

INVOTONE CM400L is a vacuum tube condenser microphone with cardioid characteristics. The tube is incorporated with premium electronic components to allow the natural reproduction of input sound including extremely low frequency data. It is suitable for TV studios, recording studios, broadcasting stations and stage performances.

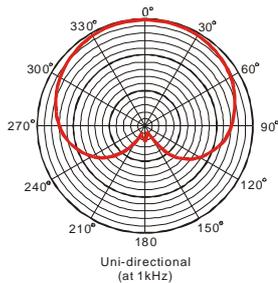
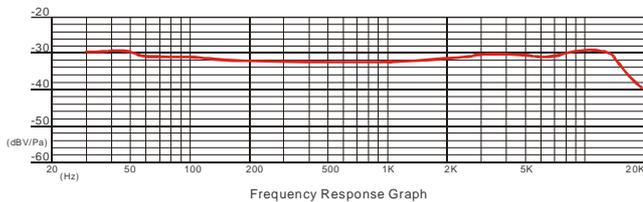
The Zinc-die casting housing is spray-painted.



### Specification:

- Element: Pressure Gradient Transducer
- Polar Pattern: Uni-directional
- Frequency Response: 20Hz-20kHz
- Sensitivity: -34dB±2dB (0dB=1V/Pa at 1kHz)
- Output Impedance: 200Ω±30% (at 1kHz)
- Load Impedance: ≥1000Ω
- Self Noise: 15dB A (IEC 268-5)
- Max. Input SPL: 128dB (at 1kHz ≤1% T.H.D)
- S/N Ratio: 79dB
- Net Weight: 655g
- Body Dimension : Ø55x201mm

### Frequency Response Graph:



### Connecting And Disconnecting The Microphone Cable:

1. Insert the XLR connector into the microphone. If necessary, rotate the connector to align the key on the connector and the groove in the microphone. Push the connector into the microphone until it clicks.
2. To disconnect the cable and microphone, grasp the connector while depressing the tab. Pull the connector away from the microphone.

### Operation:



### Usage:

1. Open the carrying case, fit the microphone into the shockmount, ensure the position of the microphone on the front of the sound sources.
2. Take the phantom power out from the carrying case, two types of voltage can be selected: 220V or 110V, so please check the power type of the phantom power with the local mains voltage.
3. Adjust the volume control knob of the amplifier or mixer, make the volume is the lowest, set up the equipments according to the sketch. Turn on the power supply, then power the microphone, the tube will give off light, which indicate the microphone is essentially ready for operation.
4. After switching on the microphone power on the power supply unit, please allow a few minutes for the tube to warm up so as to get the full, warm sound.

### Cautions:

1. Because use a precision vacuum electronic tube with a high operating voltage (200V DC), please do not open the housing at will, avoid damaging your safety.
2. The microphone incorporates a 7025 vacuum tube, after using about 2000 hours later, the tone quality will be dropped, recommend you to use replacement tubes of the same type only.
3. Replace the tube: Turn off all the power supplies, take the connected cable apart, use a special spanner offered by INVOTONE, settle the spanner in the notch of the fixed washer in housing tail, turn the spanner anticlockwise till the fixed washer be taken off, then push the lower half of the housing down wards so far from the upper grid cap part until the vacuum tube is exposed. Now you can removed by carefully pushing away the lower part of the elasticated cushioning for the tube and simultaneously, carefully levering the tube out of the socket, inserting a new tube is done in reverse order of the above description. Finally please push the lower part of the housing forwards again to the grid part and, take care that the spanner remains free so that the fixed washer can be screwed in again fully and tightly.  
(※ If you have any problems for these details, please consult with confidence the nearest INVOTONE agency or INVOTONE after-sale service department.)
4. Do not drop it from high or apply strong shock to it!
5. Do not use or store the system in high temperature or humidity environment, avoid affecting the sensitivity and the tone quality.

### Packing List:

CM400L solidtube microphone	1pc
PM-2 phantom power supply	1pc
Power cable	1pc
8m (30ft) connecting cable with 7 Pin M&F connector	1pc
SH-100 elastic shockmount	1pc
W-10 foam windscreen	1pc
Spanner	1pc
Black rubber band (spare part)	1pc
Aluminum carrying case	1pc
Manual	1pc