Isolated Voltage Activated Operate Input

- Connector J20 pins 4 and 7 can activate the ultrasound output with an external dc voltage
- Input voltage range from 4.5Vdc to 30Vdc @ 4mA minimum
- Input current is electronically limited to 14mA maximum
- Isolated input is not polarity sensitive - it cannot be connected backwards
- Optical-isolation rated at 1500V_{PEAK}
- Input is overvoltage protected at 33V with a surgetor protection device
- Input is overcurrent protected at 315mA with a metric-style fuse and is replaceable on the circuit board.

A dc voltage (4.5V Min. to 30V Max.) applied between J20 pin 4 and pin 7 activates the generator ultrasound output. Removing the dc voltage deactivates the ultrasound output. The polarity of the dc voltage input signal is not important since either polarity will function properly (it cannot be connected backwards). This input requires a minimum of 4mA dc to function at 4.5Vdc and the current is actively limited to 14mA, up to the maximum input voltage. Noise filtering is provided on this input, which will delay ultrasound activation by about 20mSec. after voltage is applied to the input. Likewise, the noise filter discharge time will delay the deactivation of the ultrasound output by approximately the same time when the input voltage is removed. Input overvoltage protection is provided. The input voltage will be shorted (crow-barred) if the input voltage exceeds approximately 36Vdc. This also will open the input protection fuse (F402) if the power source current output capability exceeds 315mA. This input is electrically isolated from all internal generator circuitry.

**Isolated Voltage Activated Operate Input Connection Diagram**

- User Supplied Voltage Source
- Switchable dc Voltage Source (30Vdc Max)
- Input is not Polarity Sensitive
- dc Voltage Applied = Ultrasound Activated
- dc Voltage Off = Ultrasound Off