Section / Description

# **TECNORD**



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# RADIO REMOTE SYSTEM

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#### RC-PCT-4F 4-Functions PCT Radio Transmitter

## DESCRIPTION

Compact multi-function shoulder strap radio remote controller, for use with Tecnord RC-TRL radio receivers / transceivers. Four proportional paddle levers (JLP type) and toggle switches for auxiliary functions.

RC-PCT radio remote controller is designed to allow remote operation of machines. It is best suited for machines equipped with a CAN-based control system.

Its multi-function structure allows simultaneous operation of all the available functions.

RC-PCT-4F Compact Controller is equipped with 4 proportional paddle levers (Tecnord JLP type).

Additional operators are available for radio enable, reduced speed selection and auxiliary functions.

A STOP pushbutton is available to immediately stop the machine in case of hazard.

Battery and battery charger are internal; a connector is provided for battery charging and backup cable communication. The transmission technology used allows high immunity to interference and long operating range. Co-existence between

multiple RC-PCT units is also allowed. A unique code allows the RC-PCT controller to operate only with

its coupled radio receiver.

## **FEATURES**

- Battery power supply: NiMH rechargeable cells.
- Cable power supply: from vehicle's battery, for battery charge.
- CANbus line (standard J1939, option CANopen) is provided for • backup cable communication.
- Standard battery charge cable with cigarette-lighter plug. ٠
- Optional serial cable (CANbus + battery charge).
- Vibration and shock resistant. ٠
- ٠ CE, FCC, IC certifications available.
- Shoulder strap provided as standard. ٠



>> ORDERING INFORMATION: see page 3



# **SPECIFICATIONS**

•		(internal battery)	$\cdot 17 \div 6 VDC$
•	Operating voltage	(internal battery)	.4.7 ÷ 0 VDC

- Operating voltage (serial cable): 8 ÷ 32 Vdc 200 mA
- Max current consumption: ٠ -40 ÷ +85°C
- Operating temperature:
  - 2402 ÷ 2480 MHz **Operating Frequency Band:** Transmission type: BT 2.1 + EDR Antenna: Built-in (internal) **Diagnostics:** 1 LED for the controller's status (more LEDs available as option) CANbus physical layer: ISO 11898
  - CANbus protocol: J1939 (standard) - CANopen (option) Connector type: IT connector, 4 poles female

Polycarbonate

< 1Kg (4F)

- Housing material:
- Weight:
  - Environmental protection: IP 65

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# RC-PCT-6F 6-Functions PCT Radio Transmitter

## DESCRIPTION

Compact multi-function shoulder strap radio remote controller, for use with Tecnord RC-TRL radio receivers / transceivers. Six proportional paddle levers (JLP type) and toggle switches for auxiliary functions.

RC-PCT radio remote controller is designed to allow remote operation of machines. It is best suited for machines equipped with a CAN-based control system.

Its multi-function structure allows simultaneous operation of all the available functions.

RC-PCT-6F Standard Controller is equipped with 6 proportional paddle levers, for larger machines (Tecnord JLP type).

Additional operators are available for radio enable, reduced speed selection and auxiliary functions.

A STOP pushbutton is available to immediately stop the machine in case of hazard.

Battery and battery charger are internal; a connector is provided for battery charging and backup cable communication. The transmission technology used allows high immunity to interference and long operating range. Co-existence between multiple RC-PCT units is also allowed.

A unique code allows the RC-PCT controller to operate only with its coupled radio receiver.

## **FEATURES**

- Battery power supply: NiMH rechargeable cells.
- Cable power supply: from vehicle's battery, for battery charge.
- CANbus line (standard J1939, option CANopen) is provided for backup cable communication.
- Standard battery charge cable with cigarette-lighter plug.
- Optional serial cable (CANbus + battery charge).
- · Vibration and shock resistant.
- CE, FCC, IC certifications available.
- · Shoulder strap provided as standard.



>> ORDERING INFORMATION: see page 3



## **SPECIFICATIONS**

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# RC-SHW-\_F 4/6 Functions meter-IN SHW Radio Transmitter

## DESCRIPTION

Single-hand radio controller (transmitter/transceiver) with CANbus interface. For use with Tecnord RX-CAN radio receivers or as stand-alone controller for CANbus based systems. RC-SHW-\_F radio controller is designed to allow radio remote operation of machines equipped with a CAN-based control system. Its compact and ergonomic design allows easy operation: with asingle hand all operators, on-off and proportional, are available.

RC-SHW-\_F standard configuration includes 4 or 6 toggle switches for on-off selection of the function(s) and one proportional trigger for proportional speed control. Additional operators are available for radio enable and auxiliary functions. A STOP push button is available to immediately stop the machine in case of hazard. Battery and battery charger are internal; a connector is provided for battery charging and backup cable communication. The transmission technology used allows high immunity to interference and long operating range. Co-existence between multiple radio units is also allowed. A unique code allows the RC-SHW-\_F controller to operate only with its coupled radio receiver. Standard cable communication protocols include CANopen and J1939. Customized protocols are available for OEMs.

## **FEATURES**

- Standard power supply from internal battery pack (rechargeable)
- Power supply line from the cable is protected against reversed polarity and overvoltage

250 mA

1 buzzer

ISO 11898

M12, 4 pins

< 1Kg (4F)

IP 65

thermoplastic POM

(different colours available)

2402 ÷ 2480 MHz

Built-in (internal)

1 LED for the controller's status (more LEDs available as option)

J1939 (standard) - CANopen (option)

BT 2.1 + EDR

- · CANbus line is protected against short circuits to GND and supply
- Microprocessor based
- · Robust plastic enclosure.
- · CE, FCC, IC certifications available
- Electro Magnetic Compatibility (EMC): EN 61000-6-2 (Immunity) EN 61000-6-3 (Emissions)

## **SPECIFICATIONS**

- Operating voltage (internal battery): 4.7 ÷ 6 VDC
- Operating voltage (serial cable): 8 ÷ 32 VDC
- Max current consumption:
- Operating temperature: -40 ÷ +85°C
- Operating Frequency Band:
- Transmission type:
- Antenna:
- Diagnostics:
- CANbus physical layer:
- CANbus protocol:
- Connector type:
- Housing material:
- Weight:
- · Environmental protection:

#### >> ORDERING INFORMATION: see page 3



# DIMENSIONS



## APPLICATIONS

- Remote control of aerial platforms, telehandlers, agricultural machines and lift equipment equipped with CANbus systems
- Stand-alone CANbus controller in both 12 VDC and 24 VDC systems

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# **RX-CAN** CANbus Radio Receiver

## DESCRIPTION

Compact radio receiver / transceiver with CANbus interface. For use with Tecnord single-hand or multifunction Radio Transmitters

## **OPERATION**

RX-CAN radio transceiver is designed to allow radio remote operation of machines equipped with a CAN-based control system. Its compact and rugged design allows easy installation, even in weather-exposed locations on the machine. Standard communication protocols include CANopen and J1939. Customized protocols are available for OEMs. Each Tecnord Radio is produced with a unique identifier (System ID). In case of lost Transmitter, a simple self-learning procedure allows to match a new spare transmitter.

The transmission technology used allows high immunity to interference and long operating range. Co-existence between multiple units is also allowed. A unique code allows the RX-CAN transceiver controller to operate only with its coupled radio transmitter.

### **FEATURES**

- · Supply line is protected against reversed polarity and overvoltage.
- CANbus line is protected against short circuits to GND and supply.
- Microprocessor based.
- · Vibration and shock resistant.
- Easy installation with 4 screws (option: magnet).
- · CE, FCC, IC certifications available
- Electro Magnetic Compatibility (EMC): EN 61000-6-2 (Immunity) EN 61000-6-3 (Emissions)

#### SPECIFICATIONS

Operating voltage:	6.5 ÷ 30 VDC
Max current consumption:	200 mA
Operating temperature:	-40 ÷ +85°C
Environmental protection:	IP 68
Operating Frequency Band:	2402 ÷ 2480 MHz
Transmission type:	BT 2.1 + EDR
Antenna:	Built-in (internal)
Diagnostics:	1 LED for the radio link status
	1 LED for the CANbus status
CANbus physical layer:	ISO 11898
CANbus protocol:	J1939 (standard) - CANopen (option)
Connector type:	Deutsch DT04-4P
Fixing screws included:	4 - M4x20
	Operating voltage: Max current consumption: Operating temperature: Environmental protection: Operating Frequency Band: Transmission type: Antenna: Diagnostics: CANbus physical layer: CANbus protocol: Connector type: Fixing screws included:

#### APPLICATIONS

- 12 Vdc and 24 Vdc systems.
- Remote control of aerial platforms, telehandlers, agricultural machines and lift equipment equipped with CANbus systems.



# DIMENSIONS



## CONNECTIONS



#### >> ORDERING INFORMATION: see page 3

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# APPLICATION EXAMPLE

# Model: RC-SHW-4F/TCN-CAR2M-SER2M-H2MT



# Model: RC-PCT-4F/PWM-CAR2M-00000-H2MT



BATTERY CHARGER

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# **RADIO REMOTE SYSTEM**

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# APPLICATION EXAMPLE

# Model: RC-PCT-4F/MLT-CAR2M-00000-H2MT



# Model: RC-PCT-4F/CAN-CAR2M-SER2M-H000



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# Serial and Battery Charger Cables Accessories

## **BATTERY CHARGER CABLE M12**

Kit includes: 12-24 VDC Battery charger cable - M12 - 2 meters Available for SHW Transmitter

## **ORDERING CODE: 22.0611.119**

Alternate-current battery charger unit (110-220 VAC) available on request

## **BATTERY CHARGER CABLE IT4**

Kit includes: 12-24 VDC Battery charger cable - IT4 - 2 meters Available for PCT Transmitter

## ORDERING CODE: 22.0611.044

Alternate-current battery charger unit (110-220 VAC) available on request

# SERIAL AND BATTERY CHARGER CABLE IT4/M12

Kit includes: Serial and Battery charger cable IT4/M12 - 2 meters Available for SHW Transmitter

## **ORDERING CODE: 22.0611.114**

Different cable lenght available on request

## SERIAL AND BATTERY CHARGER CABLE IT4/IT4

Kit includes: Serial and Battery charger cable IT4/IT4 - 2 meters Available for PCT Transmitter

## **ORDERING CODE: 22.0611.104**

Different cable lenght available on request



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# **RADIO REMOTE SYSTEM**

# Connector kit Accessories

### **4 POLES DEUTSCH DT06-4S**

Kit includes: male connector, female contacts, secondary lock and fillers Available for Radio receiver: RX-CAN

**ORDERING CODE: 13.0310.132** 

## 12 POLES "DEUTSCH DTM06-12SA & DTM06-12SB"

Kit includes: male connector, female contacts, secondary lock and fillers Available for electronic control unit: EC-MMS-0713-H

**ORDERING CODE: 13.0310.253** 

## 24 POLES SICMA BLACK COLOR

Kit includes: male connector, female contacts, locking cum, fillers Available for electronic control unit: EC-MMS-2218-H; EC-MMS-1521-H

**ORDERING CODE: 13.0310.150** 

# 24 POLES SICMA GREY COLOR

Kit includes: male connector, female contacts, locking cum, fillers Available for electronic control unit: EC-MMS-1521-H

**ORDERING CODE: 13.0310.634** 

HARNESS - IT4 SERIAL FEMALE CONNECTOR AND PLUG

IT4 female connector ORDERING CODE: 50.1005.118 **ORDERING CODE: 50.1005.116** IT4 Plug with chain

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