
LUCENTVUE

4K SMART REAR VIEW MIRROR



- GET THE APP -

LUCENTVUE

is a trademark of

 **CABALLO**
driven by design. designed to be driven

IMPORTANT GUIDELINES & DISCLAIMERS

Thank you for purchasing the **LucentVue Smart Rear View Mirror System** by **Caballo Automotive**. Please read these guidelines carefully before use to help ensure safe, reliable, long-term operation.

Driver Safety: Do not operate the menu, touchscreen, video playback, or other auxiliary features while driving. Driver distraction can cause impaired judgment and increase the risk of accidents. Always follow all applicable traffic laws and safety regulations.

Operating Temperature: This product is designed to operate between **-4°F and 158°F (-20°C to 70°C)**. Do not use the product outside this temperature range.

Water Resistance: The smart mirror is **not waterproof**. Keep it away from water, rain, moisture, and humid environments. The rear-mounted camera is **IP68 waterproof**.

Liquid Exposure: Do not allow liquids to contact the product. Liquid exposure may cause electric shock, overheating, smoke, fire, or product damage.

Fire Hazard: Keep product away from fire, open flame, and extreme heat to reduce risk of damage/explosion.

Light Exposure: Do not point camera directly at strong light sources, i.e. sun, as this may damage optics.

Dust & Debris: Avoid using the product in excessively dusty environments. Dust buildup may contaminate the lens or internal components and reduce performance.

Cleaning: Do not use harsh chemicals, solvents, detergents, or abrasive cleaners. Use only a soft, dry cloth when cleaning the product.

Product Updates: Product hardware, software, features, and specifications may be updated without prior notice. Actual product specifications may vary from those listed in this guide.

Liability Disclaimer: Caballo Automotive, LLC is not liable for accidents, damage, or injury caused by improper installation, misuse, distraction, or failure to follow applicable laws and safety precautions.

SPECIFICATIONS

Front Camera: 4K Ultra HD

Rear Camera: Full HD

Display: LCD MIPI Display

Lens: All-glass wide-angle lens with high-resolution multi-layer filter

Language Options: English, Simplified Chinese, Spanish, French, and others

Memory Card Slot: Micro TF

Maximum Memory Card Capacity: 128GB

Video Compression: H.264 / H.265

Video Format: MP4

Image Format: JPEG

Working Temperature: -4°F to 158°F (-20°C to 70°C)

Operating Humidity: 15–65% RH

Power Interface: 5V / 3.0A

PROFESSIONAL INSTALLATION RECOMMENDED

All installation or repair must be performed by a qualified professional to avoid risks such as electric shock or other hazards. Improper installation may void the warranty. Do not attempt to modify or repair the product yourself as this will also void the warranty. Read all instructions carefully before installation.

- Ensure the vehicle is turned off and secured from rolling before installation. Disconnect the battery before performing any electrical work.
- Do not insert or remove the TF/SD memory card while the smart mirror is powered on to avoid data damage.
- Use a genuine brand TF memory card with Class 10 or above for optimal performance.
- After installation, double-check that all vehicle equipment is functioning properly, especially any systems that may have been affected during the installation process.

INSTALLATION

Prepare the Vehicle: Turn off engine and ensure vehicle is in park. Secure vehicle to prevent rolling and disconnect battery.

Insert TF Card: Insert a genuine high-speed TF card (U3 grade or above) with a capacity greater than 8GB into the card slot of the smart mirror.

Replace Rearview Mirror: Remove original mirror from the vehicle. Using the original mounting tab, affix the new mirror. (If the original mirror does not have a mounting tab, you can find these at a local auto parts store.)

Position Power Control Box: Ensure the power control box is located where fused power (constant and keyed) & secure ground are accessible, typically in fuse panel.

Route Wires: Route the mirror and camera connector wires from the control box. Plug the mirror into the mirror connector (large connector).

Connect Camera: Connect the camera connector (small connector) to the rear camera feed wire. Route the camera feed wire to the back of the vehicle. Use supplied camera extension cable if added length is needed.

Power Connections:

Yellow Wire	Constant 12V
Red Wire	Keyed Power 12V
Black Wire	Ground

(Use an appropriate fuse tap and 5A fuse to mount the two power wires.)

Test Smart Mirror: Reconnect battery. Test the mirror turns on and off appropriately. Should turn on when vehicle is turned to ON and shut down shortly after vehicle is turned OFF. Turn off vehicle.

Install Rear Camera: Install rear camera - preferably centered on rear of vehicle. Ensure camera is level, right side up and free of obstructions.

Verify Installation: Turn vehicle on and check image on mirror display screen to ensure it is displaying correctly. If display is inverted - items on left are on right and vice versa - enter Settings Menu and select Pull Mirror Back option. Select the alternate option (Open or Close) to flip the image horizontally to a proper mirror image.

POWER BUTTON FUNCTION (Bottom of Mirror Housing)

When the Mirror is OFF:

- Press the power button to turn the smart mirror on. (The mirror will also turn on automatically when the vehicle is started).

When the Mirror is ON:

- Press & hold power button for 3 sec. System will automatically save video file & settings, then turn off.
- Short press (less than 1 second) the power button to turn off the screen display without fully shutting down the mirror. Short press the power button again to turn the screen display back on.

TOUCHSCREEN INTERFACE

Starting the System: Turn on the vehicle. The smart mirror display will automatically start. If a TF card is installed, the recording function will begin.

Vertical View Adjustment:

- Swipe up/down on the center of the display to adjust the mirror up or down.
- This has the same affect you would get on a traditional rear view mirror if you tilt the mirror up and down.
- For best visibility, it can be helpful to tilt the mirror upward so that the reflection through the rear window does not interfere with the on-screen display.

Brightness Adjustment:

- Tap the screen to display the Brightness setting at the top of the screen. Tap the + or - symbol to increase or decrease brightness. You can also press and drag the slider in between these symbols to adjust.

Camera Display Selection:

- Swipe right to left to switch between camera views (For safety, always keep the camera view in rear view mode when driving)
- Camera views rotate between Rear View (default), Split Front & Rear View, and Front View. Once you have looped through the available camera views, swiping again will return to the default view.

ICONS & INDICATORS

The following items appear at all times while the display is on:

Loop Recording Indicator: Red dot at top left of the display blinks when loop recording is active. This indicator will blink yellow when park monitor is recording

Date & Time Indicator: Displays the current time and date.

The following items appear when the touchscreen is pressed:

Microphone Icon: Press to enable or disable audio recording. This setting is saved automatically and does not need to be reset after restarting the vehicle.

Image Capture Icon: Press at any time to capture a still image of the current screen display.

Video Record Icon: Default state is ON, indicated by a white circle with a red dot. Press to toggle recording OFF, indicated by a white circle with a red square.

- The default recording state will reset to ON when the vehicle is restarted.

Settings Interface Icon: Enter the settings menu.

Playback Interface Icon: Enter playback interface to view and manage saved videos and images. You can select to view videos or images from the front or rear camera, and view only urgent videos.

Lock Icon: During recording, locks current video and extends recording by 20 sec. Press again to unlock.

Recording Time Indicator: Shows at top of screen to left of Date Time Indicator.

- Displays time of current recording in seconds. Default loop is 1 minute, adjustable in Settings Interface.

Resolution Indicator: Displays the current video resolution, which can be changed in the Settings Interface.

WiFi Icon: Indicates whether WiFi is on or off. Press to turn WiFi on.

- **Important:** Do not turn on WiFi while driving. Enabling WiFi disables the touchscreen and is intended for use when the vehicle is parked to allow control of the mirror and media files from a wireless device.

PLAYBACK INTERFACE

Press the Playback Interface icon on the main screen to enter the Playback Interface. Here you can view and manage saved videos and images.

Video File Mode: At the top middle of the screen, press the current video file mode to select between folders.

- **Options:** Front Ordinary Video (Default), Front Photo, Front Urgent Video, Rear Ordinary Video, Rear Photo, Rear Urgent Video.

Video Playback: Find video you want to play and press corresponding thumbnail image. Video will play on right half of screen. Tap the playing video to toggle between Play and Pause.

- If viewing Photos, pressing thumbnail image from the list will display the selected photo larger on right half of screen.

Video & Photo Deletion: To delete a video or photo, find the file you want to delete. Press the Select icon indicated by a box with a check mark. Press any files you want to delete to toggle them to selected. Once selected, press Delete icon (trash can).

Exit Playback Interface: To exit, press the back arrow on top left of the display.

SETTINGS INTERFACE

The following settings are available by accessing the Settings Interface.

To access the Settings Interface, press the main display and then select the gear icon on the lower part of the screen.

< Arrow: Press to go back to the main display screen

WiFi: Displays the current WiFi settings (SSID and Password). To change these settings, use the WiFi App.

- **Do not use the WiFi App while driving:** When WiFi is activated, the mirror touchscreen will automatically be deactivated so that all control is through the WiFi App. The WiFi feature is designed to allow for wireless management of the mirror settings and media files and is not intended for use while driving.

Resolution: Adjust the recorded video resolution. This allows the option to save the videos in smaller file size if desired.

- **Options:** 4K (Default), 2K or 1080P

Recording Time: Select the time for each loop recording.

- **Options:** 1 minute (Default), 3 minutes or 5 minutes

Recording: Select whether real-time recording is off or on - Open (On) or Close (Off)

Pull Mirror Back: Allows mirror display to be inverted. Some cameras display a standard image as opposed to mirrored. Pay careful attention during installation. If your image is inverted, toggle this setting to correct it.

Screen Saver: Default is set to OFF. We recommend keeping this setting as is.

Preview Mode: Default is set to Rear. We recommend keeping this setting as is.

Volume: Default is set to OFF. If equipped, allows volume to be adjusted OFF | LOW | MIDDLE | HIGH

Touch Sound Effect: If equipped, allows for turning touch sounds off (Close) and on (Open)

Gravity Sensing: Default is set to OFF. If you want real-time park monitoring or plan to use Collision Detection, set to LOW, MIDDLE or HIGH depending on the sensitivity level you prefer. Note that having the Gravity Sensing on will take a small amount of draw when the vehicle is off. This is normally fine for daily drivers, but for classic cars we recommend using a battery tender to avoid starting issues.

Collision Detection: Default is set to OFF. Set to desired sensitivity level - LOW, MIDDLE, HIGH - to enable collision detection mode. Make sure Gravity Sensing is also set to ensure reliable performance.

Time-Lapse: Used for Time-Lapse recordings (if equipped). Duration for each video can be set to 12H, 24H or 72H. Enabling Time-Lapse will require a small amount of draw when the vehicle is off. See precautions noted in Gravity Sensing above.

Reverse Line Calibration: If you have connected the red wire in the camera harness to the reverse light trigger wire on your vehicle, reverse lines will appear when backing up. This section allows you to adjust the location and angle of the reverse lines shown on the mirror. Make sure you have your mirror tilt set where you want it prior to calibration. If you already have a backup camera in the vehicle, we recommend not hooking up the reverse lines in your mirror and relying instead on the factory backup camera system.

Record Audio: Select whether to record audio with video recordings.

Language: Set the operating language of the smart mirror menu.

- **Language Options:** English, Simplified Chinese, Traditional Chinese, Japanese, Korean, Russian, German, French, Spanish and Italian.

Time Settings: Set the date & time on the display. Swipe each selection up/down to set.

- **Date Format:** YYYY-MM-DD | MM-DD-YYYY | DD-MM-YYYY

• **Time Format Options:** 24-Hour | 12-Hour (AM/PM) - When setting time, select the correct military time regardless of whether you are using 24H or 12H display method. This ensures AM/PM is shown correctly.

Time Zone: Set the local Time Zone for your mirror.

Satellite Information: When equipped, shows the current GPS system information including satellite feedback

Format: Allows you to format the TF memory card for use in the camera (Caution: This will erase any data currently stored on the card)

Restore Factory Settings: Restores the mirror to the original settings.

Firmware Version: Displays the Firmware Version installed in the mirror.