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Application of Rotary Sensor in Defibrillator

A defibrillator works by using a moderately high voltage (something like 200–1000 volts) to pass an electric current through the heart so it is shocked into working normally again. The patient's heart receives roughly 300 joules of electrical energy (about as much as a 100 watt incandescent lamp uses in three seconds).

Working Principle:

Defibrillator consists of an electric supply unit and two metal electrodes called paddles that are pressed very firmly to the patient's chest using insulating plastic handles (so the person using them doesn't get a shock too). The important thing is getting the current to flow through the heart, so where the paddles are applied is crucial. One way of applying them is to put one paddle above and to the left of the heart and the other slightly beneath and to the right; another method involves placing one paddle on the front of the body and the other round the back. For the electric current to flow properly, and to reduce the risk of skin burns, the electrodes have to be applied close enough together. They must also make good electrical contact with the skin, so usually a solid or liquid conducting gel is first applied to the patient's chest. In units designed to be used by less-trained people in public places, sticky, self-adhesive electrode pads are often used instead of paddles for safety and simplicity: once the pads are stuck on, the operator can stand well clear of the patient's body and that reduces the risk of their getting an electric shock. Rotary sensors are used in the Defibrillator monitor machine as Therapy knob. The Therapy Knob which has a rotary sensor placed in it, used as a setting device i.e when you rotate the sensor it will either go to AED Mode (Automated external defibrillator) or Manual Defibrillator Mode. In Manual Defib Mode, energy selection is made by rotating the Therapy Knob to the appropriate position. AEDs mode are used to revive someone from sudden cardiac arrest.

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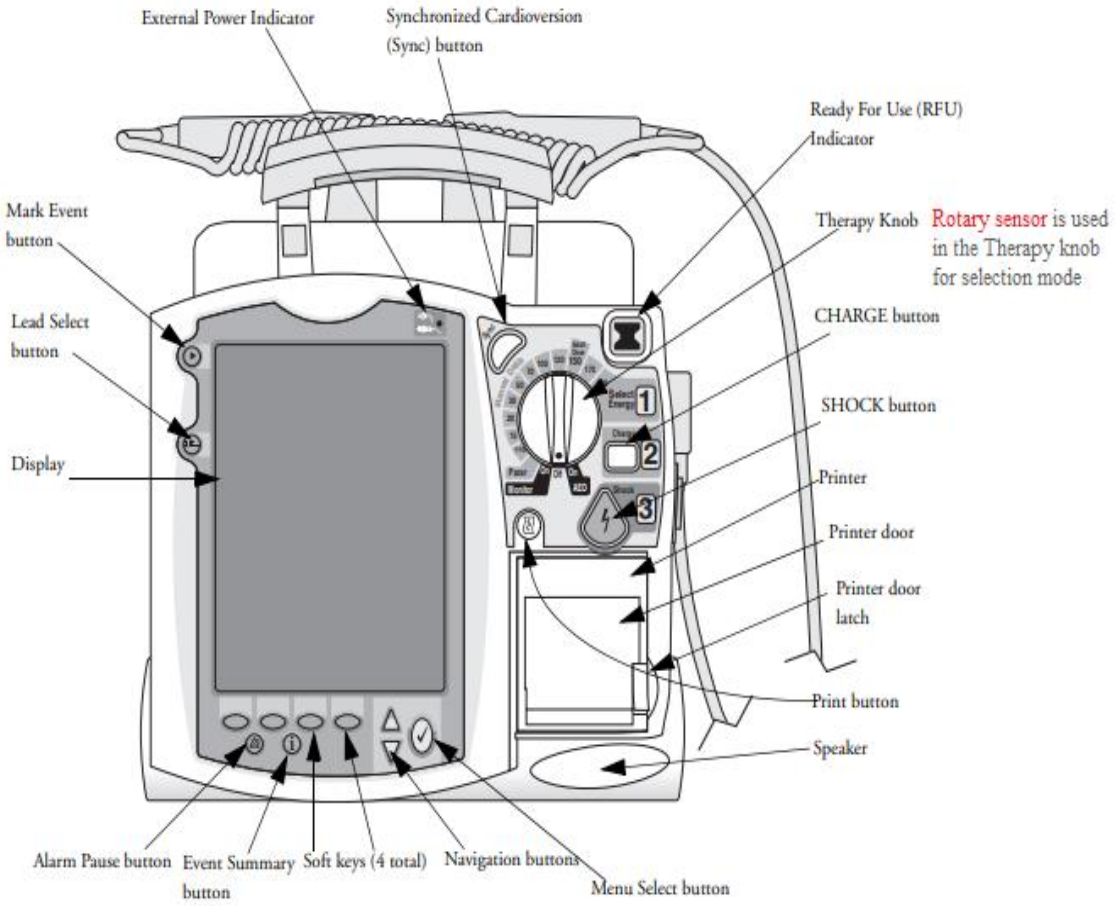
External Power Indicator
Synchronized Cardioversion (Sync) button
Ready For Use (RFU) Indicator
Mark Event button
Therapy Knob
Rotary sensor is used in the Therapy knob for selection mode
Lead Select button
CHARGE button
SHOCK button
Display
Printer
Printer door
Printer door latch
Print button
Speaker
Alarm Pause button
Event Summary button
Soft keys (4 total)
Navigation buttons
Menu Select button