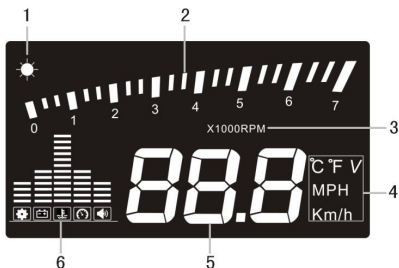# WM-HUD User Manual

It displays driving data on the front windshield such as speed, RPM, water temperature, and voltage on the car's windshield; avoiding unsafe driving by of watching the instrument cluster. Drivers can read the driving information instantly, and can always keep their focus on the road with WM-HUD.

Feature:
1. Universal: works with cars produce after 2003 with OBD II connector
2. 3" high definition screen
3. Multi-color design, and projection easy read.
4. Nano-technology screen plate, eliminates reflection, make projection clear & sharp.
5. Full information including speed, engine RPM, cooling water temperature, battery voltage, and alarm.
6. Auto on/off along with car. (Manual on/off is also available)
7. Equipped with Auto brightness sensor. (manual adjustment is also available)

WM-HUD screen function:

1. Brightness sensor (please don't cover by article)
2. Engine RPM
3. RPM unit (1,000 turn/min)
4. Unit display ： Cooling water temperature => ℃ or ℉, battery voltage =>V, Speed => MPH or KM/H
5. Main display => display number of speed, battery voltage, cooling water temperature.
6. Warning Alarm: Alarm for battery voltage, cooling water temperature alarm, over speed alarm, RPM alarm, beep sound on/off.

WM-HUD starting

1. OBD2 cable input (connector with vehicle OBD II)
2. Power on/off switch
3. Function setting button (can push up, down, inward)
4. Short push function setting button, showing cooling water temperature, battery voltage, or speed.
5. Beep sound on/off: Push function setting button down for 5 sec, all the Alarm function off, again push it 5 sec, Alarm function on.

WM-HUD installation

1. Make sure your car uses an OBDII connector (as picture 2), also uses the OBD II protocol (normally you will find a stick near connector or engine bay (as picture 1) showing OBD II certified, if not, consult the vehicle's owner's manual).
2. Connect the OBD II cable (included in package) to your Car OBD II jack. Connector other end of cable (mini USB connector) to WM-HUD device.

picture 1

picture 2

Reflection film installation

Please Note: WM-HUD projects the display information on the car's windshield, because the windshield is double pane, it will cause a double image on the windshield when displayed. If you can see the display information clearly, then there is no need to use the reflection film. If there is a double image, then please use the reflection film.

First, please put the supplied non-slip mats in front of the dashboard, and then put the WM-HUD on it.
Second, please stick the reflection film on the windshield.

The reflecting film should be placed right above the host machine and it should be able to reflect the whole display screen.

Methods of placing the film:

1. Clean the place that the film will be placed on with a lint free towel; then mist the location with water.

2. Tear off the back side (marked 1) of reflection film, then place it to the location.

3. After you have adjusted the location well, you can use a flat edge to slick the film and squeeze the water out until there is no bubble or water in it.

4. Tear off the front side (marked 2) of the reflection film. If the film cannot display the whole information, please adjust the non-slip mat.

The first use of WM-HUD

Start engine and power on WM-HUD, showing the current vehicle voltage and then begins to search ECU state, if the WM-HUD shows speed, rotating speed, indicating that WM-HUD has been installed successfully. (After 1 minute, if only display the voltage, please check whether WM-HUD, OBD interface, and OBD data cable are correctly connected and the cable plug is fully seated into the vehicle OBD interface. Then restart the engine and WM-HUD will rescan.)

WM-HUD setting

WM-HUD display information is from ECU, if there is a difference between vehicle dashboard and WM-HUD, then you can enter the setup mode to fine-tune the WM-HUD display value, in order to achieve an exact match.

We have adjusted the WM-HUD according to the general test values at the factory, if you find WM-HUD display information is different from dashboard, then make the following adjustments:

1. Long press the wave button vertically for 5s

Entering into the setting mode, there are three button for wave button: Up button (turning the button to upside), OK button (pressing the button vertically), Down button (turning the button to downside), after enter into the setting mode, press the OK button vertically one time, the menu will increase one. Turning the upside button or downside button to increase or decrease the parameter. After finish the adjustment, long press the wave button vertically for 5s to return to the display interface.

Menu	Function	Adjustment range	Description	Factory preset number	Picture show
0	Speed	50-150	If WM-HUD speed is higher than dashboard instrument, low this number (by push down function setting button), normally low by 2 one time, then check if it is the same as car instrument. For speed lower than instrument, push up, do the same.	107	
1	Engine RPM	50-150	Start your car, shift to 'P', and do adjustment (push function button down for decrease and up for increase)	117	
2	RPM Alarm	0-75	Factory preset Alarm is 7000 RPM. You can adjust it by push function button up/down.	70	

3	Speeding Alarm	30-500	Factory preset speeding Alarm is 94 MPH. You can adjust it by push function button up/down.	94	
4	Brightness	0-2	0 = Auto 1 = darker 2 = brighter	0	
5	Speed unit	0-2	0 = RPM 1 = KM 2 = MPH	2	
6	Water temperature unit	0-2	0 = water Temperature 1 = ( ) 2 = ( )	2	
7	Power on voltage	11.0-15.0	WM-HUD will automatically turn on when voltage is above 13.2V, and WM-HUD automatically turns off when the voltage is below 23.2V	132	

0123 4567	Demo state	0-2	0 is normal state,1 is demo state, 2 is empty please note, this is for engineering purpose only, and there is no need to adjust this for normal consumers	0	

2. Vertically short press the OK button：
    Switch the display information, e.g. water temperature, battery voltage, speed

3. Beep sound on/off: Push function setting button down for 5 sec, all the Alarm function off, again push it 5 sec, Alarm function on.

4. Restore the factory Settings:
try to reset the WM-HUD, slide setting scroll to "L" for 5 seconds, all the LED lights will be turned on, repeat the action for 5 seconds again, all setting will be reset to factory default setting and the WM-HUD should be good.

Specification:

Working temperature ：	-40c—+80c (atmospheric pressure 86 – 106 KPa)
Relative humidity：	10%-95% Noise
Alarm beep ：	<=60dB (A) >=30dB (A)
Working Voltage：	9V~16Vdc (12Vdc/400mA)
Measurement：	9*5.4*1.2(cm)
Weight：	40g

Trouble shooting

Problem	Possible reason	The way to solve
No speed alarm	the function is closed	open the switch of alarm
No RPM speed	The setting value is too high or the function is closed	Resetting and opening the switch of alarm
No display after starting	The switch is not opened, voltage is too low, the vehicle is not OBD2 protocol	Opening the switch and check the plug, set the voltage value, change another vehicle with OBD2 protocol
No speed and engine speed display	Not conform to OBDII or EU-OBD port	Consult vehicles owner's manual
Speed is inaccurate	The unit of speed is KM/H	Switching the unit of speed to MPH

1. Nothing on screen:
     Make sure the WM-HUD power button is on, make sure OBD II is securely connected, start car again.

2. Power on, but screen only show car battery voltage, and off after 30 sec:
     Car might not use OBDII or EU OBD protocol, consult vehicles owner's manual.

3. Projection is not clear in sun light environment:
     Make sure you remove the transparent film on WM-HUD screen, WM-HUD projection position is on projection film, or you can adjust brightness as mentioned in Menu

4.WM-HUD crash:

  Try to reset the WM-HUD, slide setting scroll to "L" for 5 seconds, all the LED lights will be turned on, repeat the action for 5 seconds again, all setting will be reset to factory default setting and the WM-HUD should be good.

5.WM-HUD speed is higher/lower than dashboard instrument:
   See Menu 0 adjustment.
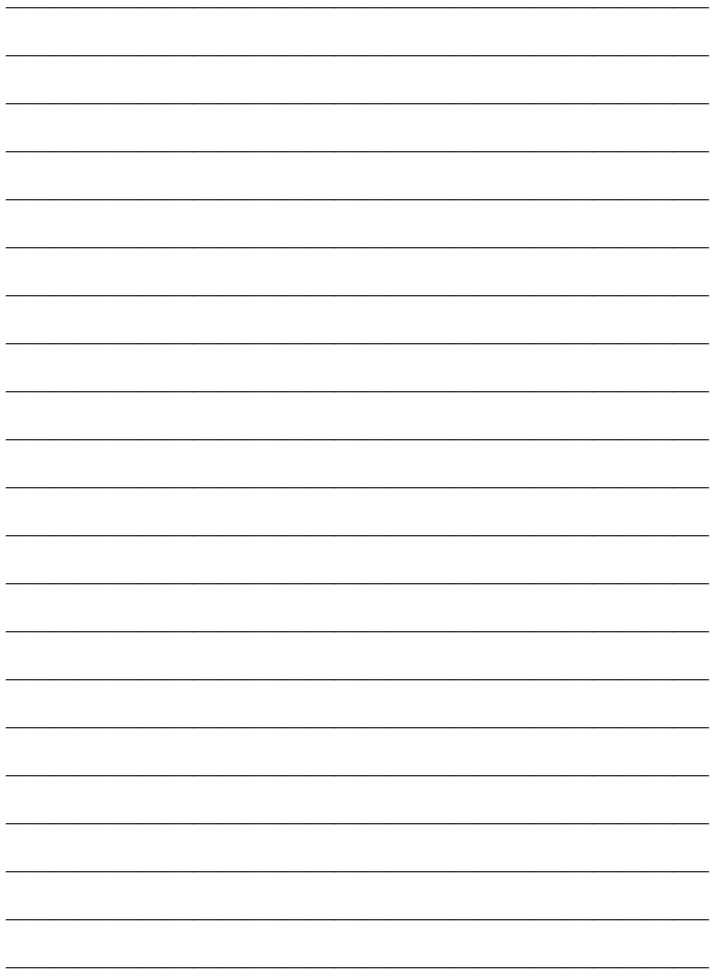
  6.WM-HUD cannot be automatically power off:
   Vertical press in 5 seconds to enter into menu setting, short press 7 times to menu 7, and the default parameter is 13.2, change it to 13.5 vertical press in 5 seconds to save and exit.

  7.WM-HUD cannot be automatically power on:
   Vertical press in 5 seconds to enter into menu setting, short press 7 times to menu 7, and the default parameter is 13.2, change it to 12.8, vertical press in 5 seconds to save and exit.

  8. WM-HUD LED Light remains on when your car is off:
   Vertical press in 5 seconds to enter into menu setting, short press to all digits on, change the mode setting to 2, vertical press in 5 seconds to save and exit.

Notes:

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IMPORTANT

If you are having difficulties with the installation of this product, please call our Tech Support line at 386-257-1187. Before doing so, look over the instructions a second time, and make sure the installation was performed exactly as the instructions are stated. Please have the vehicle apart and ready to perform troubleshooting steps before calling.

Metra Electronics
460 Walker Street, Holly Hill, FL 32117

KNOWLEDGE IS POWER

Enhance your installation and fabrication skills by enrolling in the most recognized and respected mobile electronics school in our industry. Log onto www.installerinstitute.com or call 800-354-6782 for more information and take steps toward a better tomorrow.

Metra recommends MECP certified technicians

Attention

When connecting with power cable, please make sure not to mistake the positive and negative pole, otherwise the fuse will blow immediately for security protection. If it happens, please replace the blown fuse with a new one with same specification, after connecting properly to the right pole. Don't randomly increase the current rating of the fuse, and NEVER use metal wire as a substitute.