# QUICK START
BTB COMPACT

The purpose of this document is to allow a fast and easy handling of the product, nevertheless it is essential that you refer to the technical documentation (latest version always available on our website www.cretechnology.com) for the commissioning.

For any further information on this product, please contact your local distributor or agent or directly our support team.

- All our products have a 1 year warranty
- Help desk: +33 492 38 86 86
- E-mail: support@cretechnology.com

ACTIVE DISPLAY

OPERATING MODES/CONTROL BUTTONS
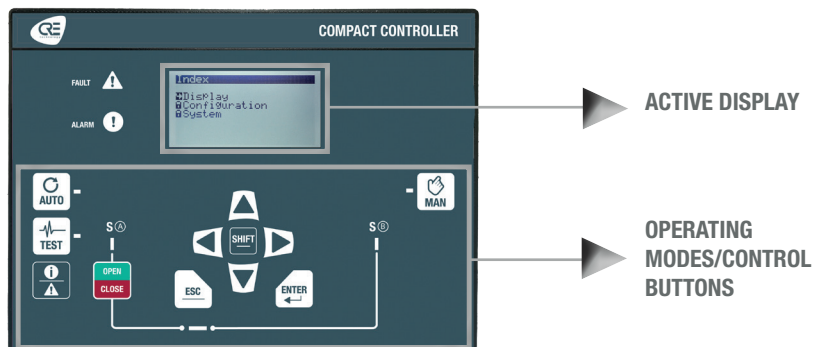
OPERATIONNAL MODES

The controller can be configured and controlled using the buttons of the front panel:

- The arrows, ESC and ENTER buttons are dedicated to navigation for displaying measurements and parameters, and for configuring the controller.
- The SHIFT button is used to reset faults when combined with the alarms/faults button
- The AUTO button switches to a mode that makes the controller operate the installation in a fully automatic mode according to its settings and configuration, external action to start : "remote start" digital input or "mains failure" by ModBus TCP.
- The TEST button switches to a mode that simulates the start of the Auto mode with the requested sequences. To exit from the TEST mode, simply press AUTO or press MAN mode.
- The MAN button switches to a mode allowing you to manage your installation with the front panel buttons manually: you will be able to start/stop the tie-breaker automatic synchronization (open/close the breaker) and the load/unload ramp while still benefiting from the active protections of the controller.

MENUS

When the controller is powered up, the home page appears on the screen. The content of this page is dynamic, depending on the status of the power plant. Press "ENTER" to access the index page of available menus:

- **Supervision** : Use the arrow buttons to select this menu, then press "ENTER" to access the supervision pages.
- **Settings** : Use the arrow buttons to select this menu, then press "ENTER" to access the settings pages. A password is required to define the operating mode. To enter the password: Use the "↑" and "↓" buttons to change character, move to the next/previous character with the "→" and "←" buttons, confirm password by pressing "ENTER". The operating modes are the following:
  - Standard: Provides access to the basic settings recommended to start commissioning your application. The default password is "1".
  - Advanced: Provides access to all settings for optimum application commissioning. For complex settings not available on the controller front panel, use the i4Gen Suite software (Easy-Flex, scheduler, alternative selection, etc.). The default password is "1234".

THE DIFFERENT MENUS WILL APPEAR AS FOLLOW

SUPERVISION	
POWER PLANT	Power plant electrical information: kW /kVAR, nominal values, breakers status and generator state.
SOURCE A	Source A electrical measures: frequency, voltage, powers and power factor.
SOURCE B	Source B electrical measures: frequency, voltage, powers and power factor.
SYNCHRONIZATION	Synchronization measures and checks: phase, frequency, voltage, phase sequence.
INPUTS/OUTPUTS	Real time displays for digital I/Os, and CANopen digital I/Os.
ABOUT	Information about hardware and firmware: serial number, firmware version.

SETTINGS (*LEVEL 2 ONLY)	
DYNAMIC	PID settings.
GENERAL	Application, timers, CAN and events settings.
ELECTRICAL	Source A, source B and synchronization settings.
INPUTS/OUTPUTS	Digital inputs, analog inputs, digital/relay outputs and breaker settings.
PROTECTIONS*	Source A, source B and other protections settings.
PROGRAMMING*	Modification by variable number.
SYSTEM	Language, screen setup, date/time, Ethernet and password settings.

WIRING CONNECTION

Wiring & Dimensions/Panel cut out are available on the website in the **technical documentations** section of the controller: www.cretechnology.com

PC CONNECTION - WITH I4GEN SUITE SOFTWARE

Switch on the controller. Connect the Ethernet port (RJ45-LAN) of your computer to the Ethernet port of the controller. To be able to establish communication between the i4Gen Suite and the controller, the network addresses of both devices should be configured:

- For PC network configuration, please refer to your Windows network settings.
- To configure the controller IP address, proceed as follows:

  1. Download the latest version of the i4Gen Suite software on our website https://www.cretechnology.com/en/software/130/i4gen-suite

  2. Open the i4Gen Suite software and go on Easy connect menu. ▶

  3. Click on the scan button to identify your controller. ▶ SCAN

  4. Click on the auto configuration button to adapt your controller's IP address. ▶ AUTO CONFIGURATION

  5. Your system is ready. Click on the connection button to access supervision, configuration and control of your controller. ▶

Once connected, you will be able to navigate through the following menus:

CONTROLLER SUPERVISION
(Controller measurement supervision)

CONTROLLER SETTINGS
(Controller parameters settings)

PC SETTINGS
(PC software settings)

NOTE

Before the commissioning or the operation of your equipment, please read carefully the user's manual and other related documentations.

We also offer personalized and specific training on our product range and software, as well as additional services such as: onsite support, application engineering or specific support.

⚠ **Carefully apply the safety instructions. Any misuse of your equipment can lead to human or machine damages.**

COMMISSIONING

- In MAN mode: Test to open and close the tie-breaker (with voltage on source A or on source B only).
- Manage synchronization (on both sources sides, GENSYS COMPACT PRIME must be in AUTO mode) without connection with the tie-breaker, and check voltage difference < 40Vac on breaker. If OK, paralleling can be tested. Test both side synchronization:
  - From source A to source B (variable 4637 AB or BA): input value at 0.
  - From Source B to source A (variable 4637 AB or BA): input value at 1.
- After commissioning, the product can be switched to AUTO mode.

CONTROL LOOPS ADJUSTMENT
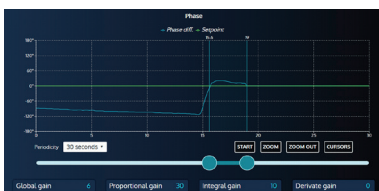
To adjust these parameters, we provide real-time display of setpoint and measurement curves on the same screen. These 2 curves help to adjust PID for global stability and are available for synchronization (phase).

- In standard operating mode, you have access to the global gain G setting.
- In advanced operating mode, you have access to the proportional P, integral I and derivative D settings:
  - Increase P value to have measure curve close to setpoint curse, without hunting.
  - Increase I to decrease the static error (difference between setpoint and measure), without slow hunting.
  - Only if necessary, increase D, for oscillation attenuation.