

# 930VPL

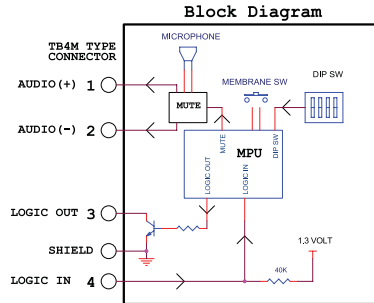
## Continuously-variable Pattern Condenser Boundary Microphone with Programmable Switch, LED and Logic Interface



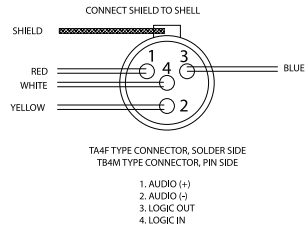
### Logic Interface Details

The logic input, in effect, consists of a 40K ohm pull-up resistor to the internal microprocessor power supply (1.3V). Pulling the logic input to ground will activate the logic input.

The logic output, in effect, consists of the open collector of an NPN transistor. The emitter of this transistor is connected to ground. When the logic output is activated, current will flow from the logic output through the transistor to ground. It is recommended that the pull-up resistance value at the receiving circuit be kept as high as possible to minimize the current flow into the logic output. High currents can induce switching noise into the audio. Absolute maximum current into the logic output is 50mA.



### Connector Wiring



### Two-Year Limited Warranty

Astatic Commercial Audio Products hereby warrants that this product will be free of defects in material and workmanship for a period of two years from the date of purchase. In the unlikely event that a defect occurs Astatic will, at its option, either repair or replace with a new unit of equal or greater value. Retain proof of purchase to validate the purchase date and return it with any warranty claim.

This warranty excludes exterior finish or appearance, damage from abuse, misuse of the product, use contrary to Astatic's instructions or unauthorized repair. All implied warranties, merchantability, or fitness for a particular purpose is hereby disclaimed and Astatic hereby disclaims liability for incidental, special or consequential damages resulting from the use or unavailability of this product.

This warranty gives you specific legal rights and you may have other rights that vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

Note: No other warranty, written or oral is authorized by Astatic Commercial Audio Products.

If outside the United States, contact your local dealer or distributor for warranty details.

For warranty issues visit [cadaudio.com](http://cadaudio.com) and select the support tab.

### Description

The 930VPL is a continuously-variable polar pattern condenser boundary microphone with a programmable membrane switch, LED and logic interface. Special attention has been taken to design the 930VPL to resist interference from devices such as cell phones and two-way communication devices. The integral 80Hz, 12dB/octave high-pass filter removes unwanted low-frequency energy to improve intelligibility. The dual output-connector design allows the cable to exit the rear or the underside of the microphone. When mounted on a flat surface, the 930VPL will take advantage of the "boundary effect" signal-to-noise ratio increase. The 930VPL comes with 30 feet [9.1m] of detachable microphone cable that is terminated with a standard 3-pin XLRM-type connector.

The 930VPL features logic I/O functions that can be utilized with automatic mixers, teleconferencing systems and control systems. The logic input can remotely control the LED as well as the membrane-switch activation. The membrane switch working with or bypassing the microphone's mute activates the logic output. Bypassing mute is particularly useful with teleconferencing systems that mute the microphones after the echo-cancellation block. The exact mode of operation can be set with the dip-switch on the underside of the microphone.

The 930VPL has a continuously-variable polar pattern so it can shorten the list of products an audio system designer needs to consider when boundary condenser microphones are specified. The installer can precisely tailor the polar pattern for the best performance depending upon the application or environment. The 930VPL is primarily designed for speech and vocal pickup in governmental, institutional, religious and business applications.

### Features

- Continuously-variable polar pattern control
- Blue LED status indicator
- Soft-touch programmable membrane switch
- Securable controls (polar pattern and mode)
- Keyhole mounting slots
- Logic I/O for external muting and/or remote control
- RF (radio frequency) Resistant Architecture
- Integrated high-pass filter for elimination of unwanted low-frequency energy
- Dual-connector rear/bottom cable exit design
- Shock-absorbing foam pad



©2007 Astatic Commercial Audio Products  
Part No. 46873-84-00 Oct2007



# 930VPL

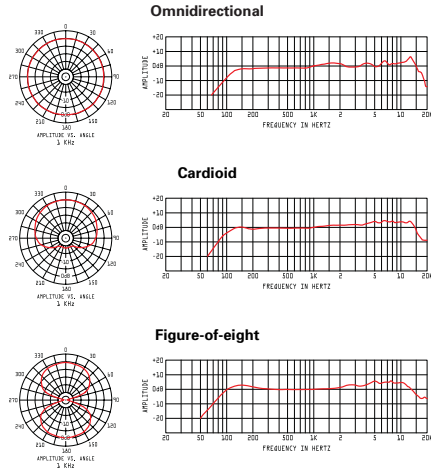
Continuously-variable Pattern Condenser Boundary Microphone with Programmable Switch, LED and Logic Interface

### Specifications

<b>Operating Principle</b>	.....Condenser
<b>Polar Pattern</b>	.....Continuously-variable
<b>Frequency Response</b>	.....90Hz - 17KHz
<b>Sensitivity</b>	.....-32dBV (25mV) @ 1Pa
<b>Impedance</b>	.....120 ohms
<b>Self Noise</b>	.....24dBA
<b>Maximum SPL</b>	.....120dB, 1% THD, 1KHz
<b>Power Requirements</b>	.....P12, P24, P48, 4mA
<b>Connector</b>	.....TB4M-type (TA4F-type to 3-pin XLRM-type cable included).
<b>Polarity</b>	.....Positive pressure on diaphragm corresponds to positive voltage on pin 1 relative to pin 2 at TB4M-type connector.
<b>Logic Output</b>	.....NPN open collector, 30V, 50mA, max
<b>Logic Input</b>	.....40K ohm pull-up resistor to 1.3V
<b>Finish</b>	.....Durable matte-black urethane
<b>Dimensions</b>	.....(See drawing)
<b>Net Weight [Mass]</b>	......8oz [0.23Kg]
<b>Packaged Weight [Mass]</b>	.....1lb 4oz [0.57Kg]
<b>RF Immunity</b>	.....Meets or exceeds EN55103-2, E1, E2, E3 and E4
<b>RoHS Compliant</b>	

\*Specifications subject to change without notice.

**Included Accessories** .....30' [9.1m] cable, protective pouch, adhesive security cover.



### Architects' and Engineers' Specification

The microphone will be a boundary condenser type with a programmable membrane switch and blue LED indicator. The microphone will have a continuously-variable polar pattern. The membrane switch will be programmable to work as push-to-talk, push-to-mute, on/off, and activate a logic output for remote functions. The microphone will have a logic input that can be configured to remotely control the LED or the membrane switch.

The sensitivity of the microphone will be -32dBV (25mV) @ 1Pa. The frequency response will be 90Hz-17KHz. The impedance of the microphone will be 120 ohms. The self noise will be 24dBA. The maximum SPL will be 120dB. The microphone will include an integral 80Hz, 12dB/octave high-pass filter to improve intelligibility. The microphone will have two miniature 4-pin TB4M-type connectors allowing for rear or bottom exit. A 30' [9.1m] miniature 4-pin female to 3-pin male XLR cable will be provided. The cable will

have 4 conductors within a shield. The logic input and the logic output wires will not be connected to the 3-pin XLRM-type connector when shipped from Astatic. The microphone will operate on P12, P24 or P48 standard phantom power consuming 4mA.

The microphone element and electronics will be enclosed in a radio frequency resistant housing meeting or exceeding EN55103-2. The 930VPL will be 5-1/2" [140mm] long, 3-1/2" [89mm] wide and 23/32" [23mm] high. The net weight [mass] will be 8oz [0.23Kg] not including the cable. The packaged weight [mass] will be 1lb 4oz [0.57Kg]. The 930VPL will have durable matte-black urethane finish. Cable, adhesive control cover and pouch will be supplied.

The Astatic model 930VPL is specified.

### Settings

The 930VPL microphone has an integrated membrane switch. This membrane switch can be programmed using the DIP switch on the underside of the microphone (see diagram). The microphone will come from the factory in the "Power Up On" mode.

#### Push to Talk (momentary mode):

A momentary press on the membrane switch (or a closure to ground on the logic input) will activate the microphone, close the logic output and turn the LED on.

#### Push to Mute (momentary mode):

A momentary press on the membrane switch (or a closure to ground on the logic input) will mute the microphone, open the logic output and turn the LED off.

#### Power Up On (latching mode):

The microphone is active, the logic output is closed and the LED is on when phantom power is first applied. A momentary press on the membrane switch will toggle the microphone mute, the logic output and the LED.

#### Power Up Off (latching mode):

The microphone is muted, the logic output is open and the LED is off when phantom power is first applied. A momentary press on the membrane switch will toggle the microphone mute, the logic output and the LED.

#### Remote Mode:

1. The LED will illuminate when the logic input is grounded.
2. The logic output will close when the membrane switch is pressed.
3. The audio will remain un-muted.

#### Polar pattern Adjustment

1. Set the desired polar pattern by turning the dial on the underside of the microphone.
2. Cover controls with the provided adhesive security cover if desired.

