



# User's Manual

## Gasoline Price Controller GPC100

## STATEMENT

Dear users,

Welcome to use GPC100 of Xi'an NovaStar Tech Co., Ltd. (hereinafter referred to as "Nova"). It will be our great pleasure if this manual can help you better understand and use the product. During the preparation of the manual, we have tried our best to make it the most accurate and reliable. Nova may revise and alter the contents of the manual at any time without further notice. If you have any problems or suggestions during use, please inform us in accordance with the contact information provided in the manual. For the problems you may encounter during use, we will do our best to provide support. As for your suggestions, we would like to express our sincere appreciation and will make assessment for adoption as soon as possible.

## COPYRIGHT

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## TRADEMARK



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## FCC Caution

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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# 1 System Overview

In order to solve the problem of gas price modification inconvenience through remote controller, Nova has launched GPC100 which is not only capable of effectively controlling multiple control cards GPU100 of gas price board but also connecting commonly-used communication protocols of obtaining gas price on market to achieve centralized management of gas price board control card GPU.

Features:

- 1) Supporting centralized management of gas price board control card GPU100;
- 2) Supporting wireless control of gas price board control card GPU and with a frequency of 433MHZ;
- 3) Supporting multiple gas price control of different countries such as the US, Canada and Mexico;
- 4) Supporting gas price modification protocols of RS232 communication, GILBARCO, VERIFONE;
- 5) Supporting gas price modification protocol of Ethernet port communication, IFSF;
- 6) Supporting lost connection detection, error inspection control, brightness control, upgrade of configuration and program of gas price board control card GPU100;
- 7) Supporting U disk back-up and restoration of configuration information;
- 8) Supporting export of record information of gas price modification via U disk;
- 9) Supporting gas price modified by synchronous remote controller;
- 10) Supporting error detection of gas price;
- 11) Supporting program upgrading by U disk;
- 12) Supporting power down protection.

## 2 Configuration List

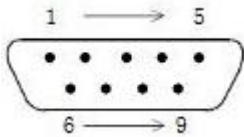
Product	Model/Version	Functions	Remarks
GPC100	V1.0.0	Controlling GPU100	Standard configuration

## 3 Appearance



<b>RS232:</b> Serial port, using for connecting VERIFONE protocol and VERIFONE protocol
<b>ETHERNET:</b> Ethernet port, using for connecting IFSF protocol
<b>USB:</b> USB port, using for the program upgrading of GPC100 and the backup and restoration of device parameters.
<b>DC12V:</b> Power port, using for providing power supply to GPC100.
<b>Antenna interface:</b> Using for connecting antenna of 433M.


### Interface definition of RS232



Pin2	TX
Pin3	RX
Pin5	GND

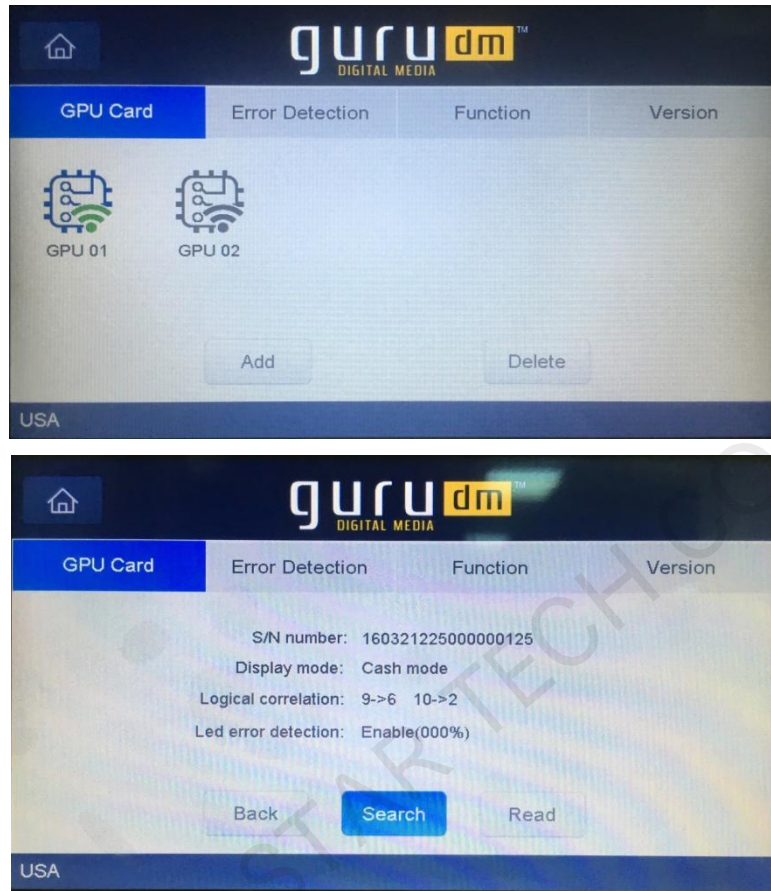
## 4 Basic Functions

### 4.1 Paring

Click  → GPU Card to enter the page of GPU100 pairing. Click Add to add pairing card GPU01 (4 pairing cards GPU01~ GPU04 can be added at most) . Click GPU01 to enter the corresponding page of pairing information. Click Search to pair within three minutes after GPU01

power on. Part of the corresponding information of GPU100 will be displayed on the interface after pairing completed.

Click Delete to delete the last added pairing card.





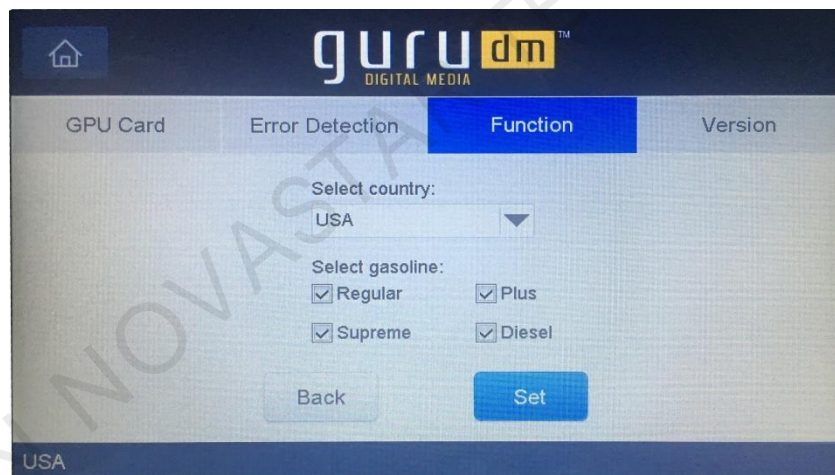
## 4.2 Gas price modification

Click Gas price on the main interface of start-up to enter the state of gas price modification and highlight. And now slide on the figures using finger to modify the figures. Click gases marker after gas price modification completed to exit the interface of gas price modification. Then click Send to send gas prices to display screen.




### 4.3 Country selecting

Click  → Function →  to enter the interface of “Select country” and select corresponding country.(The default is USA.)

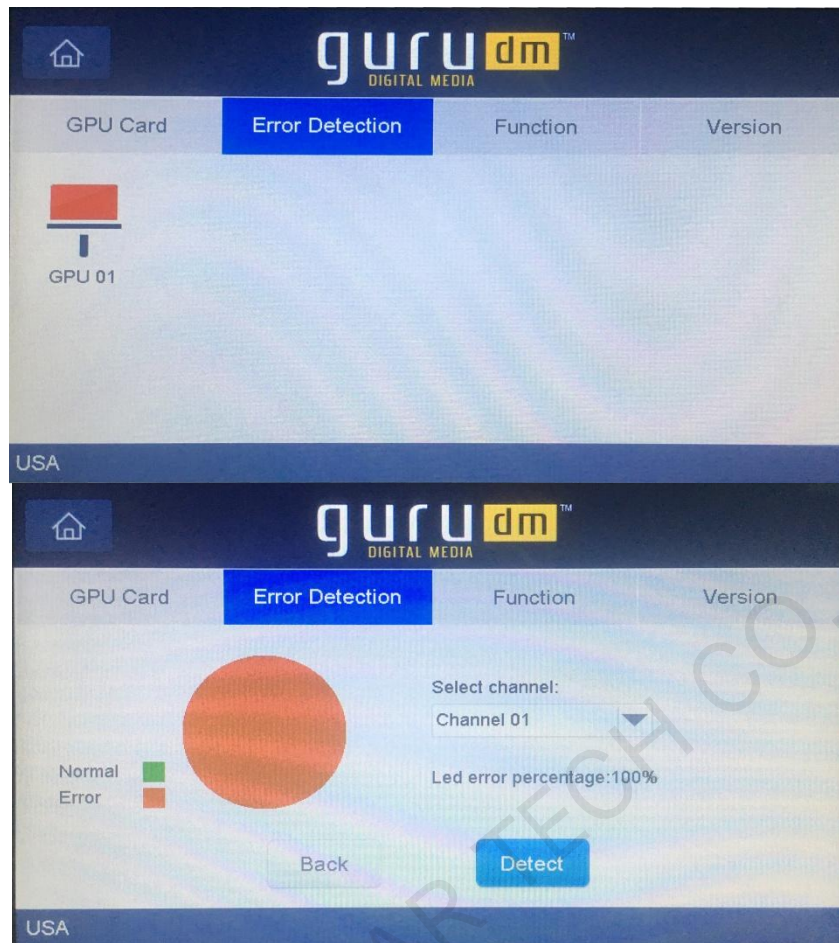


Select gasoline: Correspond to the four kinds of gas on the main interface respectively. Corresponding gases will take effect if checked. While the gases cannot be set if not checked.



### 4.4 Error detection

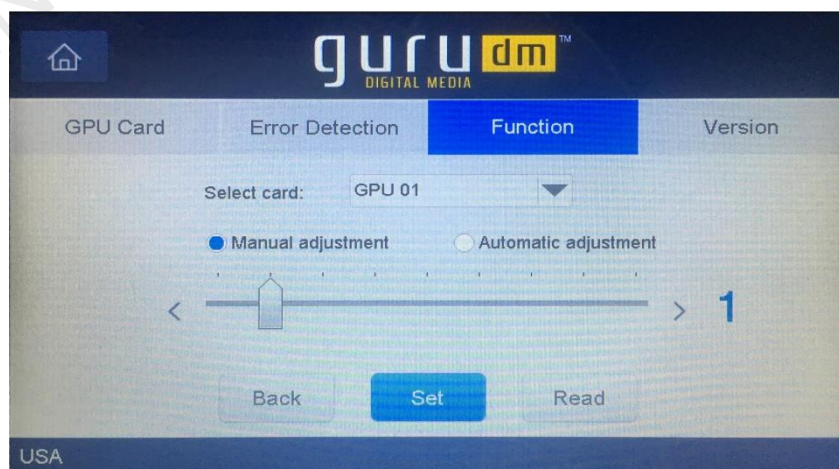
Click  → Error Detection → GPU01 (Add and delete error detection card depending on the adding and deleting of pairing card) to enter Error Detection interface. Click Detect for detection. Select Channel01~Channel10 to achieve graphic display of the error detection results.



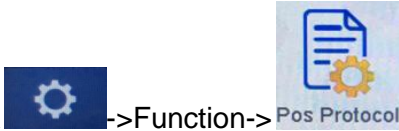




## 4.5 Brightness setting

Click  ->Function->  to enter the interface of Brightness setting. Choose the pairing cards that require setting to set brightness either manually or automatically.

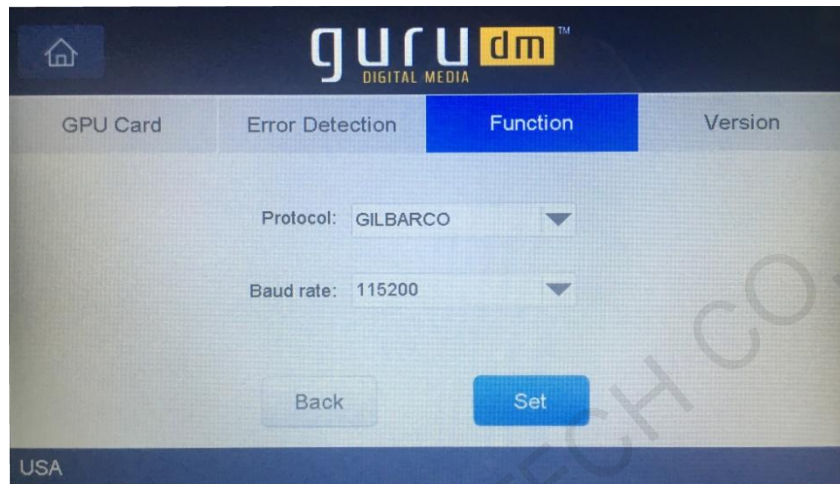


## 4.6 Pos Protocol setting



Click  ->Function->  to enter the interface of Pos Protocol setting. Select protocol type and Baud rate of RS232 serial port.

Please click Set for setting after selecting.






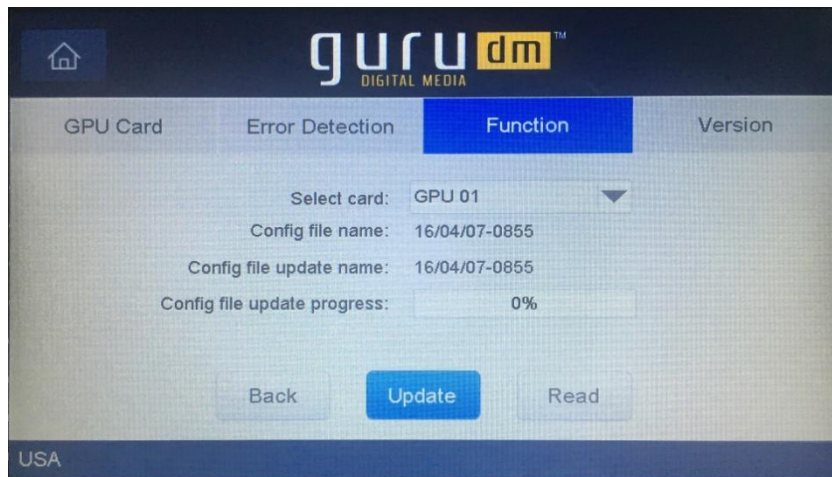
## 4.7 Configuration file upgrading

Copy configuration files card01\_config.gaso~card04\_config.gaso generated by software GASO TOOLS to the following directory of U disk with FAT file system:

\GPC100\CFGParameters\Recovery\000000000000. Plug U disk into device and the interface will display the progress bar of copying process from file to U disk. Pull out the U disk after copying completed.






Click  →Function →  to enter the Config file  interface. Click Update to upgrade and progress bar will display the process of upgrading.



## 4.8 Program file upgrading

Copy upgrade file GPU100\_APP.bin to following directory of the U disk with FAT file system: GPC100\CFGParameters\Recovery\000000000000; Plug U disk into device and the interface will display the progress bar of copying process from file to U disk. Pull out the U disk after copying completed.

Click  → Function →  to enter the Program file update interface. Click  to upgrade and progress bar will display the process of upgrading.



## 4.9 Configuration parameters back-up and restoration

Plug U disk with FAT file system into the device. The device will copy configuration parameters to the following directory of U disk: \GPC100\CFGParameters\Backup\xxxxxxxxxxxx ("xxxxxxxxxxxx" is the SN of backup device).

If you want to restore backup parameters or copy the configuration of device A to device B quickly and change xxxxxxxxxxxx to the SN(This can be found in the version information of GPC100) of restored device or to "000000000000"(All devices can be restored if it is all zeros while only the corresponding device can be restored if it is a specific SN.). Plug into device. Configuration parameters under the directory of U disk \GPC100\CFGParameters\Recovery\xxxxxxxxxxxx will be copied to the device.

\GPC100\ ICONSource \Backup\xxxxxxxxxxxx is the backup of picture logo information of the device.

The use of the folder Recovery and "xxxxxxxxxxxx" is in accordance with the above.

## 4.10 IFSF Protocol

Connect device to network equipment(router) with the functions of DHCP server. Physical Local Subnet is 8 and Physical Local Node is 1. Modify gas price 0x11~0x18 according to IFSF protocol.

## 4.11 GILBARCO Protocol

Device will connect GILBARCO protocol communicated through RS232 to the third party device. Modify gas price in 0~7 channels in accordance with GILBARCO protocol.

## 4.12 VERIFONE Protocol

Device will connect VERIFONE protocol communicated through RS232 to the third party device. Modify gas price in 0~7 channels in accordance with VERIFONE protocol.

# 5 Dimensions

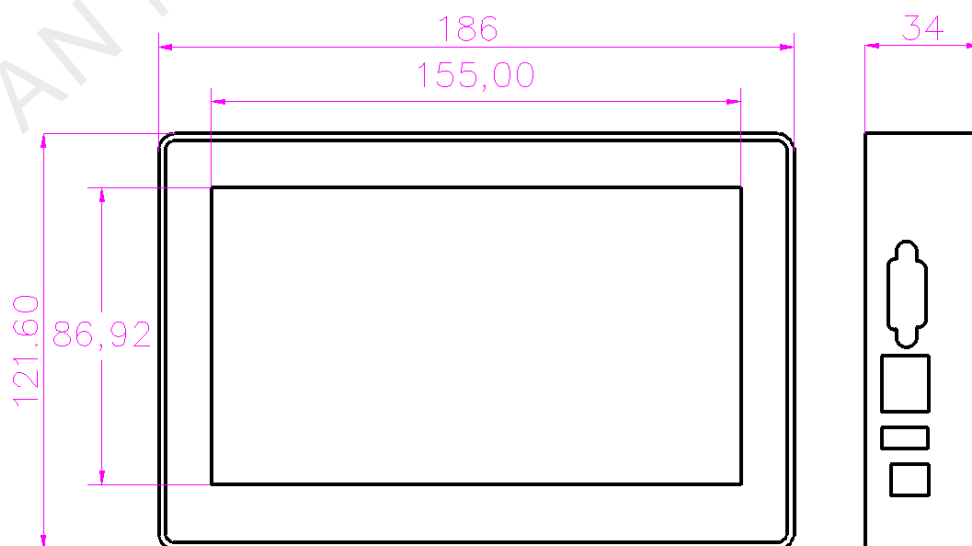


Fig. 5-1 Dimensions (Unit: mm)

## 6 Technical Parameters

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<b>Rated voltage (V)</b>	12.0				
<b>Rated current (A)</b>	0.18	Max.	2.0		
<b>Ambient temperature(°C)</b>		Max.	60.0	Min.	0.0
<b>Ambient humidity (%)</b>		Max.	90	Min.	10
<b>Storage and transportation temperature(°C)</b>	-20 to70				
<b>Net weight</b>	696g				

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