

Series Command Center

Command Centers® are complete spa-side control packages designed for durability and user convenience in both new installations and replacement applications. They are available with two, three and four transmitter button configurations, and are equipped with a remote sensing thermostat, power cord, equipment status indicating lights and optional digital temperature readout.

The Command Centers® utilize an electronic thermostat designed, developed and manufactured by Tecmark® in our Mentor, Ohio facility. These units feature a thermistor/bulb assembly for remote temperature sensing. All thermostats are calibrated to open on temperature rise at the UL/CSA maximum allowable set point with the shaft at the high stop position and are intended for pilot duty control of heater contactors. Standard thermistor cable length is 60" (1.5m) with a 5/16" (8mm) OD bulb for thermowell installation.

Tecmark® Command Center® technology incorporates a unique, tactile thermostat adjustment knob with each notch equal to approximately 1° F (.56°C) temperature change. The Command Centers® feature high volume, miniature air transmitters for operation of single function or four function switching controls. The faceplate design allows for serviceability of individual transmitters without having to replace the entire unit. Its unique design conserves space and it is easily retrofittable to existing applications.

TYPICAL APPLICATIONS:

The Command Center® is primarily used at the spa-side to regulate the water temperature, and to control, via the air transmitter buttons, a variety of electrical devices including motors, lights, pumps, air blowers, and other associated equipment.

BASIC CONSTRUCTION:

- One piece faceplate/housing construction utilizes durable thermoplastic materials
- Tactile thermostat adjustment knob
- Multicolor LED equipment status indicators
- Factory installed double-sided foam mounting gasket
- Electrical connections via 18/5 SJTW-SJTW-A water resistant cord with 5-pin plug
- Pressure connections accept 1/8" (3mm) or 1/16" (1.5mm) I.D. tubing
- 60" (1.5m) thermistor cable with 5/16" (8mm) O.D. bulb
- Allows serviceability of transmitters without replacing the entire unit
- Conforms to UL and CSA standards under UL file E110332; low 12 volt safety control voltage acceptable worldwide (electronics comply with CE regulation)

AVAILABLE FEATURES:

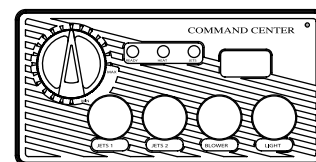
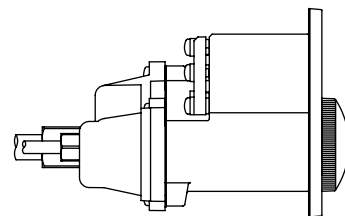
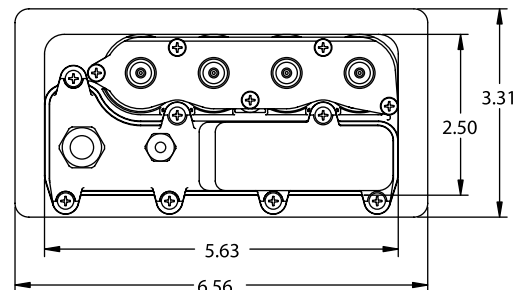
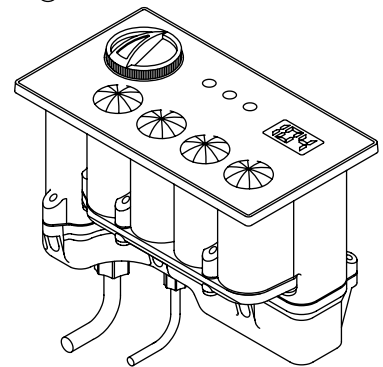
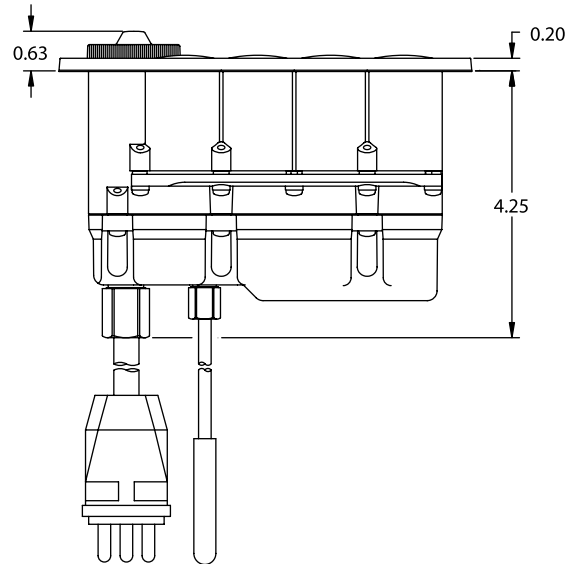
- 12, 120 OR 240 VAC, 50/60 Hz (factory set)
- Digital display factory set to display water temperature in degrees F or degrees C. Temperature will flash intermittently at temperatures above 109° F (43° C)
- Two, three and four air transmitter configurations available with faceplate size equal to the previous two-button faceplate
- Optional retrofit plate available for existing three and four button installations.
- Optional thermistor cable lengths
- Power cords in 6' (1.8 m), 10' (3.0 m) and 25' (7.6 m) lengths
- Units may be individually carton packaged or bulk packed
- Custom labeling, produced from your own camera-ready artwork or created with the help of Tecmark's design staff, is available to satisfy specific needs

RATINGS AND SPECIFICATIONS:

- Input voltage: 12, 120 or 240 VAC, 50/60 Hz (factory set)
- Field-tested critical components specifically selected to operate reliably in temperature extremes of 32° F (0° C) -140° F (60° C)
- Electrical rating allows pilot duty control of heater contactors
- Thermostat contacts are designed to open on temperature rise at the UL/CSA maximum allowable setpoint with the adjustment shaft rotated to the full clockwise position
- Switching differential: Approximately 1° F (.56° C)
- 100,000+ cycle life under full mechanical, electrical and thermal loads

DESIGN FLEXIBILITY:

Tecmark's manufacturing philosophy is unique. In an effort to provide you with a product that is most suited to your application, the Command Center® models incorporate numerous interchangeable components for the ultimate in design flexibility. This means a product tailored to your needs without the high price and long lead times associated with custom manufacturing. If you have a need and don't see the features you require, please ask us!



FACEPLATE LABEL ARTWORK MAY VARY

Command Center

IMPORTANT NOTE:

Proper Installation of the Command Center® is essential to assure trouble free operation. INSTRUCTIONS MUST BE FOLLOWED EXACTLY.

NOTICE: THIS CONTROL IS INTENDED FOR USE IN CONJUNCTION WITH EQUIPMENT MANUFACTURED TO UL STANDARD 1563 AND /OR CSA STANDARD C22.2 NO 218.1-M89 REQUIREMENTS. ALL WIRING MUST BE INSTALLED BY A LICENSED ELECTRICAL CONTRACTOR AND MUST CONFORM TO THE NATIONAL ELECTRICAL CODE AND ALL LOCAL CODES.

CAUTION: THE COMMAND CENTER® IS A FACTORY SEALED UNIT AND HAS NO USER SERVICEABLE COMPONENTS. DO NOT ATTEMPT TO OPEN THE COMMAND CENTER; SERVICE MUST BE PERFORMED BY TECMARK® FACTORY PERSONNEL. ALTERATIONS TO THIS CONTROL OR FAILURE TO ADHERE TO THIS MANUFACTURER'S PROCEDURES FOR INSTALLATION COULD RESULT IN DAMAGE TO THE CONTROL OR UNSATISFACTORY PERFORMANCE, VOIDING THIS MANUFACTURER'S WARRANTY.

INSTALLATION

The Command Center® may be installed in any position and in most locations, except **DO NOT MOUNT UNDER WATER**. When selecting a location to mount the Command Center®, consideration to its placement must be given based on the length limitations of the temperature sensing cable and cordset.

IMPORTANT NOTE: To assure proper operation, the temperature sensing bulb must be installed correctly. **ALWAYS USE A THERMOWELL** to house the sensing bulb at the final point of installation. Failure to install the sensing bulb correctly could result in damage to the control or poor control response.

A) LOCATE COMMAND CENTER®

First consideration must be given to where the Command Center® is to be mounted. The maximum distance between the Command Center® and the thermowell is the total overall length of the sensing bulb and cable. We recommend that you allow at least 2" of play for easy access during installation and removal of the bulb from the thermowell.

B) MOUNTING

A peel and stick template is included.

- 1) Attach the template to the desired mounting surface and follow the instructions provided on the template for size and location of the cutout. After the cutout is complete, clean the mounting surface thoroughly with alcohol and let dry.
- 2) Remove the green liner from the gasket on the Command Center®, route the cordset and sensing bulb through the cutout, and install the control by pressing firmly around the perimeter.
- 3) Optional mounting screws are available to secure the Command Center® if necessary.

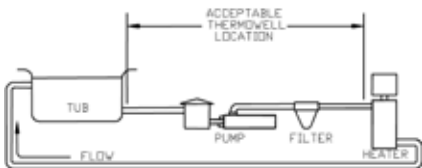


Figure A

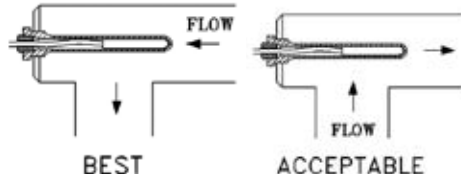


Figure B

C) THERMOWELL INSTALLATION

Location of the thermostat sensing bulb is critical. If the thermowell is installed in the plumbing of the circulation system, then it must be between the spa and the inlet to the spa heater. (see Fig. A)

As stated previously, **ALWAYS USE A THERMOWELL** to house the sensing bulb of the thermostat at the final point of installation. Location of the thermostat sensing bulb is critical to control performance. For the best thermowell installation, see Fig. B. below.

Tecmark® optional thermowells can be installed via 1/2-14 NPT threads. Proper spa temperature maintenance can be achieved only if the following points are considered:

- 1) Thermowell is positioned before the heater to monitor only the spa water temperature. (See Fig. A)
- 2) Sensing bulb and cable are not exposed to damage or extreme temperature. (See Fig*B)
- 3) Proper water flow around the entire thermowell is insured.
- 4) Bulb is inserted all the way into the thermowell. (see Fig. C)

D) THERMOSTAT SENSING BULB INSTALLATION

Insert the temperature sensing bulb all the way into the thermowell. Tecmark® optional thermowells are supplied with a split grommet. Pull the grommet open, slide it over the sensing cable and press the small end of the grommet into the thermowell. (See Fig. C)

WARNING

TEMPERATURE SENSING CABLE MUST BE INSTALLED SO THAT IT IS NOT EXPOSED TO ACCIDENTAL CUTS, DAMAGE, OR EXCESSIVE HEAT (80°C OR 176°F) OR HIGHER.

E) CONNECT CORDSET AND AIR HOSES

Plug the molded male plug of the Command Center® into the female receptacle on the equipment pack cabinet. **POWER SUPPLY MUST MATCH THE ELECTRICAL RATING ON THE COMMAND CENTER® LABEL.** Attach either 1/8" I.D. or 1/16" I.D. air hose to the air buttons on the Command Center® and to the air switches in the equipment pack.

NOTE: THE LENGTH OF AIR HOSE BETWEEN THE AIR BUTTONS AND AIR SWITCHES SHOULD BE LIMITED TO AN AMOUNT SUFFICIENT TO MAKE THE CONNECTION. ANY EXCESS LENGTH OF HOSE MAY RESULT IN POOR AIR TRANSMISSION.

F) FACEPLATE LABEL

Remove the backing from the faceplate label, handling the label by its edges. Install the label to the top surface of the Command Center® and carefully align it. Firmly press around all edges of the label to secure it into place.

CAUTION: When cleaning the faceplate label, use mild soap only.

G) THERMOSTAT ADJUSTMENT KNOB

Thermostat knob should only be installed after faceplate label is affixed to the Command Center®.

H) WIRING

See Fig. D for the correct wiring, which corresponds with male plug of the Command Center®.

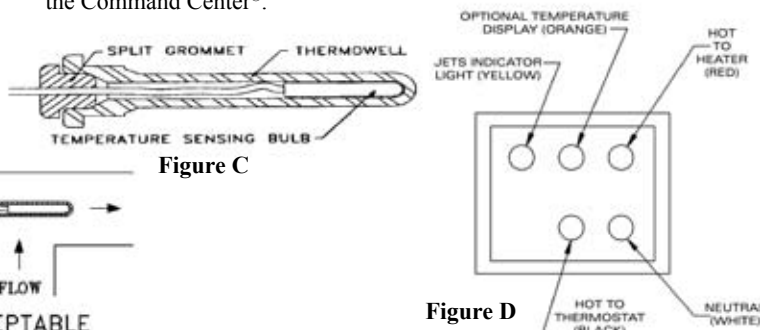


Figure C

Figure D