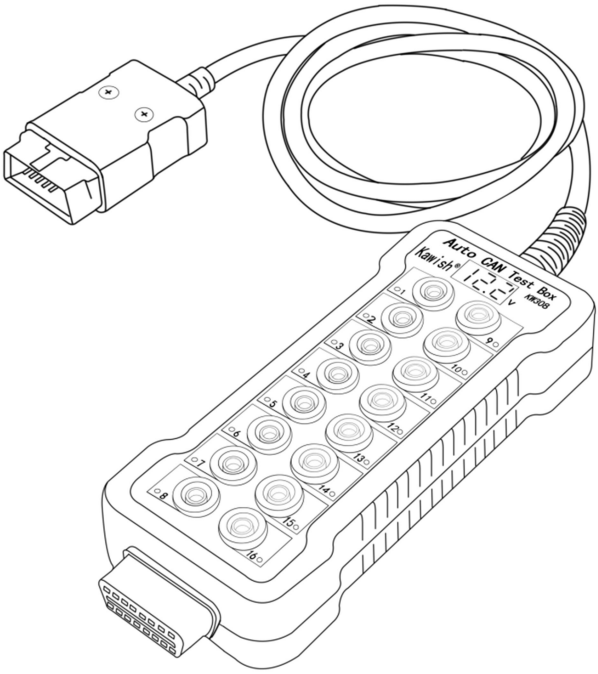
Auto CAN Breakout Box
User Manual
KW308



Statement

KW308 User Manual Guide

- Before using KW308 please read the Guide carefully.
- The Guide is prepared according to the current functions and configurations of the product. If new ones are added, there will be corresponding changes to the Guide.

Please read the "Notes" and “Precautions” in the Guide carefully so that you can use the products properly and safely.

Notes for Maintenance of Main Unit

- Dis-assembly is not allowed without authorization;
- Intense collision should be avoided;
- Stay away from magnetic fields;
- Do not place it in high-temperature environment for a long time;
- Do not put it in low-temperature environment for a long time;
- Screen collision must be avoided and buttons should be always clean.
- Please use soft clean cloth and neutral detergent instead of water or chemical solvents to clean the machine.

Notes before Diagnosis

- The KW308 must be operated according to safety rules for auto repair industry. Special attentions should be paid to prevent it from being affected or damaged by ambient factors such as the pH, poison gas, high pressure, heavy objects, etc.;

- The battery fluid of vehicles contains sulfuric acid which is corrosive to the skin. Please avoid any direct contact with your skin, especially the eyes, while operating the product. And please keep away from fire;
- There are various kinds of toxic compounds in exhaust gases. You should protect yourself from inhaling them. The vehicle should be parked in a well-ventilated place during the operating period;
- Do not touch high-temperature components such as water tank and exhaust pipes because the temperature of a working engine is high;
- Before starting the engine, you should hold the handbrake and place the gear lever at “N” (Manual transmission) or “P” (automatic transmission), to prevent the vehicle from rushing out, causing accidents when starting it;
- Before performing the repair, you should hold the parking brake, shift the transmission at “N” or “P”, and then lower the glass doors and windows on driver's seat side;
- If the engine can be started, you should firstly warm it up to a normal temperature (water temperature at about 80 ℃), and close the auxiliary electrical devices (such as air conditioner, lights, loudspeakers, etc.);

Precautions while diagnosing

- When operating a KW308 , you must handle it with care and keep it away from heat sources and electromagnetic field to avoid interference to the main unit.
- When electrical components are energized, you cannot break the circuit for the self-inductance and mutual-inductance currents might do damage to the sensors and ECUs.
- When the electrical equipment are working normally, please do not bring magnetic objects close to the electronic control units, otherwise they may be damaged.
- ECUs or electrical components can be disassembled or assembled only one minute after turning the ignition switch to “OFF”.

Catalog

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I. Overview

KW308 CAN breakout box is a simple, powerful, portable OBD signal Detector, which have sixteen Led lights detect all OBD signal. It is a bridge between the car diagnostic instrument and the car OBD system, it can quickly determine whether the cause of the diagnosis failure is from the lack of car diagnostic signals or the lack of function of the car diagnostic instrument.

II. Product main function

1, **OBD Male to female extension line**:

The Length is 1.5 Meter of the line can Connects between Diagnostic Link Connector (DLC) and scan tool

2, **OBD signal breakout**:

Sixteen high-quality 4mm banana sockets breakout all OBD signal for easy to Connect a multimeter or oscilloscope for detailed signal analysis

3, **OBD Signal Detects**:

Sixteen Led lights detect the OBD signal., Flashing Led for ECU signal activity, the led can Detect PWM (J1850) VPW (J1850) ISO 9141-2,DIS/ISO 14230-4 (12V car and 24V diesel)CAN bus (J-2284) (SAEJ1939) Power signal and ground signal

4, **Battery voltage monitor:**

3-digit blue LED (resolution: 0.1 V) Voltmeter can Continuous numeric display of voltage, Measuring range from 8-30V.

5, **Flashlight function on OBD Connector:**

The OBD Male Connector with flashlight function and the button,When operating in the dark the flashlight will be very useful

6,**Power reverse connection warning function :**

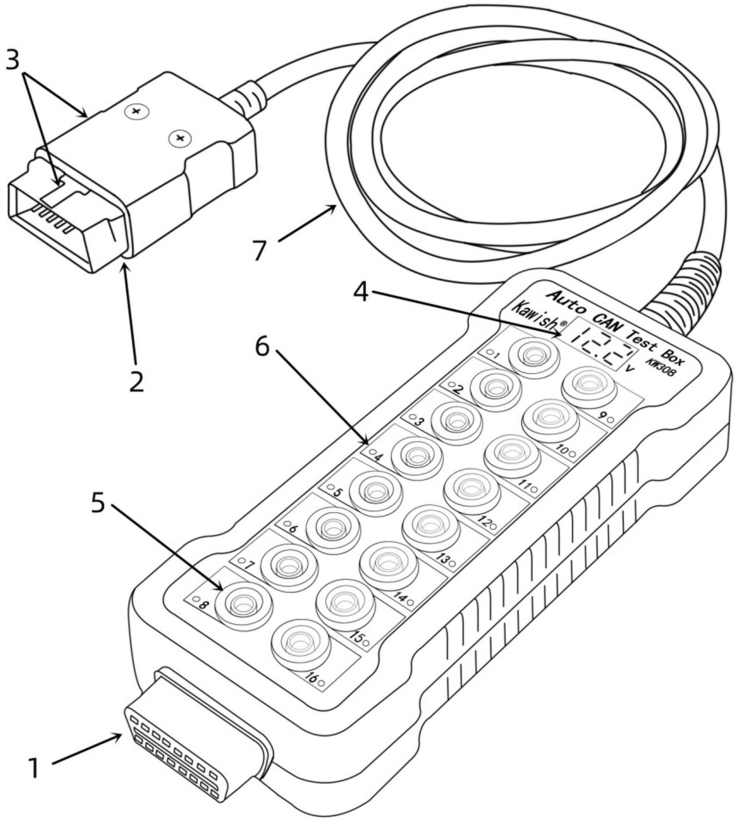
Pin4 and Pin5 are two-color LED lights, green when the power is normal, red when the power is reversed and the buzzer sounds ,used to indicate a short circuit in the power supply.

III. Product parameters:

Work voltage	DC8V - 30V
Maximum load:	Up to 5.0 amp output
Working temperature	0℃- 50℃
Storage environment temperature	-20℃-70℃
Relative humidity	60%
Voltage displays	3-digit LED (resolution: 0.1 V)
Weight of the main unit	410g
Banana sockets	16 outputs x 4.0 mm diameter with LED lamp indications
Protocols detected:	PWM (11850), VPW (11850), ISO9141-2, DIS/ISO 14230-4, CAN bus(12284)(SAE11939)

IV. Introduce the appearance of the product

1. Outline of KW308



1: **OBD female**:

Standard OBD 16-pin, It is directly connected to the OBD male header and 16 piece banana sockets, and there is a 5A resettable fuse in the middle of Pin16(power supply) ,most time this port connect to car diagnostics

2: **OBD male** :

Standard OBD 16-pin, Connected to the car's diagnostic socket

3: Mini LED Lights & Switches:

Used for lighting when connecting the car diagnostic socket in the case of low light, there are a 3V Button Battery supply power for light, When the battery is exhausted, please replace it.

4: **Voltmeter**:

It's a 3-digit blue LED (resolution: 0.1 V) , Used to indicate the voltage of the diagnostic socket. If voltage lower than 8V or higher than 30v, please stop using this product.

5: **Banana socket**:

It's stand 4mm socket, Fully connected to 16 pins of OBD male and female. Used for connect multimeter test leads or oscilloscope or logic analyzer or other instuments.(Be careful not to connect to high voltage to here that will damage it)

6: **Signal indicator**:

16 signal indicators are connected to 16 OBD pins, about different color indications, see below "**Pin assignments**"

7 :**Main cable**: 1.5m 16Pin OBD cable.

2. Pin Assignments and LED color indication

LED Light	Pin # SAE Designation
Red Led	**16 - Battery Power** On when plugged into DLC
	4 - Chassis Ground On indicates an error: It means that the power supply is reversed with this pin
	5 - Signal Ground On indicates an error: It means That the power supply is reversed with this pin
Green LED	**4 - Chassis Ground** On when plugged into DLC
	5 - Signal Ground On when plugged into DLC
	7 - K Line (ISO 9141-2 and ISO 14230-4)
	15 - L Line (ISO 9141-2 and ISO 14230-4)
Yellow LED	**2 - Bus +** Line of SAE J1850 (PWM/VPW)
	10 - Bus-Line of SAE J1850(PWM)
	6 - CAN High of SAE J2284 (ISO 15765-4)
	14 - CAN Low of SAE J2284 (ISO 15765-4)
Blue LED	1 - OEM Discretionary
	3 - OEM Discretionary
	8 - OEM Discretionary
	9 - OEM Discretionary
	11 - OEM Discretionary
	12 - OEM Discretionary
	13 - OEM Discretionary

3.Work Instructions

Step 1:

Connect the OBD male connector to the diagnostic socket of the car.

Step 2:

Observe the LED color on the Pin4 and Pin5 of kw308. If the light is red, it means that the corresponding pin power supply is short-circuited. It needs to be checked. If the light color is green, the power supply is normal. Same time if the buzzer sounds once, it means the power supply is normal, if it keeps sounding, it means there is a short circuit between the power supply and the ground.

Step 3:

Observe whether the voltage displayed by the voltmeter is in the range of 8-30V, if the voltage range is outside the normal range, please stop using it and check the voltage.

Step 4:

If the above steps are normal, then you can connect the diagnostic instrument to the OBD female connector for diagnosis.

V. Packing List

Product name	Number
KW308 host	**1pcs**
Warranty Card	**1pcs**
User manual	**1pcs**
Jumper cable	**16pcs(Optional If purchased)**

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