

InteliVision 5

5.7" Display Unit for ComAp controllers

SW version 2.3.1

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1 Document information

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1.1 Clarification of Notation

Note: This type of paragraph calls the reader's attention to a notice or related theme.

IMPORTANT: This type of paragraph highlights a procedure, adjustment etc., which can cause a damage or improper function of the equipment if not performed correctly and may not be clear at first sight.

Example: This type of paragraph contains information that is used to illustrate how a specific function works.

1.2 About this guide

InteliVision 5 is the **5,7" colour display** unit for ComAp controllers. It is designed as a Plug and Play solution and it presents a simple solution with high visibility of all engine and gen-set data, monitoring information in colourful direction.

The new screens correspond to wide variety of daily usage and offer significant step ahead.

The compact size, robustness and user-friendly design of InteliVision 5 introduce the valuable solution for every day usage where more information on the screen and display size is preferred alternative.

The same cut-out across all Comaps' products helps InteliVision 5 to be easily used as a replacement of or alternative to IG-Display. Regardless of the size it can be also used as an alternative to IS-Display or InteliVision 8.

InteliVision 5 is designed to be connected to **the single controller only**.

1.3 Legal notice

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Security Risk Disclaimer

Pay attention to the following recommendations and measures to increase the level of security of ComAp products and services.

Please note that possible cyber-attacks cannot be fully avoided by the below mentioned recommendations and set of measures already performed by ComAp, but by following them the cyber-attacks can be considerably reduced and thereby to reduce the risk of damage. ComAp does not take any responsibility for the actions of persons responsible for cyber-attacks, nor for any damage caused by the cyber-attack. However, ComAp is prepared to provide technical support to resolve problems arising from such actions, including but not limited to restoring settings prior to the cyber-attacks, backing up data, recommending other preventive measures against any further attacks.

Warning: Some forms of technical support may be provided against payment. There is no legal or factual entitlement for technical services provided in connection to resolving problems arising from cyber-attack or other unauthorized accesses to ComAp's Products or Services.

General security recommendations and set of measures

1. AccessCode

- Change the AccessCode BEFORE the device is connected to a network.
- Use a secure AccessCode – ideally a random string of 8 characters containing lowercase, uppercase letters and digits.
- For each device use a different AccessCode.

2. Password

- Change the password BEFORE the device enters a regular operation.
- Do not leave displays or PC tools unattended if an user, especially administrator, is logged in.

3. Controller Web interface

- The controller web interface at port TCP/80 is based on http, not https, and thus it is intended to be used only in closed private network infrastructures.
- Avoid exposing the port TCP/80 to the public Internet.

4. MODBUS/TCP

- The MODBUS/TCP protocol (port TCP/502) is an instrumentation protocol designed to exchange data between locally connected devices like sensors, I/O modules, controllers etc. From it's nature it does not contain any kind of security – neither encryption nor authentication. Thus it is intended to be used only in closed private network infrastructures.

- Avoid exposing the port TCP/502 to the public Internet.

5. SNMP

- The SNMP protocol (port UDP/161) version 1,2 is not encrypted. Thus it is intended to be used only in closed private network infrastructures.
- Avoid exposing the port UDP/161 to the public Internet.

1.4 General warnings

1.4.1 Dangerous voltage

Always connect grounding terminal, which is situated on the chassis of the display unit.

IMPORTANT: Do not use out of range power supplies.

1.5 Declaration of Conformity






Supplier's Declaration of Conformity 47 CFR § 2.1077 Compliance Information	
Unique identifier:	INTELIVISION 5
Responsible Party:	ComAp LLC 5253 Mainsail Drive Roscoe, IL 61073
E-mail:	info.us@comap-control.com
Phone:	+1 815 636 2541
FCC Compliance Statement	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.

1.6 Document history

Revision number	Related sw. version	Date	Author
3	2.3.1	20.1.2021	ComAp
2	1.9.0	1.12.2017	ComAp
1	1.9.0	2016	ComAp

1.7 Symbols in this manual

Icons at the Top of IntelliVision 5 Display	
	Terminal is locked; no user is logged in
	Terminal is NOT locked; user is logged in
	Access lock is active; display is locked for security reasons
	Remote communication; when any remote connection to controller is active
Icons at the Bottom of IntelliVision 5 Display	
	Mains icon; green/red = voltage, frequency are/are not in the limits
	Load icon; green/grey = voltage, frequency are in the limits/no available power source
	Gen-set icon; green/grey = voltage, frequency are in the limits/out of the limits or not started
	Red exclamation mark; a new alarm occur in the alarm list
	Red button; breaker failure MCB/GCB fail
	Green button; closed breaker
	Button contour; opened breaker
Icons Referring to Specific Screens	
	Menu screen

	Measurement screens
	Setpoints screen
	Alarm list screen
	History screen
	Help/Others screen

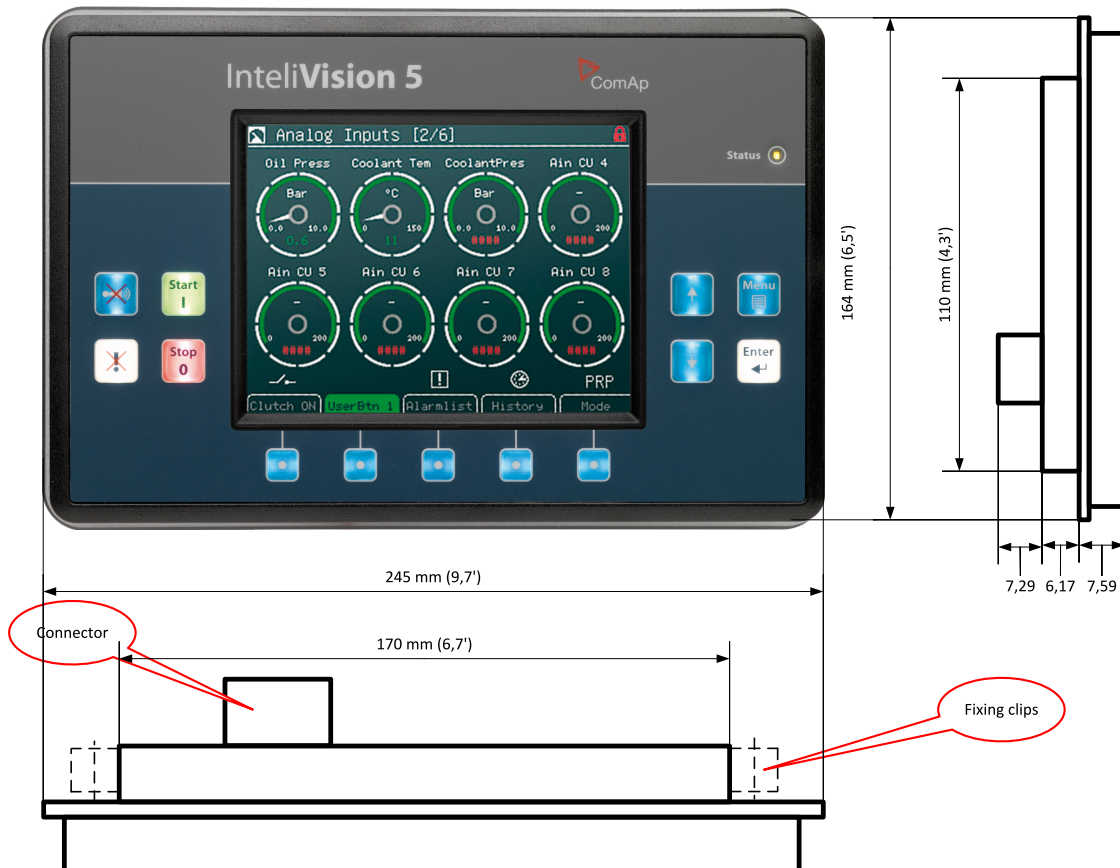
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2 Installation and Wiring

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2.1 Terminals and Dimensions



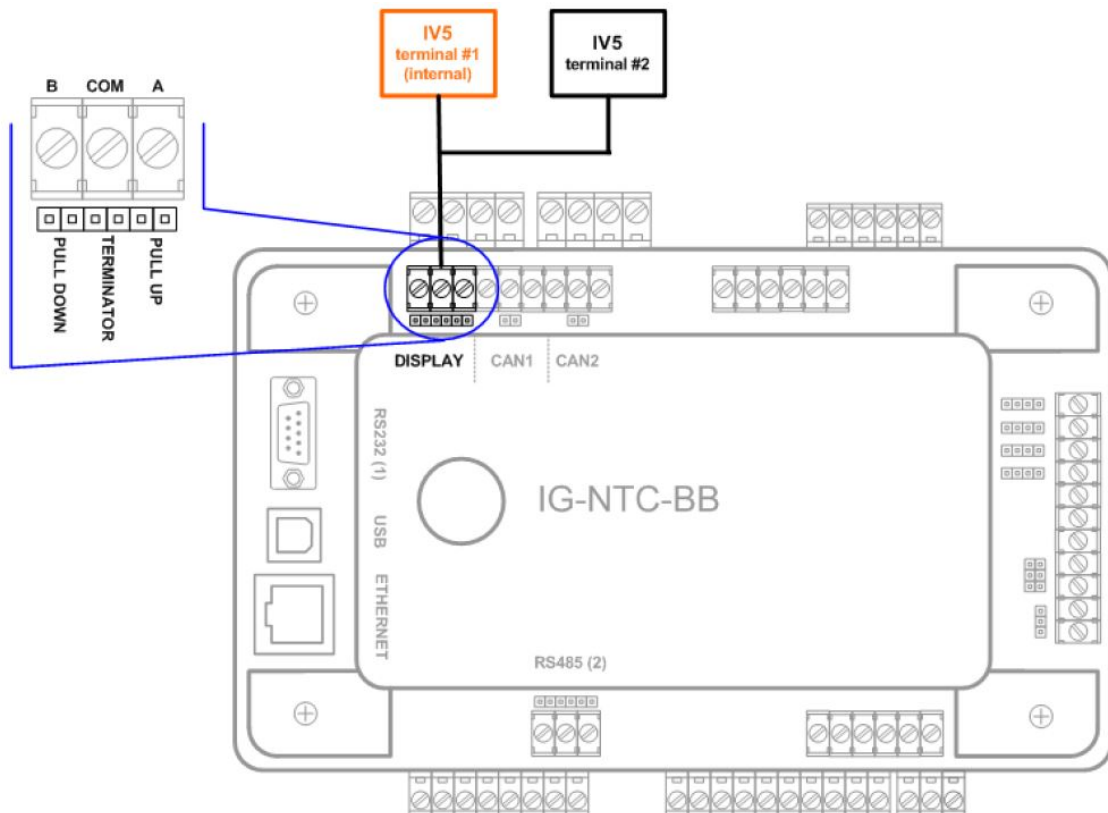
Cutout 175 × 115 mm
 Tightening torque 0.25 Nm

2.2 IntelliVision 5 Connection to Controller

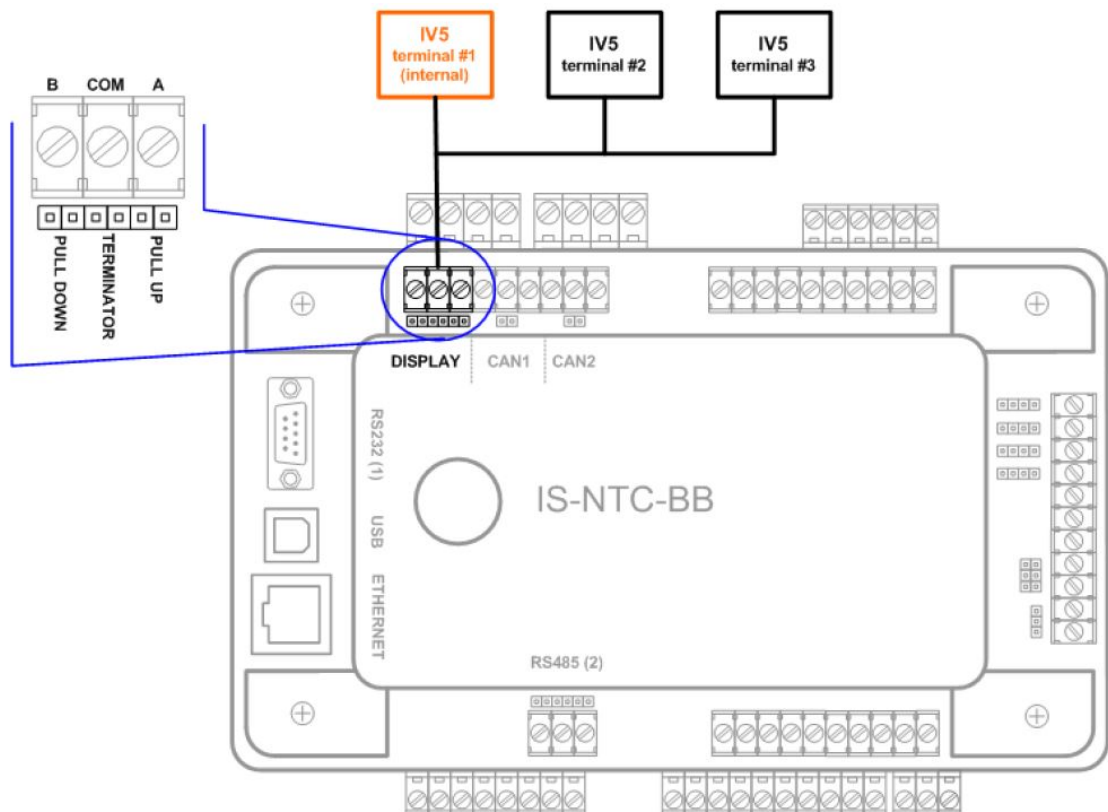
IntelliVision 5 is possible to connect to controller using :

- ▶ Controller NT-Terminal Port / Display Port = RS485(1)
- ▶ Direct Connection = RS485(2)

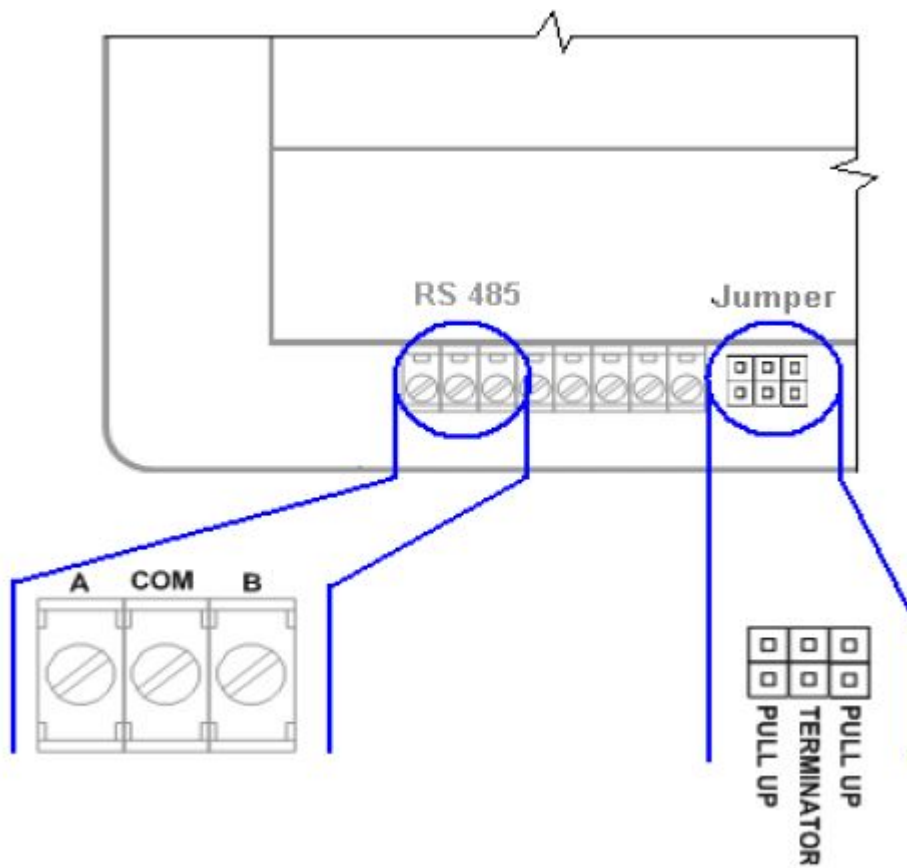
2.2.1 IntelliVision 5 Connection to IG-NTx-BB



2.2.2 IntelliVision 5 Connection to IS-NTx-BB



2.2.3 Terminating Resistor



2.3 Direct Communication of IntelliVision 5 and IG/IS-NT-(BB) controllers

Direct communication enables the usage of converters with constant communication speed in both directions between IntelliVision 5 and the controller.

From version 1.1.1 it is possible to run IntelliVision 5 connected to controller RS232 or RS485 port with following setting in the controller:

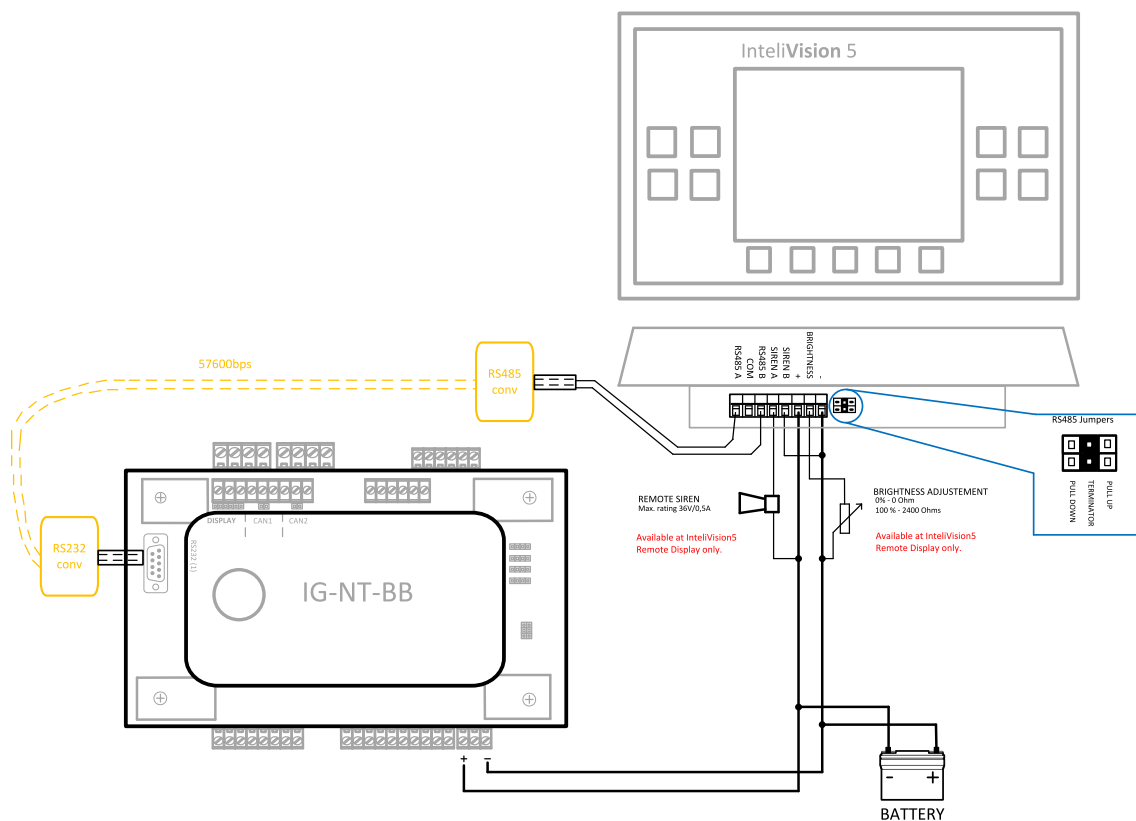
Option	Controller port	Settings in the controller
A	RS232(1)	RS232(1) mode = DIRECT RS485(1)conv. = DISABLED
B	RS485(1)	Possible only for the concrete controllers firmwares where the setpoint RS485 (1) conv. in the setpoint group Comms is available RS485(1) mode = DIRECT RS485(1)conv. = ENABLED
C	RS232(2)* **	RS232(2) mode = DIRECT RS485(2)conv. = DISABLED
D	RS485(2)*	RS232(2) mode = DIRECT RS485(2)conv. = ENABLED

Note:

* RS232 or RS485 (1) direct connection can be used. They cannot be used simultaneously.

** Only available in IG-NTC / IS-NT-BB

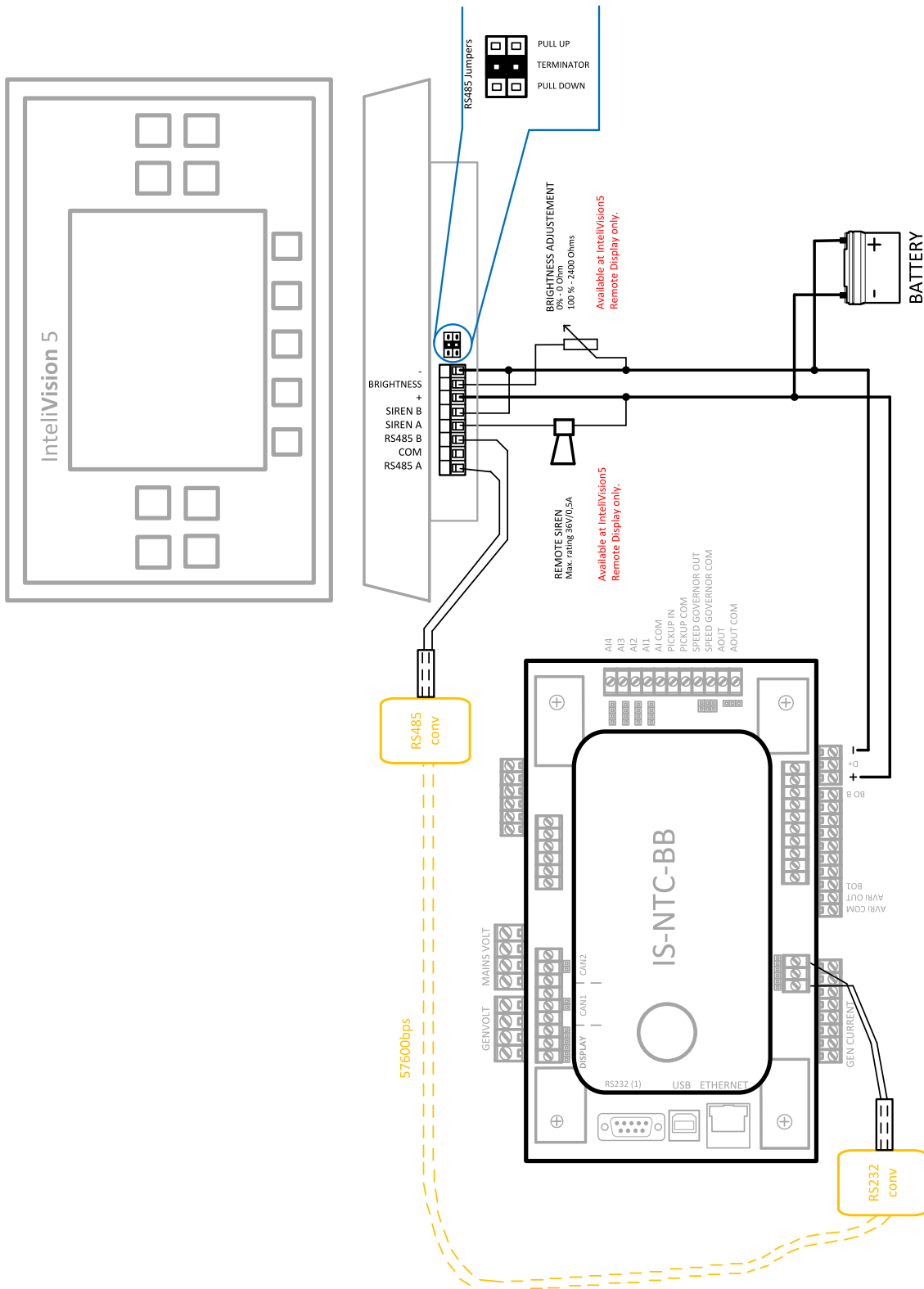
2.3.1 Option A



2.3.2 Option C

Analogical to Option A for second RS232 port.

2.3.3 Option D



Note: Make sure that bias (pull up, pull down) resistors are connected only on one side of the RS485 line.

🔍 back to Installation and Wiring

3 Graphical User Interface

This chapter provides general information on how to operate the IntelliVision 5 display unit. This manual is intended for everybody who is concerned with operation and controls of the gen-set.

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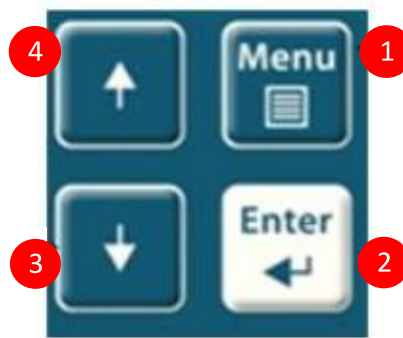
3.1 Front Panel



3.1.1 LED and Buttons

1	Status:	Status LED indication (green = IntelliVision 5 is powered)
2	Navigation buttons:	Arrows for movement + Menu and Enter button
3	Context buttons:	Control or select submenu/sub-options buttons
4	Control buttons:	Horn reset, Fault reset, Stop and Start buttons

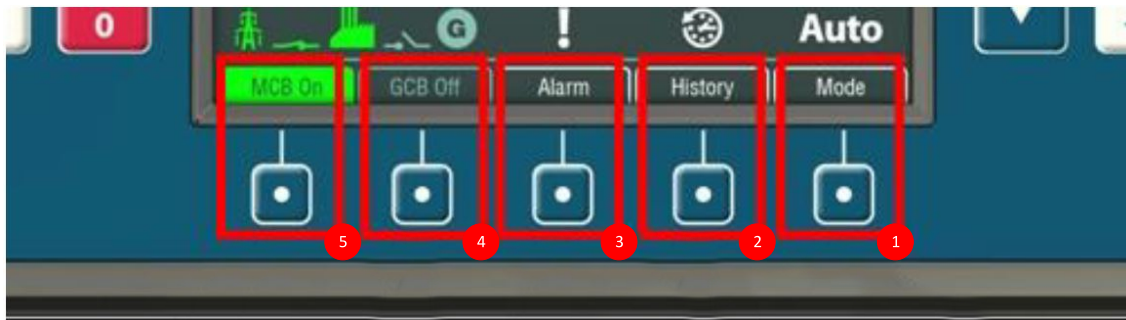
3.1.2 Navigation Buttons



1	Menu	Jump to menu/sub-menu page or escape from any dialog window
2	Enter	Confirms a value or opens a value adjustment within setting dialogs
3	↓	Movement down
4	↑	Movement up

Note: To leave the menu, use Menu button.

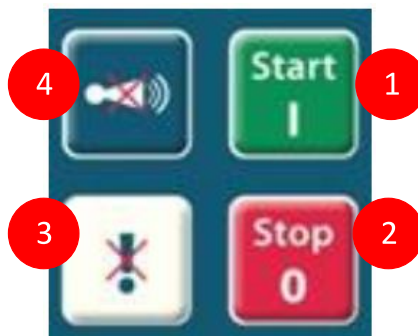
3.1.3 Context Buttons



1	Mode button	Jump to the controller mode window
2	History	Jump to history screen
3	Alarm	Jump to Alarm list
4	GCB control	GCB control (close/open GCB)
5	MCB control	MCB control (close/open MCB)*

Note: *) MCB control button is present only in application where MCB is controlled. Context buttons may be modified by users to fulfill customer's requirements (see chapter User configurable soft keys buttons).

3.1.4 Control Buttons



1	Start	Starts the gen-set
2	Stop	Stops the gen-set
3	Fault reset	Acknowledges faults and alarms (active only in Alarm screen)
4	Horn reset	Deactivates the horn (audible alarm)

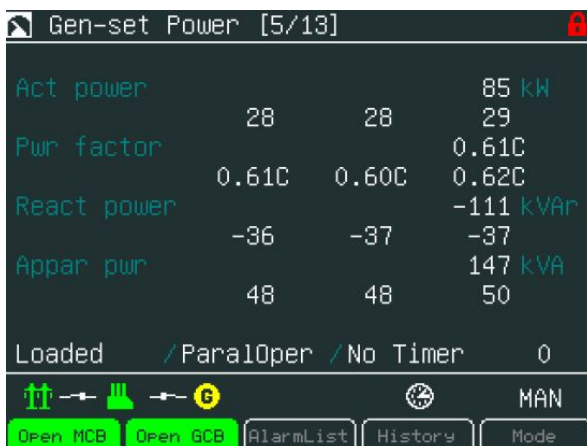
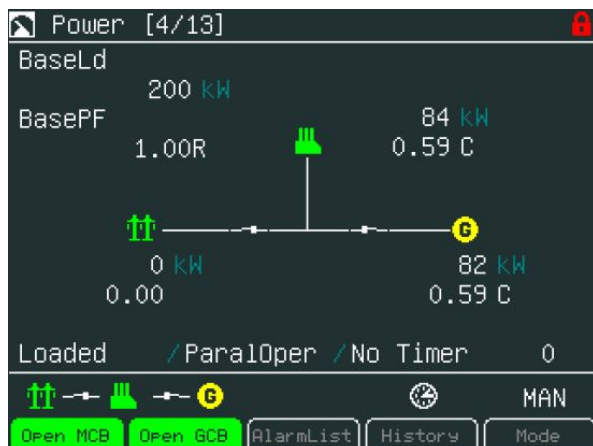
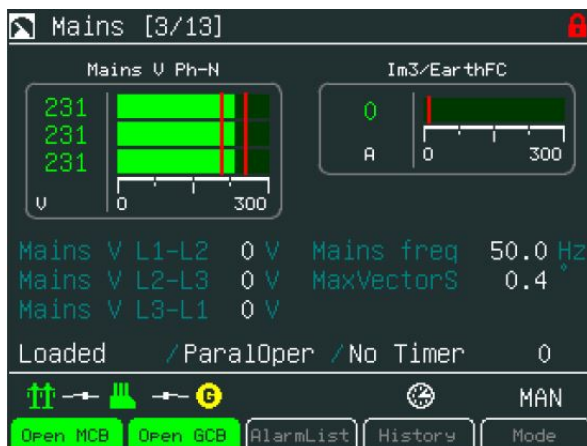
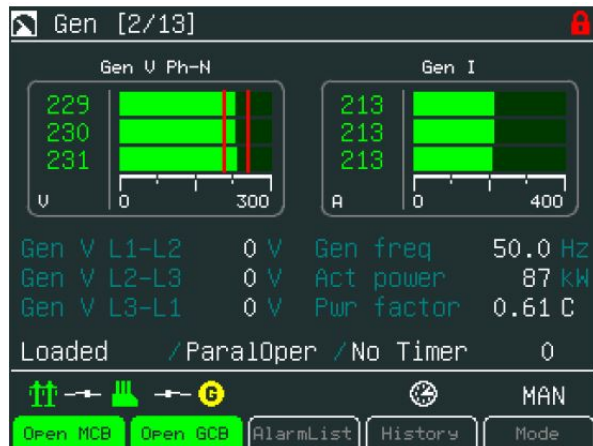
Note: Start and Stop buttons work in MAN or SEM mode only. START and STOP buttons are independent on the IntelliVision 5 screen, menu or sub-menu.


3.2 Metering Screens

Various values can be seen on the metering screens. Metering screens appear after the IntelliVision 5 and controller are powered up and initialization procedure is done. Automatic jump to the home metering screen is performed if there is 15 minutes of inactivity and there are no active and unconfirmed alarms in the controller.

Arrows \uparrow or \downarrow are used for metering screens browsing.





Metering screens are stored in the controller configuration and can differ by controller type, controller firmware version or application.




Statistic I. [7/13] 

Run hours	17 h
Num starts	16
NumUnscStarts	3
AirGate status 0	
AirGate ID	
Service time 1	32233 h
Service time 2	125 h
Service time 3	2455 h
Service time 4	12122 h

Loaded / Para10per / No Timer 0





    MAN

[Open MCB](#) [Open GCB](#) [AlarmList](#) [History](#) [Mode](#)


Statistic II. [8/13] 

kWhours	466
kVARhours	743
TotalDnTime	820 h
DnTimeReqToRun	536 h
PulseCounter 1	456
PulseCounter 2	22
PulseCounter 3	12
PulseCounter 4	45

Loaded / Para10per / No Timer 0





    MAN

[Open MCB](#) [Open GCB](#) [AlarmList](#) [History](#) [Mode](#)


Statistic III. [9/13] 

ExtValue1	100 X
ExtValue2	0 X
ExtValue3	0 X
ExtValue4	0 X

Loaded / Para10per / No Timer 0

    MAN


[Open MCB](#) [Open GCB](#) [AlarmList](#) [History](#) [Mode](#)

CU Analog [10/13] 

Ubat

V


20.1



CPU temp

°C


37.5







D+

V


20.1



Loaded / Para10per / No Timer 0

    MAN


[Open MCB](#) [Open GCB](#) [AlarmList](#) [History](#) [Mode](#)

Analog Inputs [11/13] 

Oil Press

Bar


4.4



Water temp

°C

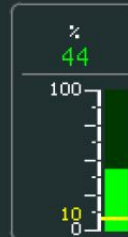
29



Fuel level

%

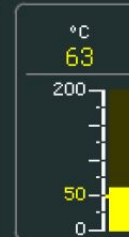
44








Sec Wtemp

°C


63



Loaded / Para10per / No Timer 0





     MAN

[Open MCB](#) [Open GCB](#) [AlarmList](#) [History](#) [Mode](#)

Binary I/O [12/13] 

BIN	1101000000000000
GCB feedback	1 Warning 9 0
MCB feedback	1 Warning 10 0
Remote S/S	0 SD 11 0
Emergency stop	1 SD 12 0
AccessLock int	0 SD 13 0
Remote OFF	0 SD 14 0
Warning 7	0 SD 15 0
Warning 8	0 SD 16 0

Loaded / Para10per / No Timer 0

    MAN

[Open MCB](#) [Open GCB](#) [AlarmList](#) [History](#) [Mode](#)

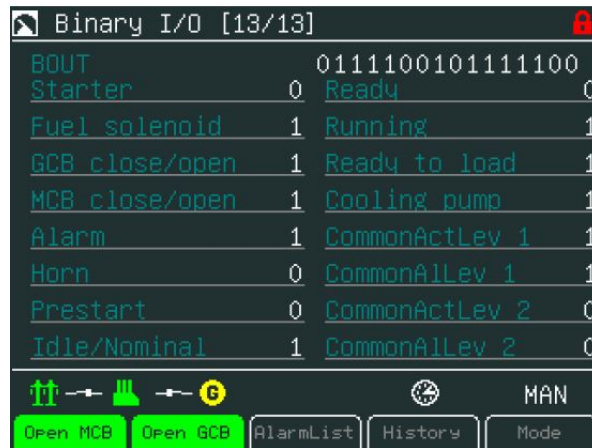


Image 3.1 Illustrative Metering screens for the IntelliSys NTC BaseBox controller

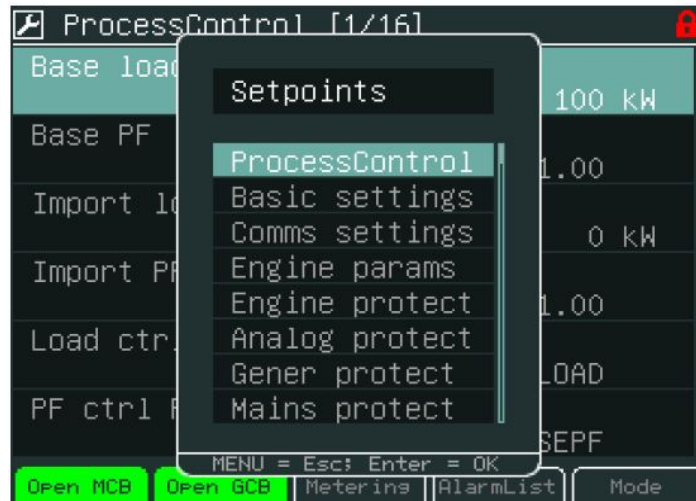
Other screens with ECU values, analogue or binary inputs/outputs can follow. It depends on the controller configuration.

Note: Use ↑ or ↓ to scroll the screens.

Screens could be hidden or the order of the screens could be modified by users.

3.3 Setpoints Screens

To go to Setpoints screen press Menu button, use arrow to find proper item in menu and confirm it with Enter button. The following sub-menu appears with the list of the setpoints groups.



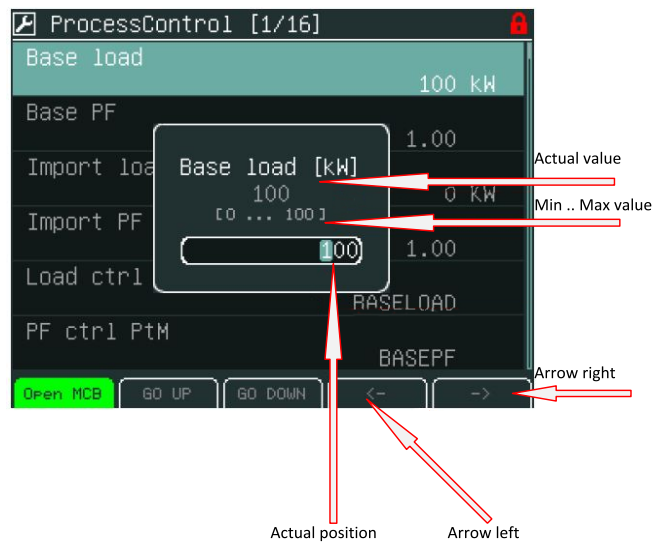
Setpoints groups depends on the application, see Reference Guide of the specific application (e.g. IGS-NT-SPTM-2.5-reference Guide.pdf).

Setpoints could be presented as a numeric, text, string or mixed value and they can be changed in the following ways:

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3.3.1 Numerical Value Change

- ▶ Press the button when the proper setpoints group is chosen (e.g. ProcessControl)
- ▶ Use arrows ↑ or ↓ to go to a certain set-point (e.g. Base load) and press Enter button, see picture below:

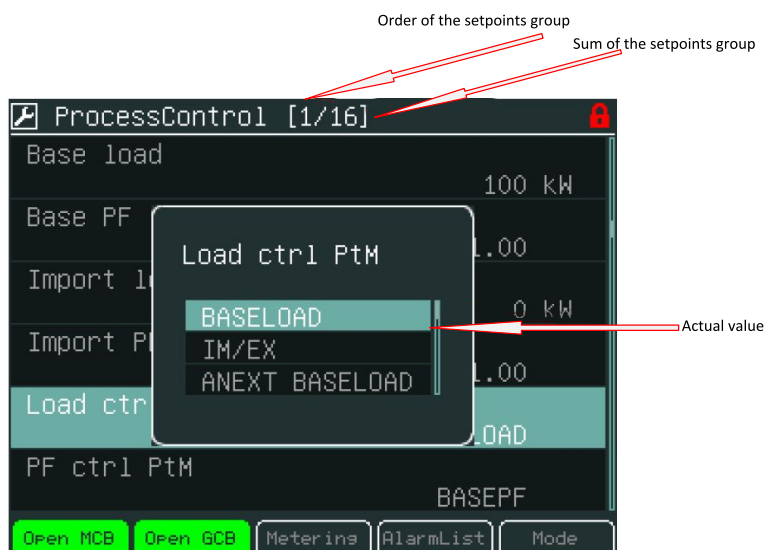


- ▶ Use → or ← buttons to go to a certain position of the field and use ↑ or ↓ buttons to change the value. Then use Enter button to confirm new value.

Note: If you set the value out of limit, the field will get red colour and the new value is invalid. Invalid value cannot be confirmed.

3.3.2 String Selection

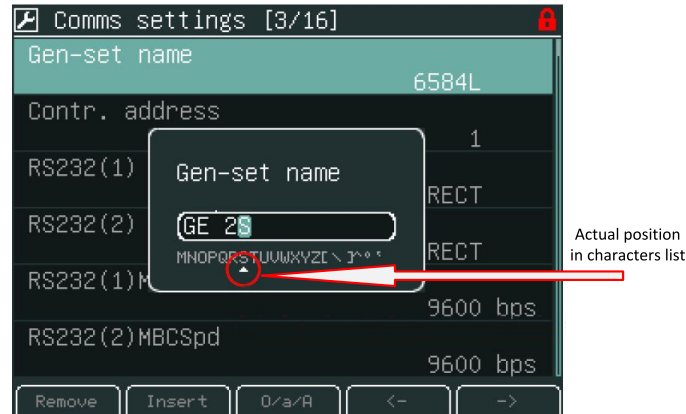
- ▶ Press the button when the proper setpoints group is chosen (e.g. ProcessControl)
- ▶ Use arrows ↑ or ↓ to go to a certain set-point (e.g. Load ctrl PtM) and press Enter button, see picture below:



- ▶ Use ↑ or ↓ buttons to select the string from the list and press the Enter button.

3.3.3 String Edit

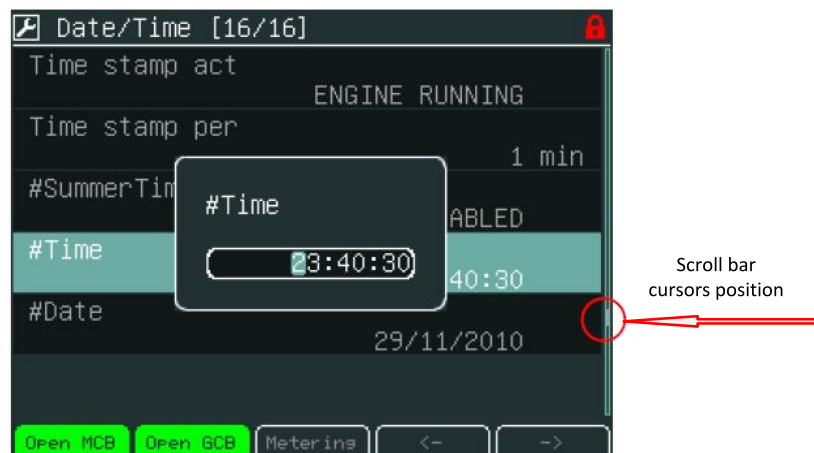
- ▶ Press the button when the proper setpoints group is chosen (e.g. Comms settings)
- ▶ Use arrows ↑ or ↓ to go to a certain set-point (e.g. Gen-set name) and press Enter button, see picture below:



- ▶ Use ↑ or ↓ buttons to select the character and → ← buttons for the next position and press Enter button.

3.3.4 Time and Date Edit

- ▶ Press the button when the proper setpoints group is chosen (e.g. Date/Time)
- ▶ Use arrows ↑ or ↓ to go to a certain set-point (e.g. Time) and press Enter button, see picture below:



- ▶ Use ↑ ↓ buttons to select the number, → ← for the next position and press **Enter** button.

3.3.5 Combined Setpoints

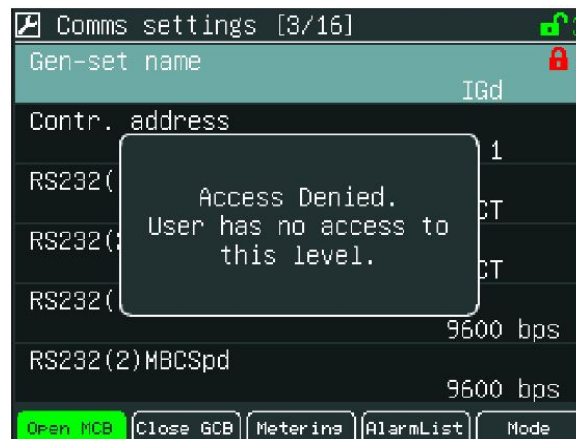
- ▶ Press the button when the proper setpoints group is chosen (e.g. ProcessControl)
- ▶ Use arrows ↑ or ↓ to go to a certain set-point (e.g. PeakAutS/S del) and press Enter button, see picture below:



- ▶ Use ↑ or ↓ buttons to select the number, → or ← for the next position or Go Up/Go Down context buttons and press Enter button.

3.3.6 Unauthorized Access Message

Setpoints can be locked for unauthorized edit. If a user does not have permission to edit certain setpoints, "Access Denied" pop-up message is displayed (see picture below).



3.4 Alarmlist Screen

On AlarmList screen you can see and work with alarms. When an error occurs, a new alarm appears in the AlarmList screen, exclamation mark starts blinking on the measurement screens. A small alarm icon is placed also to heading to be visible in all screens of IV5 including newly generated screens from Screen editor or by adding new modules in configuration. See picture below:



There are 2 levels of alarms:



is displayed by YELLOW colour

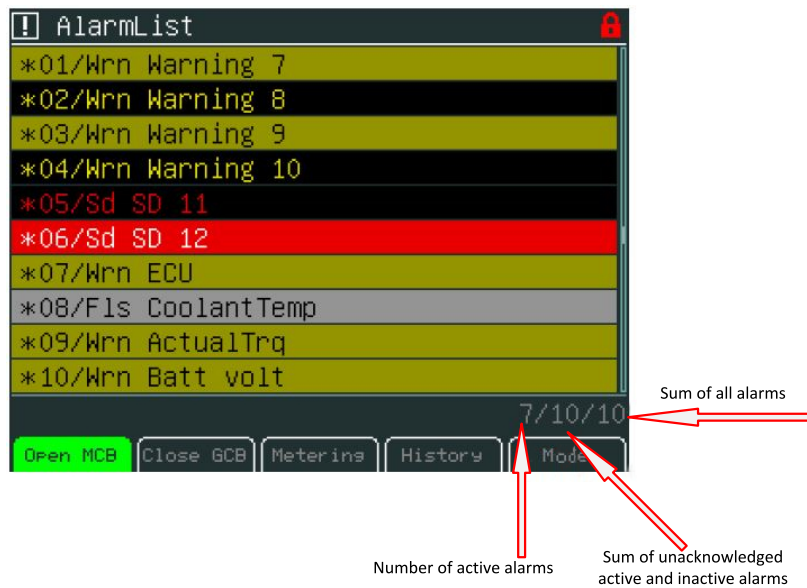


is displayed by RED colour

Note: When a new alarm appears AlarmList screen is displayed automatically when Main Measurement screen is displayed. From different screen, AlarmList button has to be used to display AlarmList screen.

3.4.1 Alarms

- To go to AlarmList screen, press AlarmList context button or Menu button and choose AlarmList.



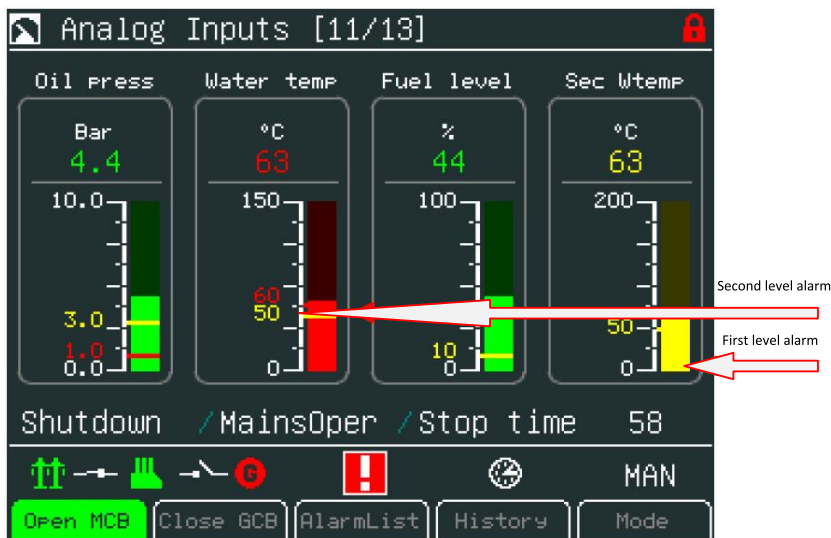
- Press Fault Reset button to confirm all alarms. The exclamation mark will stop blinking.
- Resolve the error. The alarm will disappear from the AlarmList and exclamation mark will turn off.

Note: When the issue is resolved before Fault Reset button is used, the alarm still remains in the AlarmList (it will be turned black) till you press Fault Reset button.

3.4.2 Alarm Types

- ▶ Alarm with asterisk
 - Unacknowledged alarm (not confirmed by **Fault Reset** button)
- ▶ Alarm without asterisk
 - Acknowledged alarm (confirmed by **Fault Reset** button)
- ▶ Alarm written in colour background
 - Active alarm
- ▶ Alarm written in black background
 - Inactive alarm (resolved - visible only when unacknowledged)

▶ Alarm activated with analogue value



▶ Alarm activated with binary inputs



3.4.3 ECU Alarmlist Screen

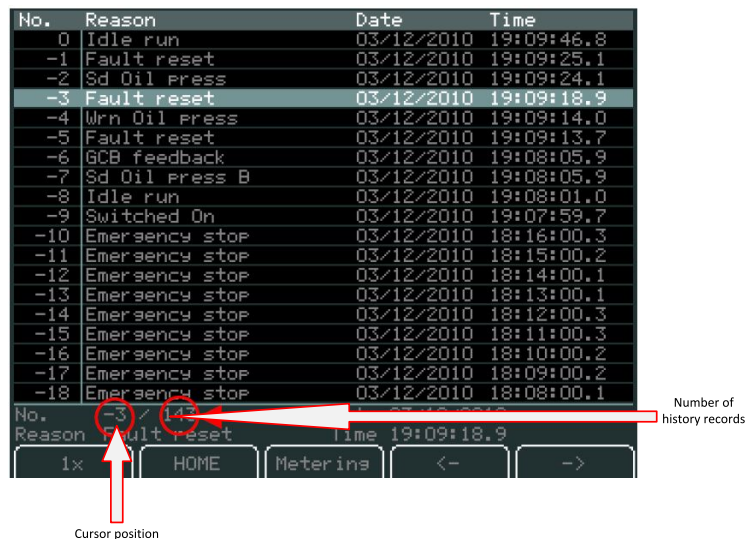
InteliDrive controllers family controller have visually separated common and ECU alarms. The ECU Alarmlist page is accessible by the button in the user button section.



Image 3.2 : ECU Alarmlist page overview

3.5 History Screen

Press **History** context button or **Menu** and choose the History in the menu. For details see following picture:



3.5.1 Context Buttons

Once/1xPage/10xPage	Select page mode– scroll history by lines or page or 10x pages
Home	Jump to the first column when the first column is not on the screen
Metering	Jump to the last displayed Measurement screen
Arrow to left	Scroll to the left side
Arrow to right	Scroll to the right side

Note: History depends on a controller configuration. History is erased when controller configuration is changed and reprogrammed. For more information how to change history columns see GenConfig Reference Guide or GenConfig context help.

3.6 Help/Others Menu

Sub-menu Help/Others Contains Following Screens:

3.6.1 Language	28
3.6.2 User/Password	28
3.6.3 Communication	29
3.6.4 Controller Info	29
3.6.5 ECU Modules	30
3.6.6 Modules Info	30
3.6.7 IntelliVision Info	30
3.6.8 IntelliVision Settings	31
3.6.9 Service Screen	31

3.6.1 Language

1. Press Menu button.
2. Use ↑ or ↓ to choose Help/Others menu item and use Enter
3. Use ↑ or ↓ to choose Language and use Enter.
4. Use ↑ or ↓ to choose correct language and press Enter



Note: IntelliVision 5 will reboot when the language is changed. This reboot does not affect control unit.

3.6.2 User/Password

When a user is signed into the controller he can choose a user from the list of users (every user has got certain rights) and then password has to be used.

To see information how to enter passwords go to **Password Insert (page 39)** and for information how to change a password go to **Password Change (page 40)**.

Note: Users' administration has to be done via PC SW IntelliMonitor. The users' level rights are defined

Note: IntelliDrive controllers have different user management. See the respective controller manual for more information.

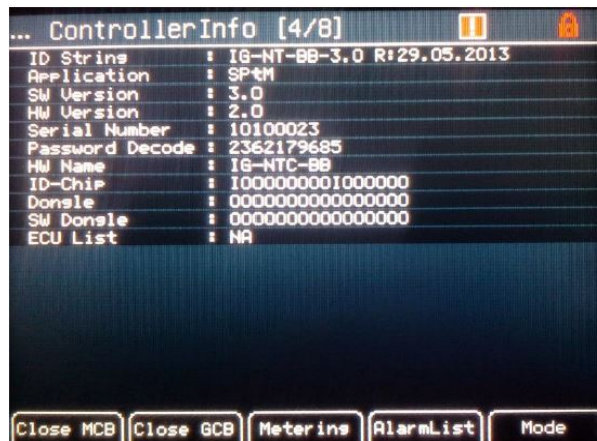
3.6.3 Communication

To see information how to connect IntelliVision 5 display to a controller, go to **IntelliVision 5 Connection to IGS-NT (page 34)**.

3.6.4 Controller Info

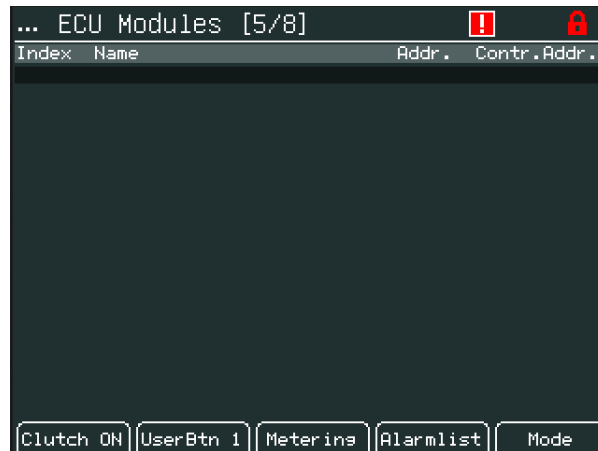
To see information about the control unit see *Controller info* page. On the screen you can find information as (See the picture below):

- ▶ ID controller string
- ▶ Application used
- ▶ SW version
- ▶ HW version
- ▶ Serial number
- ▶ Password decode
- ▶ HW name
- ▶ ID-Chip
- ▶ Dongle
- ▶ SW dongle



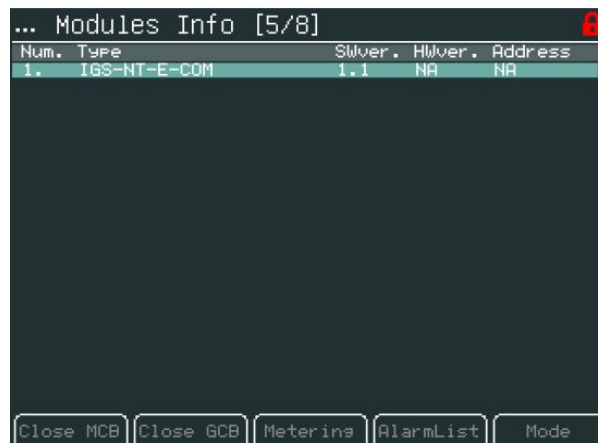
3.6.5 ECU Modules

To see information about the connected ECU units see the ECU Modules page. See the picture below:



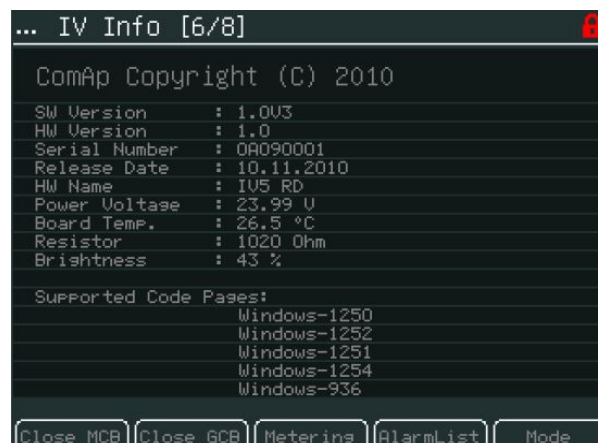
3.6.6 Modules Info

Modules info is the screen where all connected modules can be seen, e.g. I-LB+, IGS-NT-E-COM etc.



3.6.7 IntelliVision Info

Information about the IntelliVision 5 properties can be seen in IV info screen. See the picture below:

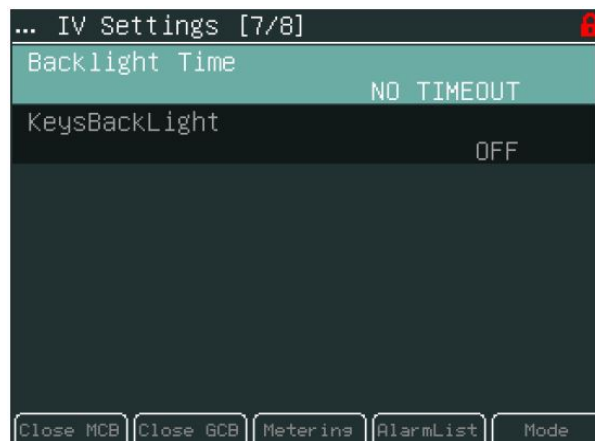


3.6.8 IntelliVision Settings

Backlight Time setting allows to switch off display backlight (Standby Mode is applied). Backlight time is switched off, when time in parameter “backlight time” lefts. The parameter is based on the time from 1 to 240 minutes or never.

For recover any button has to be pressed (see IV5 Settings) or in case of new incoming alarm, the display awakes from standby mode and backlight of the display is activated.

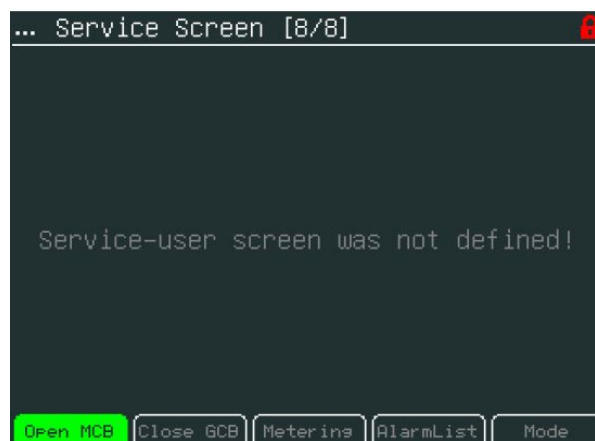
Note: When Alarmlist contains not confirmed alarms, Standby Mode is NOT applied.



Keyboard and display backlight could be switch on or off based on this set-point.

3.6.9 Service Screen

Context information like a telephone number, a name of the service organization and etc... could be placed on this screen.



The Service screen is defined in Screen Editor tool or via xml description.

Screen Editor is easy drag&drop way how to modify screens in IntelliVision 5. Screen Editor is available as the part of GenConfig 2.6 and higher.

3.7 Other Features

3.7.1 User Configurable Soft Key Buttons

The user has possibility to assign various functions of configurable soft keys buttons - buttons on the bottom of Intelivision 5 (see figure below). Different functions can be assigned to any button of any screen.

Pre-defined functions:

- ▶ Fast jump to any Measurement & Setpoints screen
- ▶ Binary signal activation
 - Set button - each press of a button sets binary signal to 1
 - Reset button - each press of a button sets binary signal to 0
 - Toggle button - press set binary signal to 1 or 0 (depends on initial value) and next press set value to opposite value. Initial value can be defined.
 - Pulse generator (the button generates pulse 1)
- ▶ Genset commands (start, stop, MCB on, faultReset etc.)

See example in the picture below. The first button is fast link to “Generator protection” list in Setpoints Menu and the second button is fast link to “Statistic I.” screen in Measurement. Labels on buttons are customizable.



The functions can be easily defined in the graphical Screen Editor. Functions actually assigned to buttons in actual archives are default.

3.7.2 Support of TIER 4 Final Standard

InteliVision 5 is ready to use in projects requiring the TIER4 Final standard. The figure below displays the illustrative set of supported symbols in all color variations.

They are available to choose in Screen Editor (as Pictogram / GaugeBit / GaugeBitBlink instruments) during the IV5 screen modification.



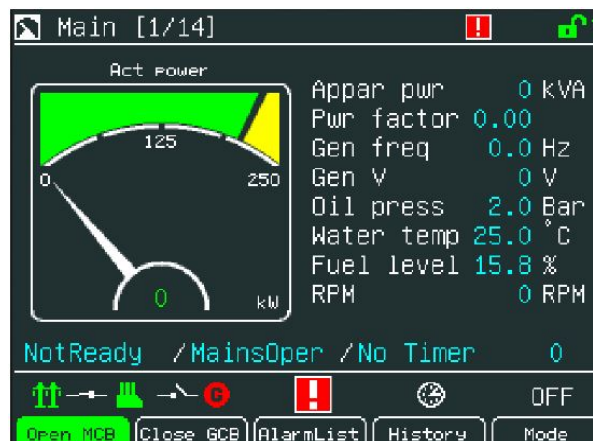
Note: New TIER 4 Final symbols are ready to be configured in Screen Editor (the part of the GenConfig).

Note: If the ECU with the support of Tier 4 Final is added to the configuration in the GenConfig software the Aftertreatment screen is automatically added to the metering screen (in the Screen Editor tab).

Note: To fulfill the Tier 4 Final standard there also must be manually configured DEF level and Soat level values to the main metering screen (e.g. DigitLong instrument can be used). Some of the controller firmwares already have these values on the main metering screens preconfigured by default.

3.7.3 Labels Color Change

From 1.1 version the color of all texts and values was changed to be text better readable also from angles. The text color is white and value color is aqua. See texts and values on right side of figure below.



⬅ back to Graphical User Interface

4 Quick Help

This chapter provides information how to connect IntelliVision 5 and quickly find important data. To be more familiar with IntelliVision 5 menu, **see Graphical User Interface on page 14.**

4.1 IntelliVision 5 Connection to IGS-NT	34
4.2 IntelliVision 5 Connection to Single Controller	35
4.3 Communication Error	36
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4.6 Circuits Breakers Control	37
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4.1 IntelliVision 5 Connection to IGS-NT

With version 1.1.1 or higher IntelliVision 5 can be connected to the controller via RS-485 or RS-232 line. A user can choose between NT-Terminal connection and direct connection.

If the connection has not been set up yet, after start up IntelliVision 5 will shows “Communication window” with two parameters:

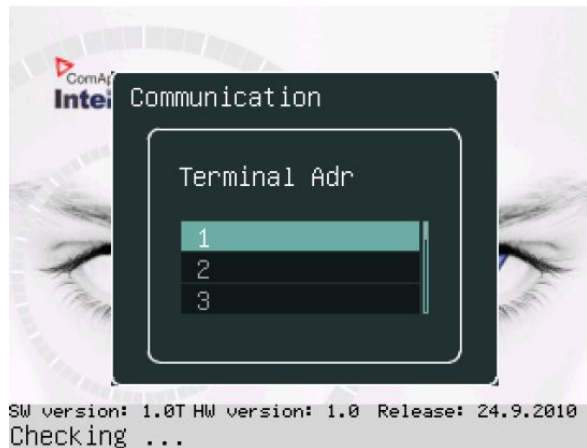
- ▶ ConnectionType – indicates last connection type which was selected, press “Enter” button to go to menu for selection between options:
 - NT-Terminal
 - Direct
- ▶ Terminal Adr./ Controller Adr.

If NT-Terminal as a connection type is selected then second parameter is:

Terminal Adr – indicates which terminal addresses are available (green text) and which are occupied (red text). It is possible to connect up to 2 terminals to IG-NT-(BB) and up to 3 terminals to IS-NT-(BB) controllers.

When terminal address has to be changed:

- ▶ Press Menu button and choose Help/Others menu
- ▶ Use ↑ or ↓ for Communication item and press Enter
- ▶ Use ↑ or ↓ to get Terminal Adr (in the case ConnectionType = NT-Terminal) and press Enter (in the case ConnectionType = Direct, firstly ConnectionType = NT-Terminal has to be set)
- ▶ Use ↑ or ↓ and choose appropriate Terminal Adr and press Enter, see picture below:



InteliVision 5 will reboot and the new terminal address will be used. Loss of communication is presented with the first screen, with SW version, HW version and release date. **Communication Error (page 36)** is displayed with terminal address dialogue.

Note: For the information how to connect InteliVision 5 to the controller go to the Installation guide or Terminals and dimension chapter.

RS 485 terminators have to be used to assure proper functionality. RS 485 port is galvanic separated and IV5 might be use for communication for long distance up to 1000m.

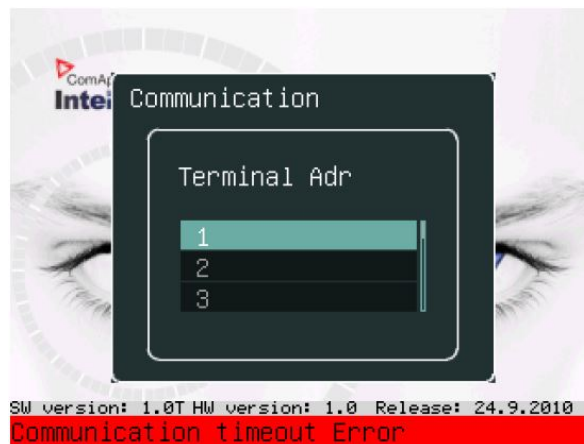
4.2 InteliVision 5 Connection to Single Controller

Controller Unit	RS485(1) Terminal address	RS485(2) Direct	Displays Amount
IS2GAS	1,2,3	1	4
IDDCU Marine 3.0.0	-	1	1
IG-NT-BB	1,2	-	2
IG-NTC –BB	1,2,3	1	4
IS-NTC – BB	1,2,3	1	4
IM-NT-BB	1,2	-	2
IG-NTC	-	1	1
IS-NT-BB	1,2,3	-	3
IM-NT	-	1	1

For how to set up InteliVision 5 address see **InteliVision 5 Connection to IGS-NT on page 34.**

4.3 Communication Error

Communication error occurs when no control unit is connected to the display or communication is interrupted. In that case the following screen appears:



When the communication between unit and display is fixed, the red stripe disappears and Intelivision 5 initializes communication with the unit.

The control unit is identified by Intelivision 5 and only valid numbers of terminal addresses are displayed. For the maximum number of connected Intelivision 5 see **Intelivision 5 Connection to Single Controller on page 35**.

4.4 Controller Status

Controller status is displayed in the left bottom part of the screen. Status depends on the external conditions and it is updated immediately when any condition is changed.






Note: For more information about controller status see relevant Reference guide e.g. *IGS-NT-SPTM-2.5.pdf*

4.5 Breaker Status

Breakers status is present in all default controller screens. Single line diagram defines Mains and gen-set condition.



Status is represented with following colours	
	Represent breaker failure e.g. MCB fail.
	Represents closed breaker.
	Represents opened breaker.

Pressing corresponding button results in following actions:

Open MCB (GCB) – command Open MCB (GCB)

Close MCB (GCB) – command Close MCB (GCB)

Note: Mode button and command buttons are disabled when active lock is active. SW button link has gray link around (when no colour background is used) and dark green or dark red when breaker status is highlighted.

4.6 Circuits Breakers Control

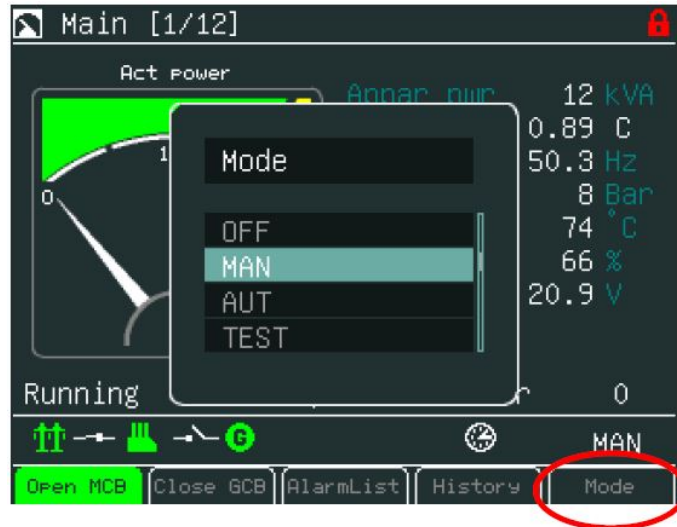
Breakers can be controlled in MAN mode only. Breaker control button is placed in bottom part of IntelliVision 5display. See picture below:



4.7 Gen-set Mode Change

To Change a Gen-set Mode:

- ▶ Press **Mode** context button (See the picture below).
- ▶ Use ↑ or ↓ to choose menu item and press **Enter**



4.8 Log-in to Controller

To enter a controller user:

- ▶ Press **Menu** button.
- ▶ Use ↑ or ↓ to choose **Help/Others** and press **Enter**
- ▶ Use ↑ or ↓ to choose **Users/Password** menu item
- ▶ Use ↑ or ↓ to go to **Users** field and press **Enter**.
- ▶ Use ↑ or ↓ to set the correct user and press **Enter**. See the picture below:



Note: The controller is unlocked only when proper password is inserted.

When user is log in. Green lock is displayed in the right upper corner and appropriate access level is indicated. See figure below:



4.9 Password Insert

To insert a controller password:

- ▶ Press Menu button.
- ▶ Use ↑ or ↓ to choose **Help/Others** and press **Enter**
- ▶ Use ↑ or ↓ to choose **Users/Password** menu item
- ▶ Use ↑ or ↓ to go to **EnterPassword** field and press **Enter**.
- ▶ Use → or ← to select the digit and use ↑ or ↓ to set the number you need to enter. See the picture below:



It is possible to set Password protection feature.

Note: Password protection features should be activated in IntelIMonitor in Password Menu. In default the feature is **inactive**.

In the case when Password protection choice is activated and a user inserts wrong password for six times (the number of attempts can change according to a new controller SW version) to log into the controller, the controller is automatically locked for next login. When the controller is locked and user tries to login into the controller, the message appears:

"Controller is locked. Try entering correct password after X min"

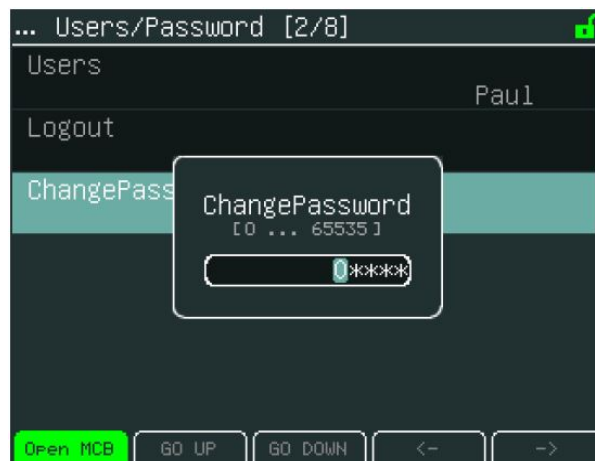
Message informs about time remaining for unlocking of the controller. The time in message is not actualized. For actual time a user should open login dialog again.



4.10 Password Change

To change a controller password:

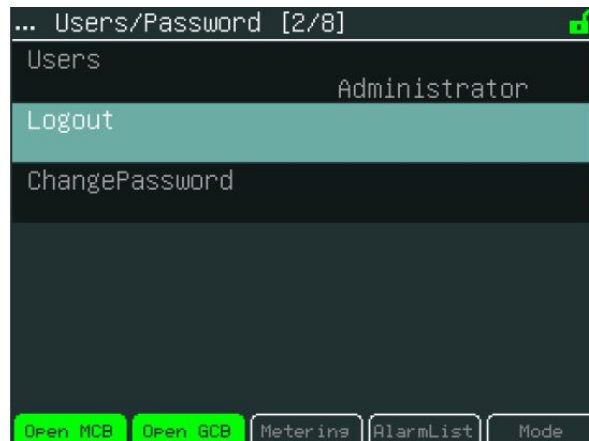
- ▶ Log in, see the chapter **Log-in to Controller (page 38)** and **Password Insert (page 39)**.
- ▶ Press **Menu** button.
- ▶ Use ↑ or ↓ to choose **ChangePassword** and press **Enter** button
- ▶ Use → or ← to select the digit and use ↑ or ↓ to set the number you need to enter. See the picture below:



4.11 Log-out from Controller

To log out:

- ▶ Press **Menu** button.
- ▶ Use ↑ or ↓ to choose **Help/Others**, press **Enter**
- ▶ Use ↑ or ↓ to choose **Users/Password** menu item and press **Enter**
- ▶ Use ↑ or ↓ to choose **Logout** and press **Enter**.



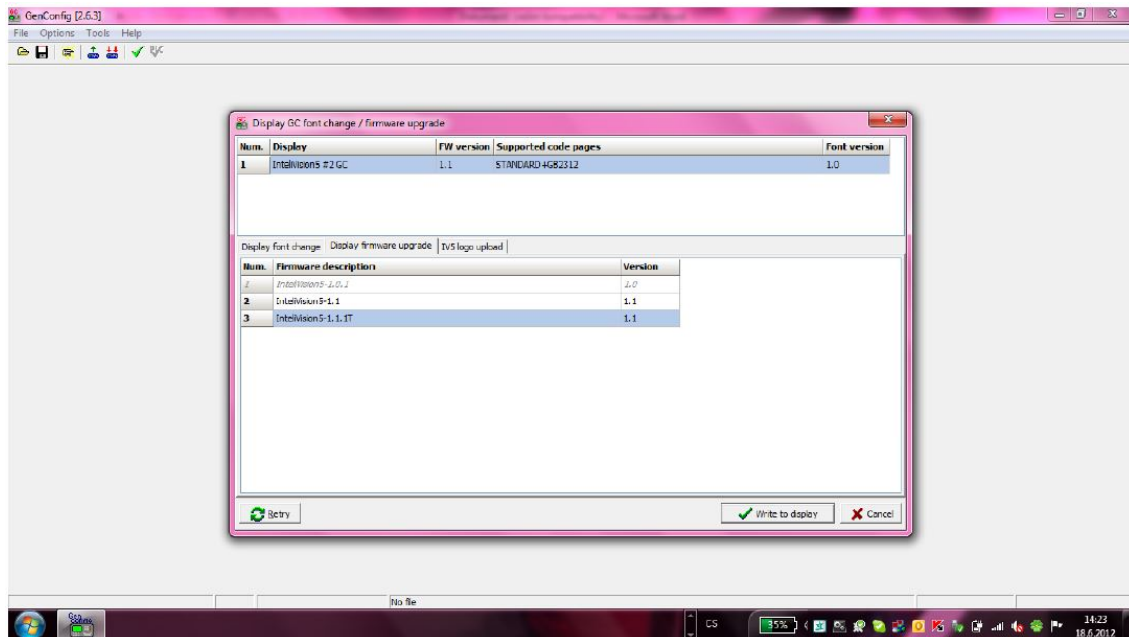
4.12 IntelliVision 5 Programming

For programming of a new firmware, upgrade of fonts and logo download the IntelliVision 5 has to be connected to any IG/IS-NT-(BB) controller to its NT-terminal interface, i.e. RS485(1)/display port.

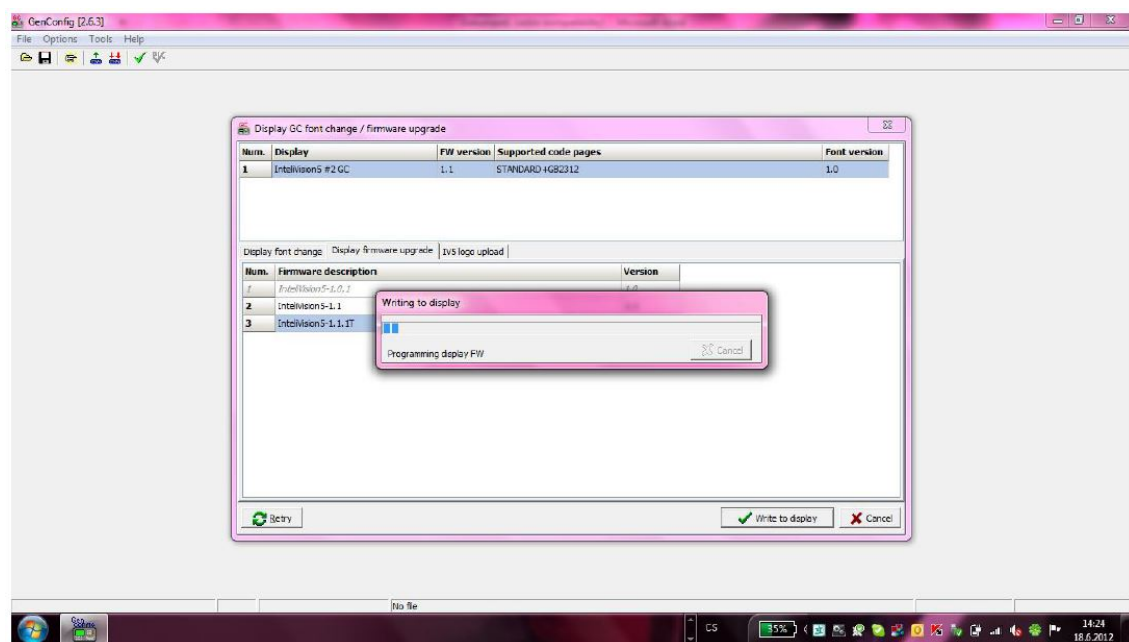
Then the programming is done from GenConfig PC SW tool:

- ▶ Run GenConfig
- ▶ Go to menu File -> Firmware upgrade and Cloning -> Display GC font change / FW upgrade
- ▶ Select tab according to desired operation, e.g. Display firmware upgrade
- ▶ Select firmware to be programmed

Note: It is possible to choose only firmware already imported to GC.



- ▶ Press **Write to display** button and wait until programming is complete

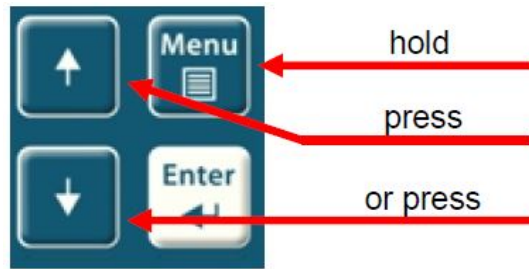


- ▶ Disconnect Intelivision 5 from the controller NT-terminal interface.

It is **not possible** to program Intelivision 5 through the direct communication interface.

4.13 Display Brightness Change

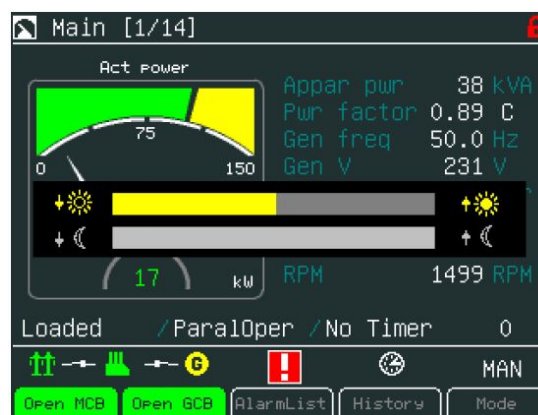
The brightness of display can be changed by holding Menu button and repeated pressing * or *. See the picture below:



Two modes are available in IntelliVision 5. To switch between Day or Night mode hold Menu button only. Pictogram for day or night appears on the screen.

To change day or night brightness intensity:

- ▶ Hold Menu button until day / night mode on the screens appear
- ▶ Press and hold Menu button with * or * to change brightness intensity



Note: Brightness setting has priority in this order: controller forced brightness IntelliVision's 5 analogue input, keyboard. When the analogue input is used, small pictograms in brightness sub-menu appears. Display backlight could be switched off (standby) due to Backlight Time. For recover any button has to be pressed (see IV5 Settings) or in case of new incoming alarm, the display awakes from standby mode and backlight of the display is activated.

5 Technical data

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

Power supply

Value	Controller	IV5 Display
Voltage supply	8-36 V DC	8-36 V DC
Consumption depends on supply voltage	1.1 A at 8 V DC	0.7 A at 8 V DC

Note: *InteliVision 5 and the control unit should be used the same battery source. When external battery is needed because of long wiring and etc.. InteliVision 5 RD is recommended to use.*

Operating conditions

Operating temperature	-30 °C to +70 °C (-40 °C to +70 °C if the device is powered on above -30 °C)
Storage temperature	-30 °C to +80 °C
Flash memory data retention time	10 years
Protection front panel	IP 65
Operating humidity	85 % without condensation IEC/EN 60068-2-30
Heat radiation	6 W

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	EN 60068-2-6

Dimensions and Weight

Dimensions	Front panel 245 × 164 mm InteliVision 5 cutout 175 × 115 mm
Weight	855 g

Communication Interface

Maximal distance 1000 m (depends on local conditions and interference)
* RS 485 is galvanically separated
Speed up to 57.6 kBd

LCD Display

5.7" color TFT display with resolution of 320 × 240 pixels
LCD display active area dimension 115.2 × 86.4 mm
Pixel size 0.120(W) × 0.360(H) mm

Note:

* RS-485 interface is galvanically separated from the serial number 1511434C (HW version on the back sticker is 1.2).

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6 Event List

InteliVision 5 screen texts	Description
Detecting	Controller detection sequence is in progress. Text disappears when controller is detected.
Checking	Controller configuration sequence is checking. Text disappears when controller is detected.
Reading cfg. Table	Controller configuration reading is in progress. Text disappears when controller is detected.
Preparing	Display setting Ok.
Running	Indication of running display.
Wrong Display HW	SW and HW mismatch. Correct firmware has to be programmed.
Invalidate configuration table Error	Configuration table is invalid. Controller configuration has to be reprogrammed or upgraded.
Unsupported controller Error	Controller is not supported.
Unsupported cfg. table format Error	Controller configuration table is not supported. InteliVision 5 firmware upgrade is necessary.
Mismatch parameters length Error	Controller parameters mismatch. Controller configuration upgrade is necessary.
Mismatch const values length Error	Controller constants mismatch. Controller configuration upgrade is necessary.
Mismatch values length Error	Controller values mismatch. Controller configuration upgrade is necessary.
Mismatch val states length Error	Controller values states mismatch. Controller configuration upgrade is necessary.
Communication Error	Controller is detected; CAN communication level is not defined correctly. Reason of this behavior could be: CAN bus line is not terminated properly, environment disturbance is present or CAN line is too long.
Terminal addr collision Error	Another CAN bus connected equipment uses the same Terminal address for a given controller. Change Terminal address is necessary.
Screen template missing Error	Unsupported controller firmware, missing InteliVision 5 support.
Screen template version Error	Unsupported controller screen. InteliVision 5 firmware has to be updated.
Font not valid Error	Corrupted display font. Font programming was not done properly. Display firmware/font programming is necessary.
Font format not supported Error	Unsupported font, InteliVision 5 font or firmware is necessary.
Bitmaps not valid Error	Bitmaps (generator, engine, fuel and etc...) Firmware upgrade is necessary.
Bitmaps format not supported Error	Unsupported bitmaps format. (Engine, gen-set and etc...) Firmware upgrade is necessary.
Default lang. not supported Error	Default/Defined language error/not supported. Language change or code page change is necessary.

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