

Basic Installation and Configuration Guidelines for Mach 2.1 EL-Series Spa Controllers.

IMPORTANT: The System must be properly mounted. Do not rely on the plumbing connection to support the system. Regular operation will cause excessive vibration and potential damage to the system unless it is mounted securely.

Use minimum 6AWG copper conductors only.

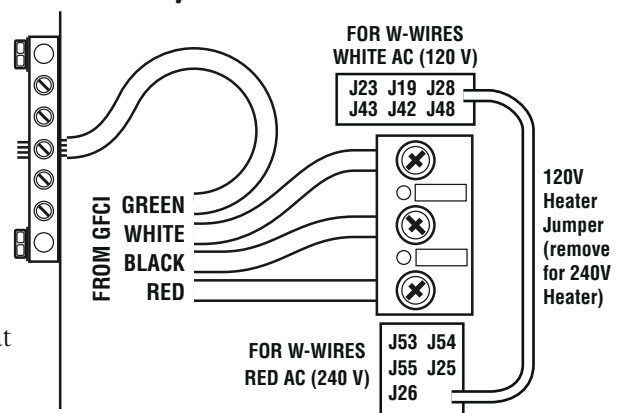
Torque field connections between 21 and 23 in lbs.

Readily accessible disconnecting means to be provided at time of installation

Permanently connected

Connect only to a circuit protected by a Class A Ground Fault Circuit Interrupter (GFCI) mounted at least 5' (1.52M) from the inside walls of the tub and in line of sight from the equipment compartment.

CSA enclosure: Type 2



Typical field connections for main power.

Refer to Wiring Diagram inside the cover of the control enclosure.

Refer to Installation and Safety Instructions provided by the spa manufacturer.

Warning: People with infectious diseases should not use a spa or hot tub.

Warning: To avoid injury, exercise care when entering or exiting the spa or hot tub.

Warning: Do not use a spa or hot tub immediately following strenuous exercise

Warning: Prolonged immersion in a spa or hot tub may be injurious to your health

Caution: Maintain water chemistry in accordance with the Manufacturers instructions.

Caution: The equipment and controls shall be located not less than 1.5 meters horizontally from the spa or hot tub.

CSA Compliance/Conformité

Caution:

- Test the ground fault circuit interrupter before each use of the spa.
- Read the instruction manual.
- Adequate drainage must be provided if the equipment is to be installed in a pit.
- For use only within an enclosure rated CSA Enclosure 3.
- Connect only to a circuit protected by a Class A ground fault circuit interrupter.
- To ensure continued protection against shock hazard, use only identical replacement parts when servicing.
- Install a suitably rated suction guard to match the maximum flow rate marked.

Warning:

- Water temperature in excess of 38°C may be injurious to your health.
- Disconnect the electrical power before servicing.

Attention:

- Toujours vérifier l'efficacité du disjoncteur différentiel avant d'utiliser différentiel avant d'utiliser le bain.
- Lire la notice technique.
- Lorsque l'appareillage est installé dans une fosse, on doit assurer un drainage adéquat.
- Employer uniquement à l'intérieur d'une clôture CSA Enclosure 3.
- Connecter uniquement à un circuit protégé par un disjoncteur différentiel de Class A.
- Afin d'assurer une protection permanente contre le danger de choc électrique, lors de l'entretien employer seulement des pièces de rechange identiques.
- Les prises d'aspiration doivent être équipées de grilles convenant au débit maximal indiqué.

Avertissement:

- Des températures de l'eau supérieures à 38°C peuvent présenter un danger pour la santé.
- Déconnecter du circuit d'alimentation électrique avant l'entretien.

Warning/Advertissement:

- Disconnect the electric power before servicing. Keep access door closed.
- Déconnecter du circuit d'alimentation électrique avant l'entretien. Garder la porte fermée.

EL Series Mach 2.1 Edit Menu

The Mach 2 EL systems (2.1 and higher) have a new user interface called the Edit Menu. This menu contains several submenus to allow changing various settings from a panel.

Note: in the following discussion, the 'Temp' button can be Warm, Cool, or Temp, depending on the type of panel used. Likewise, the 'Light' button can be any Spa-Light or Fiber-Optic Light button.

Accessing the Edit Menu

The Edit Menu is accessed using button sequence Temp, Jets1, Light. After pressing Jets 1, the panel will display '**Edr**, or "**F'x'**" on the display ('**x**' represents filter duration in hours and will show as 1, 2, 3, etc.). After pressing "Light," you will see a display of the the first submenu in the list.

Submenus

Depending on the system configuration, the following submenus are available on the Edit Menu:

USr – User preference settings

SId – Displays system SSID and firmware version number

Navigating the Menus

The following panel buttons are used to navigate through the various submenus and settings:

Temp – cycles through submenus and settings

Jets1 – performs select and enter functions

Light – exits to next higher menu level

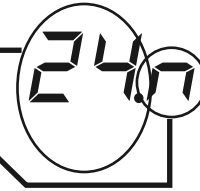
For example, once the Edit Menu is entered, pressing the temp button cycles through the submenus, pressing the Jets1 button enters the selected submenu, and the Light button exits the Edit Menu.

The SId submenu, and certain settings under the other submenus, behave differently when Jets1 is pressed. This differences will be noted in the appropriate submenu's description later in this document.

The main Edit Menu has a five second timeout – if no panel button is pressed within five seconds the menu will be exited. The submenus have a 30-second timeout.

Editing Settings

Each submenu has a list of settings shown with its current value.



Settings are cycled through using the Temp button, and Jets1 puts the current setting in edit mode. While in edit mode the value portion will flash, and the Temp button is used to cycle between possible values for the setting. Once the desired value is displayed the Jets1 button is pressed again to accept the new value. If the Light button is pressed, or the menu times out, before the Jets1 button is pressed the new value is discarded and the original value of the setting restored.

The Test Mode Submenu

The Test Mode Submenu is used during service by a qualified technician and is not intended for normal spa use or settings.

The User Preference Submenu

The User Preference submenu is entered by pressing Jets1 when **USr** is displayed on the panel. This menu has three settings:

Sr - Suppress Reminders

When set to **Y**, reminders are never displayed on the panel. When set to **n**, all reminders to be displayed.

tc - Temperature in Celsius

Temperatures are displayed on the panel in degrees Celsius if this is set to **Y**, Fahrenheit if **n**.

24 - 24-hour Time Display

Time is displayed in 24-hour (military) format if **Y**, 12-hour (am/pm) if **n**.

These settings need to be reset after a service call, they do not affect the safe operation or performance of the spa.

The SSID Display

The **Sld** selection is not a menu. Pressing Jets1 while **Sld** is displayed will cause the manufacturer, model, and software version IDs to be displayed in sequence just as they are at system power-up (such as 100 - 133 - 10) followed by the firmware version number (e.g. 2.1). This menu is useful for service technicians.

Note: System firmware may be updated from time to time. If your spa is ever reprogrammed with new firmware, request a new Installation and Configuration Guide to determine if any new user settings have been made available. Call Balboa at 800-645-3201 for information regarding updated documentation and software.

Time of Day: Time of day is preserved in 30-day battery backup on EL 5000 and EL 8000 Systems. Only panels that have a "Time" button can display time-of-day. All spa settings except time of day are preserved in persistent memory indefinitely, unless reset during service. EL1000 and EL2000 systems reset the time of day on each power-up, requiring time of day to be reprogrammed.

Reference cards for the different control panels are supplied with the spa.