

ORIBUS a leading radio control in Indonesia. It experienced of industrial radio remote controller for over 20 years. ORIBUS Providing a high quality, reliable and safe industrial Radio Remote Controller is always our goal and the commitment to all of our customers.



HEAVY DUTY

RADIO REMOTE CONTROL

"Innovative Control for Heavy Duty Lifting"

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F21-SERIES



HEAVY DUTY RADIO REMOTE CONTROL

F21 SERIES

F21-E1 RX

F21-2S(S)



F21-4SB

F21-E1B

F21-4S/4D

F21-2S/2D

F21-E1



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FEATURES



- **Low Power Consumption (Eco-Friendly)**
2 AA Size Batteries last up to 2 months in regular operation.
- **Enclosure Durability (Harsh Environment)**
Nylon-Fiber made housing for extra shock resistant.
- **Windows Software**
Programmable function setting through PC.
- **Pre-Wiring Receiver**
Receiver pre-installed wire made the installation easy and fast ever.

F21-2/4/E1/E1B Transmitter

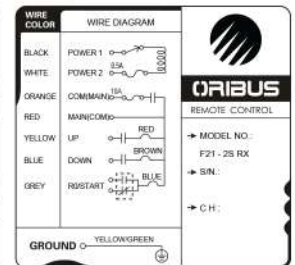
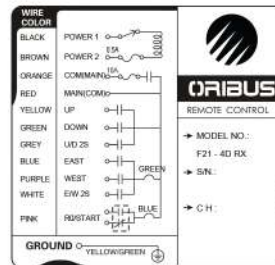
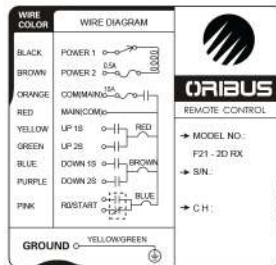
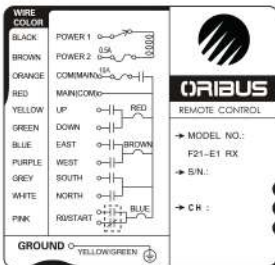
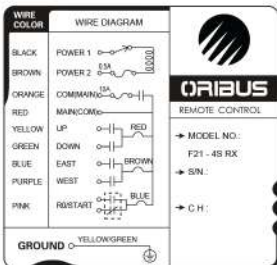
Model	Weight	Dimension
F21-2S/2D	120g	130x45x22mm
F21-4/E1	265g	156x61x51mm
F21-4SB/E1B	380g	164x75x46mm

F21-2/4/E1/E1B Receiver

F21-2/4/E1/E1B	550g (w/o cable)	185x85x85mm
F21-2S(S)	352g (w/o cable)	84x82x48mm

F21 Series SPEC.

Emission Power	<10mW
ID Code	4.3 Billion (32 bits)
Operating Temp.	-35 – 80° C
Enclosure	Nylon Fiber
Operating Distance	Up to 100M
Transmitter Power	2 AA size Bateries



ACCESSORIES



Copier



Passive Antenna



Tx Protective Cover



Battery Charger

HEAVY DUTY RADIO REMOTE CONTROL

F21-E2

CRC & Hamming Technology

- USB Interface
- Plug & Play, just like SIM card
- e-Card duplicate via transmitter

PLL Circuit

- Multi-Channel Selection
- Interference free

Ergonomic Transmitter

- Compact & Handy transmitter

Internal Antenna

- Equipped with EMS & rotary key switch
- Power-On by password for authorized for operation.

Programmable

- Computer software programmable
- A single step pushbutton works as double step pushbutton



e-Card

- USB Interface
- Plug & Play, just like SIM card
- e-Card duplicate via transmitter



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SPECIFICATION

General	Operating Range	Up to 100 Meters
	Temperature Range	40°C ~ +85°C
	ID code	32 Bits ID Code with 4.3 Billion Sets Available (never repeated)
	Hamming Distance	≥ 4
Transmitter	Power Supply	Two 1.5 volts (AA Size) Alkaline / Rechargeable Bateriaes
	RF Power	< 10mW
	Pushbuton	1 EMS Buton / 1 Rotary Key Switch 8 Single step Buton (UP / DOWN butons are programmable as double speed through software)
	Dimensions	132x55x40mm
	Weight	220g (Including bateries)
Receiver	Power Supply	24/48 , 48/110 , 48/220 , 110/220 , 220/380 VAC (50/60 Hz), 12-24 VDC
	Dimensions	90x85x62mm
	Weight	950g (Including cable)



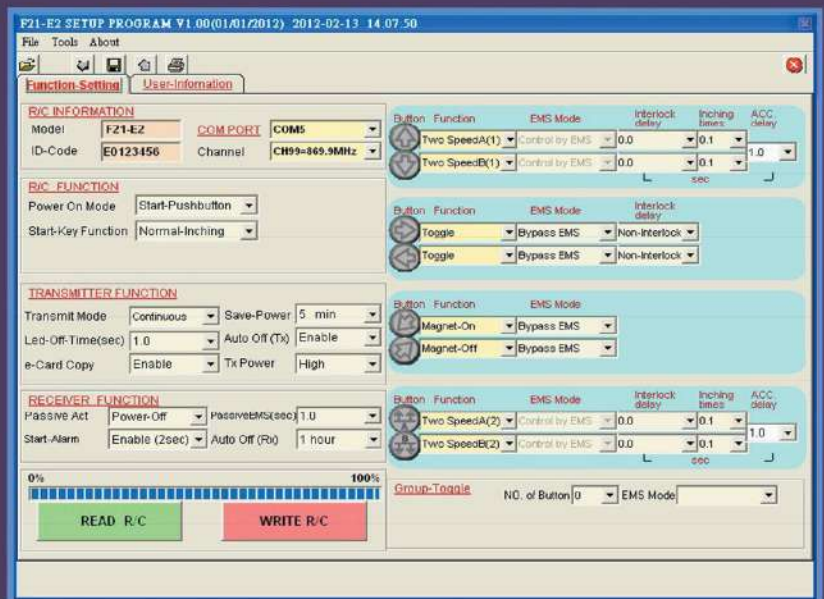
Function Setting Software

To meet variety application requirements, F21-E2 software provides multi-function setting such as pushbutton in Normal (Momentary), Toggle, Magnetic, ON/OFF, and Interlock/Non-interlock modes.



Optional Accessories

Software CD & USB interface cable



HEAVY DUTY RADIO REMOTE CONTROL

F21-E3 SERIES



F21-E3B



F21-E3M



F21-E3S



F21-E3M4D



F21-E3 RX



Surge Protection

Double protections (patented) against surge generated from

- Lightning Strike.
- Back Electromotive Force (Back EMF).



Auto Frequency Selection

• Choose top grade RF IC with sophisticated design. It provides great performance on radio channel selectivity.

• Real time frequency changing technology which provides the best operating experience and free from interference.

• No channel changing required when multiple radio controllers are used at the same time.



Wide Range Power Supply

Wide range input voltage overcomes unstable electricity supply resulted from

- Poor crane busbar contact.
- Voltage drop due to motor/machine start up.



Smartphone App

• Instant reprogramming functions by smartphone on site without needing PC.

• Update App anywhere, anytime.

F21-E3 improved from the legendary remote controller F21-E1 series. New generation radio technology with valuable features developed from onsite experiences

4 types of transmitter options. Pair up E3 Receiver freely with E3S / E3M / E3B / E3M-4D Transmitter

- F21-E3S**
E3S Transmitter + E3 Receiver
- F21-E3M**
E3M Transmitter + E3 Receiver
- F21-E3B**
E3B Transmitter + E3 Receiver

E3S Transmitter



E3M Transmitter



E3B Transmitter



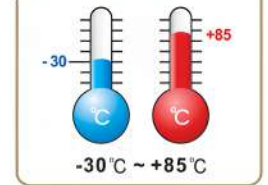
E3M-4D Transmitter



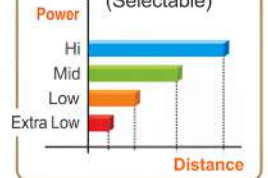
E3 Receiver



Operating Temp.:



Operating Range:
Approx. 20~100 Meters. (Selectable)



ID Code:

4.3 Billion Sets

4 2 9 4 9 6 7 2 9 6

An unique Non-Repeated **32 Bit**

Dimension (mm)	132 x 55 x 39	156 x 61 x 53	163 x 75 x 46	156 x 61 x 53
Weight (g)	Apprx. 205 (w/ batteries)	Apprx. 250 (w/ batteries)	Apprx. 345 (w/ batteries)	Apprx. 250 (w/ batteries)
Power	2 AA Size Batteries (Alkaline, Rechargeable are all acceptable)			
No. of Buttons	6 Single Step Button / 1 Start / 1 Stop (EMS)		4 Double Step Button / 1 Start / 1 Stop (EMS)	
Rotary KEY	•	•		•
Magnetic KEY			•	
LED Indicator	•	•	•	•

Dimension (mm):
190 x 85 x 62

Weight (g):
Apprx. 785g(w/cable)

Input Power Options:
(H) 28-456VAC
(L) 10-60VDC

Software



Accessories



CD-ROM & USB Interface Cable (Smartphone USB OTG)



Whip Antenna



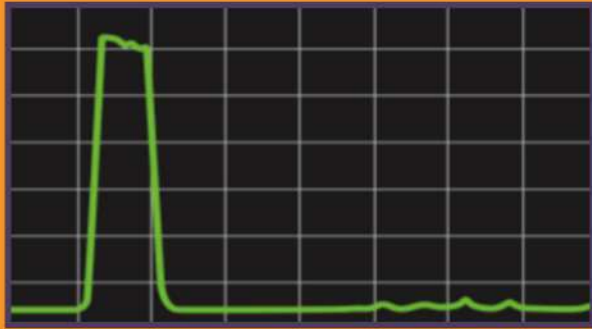
Dipole Antenna

Take & Release (Receiver with multi-users)

- This feature allows two or more operators the ability to control one crane system from opposite ends of a long runway or cross travel.

Internal Antenna

- Transmitter and Receiver are built-in with internal antenna.
- Internal antenna saves the space for receiver installation.



Radio Frequency Filtering

- Asophisticated Surface Acoustic Wave (SAW) filter blocks unwanted radio signal to ensure smooth radio link.
- It creates a secure and reliable operation experience even in a complicated industrial working environment.

Enhanced Durability

- Using fiberglass reinforced plastic materials to enhance the hardness and impact resistance of casing.
- Fine quality pushbutton with most durable life than others.

Budget & Environmental Saving

- Transmitter with extremely low battery power consumption.
- The transmitter uses two AA size batteries. (Alkaline, Rechargeable are all acceptable)
- With adjustable operating range, it saves and extends battery life.

Powerful Software Program

- The software consists millions worldwide users experience.
- The software provides great flexibility to meet most of the applications. It allows reprogramming numbers of parameters such as operation function, emission power, and receiver off time, etc.

Transmitter Options

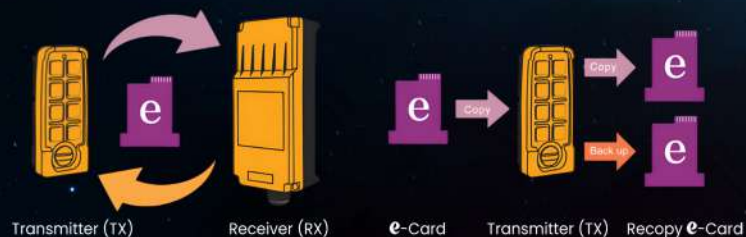
Transmitter with 3 options at your choice: Compact, Durable and High Efficiency

- **E3S** : Compact size and idea for warehouse application.
- **E3M** : Best for overhead crane and with EMS button.
- **E3B** : The best choice for those familiar with the world top selling model F21-E1B.



Security Enhanced & Anti-Spy

- Transmitter with its powerful processor, it generates SRC (Security Random Code) radio signal with random coding to prevent spy copying.
- By integrating hamming coding and CRC (Cyclic Redundancy Check) technology, it provides accuracy in radio data transmission.
- A unique Non-Repeated security code (ID code), it prevents the error output and improves the operating safety.



e-Card (Plug and Play)

- e-Card works similar to SIM card in the mobile phone.
- All system data are carried on a small e-Card for easy transfer to a spare system when needed.
- e-Card is interchangeable between transmitter & receiver. It allows spare transmitter or receiver to resume to work without any downtime.

e-Card Duplicator

- The transmitter also acts as e-Card duplicator for data back-up and transfer.
- No need to buying COPIER anymore.

Reliable Communication

- F21-E3, a smart radio controller made by high technology.
- 100% frequency quality inspection on all radio controllers prior to delivery and ensure frequency tolerance less than 10⁻⁶.

HEAVY DUTY RADIO REMOTE CONTROL

F24 SERIES



F24-10S/D



F24-8S/D



F24-6S/D



F24-12S/D



F24-6D



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FEATURES



- **Low Power Consumption**
2 AA Size Batteries last up to 2 months in regular operation.
- **Plug and Play**
Pre-wiring standard cable making installation quick and easy.
- **Enclosure Durability**
Nylon-Fiber made housing for extra shock resistant.
- **Windows Software**
Programmable function setting through PC.

ID Code	32 bit (4.3 billion)	
Hamming Distance	≥ 4	
Emission Power	< 10 mW	
Operating Temp.	-35°C ~ +80°C	
Operating Range	Up to 100 Meters	
Dimensions Weight	Transmitter	186 x 61 x 51mm/Apprx. 255g
	Receiver	200 x 162 x 107mm/Apprx.1220g
Power	Transmitter	2 pcs AA size batteries
	Receiver	AC 24/48/110/220/380V & DC 12-24 V (Selectable)

ACCESSORIES



Copier



Passive Antenna



USB Cable



Battery Charger

HEAVY DUTY RADIO REMOTE CONTROL

F25 SERIES



F25-8S/8D



F25-6S/6D



F25-10S/10D



F25-10D



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FEATURES



- **Safety Function of "STOP" & "CONTROL"**
In accordance with EN ISO 13849-1 Cat. 4
- **Windows Software**
Programmable function setting through PC.
- **Remote Pairing Technology**
To allow instant maintenance on site
- **Enclosure Durability (Harsh Environment)**
Nylon-Fiber made housing for extra shock resistant.
- **Built-in Alarm System**
No need to install extra warning devices
- **Pre-Wiring Receiver**
Receiver pre-installed wire made the installation easy and fast ever.

Model	Dimension	Weight
F25-6S/6D model	156x61x51mm (LxWxH)	About 265 g (w/Bateries)
F25-8S/8D & F25-10S/10D models	186x61x51mm (LxWxH)	About 320 g (w/Bateries)
Receiver Unit	200x162x107mm (LxWxH)	About 1550 g (w/o cable)
Transmitter Unit		
6° - 10 Single / double steps pushbutons		
Start pushbuton		
Rotary key switch + Emergency stop pushbuton		
Alarm pushbuton (6S/6D Model activated by start pushbuton)		

	Operation Frequency	433.05 ~ 434.79 MHz
	Hamming Distance	≥ 4
	Operation Range	Up to 100 Meters
	Temperature Range	-40°C ~ +85°C
	ID CODE	Over 4.3 billion unique ID code available
Transmitter	Power Supply	4 AA size battery, Alkaline / Rechargeable (NiMH)
	Emission Power	<10mW
	Power Indication	3-stage with LED indication
Receiver	Power Supply	24/48/110/220/380 VAC (50 / 60Hz) ±20%, 12/24 VDC
	Alarm	Built-in horn inside the receiver

ACCESSORIES



Copier



Passive Antenna



Tx Protective Cover



Battery Charger

HEAVY DUTY RADIO REMOTE CONTROL

F24-60+ JOYSTICK

RECEIVER



F24-60+



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F24-60+ TRANSMITTER

- Start Button
- High Gain Internal Antenna
- Rotary Key
- Multi-function Indicator
- Protection Rim
- 5 Steps Dual Axis Joystick
- Programmable Function Pushbutton
- EMS Button
- 3 Positions Toggle Switch (Waterproof)
- 2 Positions Toggle Switch (Waterproof)



Robust & Durable | Precision Control | ECO Design | High Performance

5 Steps Dual Axis Joystick (Patent)

A) Long life silicon rubber structure (Patent)



B) Sealed construction Angle Detector (Dust-free)

C) Solid stainless steel joystick rod

D) Cross Plate (option)

E) 2 mm Stainless Steel gears give excellent clear mechanical feeling during operating

F) Patented swing mechanism extends Angle Detector life cycle in severe operation condition

G) Optical sensor (neutral position) making operation safer



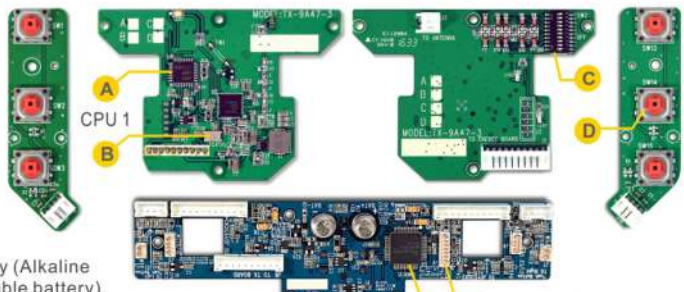
Modular Design for Easy Maintenance

A) Both transmitter and receiver are equipped with dual CPU. It provides better performance in encoding/decoding as well as controlling radio communication


B) TCXO (Temperature Compensate Crystal Oscillator) provides higher levels of radio accuracy against severe temperature changes

C) Dip switch for changing channel and emission power on site without computer

D) Waterproof/Dustproof pushbutton



E) Using AA size battery (Alkaline battery or rechargeable battery), it's available in any convenient store. No more paying for high cost battery pack



Computer Programmable interface connector

A CPU 2

F24-60+ RECEIVER



- A) Receiver Handle Bar
- B) Removable Antenna
- C) RF module with Anti-interference metallic housing
- D) Computer Programmable interface connector
- E) CPU 1
- F) NC/NO relay available (Option)
- G) Jumper for customized COM line configuration

- H) AC and DC power supply are available
- I) Cable Gland
- J) Dip Switch for changing channel without computer
- K) SQ Indicator
- L) TCXO (Temperature Compensate Crystal Oscillator) provides higher levels of radio accuracy against severe temperature changes
- M) CPU 2

- N) A sophisticated Surface Acoustic Wave (SAW) filter blocks unwanted radio signal to ensure smooth radio link

- O) Receiver Shock Absorber



F24-60+ FEATURES

Security Enhanced & Anti-Spy

- Transmitter with its powerful processor, it generates SRC (Security Random Code) radio signal with random coding to prevent spy copying
- By integrating hamming coding and CRC (Cyclic Redundancy Check) technology, it provides accuracy in radio data transmission
- A unique Non-Repeated security code (ID code), it prevents the error output and improves the operating safety



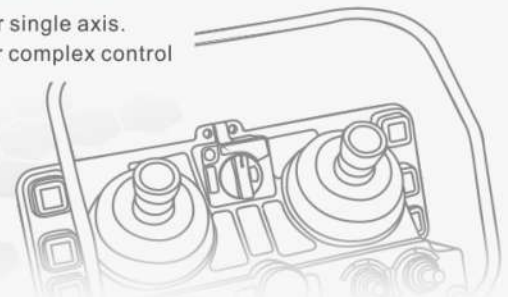
Take and Release

This feature allows two or more operators the ability to control one crane system from opposite ends of a long runway or cross travel



Relay Configuration

Control up to 16 relays for single axis. It gives great flexibility for complex control



<p>TRANSMITTER</p>	5 Steps Joystick	x 2	<p>RECEIVER</p>	Maximum 40 relays output (Software setting)	
	1 Step Pushbutton	x 6		NC/NO Relay (Option)	
	EMS Buton	x 1		Passive Antenna (Option)	
	Rotary Key	x 1			
	2 Positions Toggle Switch	x 2			
	3 Positions Toggle Switch	x 2			

General Specifications

Operating Temperature	-35°C - +80°C	Frequency	433.05 ~ 434.79 MHz		
Operating Range	Up to 100 Meters	ID Code	4.3 Billion Sets Non-Repeated (32 Bit)		
Power	Transmitter	4 pcs AA size batteries Alkaline/rechargeable acceptable	Hamming Distance	>20	
	Receiver	AC 24/48/110/220/380V & DC 12 ~ 24V (selectable)	Dimensions/ Weight	Transmitter	220 x 110 x 90 mm/ 860g (excluding bateries)
				Receiver	290 x 230 x 70 mm/2200g (excluding cable)

SOFTWARE



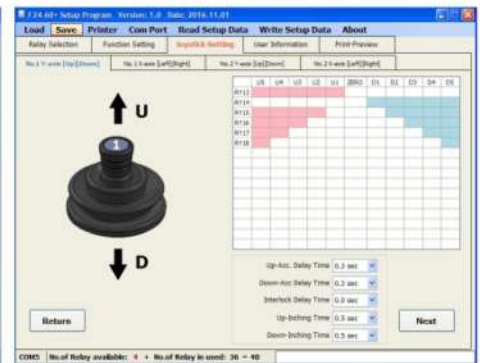
Main page

- ID code, Manufactured date
- Relay in usage display
- Select relays for joysticks



Function Setting

- Remote control function setting
- Pushbutton function setting
- Toggle Switch function setting



Joystick Setting

- Joystick function setting
- Joystick-Relay control display
- Joystick-Axis control setting

ACCESSORIES



CD-ROM & USB Interface Cable (Smartphone USB OTG)



Copier



External Passive Antenna Set

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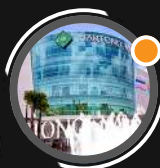
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