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### **OUR BRANDS**





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Crane Radio Remote Control Systems, Siren Lights, Overload Systems, Rotary Limit Switch, Mobile Radio Remote Control and 3D Printer

ELFATEK ELFASOFT









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Cnc Routers,
Cnc Milling Production and Woodworking Machines

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#### **About Us**

The founders of Elfatek Elektronik who have brought their 15 years of experience in the industrial electronics sector to the Crane remote control sector in 2006, have produced the first crane remote controls with 80 channels and 120 hours of operating life in Turkey with the project support of TUBITAK.Now; 3D printer, Tour Switch, Load Switch, Load Switch External Display, Collision Sensor, Joystick Control, voice and light warning system has enriched the product portfolio.

Elfatek produces all electronic parts, software and mechanical parts of its remote controls under its own roof. Elfatek has become the leading crane remote control producer and designer of Turkey with its technological infrastructure investments and continuous research and development activities up to now.

The firm continues its activities with its young and dynamic engineer staff for developing the high-performance and high-quality products required by the industry.

Our company, as of 27.10.2017 date by the Ministry of Industry and Technology in Industrial Electronics sector 1st in Konya, 41st in Turkey is certified as R & D center.

We export to 121 countries on this road, which we have started with the vision of "to develop industrial products at international level and become a leading company in R & D." With its young and dynamic engineers, it continues its activities in order to develop high-performance and high-quality products that the industry needs.

#### **Our mission**

"Developing research and development based industrial products with high added value for increasing competitive power of our country."

#### **Our vision**

"Developing industrial products at international level and becoming a leader firm in research and development filed."



IMAGINE, DESIGN, MANUFACTURE.





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#### **DESIGN**

It is designed ergonomically, for ease of use.



#### START BUTTON

Start button also can be used as a horn button

\*Start/ horn is same button on Joystick Remote Control.



REMOVABLE BATTERY

Thanks to its special design

it can be removed easily.

Works with 6 AA battery

Selected Switch 1-0-2



#### **ROTARY SWITCH**

1/2/1+2 Rotary switch (Permanent or Momentary)



#### **ROTARY SWITCH**

1/2/1+2 Rotary switch (Permanent or Momentary)



#### I-CHIP

Easily transfer channel and ID data to spare transmitter or receiver thanks to 1-chip technology.



#### **ANALOG POT**

0-10 V Analog pot



#### **ROTARY SWITCH**

From 1 to 12 rotary permanent switch

#### ANKA SERIES JOYSTICK REMOTE CONTROL

Anka series jostick remote control systems have been specially designed for ease of use by Elfatek Electronic. Crash-Proof equipment has been used in order to enhance the crashworthiness of outer body in case of external impacts.

#### AREAS OF USAGE JOYSTICK REMOTE CONROL

- \* Overhead travelling Cranes
- \* Tower Cranes

- \* Mobile Cranes and Lifts
- \* Chain hoist systems

- \*Tow Trucks Cranes
- \*Sectional Door

- \* Hydrolic equipments
- \* Special Machine Applications

**JOYSTICK REMOTE CONTROL SYSTEMS** 

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#### ABOUT JOYSTICK REMOTE CONTROL

- ANKA SERIES JOYSTICK Remote Control Systems are designed to control industrial equipments. ( lifts, overhead cranes, tower cranes etc. )
- Receiver and transmitter communicate constantly. If there is no operation within 5 minutes (can chance 15, 30, 45 min),100 meters communication distance is exceeded or battery is unexpectedly removed from joystick transmitter passes emergency stop mode.
- In all series of joysticks have low battery signal and frequency transmission signal.
- I- Chip removable frequency chip involves ID data channel and code informations of remote control which has been programmed distinctively for every different model. In case of any malfunction, I-Chip can be transferred to any Anka series spare josytick transmitter or receiver and there will be no work loss.
- By using selector switches (0-1), (1-0-2), and (Aux) button output different configurations can be made and joystick can be upgraded as multiple control systems.
- Safety and precision with ANKA series Joystick Remote Control Systems at the highest level.
- ANKA series Joystick Remote Control Systems are designed to provide economical solutions to the user.
- Battery using limit is 700 hours for constant using for JD type joystick.

#### **STANDARD SET**

- 1 Receiver Unit
- 1.5 Meter Cable
- 1 Joystick Transmitter
- 1 Strap
- 6 (AA) Alkaline Batteries
- 2 battery boxes
- 4 Receiver Monunting Screws
- 2 Pieces Spare Glass Fuse (6A)
- User manual, Certificate of Warranty, Wiring Diagram, CE Certificate
- External antenna 5 dBi ( Optional )

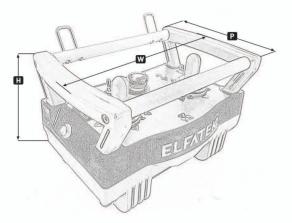






JOYSTICK REMOTE CONTROL SYSTEMS

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Design patent belongs to **ELFATEK** 

Dim	ensions of	f the Tran	smitter	
MODEL	H [Height)	W [Width)	p [Depth	
ANKA SERIES	164 mm	247 mm	170 mm	

TRANSMITTE	R UNIT	
SPECIFICATIONS	ANKA	
OPERATING FREQUENCY	2.4 GHz	
NUMBER OF CHANNEL	80	
OPERATING DISTANCE	= 100 m	
RF SYSTEM POWER	10 mW ERP [Internal antenna]	
DATA ENCRYPTION CODE	16 Bit	
DELAY OF THE TRANSMITTER	< 1 s	
RESPONSE TIME	< 25 ms	
RT FOR EMERGENCY	< 25 ms	
OPERATING – STORAGE TEMPERATURE RANGE	-40 °C - +85 °C	
ENCLOSURE PROTECTION RATING	iP 65	
NUMBER OF DIGITAL INPUT	40	
BODY STRUCTURE	POLYAMID	
SUPPLY VOLTAGE	3 VDC	
JOYSTICK DIAMETER	SINGLE AXIS – DOUBLE AXIS	
ACCELERATION SELECTABLE KEY	-	
CURRENT REQUIREMENT	10 mA	
BATTERY	6xAA ALKALİ BATTERY	
CONTINIOUS OPERATING TIME	≥ 700 hour	
OPERATING TIME AFTER LOW BATTERY WARNING	5 dk [DURACELL BATTERY]	
TRANSMITTER UNIT WEIGHT	=1800 GR - 2100 GR DEPANDS ON THE MODEL.	

DIMENSIONS OF THE RECEIVER				
MODEL	H [HEIGHT)	W [WIDTH )	D [DEPTH]	
MEDIUM RECEIVER	246 mm	130 mm	61 mm	
LARGE RECEIVER	275 mm	145 mm	66 mm	

RECEIVER UNIT			
SPECIFICATIONS	ANKA		
OPERATING FREQUENCY	2.4 GHz		
CHANNEL NUMBERS	80		
OPERATING DISTANCE	=100 m		
DATA ENCRYPTION CODE	16 Bit		
DELAY OF THE RECEIVER	< 1 s		
RESPONSE TIME	<25 ms		
RT FOR EMERGENCY	< 25 ms		
RECEIVER LINK TYPE	-		
NUMBER OF PROCESSOR	1		
NUMBER OF DIGITAL OUTPUT	19		
NUMBER OF ANALOG OUTPUT	4		
EXTRA AERIAL	OPTIONAL		
OPERATING - STORAGE TEMPERATURE RANGE	-40 °C - +85 °C		
ENCLOSURE PROTECTION RATING	iP 65		
BODY STRUCTURE	POLYAMID		
SUPPLY VOLTAGE	48-110-2250 VAC or [7 35VAC -10-50VDC)		
CURRENT POWER	5 W		
OUTPUT RELAY IGNITION CAPACITY	10A 230 V		
STOP RELAY IGNITION CAPACITY	10A 230 V		
DIMENSIONS	DEPANDS ON THE MODEL		
MAXIMUM WEIGHT	DEPANDS ON THE MODEL		



**JOYSTICK REMOTE CONTROL SYSTEMS** 

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#### DIGITAL











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#### JPD00001

- \* 6 movement double step digital output
- \* Double start button
- \* Light on/off switch
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed) (The relay activates an output signal when any key is pressed)

#### JPD00021

- \* 8 movement digital output
- \* 4 permanent digital output
- \* Light on/off switch
- \* Start/hom output
- \* Run output

#### JPD 00022

- \* 8 permanent digital output
- \* Double start button
- \* Start/ output
- \* Run output

(The relay activates an output signal when any key is pressed)

#### JPD00023

- \* 6 movement 5 step digital output
- \* Double start button
- \* Light on/off output
- \* 2/1/1+2 tandem or multiple control selecting
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)

#### JPD00024

- \* 6 movement 2 step digital output
- \* Double start button
- \* Light on/off switch
- \* 2/2/1/+2 tandem or multiple control selecting
- \* Start/hom output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00025

- \* 18 digital output
- \* Double start button
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00026

- \* 22 digital output
- \* Double start button
- \* Start/hom output
- \* Run outputtt

(The relay activates an output signal when any key is pressed)



#### JPD00028

- \* 8 movement 2 step digital output
- \* Double start button
- \* Light on/off switch
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPD00029

- \* 12 digital output
- \* Start/hom
- \* Run outputt

(The relay activates an output signal when any key is pressed)



# ANKA SERIES JOYSTICK REMOTE CONTROL SYSTEMS

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#### **ANALOG**



#### JPA00001

- \* 6 movement 0-10 analog output
- \* Double start button
- \* Light on/off switch
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPA00023

- \* 2 units 0-10 V analog output
- \* 14 digital output
- \* Double start button
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPA00021

- \* 4 analog output
- \* 2 units 0-10 V analog speed control
- \* 2/2/1/+2 Ttandem or multiple control selecting
- \* Start/horn output
- \* Run output

(The relay activates an output signal when any key is pressed)



#### JPA00025

- \* 8 units 0-10 V analog output
- \* Double start button
- \* Light on/off switch
- \* Start/horn output
- \* Aux button
- \* Adjustable output options ( slow-fast )
- \* 0-1 selector switch
- \* Run output (The relay activates an output signal when any key is pressed)



#### JPA00022

- \* 6 movement 2 steps digital output
- \* Double start button
- \* Light on/off switch
- \* 2/1/1+2 tandem or multiple control selecting
- \* Start/horn output
- \* Run output (The relay activates an output signal when any key is pressed)



#### JPA00028

- \* 4 pcs of 0-10V analog output (8 movement)
- \* Double start button
- \* Lamp on / off switch
- \* Start / horn output \* Aux output (optional)
- \* (2), (l), (l + 2) tandem or multiple control selection (optional)
- \* Run output (The relay activates an output signal when any key is pressed)

**JOYSTICK REMOTE CONTROL SYSTEMS** 

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#### **EN SERIES RADIO REMOTE CONTROL**

EN X, ESX, MID and MAX concepts was specially designed for ease of use. EN Series Remotes are mainly used in construction cranes, overhead travelling cranes and in different kinds of applications. New series can be used in rolling plant, iron & steel, marble and many different industries. The remote body case is designed to stand impacts and harsh environment. Remote buttons are single & double step and can be used with gloves.





Foot-treadle remote control Code: PEDAL-101



- EN Series are manufactured 2,4,6,8,10 & 12 buttons. EN Series have 4 different models **EN-X, EN-ESX,EN-MID** and **EN-MAX have** 250 hours battery life.
- In all series emergency stop button, low battery signal, emegency and status LEDS are available.
- In all remote control models that have removable safety key are only used by authorized person. The iChip allows to continue without interruption if you have plugged into another EN-X, EN-MAX, EN-MAX and EN-MAX models.
- In the **EN-MAX** model, when the "start" button is momentarily pressed it gives the horn output, when the same button is pushed, the receiver switches to the starting position. All models are manufactured in accordance with the directives of the new generation technology SIL3 safety features.
- EN-ESX, EN-MAX receiver and transmitter are in continuous communication. If no operation is performed for 3 minutes and the shooting distance of 100 meters is exceeded or the battery is removed, it goes into emergency stop mode
- EN-MAX has 3 microprocessors with double safety relays.
- With **EN-MAX** Remote Control Series, safety and sensitivity are at the highest level.
- In EN-X remote control models are available for 6, 8, 10 buttons, in addition EN-ESX and EN-MAX remote control models are available 6, 8, 10, 12 buttons remote control systems.
- All movements of the **EN-X** series remote control models have dual-output.

**IMAGINE, DESIGN, MANUFACTURE.** 



# ANKA SERIES JOYSTICK REMOTE CONTROL SYSTEMS

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## **EN SERIES TECHNICAL FEATURES**

TRANSMITTER UNIT					
MODEL	ESX	MID	MAX	Χ	
FREQUENCY	2.4 GHz I.S.M. BAND				
BUTTON UNIT	6,8,10	2,4,6,8,10,12	2,4,6,8,10,12	6,8,10	
NUMBER OF CHANNEL		80			
OPERATING DISTANCE		≈ 100 m			
EMISSION POWER OF THE R.F. SYSTEM	10 mV	10 mW ERP (INTERNAL ANTENNA)			
AVAILABLE PAIRING ADDRESS		65536			
DELAY TIME ON RECEIVER START		< 1 s			
COMMAND RESPONSE TIME		< 20 ms			
EMERGENCY RESPONSE TIME		< 20 ms			
OPERATING TEMPERATURE RANGE	-4	-40 °C ~ +85 °C			
ENCLOSURE PROTECTION RATING		IP 65			
MATERIAL		POLYAMID			
POWER REQUIREMENTS		3 VDC			
BUTTON DIAMETER		20 MM			
DRAWN CURRENT		10mA			
BATTERY	2:	xAA BATTEI	RY		
CONTINUOUS OPERATION		≽250 hours			
ADVICED TIME BATTERY LOW SIGNAL	30 min (I	DURACELL	BATTERY)		
BUTTON 2 (INCLUDED BATTERY)		≈ 277 GR			
BUTTON 4 (INCLUDED BATTERY)		≈ 290 GR			
BUTTON 6 (INCLUDED BATTERY)		≈ 330 GR			
BUTTON 8 (INCLUDED BATTERY)		≈ 370 GR			
BUTTON 10 (INCLUDED BATTERY)		≈ 410 GR			
BUTTON 12 (INCLUDED BATTERY)		≈ 450 GR			

RECEIVER UNIT			
FREQUENCY	2.4 GHz I.S.M BAND		
NUMBER OF CHANNEL	80		
OPERATING DISTANCE	≈100 m		
ON/OFF UNIT	MODELS HAVE DIFFERENT SIZES		
AVAILABLE PAIRING ADRESSES	65536		
DELAY TIME ON RECEIVER START	< 1 s		
COMMAND RESPONSE TIME	< 20 ms		
EMERGENCY RESPONSE TIME	< 20 ms		
OPERATING TEMPERATURE RANGE	-40 °C ~ +85 °C		
ENCLOSURE PROTECTION RATING	IP 65		
MATERIAL	POLYAMID		
POWER REQUIREMENTS	48-110-220 VAC or (7-35VAC~10-50VDC)		
POWER DEMAND	3.2W MAX.		
OUTPUT RELAY CONTACT CAPACITY	10A 230 V		
STOP RELAY CONTACT CAPACITY	10A 230 V		
SIZES	MODELS HAVE DIFFERENT SIZES		
MAX. WEIGHT	MODELS HAVE DIFFERENT SIZES		



JOYSTICK REMOTE CONTROL SYSTEMS

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#### **EN MID SERIES PRODUCTS**

LIA I	IID SERIES I RODOOTS
201	2 Buttons Single Step Radio Remote Crane Control System
201 -A	2 Buttons Single Step + AUX Output Radio Remote Crane Control System
202	2 Buttons Double Step Radio Remote Crane Control System
202 - A	2 Buttons Double Step + AUX Output Radio Remote Crane Control System
401	4 Buttons Single Step Radio Remote Crane Control System
401 -A	4 Buttons Single Step + AUX Output Radio Remote Crane Control System
402	4 Buttons Double Step Radio Remote Crane Control System
402 - A	4 Buttons Double Step + AUX Output Radio Remote Crane Control System
601	6 Buttons Single Step Radio Remote Crane Control System
601 - A	6 Buttons Single Step + AUX Output Radio Remote Crane Control System
602	6 Buttons Double Step Radio Remote Crane Control System
602 - A	6 Buttons Double Step + AUX Output Radio Remote Crane Control System
601 -S1	6 Buttons Single Step, With 0-1 Selector Switch RRCCS
602 - S1	6 Buttons Double Step, With 0-1 Selector Switch RRCCS
601 - S2	6 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
602 - S2	6 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
801	8 Buttons Single Step Radio Remote Crane Control System
801 - A	8 Buttons Single Step + AUX Output Radio Remote Crane Control System
802	8 Buttons Double Step Radio Remote Crane Control System
802 - A	8 Buttons Double Step + AUX Output Radio Remote Crane Control System
801 - S1	8 Buttons Single Step ,With 0-1 Selector Switch RRCCS
802 - S1	8 Buttons Double Step, With 0-1 Selector Switch RRCCS
801 - S2	8 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
802 - S2	8 Buttons Double Step, With 1-0-2 Selector Switch RRCCS
1001	10 Buttons Single Step Radio Remote Crane Control System
1001 - A	10 Buttons Single Step + AUX Output Radio Remote Crane Control System
1002	10 Buttons Double Step Radio Remote Crane Control System
1002 - A	10 Buttons Double Step + AUX Output Radio Remote Crane Control System
1001 - S1	10 Buttons Single Step, With 0-1 Selector Switch RRCCS
1002 - S1	10 Buttons Double Step, With 0-1 Selector Switch RRCCS
1001 - S2	10 Buttons Single Step, With 0-1-2 Selector Switch RRCCS
1002 - S2	10 Buttons Double Step, With 0-1-2 Selector Switch RRCCS
1201	12 Buttons Single Step Radio Remote Crane Control System
1201 - A	12 Buttons Single Step + AUX Output Radio Remote Crane Control System
1202	12 Buttons Double Step Radio Remote Crane Control System
1202 - A	12 Buttons Double Step + AUX Output Radio Remote Crane Control System
1201 - S1	12 Buttons Single Step, With 0-1 Selector Switch RRCCS
1202 - S1	12 Buttons Double Step, With 0-1 Selector Switch RRCCS
1201 - S2	12 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
1202 - S2	12 Buttons Double Step With 1-0-2 Selector, Switch RRCCS

#### **EN ESX - EN MAX SERIES PRODUCTS**

601	6 Buttons Single Step Radio Remote Crane Control System
601 - A	6 Buttons Single Step + AUX Output Radio Remote Crane Control System
602	6 Buttons Double Step Radio Remote Crane Control System
602 - A	6 Buttons Double Step + AUX Output Radio Remote Crane Control System
601 -S1	6 Buttons Single Step, With 0-1 Selector Switch RRCCS
602 - S1	6 Buttons Double Step, With 0-1 Selector Switch RRCCS
601 - S2	6 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
602 - S2	6 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
801	8 Buttons Single Step Radio Remote Crane Control System
801 - A	8 Buttons Single Step + AUX Output Radio Remote Crane Control System
802	8 Buttons Double Step Radio Remote Crane Control System
802 - A	8 Buttons Double Step + AUX Output Radio Remote Crane Control System
801 - S1	8 Buttons Single Step ,With 0-1 Selector Switch RRCCS
802 - S1	8 Buttons Double Step, With 0-1 Selector Switch RRCCS
801 - S2	8 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
802 - S2	8 Buttons Double Step, With 1-0-2 Selector Switch RRCCS
1001	10 Buttons Single Step Radio Remote Crane Control System
1001 - A	10 Buttons Single Step + AUX Output Radio Remote Crane Control System
1002	10 Buttons Double Step Radio Remote Crane Control System
1002 - A	10 Buttons Double Step + AUX Output Radio Remote Crane Control System
1001 - S1	10 Buttons Single Step, With 0-1 Selector Switch RRCCS
1002 - S1	10 Buttons Double Step, With 0-1 Selector Switch RRCCS
1001 - S2	10 Buttons Single Step, With 0-1-2 Selector Switch RRCCS
1002 - S2	10 Buttons Double Step, With 0-1-2 Selector Switch RRCCS
1201	12 Buttons Single Step Radio Remote Crane Control System
1201 - A	12 Buttons Single Step + AUX Output Radio Remote Crane Control System
1202	12 Buttons Double Step Radio Remote Crane Control System
1202 - A	12 Buttons Double Step + AUX Output Radio Remote Crane Control System
1201 - S1	12 Buttons Single Step, With 0-1 Selector Switch RRCCS
1202 - S1	12 Buttons Double Step, With 0-1 Selector Switch RRCCS
1201 - S2	12 Buttons Single Step, With 1-0-2 Selector Switch RRCCS
1202 - S2	12 Buttons Double Step With 1-0-2 Selector, Switch RRCCS

#### **EN X SERIES PRODUCTS**

X6	6 Buttons Double Step Radio Remote Crane Control System	
X6 - A	6 Buttons Double Step + Aux Output Radio Remote Crane Control System	
X6 - S1	6 Buttons Double Step With 0-1 Selector Switch RRCCS	ĺ
X6 - S2	6 Buttons Double Step With 1-0-2 Selector Switch RRCCS	
X8	8 Buttons Double Step Radio Remote Crane Control System	
X8 - A	8 Buttons Double Step Radio Remote Crane Control System	
X8 - S1	8 Buttons Double Step With 0-1 Selector Switch RRCCS	ĺ
X8 - S2	8 Buttons Double Step With 1-0-2 Selector Switch RRCCS	
X10	10 Buttons Double Step Radio Remote Crane Control System	I
X10 - A	10 Buttons Double Step Radio Remote Crane Control System	
X10 - S1	10 Buttons Double Step With 0-1 Selector Switch RRCCS	
X10 - S2	10 Buttons Double Step With 1-0-2 Selector Switch RRCCS	

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