InteliVision

InteliVision Display

Controller Display Unit for IGS-NT and ID Controllers

IV

SW version 1.0, April 2008

Reference Guide

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Introduction

InteliVision (IV display) is the new generation display unit for ComAp InteliGen NT / InteliSys NT (IGS-NT) or InteliDrive (ID) controllers. It is designed as a simple, easy to use Plug and Play solution and delivers high visibility of all engine data, monitoring information and trend history in a bright, colorful and forward looking design.

The new screen features many significant improvements from the original IS-Display including a large high-resolution color TFT display, which helps visibility and definition for onscreen information.
The control interface has also been updated with user-friendly intuitive active buttons - giving users access to more information in less time. **InteliVision** also features TRENDS monitoring as a standard feature, helping you evaluate past events easily on one screen.
The **InteliVision** cut-out size is the same as the IS-Display, so **InteliVision** can be easily used as a replacement for (or an alternative to) IS-Display. Regardless of the size it can be also used as a replacement for (or an alternative to) IG-Display or I-RD-CAN.

InteliVision is designed to be connected to single controller, what means that multiple gen-set monitoring is not possible. However if InteliVision is connected to more than one controller it is possible to switch between controllers, using different communication setting in Intelivision. Switching time correspond to the time of configuration download (from controller to InteliVision).

Available Related Documentation

PDF files	Description
IGS-NT-SPTM-2.2-Reference Guide.pdf	Reference Guide for IGS-NT-SPTM
IGS-NT-SPI-2.2-Reference Guide.pdf	Reference Guide for IGS-NT-SPI
IGS-NT-MINT-2.2-Reference Guide.pdf	Reference Guide for IGS-NT-MINT
IGS-NT-COMBI-2.2-Reference Guide.pdf	Reference Guide for IGS-NT-COMBI
IGS-NT-COX-2.2-Reference Guide.pdf	Reference Guide for IGS-NT-COX
IGS-NT-2.3-New Features.pdf	New Features List of IGS-NT-2.3
ID-DCU-Industrial-2.4-Reference Guide.pdf	Reference Guide for ID-DCU-Industrial

Firmware and PC Software Supporting InteliVision

Firmware - InteliVision is supported from following versions:

Mhx file
IS-NT-2.3
IG-NT-2.3
ID-DCU-Industrial-2.4

PC Software - InteliVision is supported from following versions:

PC Software
GenConfig-2.3
InteliMonitor-2.3
DriveConfig-2.3
DriveMonitor-2.3

Installation Packages - InteliVision is supported from following versions:

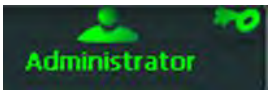
Installation Packages
IGS-NT-Install-2.3
ID-DCU-Industrial-Install-2.4

Fast Navigation

This chapter provides information on how to quickly find important data. To be more familiar with InteliVision menu, see Operator Interface chapter.

Main Icons Description

Icons at the Top of IV Display



- in IGS-NT controller:
- Administrator = user name
- key = display is NOT locked; user is logged in

- in ID controller:
- display is NOT locked; user of the second level is logged in

- display or setpoint is locked; user is NOT logged in (with sufficient password level)

- PageMode is On (in History screen)

- communication is lost

Icons at the Bottom of IV Display

- icon is shown = trends are running
  icon is NOT shown = trends are NOT running

- access lock is active = display is locked for security reasons

- PC picture is shown = remote communication (appears when any remote connection to controller is active)

- red exclamation mark = a new alarm occurred (after you go to AlarmList screen to see the alarm, the red exclamation mark turns yellow)

- yellow exclamation mark = the alarm was seen in Alarm list

- blue ringlet = opened

- green circle = closed

- red circle = MCB/GCB fail

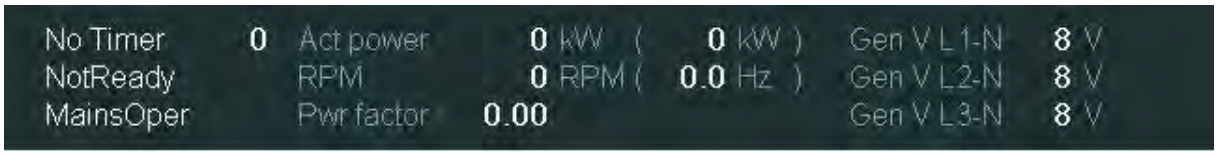
Communication Error

If some communication error occurs, the red stripe at the top of any screen appears. See example below:

When you correct the communication error, the red stripe disappears but the grey inactive icon of lost communication  stays visible. After you press ***IV info*** button on ***Help/Others*** screen the inactive icon disappears.

How to View Important Values?

No matter where you are in the menu you can see all the time important values (engine speed, power,…) in the status bar at the bottom of the screen:



To see all the values in more detail:

1. Press ***Measurement***  button.
2. Choose one of the measurement screens (e.g. Power, Mains, Gen, Synchro,…) using context buttons.
3. To go up/down through Measurement screens use ⇧⇩ buttons (when context menu is not active).

Hint:
You can use ***PgDn*** or ***PgUp*** buttons to display quickly other context buttons.

How to View a Controller Status?

No matter where you are in the menu you can see the status of the controller at the bottom of the screen:

How to View a Breaker Status?

To view a breaker status:

1. Press ***Measurement***  button.
2. Press ***Power*** button (you can find it on the right). See Measurement Screen.
   The scheme with breaker(s) status appears.

   Hint:
   The Power button is available only for connection with IGS-NT controller.

You can also see the breaker status LED diode directly on breaker buttons, see picture below:

Where	
blue ringlet	opened
green circle	closed
red circle	MCB/GCB fail

How to Connect IV Display to IGS-NT or ID Controller?

To connect to a controller:

1. Press ***Help*/*Others***  button.
2. Choose ***Communication*** by pressing the context button on the right.
3. Use → ← to choose ***ID*** or ***IGS-NT*** controller, see picture below.
4. Use ↑ ↓ and ***Enter*** buttons to choose ***Connection Type***.
5. Use ↑ ↓ and ***Enter*** buttons to choose ***Controller Address***.
6. Use ↑ ↓ and ***Enter*** buttons to choose ***Terminal address***.
7. Use ↓ and press  to confirm the action.

Hint:
You can also use RS232 port to connect IV display to ID controller or RS232/RS485 port to connect IV display to IGS-NT controller.

For other information on how to connect IV display to a controller, go to Installation chapter.

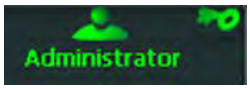
How to Enter a Password?

To enter a password:

1. Press ***Help/Others***  button.
2. Press ***Users/Password*** button.
3. Use ↑ ↓ to go to ***Users*** field and press ***Enter***.
4. Use ↑ ↓ to choose a user and press ***Enter***.
5. Use ↑ ↓ to go to ***EnterPassword*** field and press ***Enter***.
6. Enter password and press ***Enter***.
7. Use ↑ ↓ and confirm the password by pressing ***Login*** button.

Hint:
When you try to edit a locked setpoint the login dialog appears automatically.

The icons in the top right-hand corner then show you that you are logged on. See example below:



How to Change a Password?

To change a controller password:

1. Log in (see How to Enter a Password? chapter).
2. Press ***Help/Others***  button.
3. Press ***Password***.
4. Use ↑ ↓ to go to ***Users*** field and press ***Enter***.
5. Use ↑ ↓ to choose a user and press ***Enter***.
6. Use ↑ ↓ to go to ***NewPassword*** field and press ***Enter***.
7. Use → ← to go to the character position.
8. Use ↑ ↓ to change the value (numbers 1 – 9 are available) and press ***Enter***.
9. Use ↓ to go to ***ChangePassword*** title and press ***Enter*** to confirm the password.
10. Use ↓ to go to ***Logout*** title and press ***Enter***.

Hint:
For IGS-NT:
Only the user with the ***highest*** access level is able to ***reset*** passwords of other users (not to change passwords). And every user is able to change its own password.
For ID:
Only the user with the ***third*** access level is able to ***change*** passwords of other users. And every user is able to change its own password.

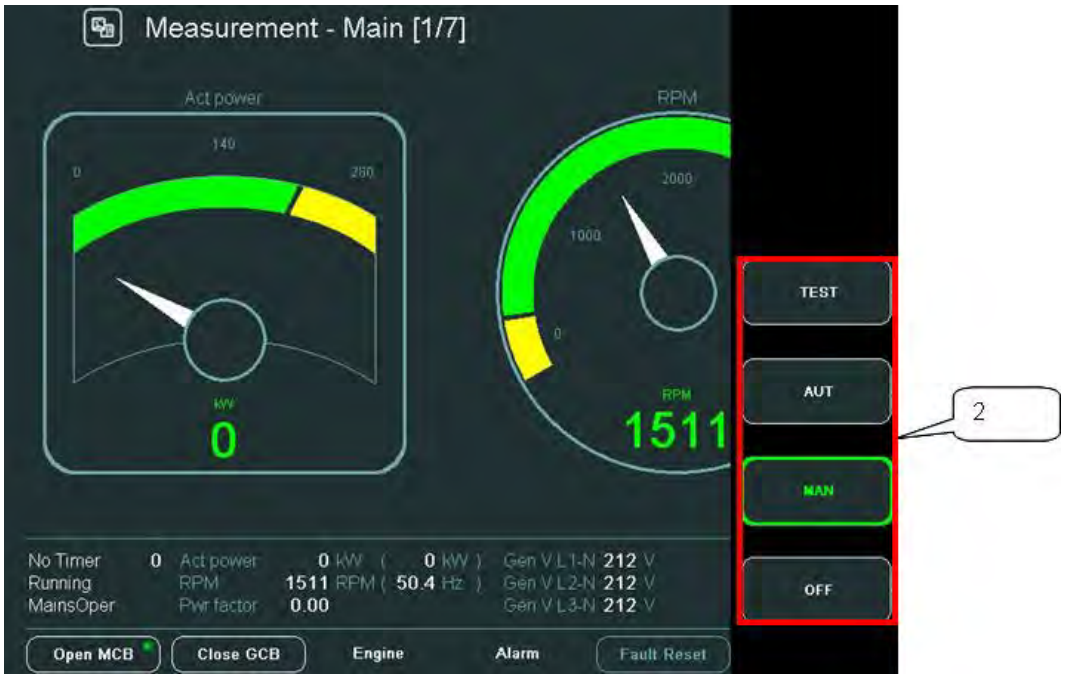
How to Change a Gen-set Mode?

To change a gen-set mode:

1. Press ***ControllerMode*** button at the bottom of IV display.
   Available gen-set modes appear, e.g. TEST, AUT, MAN, OFF.

   Hint:
   Available gen-set modes depend on the type of used application.

2. Select a mode by pressing the appropriate context button.
   After a while the label above ***ControllerMode*** button will change.



How to Find Alarms?

To find alarms:

1. If they do not appear automatically, press ***AlarmList***  button.
2. To go through alarms press ⇑⇓ or ***PgDn***, ***PgUp*** buttons.

You can find more information about alarms in AlarmList Screen chapter.

Hint:
When a new alarm appears AlarmList screen is displayed automatically ***only*** when you are in Main Measurement screen. When you are in other screens, you have to press AlarmList button to display AlarmList screen.

How to Change Setpoints?

To change setpoints:

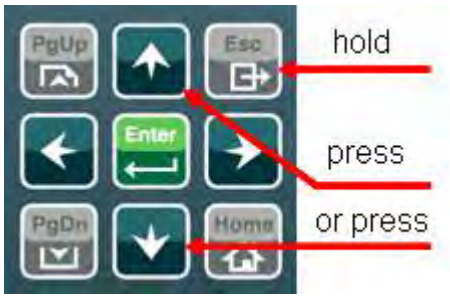
1. Press ***Setpoints***  button.
2. To scroll/see all setpoints groups, use ***PgDn***/***PgUp*** buttons to scroll menu (when menu is active).
3. Select a setpoint group by pressing the context button on the right side of the display (e.g. ***Basic settings*** button).
4. To select a certain setpoint use ***PgUp/PgDn*** and/or ⇑⇓ buttons (when menu is NOT active) and press ***Enter***. A dialog for setpoint value adjustment appears.
5. Use →← buttons to go to the character position.
6. To change a value of the setpoint use ⇑⇓ buttons and press ***Enter***

   Hint:
   If you insert a wrong value (which is e.g. out of range), the field colors in red.

You can find more information about setpoints in Setpoints Screens chapter.

How to Change Display Brightness?

Wherever you are in the menu you can increase/decrease the brightness of display by holding ***Esc*** button and repeated pressing ⇑⇓. See picture below:



Operator Interface

This chapter provides information on how to work with InteliVision display in more detail. In the picture below you can see InteliVision front fascia and layout of all its buttons and LEDs.

Hint:
When you switch on InteliVision display, Power LED turns on and Engine and Alarm LEDs start to blink for a while.

Buttons and LEDs

1.	**Context buttons**	-	selects a submenu/sub-options
2.	**Hot keys**	-	selects main menu options
3.	**Navigation buttons**	-	arrows and buttons for movement + ESC and Enter button
4.	**Stop**	-	stops the gen-set
5.	**Start**	-	starts the gen-set
6.	**Horn reset**	-	deactivates the horn (audible alarm)
7.	**Power**	-	power LED indication (green = power is on)
8.	**Controller mode**	-	calls controller mode menu (the mode can be changed then by appropriate context button)
9.	**Fault reset**	-	acknowledges faults and alarms (active only in Alarm screen)
10.	**Alarm**	-	alarm LED indication (yellow = alarm of the first level, e.g. warning, red = alarm of the second level, e.g. shutdown)
11.	**Engine**	-	engine LED indication (green = the engine is running)
12.	**MCB**	-	opens/closes MCB
13.	**GCB**	-	opens/closes GCB
14.	**Status bar**	-	shows permanently important values

Hot Keys

There are six hot keys/buttons for 6 main submenus:

1. **Measurement** - display of actual values (power, synchro, analog. inputs, binary I/O, cylinders, engines, etc.)
2. **Trends** - display of chosen values in graphs/real time trends
3. **Setpoints** - setpoints setting
4. **AlarmList** - list of active and/or unacknowledged alarms
5. **History** - display of history records
6. **Help/Others** - settings/info (users/passwords, communication, languages, IV and controller info, IV settings)

Navigation Buttons

There are nine navigation buttons:

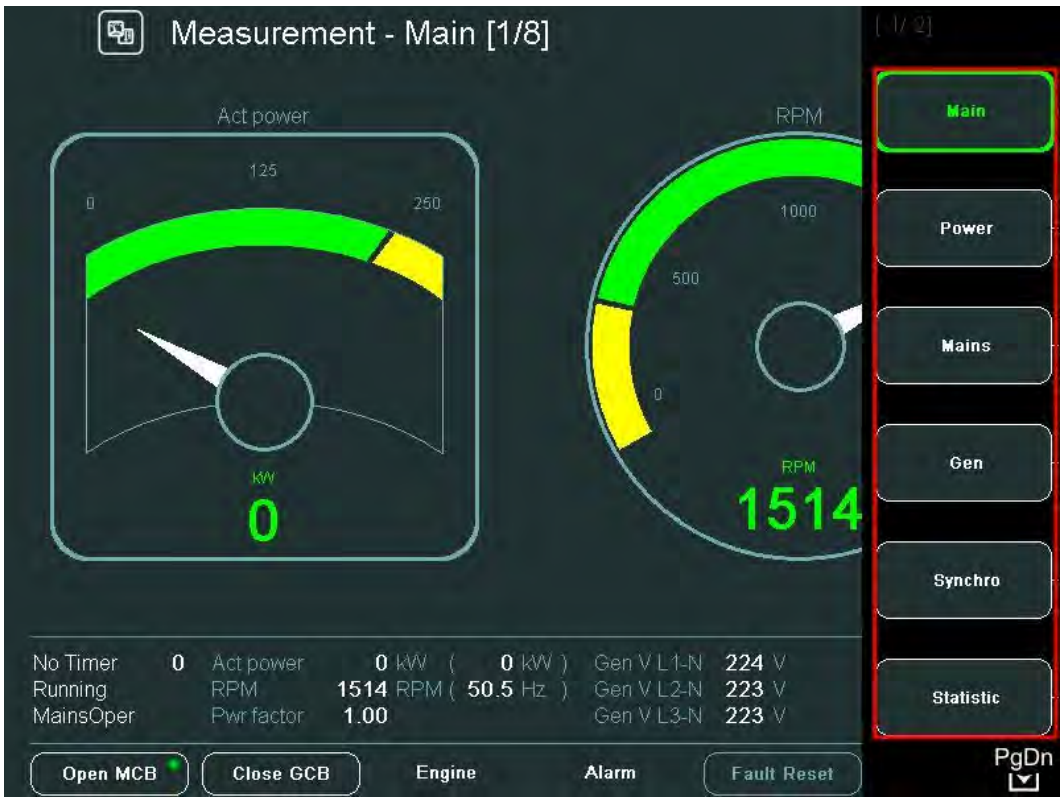
1. **PgUp** - quickly goes up among Measurement screens or Setpoints groups (when menu is active) or among Setpoints or History records (when menu is not active)
2. **PgDn** - quickly goes down among context menu items or records (similarly as PgUp)
3. **Esc** - escape from any dialog window or menu (cancels an action)
4. **Home** - jump to Main Measurement screen
5. **Enter** - confirms a value or opens a value adjustment within setting dialogs
6. ← - movement left
7. → - movement right
8. ↓ - movement down
9. ↑ - movement up

Hint:
To leave the menu, use ***Esc***, ***Enter*** or ↑ ↓ → ← buttons.

Measurement Screens

On Measurement screen you can see and check various values.

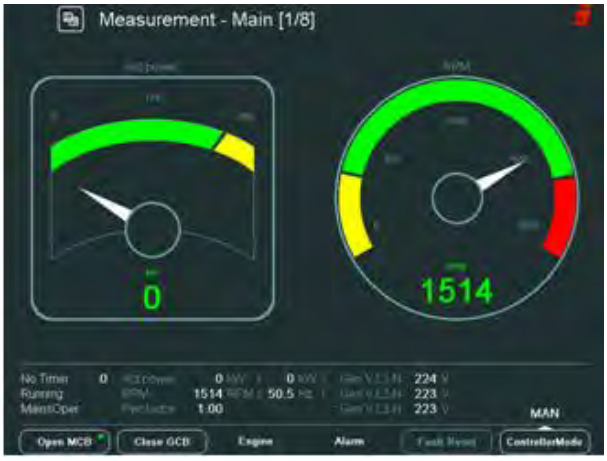
1. Press ***Measurement***  button. Measurement screen appears:



Hint:
The icon  in the bottom right hand corner (see picture above) indicates possibility to use  button to see next items of the context menu.

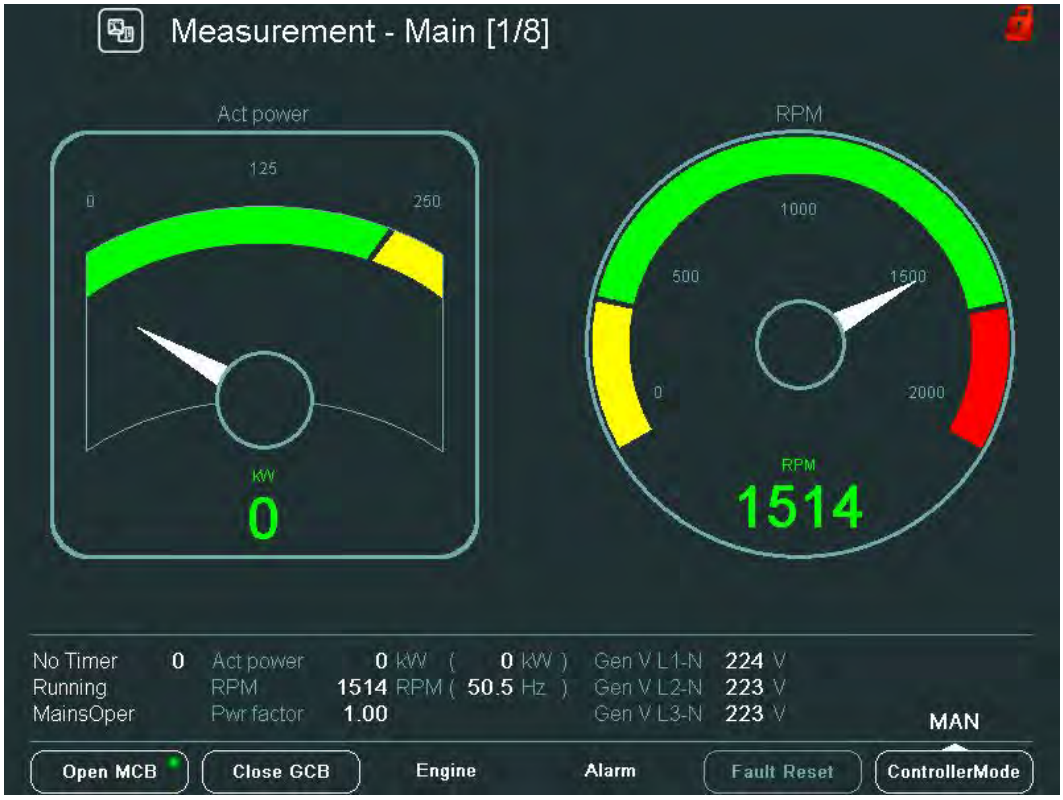
2. To go directly to a concrete Measurement screen, choose the appropriate context button (see picture above) or use ⇧⇩ buttons when menu is not active to go through measurement screens.

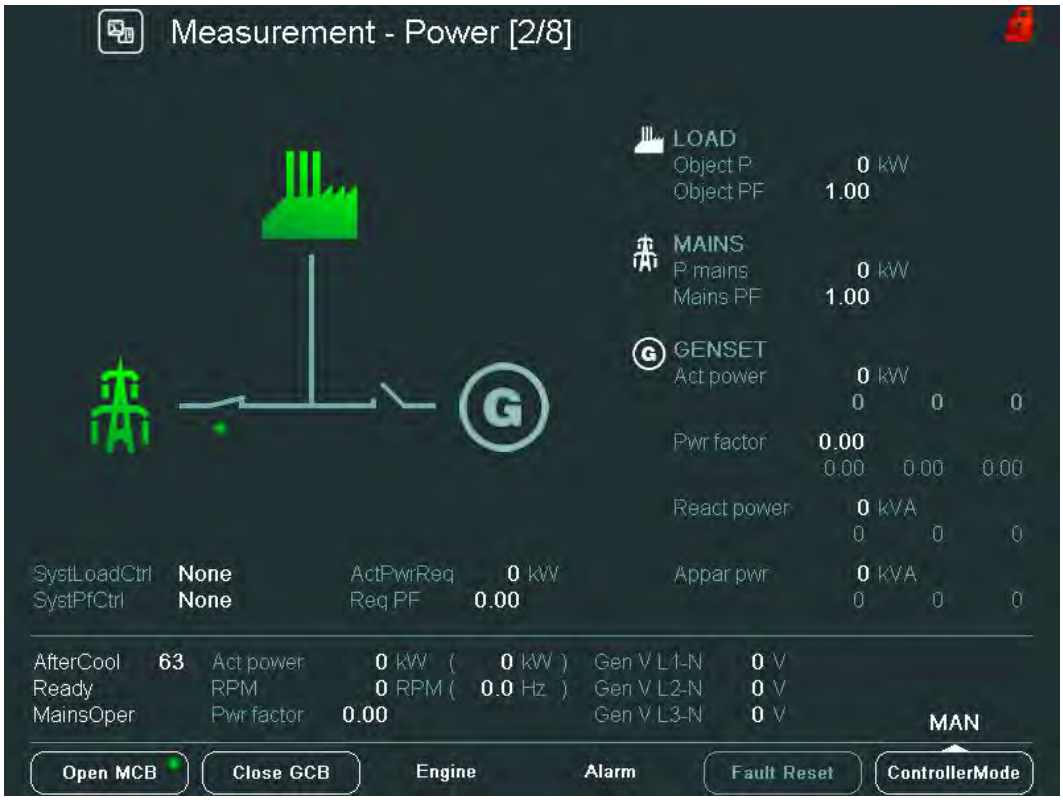
Repeated pressing ***Measurement*** button or ***Context*** buttons show/hide context menu. See pictures below:

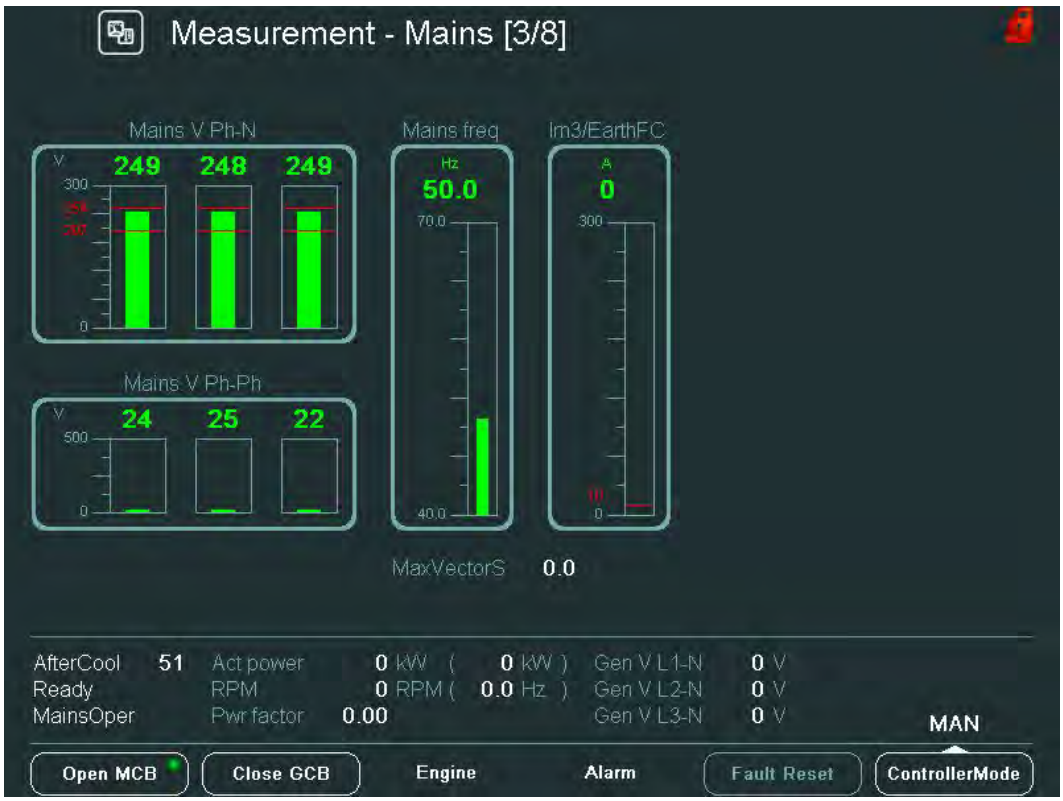


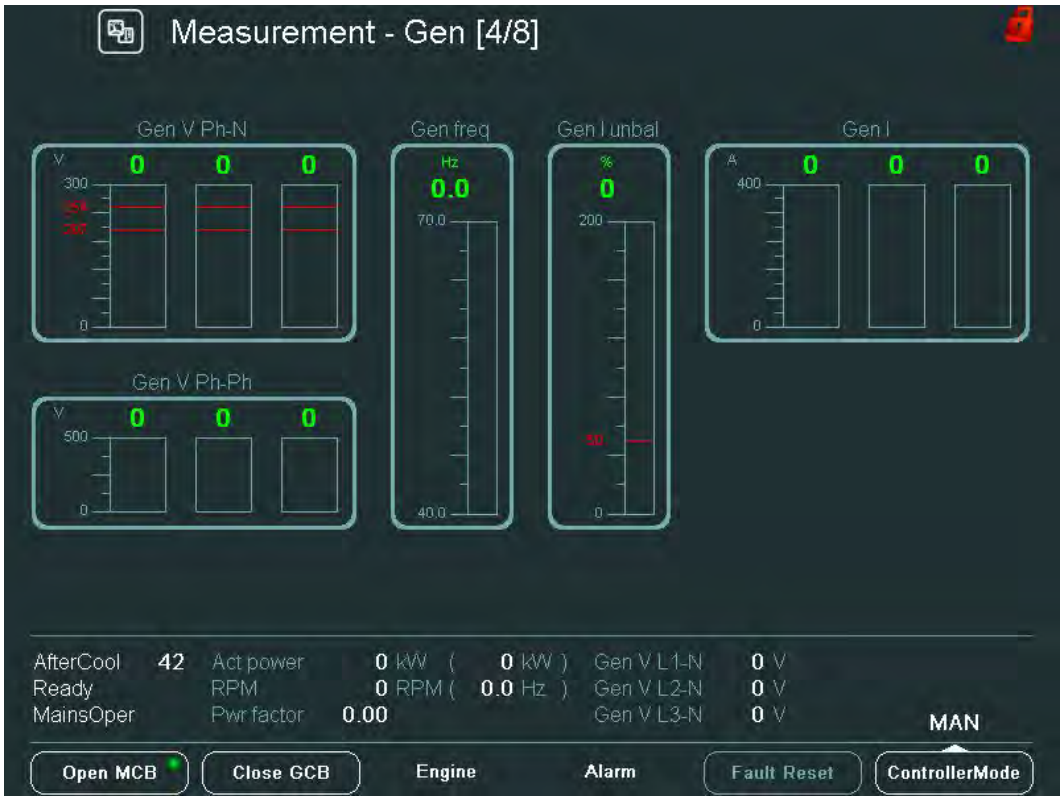
IGS-NT measurement screens come after each other in the following order:

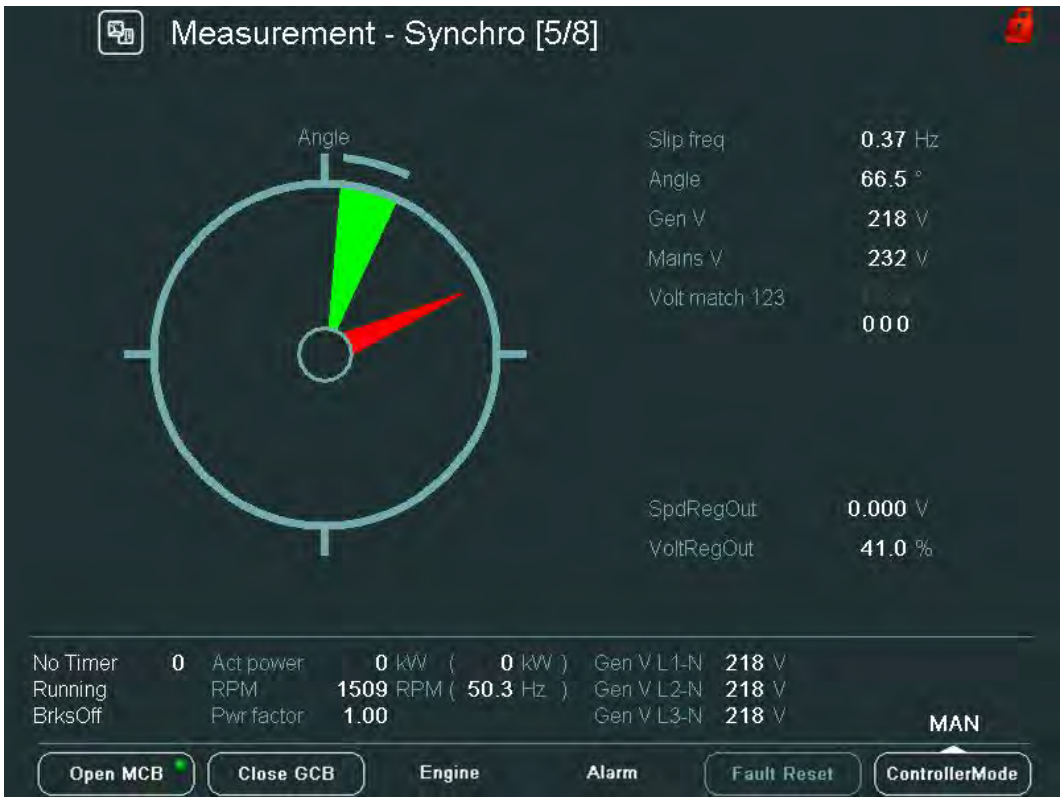
- Main
- Power
- Mains
- Gen
- Synchroscope
- Statistics
- Analog Inputs
- Binary I/O

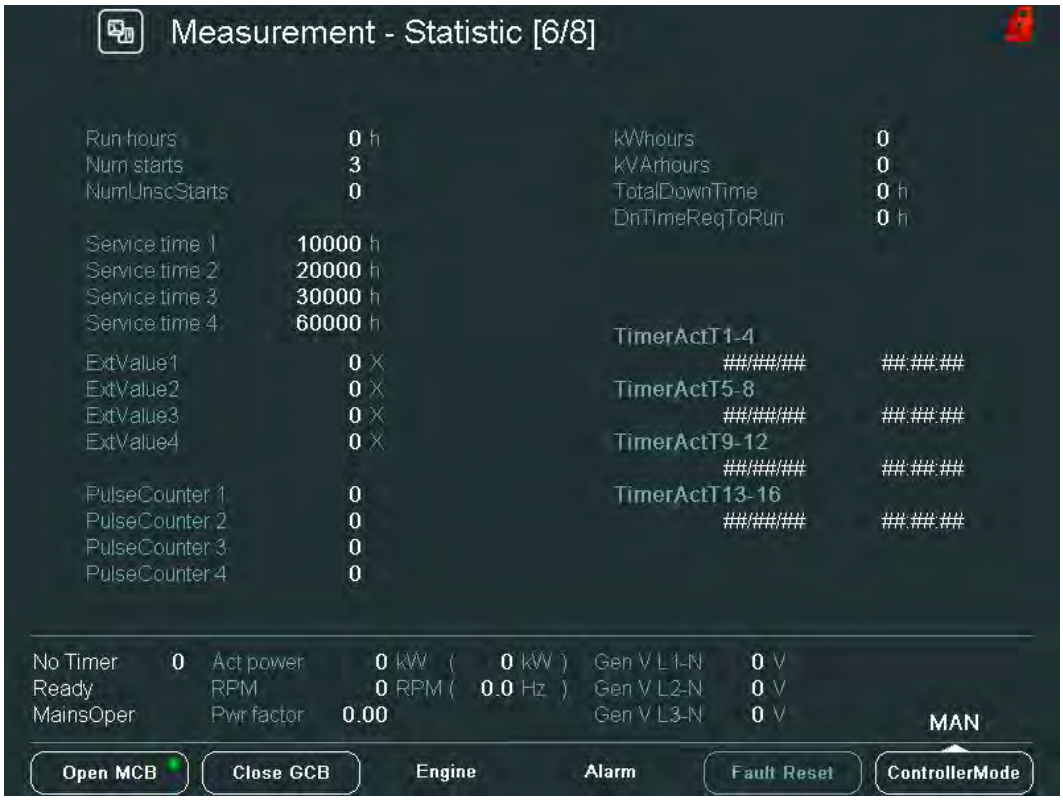


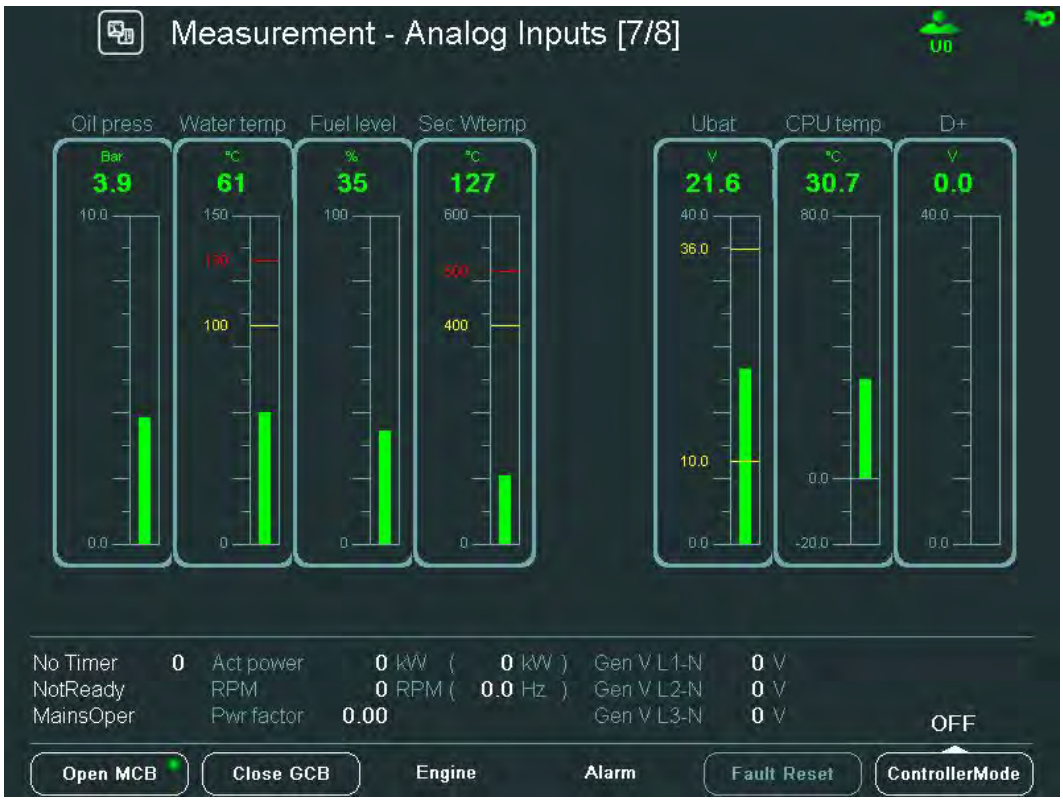

Measurement - Power [2/8]
LOAD
Object P 0 kW
Object PF 1.00
MAINS
P mains 0 kW
Mains PF 1.00
GENSET
Act power 0 kW
0 0 0
Pwr factor 0.00
0.00 0.00 0.00
React power 0 kVA
0 0 0
Appar pwr 0 kVA
0 0 0
SystLoadCtrl None
SystPfCtrl None
ActPwrReq 0 kW
Req PF 0.00
AfterCool 63
Ready
MainsOper
Act power 0 kW (0 kW)
RPM 0 RPM (0.0 Hz)
Pwr factor 0.00
Gen V L1-N 0 V
Gen V L2-N 0 V
Gen V L3-N 0 V
MAN
Open MCB
Close GCB
Engine
Alarm
Fault Reset
ControllerMode


Measurement - Mains [3/8]
Mains V Ph-N
249 248 249
Mains V Ph-Ph
24 25 22
Mains freq
50.0
Im3/EarthFC
0
MaxVectorS 0.0
AfterCool 51
Ready
MainsOper
Act power 0 kW (0 kW)
RPM 0 RPM (0.0 Hz)
Pwr factor 0.00
Gen V L1-N 0 V
Gen V L2-N 0 V
Gen V L3-N 0 V
MAN
Open MCB
Close GCB
Engine
Alarm
Fault Reset
ControllerMode


Measurement - Gen [4/8]
Gen V Ph-N
Gen freq
Gen I unbal
Gen I
Gen V Ph-Ph
AfterCool 42
Ready
MainsOper
Act power 0 kW (0 kW)
RPM 0 RPM (0.0 Hz)
Pwr factor 0.00
Gen V L1-N 0 V
Gen V L2-N 0 V
Gen V L3-N 0 V
MAN
Open MCB
Close GCB
Engine
Alarm
Fault Reset
ControllerMode


Measurement - Synchro [5/8]
Angle
Slip freq 0.37 Hz
Angle 66.5 °
Gen V 218 V
Mains V 232 V
Volt match 123
000
SpdRegOut 0.000 V
VoltRegOut 41.0 %
No Timer 0
Running
BrksOff
Act power 0 kW (0 kW)
RPM 1509 RPM (50.3 Hz)
Pwr factor 1.00
Gen V L1-N 218 V
Gen V L2-N 218 V
Gen V L3-N 218 V
MAN
Open MCB
Close GCB
Engine
Alarm
Fault Reset
ControllerMode

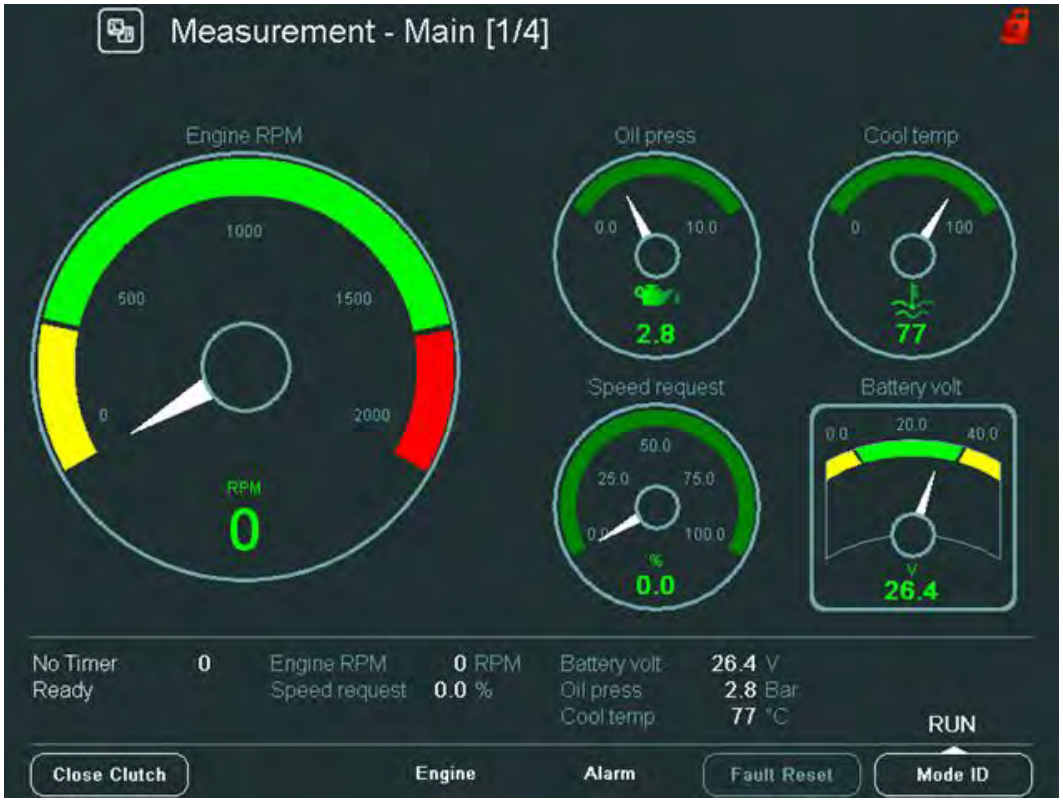

Measurement - Statistic [6/8]
Run hours 0 h
Num starts 3
NumUnscStarts 0
Service time 1 10000 h
Service time 2 20000 h
Service time 3 30000 h
Service time 4 60000 h
ExtValue1 0 X
ExtValue2 0 X
ExtValue3 0 X
ExtValue4 0 X
PulseCounter 1 0
PulseCounter 2 0
PulseCounter 3 0
PulseCounter 4 0
kWhours 0
kVArhours 0
TotalDownTime 0 h
DnTimeReqToRun 0 h
TimerActT1-4 ###### ##:##:##
TimerActT5-8 ###### ##:##:##
TimerActT9-12 ###### ##:##:##
TimerActT13-16 ###### ##:##:##
No Timer 0
Ready
MainsOper
Act power 0 kW (0 kW)
RPM 0 RPM (0.0 Hz)
Pwr factor 0.00
Gen V L1-N 0 V
Gen V L2-N 0 V
Gen V L3-N 0 V
MAN
Open MCB
Close GCB
Engine
Alarm
Fault Reset
ControllerMode

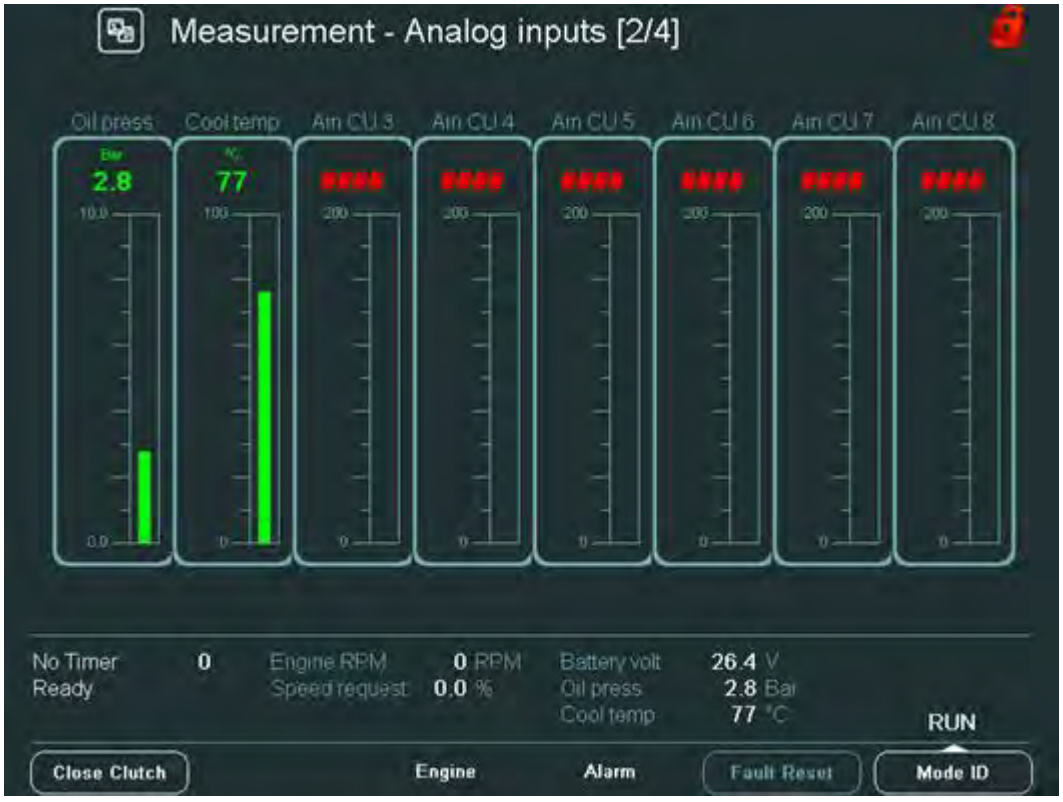

Measurement - Analog Inputs [7/8]
U0
Oil press
Water temp
Fuel level
Sec Wtemp
Ubat
CPU temp
D+
Bar
3.9
°C
61
%
35
°C
127
V
21.6
°C
30.7
V
0.0
No Timer 0
NotReady
MainsOper
Act power 0 kW (0 kW)
RPM 0 RPM (0.0 Hz)
Pwr factor 0.00
Gen V L1-N 0 V
Gen V L2-N 0 V
Gen V L3-N 0 V
OFF
Open MCB
Close GCB
Engine
Alarm
Fault Reset
ControllerMode

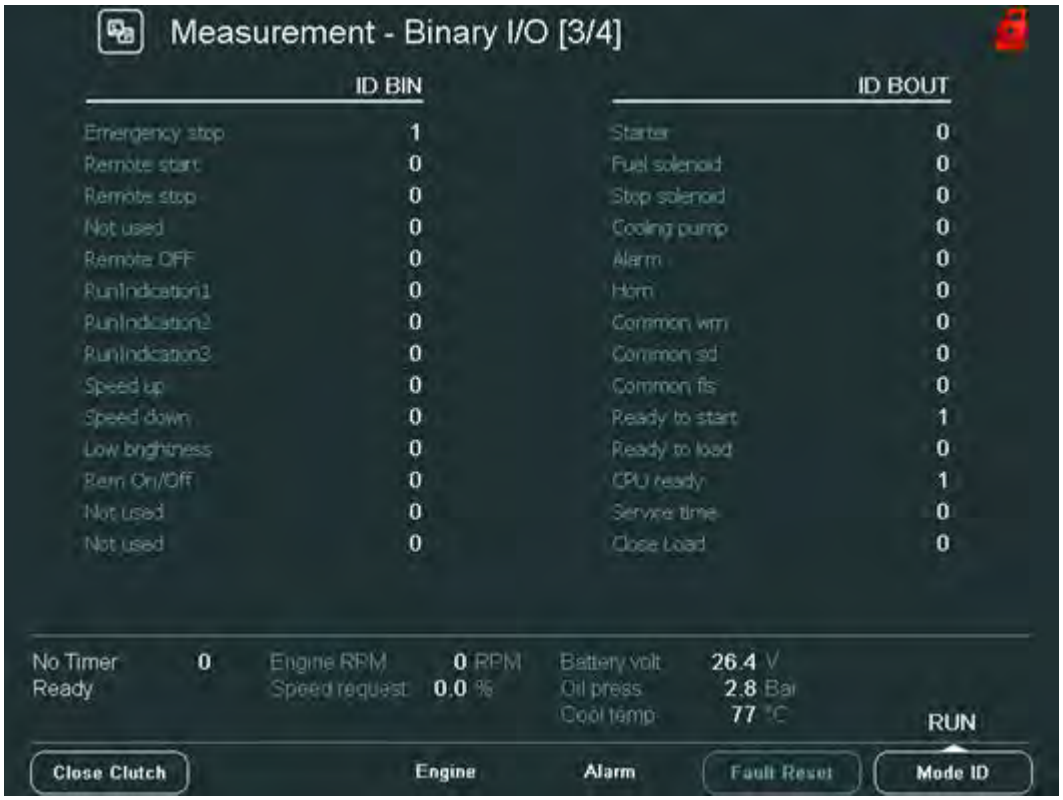
Other screens can follow, depends on controller configuration (ECU, extension modules, etc.).

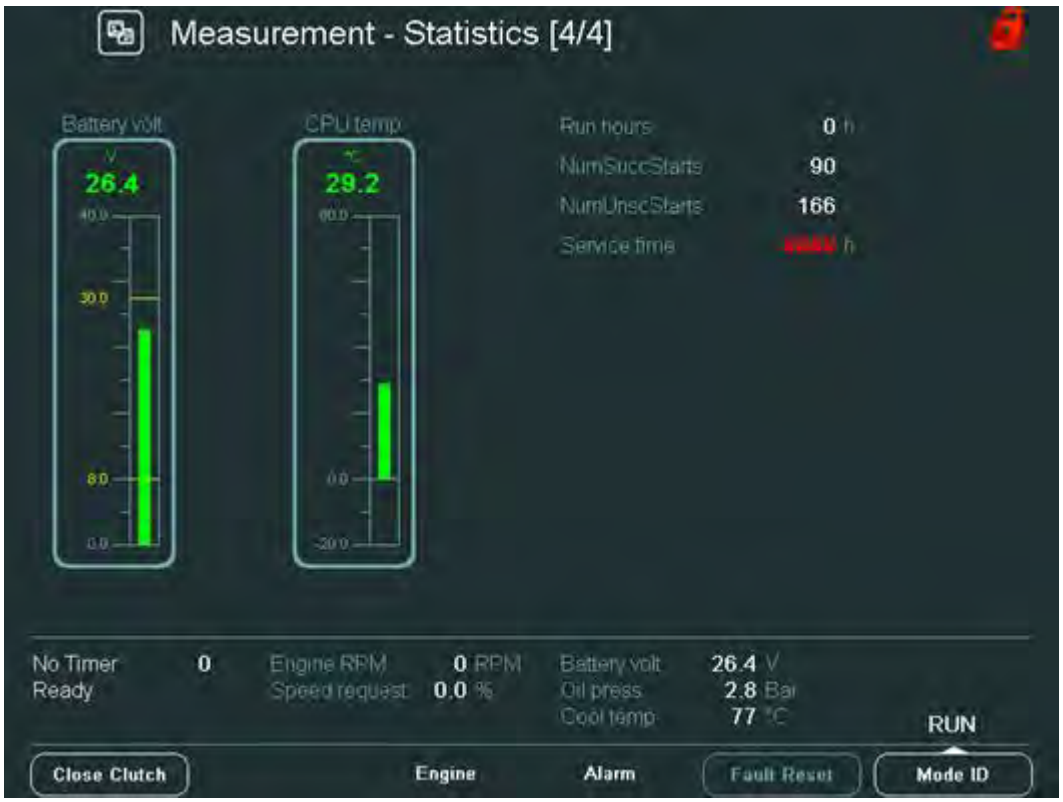
ID measurement screens come after each other in the following order:

- Main
- Analog inputs
- Binary I/O
- Statistics









Other screens can follow, depends on controller configuration (ECU, extension modules, etc.).

Trends Screen

On Trends monitoring screen you can display and monitor up to 8 different channels (values) in real time. All the displayed data are stored (in RAM memory) with certain sampling period at the time when trends are running. You can display both analog and binary values.

Press ***Trends***  button. Trends screen appears (curves are just an example):

Hint:
Buttons **Channels, Settings, Zoom 10x/1x, Markers On/Off** are available only when trends are **NOT** running.

Context buttons:

Start	-	starts trends logging
Channels	-	selects displayed values and sets their parameters
Settings	-	sets trends properties
Zoom 10x	-	switches zoom of curves 1x/10x
Markers Off	-	switches on/off vertical markers
PageMode On	-	switches PageMode on/off (in On Mode the movement of the trend or marker is 10x faster)

Trends – Channels

On this screen you can set displayed values (channels).

1. To set displayed values, press ***Channels*** button. The following screen appears:

2. To change a value or to choose a new one, use ↑↓ buttons to move up and down in the column ***Value*** and press ***Enter***.

3. Use ↑↓ buttons in the left column to select a group of values.
4. Use → button to go to the right column, use ↑↓ buttons to select a certain value and press ***Enter***.
5. Use → button to go to ***Visible*** column and use ***Enter*** button to switch on/off channel visibility.
6. Use → button to go to ***Y-Axis*** column and use ***Enter*** button to switch on/off Y-Axis visibility.
7. Use → button to go to ***Lo Limit*** column and press ***Enter***. Here you can set the low limit of the displayed value range.
8. In ***Lo Limit*** screen use →← buttons to go to a certain position of the field and use ↑↓ buttons to change the value. Then press ***Enter***. See Change of the numerical value.
   Hint:
   If you set the value out of limit, the field will color red and you will not be able to confirm the value.
9. Similarly set the highest limit of the value in the ***Hi Limit*** column and press ***Enter***.
10. Similarly set how much the value range will be set away out of zero in the ***Offset*** column and press ***Enter***.

11. In the column ***Color*** choose the color of the trend curve and press ***Enter***.

12. Use ⇩ button to go to  button and confirm the action by pressing ***Enter***.

Trends – Settings

On this screen you can set trend parameters: grid, sample period, start and run modes of trends.

1. Press ***Settings*** button. The following screen appears:

2. Use ↑ ↓ → ← buttons to choose ***Grid*** density.
3. Similarly choose ***Sample period*** of trends (1second is a minimum).

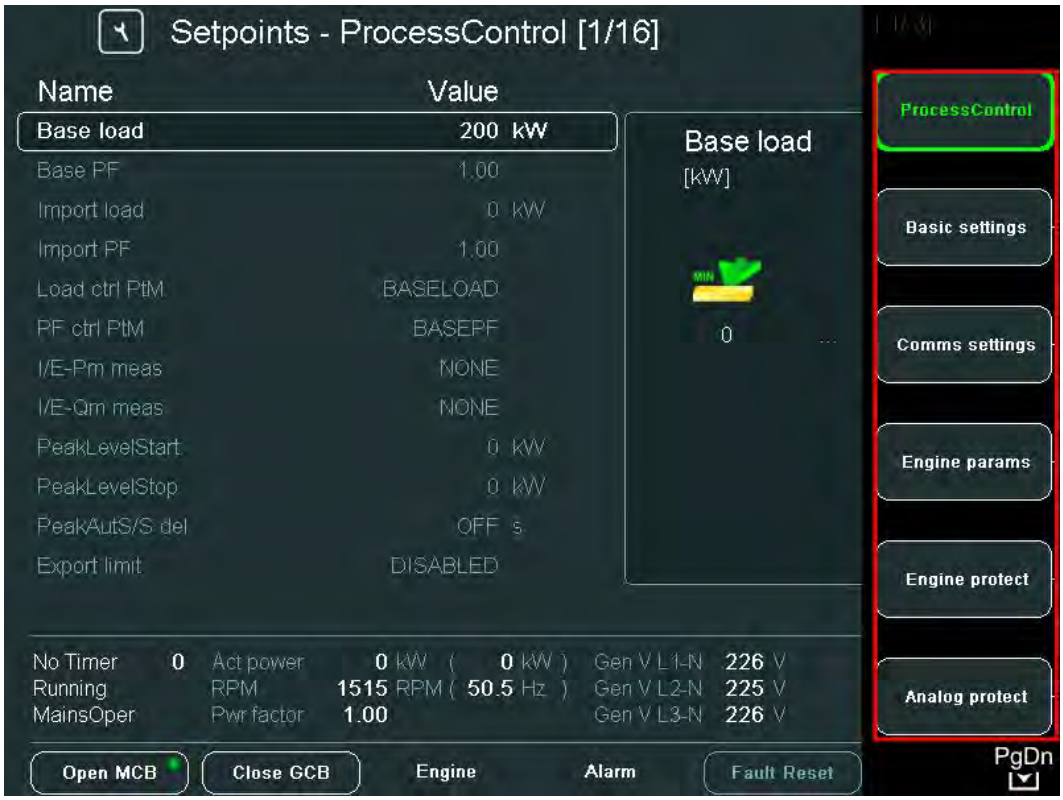
   Hint:
   When the trends are set for cyclical logging (see details below) and the memory is full, the oldest data are overwritten e.g. when the sampling period is 1 minute, the memory is full approximately in a month.

4. When the trends memory is full, the oldest data are overwritten (e.g. when the sampling period is 1 minute, the memory is full approximately in a month).
5. Choose  button to start trends, using the ***Start*** button from ***Trends Context*** menu
   or
   choose  button to start trends automatically after you move to the home (Main Measurement) screen.
6. Choose  button to set cyclical logging mode
   or
   choose  button to enable trends running unless the trends memory is full.
7. Press  button to confirm or  button to cancel the setting adjustment.

Setpoints Screens

On Setpoints screens you can set various setpoints.

To go to Setpoints screen press ***Setpoints***  button. Setpoints screen appears:

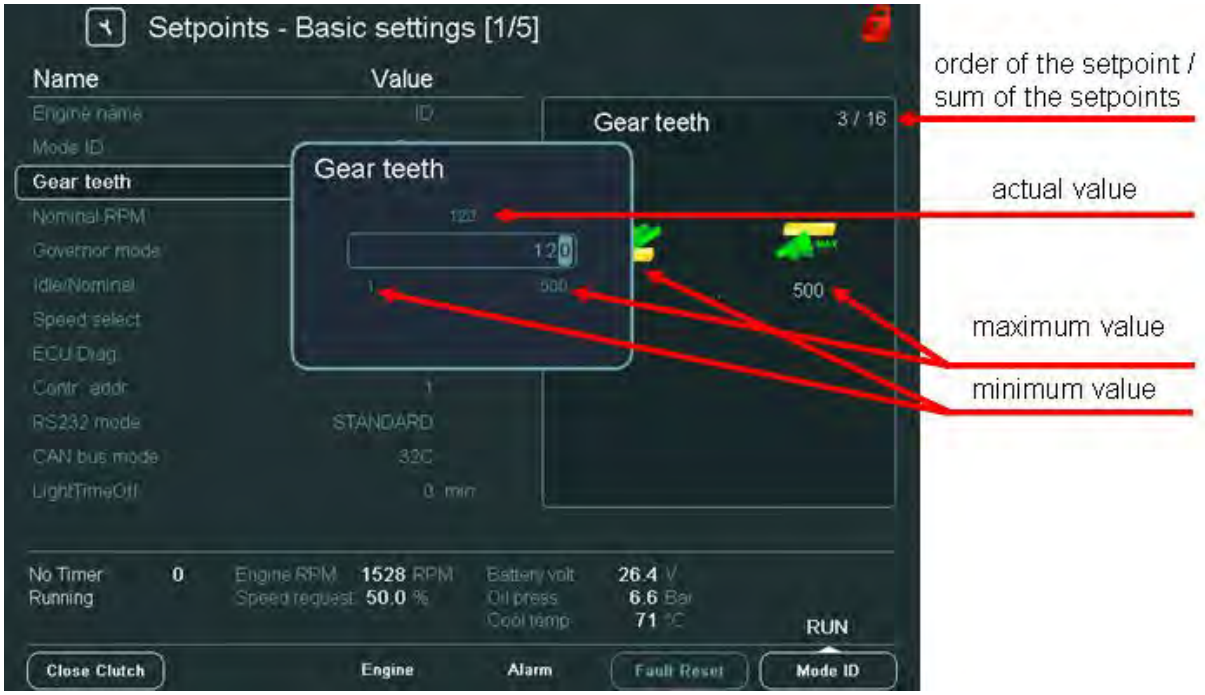


Content of the context buttons list depends on the type of the application. To be more familiar with setpoints, see Reference Guide of the specific application (e.g.IGS-NT-SPTM-2.2-Reference Guide.pdf or IGS-NT-MINT-2.2-Reference Guide.pdf).

Some setpoints have got numerical values, some have got text values and some have got both. Sometimes you can change a numerical value, another time you can choose the value from several text values and you can also edit the string. See examples below:

Change of the Numerical Value

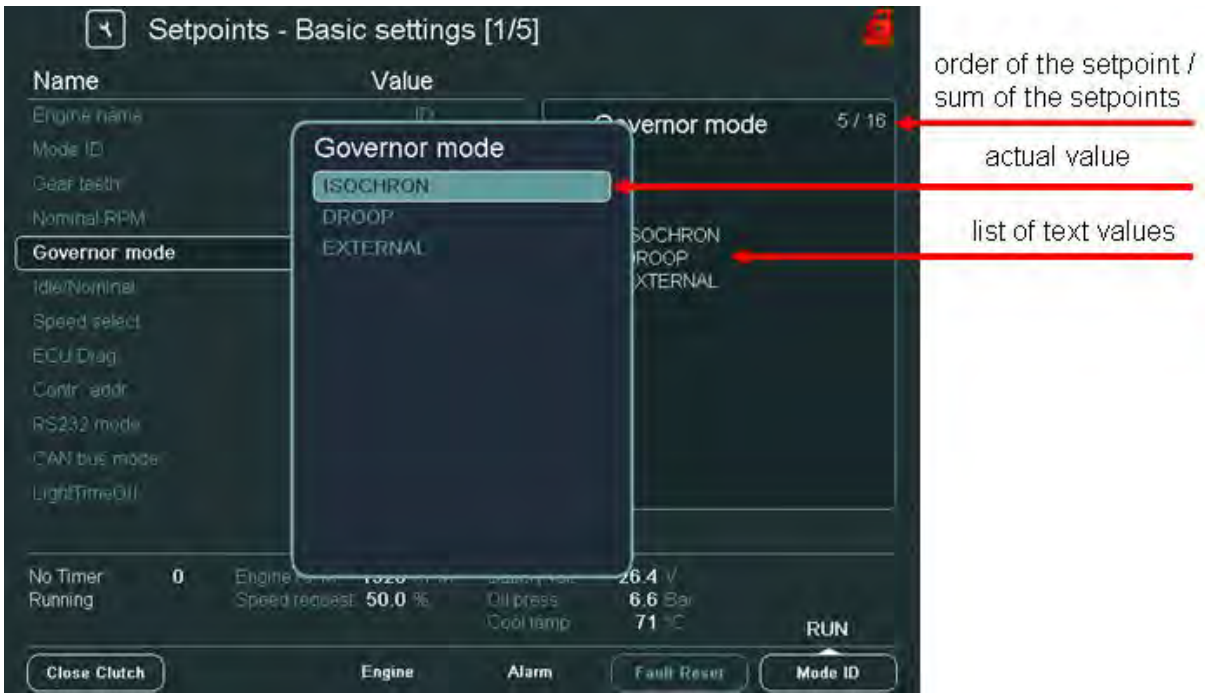
1. Press the button from the context menu on the right (e.g. ***Basic settings***).
2. Use ⇑⇓ to go to a certain setpoint (e.g. ***Gear teeth***) and press ***Enter***, see picture below:



3. Use ⇥ ⇤ buttons to go to a certain position of the field and use ⇑ ⇓ buttons to change the value. Then press ***Enter***.
   Hint:
   If you set the value out of limit, the field will color red and you will not be able to confirm the value.

String Selection

4. Press the button from the context menu on the right (e.g. ***Basic settings***).
5. Use ⇑ ⇓ to go to a certain setpoint (e.g. ***Governor mode***) and press ***Enter***, see picture below:



6. Use ⇑ ⇓ to select the string from the list and press ***Enter***.

String Edit

You can also edit a string of some setpoints, see example for ID below.

1. Press ***Basic settings*** button.
2. Select ***Engine name*** setpoint and press ***Enter***. The following window appears:

3. Simply edit the string and press  button.

AlarmList Screen

On AlarmList screen you can see and work with alarms.

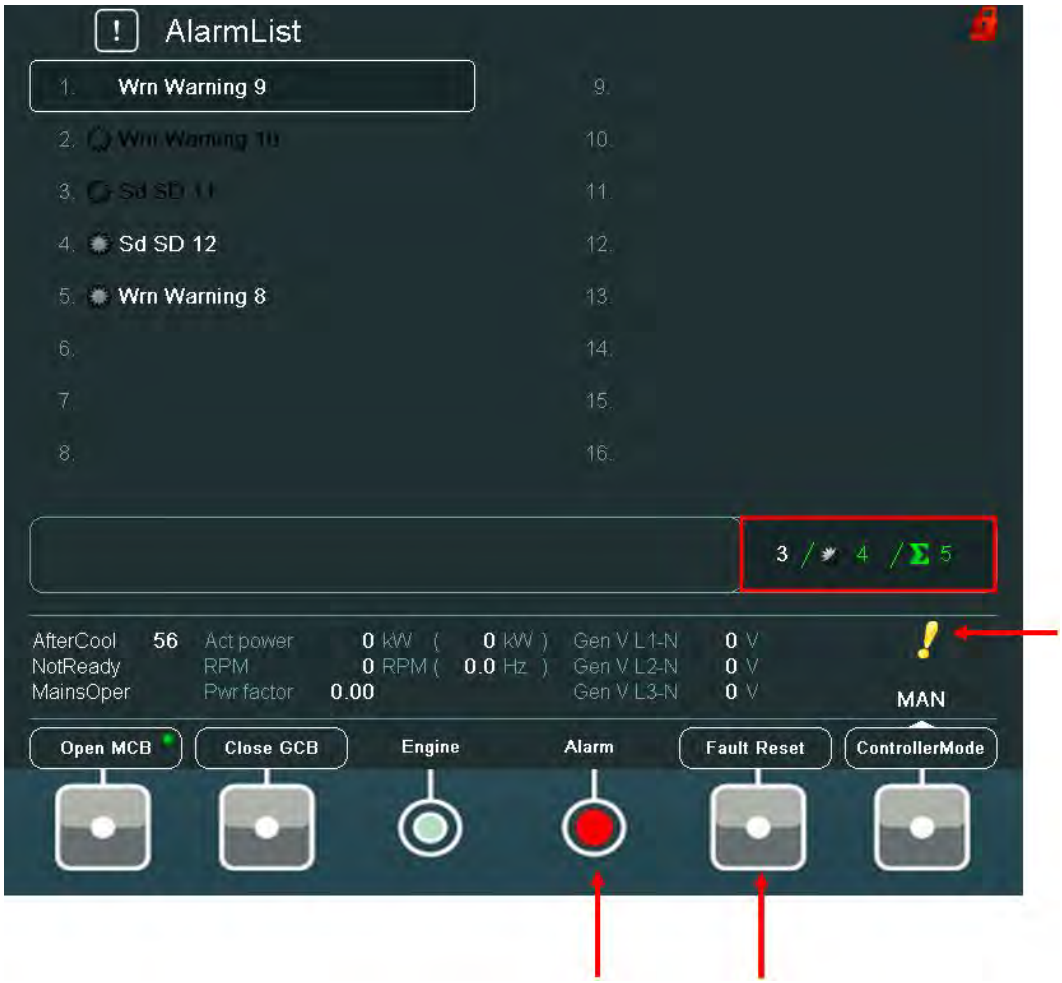
There are two different AlarmList types, one for IGS-NT controllers and the second for ID controller. First see the description of the AlarmList for IGS-NT controllers.

AlarmList for IGS-NT Controllers

When an error occurs, a new alarm appears in the ***AlarmList*** screen, ***Alarm*** LED starts blinking on the front panel of IV display and the exclamation mark appears. See picture below.

Hint:
When a new alarm appears AlarmList screen is displayed automatically ***only*** when you are in Main Measurement screen. When you are in other screens, you have to press AlarmList button to display AlarmList screen.

1. To go to AlarmList screen, press ***AlarmList***  button. AlarmList screen appears:



2. Press ***Fault Reset*** button to confirm all alarms. The ***Alarm*** LED will stop blinking.
3. Resolve the error. The alarm will disappear from the AlarmList and ***Alarm*** LED will turn off.

Hint:
Fault Reset button is active only in ***AlarmList*** screen.
If you resolve the error before pressing ***Fault Reset*** button, the alarm still remains in the ***AlarmList*** (it will turn black) till you press ***Fault Reset*** button.

Types of alarms:

Alarm with asterisk	-	unacknowledged alarm (not confirmed by ***Fault Reset*** button)
Alarm without asterisk	-	acknowledged alarm (confirmed by ***Fault Reset*** button)
Alarm written in white	-	active alarm
Alarm written in black	-	inactive alarm (resolved - visible only when unacknowledged)

Alarm summary (taken from the left, see picture below):

White number	-	number of active alarms
Halved asterisk	-	sum of unacknowledged active and inactive alarms
Sum	-	total sum of alarms

AlarmList for ID Controller

AlarmList for ID controller works analogically comparing the AlarmList for IGS-NT controllers (see the description above), however there are some differences. There are two separate columns of alarms: the left column for ID controller and the right column for ECU, see picture below. To move between ID and ECU alarms in AlarmList use → ← buttons. Fault Reset button confirms either ID or ECU alarms.

History Screen

On History screen you can see history records.

Press ***History***  button. History screen appears:

Context buttons:

First Row/Col - jump to the first column and first row (the first column is ***RPM*** – you cannot move among columns ***Reason***, ***Date*** and ***Time***)

First Row - jump to the first row

First Col - jump to the first column

Last Col - jump to the last column

PageMode On - when the PageMode is ON you can use buttons to jump by page right or left (quicker movement through columns). Icon  at the top of the screen indicates that PageMode is On – see picture above.

Change the Order of Columns

You can also change the order of columns in History screen if you want to.

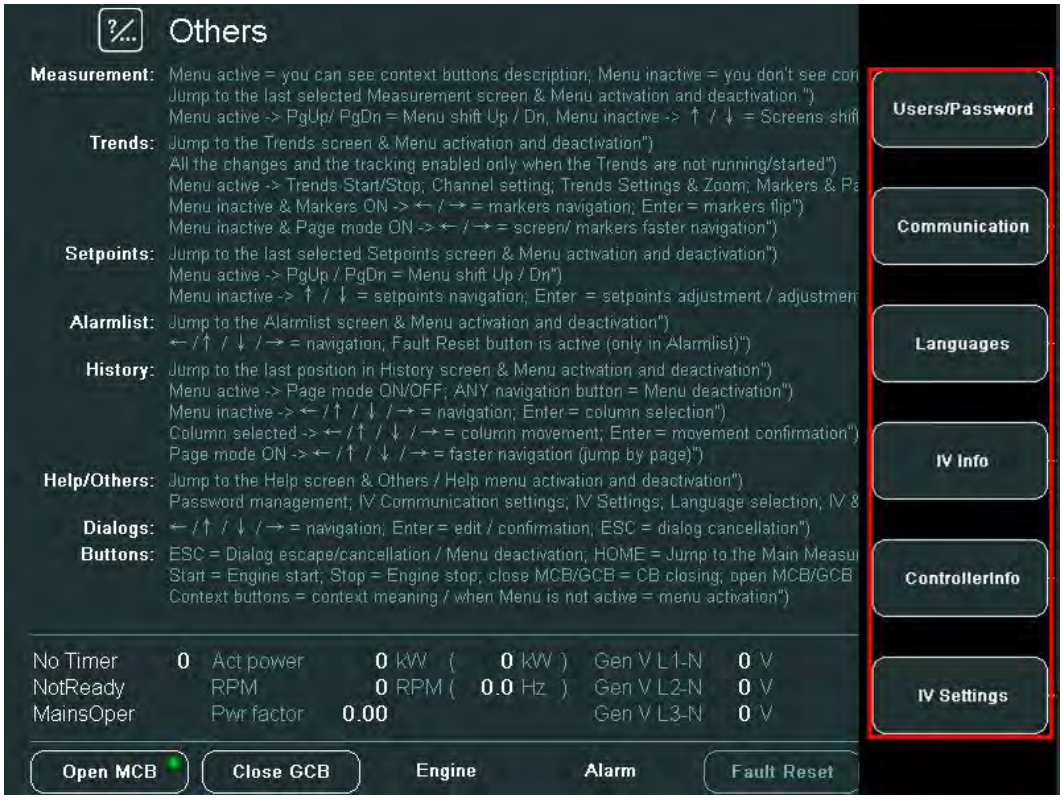
1. Use → ← buttons to go to the column you want to move and press ***Enter***. The column will turn yellow. See picture below:

2. Use → ← buttons to move the chosen column to the desired position.
3. Press ***Enter*** to confirm the new position of the column or press ***ESC*** to cancel the action.

Help/Others Screen

On Help/Others screen you can see directly list of possible actions - help screen (see picture below) and also other setting options in context menu: passwords setting, communication setting, language selection, IV and controller info and IV setting.

Press ***Help/Others***  button. Help/Others screen appears:



Context buttons:

Users/Password	-	log in/password change
Communication	-	communication (to controller) setting
Languages	-	language selection
IV Info	-	info about the display
ControllerInfo	-	info about the controller
IV settings	-	IV display settings (backlight time - time period after which display backlight is switched off (in minutes)

Users/Password

When you sign in to IGS-NT controller you choose a user from the list of users (every user has got certain rights) and then you insert a password. When you sign into ID controller you only insert a password of a certain authority level (there is no user).

To see information on how to enter a password go to How to Enter a Password? subchapter.
To see information on how to change a password go to How to Change a Password? subchapter.

Communication

To see information on how to connect IV display to a controller, go to How to Connect IV display to IGS-NT or ID Controller? subchapter.

Languages

1. Press ***Languages*** button. The following window appears:

2. Use ⇑ ⇓ buttons to choose language.
3. Press ***Enter***.

Hint:
To configure languages use GenConfig or DriveConfig PC tools.

IV Info

After pressing ***IV Info*** button you can see important information on IV display, e.g. SW and HW Version, Release Date, Serial Number, Power Voltage, Communication Log, Supported Code pages, etc.

Hint:
You can also use ***IV info*** button to let the grey inactive icon  signalizing previous lost of communication disappear. See Communication Error chapter.

ControllerInfo

After pressing ***ControllerInfo*** button you can see important information about the controller, e.g. ID String, Application, SW and HW Version, Serial Number, ID-Chip Properties, Dongle Properties, Connected Modules, etc.

IV Settings

This screen offers backlight time setting. Here is the procedure how you can do it.

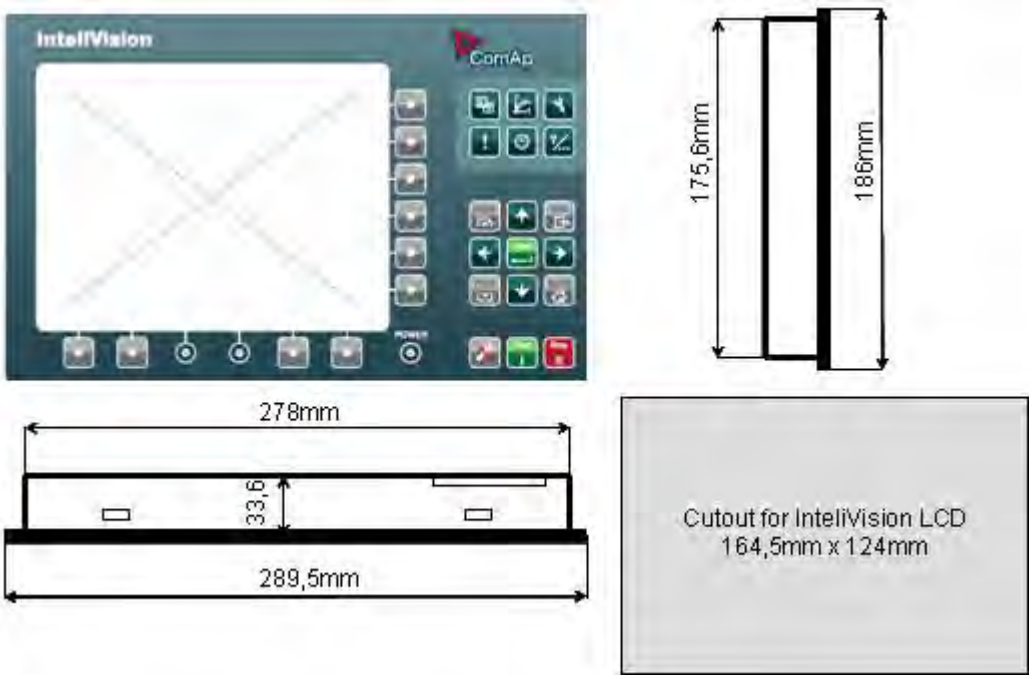
1. Press ***IV Settings*** button.
2. Press ***Enter***.
3. Use → ← buttons to go to the certain position in the field and use ⇑ ⇓ buttons to increase/decrease the value of Backlight Time.
4. Press ***Enter***.

5. Use ⇩ button to go to  button and confirm the action by pressing ***Enter***.

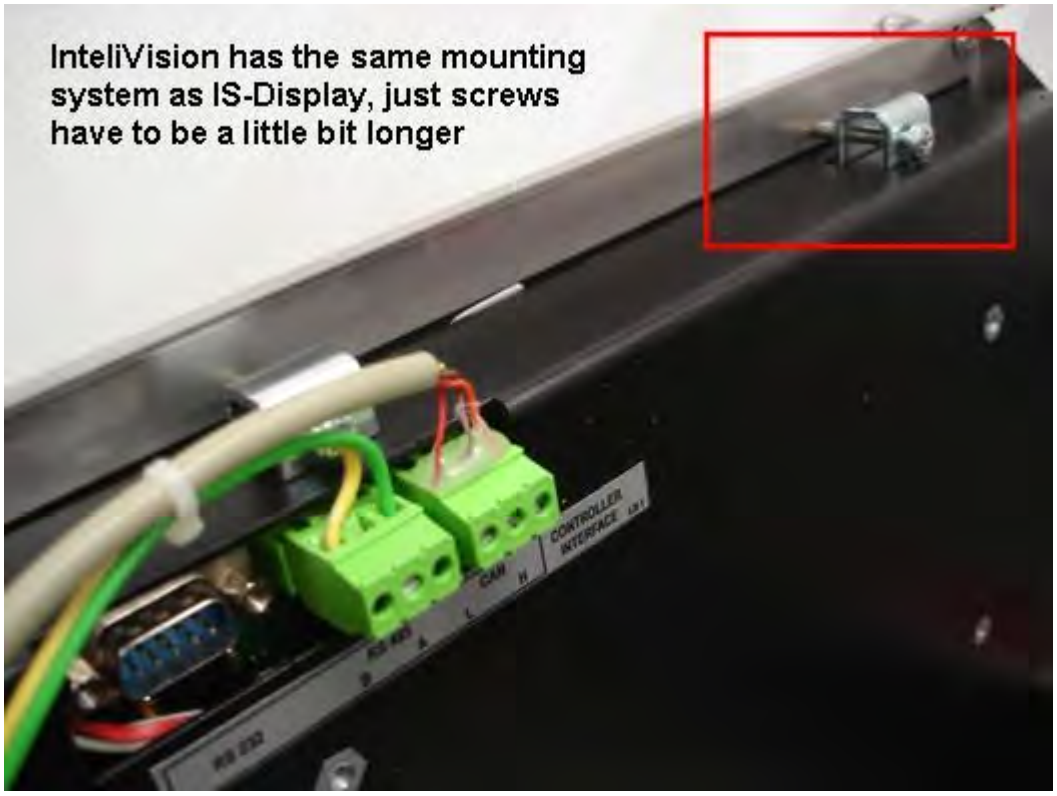
Hint:
If you want to change brightness of display, see How to Change Display Brightness? subchapter.

Installation

Terminals Dimensions

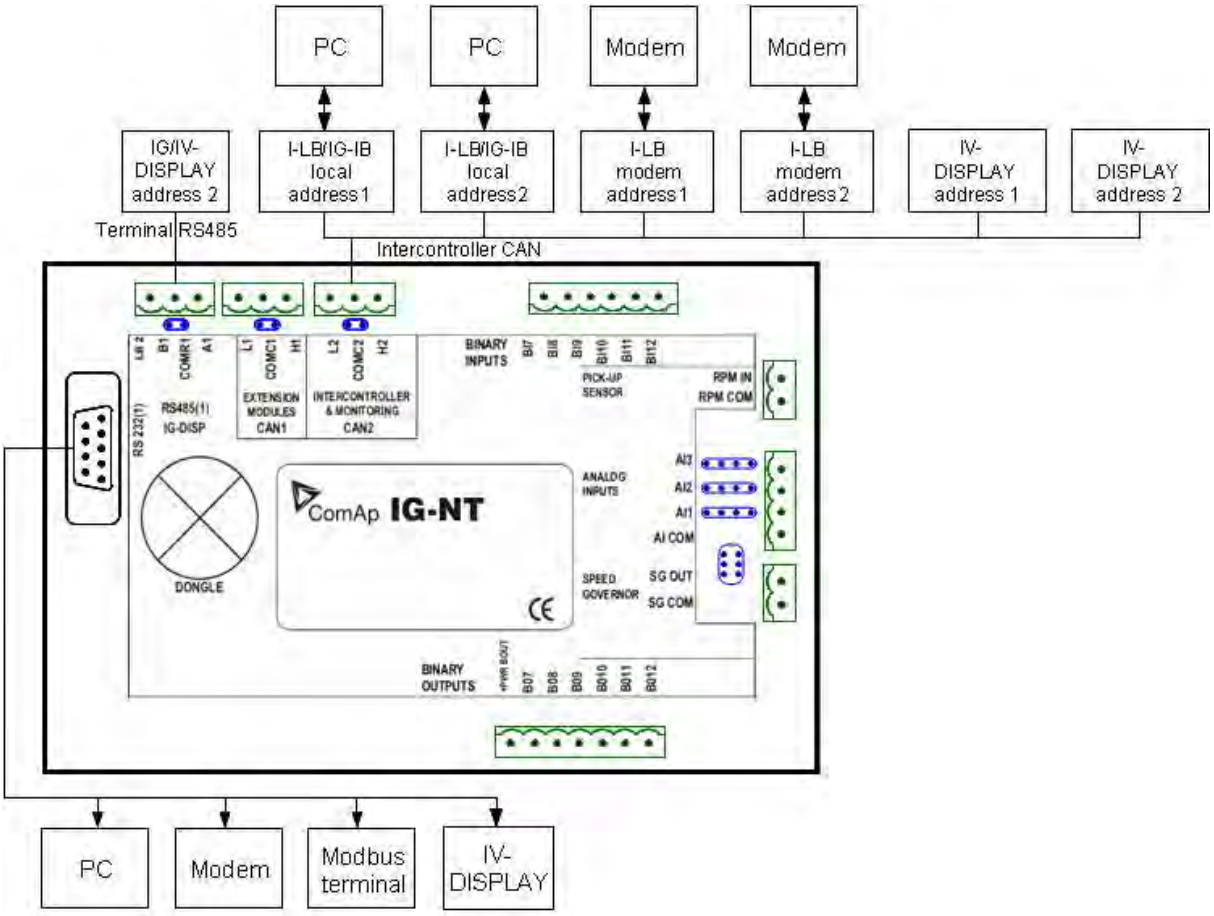


Mounting System

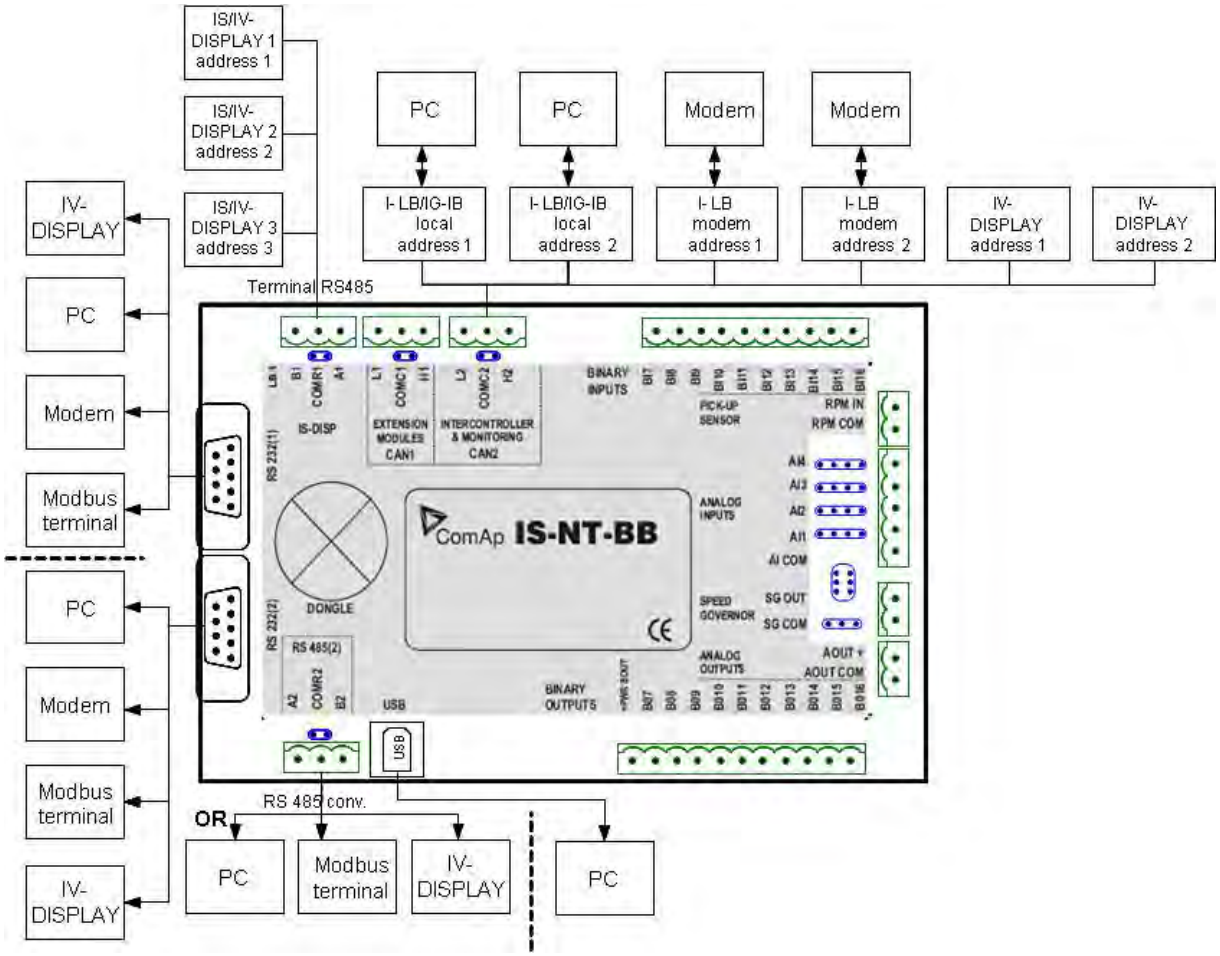


Recommended Wiring

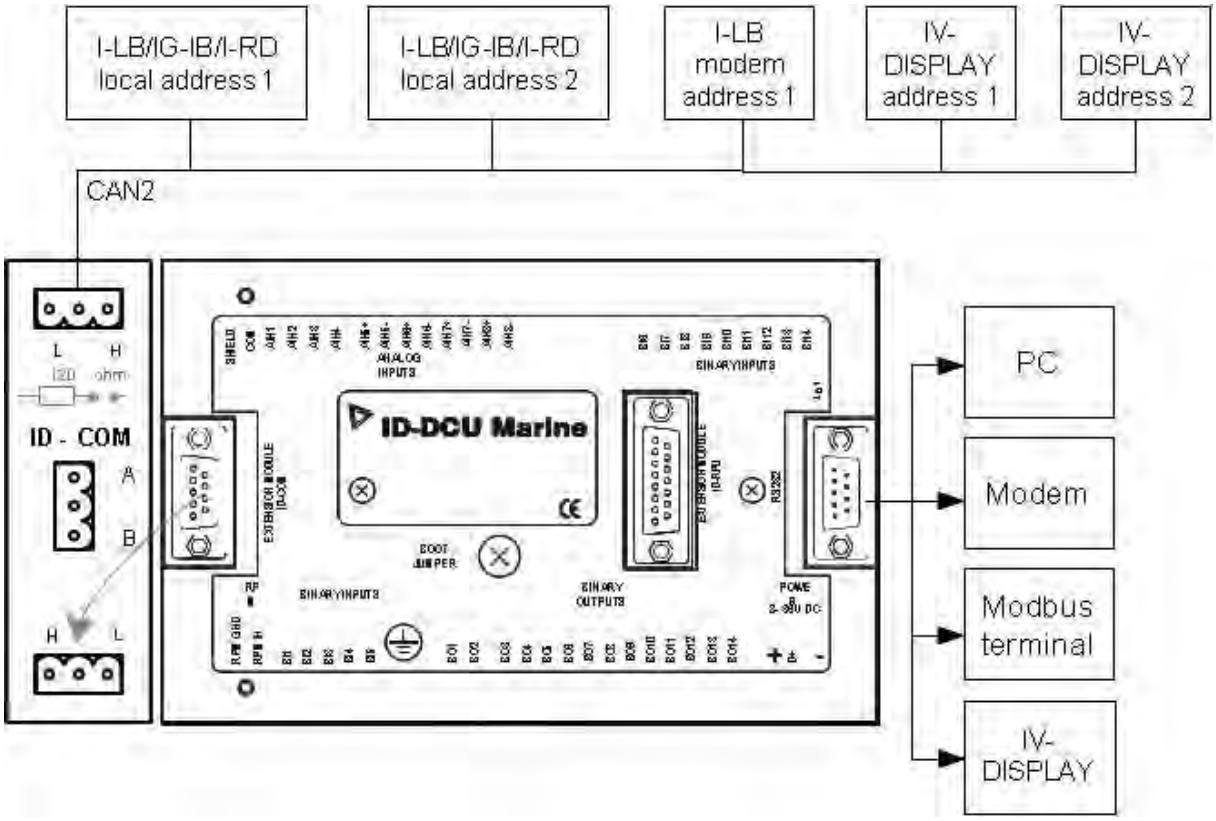
IG-NT



IS-NT


IS/IV-DISPLAY 1 address 1
IS/IV-DISPLAY 2 address 2
IS/IV-DISPLAY 3 address 3
PC
PC
Modem
Modem
I- LB/IG-IB local address 1
I- LB/IG-IB local address 2
I- LB modem address 1
I- LB modem address 2
IV-DISPLAY address 1
IV-DISPLAY address 2
IV-DISPLAY
PC
Modem
Modbus terminal
Terminal RS485
PC
Modem
Modbus terminal
IV-DISPLAY
ComAp IS-NT-BB
DONGLE
USB
RS 485 conv.
OR
PC
Modbus terminal
IV-DISPLAY
PC

ID


I-LB/IG-IB/I-RD
local address 1
I-LB/IG-IB/I-RD
local address 2
I-LB
modem
address 1
IV-
DISPLAY
address 1
IV-
DISPLAY
address 2
CAN2
L
H
120 ohm
ID - COM
A
B
H
L
ID-DCU Marine
PC
Modem
Modbus
terminal
IV-
DISPLAY

Modules' Address Combination on CAN2 (IG/IS-NT, ID)

The following CAN addresses are used for modules connected to CAN2 (intercontroller CAN bus).
There cannot be more modules using the same address connected at the same time.
Address can be changed using jumpers, configuration program or from the display - refer to the corresponding chapter or reference guide for detailed description.

Real CAN2 Address	IG-MU	I-LB	I-LB (modem)	I-LB+	IG-IB (IBConfig ≤ 1.5)	IG-IB (IBConfig ≥ 1.6)	IV	I-RD-CAN
122			addr. 2					
123	addr. 2	addr. 2		addr. 1	addr. 1	addr. 2	addr. 2	addr. 2
124	addr. 1	addr.1		addr. 2	addr. 2	addr. 1	addr. 1	addr. 1
125	modem		addr. 1					

Hint:
Please note that USB port is using its CAN address only if an external device is connected to the USB port of I-LB+. Make sure that other device (e.g. IG-IB) is not using the same CAN address as USB port of an I-LB+, because using USB port could interrupt CAN communication.

Hint:
Please note that addresses 1 and 2 (123, 124) are exchanged in versions IBConfig ≤ 1.5 and IBConfig ≥ 1.6 (see the table above).

Programming

To program IV display use IVProg tool which can be started from GenConfig or DriveConfig PC tools. The IVProg tool is not included neither in IGS-NT-Install-2.4 nor in ID-DCU-Industrial-Install-2.4 installation packages at this moment and so has to be imported manually. IVProg should be included in the next installation package.

Where to Place the Programming SW

IVProg package is available on www.comap.cz. **IVProg.exe** and ***CEService.dll*** (and also ***UnzDLL.dll*** and ***ZipDll.dll*** if needed) and should be placed to the root folder of IGS-NT or ID installation. Usually ***C:\Program Files\ComAp\IGS-NT*** and/or ***C:\Program Files\ComAp\InteliDrive***.
There is also ***InteliVision-1.0.ivp*** which should be placed to ***..\App\Displays***, usually ***C:\Program Files\ComAp\IGS-NT\App\Displays*** and/or ***C:\Program Files\ComAp\InteliDrive\App\Displays***

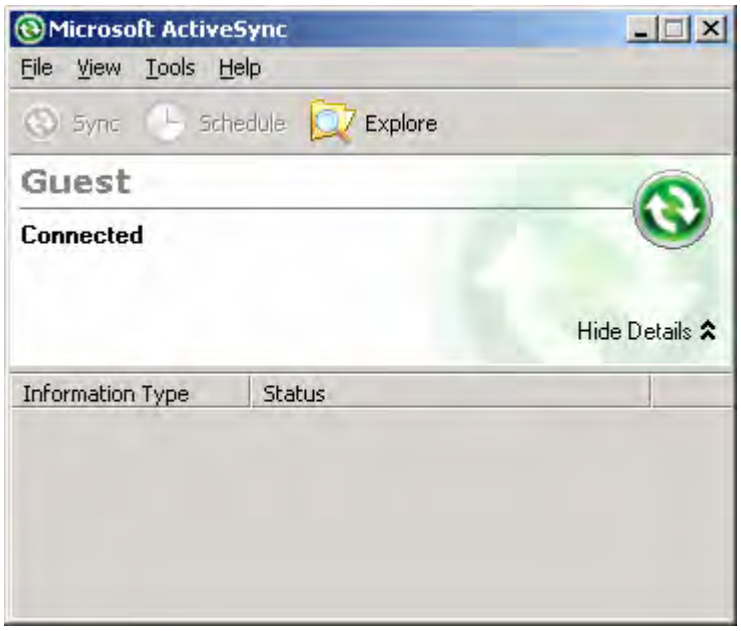
What Else to Install

To make IVProg running you also need to install ***Microsoft ActiveSync (for Windows XP)*** or ***Microsoft Windows Mobile Device Center (WMDC; for Windows Vista***). You can download these drivers from Microsoft web page http://www.microsoft.com/. To install these drivers properly follow Microsoft instructions.

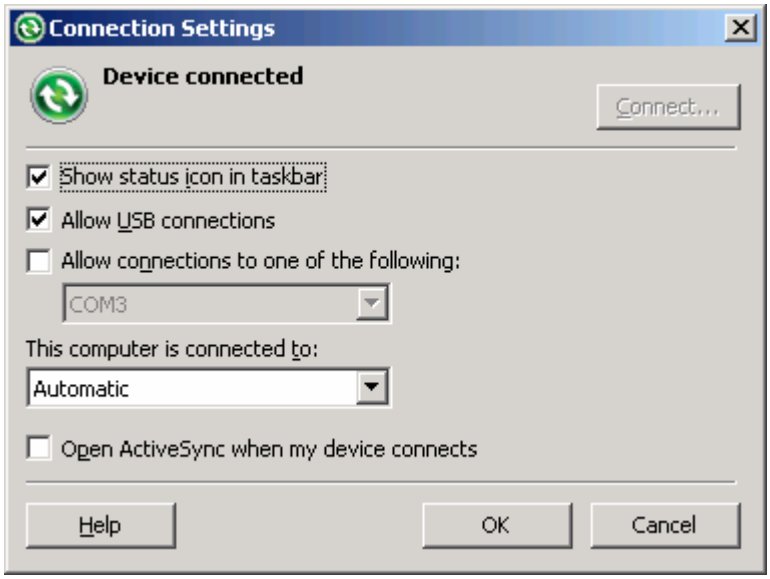
ActiveSync

When InteliVision is not connected, ActiveSync is not taking any action (except showing the icon in the tray). When you connect InteliVision display to your PC (using USB cable type A-B) ActiveSync starts to connect. After the connection is established the following (Set Up a Partnership) window for synchronization setting appears:

It is enough to press "***No***" for InteliVision upgrade purpose. Also main ActiveSync window appears.

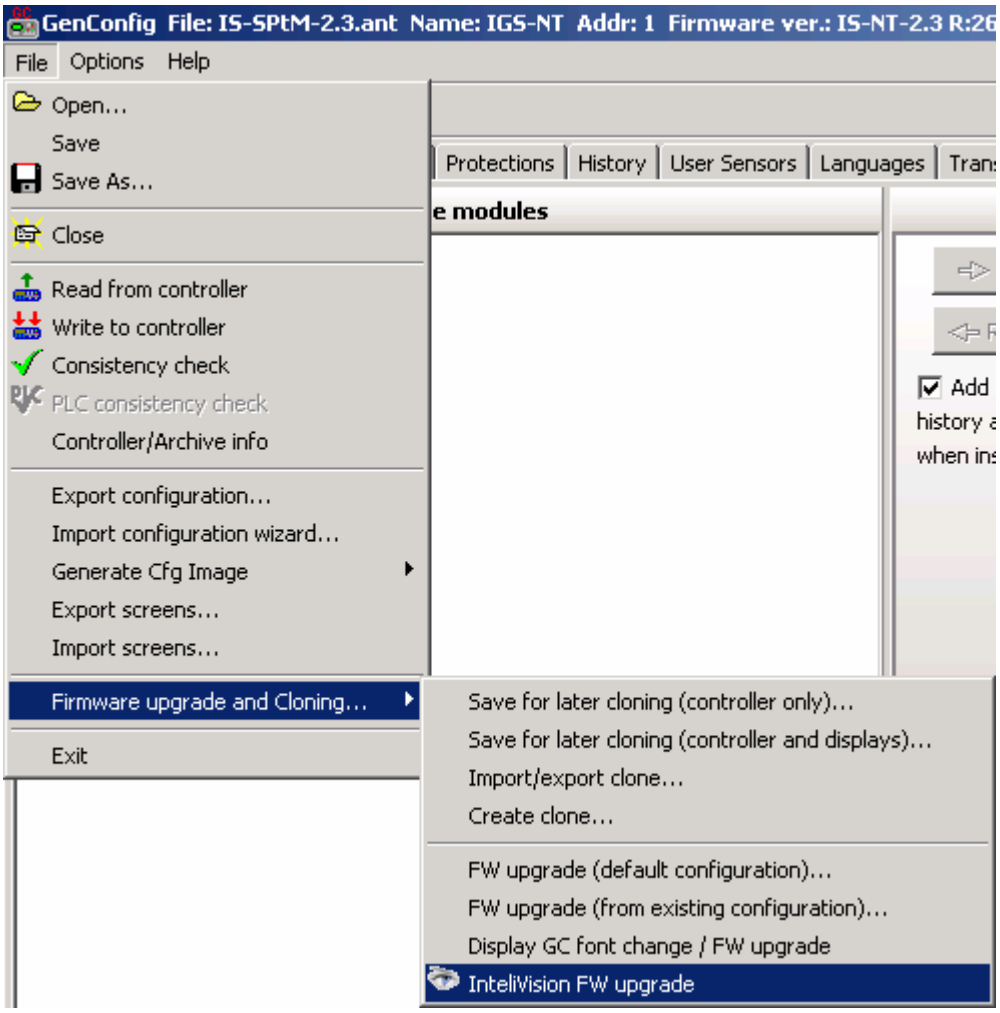


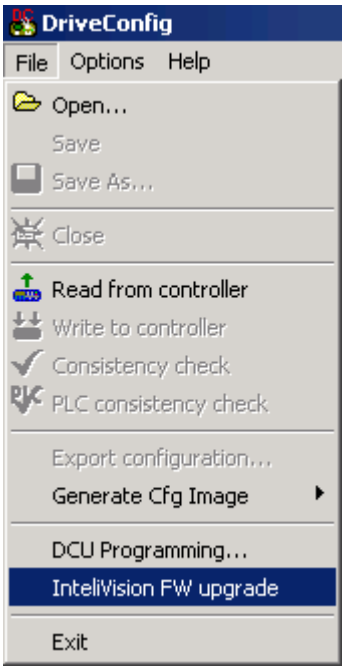
If you need you can change the communication settings (***File***-> ***Connection Settings***...). See the options below.



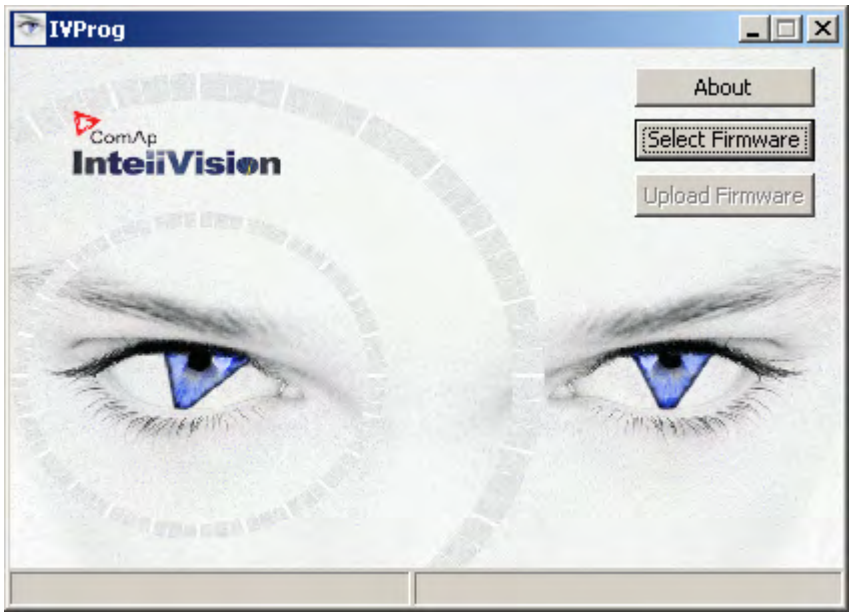
IVProg Running

When connection between InteliVision and PC is established IVProg can be started. It is possible to do that from both GenConfig and DriveConfig.

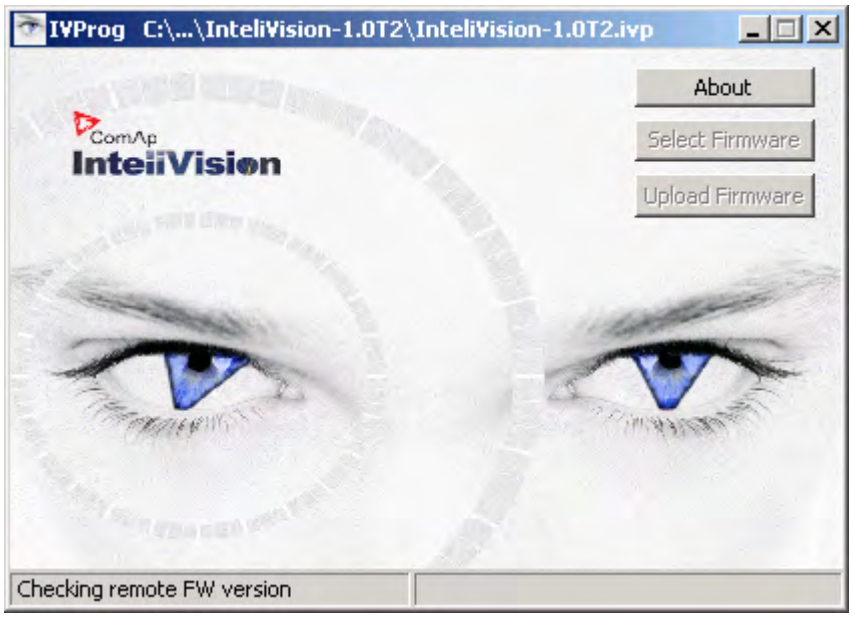




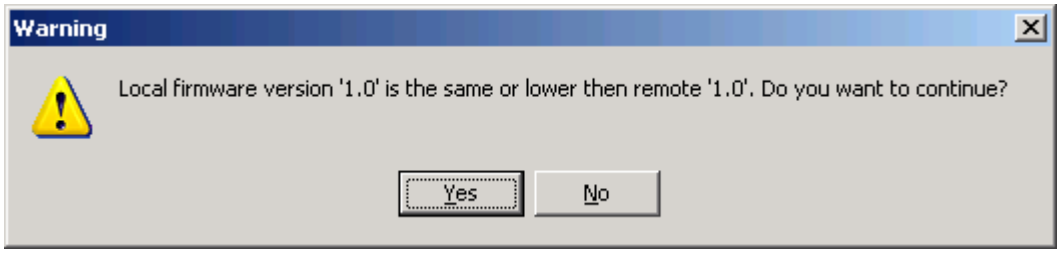
When you start IVProg the following window appears:



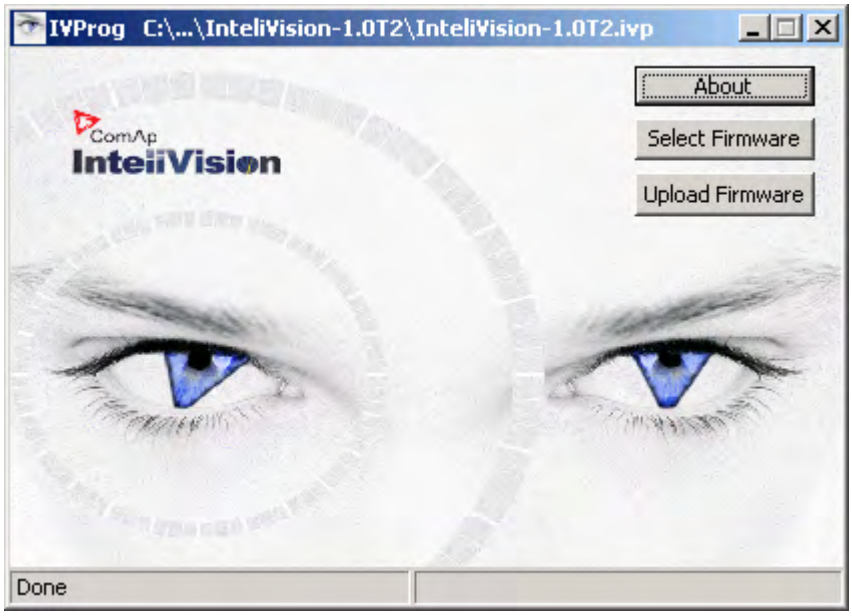
First you have to choose the InteliVision firmware (***InteliVision-1.0.ivp***). Regarding the instructions above it should be placed in ***..\App\Displays***. After you chose the firmware, press ***Upload Firmware*** button to upload the firmware.



If the chosen firmware is older than the one which is present in InteliVision the following massage appears:



After the firmware is uploaded the following window appears:



Windows Mobile Device Center (WMDC)

WMDC for Windows Vista should be installed from Microsoft web page. WMDC installation package can be found on Microsoft web page: http://www.microsoft.com/windowsmobile/devicecenter.mspx. Validation whether the Microsoft software is genuine (using ActiveX) is requested during downloading and subsequent WDMC installation. You can find detailed description of that process on the page mentioned above.

You have to install Windows Vista SP1 to make the IVProg running properly.

WMDC behavior is analogical to ActiveSync behavior (except you don't have to Set Up a Partnership).

Hint:
To see what PC software versions support IV, see Firmware and PC Software Supporting InteliVision chapter.

Technical Data

The device is intended to be used in the engine room or on the engine directly.

Power Supply

Value	Controller	IV Display
Voltage supply	8-36V DC	8-36V DC
Consumption depends on supply voltage	0,4A at 8VDC	1A at 8VDC
	0,15A at 24VDC	0,35A at 24VDC
	0,1A at 36VDC	0,25A at 36VDC

Operating Conditions

Operating temperature	-20...+70°C
Storage temperature	-30...+80°C
Flash memory data retention time	10 years
Protection front panel	IP65
Humidity	95% without condensation IEC/EN 60068-2-30
Standard conformity	
Low Voltage Directive	EN 61010-1:95 +A1:97
Electromagnetic Compatibility	EN 61000-6-3 EN 61000-6-4 EN 61000-6-1 EN 61000-6-2
Vibration	5 - 25 Hz, ±1,6mm 25 - 100 Hz, a = 4 g
Shocks	a = 200 m/s^2

Dimensions and Weight

Dimensions	Front panel 289,5x186mm Rear cover 278,60x175,6x33,60mm LCD display cutout 164,5x124mm
Weight	1600g

Communication Interface

RS232 Interface

Maximal distance 10m
Speed up to 57.6kBd

RS485 Interface

Galvanic separated
Maximal distance 1000m
Speed up to 57.6kBd

CAN Bus Interface

Galvanic separated
Maximal CAN bus length 200m Speed 250kBd
Nominal impedance 120Ω
Cable type twisted pair (shielded)

For other details see controllers installation guides (***IGS-NT-2.3-Installation Guide.pdf*** and/***or ID-DCU-Industrial-2.4-Reference Guide.pdf***).

USB Slave

USB slave (for system administration only), accessible without cover removal.

Operating System

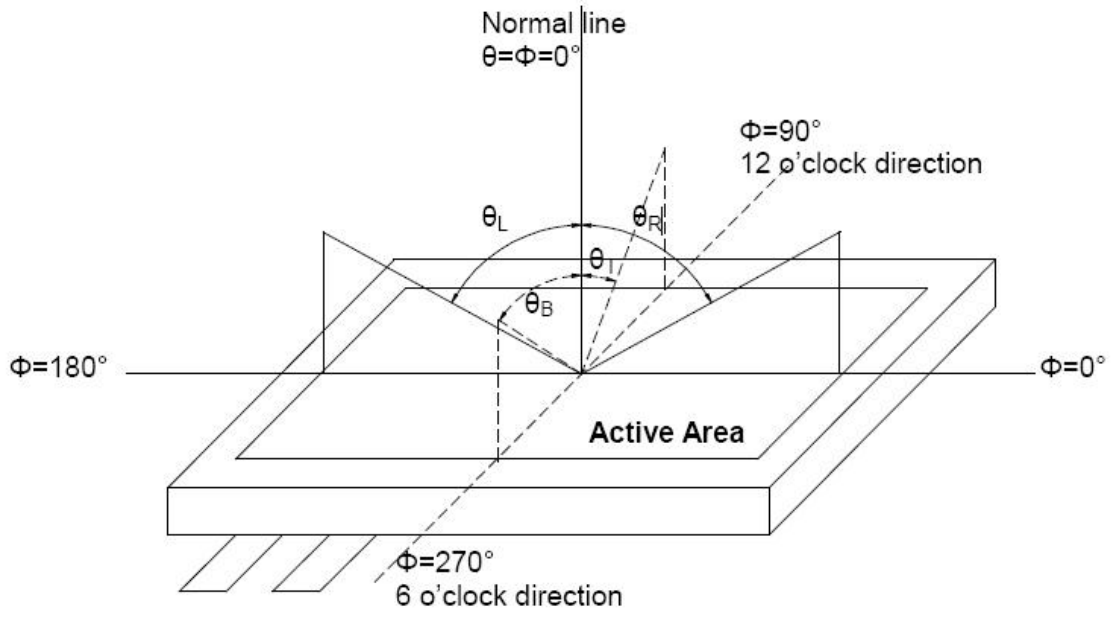
Windows CE operating system

LCD Display

8" color TFT display with resolution of 800 × 600 pixels
LCD display active area dimension 162x121,5mm
Pixel size 0.2025(W) x 0.2025(H) mm
Display lifetime at least 20.000h (display will be switched off when inactive)

Item	Symbol	Condition	Values			Unit	Remark
			Min.	Typ.	Max.		
Viewing angle (CR≥ 10)	θL θR θT θB	Φ=180°(9 o'clock) Φ=0°(3 o'clock) Φ=90°(12 o'clock) Φ=270°(6 o'clock)	60 60 40 60	70 70 50 70	- - - -	degree	Note 1
Contrast ratio	CR	Normal	400	500	-	-	Note 2
Luminance	L	θ=Φ=0°	300	350	-	cd/m²	Note 3

Note 1:
Definition of viewing angle range.



Note 2:
Definition of contrast ratio
Contrast ratio (CR) = Luminance measured when LCD on the "Black" state / Luminance measured when LCD on the „White" state

Note 3:
All input terminals LCD panel must be ground while measuring the center area of the panel. The LED driving condition is IL=20mA of which each LED module is 3 LED serial.