HD-1000

TECHNICAL MANUAL/技术手册

GENERAL/概述

INTRODUCTION
SCOPE OF THIS MANUAL

This manual is intended for use by experienced technicians familiar with similar types of commercial grade communications equipment. It contains all required service information for the equipment and is current as of the publication date.Changes which may occur after publication are covered by either Service Bulletins or Manual Revisions. These are issued as required.

ORDERING REPLACEMENT PARTS

When ordering replacement parts or equipment information, the full part identification number should be included.This applies to all parts: components, kits, or chassis. If the part number is not known, include the chassis or kit number of which it is a part, and a sufficient description of the required component for proper identification.

PERSONAL SAFETY

The following precautions are recommended for personal safety:

• DO NOT transmit until all RF connectors are verified secure and any open connectors are properly terminated.
• SHUT OFF and DO NOT operate this equipment near electrical blasting caps or in an explosive
•This equipment should be serviced by a qualified technician only.

SERVICE

This radio is designed for easy servicing. Refer to the schematic diagrams, printed circuit board views, and alignment procedures contained within.

Number of channels	RF Power Output
199	0.5W/1W

引言
本手册的范围

本手册是提供给熟悉通信专业并且具有维修经验的技术人员使用的。它包括了维修该设备所 需要的全部资料和现行公布的数据。在出版后可能发生变动，如果需要，可以使用《维修通报》或《手册修订本》进行补充。

替换零件的订购

当订购替换零件或设备信息时，应注明完整的零件识别号码。所有的零件均有识别号码：元件、组件或机壳。如果不知道零件的号码，为了正确地识别，必须注明此元件所属的机壳或组件的号码，并对元件进行充分的说明。

个人安全
为了个人的安全，请注意下列事项：

• 在没有认真核实所有射频插头之前或有任何一个打开的插头没有连接到响应端子上的情况下，均不要发射。
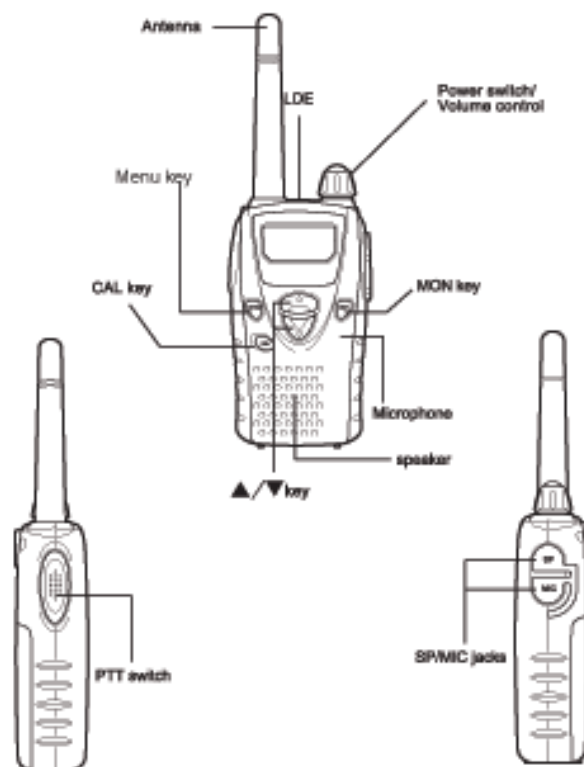• 在电爆管附近或在易燃性气体环境中，必须关掉电源，不要操作本设备
• 本设备只应该由有资格的技术人员来维修。

维修服务

为了便于维修本设备，建立了完整的维修服务体系，提供了包括原理图、印刷线路图和调整步骤在内的资料供参考。

信道数量	射频输出功率
199	0.5W/1W

REALIGNMENT/模式组合
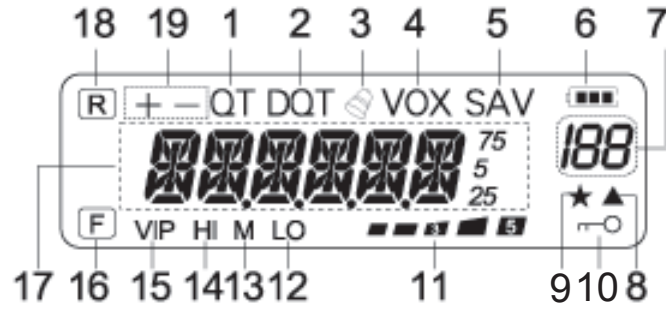
1. Antenna
2. LED indicator

   Lights red while transmitting. Lights green while receiving a signal. Flashes red when the battery voltage is low while transmitting.
3. PWR/VOL knob

   Turn clockwise to switch ON the transceiver. To switch OFF the transceiver, turn counterclockwise until a click sounds. Rotate to adjust the volume level.
4. LCD display

   For displaying operation status and other function.
5. Keypad

   For entering specified frequencies and other functional data.
6. Speaker/Microphone

   Acts as a speaker and microphone.
7. MIC jack

   For connecting the hand free microphone set.
8. SP jack

   For connecting the hand free microphone set.
9. PTT key

   Press and then speak into the microphone to call a station. Release to receive.
10. CALL
11. MONI (monitor) key

   Press and hold to turn the squelch OFF, you will hear background noise. Release to turn the squelch

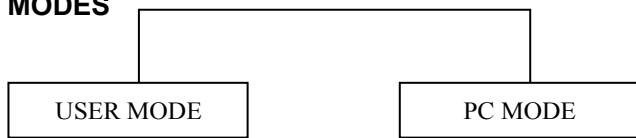1. 天线（ANT）

2. 状态指示灯（LED）在传送中点亮红灯。在接收信号中点亮绿灯。在传送中电池电压变化时闪烁红灯。

3. 电源开关/音量控制器（POWER/VOL）按顺时针方向转动时打开对讲机的电源。在关闭对讲机的电源时，按逆时针方向转动到卡嗒声响起。转动时可调节音量电平。

4. 液晶屏（LCD）

5. 按键（KEYPAD）

6. 扬声器/麦克风（SPEAKER/MICROPHONE）

7. 麦克风插孔（SP JACK）

8. 扬声器插孔（MIC JACK）

9. 发射开关（PTT）按下后对着麦克风讲话来呼叫对方。放开则进行接收。

10. 呼叫键（CALL）

11. 监听键（MON/MR/VFO）按住3秒时，静噪电路关闭。您将听到背景噪声。放开则重新打开静噪电路。

DISPLAY

1. Appears when the CTCSS function is activated
2. Appears when the DCS function is activated
3. Appears when the calling function is activated
4. Appears when the VOX function is activated
5. Appears when set the unit in saving mode
6. Displays the battery power remaining
7. Display the MENU No. and various No. for function setting
8. Appears when press【MON】key
9. Appears when the memory channel lockout function is ON
10. Appears when the lock function is ON
11. S-meter (RX) and TX Power Output indicator when the transceiver transmits.
12. Appears when low power is selected
13. Appears when medium power is selected
14. Appears when high power transmission is selected,
15. Appears when the vibration function is ON.
16. Appears when setting shortcut function.
17. Display the frequencies, Menu setting, Memory name and other information.
18. Appears when the reverse function is activated.
19. Appears when the offset frequency is ON.

1.当CTCSS功能启动时出现。
2.当DCS功能启动时出现。
3.当发出报铃时出现
4.当VOX功能打开时出现。
5.当设定节电模式时出现
6.电池电量指示
7.显示菜单编号和其它功能信息。
8.当按监听键时出现
9.当"存储信道锁定"功能打开时出现。
10.当"锁定"功能打开时出现。
11.S-meter（RX）信号强度表指示器（TX）。当对讲机发射时作为输出功率指示器。
12.当选择低功率时出现
13.当选择中功率时出现
14.当选择高功率发射时出现
15.当震动功能打开时出现
16.当按下功能键时出现。
17.显示频率 菜单 存储通道编号和状态。
18.当"倒频"功能启动时出现。
19 当差频打开时出现

MODES

```
              MODES
                │
      ┌─────────┴─────────┐
  USER MODE           PC MODE
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MODES	FUNCTION
User mode	For normal use.
PC mode	Used for communication between the radio and a PC

How to enter each mode

MODES	PROCEDURE
User mode	Power ON
PC mode	Receiver commands from PC

PC MODE

Preface

The HD-1000 transceiver can be programmed using a personal computer, A programming interface cable and programming software. The programming software can be used on an IBM PC or compatible. Fig-1 shows the setup of a PC for programming.

Caution:

When removing or installing the programming cable,first switch off the radio power.

Additionally, be sure to disable the VOX function, if it's enabled, as it can sometimes activate from connection noise.

Connection procedure

1. Connect the HD-1000 to the personal Computer using the interface cable.

2. When the POWER is switched ON, you can enter user mode.

Programming software description

The software allows a user to program the HD-1000 radios via the programming interface cable.

• Programming with IBM PC

If data is transferred to the transceiver from a PC with the software, the destination data (basic radio information) for each set can be modified.

模式

```
              模式
                │
      ┌─────────┴─────────┐
   用户模式            PC模式
```

模式类型	功能
用户模式	用于普通操作
计算机模式	Used for communication between the radio and a PC

模式类型	操作步骤
用户模式	打开电源开关
计算机模式	从计算机接收命令

计算机模式
前言

通过个人电脑，使用编程电缆和编程软件，对对讲机HD-1000进行编程设置。图1表示一台IBM计算机的编程设置过程。

注意

当拔除或者插入编程电缆首先关闭对讲机电源。另外，确保声控功能已关闭，如果声控被激活，可能有时会开启连接噪音。

连接步骤

1. 使用接口电缆将HD-1000与个人电脑连接。
2. 当电源开关打开，可以进入用户模式。

编程软件说明

该软件允许用户经由编程接口电缆对HD-1000进行编程设定。

使用IBM计算机编程

如果从使用软件的IBM计算机将数据发送到手持机，设定的目的数据（基本通信参数）均可被修改。

IBM-PC

RF Power meter or SSG
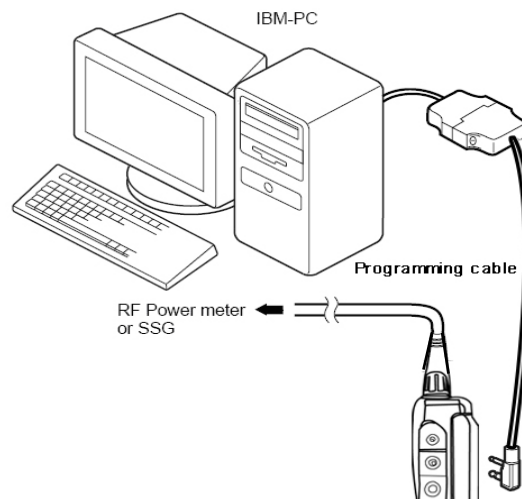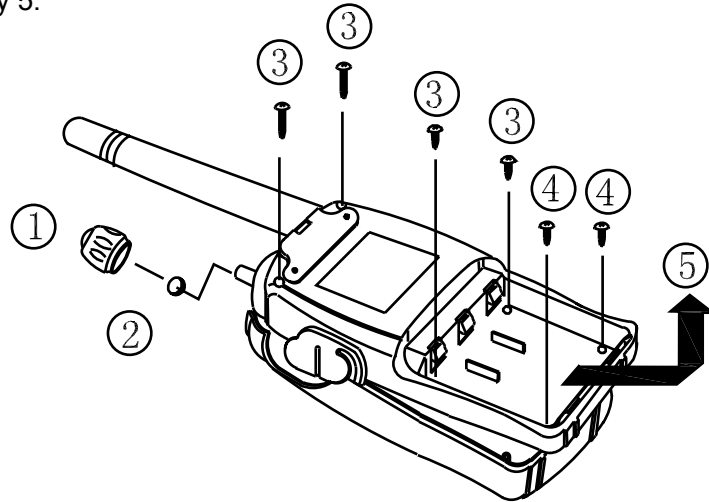
Programming cable

Fig. 1

DISASSEMBLY FOR REPAIR/维修时拆卸部分

Separating the case assembly from the chassis

1. Remove the knob 1 and the round nut 2
2. Remove the six screws 3 and 4
3. Expand the right and left sides of the bottom of the case assembly, lift the chassis, and remove it from the case assembly 5.
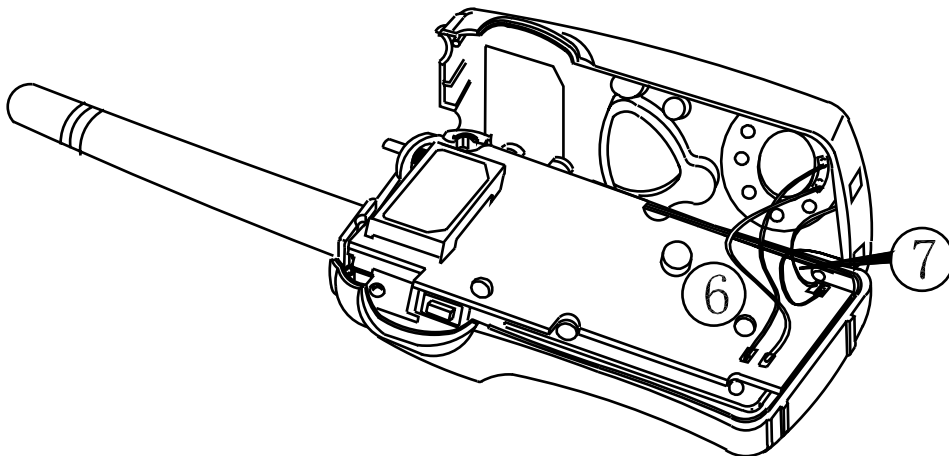
从底座上分离外壳
1. 取下旋扭 ① 和环形螺母 ②
2. 取下六颗螺钉③ 和④
3. 掀开外壳底部的左右两侧，取下底座，并外壳中取出⑤

4. Taking care not to cut the speaker lead 7, open the chassis and case assembly.

4. 小心不要折断扬声器引线⑦，拆下底座和外壳。

Separating the chassis from the unit

Remove the screws 8 and drop-out line, and lift the first unit off.

底座从主板上分离
取下螺钉⑧，然后取下主板.