

MBC MARINE

Smart Touch

Touch screen and internet remote
for MBC air conditioners

Owner's Manual Installation Guide

Rev 2.4 EN
Firmware: A077/T042

First steps

Thank you for purchasing our Smart Touch intelligent AC controller.

The Smart Touch is a touch-screen controller and internet remote for the MBC Marine line of air conditioners.

Turning on the controller

1. Power up the AC unit. The touch screen will turn on, ready to use.

Remote access

If there is a Wi-Fi network connected to the Internet, follow these steps below.

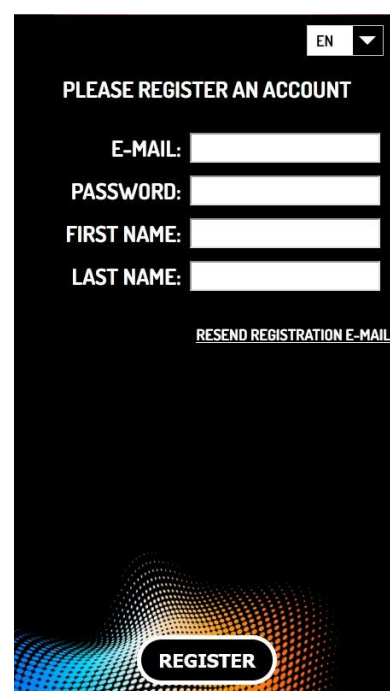
WARNING! The controller works with the 2.4GHz Wi-Fi band. If your Wi-Fi network operates on the 5GHz frequency, your hotspot/router must be adjusted to 2.4GHz first!

2. Make sure that the Wi-Fi is ON (WIFI toggle). Tap the (red) Wi-Fi icon at the top-right corner to access the network settings (see picture). Enter the name of the network (WIFI NAME) or tap the Wi-Fi icon to select one from the available networks. Enter the PASSWORD.
3. If the network connection was successful, the Wi-Fi icon will turn from red to yellow, then to green.



4. Open a web browser on your phone, tablet, or computer. Register and log in to your account on the control.mbc-marine.com page. Only the E-MAIL (which will be the login name) and PASSWORD are required to create your account.

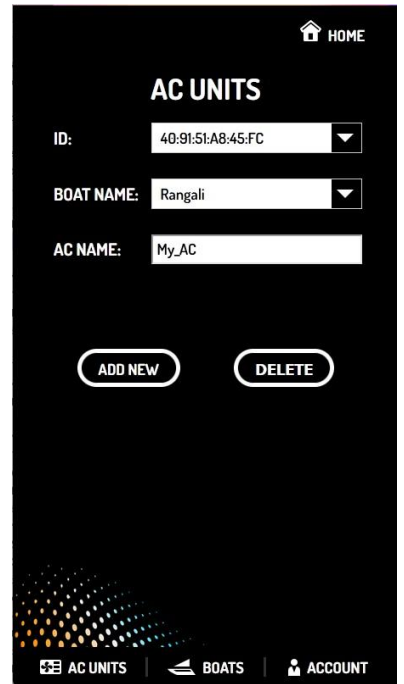
Your account will not be activated until you click on the link sent in the confirmation email. If you missed that email, just click on „RESEND REGISTRATION EMAIL”.



5. If this is your first Smart Touch controller, the “AC UNITS” page loads.
6. Tap on ADD NEW and enter the **12-digit ID of the controller**. The controller is now registered to your account and can be remotely accessed using the control.mbc-marine.com portal.


The ID of the controller can be found on the touch panel’s PREFERENCES screen. It is also displayed – as a reminder – on the network settings screen until registration is complete.

Before selling the controller remove it from your account, so that the new owner can register it. For further details see the “REMOTE CONTROL (PHONE) | SETTINGS / AC UNITS” paragraph.




How to create a remote controller icon on your phone

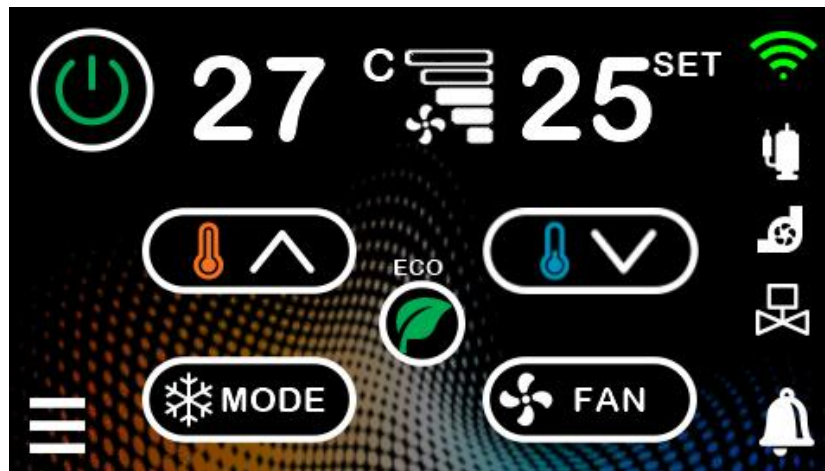
iPhone / iOS

- Log in to the control.mbc-marine.com portal using Safari.
- On the bottom menu, tap on “Share”. 
- Select the “Add to Home screen” menu item.

ANDROID

- Log in to the control.mbc-marine.com portal using Chrome.
- Tap on the three-dots  in the top menu.
- Select “Add to Home screen”.
- Enter a name for the icon, then select “Add”.

Touch screen



HOME

While on the MAIN screen, after 3 minutes of inactivity the controller goes into sleep mode, displaying a clock.



ON/OFF button, tap to turn the unit ON/OFF.



The Wi-Fi icon is **RED** when disconnected, **YELLOW** when connected to Wi-Fi but the remote control is not active, and **GREEN** when remote control is ready. There is a 1-minute delay after power-up to remote connection.

Tap the Wi-Fi icon to open the NETWORK SETTINGS screen.



Set temperature – can be adjusted between 16C / 61F and 30C / 86F.



Compressor, water pump and control valve status.



DETAILS menu:

- Tap to enter the DETAILS screen.
- Hold to immediately enter sleep mode.



Mode selector: ❄️ COOL, 🌀 FAN, ☀️ HEAT, **A** AUTO.



FAN control, tap to select fan speed.



Alarm messages. Turns **RED** if there is an alarm. Tap on the message to read further information.



NORMAL, ECO or TURBO mode – only available with SDC models (see PREFERENCES)

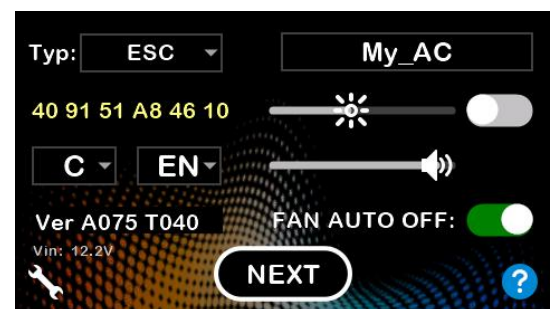
DETAILS

- RETURN AIR (also room) temperature.
- RADIATOR temperature.
- SEAWATER temperature.
- COMPRESSOR CURRENT in amps, not available on SDC type units.



PREFERENCES

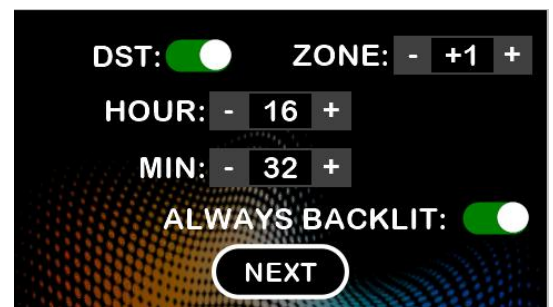
- Type of the AC unit: ESC (110V/230V) or SDC (12V/24V/48V series). SDC units have two additional power modes: ECO and TURBO (see HOME). ECO reduces consumption by 40%, while TURBO keeps power at maximum while cooling/heating.
- Select temperature scale and display language.
- Name of the AC – assign a name that identifies this unit.
- **The 12-digit ID of the controller**
- Software and display firmware versions
- Brightness and volume settings. Brightness can be set to auto mode using the toggle switch.
- Fan auto off setting, indicated by the pulsing fan icon on the HOME screen FAN button. If active, the fan will also stop when the compressor stops.
- The question mark shows a QR code to download the latest versions of the user manual.



CLOCK SETTINGS

GMT (Greenwich Mean Time) will be automatically retrieved using the internet. Time zone and Daylight saving time must be adjusted manually.

- DST (Daylight Saving Time, or +1 hour) active.
- Time ZONE setting.
- HOUR and MINUTE adjustment.
- Clock can be ALWAYS BACKLIT or turned off after 30s. Backlight can also be manually turned off/on by tapping the top-right corner of the clock screen.




TIMER

- A daily ON and a daily OFF time can be set in 10-minute steps.
- Both events can be activated (armed) separately.
- The timers remain active until de-activated on this screen.
- The timer events will be skipped if there is no power applied at the set time (i.e., the events do not catch up in case of a power failure).



WIFI - NETWORK

- WIFI NAME or SSID.

 The Wi-Fi icon is **RED** when disconnected, **YELLOW** when connected to Wi-Fi but remote control is not available, and **GREEN** when remote control is ready. Tap the Wi-Fi icon to select one from the available networks.

- PASSWORD
- Reminder displayed only when the unit is not registered for remote access. Shows the **12-digit ID** and the link to the registration portal.
- WiFi can be turned on/off using the toggle switch.



REMOTE CONTROL (PHONE)

HOME



ON/OFF button.

- Boat ("Test"): select one from the boats added on the BOATS page.
- AC unit ("My_AC"): select one added on the AC UNITS page.



Set temperature – can be adjusted between 16C / 61F and 30C / 86F.



Compressor, water pump and control valve status.



Mode selector: ❄️ COOL, 🌀 FAN, ☀️ HEAT, **A** AUTO.



Select fan speed.



HOME (this) page.



DETAILS page.

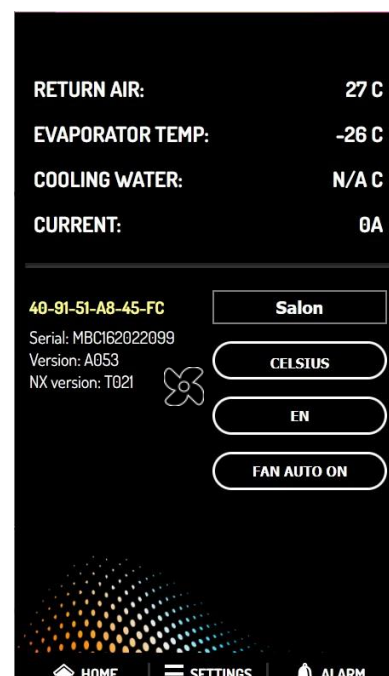


Alarm messages. Turns **RED** if there is an alarm.



DETAILS

- RETURN AIR temperature.
- EVAPORATOR temperature.
- COOLANT temperature.
- Compressor CURRENT.
- **12-digit ID of the controller**, below it the SERIAL number of the AC unit.
- Software version, touch screen (NX) version.
- AC name ("My_AC"), assign any name i.e., "Salon" or "Owner's cabin".
- Temperature unit and language.
- FAN AUTO ON / OFF: fan will be stopped when the compressor stops.
- SETTINGS pages – see next paragraph.





SETTINGS / AC UNITS

- **ID number**, select one of the already registered SmartTouch controllers.
- **BOAT NAME** that has the controller installed on. Select one from the boats added on the BOATS page.
- **AC NAME**, assign a meaningful name i.e., “Salon” or “Owner’s cabin”.
- **ADD NEW** controller to register a new unit.
- **DELETE** to remove an already registered unit – i.e., **before selling it**. The unit can be re-registered again by the new owner.



SETTINGS / BOATS

- Boat – can be selected from previously added boats.
- Port, berth, registration number – optional: PORT, BERTH, REG#.
- Add new boat: ADD NEW.
- Edit boat data: EDIT.
- Delete boat – to confirm, you’ll have to re-enter the boat name again: DELETE.



SETTINGS / ACCOUNT

- Password change: NEW PWD, PWD AGAIN.
- Email address (login name) change: E-MAIL.
- Name, optional: FIRST NAME, LAST NAME.
- Log out from the remote portal: LOGOUT).

Installation

Electrical connection

CAUTION! Disconnect the power supply before opening the main circuit box. Risk of electric shock!

The Smart Touch unit is connected to the main controller board of the AC unit using the supplied RJ45 cable. Other RJ45 cables can be used. **The maximum cable length is 5m / 15ft. Do not extend or split the cable!** Do not connect any other network equipment (computers, switches, hubs etc.) Only one Smart Touch remote can be connected to an AC unit.

Reconnect the power to the AC. The touch panel will turn on, ready to use.

Check supply voltage on the PREFERENCES screen, below version numbers. Normal value is about 12V. If it is less than 8V then check and clean both end connectors of the RJ45 cable, use a contact cleaner spray, or replace the cable.

During start-up the controller will check if the return air temperature sensor is connected to the main board of the AC unit. If not, it will display an error message (see: "ALARM") until the sensor gets connected. The return air temperature sensor is required for the operation of the AC.

Operational lights

There are two lights on the RJ45 socket of the touch panel. These indicate data transmission to- and from the AC main circuit board. Rapid blinking green light means data read from the AC, occasional flashes of yellow indicate commands sent to the AC.

Mounting

WARNING! The controller housing is not waterproof. Mount it at a dry location, away from spray, condensing or running water!

After completing the electrical connection, mount the controller where it can be easily seen and accessed, preferably protected from direct sunlight and away from large metallic surfaces that could affect the performance of the built-in antenna.

To mark the cutout, use the supplied plastic template. The minimum mounting depth is 30mm or 5/4".

Use the supplied V-head chipboard screws for mounting. For proper display orientation the RJ45 connector must be on the bottom edge. Form a drip-loop on the cable below the display to prevent water droplets entering the connector.

2023 models: remove the protective film from both sides of the decorative frame and from the screen surface, then push the frame around the screen. The frame is held in place by friction. You can use PVA glue (Elmer's or PrittStift) should it become loose.

2024 and later models: remove the protective film from the screen surface. The decorative frame is held in place by two small sections of two-sided glue tape. Remove the backer from the tape and push the frame around the screen.

To remove the decorative frame, pry it along the edges using a plastic card.

Service menu

The service menu can be accessed from the PREFERENCES screen, tapping the wrench icon. It is protected by a PIN code, which can be obtained from our service partners.

This menu is used to select the number of fan speeds (5-spnd or 3-spnd), and the voltages as percentage for each speed. With a 3-speed configuration, voltages 1, 3 and 5 are used.

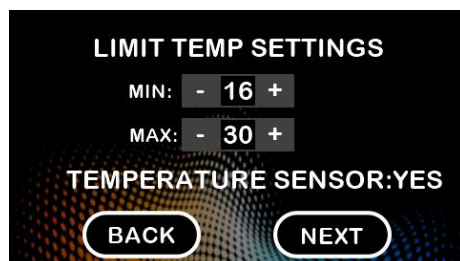
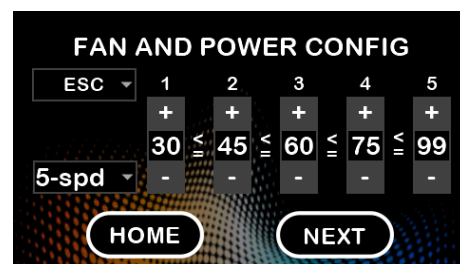
Type of the unit can also be selected (ESC or SDC). This setting will affect how the error codes are interpreted. Also, compressor current is displayed on ESC units, and enables ECO/TURBO mode on SDC units.

The second screen adjusts the upper and lower SET TEMPERATURE limits of the user on the HOME screen. It also shows if there is an external temperature sensor connected to the display.

The third screen contains the safety parameters of the unit. These should not be adjusted unless required by specific fault codes.

The fourth screen of the service menu is a real-time updated list of raw internal data, presented for diagnostic purposes. On/off state, operation mode and set temperatures can be changed by tapping their respective button. Error codes are displayed in text (English only) by tapping the error number.

Note: If the unit has no external temperature sensor connected, the EXT field will be empty. Instead, return air temperature will be used.



Replacing the battery

A CR1220 battery can be found on the circuit board of the controller to maintain real time clock settings. The lifetime of this battery is about 3 to 4 years. To replace, simply remove the back cover of the controller secured by four screws and insert a fresh battery into the holder.

Background images and welcome movie

The micro-SD card socket on the circuit board of the display can be used to store two background images and a movie. To use this feature, insert and push-lock a FAT32 formatted micro-SD card containing the files.

The pictures must be in **.ix** format, movie file must be in **.video** format, both sized 480x272 pixels. Conversion programs to create these formats are available from our service partners. These files are optional, missing ones will be skipped:

1. **clock.ix** background image for the sleep/clock screen.
2. **logo.ix** background image for every screen except sleep/clock.
3. **logo.video** welcome movie played each time power supply is turned on.

Technical data

Packaging dimensions

W x H x D: 185 x 138 x 37mm (7.3" x 5.5" x 1.5")

Gross weight: 390g (0.9lbs)

Unit dimensions

Cutout (W x H): 128 x 86mm (5.1" x 3.4")

Required depth below mounting surface: 24mm (1")

Dimensions above mounting surface (W x H x D): 151 x 109 x 10mm (6" x 4.3" x 0.4")

➤ *For units manufactured before Aug 12, 2023: 158 x 115 x 10mm (6.3" x 4.6" x 0.4")*

Weight, less cabling: 270g (0.6lbs)

Environmental conditions

Storage: -30..+85C (-22..185F), RH: non-condensing

Operational: -20..+70C (-4..158F), RH: < 90%

Note: display response might be slow below freezing temperatures

Display

Resolution: 480 x 272

Backlight: 300nit, life > 30000 hours

WiFi

Standard: 2.4GHz 802.11b/g/n, 2412-2484 MHz

Antenna: built-in PCB trace type

Sensitivity: -98dBm (11b 1Mbps) ... -70dBm(11n HT40 MCS7)

TX power: 20.5 dBm (11b) ... 14dBm (11n MCS7)