

M-200 (VHF) M-300 (UHF) SM-216 (VHF PLL) SM-316 Phs (UHF PLL)

VHF/UHF Belt-Pack Transmitters

**Operating Manual** 



CHIAYO ELECTRONICS CO., LTD. FCC ID: CINSM-216 EXHIBIT #:





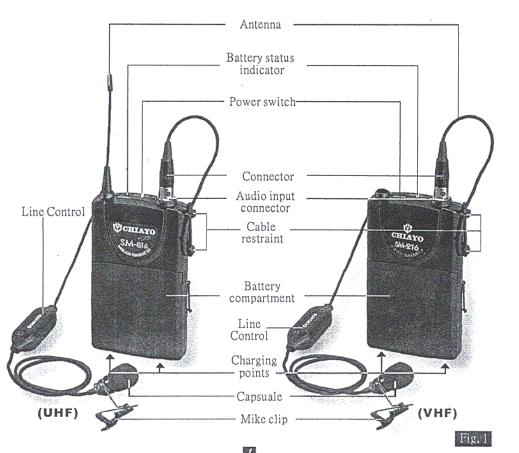
## General

Thank you very much for choosing the Chiayo belt-pack transmitter. For it to work, you need to have a corresponding Chiayo wireless receiver in the same frequency.

Four different transmitters (see table below) are sharing this operating manual, please go through it thoroughly before operation.

	Band	Frequency	Deviation	Antenna	Battery
M-200	VHF	Fixed	Narrow band	Via Audio Cable	1.5V * 3
M-800	UHF	Fixed	Wide band	Yes	1.5V * 3
SM-216	VHF PLL	16	Wide band	Via Audio Cable	1.5V * 3
SM-816	UHF PLL	16	Wide band	Yes	1.5V * 3

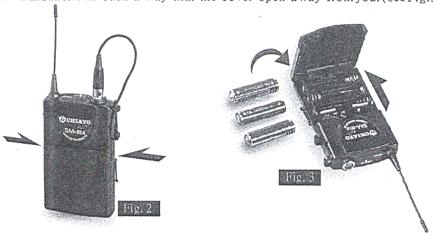
The basic operations of all the above transmitters are almost the same. However, sometimes they use different connectors to suit different requirements.



# **Operating instruction**

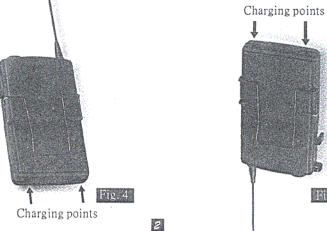
#### **INSTALLATION OF BATTERIES**

This transmitter uses 3 pieces of "AA" size batteries (Alkaline battery is recommended). To install or remove the batteries, press the release buttons at the edges of the transmitter to open or close the cover as illustrated (Fig.2). When installing the batteries with the cover open toward you, the cover might block your hand. It is thus recommended that while inserting or removing the batteries you should hold the transmitter in such a way that the cover open away from you. (see Fig.3)



#### Installation of Belt-clip

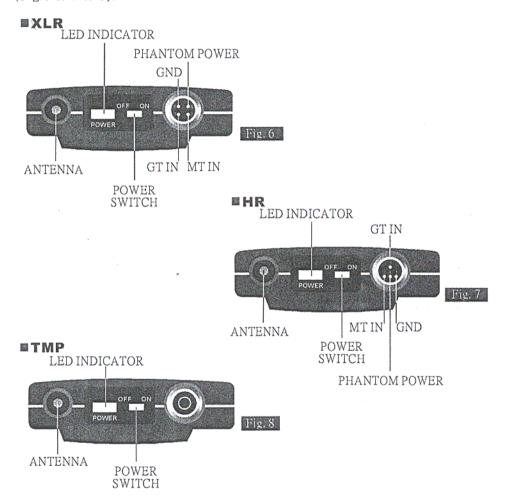
This specially designed detachable belt-clip allows the user to wear the transmitter with antenna pointing upward or downward as illustrated. To wear the transmitter with the transmitter pointing upward, install the belt-clip as in Fig.4. To wear the transmitter with the antenna pointing downward, please install the belt-clip as in Fig.5.





# $In stall at ion of \ Lavalier/Head set microphones or instrument inputs.$

Depending on customer requirements, Lavalier / Headset microphone or instrument inputs could be connected to the transmitter via the audio input connector. User is free to choose the various input sources but is advised to take note that connector used must be compatible to each other. The pin configurations of various connectors are as follow (Fig. 6 & 7 & 8).



#### Installation of cable restraint

To prevent contact noise caused by constant tension applied to the connector,, a cable restraint is designed such that tension is totally reduced when it is properly used (see Fig.9).

When the audio cable go through the cable restraint, it could prevent sweat from going diectly into the electronic board via the connector. This is another advantage of the cable restraint.



#### Channelselection

Channel selection is possible only for SM-216/SM-816 plus transmitters. To change channel, please open the battery cover and access the rotary switch to select channel with a small screwdriver. (Fig.10)

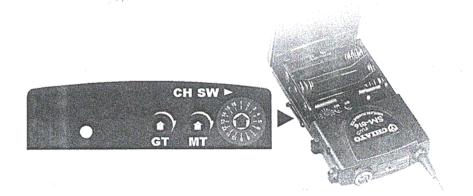


Fig. 10



#### Line Control

This is a Chiayo unique Line Control. The purpose of the Line, Control is to control:

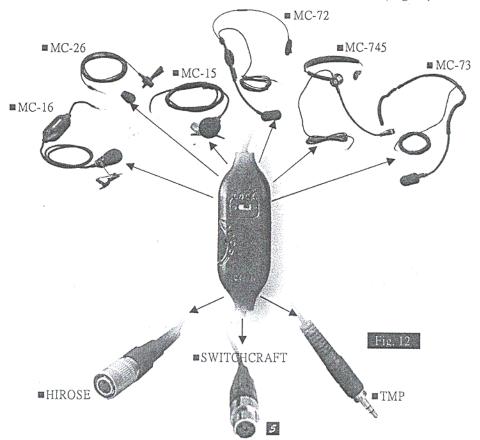
- Max.gain before feedback
- Remote control of the Gain

The Line Control is designed such that when Max. Gain before feedback is achieved, a disable switch could lock out the function of the Line Control to prevent accidental

adjustment of the control. (Fig.11)



There is another advantage of the Line Control as it could seerve as an adapter between different Lavalier/Headset and connectors as illustrated below. (Fig.12)



#### Input Level Gain Control Adjustment

Low impedance (Lo-Z) "MT" & high impedance (Hi-Z) "GT" gain controls are situated inside the transmitter as shown in Fig 10. Gain controls are adjustment ports that enable you to use microphones of differing output levels and Guitar or instruments with Hi-Zoutput. To adjust microphone (Lo-z) input levels, turn the "MT" control and to adjust the Guitar or instrument (Hi-Z) input, adjust the "GT" gain control to set the transmitter's desired audio input level.

#### Caution and tips on how to obtain the best results.

- 1. Before inserting the batteries, please make sure that they aare inserted according to the correct polarity.
- 2. For PLL 16 frequencies agile version, before operation please make sure that the corresponding receiver MUST have the same frequency group and channel number as the transmitter.
- 3. For fixed frequency version, before operation please make sure that corresponding receiver MUST have the same frequency as the transmitter.
- 4. Before making any channel change, please switch off the power supply. The synthesized program works in such a way that a change of channel will only take place after a power off and on action. Otherwise, the previously selected frequency will stay unchanged.
- 5. After making a channel change, please make sure that the corresponding change is made on the matching receiver also. To be exact, changes MUST be made at both the transmitter and receiver.
- 6. The audio cable of M-200 and SM-216 also serve as antenna. The length of the cable is cut according to the specific frequency range. Do not alter the length or mix around the cable of different transmitters. The use of wrong audio cable will affect the antenna efficiency of the transmitter!
- 7. Use only brand new Alkaline batteries. Do not use "general purpose" batteries. When batteries are weak, replace the three batteries altogether at the same time. Do not mix and use new and old batteries together.
- 8. Position the receiver such that it has the least possible obstructions between it and the transmitter. Line of sight is best!
- 9. The transmitter and the receiver should be as close as possible but not less than 1 m.
- 10.A receiver cannot receive signals from two or more transmitters simultaneously.
- 11. Turn the transmitter off when it is not in use. Remove the batteries if it is not to be used for a period of time.



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