Instruction Manual

EX768 Change Over Switch

Function

1. For LPG/CNG Bi-fuel vehicle control petrol and gas state conversion;
2. Characteristic: Integrated a multi-function switch of CNG/LPG carburetor vehicle and CNG/LPG injection vehicle. Programmable selection of injection mode or carburetor mode, switching RPM point, switching mode, sensor type, etc.;
3. The yellow light shows gas state, the red light shows petrol state, and the four green light show gas volume.

Wiring Connection

1. **Brown wire:** Engine speed induction signal, connecting to the negative pole of the ignition coil or wrap it around the ignition high pressure wire (not more than 5 laps).
2. **Black wire:** Power negative pole, connecting to battery negative pole or ground.
3. **Red wire:** Power positive pole, connecting to the ACC power of ignition switch .
4. **Blue wire:** Gas state output, connecting to gas solenoid valve.
5. **Yellow wire:** When used in injection mode is suspended; When used in carburetor mode, it is petrol output and connected with fuel solenoid valve.
6. **White wire:**
   a. When using the G02(806) photoelectric CNG sensor, it is the input wire of gas volume signal and connects to the output wire of sensor signal (white wire).
   b. When using 0-90ohm sensor, and the green wire together connect to sensor signal output wire(white wire).
   c. When using AEB1050, 1051, 0-4700ohm sensors, it is the input wire of gas volume signal. Connecting to output wire of sensor signal (white wire).
7. **Green wire:**
   a. When using G02(806) photoelectric CNG sensor is power wire for supplying to the sensor. Connecting to power wire of sensor harness(green wire).
   b. When using 0-90ohm sensor, and the white wire together connect to the output wire of the sensor signal (white wire).
   c. When using AEB1050, 1051, 0-4700ohm sensors is suspended, no need connect.

EX768 开关接线图
EX768 SWITCH CONNECTION DIAGRAM

三个绿灯
3 GREEN LEDS

红绿双色灯
TWO-COLOUR
RED/GREEN
LED

黄灯
YELLOW LED

G

按钮
BUTTON

LS050液位传感器
LS050 LEVEL SENSOR

绿 不接
GN DON'T CONNECT

黑
BK

白
WT

白
WT

地
GND

绿
GN

白
WT

黄
YL

红
RD

地
GND

黑
BK

绿
GN

白
WT

棕
BN

点火线圈或转速信号
IGNITION COIL /RPM SIGNAL

黑
BK

红
RD

地
GND

保险 最大5A
FUSE MIX 5A

钥匙 12V
12V KEY ON

蓝
BU

燃气电磁阀
GAS SOLENOID VALVE

黄
YL

• 断油电磁阀电源，电喷车不接
• +12V OUTPUT PETROL MODE

地
GND
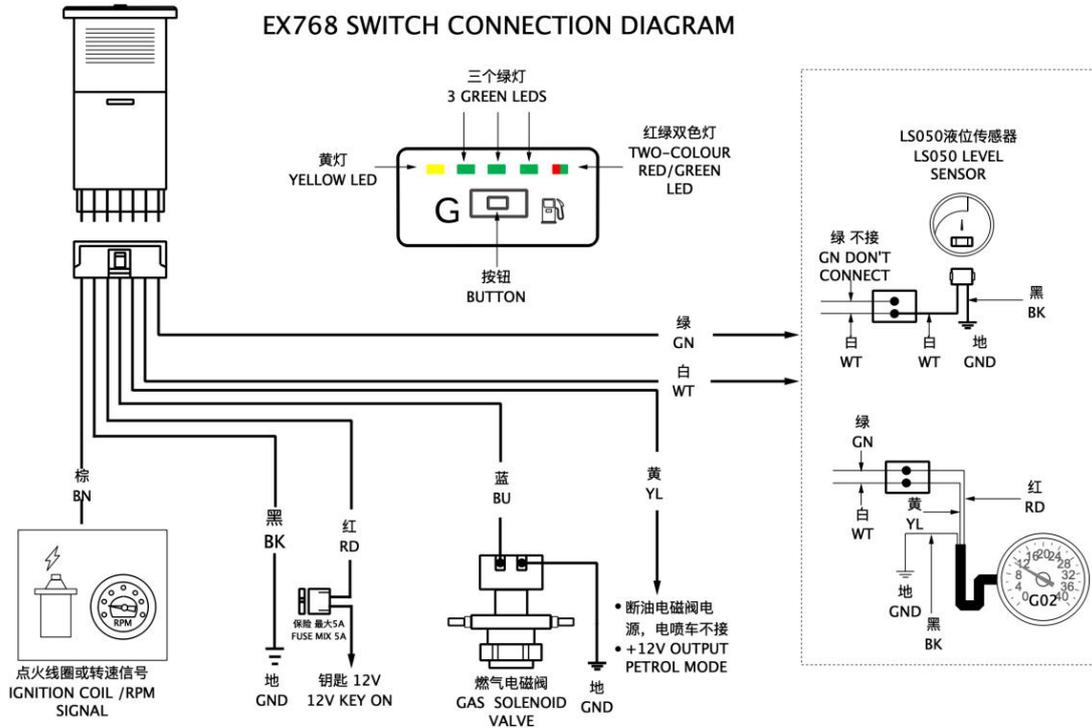
Programming And Calibration Instruction

1. Ensure correct wiring, especially the power wire (red) must be connected to the ACC power of ignition switch (controlled by the ignition switch);
2. Hold and the light touch switch;
3. Turn on the ignition switch;
4. The red/green double-color led light at the front of the switch start to flash alternately. Press and hold the light touch switch until the double-color led light is only green flashing, then release the light touch switch, at this time, the double-color led light is in a state of only red flashing;

G 🛢   G 🛢   G 🛢
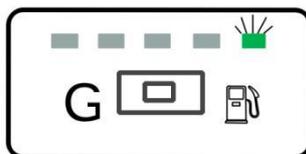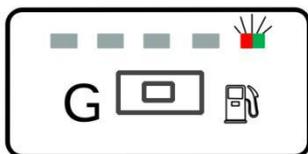
5. Pressing the light touch switch to select the switching mode.

Second and third green led light are lit	Injection switch mode
Yellow and the first green light are lit	Carburetor switch mode

After the selection, press and hold the light touch switch for three seconds. At this time, the two-color led light will remain in the red flashing state and the yellow led light is lit, indicating that the setting parameters have been stored and enter the configuration state of the sensor model selection, which is divided into two processes.
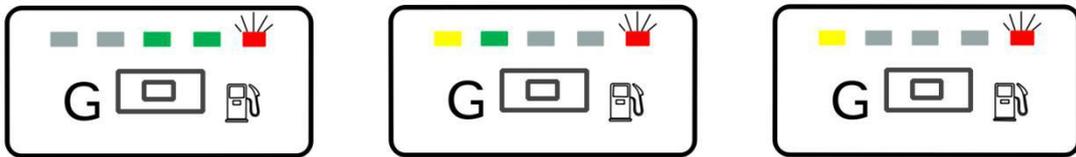
A. The injection switch mode was selected in step 5, Please follow steps A1-A9 to set it.

A1. Press the light touch switch to select the type of gas sensor

Yellow led light is lit	G02/AEB Standard photoelectric/AEB1050/1051sensor
First green led light is lit	0-4700ohm sensor
Second green led light is lit	0-90ohm sensor
Third green led light is lit	0-4V hall sensor

A2. After selecting the type of gas sensor, then press the light touch switch for 3 seconds, the red/green double-color led light changes from the red flashing state to the red constant light state, then release the light touch switch and the red/green double-color led light will turn into be extinct state, indicating that the parameters have been stored and enter the configuration state of the conversion mode.
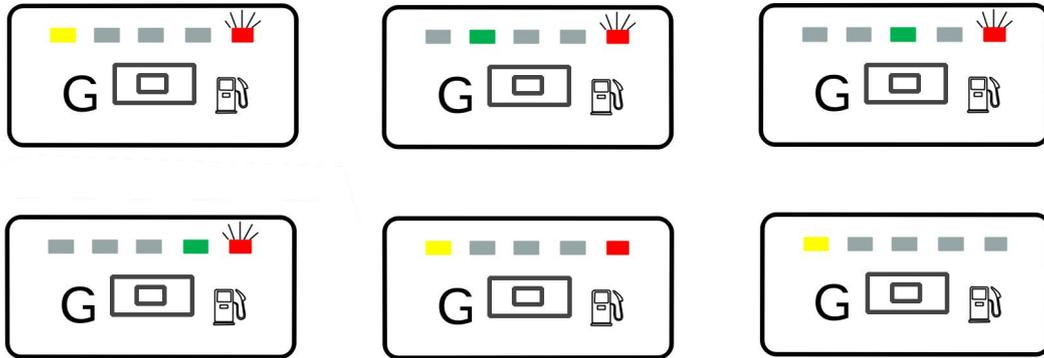
A3. Press the light touch switch to select the automatic conversion mode.

Yellow led light is lit	Deceleration mode
First green led light is lit	Accelerated mode

A4. After selecting the automatic conversion mode, press and hold the light touch switch for 3 seconds, the red/green double-color led light will turn into the green constant light state, and the yellow led light will turn into the flashing state, indicating that the setting parameters of the last step have been stored and enter the automatic conversion speed configuration state.
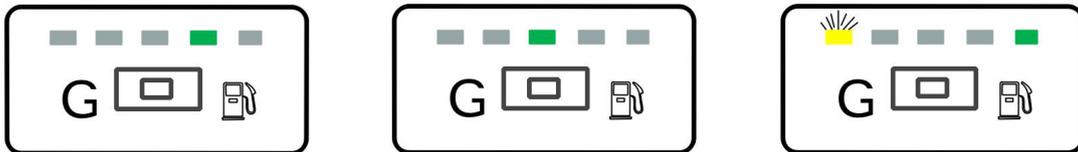
A5. Starting engine.

A6. Keep the engine running, increase the speed to the desired change point, press the switch once, and then the yellow light led becomes always bright.

A7. Return to idle state, at which point the yellow light led starts flashing.

A8. Press and hold the touch switch to keep setting in 3 seconds. After the setting is completed, the red/green led will start flashing alternately.

A9. Turn off the ignition switch and complete the setting.
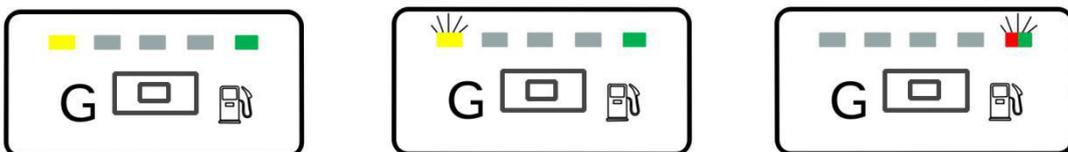
B. The carburetor switch mode was selected in step 5, Please follow steps B1-B6 to set it.

B1. Press the light touch switch to select the type of gas sensor.

Yellow led light is lit	G02/AEB Standard photoelectric/AEB1050/1051sensor
First green led light is lit	0-4700ohm sensor
Second green led light is lit	0-90ohm sensor
Third green led light is lit	0-4V hall sensor

B2. After selecting the type of gas sensor and then press the light touch switch for 3 seconds, the red/green double-color led light changes from the red flashing state to the red constant light state,then release the light touch switch and the red/green double-color led light will turn into be extinct state, indicating that the parameters have been stored and enter the configuration state of switch control mode.
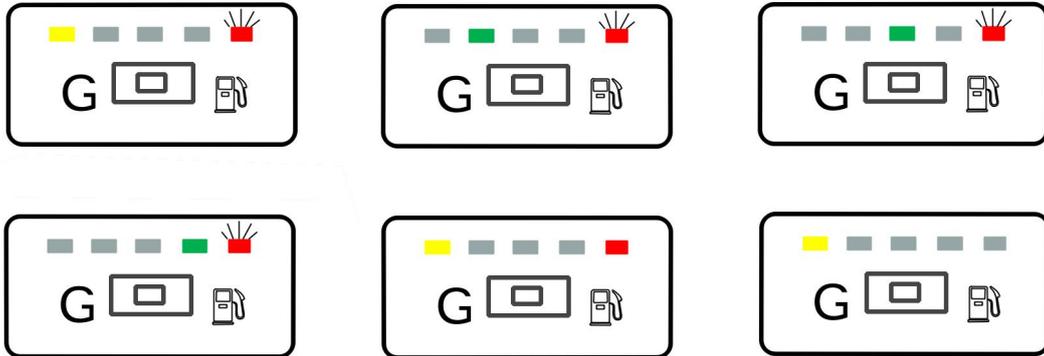
B3. Press the light touch switch to select the switching fuel control mode.

Third green led light is lit	The conversion intermediate state only exists in the fuel vacuum mode
Second green led light is lit	The conversion intermediate state exists in the fuel vacuum mode and two fuel supply modes at the same time

B4. After selecting the switch fuel control mode, press and hold the light touch switch for 3 seconds, the red/green double-color led light will turn into the green constant light state, and the yellow led light will turn into the quick flashing state, indicating that the setting parameters of the last step have been stored and enter the configuration state of the pre-supply gas time in the gas state starting. The single touch switch can reduce the pre-supply gas time, and the flashing frequency is accelerated for the state of the yellow led light. Fast double-click the light touch switch can increase the pre-supply gas time, and the flashing frequency will be slow for the state of the yellow led light. (pre-supply gas time refers to the time of the gas solenoid valve open that after the power supply by default gas operation but the engine is not started).

B5. Press and hold the touch switch to keep setting in 3 seconds. After the setting is completed, the red/green led will start flashing alternately.

B6. Turn off the ignition switch and complete the setting.
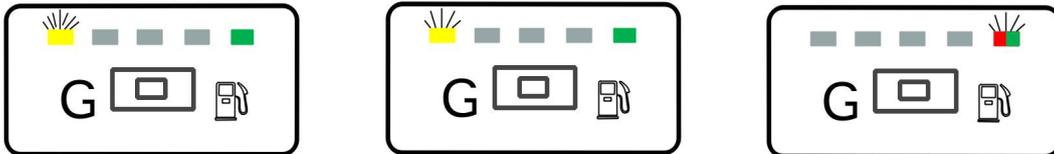
Note 1:

AEB standard photoelectric LPG/CNG sensors are compatible with TARTARINI and OMVL photoelectric LPG/CNG sensors.

Note 2:

the operating voltage of the switch is 10-15V, the maximum current under output of petrol and gas state is 5A, and the installation insurance is 5A.