The Q125 Signal Processor provides many useful features normally requiring multiple modules. Audio and control signals can be amplified, attenuated, offset, and inverted all in this one, easy-to-use module. Two sections allow two processes to be performed at the same time.

**Processing functions**
- Amplification
- Attenuation
- Inversion
- Voltage Source
- Offset Adjustment

**Specifications**
- **Panel Size**: Single width 2.125"w x 8.75"h.
- **Input Levels**: 10V PP maximum
- **Output Levels**: 20V PP maximum
- **Power**: +15V@8ma, -15V@8ma.

**Controls and Connectors**

**Top Section**
- **Gain Control**: Sets the overall gain/attenuation. Full counter clockwise results in an inversion of 200%. Full clockwise results in a non-inversion of 200%.
- **Offset Control**: Adds a positive or negative offset to the waveform. Full counter clockwise results in an offset of –5 volts. Full clockwise results in an offset of +5 volts. Without an input the offset control can be used to generate a voltage source of –5 volts to +5 volts.

**Input Jack**: Signal to be processed.

**Output Jack**: Signal output.

**Bottom Section**
- **Normal/Invert Switch**: Determines whether the output will be inverted or not.

**Offset Control**: Adds a positive or negative offset to the waveform. Full counter clockwise results in an offset of –5 volts. Full clockwise results in an offset of +5 volts. Without an input the offset control can be used to generate a voltage source of –5 volts to +5 volts.

**Input Jack**: Signal to be processed.

**Output Jack**: Signal output.
Testing
No calibration is required on this module. Jumpers on the PC Board select +/-100% (jumper off) maximum gain or +/-200% (jumper on) maximum gain for each section. Normally the top section will provide +/-200% and the bottom section +/-100%.

Top Section
1. Attach a volt meter to the output jack.
2. When the offset control is in it’s full counter-clockwise position, the output should be –5 volts.
3. When the offset control is in it’s full clockwise position, the output should be +5 volts.
4. Set the offset control to it’s center position (0 offset).
5. Apply a +5 volt to the input jack.
6. The output should be +10 volts when the gain control is in the full clockwise position and –10 volts when in the full counter-clockwise position.

Bottom Section
Same as the top section except the toggle switch selects between +100% gain and –100% gain.

Power Connector
6 pin .1” MTA type connector made by AMP. Available from Mouser Electronics or Digi-Key. Modules have a male PCB mount connector and cable harnesses have a female.

Part Numbers:
Female cable mount: #6404416
Male PCB mount: #6404566

Pinout:
1 = +15v
2 = key (pin removed)
3 = +5v
4 = gnd
5 = -15v

Not all voltages are used on all modules.