

GPS SPEAKER MICROPHONE / GPS 扬声器麦克风

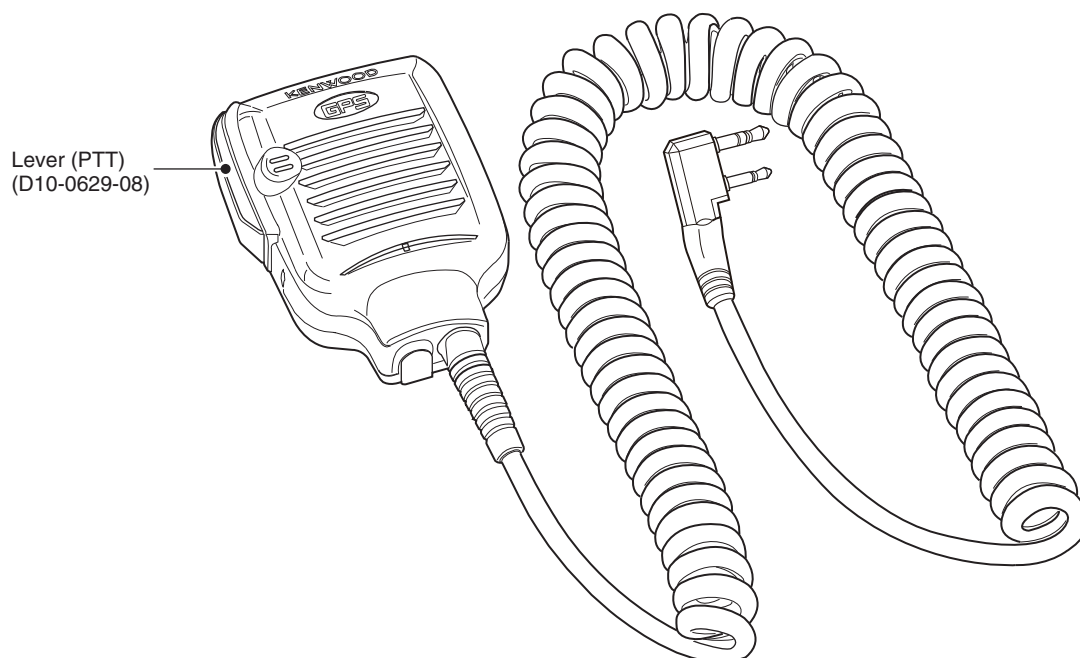
KMC-48GPS

SERVICE MANUAL / 维修手册

KENWOOD

Kenwood Corporation

© 2010-8 PRINTED IN JAPAN
B51-8932-00 (Y) PDF



无铅焊接通信产品



保护环境建伍领先

⚠ 注意：本产品是无铅化焊接产品
在维修时请使用无铅焊锡
和相应的焊接工具
详细事项请访问如下网址了解：
<http://www.kenwoodhk.com.hk/>



KMC-48GPS

Document Copyrights

Copyright 2010 by Kenwood Corporation. All rights reserved.

No part of this manual may be reproduced, translated, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, for any purpose without the prior written permission of Kenwood.

Disclaimer

While every precaution has been taken in the preparation of this manual, Kenwood assumes no responsibility for errors or omissions. Neither is any liability assumed for damages resulting from the use of the information contained herein. Kenwood reserves the right to make changes to any products herein at any time for improvement purposes.

文档版权信息

Kenwood Corporation 拥有版权 2010。保留所有权利。

未经 Kenwood 公司预先书面同意，无论出于何种目的，均不得以任何形式或任何方式包括电子、机械、影印、录音或其他方式复制、翻译、分发或传播本手册的任何部分。

免责声明

Kenwood 公司在准备本文档时已采取所有必要的预防措施，恕不对错误或疏漏承担任何责任，也不对因使用本文档中所含的信息而导致的损害负责。Kenwood 公司保留出于改进的需要而随时对文中的产品信息做出更改的权利。

SPECIFICATIONS / 规格

General

Operating temperature range-30°C~+60°C

Microphone

Impedance 2.2kΩ (max)

Sensitivity -45dB±5dB at 300Hz

Speaker

Impedance16Ω±15% at 1.2kHz

Rating input 0.8W

Maximum input 1.6W

Dimensions (W x H x D) 62 x 81 x 36 mm

WeightApprox. 230g

GPS Receiver

Receiver systemParallel 12 channels

Receiver frequency

..... 1575.42MHz±1MHz, L1 band, C/A code

GPS data format Compatible with NMEA 0183

GPS data update cycle..... Every 1 second

概述

温度范围-30°C到 +60°C

麦克风

阻抗2.2kΩ (最大值)

灵敏度 -45dB±5dB (300Hz 下)

扬声器

阻抗16Ω±15% (1.2kHz 下)

额定输入0.8W

最大输入1.6W

尺寸 (宽 x 高 x 深)62 x 81 x 36 mm

重量 约 230g

GPS 接收机

接收机系统 并行 12 通道

接收机频率

.....1575.42MHz±1MHz, L1 波段, C/A 码

GPS 数据格式 兼容 NMEA 0183

GPS 数据更新周期 每隔 1 秒

HOW TO REPLACE THE INTERNAL BATTERY / 如何更换内部电池

If a Cold Start occurs frequently (the transceiver cannot start GPS positioning after the transceiver is turned ON) even though the transceiver has been continuously used, the internal battery may be degraded. When the internal battery terminal is less than 1.4V after charging, use the following procedure to replace the internal battery.

CAUTION: THE OPERATOR MUST WEAR AN ANTISTATIC BAND WHEN REPLACING THE BUILT-IN BATTERY IN ORDER TO PREVENT STATIC DISCHARGE. THE INSTALLED IC MAY BE DAMAGED BY A DISCHARGE OF STATIC ELECTRICITY.

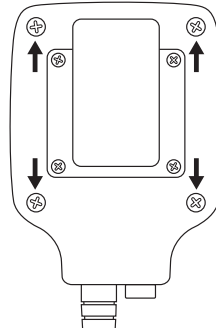
如果手持对讲机一直在使用，但仍然会经常发生冷启动的情况（打开手持对讲机后，扬声器无法启动 GPS 定位功能），则说明内部电池性能质量可能已有所降低。

如果充电后内部电池端子的电压小于 1.4V，请按照以下步骤更换内部电池。

注意：更换内部电池时，操作人员须戴上防静电环，以防发生静电放电。这种静电放电现象有时会损坏安装的 IC 集成电路。

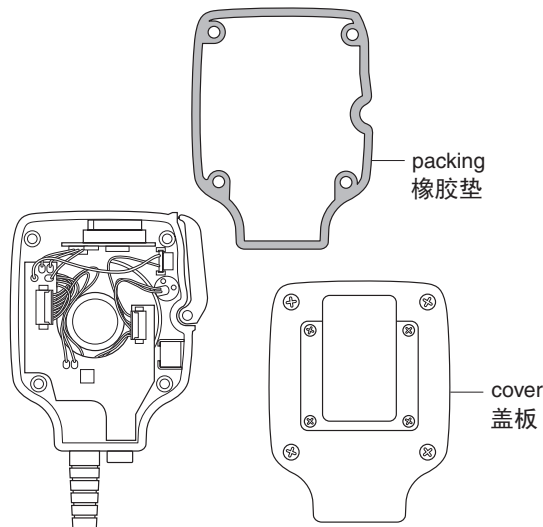
1. Remove the KMC-48GPS from the transceiver and 4 screws on the rear panel.

1. 将 KMC-48GPS 从手持对讲机上卸下，然后拧下后面板上的 4 颗螺丝。



2. Remove the cover and packing.

2. 去掉盖板和橡胶垫。

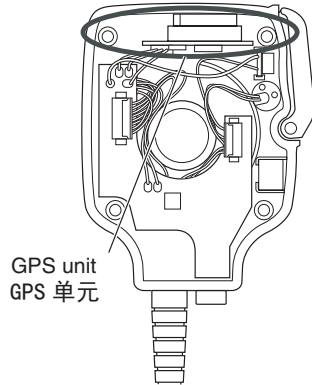


KMC-48GPS

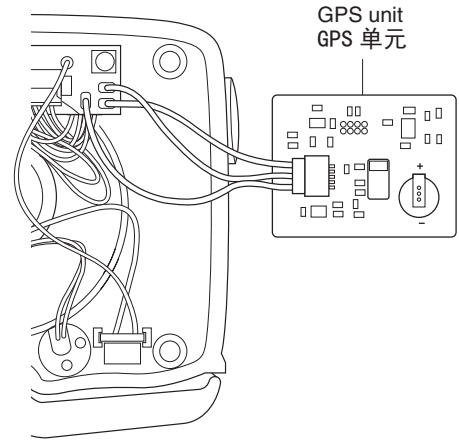
HOW TO REPLACE THE INTERNAL BATTERY / 如何更换内部电池

3. Remove the GPS unit installed in the upper part of the microphone.

CAUTION: DO NOT DAMAGE CABLES WHEN REMOVING THE GPS UNIT.



3. 将安装于麦克风上部的 GPS 单元卸下。
注意：卸下 GPS 单元时，切勿损坏电缆。



Note: Remove cables connected to the GPS unit, if needed.

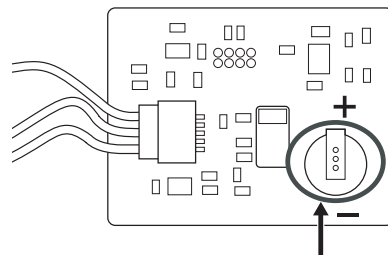
注：必要时，请拔下连接在 GPS 单元上的电缆。

4. Remove the internal battery in the GPS unit by using the soldering iron. Replace the battery with a new battery.

CAUTION: BE SURE THE POLARITY OF THE BATTERY BEFORE INSTALLING IT.

4. 使用电烙铁将 GPS 单元中的内部电池取出。更换新的电池。

注意：安装前，应确保电池的极性正确无误。



internal battery / 内部电池

5. Reinstall the GPS unit, packing and cover.

5. 请重新安装 GPS 单元、橡胶垫和盖板。

CIRCUIT DESCRIPTION / 电路说明

The location data is calculated by the GPS unit and is then sent to the transceiver via the RXD terminal of the 2-pin connector.

When the transceiver is turned OFF, the GPS unit enters to backup mode and the power is supplied by the internal rechargeable lithium battery.

When the transceiver is turned ON, the GPS unit enters to normal operation mode and the power is supplied from the transceiver via the 5M terminal of the 2-pin connector. While the transceiver is turned ON, the internal rechargeable lithium battery charges.

It takes approximately 40 seconds to calculate the location data when the GPS unit is "cold started" (full initialization).

GPS 单元将计算位置数据，然后通过 2 插脚连接器的 RXD 端子将其发送给手持对讲机。

当手持对讲机关闭时，GPS 单元就会进入备用模式，此时将由内部可充电锂电池为其供电。

当手持对讲机打开时，GPS 单元便恢复到正常操作模式，此时将通过 2 插脚连接器的 5M 端子由手持对讲机为其供电。

在手持对讲机打开的情况下，内部可充电锂电池将进入充电状态。

在 GPS 单元“冷启动”（完全初始化）的情况下，计算位置数据大约需要 40 秒的时间。

RESETTING THE GPS UNIT / 复位 GPS 单元

When the KMC-48GPS cannot determine the position in a situation where GPS data is received, use the following procedure to reset the GPS unit.

Reset the GPS unit by removing the internal battery and then re-installing it. (To remove the internal battery, refer to "HOW TO REPLACE THE INTERNAL BATTERY".)

如果收到 GPS 数据时 KMC-48GPS 无法确定所在的位置，请按照以下步骤重置 GPS 数据。

取出内部电池并重新装好，从而重置 GPS 单元。（有关取出内部电池的信息，请参阅“如何更换内部电池”。）

GPS OPERATION CHECK METHOD AFTER REPAIRS / 维修后的 GPS 操作检查方法

The GPS function cannot be confirmed with the transceiver; confirm it on the system side.

手持对讲机不能确认 GPS 功能；请使用系统确认该功能。

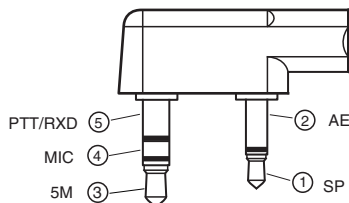
Note :

- The KMC-48GPS has an internal battery to backup the built-in pinpointing data. When the internal battery is charged, the transceiver will retain the pinpointing data (the last positional information) for approximately 20 days. (When used for the first time, it takes approximately 10 hours to fully charge the internal battery.)
- When the internal battery is in the discharged state, pinpointing data returns to its initial value. When the positional information is at its initial value while turning on the transceiver, the life cycle of the internal battery is considered.

注：

- KMC-48GPS 上有一块内部电池，用于备份内置定位数据。当内部电池上有电时，手持对讲机将会保留定位数据（上一次的定位信息）大约 20 天（初次使用时，大约需要 10 小时才能给内部电池充满电）。
- 当内部电池没电时，定位数据将恢复为初始值。如果打开手持对讲机时定位信息处于初始值状态，应注意内部电池是否已达到使用期限。

TERMINAL FUNCTION / 端子功能



2-pin connector

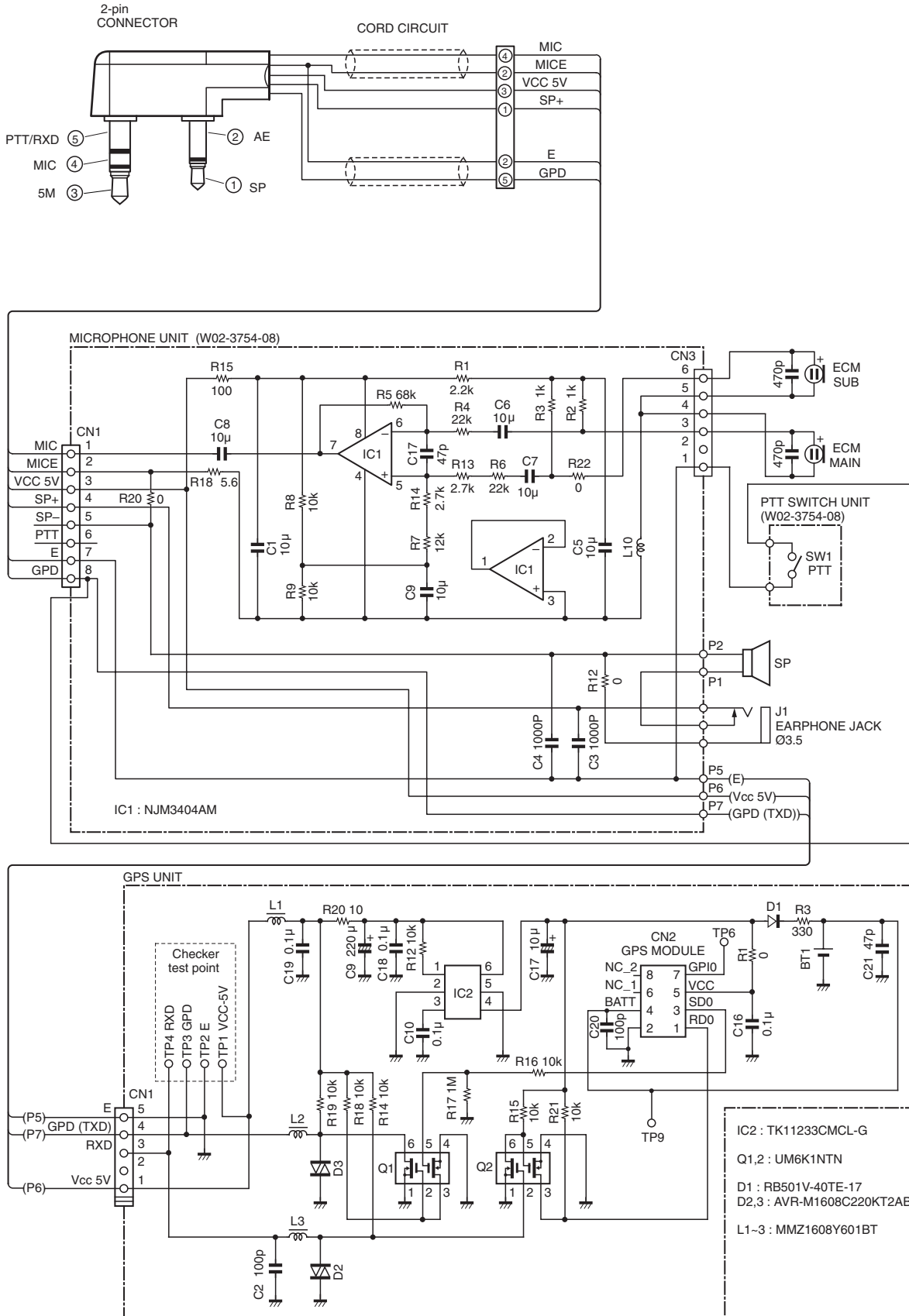
Pin No.	Name	I/O	Function
1	SP	I	Input from AF AMP
2	AE	-	GND
3	5M	I	5V DC input
4	MIC	O	Microphone output
5	PTT/RXD	O	PTT output/GPS data output

2 插脚连接器

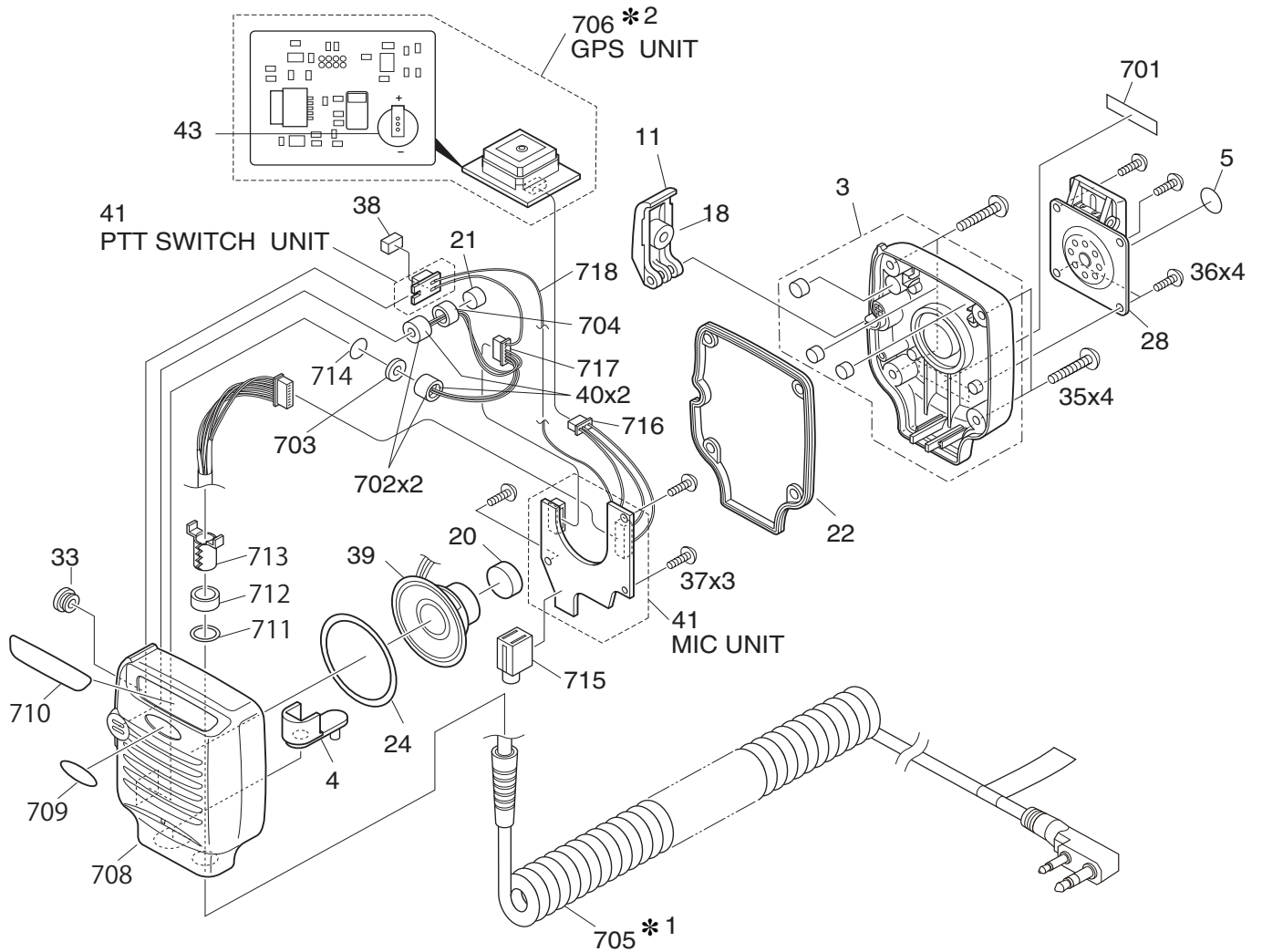
号码	名称	I/O	功能
1	SP	I	音频输入
2	AE	-	地
3	5M	I	5V 直流输入
4	MIC	O	麦克风输出
5	PTT/RXD	O	PTT 输出 /GPS 数据输出

KMC-48GPS

SCHEMATIC DIAGRAM / 原理图



EXPLODED VIEW / 部件分解图



*1: In order to maintain the waterproofing performance, the cord ASSY with plug cannot be replaced.
 *2: The GPS unit cannot be replaced.

*1: 为了保持防水性能, 不能更换带插头的 ASSY 线。
 *2: 不能更换 GPS 单元。

Parts with the exploded numbers larger than 700 are not supplied.

编号大于 700 的零件不提供。

KMC-48GPS

PARTS LIST / 零件表

KMC-48GPS

Ref. No.	Address	New parts	Parts No.	Description	Destination
KMC-48GPS					
3			A02-3988-08	PLASTIC CABINET ASSY (REAR)	
4			B09-0382-08	CAP (PHONE)	
5			B42-7312-04	STICKER	
11			D10-0629-08	LEVER (PTT)	
18			G13-1638-08	CUSHION (PTT LEVER)	
20			G13-2201-08	CUSHION (SPEAKER)	
21			G13-2202-08	CUSHION (MAIN ECM)	
22			G53-0820-08	PACKING (CASE)	
24			G53-0834-08	PACKING (SPEAKER)	
28			J29-0644-08	CLIP ASSY	
33			K29-5217-18	KEY TOP (PTT)	
35			N09-6542-08	TAPTITE SCREW (CASE)	
36			N46-2605-60	PAN HEAD TAPPING SCREW (CLIP)	
37			N80-2005-43	PAN HEAD TAPTITE SCREW (PCB)	
38			S70-0471-08	TACT SWITCH	
39			T07-0359-18	SPEAKER	
40			T91-0584-08	MIC ELEMENT	
41		*	W02-3754-08	ELECTRIC CIRCUIT MODULE (MIC, PTT SW UNIT)	
43		*	W09-1072-08	LITHIUM CELL	

Kenwood Corporation

2967-3, Ishikawa-machi, Hachioji-shi, Tokyo, 192-8525 Japan

Kenwood U.S.A. Corporation

P.O. BOX 22745, 2201 East Dominguez Street, Long Beach, CA 90801-5745, U.S.A.

Kenwood Electronics Canada Inc.

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8

Kenwood Electronics Deutschland GmbH

Rembrücker Str. 15, 63150 Heusenstamm, Germany

Kenwood Electronics Belgium N.V.

Leuvensesteenweg 248 J, 1800 Vilvoorde, Belgium

Kenwood Electronics France S.A.

L' Etoile Paris Nord 2, 50 Allée des Impressionnistes, Bp 58416 Villepinte, 95944 Roissy Ch De Gaulle Cedex

Kenwood Electronics UK Limited

KENWOOD House, Dwight Road, Watford, Herts., WD18 9EB United Kingdom

Kenwood Electronics Europe B.V.

Amsterdamseweg 37, 1422 AC Uithoorn, The Netherlands

Kenwood Electronics Italia S.p.A.

Via G. Sirtori, 7/9 20129 Milano, Italy

Kenwood Ibérica, S.A.

Bolivia, 239-08020 Barcelona, Spain

Kenwood Electronics Australia Pty. Ltd.

Talavera Business Park Building A, 4 Talavera Road, North Ryde NSW 2113 Australia

Kenwood Electronics (Hong Kong) Ltd.

Suite 2504, 25/F, Tower 2, Nina Tower, No. 8 Yeung Uk Road, Tsuen Wan, New Territories, Hong Kong

Kenwood Electronics Singapore Pte Ltd

1 Ang Mo Kio Street 63, Singapore 569110