

Running head: SHURE SLX2/SM58 MIC

SHURE SLX2/SM58 Vocal Microphone

submitted to

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THERE'S A TRICK (2)
 YOU CAN
 BREAK THE PG TO
 START # FROM 3
 LINE BREAK - PG BREAK

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ONLY NEEDED TO PUT WHERE THE PAGE IS GOING TO START.

Abstract

Shure Microphones has met the demands of high-energy performances, proven from time and time again through decades of rigorous use by performers and engineers from all experience levels around the world. The well-known sound and construction of the Shure Microphone line became a template for other companies, setting standards for performances by the way it handles feedback. In live performance and recording applications, the SM Microphone family is legendary, ~~virtually indestructible~~ gear for professional musicians.

YOU MIGHT WANNA COMMIT.

At any given moment, people in all parts of the globe rely on Shure products to communicate, entertain, and educate. The brand is known and trusted worldwide by audio professionals and enthusiasts alike. A particular member of the Shure Microphone family that has stood out ~~the most~~ is the SHURE SLX2/SM58 Handheld Transmitter. The SM58, descendant of the 565, is the studio sound solution that decimated the toughest problems in live sound.

HOW ABOUT RELIABLE?

AROUND THE WORLD?

ELIMINATED?

History

COMPANY?

A history of innovation has begun as early as 1925 for the Shure brand. Shure has turned a passion for making great microphones and audio electronics into an obsession. Shure continues to set the worldwide industry standard for superior, reliable products. The founder, Sidney N. Shure, established the company and began operation on April 25th, 1925 in downtown Chicago. Mr. Shure's values and philosophy continues to guide the company associates today and is clearly reflected in their products and services.

Shure offers audio products ranging from wired microphones and wireless microphone systems to DJ mixers and listening products. Throughout their years of innovation, one

THIS WAS GOOD ON THE ABSTRACT AS WELL BUT OK.

microphone series has (outshined) the others – the Unidyne Series. Sleek in its design, the Unidyne series quickly came to symbolize the word “microphone.”

In the 1950s, the Shure SM58 Microphone was invented by Shure Engineer Ernie Seeler and his team that wanted to create the ideal vocal microphone. Studio microphones are notoriously fragile, therefore the challenge to solve studio mic durability and design problems was no easy feat for Seeler and his creative team. Following its debut, it quickly became a mainstay in the world of professional audio. Celebrities, entertainers, and politicians including Elvis Presley, Billie Holiday, and Patsy Cline, all relied on this series to help amplify their talent to millions of people throughout their career.

The SM58’s ball-shaped and lined grille reduces wind, breathe noise, and plosive popping, making the microphone better suited for vocal applications. The SM58’s destiny as an iconic live vocal microphone was not unprecedented, despite the mic’s original designation as a studio tool. Prior to the development of the handheld transmitter, singers stood behind a microphone mounted on a stand. The SM58 gave singers freedom to roam the stage, but this created new issues of feedback and handling noise. The SM58’s consistent cardioid polar pattern, high gain-before-feedback, and groundbreaking integrated pneumatic shock mount greatly eliminated these problems, allowing vocalists to focus on connections with their fans without worrying about their mics. Plus, the tailored frequency response and lightweight build made the SM58 sound and feel like an extension of the singer’s voice rather than a tool separate from themselves.

As great as all this may might sound, changes are still frequently being made to all Shure products, not just microphones. Dramatic innovations in materials and manufacturing processes have been integrated into the SM58. ~~Plus, Shure subjects the SM58 to a ruthless battery of~~

↑
microphone

STANDARD
 military ~~supplier-grade~~ tests ~~year in and year out~~ the materials, the parts, and the fully assembled microphone. **ARE TESTED FOR RELIABILITY (OPTIONAL, BUT NOT NECESSARY SINCE YOU MENTIONED THE SM58).**

Description of Innovation

The Shure SM58 is a unidirectional (cardioid) dynamic vocal microphone for professional vocal use in sound reinforcement and studio recording. To break it down, unidirectional means the microphone can only pick up sound with high gain from a specific side or direction. Cardioid means the microphone picks up sound with high gain from the front and sides but poorly from the rear, making this microphone style ideal for performers. **GOOD AND EXPLANATION.**

A highly effective, built-in, spherical filter minimizes wind and breath noises. A cardioid pickup pattern isolates the main sound source while minimizing unwanted background noise.

The SM58 has a tailored vocal response for a sound which is a world standard. Rugged construction, a proven shock-mount system, and a steel-mesh grille ensure that even with rough handling, the SM58 will perform ~~consistently~~. Outdoors or indoors, singing or speech, the SM58 is the ~~overwhelming~~ choice of professionals worldwide.

Preferred for

The following table provides the most common applications and placement techniques for the Shure SM58 Handheld Transmitter.

| Application | Suggested Microphone Placement | Tone Quality |
|-------------|--|--|
| Vocals | Lips less than 15 cm (6 in.) away or touching the windscreen, on axis to microphone. | Robust sound, emphasized bass, maximum isolation from other sources. |
| | 15 to 60 cm (6 in. to 2 ft.) away from mouth, just above nose height. | Natural sound, reduced bass. |
| | 20 to 60 cm (8 in. to 2 ft.) away from mouth, slightly off to one side. | Natural sound, reduced bass and minimal "s" sounds. |
| | 90 to 1.8 m (3 to 6 ft.) away. | Thinner, distant sound; noticeable levels of ambient noise. |

SEPARATE THIS TO A DIFFERENT TOPIC OPERATION

THE FOLLOWING CHART PROVIDES A GUIDELINE FOR SUGGESTED MICROPHONE PLACEMENT AND TONE QUALITY.

Below, describes the technical characteristics of the Shure SLX2/SM58. This information was published by the manufacturer, SHURE, to help consumers understand what exactly the item is.

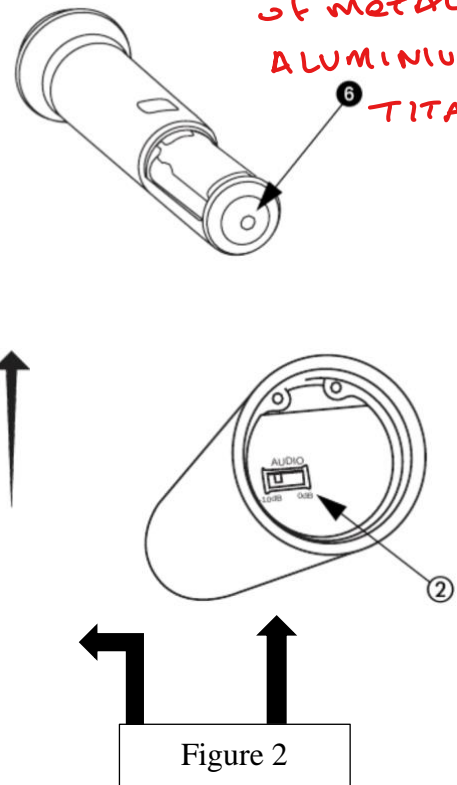
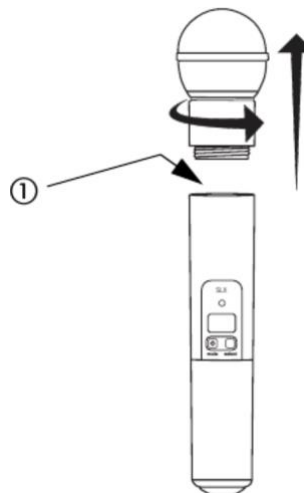
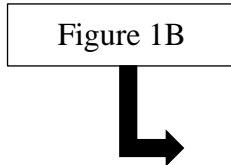
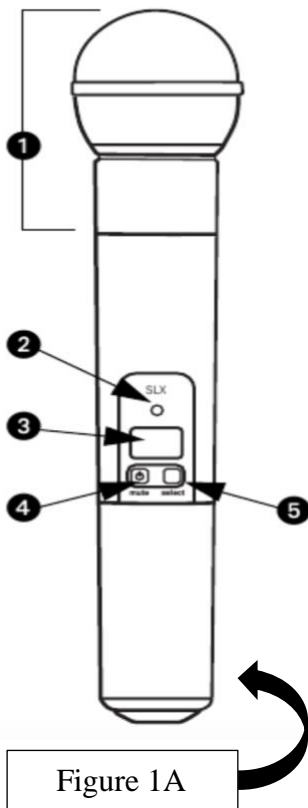
Specifications

GOOD CHART, GREAT SPECS

| | |
|---------------------------|--|
| Type | Dynamic (moving coil) |
| Frequency Response | 50 to 15,000 Hz |
| Polar Pattern | Cardioid |
| Output Impedance | 300 Ω <i>WOW THAT'S HIGH</i> |
| Sensitivity | 1 kHz, open circuit voltage |
| Polarity | Positive pressure on diaphragm produces positive voltage on pin 2 with respect to pin 3 |
| Net Weight | 0.33 kg (0.72 lb.) |
| Connector | Three-pin professional audio (XLR), male |
| Housing | Dark grey, enamel-painted, die cast metal; matte-finished, silver colored, spherical steel mesh grille |

Mechanical Composition

SLX2 Handheld Transmitter



WHAT TYPE OF METAL, ALUMINIUM, TITANIUM?

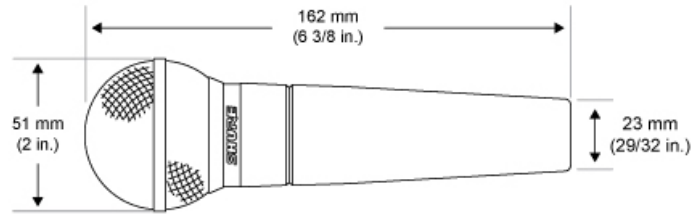


Figure 3

Figure 1A & 1B *THIS MIGHT FALL UNDER OPERATION.*

| Feature # | Feature Description |
|-----------|---|
| 1 | Interchangeable microphone head |
| 2 | Power / Infrared (IR) / Mute Indicator <ul style="list-style-type: none"> - Green: Ready - Amber: Mute On - Flashing Red: IR Transmission in process - Glowing Red: Battery Power Low - Pulsing Red: Battery Dead |
| 3 | LCD Screen |
| 4 | On-off / Mute Switch <ul style="list-style-type: none"> - Press and hold to turn on or off. Press and release to mute or unmute <p>To avoid accidentally muting the microphone during a performance, lock the front panel while the microphone is in use.</p> |
| 5 | Select switch |
| 6 | IR Port <ul style="list-style-type: none"> - Receives infrared beam to synchronize frequencies. When using multiple system, only one transmitter IR port should be exposed at a time. |

OPERATION

OPERATION

OPERATION

Figure 2

| Feature # | Feature Description |
|-----------|--|
| 1 | Access the gain adjustment switch by unscrewing the head of the microphone |
| 2 | Two gain settings are available on the SLX2. Choose a setting appropriate for vocal volume and for the performing environment. <ul style="list-style-type: none"> - 0dB: For quiet to normal vocal performance - -10dB: For loud vocal performance |

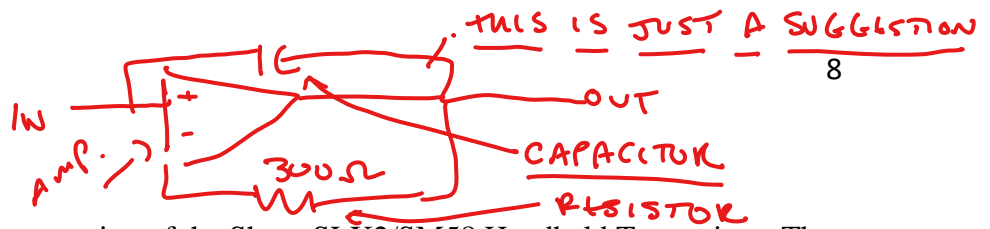
OPERATION

YOU MIGHT WANT TO FIND AN EXPLOITED VIEW OF THE SM58, AS FAR AS THE COMPONENTS INSIDE, SUCH AS THE FILTER INSIDE THE MIC TO PREVENT FEEDBACK. I SUGGEST THE WIRING SCHEMATIC ON THE WEBSITE IF YOU CAN'T

FIND THE COMPONENTS THAT ARE INSIDE.

SHURE SLX2/SM58 MIC

Figure 3



This figure is a dimensional representation of the Shure SLX2/SM58 Handheld Transmitter. The microphone is 6 3/8 inches long with a thickness of nearly an inch. Lastly, the standard microphone grille is approximately 2 inches in circumference.

Conclusion

The Shure SLX2/SM58 Handheld Transmitter is the ideal microphone to ever be designed by the Shure company. The success of this product was unpredictable. It was just another, ordinary product to be sketched and built. Its popularity attracted other audio companies who envied to build a replica of the Shure SLX2/SM58 but in their own unique ways for consumers. It began its journey in the 1950s and hasn't stopped developments since.

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- IT WAS A REALLY GOOD TECH DESCRIPTION; HOWEVER, THE FIGURES HAVE TO BE MORE EXPLAINED. EXPLOITED VIEW. I WANNA KNOW WHAT IS INSIDE THE MIC, FOR SOMEONE WHO IS ELECTRICALLY INCLINED A WIRING DIAGRAM IS ENOUGH, BUT CONSIDER OTHER AUDIENCES AS WELL.