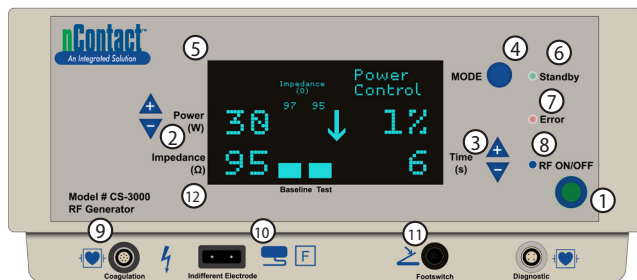


CSK-310

Quick Start Guide

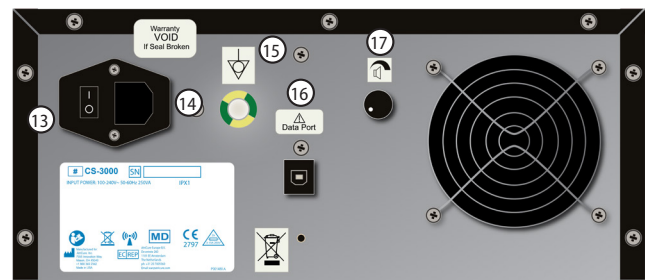
CS-3000 Front Panel



- | | |
|--|--|
| 1. RF ON/OFF button | 7. Error LED indicator |
| 2. Power Up/Down buttons, Set and Actual Power | 8. RF ON/OFF LED indicator |
| 3. Time Up/Down buttons, Set and Elapsed Time | 9. Cable connector* |
| 4. Mode button | 10. Indifferent, Dispersive Electrode (Return electrode or Ground Pad) connector |
| 5. Generator Graphical Display | 11. Footswitch connector |
| 6. Standby LED indicator | 12. Impedance |

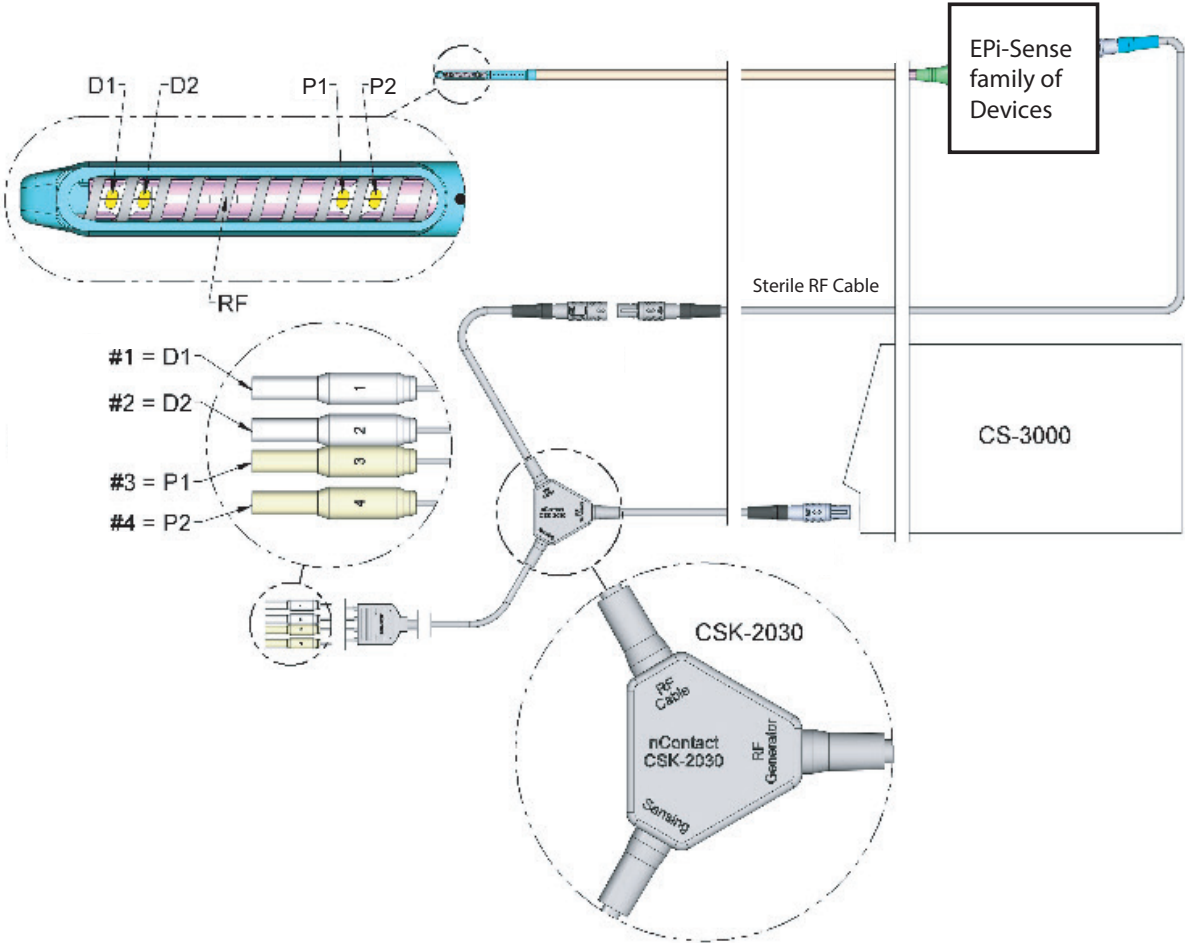
*Cables connected include CSK-2000, CSK-2060, or CSK-2030

CS-3000 Back Panel



- | |
|--|
| 13. Power Switch |
| 14. AC Power Connector |
| 15. Grounding Stud (Equipotential Connector) |
| 16. Data Connector/Port |
| 17. Alarm Volume Control |

CS-3000 Connections



POWERING UP THE CS-3000



WARNING

CONNECT COMPONENTS AND DEVICES TO THE ELECTROSURGICAL UNIT ONLY WHEN RF ENERGY IS OFF. FAILURE TO DO SO MAY RESULT IN AN INJURY OR ELECTRICAL SHOCK TO THE PATIENT OR OPERATING ROOM PERSONNEL.

USE GLOVES WHEN OPERATING THE CS-3000

1. Connect the provided power cord to the back of the CS-3000.
 - i. Make sure that power cord is fully seated in the receptacle.
2. Plug the CSK-310 into a grounded power outlet.
 - i. Do not use multiple-outlet sockets, extension cords or three-prong to two-prong adapters. Periodically check the power cord assembly for damaged insulation or connectors.
 - ii. Ensure that access to the power cord outlet is maintained, so that the power cord can be quickly removed in the event of an emergency.
3. If using the footswitch, make sure that it is connected.
 - i. EPI-Sense Handpieces: To start RF energy (to perform ablations), press and release the footswitch. To stop RF energy, press and release the footswitch.
4. Turn the power on using the ON/OFF switch located on the back panel.
 - i. After it has been powered up, the CS-3000 performs System Self-Tests. The Self-Tests generate one long beep followed by one short beep at startup.



5. Verify that the beeps are generated.
 - i. If all Self-Tests pass, the CS-3000 transitions to the STANDBY mode.
 - ii. If any Self-Test fails, the CS-3000 will emit a constant audible tone and will go into the FAULT mode.
6. Connect the Handpiece and any needed components/accessories.

FAULT MODES

1. If the CS-3000 fails a Self-Test after it is powered up or if a non-recoverable error condition is detected at any time, the CS-3000 enters FAULT mode. FAULT description will be displayed on screen.
2. The CS-3000 is inoperable in the FAULT mode. RF energy is disabled during the FAULT Mode.
3. FAULT messages will stay on the Generator Graphical Display until the FAULT is cleared.
4. To clear the FAULT Mode, turn the CS-3000 power OFF and then ON again. Cycling power will clear a FAULT condition and restore RF power output capability.
5. Warnings will stay on the Generator Graphical Display until RF energy is initiated by the footswitch, or the RF ON/OFF button from the front top bezel.



TROUBLESHOOTING ERROR CODES

Warnings (Recoverable Error Messages)

NUMBER	CAUSE	REMEDY
1	<ul style="list-style-type: none"> • On Screen: Invalid Device • Meaning: Device identification code is outside the acceptable range 	<ul style="list-style-type: none"> • Reconnect or replace handpiece • If the problem persists, contact AtriCure Customer Service
2	<ul style="list-style-type: none"> • On Screen: Impedance Limit • Meaning: Measured or baseline impedance is outside the specified range 	<ul style="list-style-type: none"> • Check the return electrode connector, return electrode, and reposition the return electrode if necessary
3	<ul style="list-style-type: none"> • On Screen: Time Limit • Meaning: The generator performed the ablation as expected for the Set Time 	<ul style="list-style-type: none"> • Begin the next ablation by pressing and releasing the footswitch or the RF ON/OFF button
4	<ul style="list-style-type: none"> • On Screen: User Request • Meaning: User terminated the ablation 	<ul style="list-style-type: none"> • Begin the next ablation by pressing and releasing the footswitch or the RF ON/OFF button

Faults (Non-Recoverable Error Messages)

NUMBER	CAUSE	REMEDY
1	<ul style="list-style-type: none"> • On Screen: ROM CRC FAILURE • Meaning: Read-Only Memory Cyclic Redundancy Check failed on the used ROM address space 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
2	<ul style="list-style-type: none"> • On Screen: RAM FAILURE • Meaning: Test for the operation of the Random-Access Memory location failed 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
3	<ul style="list-style-type: none"> • On Screen: AMBIENT TEMPERATURE FAIL • Meaning: Reference voltage on the Thermocouple Measurement system is outside the acceptable range 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
4	<ul style="list-style-type: none"> • On Screen: MEASURED POWER << CALCULATED POWER • Meaning: Measured Power is outside the acceptable range of the Calculated Power 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
5	<ul style="list-style-type: none"> • On Screen: IMPEDANCE TEST FAIL • Meaning: Measure Internal Impedance is outside the acceptable range 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
6	<ul style="list-style-type: none"> • On Screen: +48 VOLT SUPPLY FAIL • On Screen: -12 VOLT SUPPLY FAIL • On Screen: +12 VOLT SUPPLY FAIL • On Screen: +5 VOLT SUPPLY FAIL • Meaning: Operating voltage is outside the acceptable range 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
7	<ul style="list-style-type: none"> • On Screen: RF POWER TOO HIGH WHEN ON • Meaning: Delivered power is greater than the commanded power by a specific value 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
8	<ul style="list-style-type: none"> • On Screen: RF POWER TOO HIGH WHEN OFF • Meaning: Generator displaying and outputting power output greater than 0W when RF is off 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service

Faults (Non-Recoverable Error Messages)

NUMBER	CAUSE	REMEDY
9	<ul style="list-style-type: none"> • On Screen: FAN FAULT • Meaning: Status of the fan is invalid 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
10	<ul style="list-style-type: none"> • On Screen: RF Eff Lim • Meaning: Transformer efficiency Error 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
11	<ul style="list-style-type: none"> • On Screen: RESISTIVITY FAILED • Meaning: Resistance value of the Resistivity circuit is outside the acceptable range 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
12	<ul style="list-style-type: none"> • On Screen: TIMER FAILURE • Meaning: Timer operation failed 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
13	<ul style="list-style-type: none"> • On Screen: GROUND FLOAT ON A/D • Meaning: Ground Float on Analog-to-Digital Converter Error 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
14	<ul style="list-style-type: none"> • On Screen: CALIBRATION VOLTAGE ON A/D • Meaning: Calibration Voltage on Analog-to-Digital Converter Error 	<ul style="list-style-type: none"> • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
15	<ul style="list-style-type: none"> • On Screen: RF ON BUTTON STUCK • Meaning: RF ON button may be stuck 	<ul style="list-style-type: none"> • Depress and release the RF ON/OFF button • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
16	<ul style="list-style-type: none"> • On Screen: MODE BUTTON STUCK • Meaning: The MODE button may be stuck 	<ul style="list-style-type: none"> • Depress and release the MODE button • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
17	<ul style="list-style-type: none"> • On Screen: POWER/TEMPERATURE UP BUTTON STUCK • Meaning: The POWER UP button may be stuck (Note: Temperature Up Button is not yet available) 	<ul style="list-style-type: none"> • Depress and release the POWER UP (+) button • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
18	<ul style="list-style-type: none"> • On Screen: POWER/TEMPERATURE DOWN BUTTON STUCK • Meaning: The POWER DOWN button may be stuck (Note: Temperature Down Button is not yet available) 	<ul style="list-style-type: none"> • Depress and release the POWER DOWN (-) button • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
19	<ul style="list-style-type: none"> • On Screen: TIME UP BUTTON STUCK • Meaning: The TIME UP button may be stuck 	<ul style="list-style-type: none"> • Depress and release the TIME UP (+) button • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service
20	<ul style="list-style-type: none"> • On Screen: TIME DOWN BUTTON STUCK • Meaning: The TIME DOWN button may be stuck 	<ul style="list-style-type: none"> • Depress and release the TIME DOWN (-) button • Cycle power off and back on • If the problem persists, contact AtriCure Customer Service

For additional information on the Warnings, Cautions, and Faults, see the CSK-310 Instructions for Use

For other concerns or detailed information, consult the CSK-310 Instructions for Use or contact the AtriCure Customer Service Hotline at (866) 349-2342.



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