DCH 德驰

支持1-4路无线视频

德驰肩带式系列遥控器使用说明书 V2.0

DCH Joystick Remote Control User Manual V2.0

（适用于肩带式系列）

(Applicable to joystick series)

德驰无线应用技术（上海）有限公司

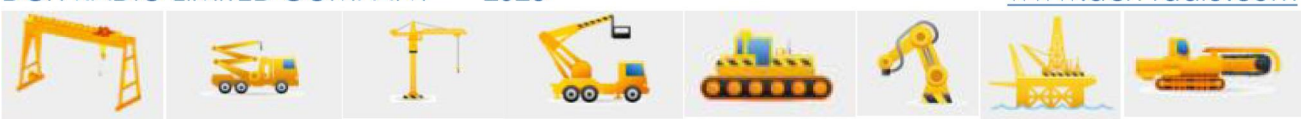
DCH RADIO LIMMITED COMPANY

欢迎使用德驰遥控器产品，我们的每套产品在出厂前都经过了严格的各项测试，请放心使用。Welcome to use DCH remote control products. Each of our products has undergone strict testing before leaving the factory. Please rest assured to use it.

在安装使用此产品前，请耐心阅读此说明书并清点包装箱内的各种配件和随机图纸，以免安装时电压不对，烧毁接收器。Before installing and using this product, please patiently read this manual and count the various accessories and accompanying drawings inside the packaging box to avoid incorrect voltage during installation and burning the receiver.

德驰是一家致力于工业无线遥控系统研发，生产，销售为一体的高新技术企业，我们的客户分布在很多行业，起重机设备，工程机械，建筑设备，高空作业设备，工程特种车辆，农林装备等普通行业，以及市政消防，矿山开采，隧道建设，港口海工，石油开采等特殊行业，德驰产品都有成熟的客户使用案例；德驰产品质量稳定可靠，并通过欧盟 CE 以及美国联邦通讯委员会 FCC 认证，目前德驰产品出口到全球许多国家和地区。DCH is a high-tech enterprise dedicated to the research and development, production, and sales of industrial radio remote control systems. Our customers are distributed in many industries, including crane equipment, construction machinery, construction equipment, high-altitude operation equipment, engineering special vehicles, agricultural and forestry equipment, as well as special industries such as municipal fire protection, mining, tunnel construction, port and marine engineering, and oil extraction, DCH products have mature customer using cases; DCH products are of stable and reliable quality, and have passed EU CE and FCC certification. Currently, DCH products are exported to many countries and regions around the world.

德驰产品有手持式遥控器，主要应用于远程控制起重机以及其他简单的设备，肩带式遥控器主要应用于远程控制较复杂的设备，如大吨位起重机，泵车，高空作业车，移动 AGV，盾构掘进机，消防车，移动破碎机等。德驰 R 系列接收器支持纯 IO 输出，模拟量输出，RS485 总线输出，RS232 总线输出，Can 总线输出，Profibus-DP 总线输出，PWM 输出，Canopen 总线输出，ProfiNet 总线输出，DeviceNet 总线输出，J1939 输出等。DCH products include handheld remote controllers, mainly used for remote control of cranes and other simple equipment. Shoulder belt remote controllers are mainly used for remote control of more complex equipment, such as large tonnage cranes, pump trucks, aerial work vehicles, mobile AGVs, shield tunneling machines, fire trucks, mobile crushers, etc. DCH R series receiver supports IO output, analog output, RS485 bus output, RS232 bus output, Canbus output, Profibus DP output, PWM output, Canopen output, ProfiNet output, DeviceNet output, J1939 output, etc.



1. 发射器参数　　型号：DCH-S24,M48,D24,D48,C24,V48 等型号

Transmitter joystick series parameter models: DCH-S24,M48,D24,D48,C24,V48 etc

更详细发射器参数可以向我司销售人员索取

尺寸：230mm×140mm×100mm(S 系列）
270mm*160mm*100mm(M系列）
270mm*160mm*100mm（D系列）
270mm*160mm*180mm（V系列）
具体型号请参考图纸
材质：PA6+30%GF
重量：1500-3000g（实际重量依据面板开关摇杆数量决定）
天线：内置或外置
启动方式：按启动按键 2s，或者拨动开关开机，具体参考图纸）
急停开关：蘑菇头式，符合 EN13849-1 标准
防护等级：IP65
操作元件：根据客户要求定制
智能钥匙：DCH iKey（相同型号遥控器钥匙互相通用）

Size: 230mm × 140mm × 100mm (S series)
270mm * 160mm * 100mm (M series)
270mm * 160mm * 100mm (D-series)
270mm*160mm*180mm（V series）
Please refer to the drawings for models
Material: PA6+30% GF
Weight: 1500-3000g (actual weight depends on the number of panel switch rocker rods)
Antenna: internal or external
Start method: Press the start button for 2 seconds, or toggle the switch to start the machine. Please refer to the drawing for details.
Emergency stop switch: mushroom head type, conforming to EN13849-1 standard
Protection level: IP65
Operating components: customized according to customer requirements
Smart key: DCH iKey (remote control keys of the same model are interchangeable)

控制距离：≥150 米（空旷环境，发射器和接收器均离地 1 米标准测试；
工作温度范围：-25℃~+70℃
中心频率范围：433-434MHz；
LED 显示屏：操作指示/电池状态等信息
可选 2.8 寸，3.5 寸，5 寸和 7 寸显示屏
电源供应：2500mah 或者 3500mah 锂电池
连续操作时间：24 小时以上（满电状态下使用）
充电器充满时间：专用充电器 3-4 小时
APO（自动关机）：标配不关机（可调）
增设功能：安全关机功能、LED 反馈功能、多对一功能、一对多功能、多对多功能、倾斜开关、震动报警、有线控制
典型应用：挖掘机，研磨机，喷浆机，布料机，湿喷机，卸船机，铺轨机，塔机，移动破碎机，泵车，盾构掘进机，消防车，布料机，链臂锯，凿岩机，特种机器人，工程车辆，特种钻探设备等其他需要远程控制的设备。

Control distance: ≥ 150 meters (in an open environment, the transmitter and receiver are both tested at a standard distance of 1 meter from the ground);

Working temperature range:
-25 ℃~+70 ℃
Center frequency range: 433-434MHz;
LED display screen: operation instructions/battery status and other information
Optional 2.8 inch, 3.5 inch, 5 inch, and 7 inch displays
Power supply: 2500mah or 3500mah lithium battery

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Continuous operation time: more than 24 hours (used when fully charged)

Charger charging time: 3-4 hours

APO (automatic shutdown): Standard for no shutdown (adjustable)

Additional features: safety shutdown function, LED feedback function
Multi to one function, one to multiple function, multi to multiple function, tilt switch, vibration alarm, wired control function etc,.

Typical applications: excavators, grinders, shotcrete machines, fabric spreaders, wet sprayers, ship unloaders, track laying machines, tower cranes, mobile crushers, pump trucks, shield tunneling machines, fire trucks, fabric spreaders, chain saws, rock drills, special robots, engineering vehicles, special drilling equipment, and other equipment that require remote control.

2. **R 系列接收器参数** 型号:DCH-BM;DCH-BC; DCH-BP;DCH-BN;DCH-P14;DCH-P28;DCH-P42;
更详细接收器参数可以向我司销售人员索取

型号：DCH-BM； DCH-BC； DCH-BP；DCH-BN；DCH-P14；DCH-P28；DCH-P42;
接收器：继电器，模拟量输出，Modbus RTU 485， Modbus RTU232，Can2.0，PWM，Canopen 输出，Profibus-DP 输出，ProfiNet 输出，DeviceNet 输出；SAE-J1939;等；
具体协议请参考图纸，如有必要，需要向我司销售人员索取；
输出接口：重载连接器、电缆可选
尺寸：具体参考图纸
外壳材质：工程塑料
防护等级：IP65
温度范围： -25℃~+70℃
频率范围： 433-434 MHz
LED指示灯：操作状态指示/射频信号
安装附件：4个缓震垫安装
LED指示灯：操作状态指示/射频信号
天线：外置(有些客户天线定制，具体参考图纸）
PWM 参数调节，请参考接收器面板说明或者向销售索取具体调节方法；
电源 Power supply：9-36VDC或30-420 VAC

If necessary, please ask our sales for details.Please refer to the drawings for the details agreement. If necessary, please ask our sales for details.
Output interface: heavy-duty connector, cable optional
Dimensions: refer to drawings for specific details
Shell material: engineering plastic
Protection level: IP65
Temperature range: -25 ℃~+70 ℃
Frequency range: 433-434 MHz
LED indicator light: operation status indicator/RF signal
Installation accessories: installation of 4 cushioning pads
LED indicator light: operation status indicator/RF signal
Antenna: External (some customers customize antennas, please refer to the drawings for details)
Power supply: 9-36VDC or 30-420 VAC

Model：DCH-BM； DCH-BC； DCH-BP；DCH-BN；DCH-P14；DCH-P28；DCH-P42;
Reciever output：Relay，AO，Modbus RTU 485， Modbus RTU232，Can2.0，PWM，Canopen ，Profibus-DP ，ProfiNet；SAE-J1939; ETC,.
Please refer to the drawings for the specific agreement.

3.**遥控系统安装操作**

Installation and operation of remote control system

3.1 安装说明

Installation instructions

按键式系列遥控器可以和各种规格型号的起重机或者设备配合使用

Handheld series remote control can be used in conjunction with various specifications and models of cranes or equipment

3.2 接收器安装注意事项

Remark for receiver installation

攀爬起重机时，请注意安全。安装前，请务必关掉起重机总电源，严禁带电安装。

当接收器附近有变频器时，接收器距离变频器必须大于 2 米，或将接收器装在屏蔽金属盒内，引出天线的距离尽量远离变频器。接收器天线尽量安装在较高，并空旷的地方，以免影响接收信号。

Please pay attention to safety when climbing the crane.Before installation, please be sure to turn off the main power supply of the crane, and live installation is strictly prohibited.When there is a frequency converter near the receiver, the distance between the receiver and the frequency converter must be greater than 2 meters, or the receiver should be installed in a shielded metal box, and the distance from the antenna should be as far away as possible from the frequency converter.The receiver antenna should be installed as high and open as possible to avoid affecting the reception signal.

3.3 发射器的安装

Installation of transmitter

电池的安装：安装前请检查电池的电量，避免电压不足导致无法开机

Battery installation: Please check the battery level before installation to avoid insufficient voltage that may cause the machine to fail to start.

4.技术支持维修与故障说明

Technical Support Maintenance and Fault Description

德驰无线应用技术(上海)有限公司每次出货产品为一套发射器对应一套接收器，其频率和地址码均设置对应关系，若客户采购两个发射器同时控制一个接收器，将可能出现两个操作工同时控制一台设备的情况，导致设备故障或出现不可预知的状况，此后果将由客户承担。Please be noted that each transmitter and receiver is matched one to one and the frequency and address code are preset correspondingly ,If the customer purchases two transmitters to control one receiver at the same time, there may be a situation where two operators control one device at the same time, resulting in equipment failure or unpredictable conditions. The consequences will be borne by the customer.

4.1 维护保养

1. 德驰遥控系统内高频模块部件，享受标准工作时 1 年免费维修（非人为损坏）
2. 对于其他部件提供一年保修，终身保修的服务。

4.2 Maintenance

1. The high-frequency module components in the Dechi remote control system enjoy one year of free maintenance during standard operating hours (non human damage)
2. Provide one-year and lifetime warranty services for other components.

4.2 常见故障判断及解决方案 Common fault issue and solutions

故障现象 Malfunction	可能原因 Possible reason	解决措施 Solution
发射器无任何反应 Transmitter does not respond	无供电电源或电量不足 No power supply or low battery	检查电池电量是否充足 更换发发射器电池 Check if the battery power is sufficient or replace transmitter battery
发射器一直亮红灯 Transmitter keeps flashing red	急停未旋起 Emergency stop unopen	旋起急停 Press up the emergency to turn it up
发射器闪绿灯，但接收器无动作 The transmitter blinks green, but the receiver no response	接收器故障 Malfunction of receiver	检查接收器是否正常通电 检查接收器与发射器编号是否一致 Check that the receiver is powered on normally Check whether the serial number of the receiver and transmitter is consistent or not(need to matched one to one)
有些按键没有动作 Some buttons do not work	接收器故障 Malfunction of receiver	检查接收器电缆线是否断开 Check if the cables of receiver is loose or disconnected
启动后闪绿灯后一直闪红灯 Flashing green light after startup and then flashing red light	智能芯片未识别 Intelligent key not recognized	检查智能芯片是否安装正确 Check whether the Intelligent key is installed correctly
发射器正常启动后，起重机会自动跳电 After the transmitter starts normally, the crane will automatically trip	出现同频率干扰 same frequency interference	更换智能芯片调开频率 Replace the Intelligent key

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information

The device has been evaluated to meet general RF exposure requirement.

The device can be used in portable exposure condition, compliance with exposure requirements.

5 安全须知 Safety instructions

5.1 用途 Purpose

无线遥控系统用来远程控制受控系统或受控设备，提升整个受控系统的操控的便利性和效率，提高操作人员的安全性。Wireless remote control systems are used to remotely control controlled systems or devices, improving the convenience and efficiency of the entire controlled system's operation, and improving the safety of operators.

警告信息

接收器内部带有高压部件，打开前请确保接收器电源已经断开。

在紧急情况下或者起重机，其他受控设备出现故障时，请立即按下发射器上的急停开关，系统进入安全状态。

禁止在传送人的设备上使用

禁止修改，移除和绕过无线系统中的安全回路；禁止对无线遥控系统整个急停回路中的任何一个部分进行改动。

无线无线遥控系统禁止在爆炸危险区域内使用

请勿同时使用 2 台或以上发射器同时操作同一台设备

请勿在同一个厂区使用同一个频率（或 300 米范围以内）避免互相干扰

Warning message

There are high-voltage components inside the receiver, please ensure that the power supply of the receiver has been disconnected before opening.

In emergency situations or when the crane or other controlled equipment malfunctions, please immediately press the emergency stop switch on the transmitter to enter a safe state of the system.

Prohibit use on the sender's device

Prohibit modification, removal, and bypass of safety circuits in wireless systems; It is prohibited to modify any part of the entire emergency stop circuit of the wireless remote control system.

The wireless remote control system is prohibited from being used in explosion hazardous areas

Do not use two or more transmitters simultaneously to operate the same device

Do not use the same frequency (or within a range of 300 meters) in the same factory area to avoid mutual interference

联系方式

公司名称：德驰无线应用技术（上海）有限公司
公司地址:上海市松江区赵家泾路 389 号
联系电话：021-67629680021-67629681
手机：18117350677（微信同号）
公司网站：www.dch-radio.com

Contact information
Company Name:DCH RADIO LIMITED COMPANY
Company address: No. 389 Zhaojiajing Road, Songjiang District, Shanghai
Contact number: 021-67629680021-67629681
Mobile phone: 18117350677 (WeChat account also)
Company website: www.dch-radio.com