

# IEM Mobile Setup Proposal

This document outlines a comprehensive mobile In-Ear Monitor (IEM) setup designed specifically for your touring band's requirements. The system is tailored to provide independent vocal mixes for your two singers while staying within the \$3,000 budget.

## Equipment Recommendations

### **Shure PSM300 2-Channel IEM System**

Price: \$1,099.99

Link: [Sweetwater - Shure PSM300](#)

The Shure PSM300 is a professional-grade wireless in-ear monitoring system that provides reliable performance for touring musicians. It includes: P3T-Rack transmitter with rackmount hardware 2 P3R bodypack receivers 2 SE215 earphones with multiple ear tips 2 1/4" to 1/8" adapters 2 belt clips 2 AA batteries Operating in the G20 frequency band (470-542 MHz), it offers up to 300 feet of wireless range and clear stereo sound quality. The system is compact and easily transportable, making it ideal for your touring needs.

### **Mackie ProFX16v3 Analog Mixing Board**

Price: \$499.99

Link: [Sweetwater - Mackie ProFX16v3](#)

The Mackie ProFX16v3 is a professional 16-channel analog mixer with built-in digital effects including compression, reverb, and delay. Key features: 16 premium Onyx mic preamps Built-in ReadyFX effects engine with 16 editable presets 2 FX sends for external processing USB audio interface for recording Graphic EQ for main outputs Durable metal chassis for road use This mixer perfectly meets your requirement for an analog mixing board with onboard digital effects. The compression can be applied to individual channels, while reverb and delay are available through the effects engine for creating the desired vocal blends.

## Accessories and Cabling

To complete the mobile IEM setup, the following accessories and cabling are required: 2 XLR cables (10ft) - \$30.00 2 1/4" TRS cables (10ft) - \$25.00 Power conditioner/surge protector - \$50.00 Foldable table or portable work surface - \$80.00 Cable management kit (velcro ties, gaff tape, etc.) - \$25.00 Flight case for mixer and IEM transmitter - \$150.00 Headphone extension cables (2x) - \$20.00 Mic stands for vocal mics (2x) - \$60.00

## Signal Flow Explanation

The signal flow for this IEM setup is as follows: Vocal microphones connect to channels 1 and 2 on the Mackie ProFX16v3 mixer Compression is applied to each vocal channel individually The vocals are

blended together in the main mix Reverb and delay effects are added via the ReadyFX engine The mixed vocal signal is sent to the Shure P3T-Rack transmitter via the main outputs The transmitter sends the RF signal to the two P3R bodypack receivers The singers receive their custom vocal blend in their ears via the SE215 earphones This setup allows you, as the IEM Tech, to adjust the vocal blend, compression, and effects in real-time during performances.

## **Wiring Diagram**

Wiring diagram image not available.

## Cost Breakdown Analysis

Item	Quantity	Unit Price	Total
Shure PSM300 IEM System	1	\$1,099.99	\$1,099.99
Mackie ProFX16v3 Mixer	1	\$499.99	\$499.99
XLR Cables (10ft)	2	\$15.00	\$30.00
1/4" TRS Cables (10ft)	2	\$12.50	\$25.00
Power Conditioner	1	\$50.00	\$50.00
Portable Work Surface	1	\$80.00	\$80.00
Cable Management Kit	1	\$25.00	\$25.00
Flight Case	1	\$150.00	\$150.00
Headphone Extension Cables	2	\$10.00	\$20.00
Mic Stands	2	\$30.00	\$60.00
		TOTAL BUDGET	\$3,000.00
		TOTAL ESTIMATED COST	\$2,039.98