R Series®

DEFIBRILLATOR TESTING WITH HANDS-FREE THERAPY ELECTRODES

To test the manual defibrillation function using hands-free therapy electrodes:

- 1. Turn the unit off for at least 10 seconds.
- 2. Turn the Mode Selector to DEFIB. The unit emits a four-beep tone indicating successful completion of the power-on self-test. The ECG source is PADS, and ECG size is X1. "DEFIB 120J SEL," and DEFIB PAD SHORT appear on the display. The ECG trace appears as a solid line while the OneStep™ cable is connected to either the Test Port or OneStep electrodes.
- 3. Press the ENERGY SELECT buttons to set the energy to 30 joules.
- 4. Press the CHARGE button on the front panel.
- When the charge-ready tone sounds, press the ENERGY SELECT buttons to set the energy to 20 joules. The defibrillator will disarm itself.
- **6.** Press the ENERGY SELECT buttons to reset the energy to 30 joules. Note: For testing, the unit discharges the defibrillator only if the energy is set to 30 joules.
- 7. Press the CHARGE button on the front panel.
- 8. When the Ready tone sounds, press the SHOCK button on the front panel until the shock is delivered. The unit displays the message 30J TEST OK and prints a stripchart indicating 30J TEST OK and the delivered energy. If the message 30J TEST FAILED appears, contact appropriate technical personnel or the ZOLL Technical Service Department.



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PACER TESTING

- 1. Turn the Mode Selector to PACER.
- Turn the PACER RATE control to 150 ppm, then press the RECORDER button. On the stripchart, verify that pacing stimulus markers () occur approximately every centimeter (10 small divisions or 2 large divisions).
- 3. Press and hold the 4:1 button. The frequency of the pacing stimulus markers decreases, occurring approximately every 4 centimeters (40 small divisions or 8 large divisions).
- Turn the PACER OUTPUT control to 0 mA. There should be no CHECK PADS or POOR PAD CONTACT messages.
- 5. Disconnect the OneStep cable from the test port or OneStep electrodes, and slowly turn the PACER OUTPUT control to 16 mA or more. The messages CHECK PADS and POOR PAD CONTACT appear alternately. The pace alarm sounds, and the Clear Pace Alarm softkey flashes.
- Reconnect the OneStep cable, and press the Clear Pace Alarm softkey. The messages CHECK PADS and POOR PAD CONTACT disappear, and the alarm tone stops.



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RECORDER CHECK

- 1. Check the printer for an adequate supply of paper, then press the RECORDER button.
- 2. Press and hold the SIZE button for at least 2 seconds. A calibration pulse of 1 mV appears on the display while the button is held. The amplitude of the calibration pulse is independent of the SIZE setting.
- 3. Inspect the recorder waveform for uniformity and darkness.
- **4.** Inspect for uniformity of annotated characters and completeness of words.
- 5. Check the printer speed by verifying that the resulting waveform is:
 - $2.5 \text{ mm} \pm 0.5 \text{ mm}$ wide
 - $10 \text{ mm} \pm 1.0 \text{ mm high}$

