicle

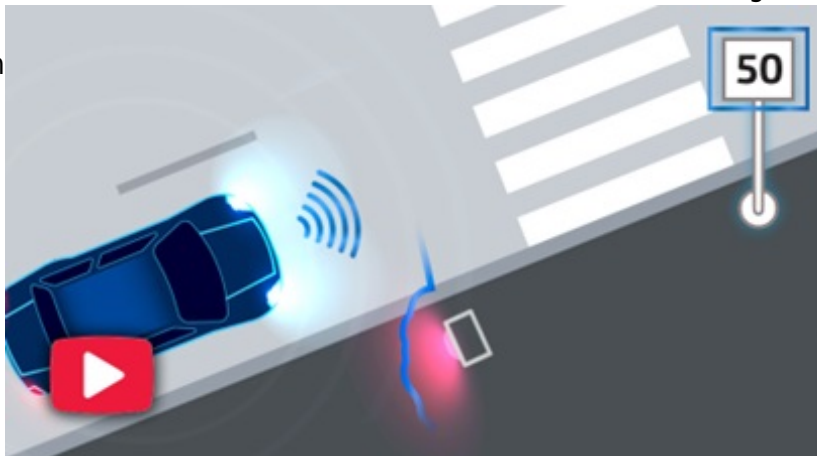
goes off lane in a speed over 50 km/h.



#### SAFETY CAMERA ALERT\*

The Safety Camera Alert function of THINKWARE DASH CAM actively alerts the driver of any photo enforcement locations on the route while still recording videos.

THINKWARE Dash Cam provides active warning for these 5 types of road safety cameras:



**Red Light:** warning system for the red light. If there is light traffic ahead, camera will inform you.

**Speed camera:** warning system for speed & red light cameras in 400 & 200 meters. It also tell you the maximum speed of the specific road.

**Average speed:** warning system for entering average speed zone (trajectory control).

**Mobile zone:** the camera let you know areas which are used more often for mobile speed checks



RED LIGHT  
WARNING SYSTEM



SPEED CAMERA  
WARNING SYSTEM



RED LIGHT & SPEED CAMERA  
WARNING SYSTEM



AVERAGE SPEED  
WARNING SYSTEM



MOBILE ZONE  
WARNING SYSTEM

\*Optional GPS antenna required.

## RECORDING MODES

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### CONTINUOUS RECORDING MODE



This mode is activated automatically when you start the engine. Recorded videos are saved in one-minute segments with an auto-looping mechanism.

### EVENT RECORDING MODE



The Active Impact Monitoring System will automatically store the video data ten seconds prior to and after a collision registered by the 3-axis G-Sensor.

### MANUAL RECORDING MODE



Similar to a video camera, you can use the Manual Recording Mode to capture events that occur in front of your vehicle whether or not it is in motion.

### ENERGY SAVING MODE 2.0 & PARKING RECORDING MODE



The Energy Saving 2.0 is a revolutionary development of parking mode. With greatly reduced amount of electricity consumption, the dash cam will be at a standby up to 17.5 days / 420 hours. When you are away for a vacation or leaving your car for quite some time, energy saving parking recording is a recommended solution. When in use, the device will go to sleep and soon after an impact has been detection by built-in G-senor, it will wake up within a second and start recording for next 20 seconds of period.





## PARKING SURVEILLANCE MODE



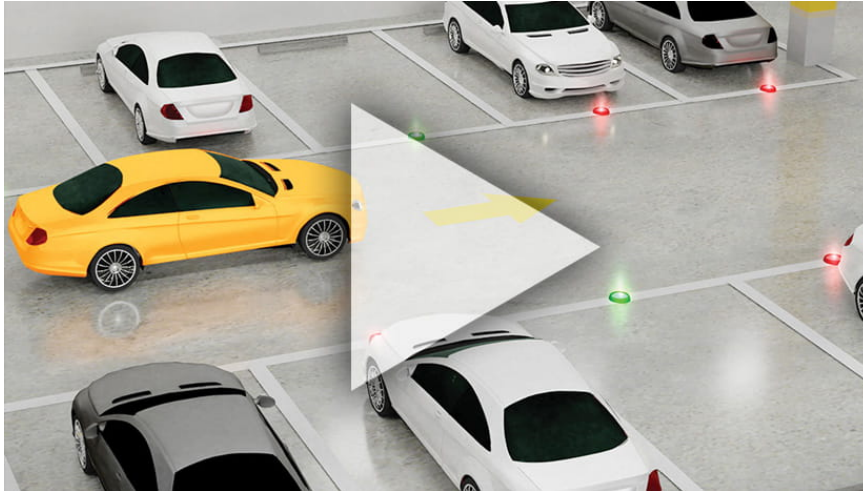
Parking Surveillance mode is automatically activated when you turn off the ignition, and captures footage when a motion or impact is detected so you have video evidence of mishaps like hit-and-runs while you're away from your vehicle.

## IMPACT DETECTION



Monitor any impact to the vehicle while it is parked to catch any hit-and-run driver in the act while you are away.

## MOTION DETECTION



Monitor and capture any motion around the vehicle for potential vandalism attempts.

## TIME LAPSE\*

Important clips and images may get deleted due to insufficient memory space during long continuous recordings especially in standard parking recording mode which requires large memory for saving 15 to 30 frames per second. TIME LAPSE MODE in the F200 PRO records 2 frames per second reducing the size of the video file. This allows video recordings in parking mode to continue up to 10 times longer than the motion detection recording: [HOW IT WORKS](#)

\*Requires Hardwiring Cable and installation for Parking mode (professional installation recommended).

## VIEWER

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### PC/MAC VIEWER

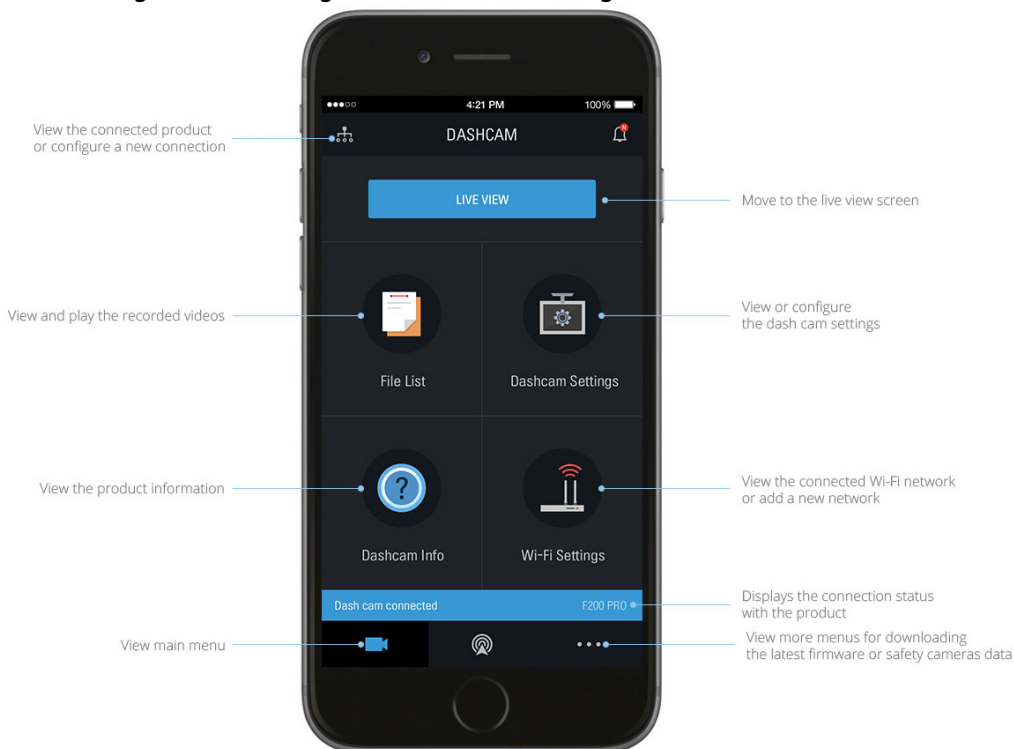
This mode is activated automatically when you start the engine. Recorded videos are saved in one-minute segments with an auto-looping mechanism:

[HOW IT WORKS](#)



## APP

Your smartphone and the THINKWARE DASH CAM can be connected via the exclusive application, THINKWARE DASH CAM LINK. Check download or delete recorded images, and configure dash cam settings.



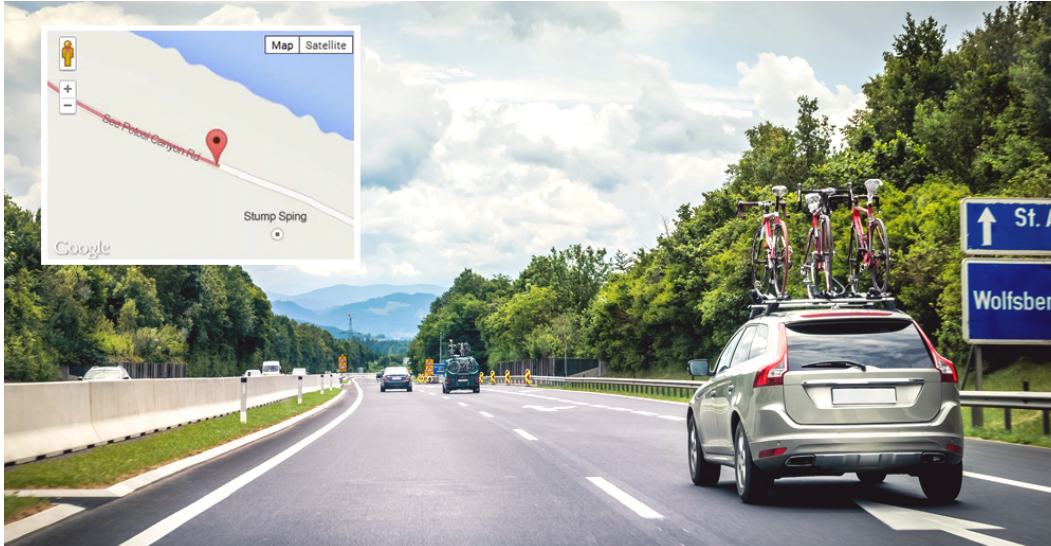
## OTHER FUNCTIONS

### FORMAT FREE TECHNOLOGY

F70 utilizes the FAT (File Allocation Table) system. This allows THINKWARE's proprietary Format Free Technology to eliminate the need for periodical manual formatting of recorded video files on the microSD memory card. It also helps extend the life of your memory card. You can view recorded video files on any PC without having to worry about converting files. THINKWARE DASH CAM F70 saves the hassle of manually clearing memory space.

## COMPREHENSIVE DRIVING INFORMATION WITH GPS

With the internal GPS Tracker, the THINKWARE DASH can record the vehicle's driving speed and provide its precise location and routes identification on the map. The GPS Tracker helps you to accurately assess the details of the surrounding area by providing you with the vehicle speed and the time of a collision, and the severity of impact. The video recording feature not only stores driving footages in case of an event, but it can also be used to track your holiday travel routes.



## HIGH-TEMPERATURE PROTECTION SYSTEM

The specially designed heat discharge construction and the built-in thermal sensor of the F70 protect the device and its data against intense heat by automatically turning it off to prevent overheating: [HOW IT WORKS](#)

## FAIL-SAFE RECORDING

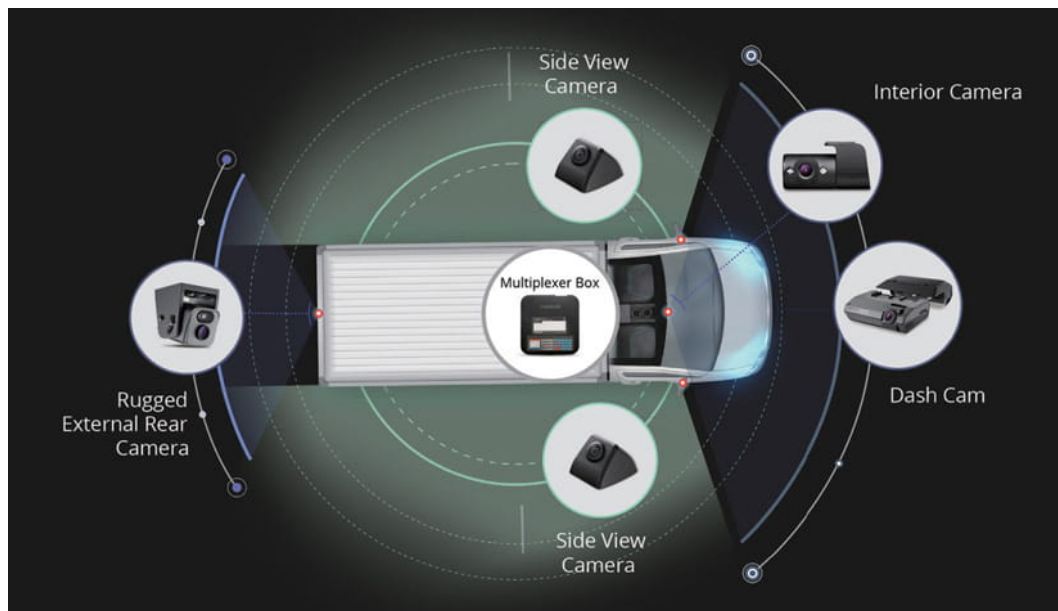
In the event that the power gets disconnected after an accident, the fail-safe recording uses the Super Capacitor for backup power to ensure safe storage of any recording in progress – so you can be assured that your valuable data will be securely stored under any circumstances.

## MULTIPLEXER COMPATIBILITY

Convert the F790 into a 5-Channel dash cam for all-around, comprehensive surveillance. Up to 4 additional separate Full HD cameras (internal cabin IR, external left side, external right side, and rear camera) can be added to the F790 when paired with the Multiplexer TWA-MB100 accessory.

During recording, the front camera footage is saved independently of the other cameras, and footage from any additional cameras is merged together into a separate video file: [HOW IT WORKS](#)





## NOTES

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- PARKING MODE: Requires Hardwiring Cable or OBD II Power Cable and installation for Parking Surveillance mode (professional installation recommended)
- Check the other tabs for "Compatibility" - "Package contents" - "Product specifications"

# THINKWARE

## BENELUX

## NOTES

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- PARKING MODE: Requires Hardwiring Cable or OBD II Power Cable and installation for Parking Surveillance mode (professional installation recommended)
- Support Multiplexer
- It is possible to upgrade the SD card up to 256GB
- F790 does not support CLOUD or CONNECTED service

## DOWNLOAD

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### APP

Use the below link to download the THINKWARE APP for your device:





## OTHER DOWNLOADS

Press below button for

--> F790 PC viewer

--> F790 Firmware update

--> F790 Speed camera data

--> F790 User manual

DOWNLOAD

F790 PC VIEWER	F790 FIRMWARE	F790 SPEED CAM DATA	F790 USER MANUAL
Select OS	Select Country	Select Country	Select Language
DOWNLOAD	DOWNLOAD	DOWNLOAD	DOWNLOAD
What's New?	How to Upgrade? What's New?	How to Upgrade?	

## RECORDING TABLE

**Q1000**

**Front**

**Front + Rear**

**Video Quality**

**2K QHD @30fps**

**2K QHD + 2K QHD @30fps**

Capacity	32GB 240 min 64GB 483 min 128GB 971 min 256GB 1947 min	120 min 241 min 485 min 973 min
U1000	Front	Front + Rear
Video Quality	4K UHD @30fps or 2K QHD @60fps	4K UHD @30fps + 2K QHD @30fps or 2K QHD @60fps + 2K QHD @30fps
Capacity	32GB 99min 64GB 200min 128GB 402min	65min 132min 265min
X1000	Front	Front + Rear
Video Quality	2K QHD @30fps	2K QHD @30fps + 2K QHD @30fps
Capacity	32GB 228min 64GB 458min 128GB 918min	114min 229min 459min
X800	Front	Front + Rear
Video Quality	2K QHD @30fps	2K QHD @30fps + Full HD @30fps
Capacity	32GB 105min 64GB 208min 128GB 400min	105min 208min 400min
Q800PRO / QA100	Front	Front + Rear
Video Quality	2K QHD @30fps	2K QHD @30fps + Full HD @30fps
Capacity	32GB 140min 64GB 283min 128GB 569min	70min 141min 284min
1080p Full HD	Front	Front + Rear
Video Quality	Full HD @30fps	Full HD @30fps + Full HD @30fps
Capacity	16GB 121min 32GB 246min 64GB 496min 128GB 996min	60min 123min 248min 498min
F790	Front	Front + Rear
Video Quality	Full HD @30fps	Full HD @30fps + Full HD @30fps
Capacity	16GB 180min 32GB 377min 64GB 752min 128GB 1506min	90min 188min 376min 753min

<b>M1</b>	<b>Front</b>	<b>Front + Rear</b>
<b>Video Quality</b>	<b>Full HD @30fps</b>	<b>Full HD @30fps + Full HD @30fps</b>
<b>Capacity</b>	<b>32GB 354min</b> <b>64GB 714min</b>	<b>177min</b> <b>357min</b>

Note: **Each Continuous Driving Video clip is 1 minute long.**