GCE 光彩电器

监测报警系统产品手册

Alarm monitor system user manual

GCWJ-2000

GUANG CAI ELECTRIC

河南光彩电器有限公司

China GCE Co.,Ltd

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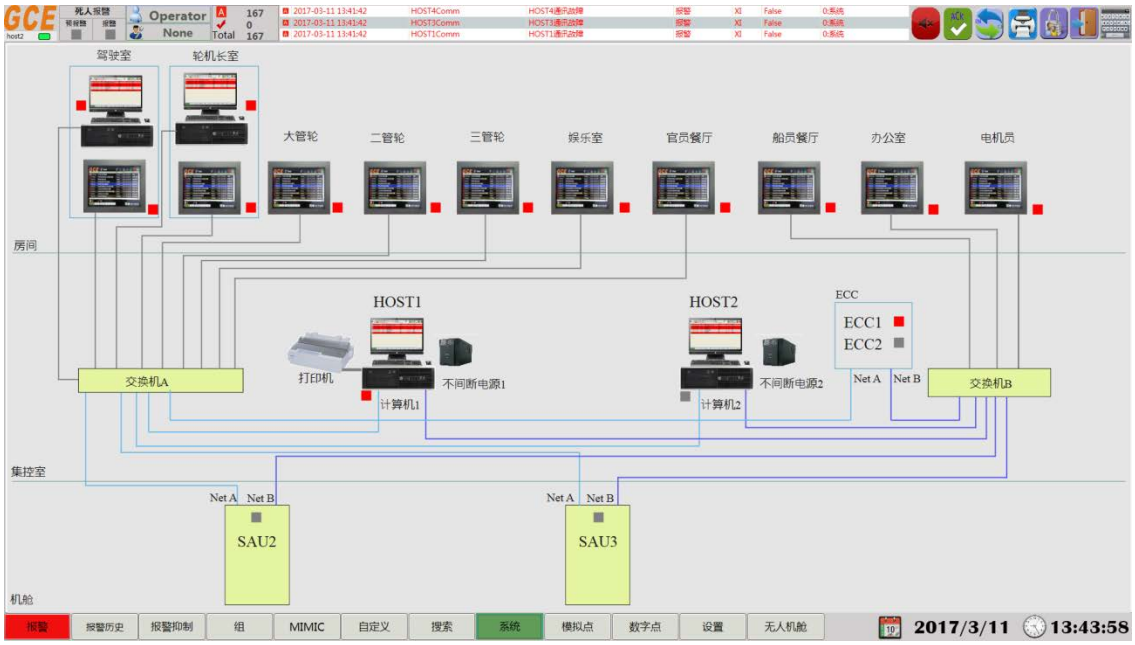
一、系统介绍和要求

System introduction and requirements



1. 简介

brief introduction

● 信号采集箱

Signal collecting box

采集模块中模拟量采集模块使用 PLC 模块，开关量使用自制的电路板，同时可以检测断线，双路电源供电，中央处理单元使用高端 PLC CPU，外部通讯 RS485 或者 RS422 信号使用自制的通讯信号采集模块，可以根据不同的通讯协议更改程序，交换机使用管理型网络交换机，两路以太网冗余的同时保证不形成网络风暴。

The acquisition module, analog quantity acquisition module using the PLC module, switch quantity using the self-made circuit board, also can break detection, dual power supply, central processing unit CPU use advanced PLC and external RS485 communication or RS422 signal using self-made communication signal acquisition module can change the program according to the different communication protocols, the switch using a management network switch, two Ethernet redundant and ensure do not form a network in the storm.

● 计算机

Computer

计算机使用的配置高端的小型主机和 22 寸宽屏显示器，安装 Windows7 操作系统，界面显示大方美观，每台计算机都是使用双网卡采集信号，两台计算机热备冗余。

Using a computer configuration of high-end minicomputers and 22 inch widescreen display, install windows7 genuine operating systems, interface display beautiful, each computer is using dual NIC signal acquisition, two computer hot standby redundancy.

● 延伸报警单元

Extended alarm unit

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使用的是自主开发的 8 寸液晶显示模块，具有像素高，界面美观，反应快，易于安装等优点。

The use of our own development of the 8 inch LCD module, with a high pixel, beautiful interface, fast response, easy to install and so on.

2. 设备安装
Equipment installation

- **驾驶室**

Wheelhouse

延伸报警，按图纸要求安装在驾驶台上。

extend alarm uint, according to the drawings required to install on the WHC.

- **集控室**

Engine control room

船用计算机，环网冗余交换机，UPS，打印机，采集站(一般安装在集控台内,如果不能安装在集控台上，就使用采集箱固定在合适的位置)，大功率蜂鸣器(安装在集控台内)和红色报警灯(安装在集控室明显的地方)。

Marine computer, ring network redundancy switch, UPS, printer, collected station (generally installed in the centralized control station, if not installed on the set console use collection box fixed in the appropriate position), high power buzzer (installed in centralized control station) and red alarm lamp (installed in the control room).

- **机舱**

Engine room

在机舱合适的地方安装好采集箱，并且在明显的位置安装好蜂鸣器和报警灯。

Install the collection box in the proper place of the engine room, and install the buzzer and the alarm lamp in the obvious place.

3. 线路
Line

- **以太网**

Ethernet

我们一般要求网线采用工业用 CAT5 以上的屏蔽双绞线，水晶头要求 CAT6A 屏蔽一体，网线在安装过程中不能有直角拐弯，网线的单根最长距离不得超过 100 米，如果超过此距离，中间请安装中继器。

We generally require cable adopts industrial CAT5 over unshielded twisted pair, crystal head requirements CAT6A shielding cable installation process can not be with a right angle turn, the cable in the single longest distance shall be not more than 100 meters, if more than this distance, please install repeaters.

- **RS485 和 RS422**

RS485 and RS422

如果某些船用设备需要使用 RS485 或者 RS422 传送数据信号，这些信号需要使用单独的屏蔽双绞线传输。

If certain marine equipment is required to use RS485 or RS422 to transmit data signals, these signals need to be transmitted separately with the shielded twisted pair.

- **其他电缆**

Other cables

其他无特殊要求的电缆，请按照图纸要求购买并安装。

Other cables, which have no special requirements, buy and install in accordance with the drawings.

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二、显示界面描述

Display interface description

1. 开机界面

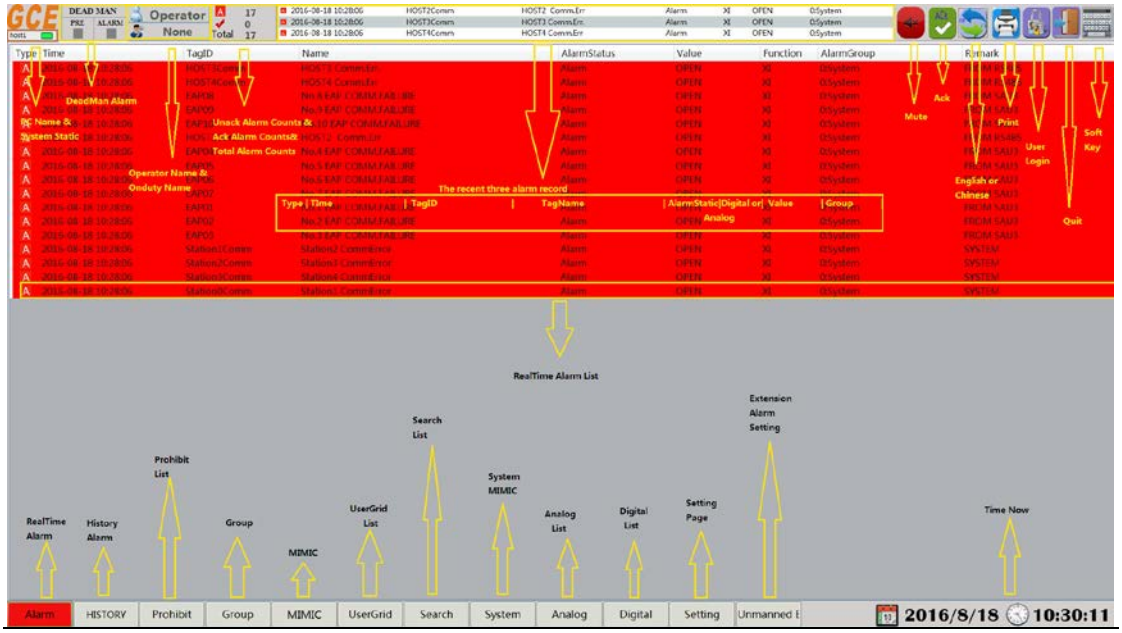
Boot interface

GCWJ-2000 报警系统开机运行时,会首先运行以上界面，在此过程中，程序从数据库读取数据初始化各种参数，初始化报警点的参数属性，通讯参数等，并且初步建立通讯连接等各种工作。

GCWJ-2000 alarm system boot operation, will be the first operation of the interface, in this process, the program from the database read data initialization parameters, initialize the alarm parameters of attribute, the communication parameters, and the initial establishment of communication links, and other work.

2. 主界面

Main interface



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初始化过程结束以后，GCWJ-2000 系统就会进入主界面，主界面其实就是当前报警界面，当前报警列表中的点就是当前时间发生故障或者报警的点，主界面有以下部分组成：

After the end of the initialization process. GCWJ-2000 system will enter the main interface, the main interface is actually the alarm interface, the alarm point in the list is the current time fault or alarm point, the main interface is consist of the following parts:

(1)河南光彩电器有限公司 Logo

Henan Guangcai Electric Co.,Ltd Logo

(2)计算机名称 host1

Computer name host1

(3)系统状态

System state

(4)死人报警 DEAD MAN PRE ALARM **预报警** PRE **报警** ALARM

Dead man alarm DEAD MAN PRE ALARM **Pre-alarm** PRE **alarm** ALARM

(5)当前用户名称 Operator

Current user name Operator

(6)当前值班人员 None

Current duty officer None

(7)当前报警数量 A 0 ✓ 24 Total 24 **报警未确认数量** A 0 **报警确认数量** ✓ 24 **报警总数量** Total 24

Current alarm number A 0 ✓ 24 Total 24 **unacknowledged alarm number** A 0 **Alarm confirmation number** ✓ 24

Total alarm number Total 24

(8)消音按键

Mute button

(9)确认按键

Ack button

(10)中英文切换按键

Chinese and English Switch button

(11)打印按键

Print button

点击后弹出对话框

Click on the pop-up dialog box

暂停打印 Print Pause

Pause print Print Pause

取消打印 Print Cancel

cancel print

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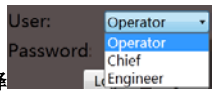
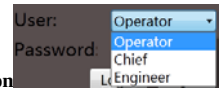
(12)用户登录按键 

User login button 

点击后弹出对话框 

Click on the pop-up dialog box 

用户选择 

User selection 

用户名 Chief 的密码默认为：123456 用户也可以根据需要修改；

输入密码 

Input password 

列表中报警点包括以下类型 1*未确认报警 ,2*确认过的报警,3*传感器故障报警,4*运行点，如下图所示：

The alarm points in the list include the following types1* unacknowledged alarm ,2*ack alarm,3* Sensor fault alarm,4*sun point，As shown in the following figure:

1*类型报警以图标  **表示正在报警但是没有确认的点，报警点整行不停闪烁，主要体现为背景颜色在深红色和淡红色之间切换，已和其他点区分出来，”AlarmStatus”列中文字内容为”正在报警”字样；**

1*Type alarm icon  **said is the alarming, but no confirmation, alarm o'clock, flashing, mainly reflected as the background color in the deep red and pale red switch between has and other distinguished, "AlarmStatus" column in the text is “alarming”, the words;**

2*类型报警以图标  **表示正在报警但是已经确认过的点，报警点不闪烁，背景变为淡红色，”AlarmStatus”列中文字内容为”报警(确认)”字样;**

2* type alarm to icon  **indicates that the alarm has been unacknowledged, the alarm point does not flash, the background becomes light red, "AlarmStatus" column in the text content for "alarm (ack)";**

3*类型报警以图标  **表示传感器发生或者线路发生故障的点，报警点不闪烁，背景为淡黑色，”AlarmStatus”列中文字内容为”断线”或者”探头故障”字样;**

3*type alarm icon  **said sensors or line fault point, the alarm does not flash, background light black, "AlarmStatus" column in the text as "broken" or "sensor fault " words;**

4*类型以图标  **表示正在运行的点，运行点不闪烁，背景为淡绿色，”AlarmStatus”列中文字内容为”运行”字样。**

4* type icon  **that is running point, the running point does not flash, the background is light green, "AlarmStatus" column in the text content for "run".**

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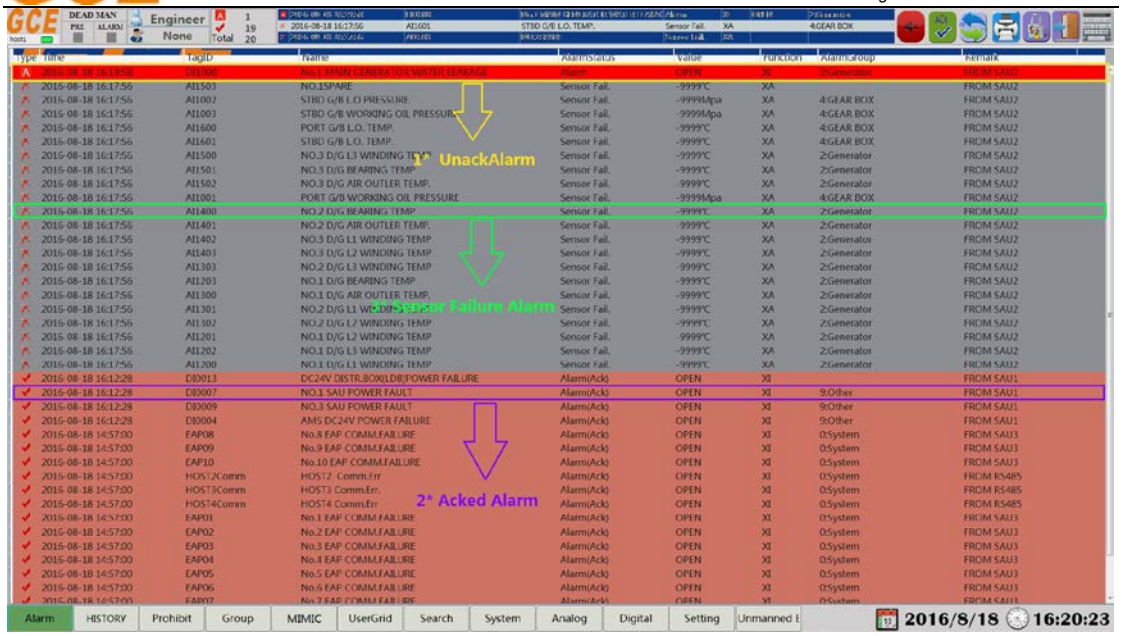

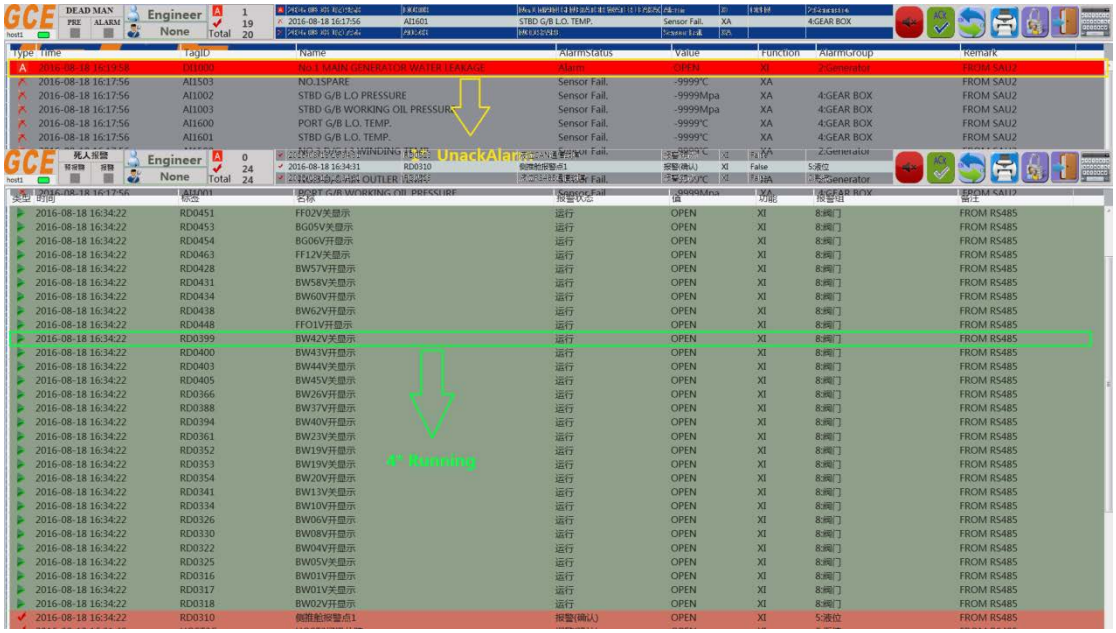

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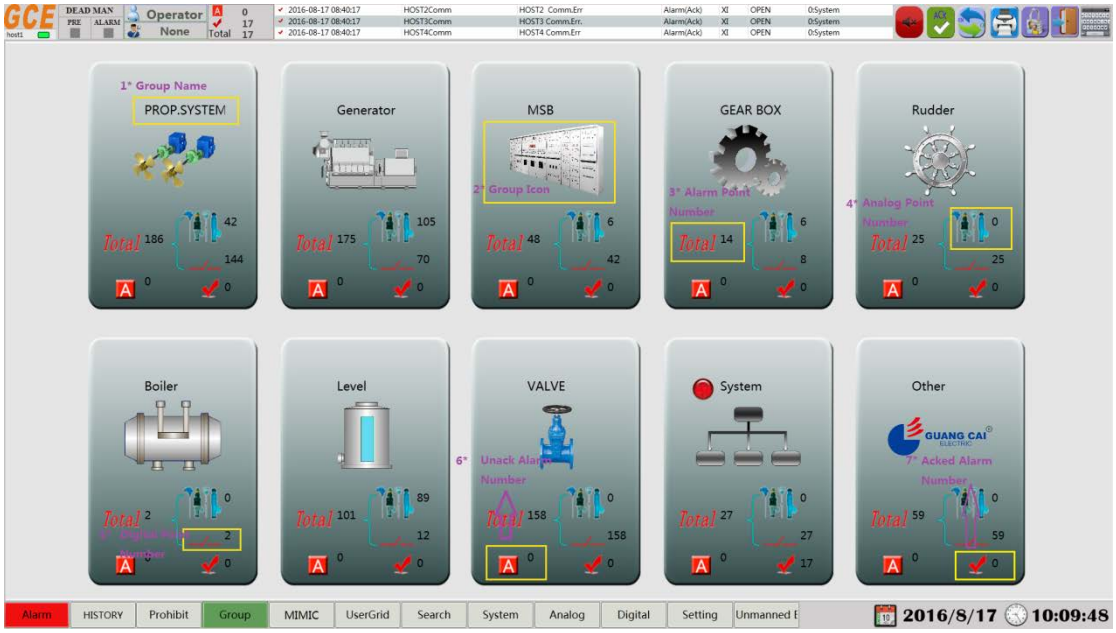
三、分组报警

Packet alarm

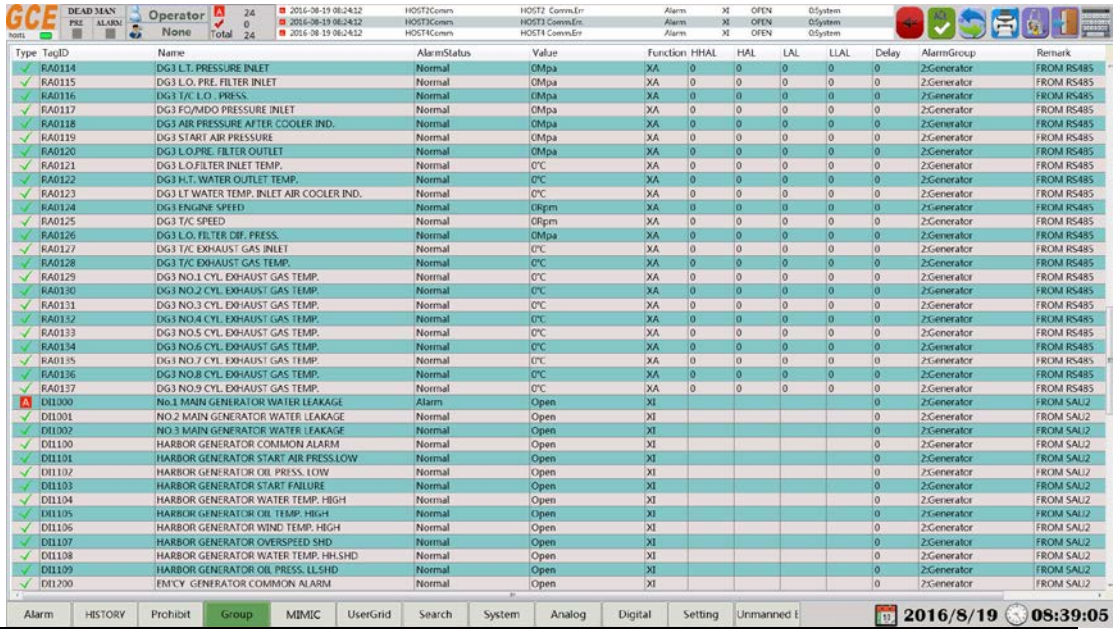


GCWJ-2000 系统可以将所有的报警点最多分成 20 个组，上面的图片表示将项目中的报警点分成了 10 个不同名称的报警组，报警组按键能够简单的表现出该报警组的基本信息，信息由以下部分组成 1*报警组名称， 2*报警组图标，3* 报警点总数，4*模拟量报警数量，5*开关量报警数量，6*未确认报警数量，7*已确认报警数量。

GCWJ-2000 system can be all the alarm points up into groups of 20. The picture above said will project alarm into 10 different names of alarm group, alarm key group can simply show the alarm group of basic information, information consists of the following parts composition 1* alarm group name, 2* alarm group icon,3* alarm point total, 4* analog alarm number, 5 * switching alarm number, 6* unacknowledged alarm number, 7 * ack alarm number.

通过点击每个组按键，可以进入单个报警组页，如下图所示，点击"发电机"报警组按键，进入发电机报警组页：

By clicking on each group button, you can enter a single alarm group page, as shown below, click on the "generator" alarm group button, into the generator alarm group:



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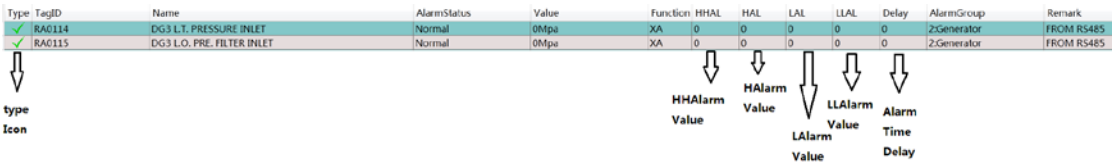
列表中报警点可以显示 13 种信息，如图所示：

13 kinds of information can be displayed in the list, as shown in fig.:



(1) Type: 用小图标的形式把报警点的当前状态表示出来：

Type: A small icon in the form of the current state of the alarm point:

(2) TagID: 报警点的 ID 号，在整个项目中这是唯一的；

TagID: The ID number of the alarm point, which is unique in the entire project;

(3) Name：报警点的名称，也就是报警点的实际意思应该在 Name 中体现出来；

Name： The name of the alarm point, the actual meaning of the alarm point should be reflected in the Name;

(4) AlarmStatus：报警点目前的状态；

AlarmStatus： Alarm point current status;

(5) Value：报警点的当前值，正常情况下模拟量点用阿拉伯数字和单位符号表示，探头故障时用-9999 表示，开关量用 CLOSED 或者 OPEN 表示 ，断线时用-9999 表示；

Value：The alarm point current value , the normal situation of analog points with the Arabia digital and unit symbols, the sensor fault with -9999, switch with CLOSED or OPEN , when the break with -9999 ;

(6) Function：目前 AUTO2000 系统有 2 中定义，XA：模拟点，XI：数字点；

Function：At present, AUTO2000 system has two definitions, XA: Analog point, XI: digital point;

(7) HHAL：模拟点的高高报警值；

HHAL：High high alarm value of Analog point;

(8) HAL：模拟点的高报警值；

HAL：High alarm value of Analog point;

(9) LAL：模拟点的低报警值；

LAL：Low alarm value of Analog point;

(10) LLAL：模拟点的低低报警值；

LLAL：Low low alarm value of Analog point;

(11) Delay：报警延时；

Delay：Alarm delay;

(12) AlarmGroup：报警点所在组的编号和组名称；

AlarmGroup：Number and group name of the group in which the alarm is located;

(13) Remark：备注信息。

Remark：Remark information.

Type	Icon	AlarmStatus	Display action	Trigger buzzer
unacknowledged alarm	A	Digital point： alarm Analog point：high high alarm high alarm low alarm low low alarm	Flashing display	yes
Alarm ack	✔	Digital point： alarm(ack) Analog point：high high alarm(ack) high alarm(ack)	Flat display	no

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		low alarm(ack) low low alarm(ack)		
normal		normal	Flat display	no
Alarm Recovery unack		Digital point:alarm(Recovery unack) Analog point： high high alarm (Recovery unack) high alarm (Recovery unack) low alarm (Recovery unack) low low alarm (Recovery unack)	Flat display	yes
line fault		Digital point： Break	Flat display	yes
sensor fault		Analog point： sensor fault	Flat display	yes
run		Digital point： run	Flat display	no
Not run		Digital point： Run stop	Flat display	no

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四、 实时报警

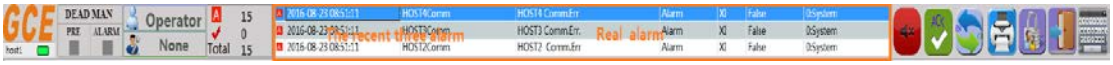
Real time alarm

系统实时检测所有点的状态,当有报警发生时，实时报警的显示有以下两种方式：

System real-time detection of all points of the state, when the alarm occurs, the real-time alarm display has the following two ways:

（1） 报警速显窗口：无论报警显示位于哪一个页面，报警实时速显窗口都会直观立即显示发生的报警。

Alarm speed display window: no matter where the alarm display is located in a page, the alarm real-time speed display window will immediately show the occurrence of the alarm immediately.

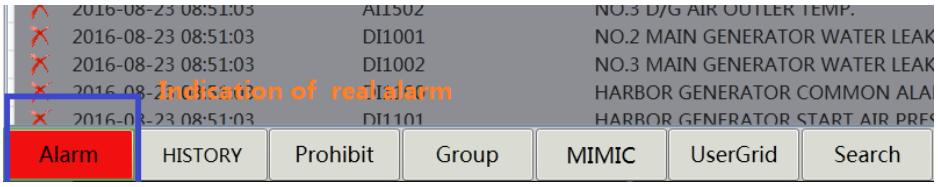


（2） 实时报警列表：所有的实时报警都会在实时报警列表中显示

Real time alarm list: all of the real-time alarm will be displayed in the real-time alarm list

当有报警发生时，如图按键 Alarm 颜色会变为红色，在确认报警前闪烁；

When an alarm occurs, the button Alarm color will be changed to red, in recognition of the alarm before flashing;



点击按键 Alarm，会进入实时报警列表显示页面

Click on the button Alarm, will enter the real-time alarm list display page

实时报警列表中报警类型为 A 指示发生的报警，在按下消音按钮前会有声音发出，并且红色突出显示在确认之前，不停地闪烁提示。

Real time alarm list alarm type A instructions alarm occurred. Before press the mute button will have a voice, and red highlight display before ack, kept flashing prompt

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五、 历史报警：

History alarm:

当系统中监测到有报警发生，恢复，确认时，系统会自动将报警点发生的时间等信息记录到报警历史中，以便于日后查询使用；

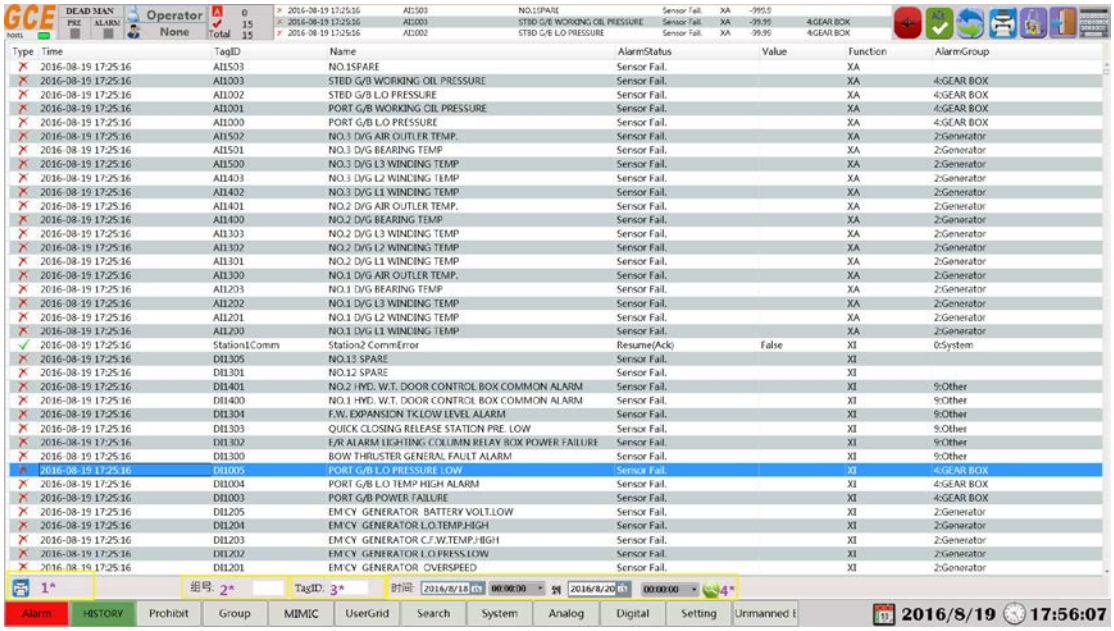
When the system to monitor the occurrence of alarm, recovery, ack, the system will automatically alarm time and other information recorded in the history of the alarm, in order to facilitate the day after the query;

显示历史报警数据以及查询报警点的发生和确认等信息，便于统计和管理。其中数据点状态指示共分为五类，分别为报警状态、报警确认状态、恢复未确认状态、运行状态、断线状态以正常状态。

Display historical alarm data, as well as the occurrence and ack of the inquiry alarm point, which is convenient for statistics and management. The data point status is divided into five categories, which are the state of alarm, the state of the alarm ack, the state of the recovery is unack, the state of operation and the broken line.

当点击 HISTORY 按钮时，显示历史报警页面：

When the HISTORY button is clicked, the history alarm page is displayed:



该页面具有打印和搜索功能；

The page has a print and search function;

打印功能：1*所示打印图标，点击图标即可对显示报警内容或搜索内容信息进行打印；

Print function: 1* print icon, click on the icon to display the alarm content or search content information to print;

搜索模式：Search mode:

1、 按日期时间搜索，图 4*所示位置进行选择；

Search by date time, select the location shown in figure 4*;

2、按照组号进行搜索，图 2*所示位置进行输入；

Search by number, shown in Figure 2* position input;

3、按点名（TagID）搜索，图 3*所示位置进行输入；

According to the named (TagID) search, figure 3* shows the location of the input;

用户和按照单个条件进行搜索，用户也可根据需要和具体情况同时组合搜索；

Users and in accordance with a single condition for the search, users can also be combined with the needs of the specific circumstances of the search;

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六、 MIMIC 图：

MIMIC diagram:

根据项目要求或项目中的设备状态，MIMIC 图的显示和数量会不同；

According to the project requirements or the status of the equipment in the project, the display and the number of MIMIC diagram will be different;

一般情况下 MIMIC 图有主机、发电机、配电板、齿轮箱、液位等；MIMIC 页面会多个按键显示，每个按键显示有 1*设备名称、2*设备示意图标；选择相应的按键点击会显示相应设备的 MIMIC 图；

General MIMIC diagram with engine, generator, MSB, a gear box, a liquid level; mimic page will be a plurality of buttons, each button to display a 1* device name, 2 * device schematic icon, click on the corresponding button select will mimic diagram showing the corresponding equipment;

如发电机 MIMIC 图：页面图上有发电机示意图，在相应的位置直观显示发电机的参数及报警，1*类型模拟量显示，显示测点的名称和数值单位，当鼠标放到上面会提示报警值，当越线报警发生时，数值左边的点会变红色提示报警发生； 2*模拟量柱状仪表显示，数值和柱状填充会根据实际数值的变化而改变； 3*开关量的报警显示，显示开关量的报警名称和报警，当有报警发生时，报警名称前的点会变红色并且闪烁提示报警；4*类型开关量显示，颜色根据参数变化而变化；

If the generator MIMIC diagram: page map diagram generator in the position corresponding to the visual display of the parameters of the generator and alarm, 1* type analog display, name display and value measurement unit, when the mouse is placed above the alarm value, an alarm occurs when the line, numerical left point will turn red tips alarm; 2* analog column display, numerical and column filling will change according to the change of the actual value and the alarm switch; 3* display, alarm display name switch and alarm, when an alarm occurs, before the name of the alarm point will turn red and flashing alarm; 4* type digital display , Colour will vary according to the parameter change;

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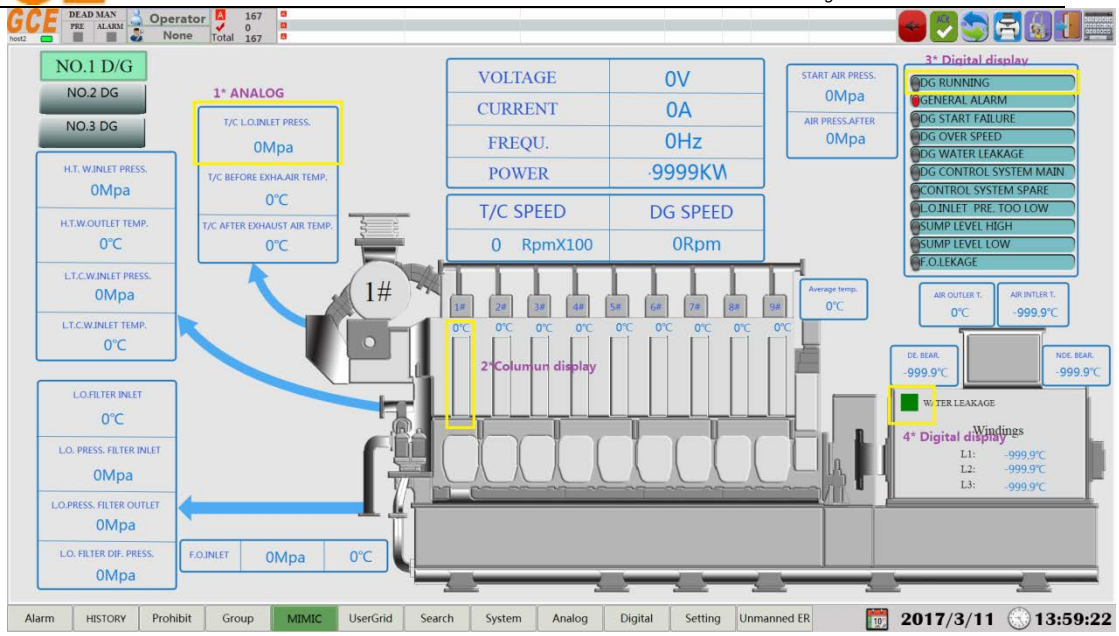
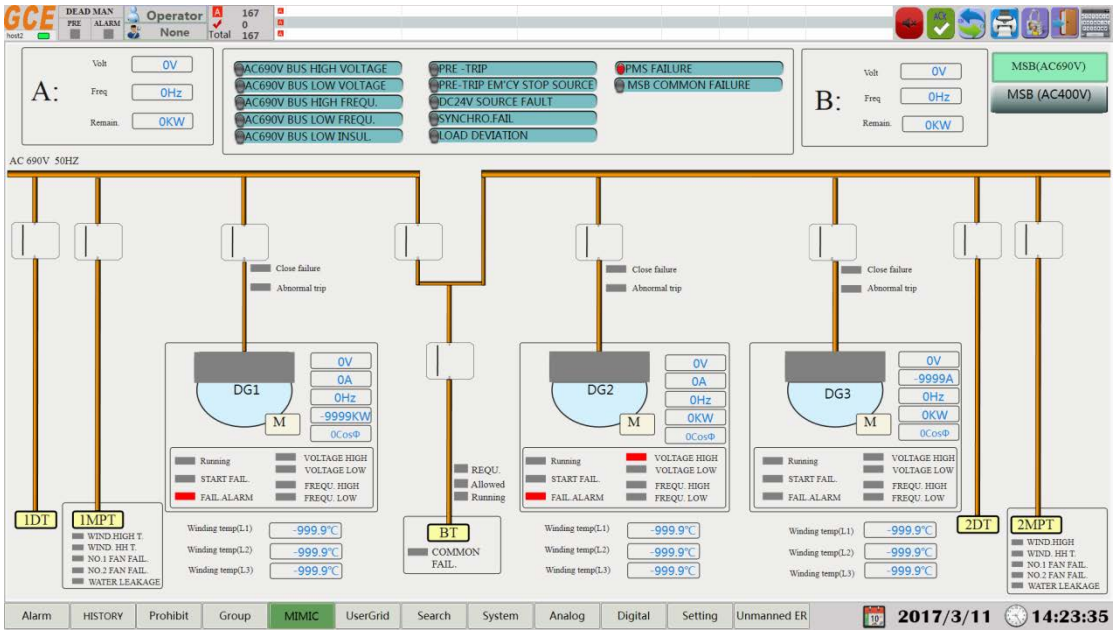


配电系统 MIMIC:

MSB MIMIC:



阀门系统显示:

Valve system display:

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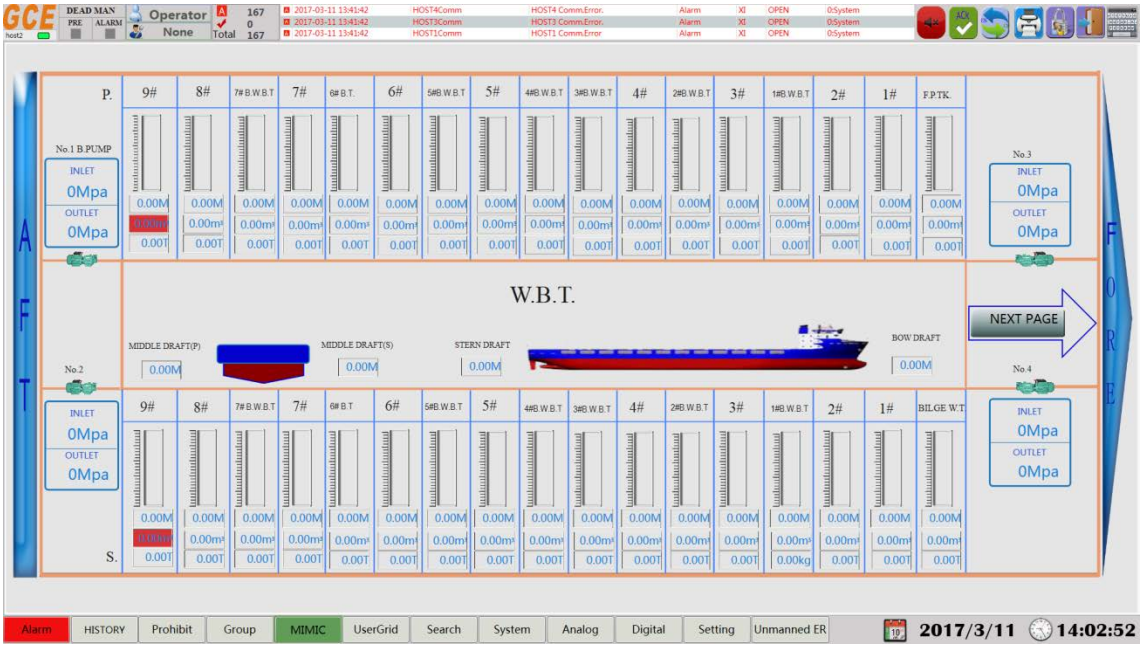
液位系统显示：

Liquid level system display:



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七、 报警抑制

Alarm inhibition

在系统调试或者运行的过程中，经常有一部分点需要将报警暂时屏蔽，操作人员想要知道所有屏蔽的点的信息，就可以打开报警抑制页面，每个点的信息以列表的形式呈现，系统中所有屏蔽的点一目了然；

In the process of system debugging or running, there is often a part of points need to be temporarily alarm shielding, the operator wants to know all the information of the shield, you can open the alarm suppression page, each point of the information presented in the form of a list, all the points in a shielding system;

Type	TagID	Name	AlarmStatus	Value	Function	HHAL	HAL	LAL	LLAL	Delay	AlarmGroup	Remark
	DI0012	EDB AC220V DB EM'CY POWER FAIL.	Disable		XI					0		FROM SAU1
	DI0013	DC24V DISTR.BOX(LDB)POWER FAILURE	Disable		XI					0		FROM SAU1
	DI0014	EAB AC220V DB MAIN POWER FAILURE	Disable		XI					0		FROM SAU1
	DI0015	EAB AC220V EM'CY POWER FAILURE	Disable		XI					0		FROM SAU1
	DI0100	NO.5 SPARE	Disable		XI					0		FROM SAU1
	DI0101	NO.6 SPARE	Disable		XI					0		FROM SAU1
	DI0102	NO.7 SPARE	Disable		XI					0		FROM SAU1
	DI0103	NO.8 SPARE	Disable		XI					0		FROM SAU1
	DI0104	NO.9 SPARE	Disable		XI					0		FROM SAU1
	DI0105	NO.10 SPARE	Disable		XI					0		FROM SAU1
	DI0106	NO.11 SPARE	Disable		XI					0		FROM SAU1
	DI0107	NO.12 SPARE	Disable		XI					0		FROM SAU1
	DI0108	NO.13 SPARE	Disable		XI					0		FROM SAU1
	DI0109	NO.14 SPARE	Disable		XI					0		FROM SAU1
	DI0110	NO.15 SPARE	Disable		XI					0		FROM SAU1
	DI0111	NO.16 SPARE	Disable		XI					0		FROM SAU1
	DI0112	NO.17 SPARE	Disable		XI					0		FROM SAU1
	DI0113	NO.18 SPARE	Disable		XI					0		FROM SAU1
	DI0114	NO.19 SPARE	Disable		XI					0		FROM SAU2
	DI0115	NO.20 SPARE	Disable		XI					0		FROM SAU2
	DI1402	SPARE	Disable		XI					0		FROM SAU2
	DI1403	SPARE	Disable		XI					0		FROM SAU2
	DI1404	SPARE	Disable		XI					0		FROM SAU2
	DI1405	SPARE	Disable		XI					0		FROM SAU2
	DI1406	SPARE	Disable		XI					0		FROM SAU2
	DI1407	SPARE	Disable		XI					0		FROM SAU2
	DI1408	SPARE	Disable		XI					0		FROM SAU2
	DI1409	SPARE	Disable		XI					0		FROM SAU2
	DI1410	SPARE	Disable		XI					0		FROM SAU2
	DI1411	SPARE	Disable		XI					0		FROM SAU2
	DI1412	SPARE	Disable		XI					0		FROM SAU2
	DI1413	SPARE	Disable		XI					0		FROM SAU2
	DI1414	SPARE	Disable		XI					0		FROM SAU2
	DI1415	SPARE	Disable		XI					0		FROM SAU2
	EAP11	No.11 EAP COMM.FAILURE	Disable		XI					0		FROM SAU3
	EAP12	No.12 EAP COMM.FAILURE	Disable		XI					0		FROM SAU3
	EAP13	No.13 EAP COMM.FAILURE	Disable		XI					0		FROM SAU3
	EAP14	No.14 EAP COMM.FAILURE	Disable		XI					0		FROM SAU3

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八、 用户自定义报警点列表

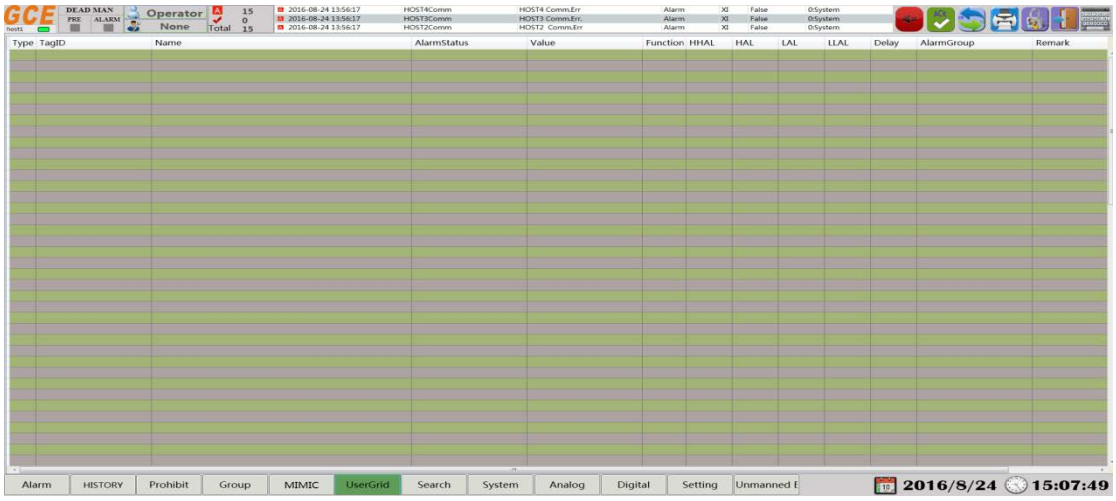
User defined alarm point list

用户自定义列表功能为用户提供了一种便利，用户可以很方便的将十分关心的监测点集中的显示在一起，方便观察比较；用户可以将任意一个监测点添加，添加过程和方法：

Custom list function provides a convenience for the user, the user can be very concerned about the monitoring points easily concentrated display together, convenient observation and comparison; the user can arbitrarily add a monitoring point, adding process and method:

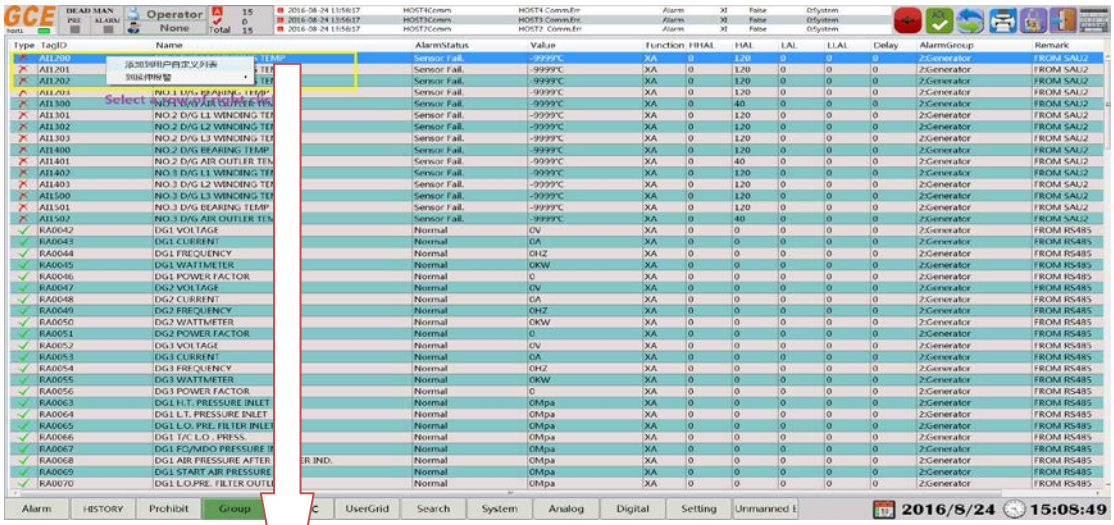
未添加任何点的列表：

List of not add any points:



组页面中任意选择一测点行，点击右键添加：

Select a test point line in the group page, click the right button to add:



显示选择监测点添加成功：

Show the selection of monitoring points to add success:

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选择点击右键，可以删除；

Click right click to delete;

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九、 报警点定位搜索

Alarm point location search

为了方便用户维护和现场使用调试，我们可以根据报警点的硬件接线位置来定位到软件点信息；

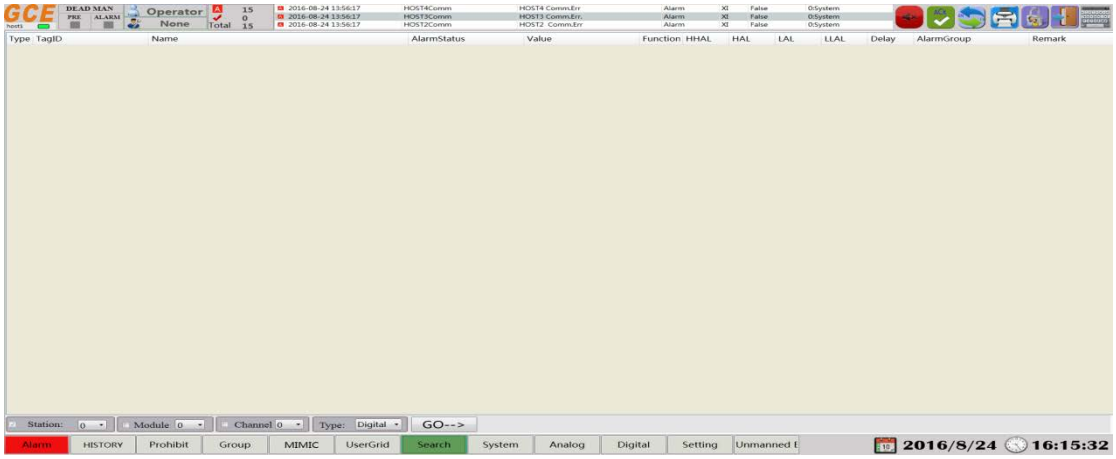
In order to facilitate user maintenance and site use debugging, we can locate the software point information according to the hardware connection position of the alarm point;

通常根据站号、模块号、通道号、采集点的类型进行搜索定位，定位后根据权限可以直接对其参数进行修改；

According to the station number, module number, channel number, the type of acquisition point search and positioning, according to the authority can directly modify the parameters;

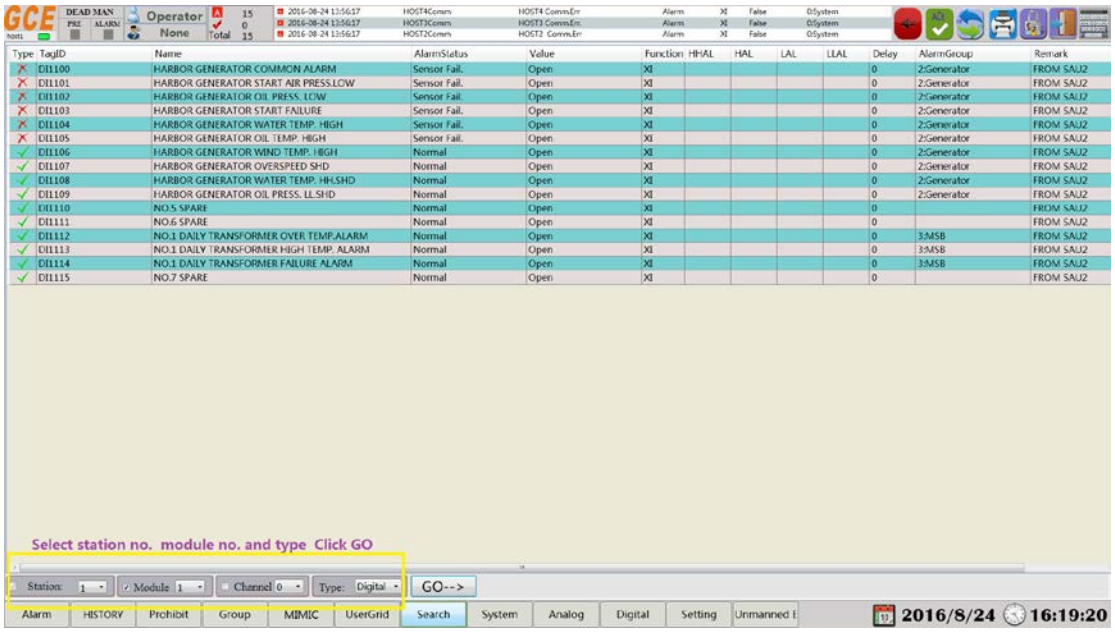
未搜索前显示：

Display before search:



当选择相应的条件搜索出现：

When selecting the appropriate condition search appears:



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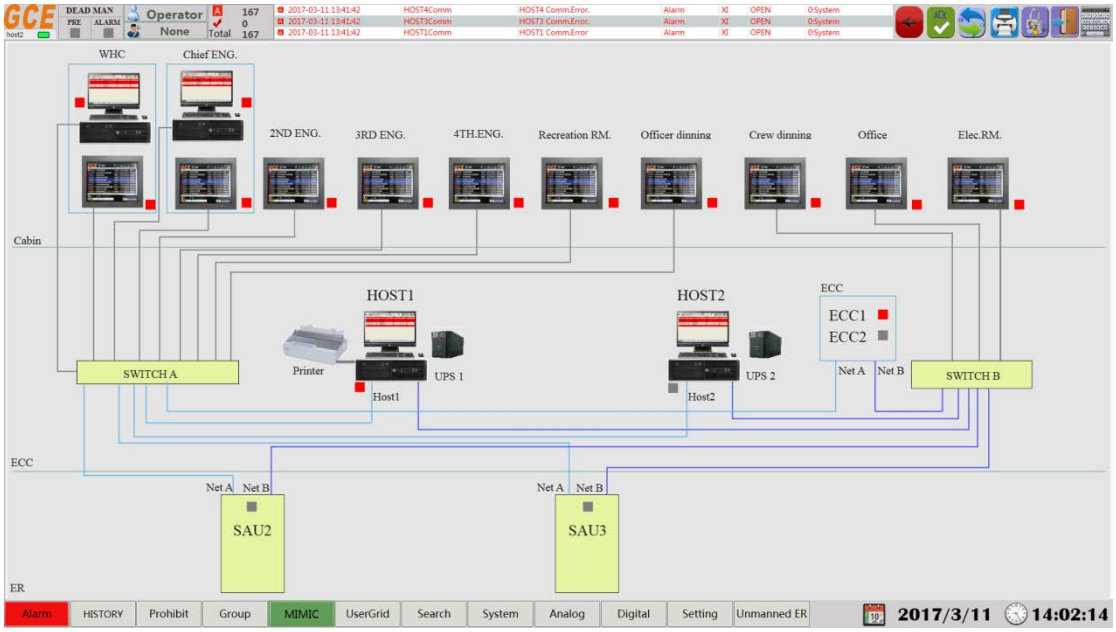
十、 系统示意图

System diagram

该页面显示本系统的基本网络结构位置示意图：

This page shows the location of the basic network structure of the system:



从这个页面可以直观的看到设备的运行状况，故障时显示红色，正常时为为灰色；

From this page you can see the status of the operation of the device, the failure of the display red, normally gray;

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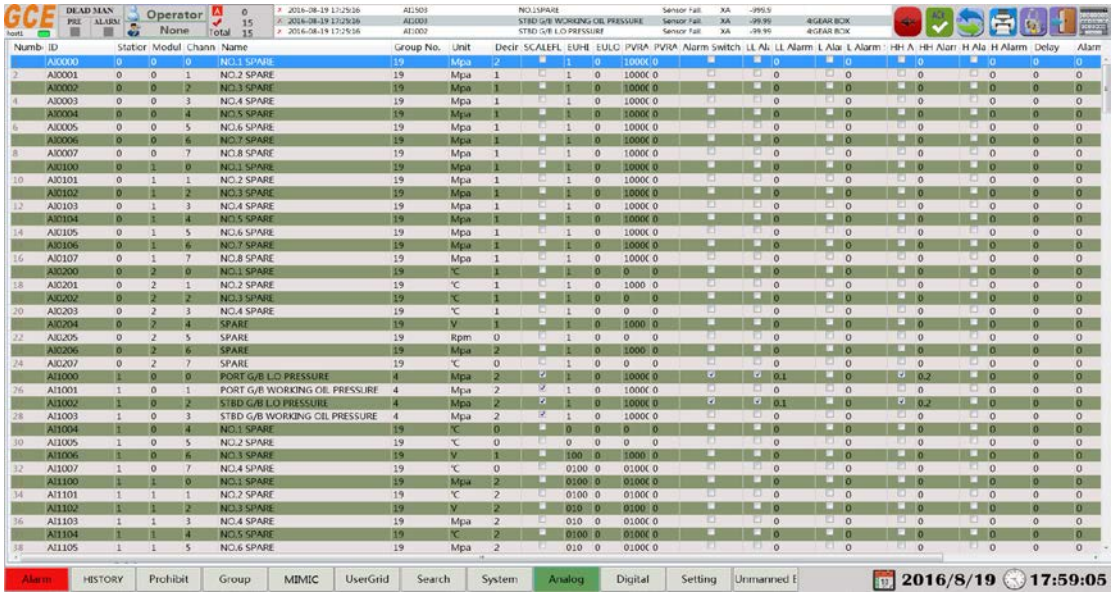
十一、 模拟量点汇总

Analog point summary

模拟点记录了属性为模拟量的数据点，主要用于对模拟点的集中管理，提供模拟量点的详细参数查看、参数修改以及管理等功能；

The Analog points record the data points of the analog quantity, which is mainly used for the centralized management of the Analog point, providing the detailed parameters of the Analog point, the parameter modification and the management;



双击其中任一模拟点，则会弹出相应的模拟量设置对话框，如图所示，在该设置对话框中可以实现对该模拟点的中英文名称、标签、参数、量程开关以及报警开关的查看修改以及对修改后数据点的下载和保存。

Double click any Analog, will the corresponding analog pop-up settings dialog box, as shown in the dialog can be achieved on the Analog points in the English name, label, parameter, range switch and alarm switch to view and modify of the modified data points to download and save.

模拟量点的 ID 以大写字母 A 开头；

The analog of the ID in capital letters A;

不具有参数修改权限的普通用户只能查看参数，不能进行修改；具有参数修改权限的用户登录后才可以对参数进行修改；

Do not have parameters to modify the permissions of the ordinary users can only view the parameters, can not be modified; with parameters to modify the user login before you can modify the parameters;

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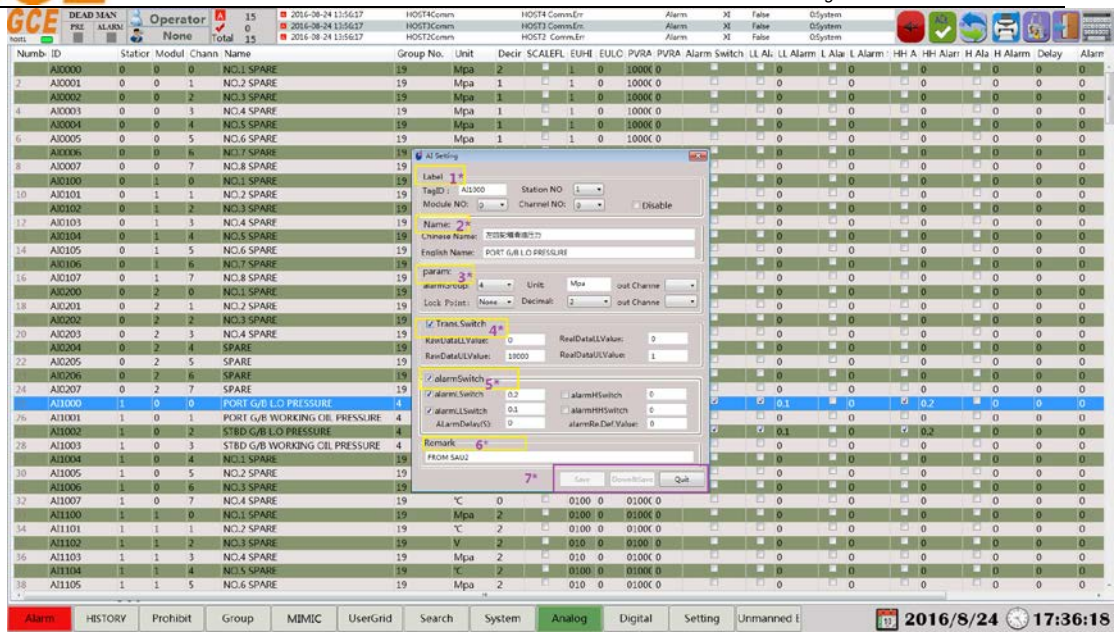

1*参数显示修改 TagID 号及报警抑制参数；

1* parameter display modification TagID number and alarm suppression parameters;

2*参数显示修改监测点的中文和英文名称；

2* parameters show the Chinese and English names of the modified monitoring points;

3*参数显示修改模拟量测点的报警组、单位、小数点等信息；

3* parameter display to modify the analog measurement point of the alarm group, unit, decimal point, and other information;

4*参数用来确定裸数据和量程之间的转换；

4* parameter is used to determine the conversion between the bare data and the range;

5*参数用来显示修改模拟量的报警限制，分为高高报警、高报警、低报警、低低报警；

5* parameter is used to modify the analog display alarm limit, divided into high high alarm 、high alarm 、 low alarm、 low low alarm;

6*参数用来对监测点的信息进行备注；

6* parameters used to note the information of the monitoring point;

7*按键用来对修改过的参数进行保存和下载，此修改只有登录用户权限达到，按键使能就会打开，才可以进行保存下载；

7* button is used to modify the parameters to save and download, this is only to modify the user login permissions to achieve, the button can be turned on, you can save the download;

当修改后保存下载后会有下载成功提示，改变后的参数会生效；

After the modification to save the download will be downloaded success tips, the parameters will be changed after the change;

点击“保存”,数据将被存储在计算机数据库；

Click "save", the data will be stored in the computer database;

点击“下载并保存”,数据将被存储在计算机数据库中,并下载参数采集模块的 EEPROM；

Click "download and save", the data will be stored in a computer database, and download the parameters of the acquisition module EEPROM;

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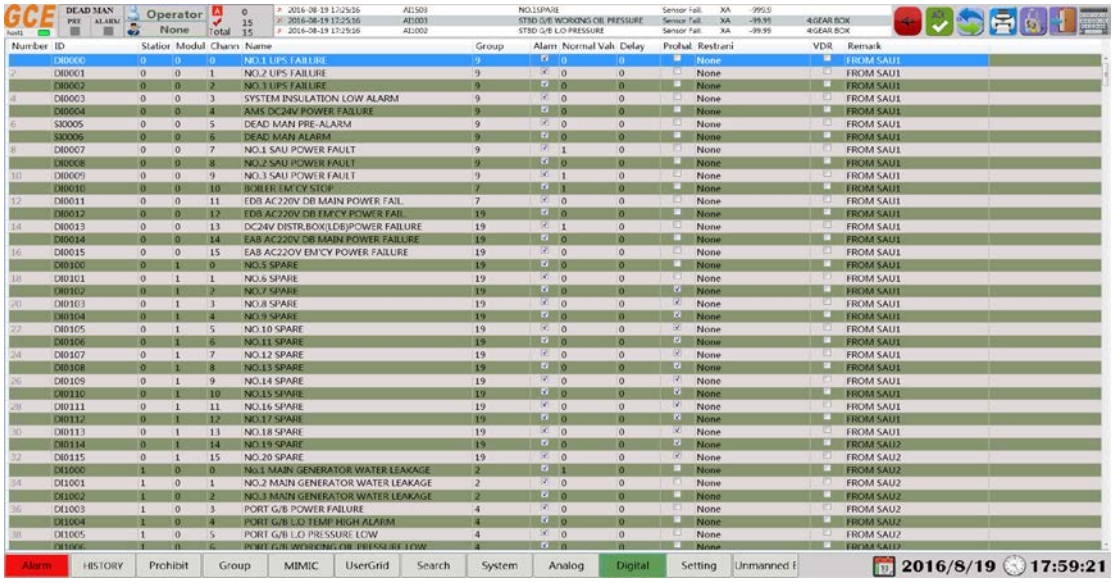
十二、 开关量点汇总

Switching point summary

模拟点记录了属性为开关量的数据点，主要用于对开关点的集中管理，提供开关量点的参数查看、参数修改以及管理等功能；

The Analog points record the data points of the switch, which is mainly used for the centralized management of the switching points, and provides the parameters of the switching point, the parameter modification and the management;



双击其中任一开关量点，则会弹出相应的开关量设置对话框，如图所示，在该设置对话框中可以实现对该开关量点的中英文名称、标签、参数、延时以及报警开关的查看修改以及对修改后数据点的下载和保存。

Double click any switch, it will pop up the corresponding switch settings dialog box, as shown, can be achieved on the switch point in the English name, label, parameters, and delay the alarm switch to view and modify the modified data points in the download and save the settings dialog box.

开关量点的 ID 以大写字母 D 开头；

Switch to the amount of D in capital letters ID;

不具有参数修改权限的普通用户只能查看参数，不能进行修改；具有参数修改权限的用户登录后才可以对参数进行修改；

Do not have parameters to modify the permissions of the ordinary users can only view the parameters, can not be modified; with parameters to modify the user login before you can modify the parameters;

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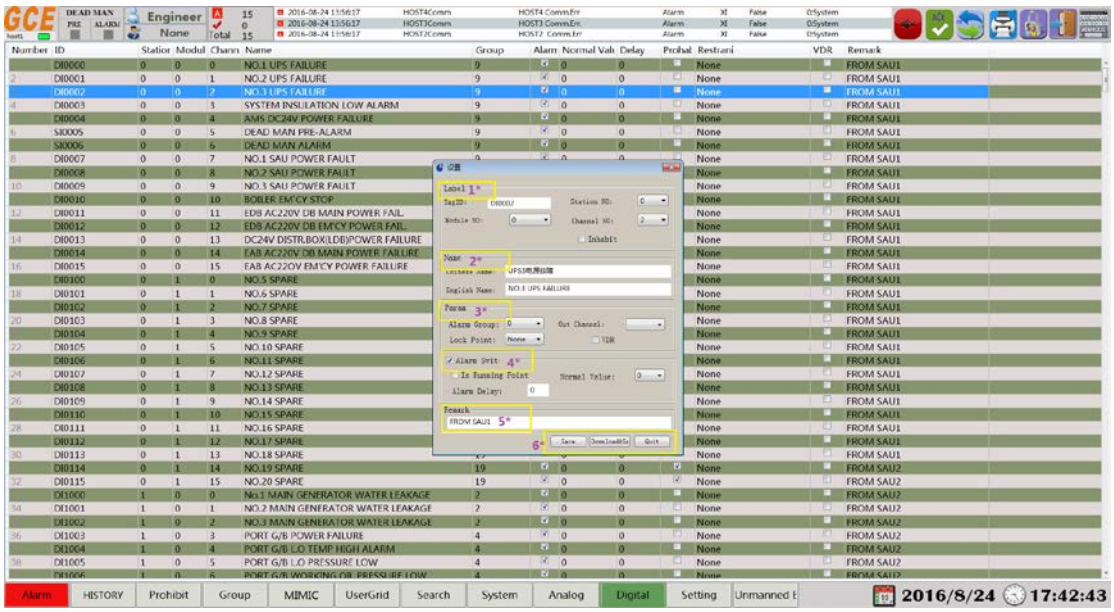

1*参数显示修改 TagID 号及报警抑制参数；

1* parameter display modification TagID number and alarm suppression parameters;

2*参数显示修改监测点的中文和英文名称；

2* parameters show the Chinese and English names of the modified monitoring points;

3*参数显示修改模拟量测点的报警组、VDR 等信息；

3* parameters show that modify the analog measurement point of the alarm group, VDR and other information;

4*参数用来设置是报警还是运行点，报警点的正常状态，报警延时等；

4* parameters are used to set the alarm or running point, the normal state of the alarm, alarm delay, etc.;

5*参数用来对监测点的信息进行备注；

5* parameters used to note the information of the monitoring point;

6*按键用来对修改过的参数进行保存和下载，此修改只有登录用户权限达到，按键使能就会打开，才可以进行保存下载；当修改后保存下载后会有下载成功提示，改变后的参数会生效；

6* button is used to parameters of the modified preservation and download, only the login user permissions to modify this button, enable will open, can save the download; when there will be prompted to save the successful download download the modified after parameters after the change will take effect;

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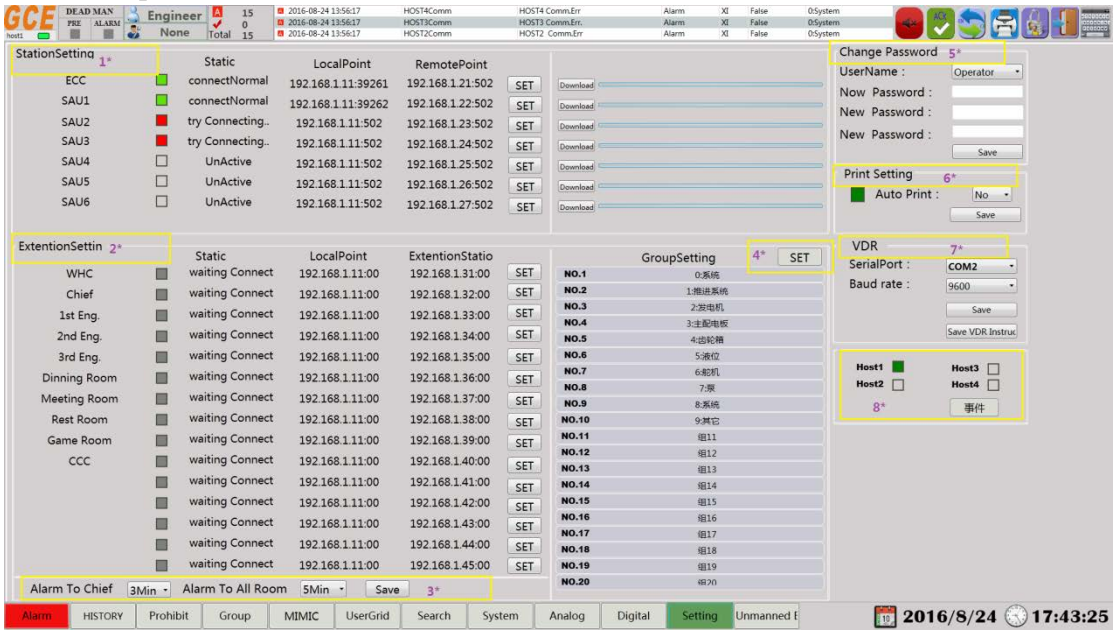
十三、 系统设置

System settings

该页面对整个系统中的配置进行设置，比如站、延伸、用户、打印等设置；

The page in the face of the entire system configuration settings, such as station, extension, user, print, etc.;



1*项设置，对项目的每个采集站的信息进行显示和设置，通讯连接正常的站，方框指示灯显示绿色，通讯故障的显示红色，灰色的则是未使用；SET 按钮对该采集站是否激活进行设置；Download 按钮可以对该站的参数进行统一下载；

1* items set, the project of each collection of information to display and set up, the communication link to the normal station, square indicator light shows green, communication failure of the red, gray is not used; SET button on the collection station is activated to set；The Download button can be used to download the parameters of the station;

2*项设置，对项目中相应位置的延伸报警进行设置有位置、状态指示、IP、设置激活等；激活相应位置后，如果通讯正常指示灯灰色变为绿色，通讯故障指示灯灰色变为红色；

2* setting, alarm of extension project in the corresponding position setting position, status indicator, IP, activation; activation of the corresponding position, if communication is normal light grey to green, communication fault indicator light grey to red;

3*延伸报警在报警发生设定时间内值班人员无应答后的进一步处理；第一个时间是在设定时间值班人员无应答时轮机长房间自动打通声响提醒报警发生，如果在设定时间内轮机长房间仍然没应答报警，那么会进一步激活船上所有的房间的延伸报警声音提示报警发生；

3* extension alarm alarm occurs in further processing on duty no response after the set time; the first time in the set time on duty without response to chief engineer room automatically through sound alarm occurs, if within a set time chiefengineer room still did not answer the alarm, it will further activate the extension of all on board room alarm voice prompt alarm occurs;

4*项对延伸报警组进行设置；

4* items on the extension of the alarm groups to set;

5*项用户可以对账号密码进行修改；

5* users can modify the account password;

6*项对系统是否进行自动打印进行设置；

6* items on the system whether to automatically print settings;

7*项对系统 VDR 参数串口，波特率、发送到数据点等进行设置；

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7* on the system parameters of VDR serial port, baud rate, data sent to the point set;

8*项对系统中的主机通信是否正常状态指示，未激活为指示灯灰色；激活正常时，指示灯为绿色，故障时，指示灯为红色；

8* entry on the system of the host communication is the normal state of the instructions, not activated for the indicator light gray; activate the normal, the indicator light is green, when the fault, the indicator light is red;

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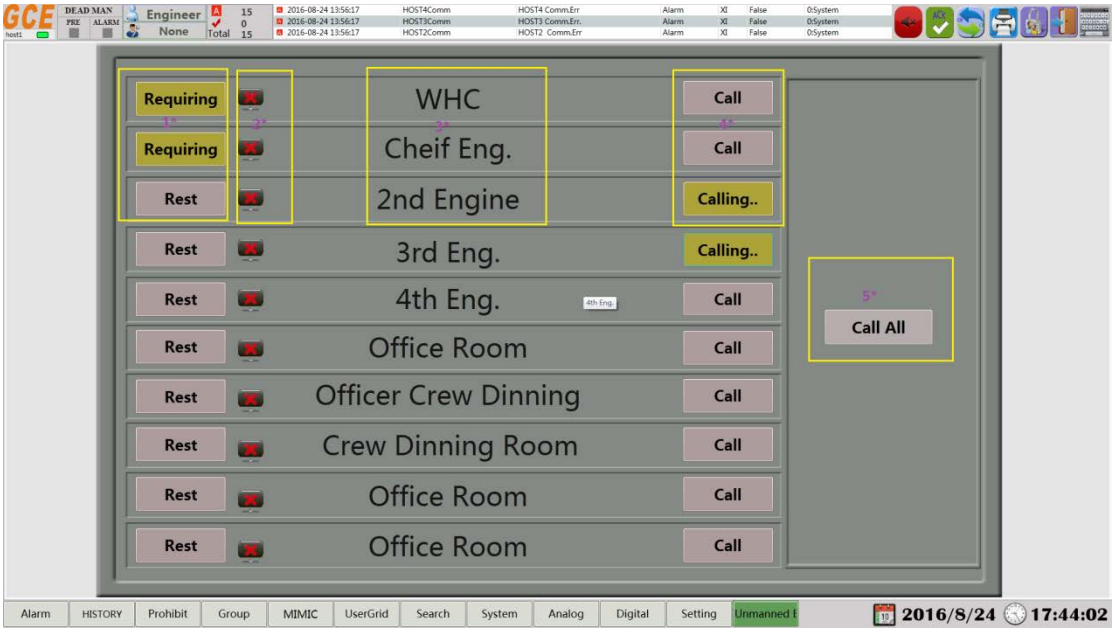
十四、 机舱无人房间值班

Cabin unattended room on duty

当机舱无人模式时，打开机舱无人页面：

When the cabin unmanned mode, open the cabin unmanned page:



值班请求：

Duty request:

1*值班请求按键，正常显示 Rest，点击后请求位置值班时显示 Requiring 状态，值班位置确认后，会显示值班中；

1* duty request button, the normal display Rest, click on the request after the position on duty to show the status of Requiring, on duty to confirm the position, will display on duty;

2*显示该位置的通信连接状态，通信不正常时，会显示故障如图示；

2* shows the location of the communication connection status, communication is not normal, it will display the fault as shown;

3*显示值班位置名称；

3* display on duty location name;

当进行值班选择或者切换时，需要登录用户：chief，密码：123456

When selecting or switching on duty, you need to login user: chief, password: 123456.

轮机员呼叫：

Engineer's call:

4*轮机员呼叫按钮，正常显示 Call，轮机员可以点击呼叫，呼叫时颜色和字体会有变化，显示呼叫中 Calling，相应位置可以进行呼叫确认；

4* engineer call button, the normal display Call, the engineer can click on the call, call color and font will be changed, the call Calling, the corresponding position can be called to confirm;

5*轮机员呼叫全部位置，当有紧急情况时，如果需要呼叫多个位置，轮机员不必要一个一个位置进行呼叫，点击 CALL ALL 可以对所有位置进行呼叫；

5* engineer to call all the position, when there is an emergency, if you need to call a number of locations, the engineer does not need to call a location, click ALL CALL can call all locations;

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十五、液晶延伸报警单元

Extension alarm panels

1. 简介

Overview

GCCJ-01-08-2 液晶延伸报警单元采用 8’彩色液晶触摸屏，能够及时准确地监视机舱内各种动力设备的运行状态以及运行参数。运行设备发生故障时，能自动发出声光报警信号，并可以显示报警记录。它还能把有关设备的参数都集中显示在液晶屏上，轮机人员不必到机舱去巡视，能够在集中控制室或者居住室内了解到所有设备的运行状态以及其参数值，结合机舱计算机报警系统，实现无人机舱，从而可以减轻轮机管理人员的劳动强度，改善工作条件，及时发现设备的运行故障，提高设备运行的可靠性。

GCCJ-01-08-2 LCD extension alarm panel unit 8 'color LCD touch-screen, able to timely and accurately monitor the cabin running status and operation parameters of various kinds of power equipment.Running equipment failure occurs, can automatically send out sound and light alarm signal, and can display the alarm record.It can also focus on equipment parameters are displayed on the LCD screen, turbine staff don't have to be to the engine room to inspect, will in the centralized control room or living room understand that all the equipment running status and its parameter values, in combination with computer engine room alarm system, realize unmanned engine room, which can reduce the labor intensity of turbine management personnel, improve the working conditions, equipment operation fault in time, improve the reliability of equipment operation.

本单元采用大尺寸真彩色液晶屏，显示内容量大；

This unit uses the true color LCD screen, large size display in large capacity;

本单元采用触摸屏方式，操作方便快捷；

The unit adopts touch screen, the operation convenient and quick;

本单元采用以太网络通信速度快、系统可靠稳定；

This unit uses the Ethernet communication speed, system stable and reliable;

本单元嵌入式安装接线简单、自动化程度高、可扩展能力强、而且维护方便。

This unit embedded installation wiring is simple, high degree of automation, extensible ability, and convenient maintenance.

2. 主要技术参数

The main technical parameters

（1） 正常使用电压：DC24V;
使用电压范围：DC20.4V～DC28.8V；
Normal use voltage: DC24V；

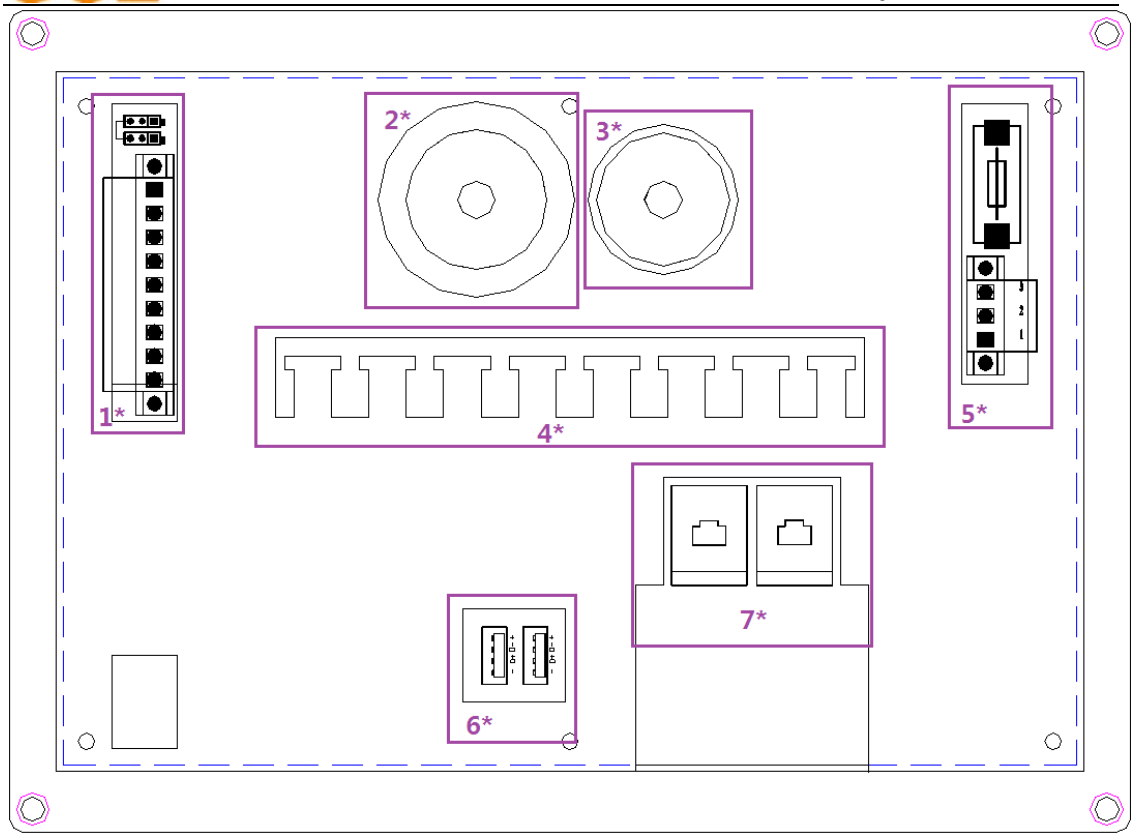
Using voltage range: DC20.4 V ~ DC28.8 V.

（2） 使用温度范围：0℃～+55℃；
保存温度范围：-20℃～+60℃ ；
use temperature scope: 0 ℃ ~ + 55 ℃;
Save temperature range: - 20 ℃ ~ + 60 ℃;
（3） 使用湿度范围：10～90%RH;
use humidity range: 10 ~ 90% RH;
（4） 使用标高： 2000m 以下；
use level: below 2000 m.
（5） 屏幕尺寸： 8.0’；
the screen size: 8.0 ‘
（6） 屏幕分辨率：800*480；
the screen resolution: 800 * 480;
（7） 污染度： 2；
pollution: 2;
（8） 瞬停许容时间：10ms 以下；
instantaneous stop allowable time: below 10 ms;
（9） 突入电流： 5A 以下；
into current: under 5 A;
（10） 绝缘抵抗： DC500V；
insulation resistance: DC500V;
（11） 功耗： 10W 以下；

power consumption: under 10 w;

3. 显示单元背面接口示意图如下

The display unit on the back of the interface



说明：

Description:

1* **为开关量输入接线端子；**

2* **火警报警蜂鸣器**

3* **通用报警蜂鸣器**

4* **接线固定架**

5* **电源接线端子和保险**

6* USB 接口

7* **以太网通信接口**

1 * for the switch quantity input terminal;

2 * fire alarm buzzer

3 * general alarm buzzer

4 * wiring fixed frame

5 * power supply terminals and insurance

6 * USB interface

7 * Ethernet communication interface description:

4. 功能介绍

Function is introduced

（1） **显示功能**：显示器内设时钟，用液晶屏显示年、月、日、时、分、秒时钟在断电后能自动记忆，开机后不用重新校正，可重新设定日期和时间。

Time display: display with clock, with LCD display year, month, day, hours, minutes, seconds, the clock can automatic memory after power, without recalibration after boot, you can reset the date and time.

（2） **调光功能**：可以根据需要，尤其在驾驶室使用时，可以很方便的调节显示亮度。

Dimming function, can according to need, especially when used in bridge, can easily adjust clearer defect display.

（3） **触摸功能**：屏幕显示采用大屏幕液晶触摸屏。

touch function: screen LCD touch-screen.

（4） **实时报警功能**：当系统检测到有报警发生时，实时显示报警信息，并闪烁声响提示值班人员注意，处理相关报警。

real-time alarm function: when the system has detected alarm occurs, the real-time display and alarm information, and flicker noise Alert the personnel on duty to, deal with related alarm.

（5） **报警显示和统计功能**：系统用图标直观显示和统计当前报警点总数量和报警确认的数量。

Alarm, display and statistical functions: system with visual display icon, the total number and statistical current alarm and alarm The number of ack.alarm.

（6） **报警声响功能**：当系统监测到有报警发生时，系统能同时发出声响，以提示值班人员。

Sound alarm function: when the system detects a alarm occurs, the system can make noise at the same time, in order to prompt values Class members, alarm sound confirm function: alarm sound, the attendants to see the alarm information can be in accordance with the corresponding Button to mute and confirmation.

（7） **报警消音确认功能：**报警发出声音后，值班人员看到报警信息后可以按相应的按键进行消音和确认。

Confirm the alarm silencing function: The alarm sound, the personnel on duty see alarm information can be confirmed according to the corresponding keys and silencer.

（8） **报警列表显示功能：**智能延伸报警单元检测到报警发生是实时显示报警发生的时间、标签、名称、值等信息，以列表的形式显示直观，一目了然；

Alarm list display function: the intelligence alarm unit alarm is detected real-time display alarm,The information such as time, label, name, value, in the form of a list of direct display, be clear at a glance.

（9） **分组显示功能：**智能延伸报警单元可以按照检测点或者不同的设备分类进行分组，检测信息分组显示分类更方便；

Grouping display function: the intelligence alarm unit can be classified according to the testing point or different devices for points，It is more convenient to group, testing information display group classification;

（10） **自动记录报警功能：**智能延伸报警单元能自动记录监测点的报警信息，如报警点的标签，报警名称，报警值，报警时间，状态、报警组等信息；

Automatically record alarm function: the intelligence alarm unit can automatically record the alarm monitoring information, such as newspaper point label, name of alarm, alarm value, the alarm time, status and

alarm set of information;

（11） **中英文切换功能：**具有显示语言一键中英文切换功能，以实现国际航线的需求

Language switch function: in both English and Chinese have showed a key switch in both Chinese and English language function, in order to realize the need of international routes .

（12） **轮机员呼叫：**机舱人员可以结合检测软件，不同位置的智能延伸报警单元进行呼叫，被呼叫的位置会有声响提示，相应人员进行应答；

Engineers call: engine-room personnel can combine detection software, in different locations of the intelligence alarm unit Line call, called position will have sound prompt, the corresponding personnel to reply;

（13） **值班报警:**根据船舶自动化要求，值班人员可以结合检测软件，切换无人机舱，将报警切换至房间值班，实现无人机舱。

watch alarm: according to the requirements of ship automation, the personnel on duty can be combined with detection software, switching unmanned engine room.The alarm switch to the on duty room, realizes the unmanned engine room.

（14） **独立火警功能：**智能延伸报警单元可以区分火警重要警报，当检测到火警发生时，延伸报警单元会发出火警声响，区分普通报警声响，提示全船人员火警发生注意安全；

Independent fire alarm function: the intelligence alarm unit can distinguish important fire alarm, when they tested the fire alarm Raw, extension alarm unit have a fire alarm sound, distinguish between ordinary alarm sound, prompt ship's personnel fire happens, pay attention to safety;

（15） **轮机员安全报警：**当有轮机员进入机舱工作，长时间没有和系统交互有危险发生时，系统后发出轮机员安全报警，并通知船上其他人员，进行救援处理；

Engineer security alarm: when there is a engineer's work into the engine room, for a long time did not interact with the system of the danger Occurs, the issue engineer security alarm system, and notify other persons on board, the rescue treatment

5. 延伸显示单元具体操作说明

Display unit specific instructions

（1） 上电启动进入启动画面，显示“system loading……”

The electric start into the splash screen,display 'system loading……'

（2） 启动后，自动进入运行主画面

Starts, run automatically entered into the main picture

主界面显示系统时间、状态指示、功能按键、页面按键，实时报警列表；在实时报警列表中显示，当前正在报警状态的报警的标签、名称、值、发生时间、状态、组等信息，点击右下角的  、  按键可以换行查看报警；实时报警和确认的数量统计等；

Main interface display system time, status indication, function keys,

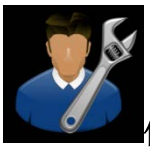
page buttons, real-time alarm list;

In real time alarm list, according to the current state of the are alarm alarm label, name, value, such as time, status, group information, click on the lower right corner  、button can view a new line alarm;Real-time alarm and confirm the number of statistics, etc.;

★图标指示说明：

公司 **Logo**；

公司名称;The name of the company；


值班位置或人员指示；Position or on duty personnel instructions；


蜂鸣器静音状态；Buzzer mute state;


蜂鸣器发出声音状态；Buzzer sounds;


轮机员未呼叫；Engineer did not call;


当轮机员从计算机呼叫相应位置时，对应位置会闪烁指示轮机员呼叫；

When the engineer from the computer call corresponding position corresponding to the instructions will be flashing position engineers call;

 当前位置未值班指示；The current location is not on duty instructions;

 当轮机员计算机进行值班请求选择确认后，当前位置值班指示图标；

When on duty engineer computer to request confirmation, the current position indicator icon on duty;

 轮机员安全报警未发生时指示；Engineer's security alarm did not occur;

 轮机员安全报警发生指示；Engineer's security alarm indicator;

 火警报警未发生指示；No fire indicator;

 火警报警信号发出时，会有火警报警专用声音发出，并且图标闪烁指示火警警报发出；

When the fire alarm signal, there will be a special sound, fire alarm and flashing the indication of fire alarm;

★功能按钮说明：

★Function button shows:

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试验按钮，按下时测试蜂鸣器会发出声音；

Test button, press the test buzzer will sound;


消音按钮，报警声音发出时，按下时会停止声响；

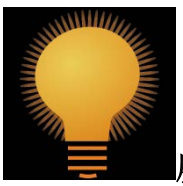
The mute button, alarm sound, press the sound will cease;


报警确认按钮；Alarm confirm button;


向上按钮，在报警列表中，向上选择按钮；Up button in the alarm list;


向下按钮，在报警列表中，向下选择按钮；Down buttons in the alarm list;

中英文切换按钮，按下时系统语言中英文一键切换；Chinese and English switch button, press the system a key switch in both Chinese and English language;


屏幕调光功能，按下旁边的“+”，“-”，可以根据需要调节屏幕

亮度；

Next to screen the dimming function, press the "+", "-", can according to need to adjust the screen brightness.

★报警列表中图标： Alarm list icon:

 发生报警图标，报警发生时，该图标会闪烁指示；

Alarm ICONS, alarm occurs, the icon will flash indicator;

 报警发生时，自动恢复后图标指示；After the alarm occurs, the automatic recovery icon indicator;

 报警发生后，按下功能按钮确认后，该图标指示报警确认；Alarm, press the function button after confirmation, the icon indicates alarming;

 运行点运行指示；run point running instructions;

 运行点停止指示；run point stop instructions;

（3） 点击“group”按钮，进入到系统分组页面，可以看到分组的信息

Click on the "group" button, enter the system group page, can see the packet of information；

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点击组按钮可以进入相应的组查看测量点的信息如下：Click on the button can enter the corresponding group check measurement point information is as follows:

发电机组：**DG group**：

（4） 点击“**History**”按钮，进入页面可以查看历史报警信息 Click on the "History" button, enter the page to view History alarm information

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（5） 点击“System”按钮，可以查看系统报警信息；

Click on the "System" button, can view the System alarm information

（6） 点击“Setting”按钮，可以进入设置页面，调节亮度和进行语言一键切换；Click "Setting" button, you can enter Settings, adjust

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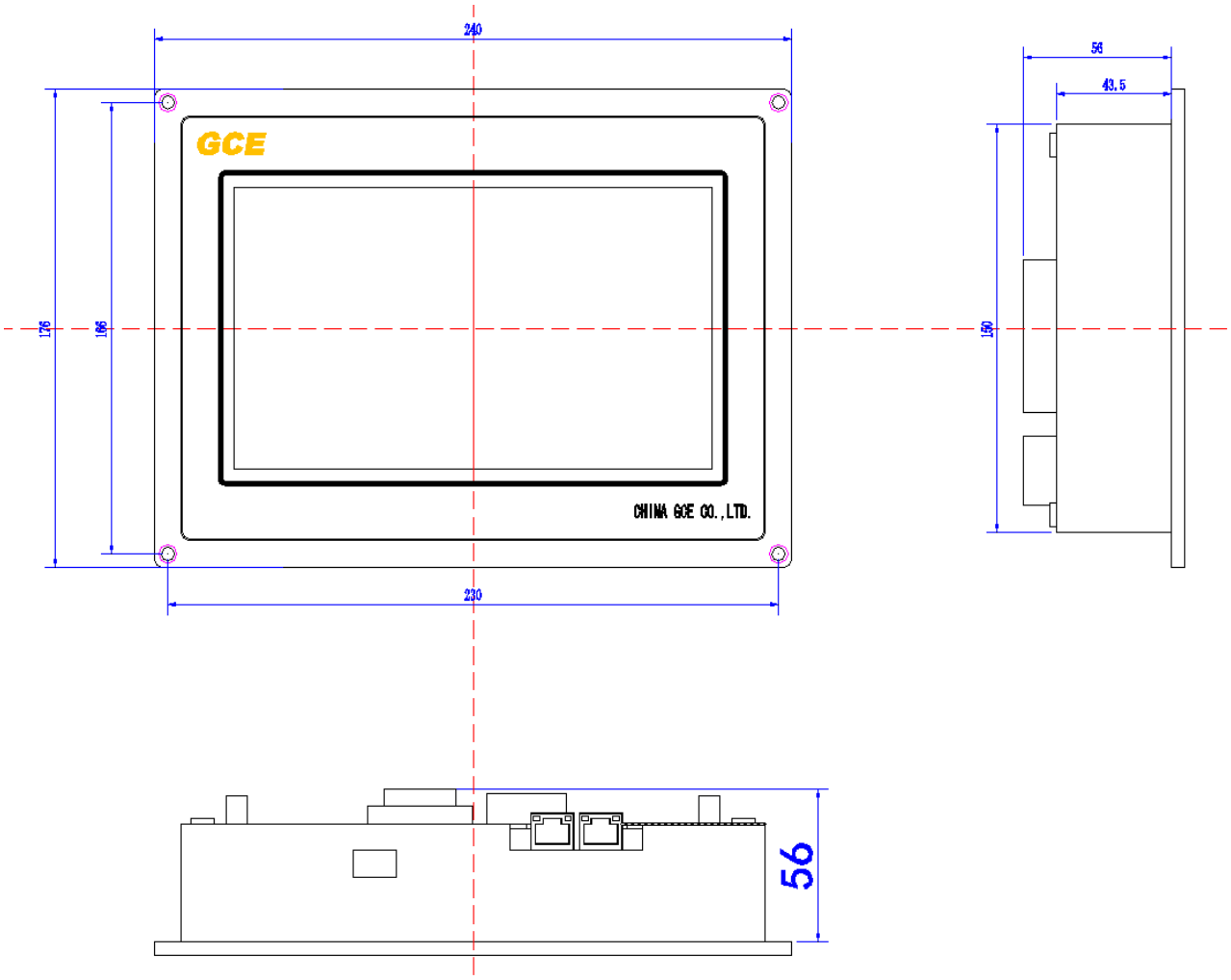
brightness and a key switch language;

6. 现场安装开孔尺寸图 Installation hole size drawing:



7. 注意事项

The matters needing attention

该延伸报警显示单元是重要的船用监测报警设备，平时使用应注意清洁爱护、妥善管理维护；

The extension alarm display unit is an important Marine monitoring alarm device, use at ordinary times should pay attention to clean love, proper management maintenance;

（1） 上电前请检查输入电源电压是否正常；

Please check the input before electricity power supply voltage is normal;

（2） 网线接头是否牢靠，是否绑扎；

Whether the cable connector, whether binding

（3） 注意爱护屏幕，防止磕碰和划伤；

Pay attention to take good care of the screen, avoid knock against and scratch;

（4） 定时检查其功能正常与否，并做好记录；

Check its function is normal or not, and make records;

如若出现故障非专业人员请勿拆卸，可根据实际情况进行关闭电源或及时通知厂家进行维修!

If malfunction non-professional personnel do not remove, can according to the actual situation to shut off the power or timely notify the manufacturer for repair!

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