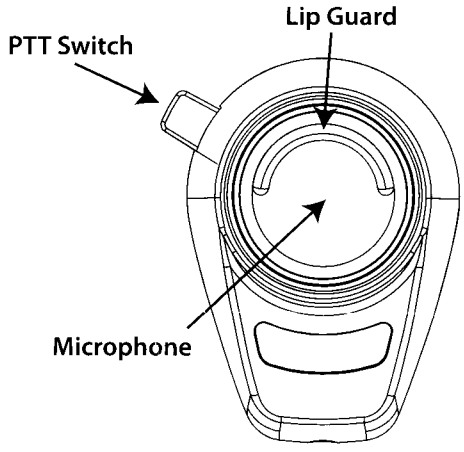
Palomar® SL41

PROFESSIONAL HANDHELD MICROPHONE

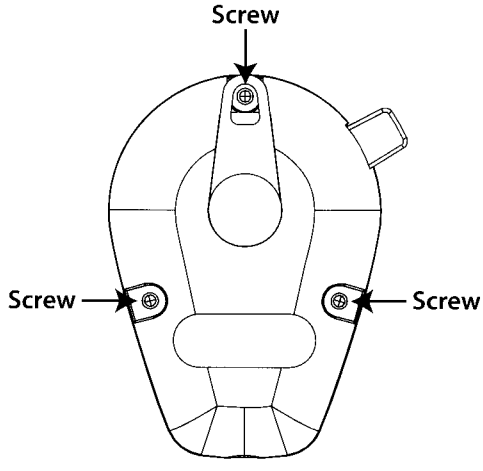
USER GUIDE

The Palomar SL41 is a profressional grade handheld microphone for mobile and base tranceivers. The SL41 is an active circuit microphone that uses a factory installed AAA battery to energize its noise cancelling electret element. Battery drain is minimal and a single AAA battery will last over 1 year under normal conditions.



INSTALLATION and OPERATION

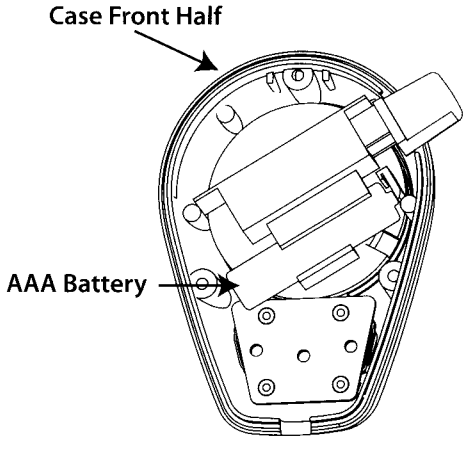
1. The SL41 comes wired and ready to use for 4 pin wired CB radios.
2. Insert the SL41's 4 pin microphone plug into the radio's microphone jack. Make sure that the microphone plug is firmly pushed into the radio's jack, then screw the plug's threaded ring onto the microphone jack.
3. To transmit press the Push-To-Talk (PTT) lever on the side of the SL41. To receive, release the PTT switch.
4. For optimum performance, speak into the center of the SL41 grill and hold the microphone so that the rubber lip guard barely touches your upper lip. *Note, optimal distance from mouth will vary depending on level of speaking voice, background noise, etc.*
5. The SL41 is factory wired with the standard 4 pin radio wiring. If your radio requires a different wiring, the SL41can be rewired by a qualified technician. Below is the color code for the SL41 microphone cable.



Shield	Ground (PTT)
Red Wire	Transmit (PTT)
White Wire (center conductor)	Microphone Audio
White Wire Shield	Ground (Mic Audio)
Blue Wire	Receive Audio
Black Wire	extra wire (not connected)
Yellow Wire	extra wire (not connected)

BATTERY INSTALLATION

1. The SL41 comes with a factory installed AAA battery that will last over 1 year under normal operating conditions. Battery draw only occurs during transmit.
2. The first sign of the battery needing to be replaced is poor transmit audio quality.
3. To replace the battery, remove the 3 case screws on the back side of the SL41.
4. With the front of the microphone down, carefully open the case so that no wires or internal components are strained or moved.
5. Locate the AAA battery and carefully replace it with a new high quality, alkaline AAA battery (1.5v DC).
6. Reassemble the microphone making sure that no internal wires are pinched between the case halves.



Customer Support 877-624-6869 or info@palomarelectronics.com
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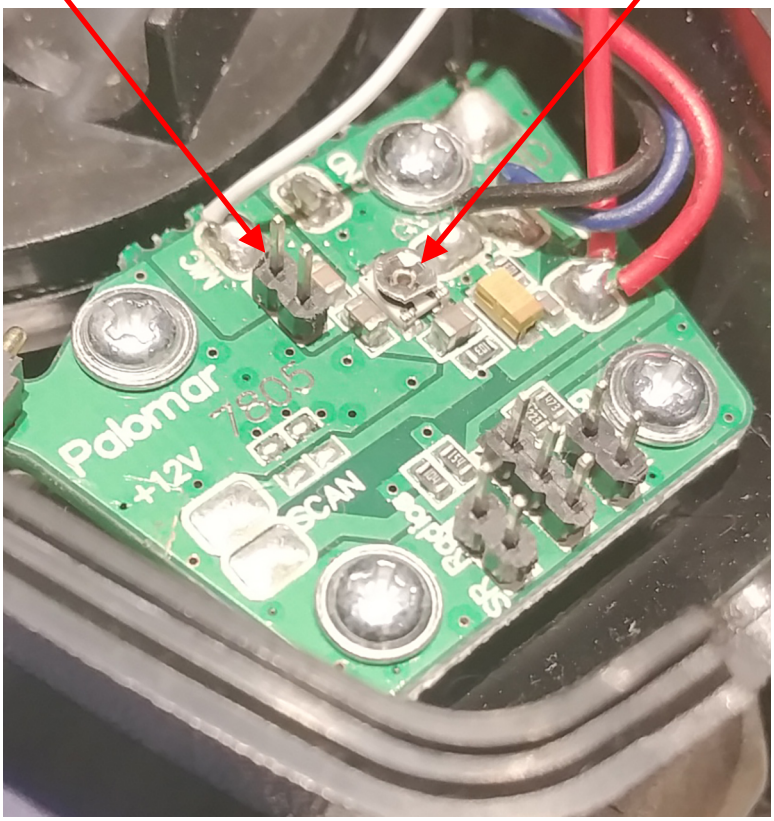
Palomar SL41 Internal Adjustments

Bass Roll Off Header Pin
Jump (connect) 2mm header pin to increase bass response

Mic Gain Potentiometer
Rotate counterclockwise to decrease microphone gain. Important: Rotate pot a few degrees at a time and test for best results.



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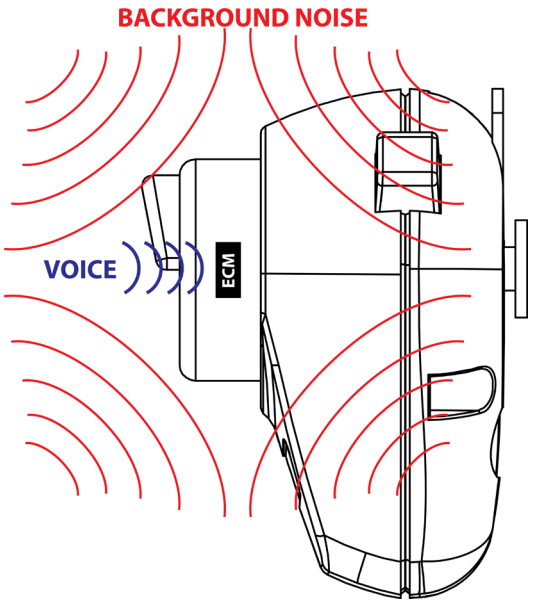
Palomar SL41 Technology & Design

This document highlights the design and engineering that went into the Palomar SL41 and why this makes for a better performing microphone. If you have additional questions, please contact Palomar customer support at 877-624-6869 or by email at info@palomarelectronics.com.

True Noise Cancelling Technology

The Palomar SL41 uses a custom-made noise cancelling electret condenser microphone (ECM) element.

Noise cancelling ECM's are ported, or open, on both the front and back sides of the element. Unwanted background noise enters the front and back ports and hits the mic diaphragm at the same time thereby cancelling itself out. The user's voice is both stronger and closer to the front of the ECM, and enters the front ports and hits the mic diaphragm before the voice sound waves can reach the back ports of the microphone element. This is the same noise cancelling technology used by the military for use in helicopters and other extreme noise environments.



Why Not Dynamic?

The simple answer is audio quality. Dynamic microphone elements do not have the sensitivity or gain that a ECM element has. More sensitivity and gain makes an ECM sound better and louder over a dynamic element. Since the SL41 has more gain and output than a dynamic microphone means you no longer need to run your radio's mic gain control wide open to be heard. The extra gain from the SL41 allows you to turn down your radio's mic gain and still be louder than a dynamic microphone with the radio mic gain at full.

Super Long Life Battery.

ECM's require a small amount of voltage to work and therefore the SL41 does have a single AAA battery inside. The SL41's circuit focuses on maximizing the battery life. Under normal operating conditions, a single AAA battery will power the SL41 for 2 years! When it does finally come time to install a new battery, this is as easy as removing 3 screws.

Built to Last

No expense was spared in making the SL41. Every part and component is top of the line, from the massive PTT switch to the custom designed mic cord with dual shields. Our case uses more than 50% the amount of impact proof ABS plastic as our competitors, which makes the SL41 feel as solid as it sounds. Below is a chart comparing key build quality features between the SL41 and the competition.

A look inside the Palomar SL41

Build Quality Feature	Palomar SL41	Astatic 636L	RoadKing RK56	Ranger SRA-198
Case Wall Thickness	0.165”	0.115”	0.105”	0.090”
Mic Hanging Button	Aluminum	Plastic	Metal	Metal
Mic Hanger	Aluminum	None	None	Metal
Internal Strain Relief	Metal	Metal	Plastic	Plastic
External Strain Relief	Metal Spring	Metal Spring	Plastic	Metal Spring
PTT Switch	Standard Large	Standard Large	Standard Large	Small
Circuit Board Material	FR4 (fiberglass)	None	FR-2 (paper)	None
Mic Cord Conductors	7 (5 + 2 shields)	6 (5 + 1 shield)	6 (5 + 1 shield)	4 (3 + 1 shield)
Mic Cord Finish	Matte	Gloss	Matte	Gloss
Weight	9.5oz	7.4oz	7.6oz	9.9oz (7.5oz without metal weights)