

## SWE-1M2A Liberator Wireless JEDI<sup>1</sup> Series Portable-only SuperMic

### INSTALLATION & OPERATING INSTRUCTIONS

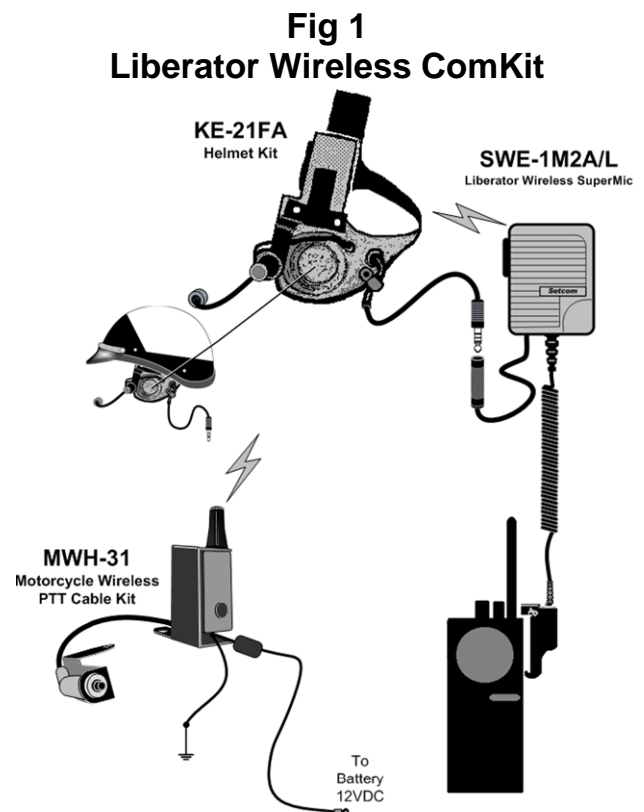
#### 1.0 GENERAL

Prior to commencing installation, read these instructions completely and check the components ordered against those received. Improper installation may cause poor or non-operation. The Liberator Wireless SuperMic will carry the PN SWE-1M2A/L or SWE-1M2A/S. The only difference is that the /L has an 8.5 inch upper cable for connection to the helmet kit while the /S has a 1 inch upper cable. We will refer only to the /L throughout the manual for brevity. The *complete* Liberator Wireless Police Motorcycle Portable-only ComKit (See Fig 1) is comprised of three components; a KE-Series Helmet Kit, the MW\_-31<sup>2</sup> Handlebar PTT transmitter and SWE-1M2A/L SuperMic that acts as both the wired interface to the Motorola JEDI<sup>1</sup> Series portable radio and the wireless receiver for the handlebar mounted MW\_-31<sup>2</sup> Handlebar PTT that transmits the PTT signal. The Liberator ComKit allows motor officers to activate the PTT function of their belt worn portable radio through use of a wireless link. This eliminates the need for a hardwired PTT connection that has traditionally tethered the motor officer to the motorcycle while mounted.

#### 2.0 COMPONENTS

A complete ComKit should include a SWE-1M2A/L Liberator Wireless SuperMic, a KE-Series Helmet Kit and a MWH-31 Motorcycle Wireless PTT Cable Kit if you ride a Harley-Davidson<sup>2</sup>, see Fig 1. The Half-Shell Hemet Kit is shown but the interface is the same for any KE-Series Three-Quarter Shell or Full-Face Helmet Kit. The Liberator Portable-only SuperMic is backwards compatible with any Setcom KE-Series Helmet Kit. You may already have a KE-Series helmet kit or have ordered and received a KE-Series Helmet Kit with your other Wireless ComKit components. In any case, you will need to interface a Setcom KE-Series Helmet Kit to the SWE-1M2A Liberator SuperMic. **If you have a Setcom SK, K, KA Series helmet kit, or a non-Setcom brand helmet kit, it will not work with the SWE-1M2A/L Liberator SuperMic!** Before starting, check components ordered against those received and if there is a discrepancy, or if you do not have a KE-Series Helmet Kit and a MW\_-31<sup>2</sup> Series Wireless Motorcycle Cable Kit, have a copy of the packing list or invoice available and call:

**888-6Setcom (888-673-8266) ext 203.**



#### 3.0. MOUNTING THE HANDLEBAR PTT

Mounting instructions for the version of the MC\_-31<sup>2</sup> Wireless Motorcycle PTT Cable Kit you purchased are included with that component.

<sup>1</sup>Motorola JEDI Series Family of portable radios include the GP1200, GP900, GP9000, HT1000, HT1100, JT1000, MT1500, MT2000, MT2100, MTS2000, MTX8000, MTX838, MTX900, MTX9000, MTX960, MTX-LS, PR1500, PTX1200, XTS1500, XTS2500, XTS3000, XTS3500 and XTS5000.

<sup>2</sup>Setcom Motorcycle Cable Kits identify the make and model of the motorcycle by a one letter code. The letter H is for Harley-Davidson and the full part number would be MWH-31. A BMW Police Twin would be MWB-31, a Honda 1300 Police Motor is a MWD13-31.

## 4.0 LIBERATOR SUPERMIC

### 4.1 General Description

The SWE-1M2A comes in both a Long Upper Cable and Short Upper Cable version. The Long version is the SWE-1M2A/L and provides an 8.5 inch upper cable (the cable the helmet kit plugs into See Fig 1). The Short version is the SWE-1M2/S and provides a 1 inch upper cable; both versions provide these features:

- Wireless PTT signal reception from the handlebar PTT transmitter.
- No sync time or rider action is required to activate the wireless PTT circuit. If the MW\_-31<sup>2</sup> is wired to the accessory buss of the motorcycle ignition, the wireless circuit is active as soon as the ignition is switched on.
- The Liberator SuperMic draws its power from the portable radio battery and only uses 15 minutes of portable radio battery power over an eight hour shift.

### 4.2 Connection to the radio

The Liberator SuperMic connects to any Motorola JEDI<sup>1</sup> Series Portable Radio through the adapter port. With the helmet kit not plugged into the SuperMic, connect the adaptor to the portable; this will mute the internal mic and speaker of the portable. Firmly set the small locking screw on the top of the adapter as this will help prevent damage to the connector and/or loss of communication.

### 4.3 Operation

- Turning on the portable will power both the radio and SuperMic. The officer can use the Liberator SuperMic in normal speaker-mic mode at this point by keying the PTT on the side of the SuperMic to transmit. Optionally, there is a radio PTT button mounted on the radio adapter.
- Before plugging in the helmet kit, **turn down the radio volume control to a low level**. When the helmet kit is jacked into the upper cable, the internal microphone and speaker in the SuperMic are automatically muted. All communication is now through the helmet kit boom mic and speakers. Adjust the volume to a level that is comfortable while wearing the helmet.
- While dismounted, the officer continues to key the portable by keying the PTT on the SuperMic or the radio adapter. As soon as the officer is mounted and the ignition is turned on, the wireless link will be active. All Manual PTT options operate in parallel and remain active.

#### 4.4 Code Selection

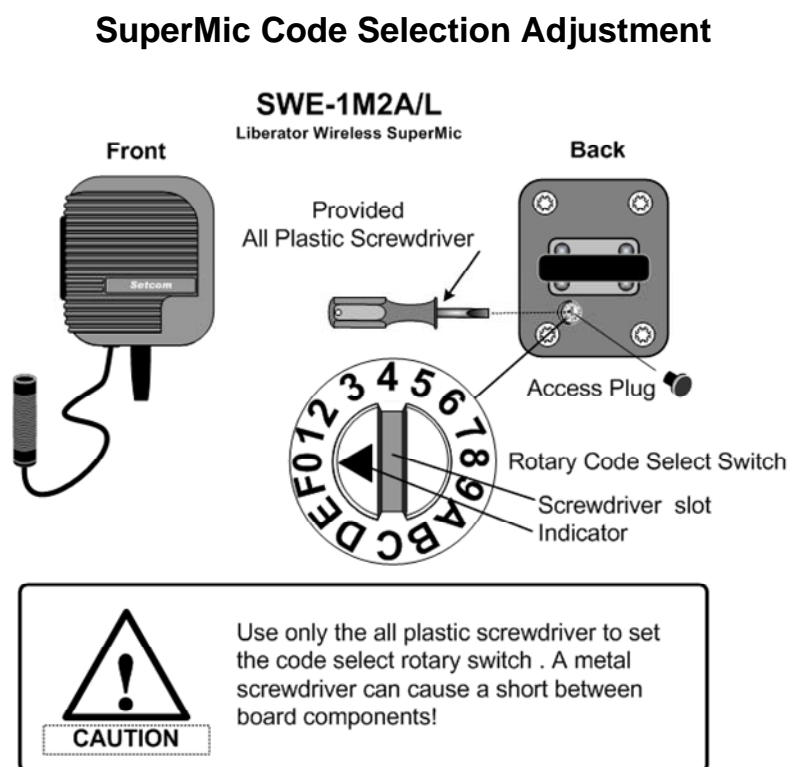
4.4.1 Code Selection Process The MW\_-31 Transmitter and the SWE-1M2A/L Receiver both have 16 codes. All components are set to Code 0 before leaving the factory. If for any reason there is interference from another device on the preset Code 0, both components can be reset to any one of the other 15 codes.

- Both the receiver located in the SWE-1M2A/L and transmitter located in the MW\_-31 **must be set to the same code.**
- Disconnect the SuperMic from the radio before resetting the Code.
- To access code selection on Liberator SuperMic, remove the access plug located on the back of the Liberator SuperMic as shown in Fig 2. The plug can be removed by sliding your fingernail, or the provided all plastic screwdriver, under the edge of the access plug and pulling straight back.
- There is a small black triangle on the code select switch indicating which code the switch is set to. There is also a slot for the provided, small, all-plastic screwdriver. Rotate the arrow until it points to the desired code. **CAUTION, use only the provided all plastic screwdriver to set the code select rotary switch.**
- To reset the MW\_-31 Series Wireless Motorcycle Cable Kit (PTT transmitter) Follow the instructions in the MW\_-31 Installation and Operating instructions

#### 4.4.2 Code Blocks

- For departments with more than 16 motorcycles, different code blocks are used to prevent an officer from keying another officer's radio.
- Setcom's Liberator Portable-only configuration can support up to 512 different codes. This is accomplished by having 32 different code blocks with each block having 16 different codes. Code blocks are designated by a C00, C01, thru C31 suffix to the base MC\_-31 Part Number. For example, MCH-31-C11 calls out a Harley-Davidson Wireless Motorcycle Cable Kit-Code Block 11. The default code block is C00. Wireless Motorcycle Cable Kits featuring the default code block will display only the basic part number, i.e. MWH-31.
- Insure that the code block for the MW\_31 transmitter and the SWE-1\_\_ receiver match. If the code blocks do not match, the transmitter will be unable to key the portable radio. For example, a MW\_-31 with a Code of "0" on the Rotary Select Switch (as depicted in Fig 2) and a Code Block of C00 will not work with a SWE-1\_\_ with a Code of "0" but a Code Block of C07.
- Changing the Code on the matched MW\_-31/SWE-1\_\_ can be done in the field by the officer.
- Changing the Code Block, while not anticipated, can be accomplished by an authorized Setcom repair facility for a nominal charge.

Fig 2



5.0 Troubleshooting

Problem	Items to Check
<p>Handlebar PTT does not key the portable radio</p>	<p>-Insure that you have compatible components</p> <ul style="list-style-type: none"> <li>• SWE-1 Series Liberator SuperMic (must be connected to the portable radio)</li> <li>• MW_-31 Handlebar PTT</li> </ul> <p>-Insure portable is turned on and can be keyed manually by keying the PTT on the side of the SuperMic. Check to insure the connector is firmly attached and the locking screw is in place. If SuperMic will not key the radio manually, remove the SuperMic and try keying the portable by using the radio's PTT button. If the radio still will not key the problem is in the radio.</p> <p>-Insure the MWH-31 and the SWE-1M2A/L. are set to the same Code and Code Block. See Par 4.4 Code Selection of these instructions and the appropriate section of the SWE-1 Series SuperMic Installation Instructions.</p> <p>-Insure that MWH-31 is connected to a 12VDC power source and the ignition switch is turned on. Check the connection point of the MW_-31 power lead with a voltmeter to insure it is receiving 12 volt DC power. If there is no power with the ignition switch on, relocate the lead to different location that has power.</p>
<p>Radio keys while mounted without keying the handlebar PTT.</p>	<p>-Insure that the SuperMic is not being worn in a manner that can cause an unintended key of either the SuperMic PTT button or the PTT button on the radio adapter.</p> <p>-Check to insure the cable between the handlebar PTT button and the wireless transmitter is not cut, kinked, or otherwise damaged. If moving the cable around causes the radio to key there is most likely broken conductors shorting together causing an intermittent false keying.</p> <p>-Change the code on both the MW-31<sup>2</sup> and the SWE-1 Series SuperMic.</p>

**5.0 Troubleshooting (continued)**

<b>Problem</b>	<b>Items to Check</b>
Radio keys while dismounted and away from the motorcycle without keying the SuperMic or connector mounted PTT.	-Insure that the SuperMic is not being worn in a manner that can cause an unintended key of either the SuperMic PTT button of the PTT button on the radio adapter. -Check the lower cable and the auxiliary remote PTT pigtail on the SuperMic for damage. Tryng working the cables to see if there is an intermittent short. -Change the code on both the MWH-31 and the SWE-1M2A/L. -Remove fuse from the power lead for the MWH-31. If this solves the problem contact Tech Support at:

**6.0 TECHNICAL SUPPORT**

If you have any problem installing or operating this ComKit, have a copy of the packing list or invoice available and write down the Setcom PN from the label on each component then contact Setcom Technical Support at:

**1-888-6SETCOM (888-673-8266) ext 732 (1-650-965-8020-732 for international calls) or  
email: tech@setcomcorp.com**

**7.0 WARRANTY**

Setcom's Standard One Year Limited Warranty covers this product. If product is found to be defective during the warranty period it must be returned to Setcom for repair or replacement, do not attempt to repair in the field without discussing with Setcom Tech Support as this may void the warranty. Include a copy of the packing list or invoice, a brief description of the problem, your name, contact number and email address (if you have one). Package defective parts carefully and return them by traceable means to:

**Setcom Corporation, 1400 N. Shoreline Blvd., Mtn. View, CA 94043 Attn.: Warranty Service**