

ELFATEK®

• E L E K T R O N I K •

EN SERIES ECO and MID MODEL RADIO REMOTE CONTROL USER MANUAL

ENG



Warning : Read this manual carefully before using the device!

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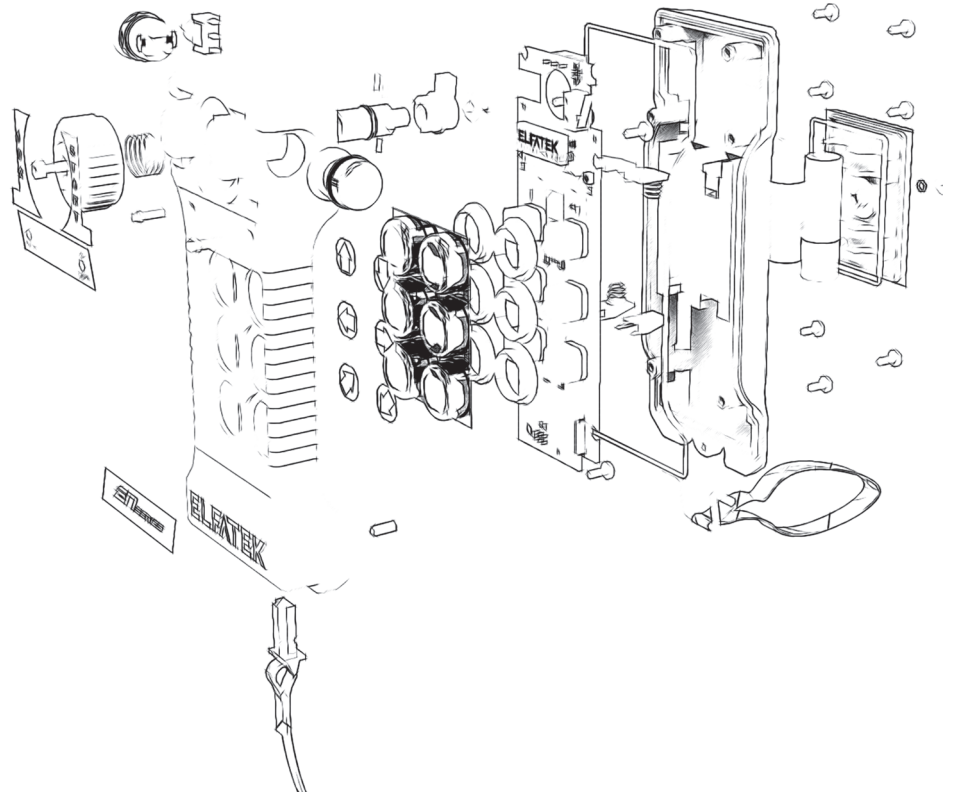
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1 Package Contents

- 1 Receiver
- 2 Transmitter
- 3 Protective Cover
- 4 Battery AA 1.5 V (Duracell)
- 5 Mounting Screw (4 pcs)
- 6 Security Key (2 pcs) Only available in MID series.
- 7 User Manual



ATTENTION

This manual should be read carefully prior to crane operation!

2 About the Company

In 2006, Elfatek Elektronik co-founders carried their 15 years industrial electronics know-how expertise to develop the first 80 channels and 250 hours battery life radio remote crane control system in Turkey.

Driven by a team of highly motivated and talented engineers, the company has technologically grown with activities in various industrial fields. Today Elfatek has become a leading designer and manufacturer of industrial radio controls used in crane sector in Turkey.

Elfatek manufactures all electronic and mechanical parts to the need of customers with the highest quality and supports.

Mission;

Developing R&D supported industrial devices in order to increase and promote our country's international competition strength.

Vision;

Developing international industrial grade devices and being a leading R&D company.

Quality policy;

Being a continuously developing company by constant R&D works and following new technologies. Designing faultless, robust and high quality industrial devices. Be aware of our customers' needs and expectations. Ensuring our customers' trust and satisfaction are our quality policies.



3 CE Declaration Of Conformity

We declare that our products are manufactured under our responsibility with this below mentioned regulations and norms.

REGULATIONS

- 2006/95/EC
Low Voltage Directive
- 2004/108/EC
Electromagnetic Compatibility Directive
- 1999/5/EC
Radio Equipment and Telecommunications
Terminal Equipment Directive

NORMS

- TS EN 60950 -1
Information technology equipment - Safety -
Part 1: General requirements
- TS 3033 EN 60529
Degrees of protection provided by enclosures
(IP CODE) (For electrical equipments)

4 Product Code Definition

EN-ECO 601-S1

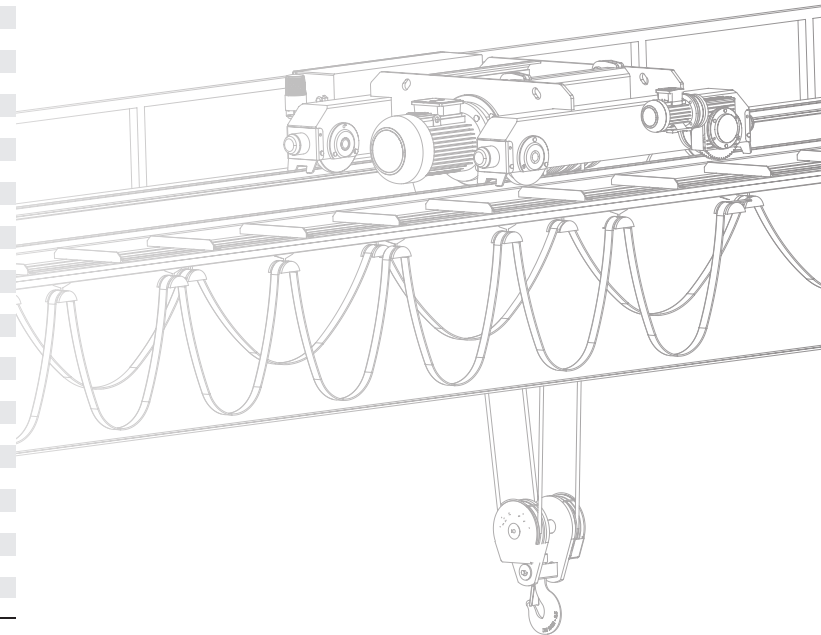
- (S1, S2, A) Selectable Switch or Horn-Lamp
- 01 Single Step Button
- 02 Double Step Button
- Button Numbers (2, 4, 6, 8, 10)
- Product Model
- Product Series

IMAGINE,
DESIGN,
PRODUCE.

5 Product Definition

MID SERIES	ECO SERIES	DESCRIPTION
MID 201	ECO 201	2 buttons single step,
MID 201-A	ECO 201-A	2 buttons single step + Horn or Lamp,
MID 202	ECO 202	2 buttons double step,
MID 202-A	ECO 202-A	2 buttons double step + Horn or Lamp,
MID 401	ECO 401	4 buttons single step,
MID 401-A	ECO 401-A	4 buttons single step + Horn or Lamp,
MID 402	ECO 402	4 buttons double step,
MID 402-A	ECO 402-A	4 buttons double step + Horn or Lamp
MID 601	ECO 601	6 buttons single step,
MID 601-A	ECO 601-A	6 buttons single step + Horn or Lamp,
MID 602	ECO 602	6 buttons double step,
MID 602-A	ECO 602-A	6 buttons double step + Horn or Lamp,
MID 601-S1	ECO 601-S1	6 buttons single step 0-1 selectable switch,
MID 602-S1	ECO 602-S1	6 buttons double step 0-1 selectable switch,
MID 601-S2	ECO 601-S2	6 buttons single step 1-0-2 selectable switch,
MID 602-S2	ECO 602-S2	6 buttons double step 1-0-2 selectable switch,
MID 801	ECO 801	8 buttons single step,
MID 801-A	ECO 801-A	8 buttons single step + Horn or Lamp,
MID 802	ECO 802	8 buttons double step,
MID 802-A	ECO 802-A	8 buttons double step + Horn or Lamp
MID 801-S1	ECO 801-S1	8 buttons single step 0-1 selectable switch,
MID 802-S1	ECO 802-S1	8 buttons double step 0-1 selectable switch,
MID 801-S2	ECO 801-S2	8 buttons single step 1-0-2 selectable switch,
MID 802-S2	ECO 802-S2	8 buttons double step 1-0-2 selectable switch,
MID 1001	ECO 1001	10 buttons single step,
MID 1001-A	ECO 1001-A	10 buttons single step + Horn or Lamp,
MID 1002	ECO 1002	10 buttons double step,
MID 1002-A	ECO 1002-A	10 buttons double step + Horn or Lamp,
MID 1001-S1	ECO 1001-S1	10 buttons single step 0-1 selectable switch,
MID 1002-S1	ECO 1002-S1	10 buttons double step 0-1 selectable switch,
MID 1001-S2	ECO 1001-S2	10 buttons single step 1-0-2 selectable switch,
MID 1002-S2	ECO 1002-S2	10 buttons double step 1-0-2 selectable switch
MID 1201	ECO 1201	12 buttons single step,
MID 1201-A	ECO 1201-A	12 buttons single step + Horn or Lamp,
MID 1202	ECO 1202	12 buttons double step,
MID 1202-A	ECO 1202-A	12 buttons double step + Horn or Lamp,
MID 1201-S1	ECO 1201-S1	12 buttons single step 0-1 selectable switch,
MID 1202-S1	ECO 1202-S1	12 buttons double step 0-1 selectable switch,
MID 1201-S2	ECO 1201-S2	12 buttons single step 1-0-2 selectable switch,
MID 1202-S2	ECO 1202-S2	12 buttons double step 1-0-2 selectable switch

Purpose: Elfatek radio remote control devices were especially designed and produced to control cranes.



Products are available.

TRANSMITTER



EMERGENCY STOP BUTTON

START BUTTON

AUX BUTTON



SELECTABLE SWITCH
(0-1 veya 1-0-2)

Single Step

UP BUTTON	DOWN BUTTON	LEFT BUTTON	RIGHT BUTTON	NORTH BUTTON	SOUTH BUTTON

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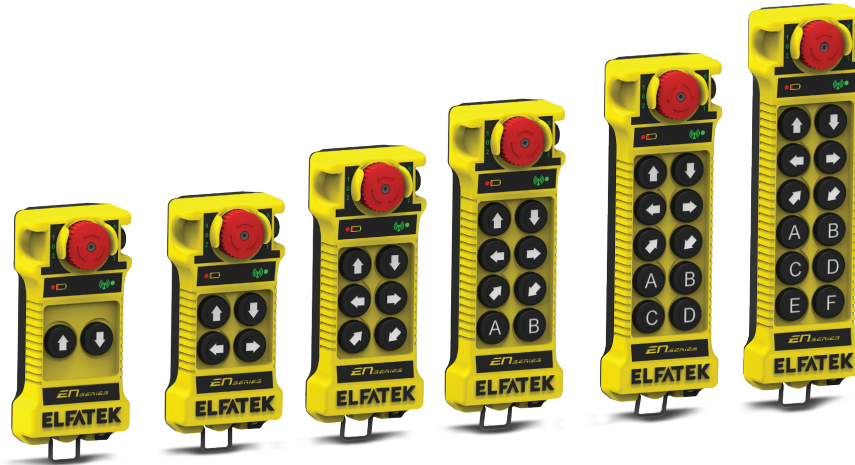
Double Step

A BUTTON	B BUTTON	C BUTTON	D BUTTON	E BUTTON	F BUTTON

In single step remotes A,B,C,D,E and F buttons are single step,
In double step remotes A,B,C,D,E and F buttons are double step.

5 Product Definition

Transmitters



Receivers



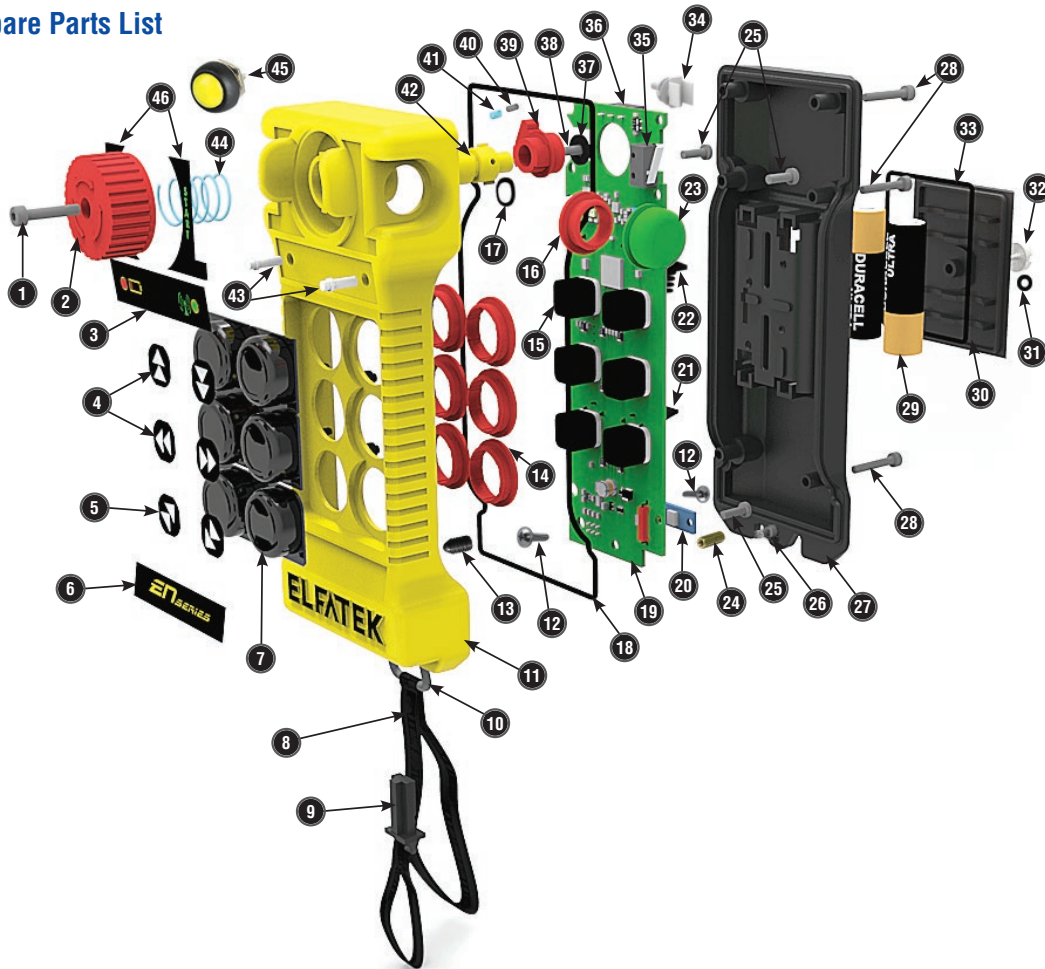
Small

Medium

Large

6 Spare Parts List

Transmitter Spare Parts List



6 Spare Parts List

Standard Transmitter Spare Parts List

NU	PRODUCT CODE	PRODUCT DESCRIPTION
1	HMD.MTL.VID.0014	VIDA M3X16 IMBUS VERICI ACS (EN SERIES)
2	HMD.PLS.ACS.0006	ACS MANTARI (EN SERIES)
3	HMD.MTB.ETK.0035	ETIKET VERICI PİL ZAYIF-SINYAL (EN SERIES)
4	HMD.MTB.ETK.0039	ETIKET YON CIFT HIZ DUZ AKRILIK (EN SERIES)
	HMD.MTB.ETK.0040	ETIKET YON TEK HIZ DUZ AKRILIK (EN SERIES)
5	HMD.MTB.ETK.0059	ETIKET YON TEK HIZ YAN AKRILIK (EN SERIES)
	HMD.MTB.ETK.0060	ETIKET YON CIFT HIZ YAN AKRILIK (EN SERIES)
6	HMD.MTB.ETK.0036	ETIKET VERICI ALT EN SERIES
7	HMD.PLS.KRK.0008	BUTON KORUGU 2'Lİ (EN SERIES)
8	HMD.AKS.BLK.0002	BILEKLIK (EN SERIES)
9	HMD.PLS.VRC.0001	KEY SECURITY (EN SERIES)
10	HMD.MTL.BLK.0001	BILEKLIK ASKI DEMIRI (EN SERIES)
11	-----	STATED IN SIDE BY SIDE IS MODEL
12	HMD.MTL.VID.0016	VIDA M3X6 TORNAVIDA BASLI (EN SERIES)
13	HMD.MTL.STP.0001	MACA STOPER M5X10 mm (EN SERIES)
14	HMD.PLS.HLK.0002	BUTON KORUK HALKASI (EN SERIES)
15	HMD.KMP.BTN.0004	BUTON KARE CIFT HIZ
	HMD.KMP.BTN.0003	BUTON KARE TEK HIZ
16	HMD.PLS.HLK.0001	START BUTON HALKASI (EN SERIES)
17	HMD.PLS.ORN.0004	ORING ACS GOVDE
18	HMD.PLS.ORN.0011	ORING NBR 70 BLACK SERIT 2X140 mm VERICI KENAR (EN SERIES)
19	-----	STATED IN SIDE BY SIDE IS MODEL
20	YMU.KRT.KEY.0001	ICHIP SET
21	HMD.MTL.KTP.0004	PİL KUTUP METALI (+) (EN SERIES)
22	HMD.MTL.KTP.0005	PİL KUTUP METALI (-) (EN SERIES)
23	HMD.PLS.KRK.0007	START BUTON KORUK (EN SERIES)
24	HMD.MTL.DST.0001	DISTANCE M3X11 YP-411 (EN SERIES)
25	HMD.MTL.VID.0010	VIDA Y5B 3.5X8 mm
26	HMD.MTL.VID.0012	VIDA M3X6-8 IMBUS VERICI ALT PLASTIK
27	-----	STATED IN SIDE BY SIDE IS MODEL
28	HMD.MTL.VID.0013	VIDA M3X20 IMBUS VERICI ALT PLASTIK (EN SERIES)
29	HMD.DGU.PIL.0001	PİL AA 1.5 V
30	HMD.PLS.PLK.0003	PİL KAPAK (EN SERIES)
31	HMD.PLS.ORN.0012	ORING NBR 70 BLACK 1.78 X1.78 PİL KAPAGI VIDA
32	HMD.MTL.VID.0015	VIDA M3X4 PİL KAPAK OZEL (EN SERIES)
33	HMD.PLS.ORN.0013	ORING NBR 70 BLACK 2X60 PİL YUVASI (EN SERIES)
34	-----	STATED IN SIDE BY SIDE IS MODEL
35	HMD.KMP.SWT.0006	SWITCH 90°
36	HMD.KMP.SWT.0001	SWITCH 180°
37	HMD.MTL.ACS.0001	ACS PULU
38	HMD.MTL.VID.0005	VIDA Y5B 3X7.5-8 mm ACS ALT
39	HMD.PLS.ACS.0007	ACS STOP ITICI (EN SERIES)
40	HMD.MTL.ACS.0004	ACS MASURA 2X4.5 mm
41	HMD.MTL.ACS.0003	ACS YAYI KUÇUK
42	HMD.PLS.ACS.0008	ACS GOVDE (EN SERIES)
43	HMD.PLS.LED.0001	LED CUBUGU 11 mm (LG-11)
44	HMD.MTL.ACS.0002	ACS YAYI BUYUK
45	-----	STATED IN SIDE BY SIDE IS MODEL
46	HMD.MTB.ETK.0034	ETIKET VERICI UST START ve 1-0-2 (EN SERIES)

2 Button Transmitter Spare Parts List

NU	PRODUCT CODE	PRODUCT DESCRIPTION
11	HMD.PLS.VRC.0008	VERICI UST PLASTIK B2 (EN SERIES)
	HMD.PLS.VRC.0009	VERICI UST PLASTIK B2 KEY (EN SERIES)
19	YMU.KRT.VRC.0009	VERICI KART SET EN-ECO 201
	YMU.KRT.VRC.0017	VERICI KART SET EN-ECO 202
	YMU.KRT.VRC.0024	VERICI KART SET EN-MID 201
	YMU.KRT.VRC.0025	VERICI KART SET EN-MID 202
27	HMD.PLS.VRC.0007	VERICI ALT PLASTIK B2-B4 (EN SERIES)

4 Button Transmitter Spare Parts List

NU	PRODUCT CODE	PRODUCT DESCRIPTION
11	HMD.PLS.VRC.0005	VERICI UST PLASTIK B4 (EN SERIES)
	HMD.PLS.VRC.0006	BUTON KORUK HALKASI (EN SERIES)
19	YMU.KRT.VRC.0020	VERICI KART SET EN-ECO 401
	YMU.KRT.VRC.0021	VERICI KART SET EN-ECO 402
	YMU.KRT.VRC.0028	VERICI KART SET EN-MID 401
	YMU.KRT.VRC.0029	VERICI KART SET EN-MID 402
27	HMD.PLS.VRC.0007	VERICI ALT PLASTIK B2-B4 (EN SERIES)

6 Button Transmitter Spare Parts List

NU	PRODUCT CODE	PRODUCT DESCRIPTION
11	HMD.PLS.VRC.0002	VERICI UST PLASTIK B6 (EN SERIES)
	HMD.PLS.VRC.0003	VERICI UST PLASTIK B6 KEY (EN SERIES)
19	YMU.KRT.VRC.0001	VERICI KART SET EN-ECO 601
	YMU.KRT.VRC.0002	VERICI KART SET EN-ECO 602
	YMU.KRT.VRC.0003	VERICI KART SET EN-MID 601
	YMU.KRT.VRC.0004	VERICI KART SET EN-MID 602
27	HMD.PLS.VRC.0004	VERICI ALT PLASTIK B6 (EN SERIES)

8 Button Transmitter Spare Parts List

NU	PRODUCT CODE	PRODUCT DESCRIPTION
11	HMD.PLS.VRC.0010	VERICI UST PLASTIK B8 (EN SERIES)
	HMD.PLS.VRC.0011	VERICI UST PLASTIK B8 KEY (EN SERIES)
19	YMU.KRT.VRC.0040	VERICI KART SET EN-ECO 801
	YMU.KRT.VRC.0048	VERICI KART SET EN-ECO 802
	YMU.KRT.VRC.0044	VERICI KART SET EN-MID 801
	YMU.KRT.VRC.0052	VERICI KART SET EN-MID 802
27	HMD.PLS.VRC.0015	VERICI ALT PLASTIK B8 (EN SERIES)

10 Button Transmitter Spare Parts List

NU	PRODUCT CODE	PRODUCT DESCRIPTION
11	HMD.PLS.VRC.0012	VERICI UST PLASTIK B10 (EN SERIES)
	HMD.PLS.VRC.0013	VERICI UST PLASTIK B10 KEY (EN SERIES)
19	YMU.KRT.VRC.0056	VERICI KART SET EN-ECO 1001
	YMU.KRT.VRC.0064	VERICI KART SET EN-ECO 1002
	YMU.KRT.VRC.0060	VERICI KART SET EN-MID 1001
	YMU.KRT.VRC.0068	VERICI KART SET EN-MID 1002
27	HMD.PLS.VRC.0017	VERICI ALT PLASTIK B10 (EN SERIES)

12 Button Transmitter Spare Parts List

NU	PRODUCT CODE	PRODUCT DESCRIPTION
11	HMD.PLS.VRC.0014	VERICI UST PLASTIK B12 KEY (EN SERIES)
19	YMU.KRT.VRC.0072	VERICI KART SET EN-MID 1201
	YMU.KRT.VRC.0076	VERICI KART SET EN-MID 1202
27	HMD.PLS.VRC.0016	VERICI ALT PLASTIK B12 (EN SERIES)

For S1-S2 Models

NU	PRODUCT CODE	PRODUCT DESCRIPTION
34	HMD.KMP.SWT.0002	SWITCH 0-1
	HMD.KMP.SWT.0003	SWITCH 1-0-2

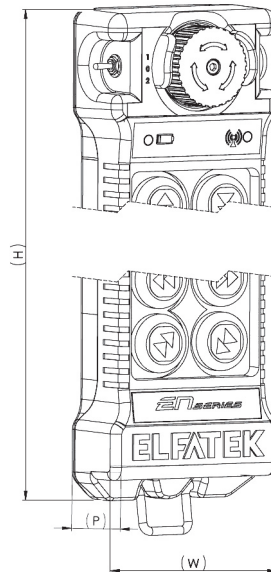
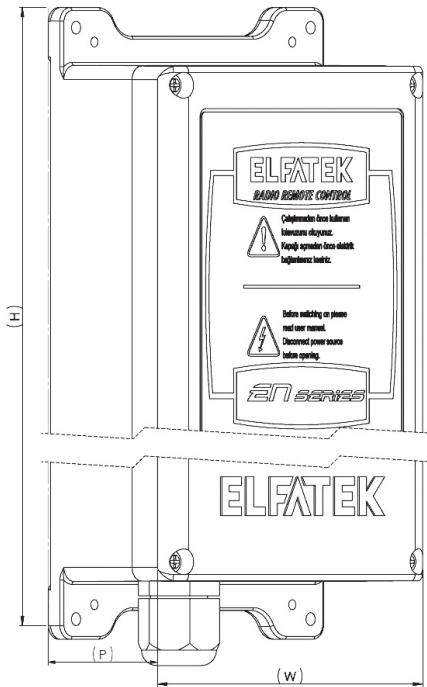
For Aux Models

NU	PRODUCT CODE	PRODUCT DESCRIPTION
34	HMD.DGU.BTN.0001	BUTON AUX

SAMPLE ORDER

PRODUCT CODE	PRODUCT DESCRIPTION	PIECE
HMD.KMP.BTN.0004	BUTON KARE CIFT HIZ	1

7 Technical Specifications

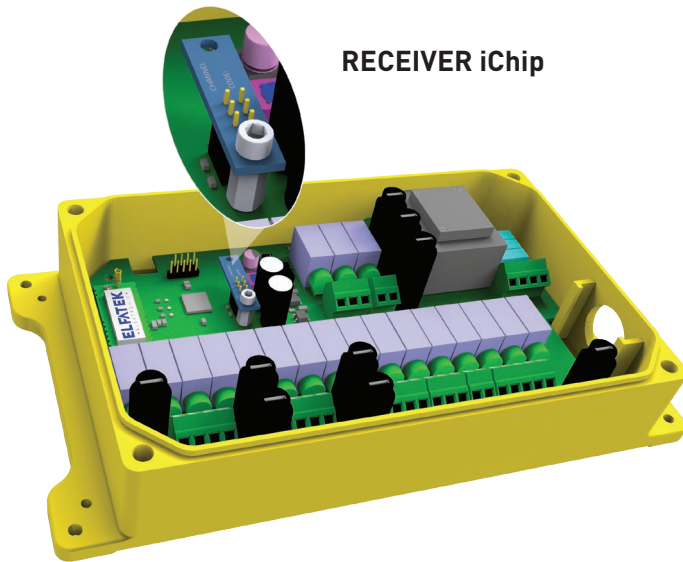


EN SERIES Dimensions of the Receivers

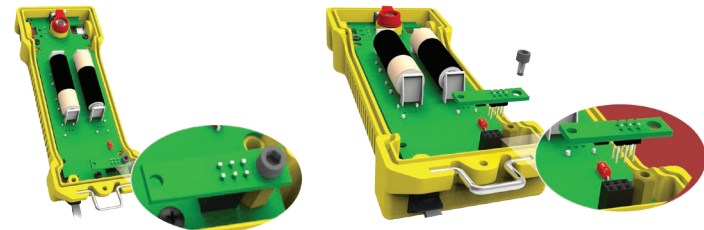
MODEL	H (Height)	W (Width)	P (Depth)
SMALL RECEIVER	170 mm	96 mm	50 mm
MEDIUM RECEIVER	246 mm	130 mm	61 mm
LARGE RECEIVER	275 mm	145 mm	66 mm

EN SERIES Dimensions of the Transmitters

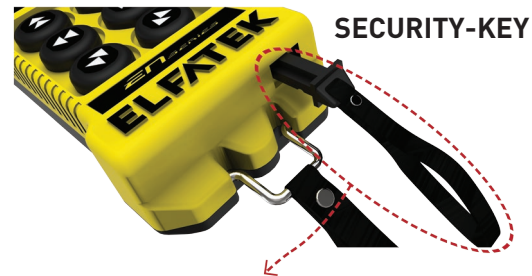
MODEL	H (Height)	W (Width)	P (Depth)
2 BUTTON	150 mm	70 mm	48 mm
4 BUTTON	150 mm	70 mm	48 mm
6 BUTTON	175 mm	70 mm	48 mm
8 BUTTON	196 mm	70 mm	48 mm
10 BUTTON	220 mm	70 mm	48 mm
12 BUTTON	241 mm	70 mm	48 mm



RECEIVER iChip



TRANSMITTER iChip



SECURITY-KEY

Available only EN-MID Series

iChip involves operating frequency, channel and code informations of remote control. For example; you have receiver and transmitter as spare, what you have to do is to remove the iChip from the malfunction remote control and insert to the spare remote control so the channel and code informations are forwarded to the spare remote control. You can operate the remote control and continue to use the remote control without a hitch.

Available only on EN-MID Series

When you remove the security key transmitter doesn't work and when you insert it again transmitter keeps on working.

8 Transmitter Standard Technical Specifications

Operating Frequency	2,4 GHz I.S.M. Band
EN-ECO Button Numbers	2,4,6,8,10,12
EN-MID Button Numbers	2,4,6,8,10,12
Channels Numbers	80
Operating Distance	≈ 100 m
RF System Power	10 mW ERP (Internal Antenna)
Data Encryption Code	65536
Delay Of The Receiver	< 1 sn
Response Time	< 20 ms
Response Time For The Active Emergency Situation	< 20 ms
Response Time For The Passive Emergency Situation	< 20 ms
Operating-Storage Temperature Range	-40 °C - +85 °C
Enclosure Protection Rating	IP 65
Body Structure	Polyamid
Supply Voltage	3 VDC
Button Diameter	20 mm
Current Requirements	12mA
Battery	2 x AA Standard Battery
Continuous Operating Time at 20°C	≈ 250 hours (Tested with Duracell Batteries)
Operating Time After Low Battery Indicator	30 min.
2 Button (Internal Battery)	277-282 gr
4 Button (Internal Battery)	290-294 gr
6 Button (Internal Battery)	333-341 gr
8 Button (Internal Battery)	376-383 gr
10 Button (Internal Battery)	422-430 gr
12 Button (Internal Battery)	465-474 gr

9 Receiver Standard Technical Specifications

Operating Frequency	2,4 GHz I.S.M Band
Channels Numbers	80
Operating Distance	≈100 m
On/Off Remote Control Numbers	Changes according to the models
Data Encryption Code	65536
Receiver Operation Delay Time	< 1 sn
Response Time	< 20 ms
Response Time For The Active Emergency Situation	< 20 ms
Response Time For The Passive Emergency Situation	< 20 ms
Operating-Storage Temperature Range	-40 °C - +85 °C
Processing-Storage Temperature Range	-40 °C - +85 °C
Enclosure Protection Rating	IP 65
Body Structure	Polyamid
Supply Voltage	48-110-220 VAC or(7-35vac~10-50vdc)
Power Requirement	3.2 W Max.
Remote Control Relays Max. Capacity	10A 250 V
Stop Relays Max. Capacity	5A 250 V
Dimensions	See page 7
Maximum Weight	Changes according to the models

10 Device Mounting

When the device is mounted, the issues in the below have to be taken into account.



Before assembling the receiver on crane, disconnect the power from the master switch. The installation must be made by a qualified personnel.



Do not mount the batteries on the transmitter till the system is completely installed.



If the device is used in open area, the receiver should be protected from environmental factors.



The receiver has to be best fitted on crane and shouldn't be affected of falling and vibration.

Receiver unit shall not be mounted into metal panel.



Connect the receiver as described in the manual.



Assembling of power cables has to be done by an authorized service or a qualified electrical technician.



The cable connection of the receiver has to be connected with best fitted connectors and sockets to the crane cabinet.

11 Instruction Guide

- Power the crane from the master switch.
- Check the receiver's power supply LEDs to be sure that electricity is on.(page 14)
- Move to a safe place to start the crane.
- Press ESB (Emergency Stop Button) on the transmitter.
- Insert the batteries (2 unit AA size).
- Turn on ESB by turning ESB 45 degrees right or left side on the transmitter.
- Check again if security key is inserted (MID SERIES)
- Press start button for 2 seconds then the signal light (LED) will be observed on green colour.The crane is ready to start. At the same time the start button is also used for Horn. By successively pressing the start button Horn relay is activated.
- When any button on transmitter is pressed, the button's relays on the receiver will be active and the cranes will work.
- If electrical connection is different as mentioned in the manual, the crane movements can be different. In this case, the electric connection should be checked.
- When the work is finished press ESB and disconnect the power on master switch.

- Energy usage is done till any button is pressed otherwise the handheld terminal goes to sleep mode, thus saving energy.
- The handheld and receiver unit is made of Polyamide and immune to dust, oil and humidity. Enclosure Protection Rating is IP65.
- When the low battery LED indicator start blinking, the transmitter works about 30 minutes (Tesded with duracell batteries). Then system automatically shuts off itself. Change the batteries.

PACKING:

REMOTE CONTROLLER UNIT is put into a carton box before shipment. Then, the box is securely closed and the item is dispatched.

HANDLING:

REMOTE CONTROLLER UNIT weighs between 1.1 to 2.7 kg. It's possible to handle the unit box without any means of conveyance.

STOCKING:

The unit shall be kept in humid-free and dust-free places. The stocking conditions shall keep dust and humidity out of the unit.

12 Security Warnings

- If the batteries replaced with a wrong (deprecated) batteries, there should be risk of explosion.
- The cables of remote has to be covered well for not to be smashed.
- If electric shock happens, it may cause deathly shocks and serious burnings.
- When the crane is functioning don't touch the electrical parts and receiver's input and output circuitry.
- On assembly, maintenance and service occasions disconnect the power on master switch.
- When the connections are checked, be careful if there are bared cables or not. Don't touch bare cables.
- Disconnect the power on master switch when cranes aren't used.
- On maintenance or service period use the advised equipment by manufacturer.

13 Maintenance

- For safe working daily maintenance must be done.
- Disconnect the power on master switch in maintenance, cleaning and repairing situations.
- Maintenance and repairing has to be done by an expert.
- Change the deformed and worn parts of remotes with new versions to prevent fault.
- On a suspicious event, stop the system and inform the service.

BATTERIES SHOULD NOT BE DISPOSED OF WITH GENERAL HOUSEHOLD WASTE.

note

14 Emergency Situation

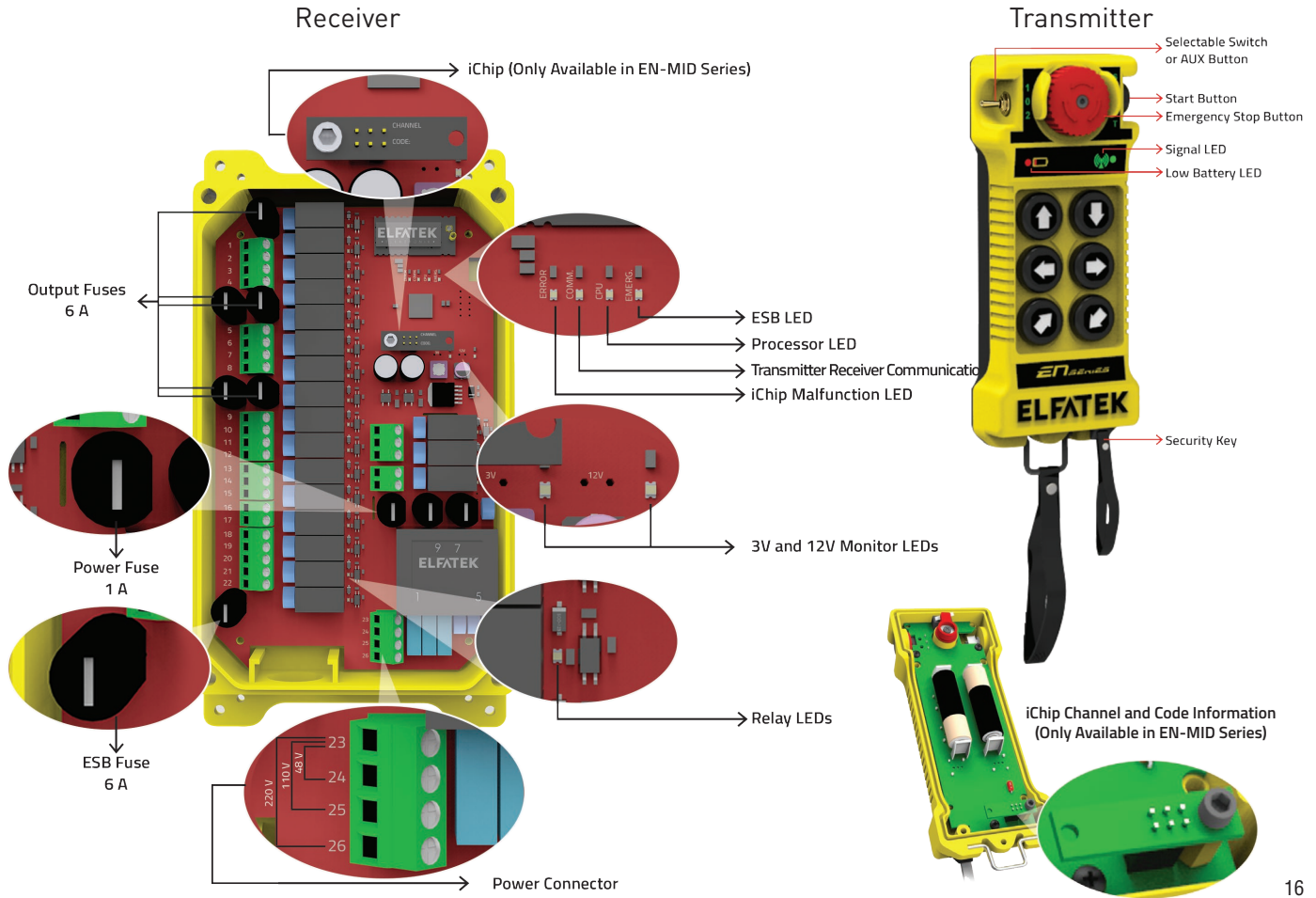
On emergency occasions please follow below and inform authorized service or sellers.

- Press Emergency Stop Button.
- Take out the batteries from transmitter. (Only available in EN-ECO Series)-For EN-MID Series just remove security key
- Switch off the power from master switch.
- Contact with manufacturer or authorized service to understand the reason of the problem.

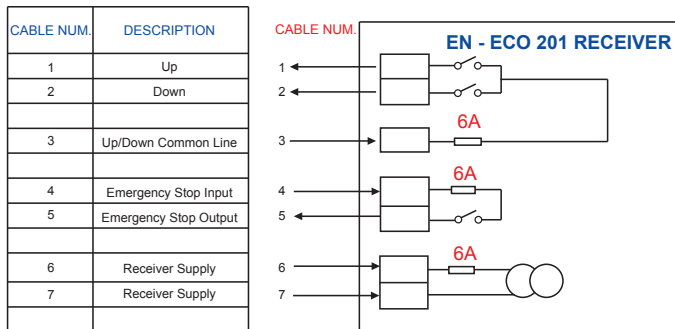
15 In Case Of Malfunction

- If low battery LED is always lighting RED, change the batteries with new ones.
- If transmitter low battery LED (is RED) and signal LED (is RED) are blinking the same time. Check if iChip is correctly connected to the socket (Only available on EN-MID series)
 - If signal LED (is RED) when any button pressed, ESB is on. Turn ESB 45 degrees right or left side and press START button for 2 seconds.
 - When any button pressed if none of the LEDs are lighting, the batteries maybe dry. Change with new batteries or check security key connection on EN-MID series
 - When any button pressed and the signal LED is blinking (green). But the crane is not working and also relay are not activating. The output fuse is off. Change the defected fuse with a new one.
 - If the power supply LEDs are not lighting on the receiver. Check power supply fuse at the receiver. If the fuse is broken then change with new one.
 - If ERROR and EMERG. LEDs on the receiver are blinking at the same time there may be a connection problem with iChip . Check iChip connection if firmly connected to the socket. Only available on EN-MID series.
 - On the receiver if BLUE COMM LED is not blinking when START or any button pressed on transmitter. There maybe a transmitting receiving communication problem. Check mentioned above issues. If the problem persists call service.
 - If EMERG. LED is lighting on the receiver. It means ESB button has been pressed. Turn ESB 45 degrees right or left side and press START button for 2 seconds.

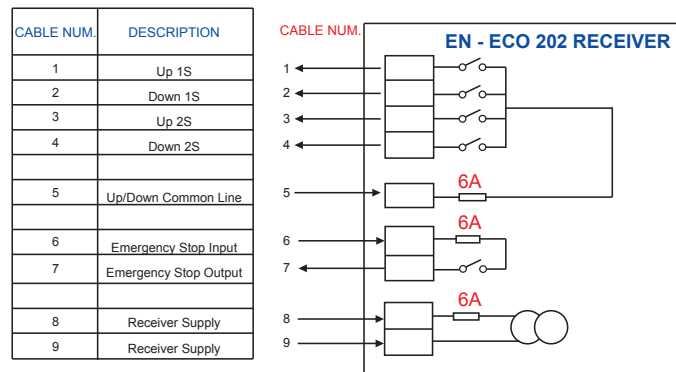
15 In Case Of Malfunction



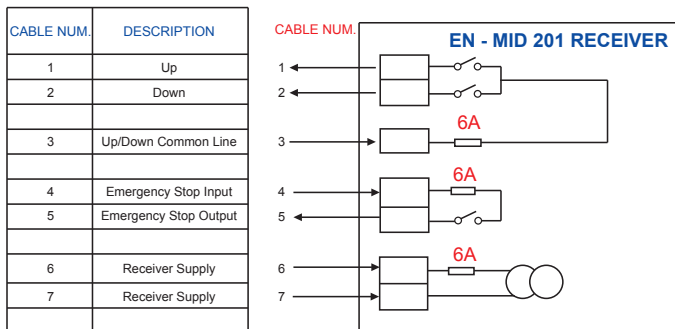
EN - ECO 201 WIRING DIAGRAM



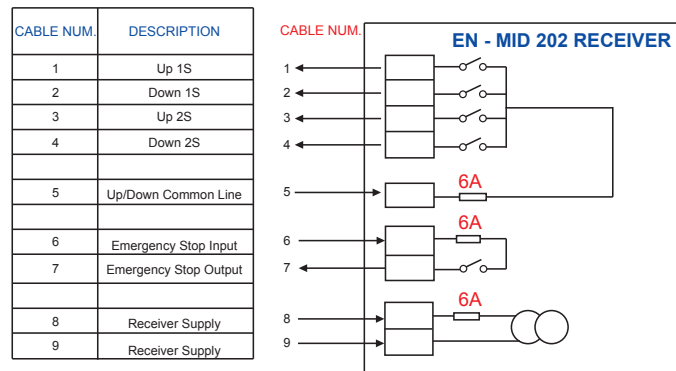
EN - ECO 202 WIRING DIAGRAM



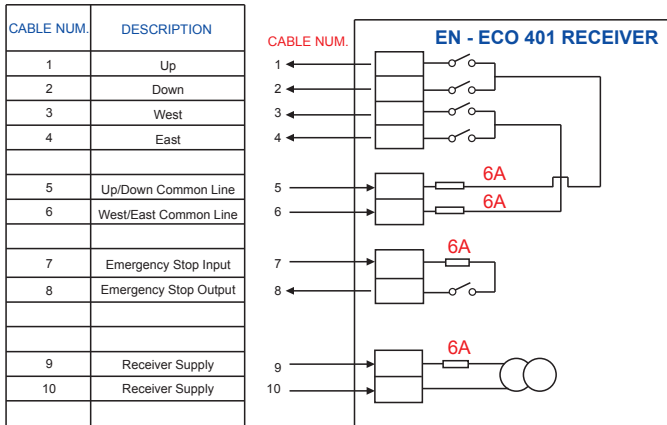
EN - MID 201 WIRING DIAGRAM



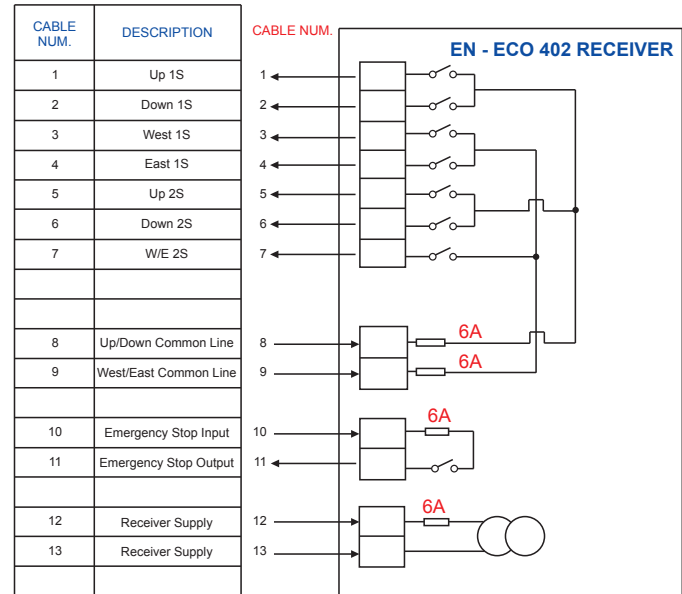
EN - MID 202 WIRING DIAGRAM



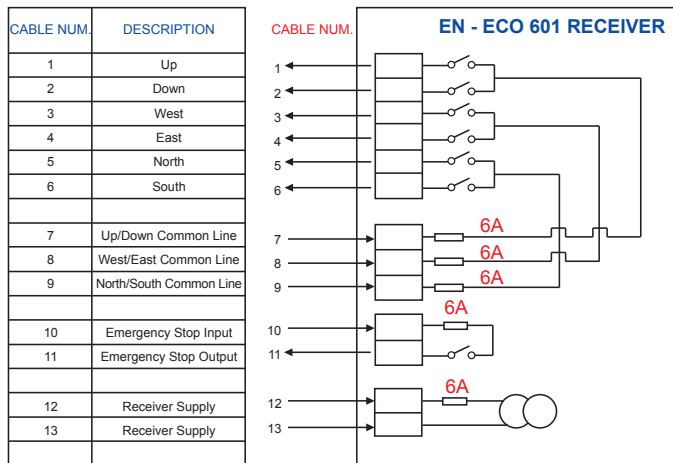
EN - ECO 401 WIRING DIAGRAM



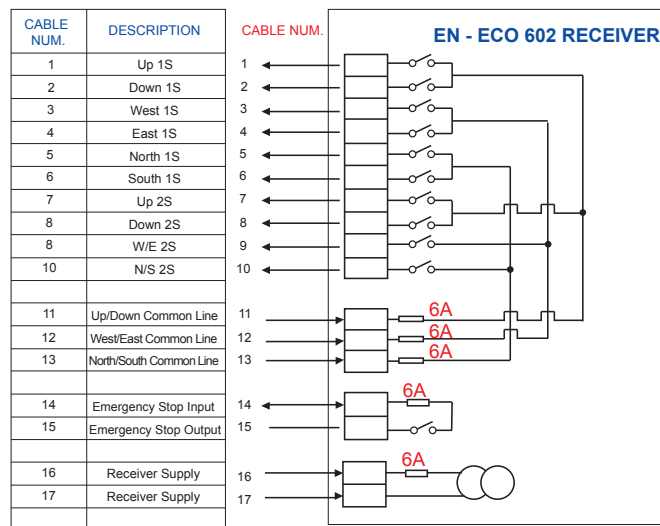
EN - ECO 402 WIRING DIAGRAM



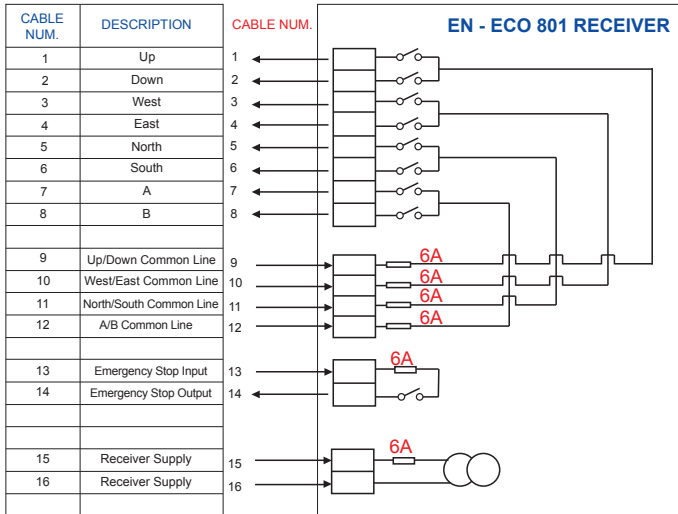
EN - ECO 601 WIRING DIAGRAM



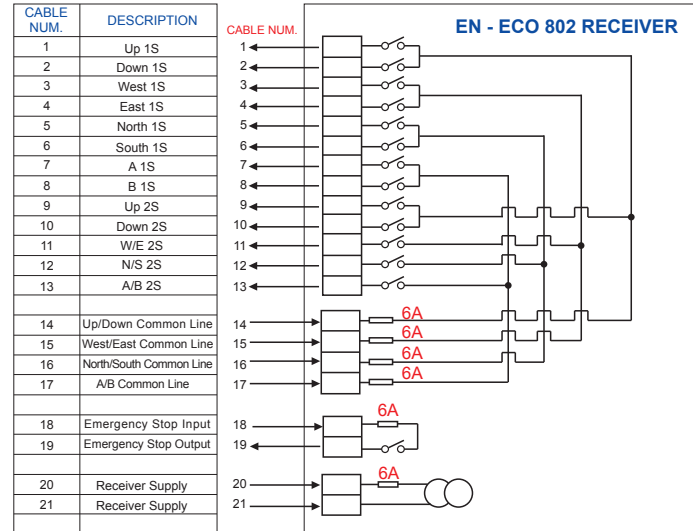
EN - ECO 602 WIRING DIAGRAM



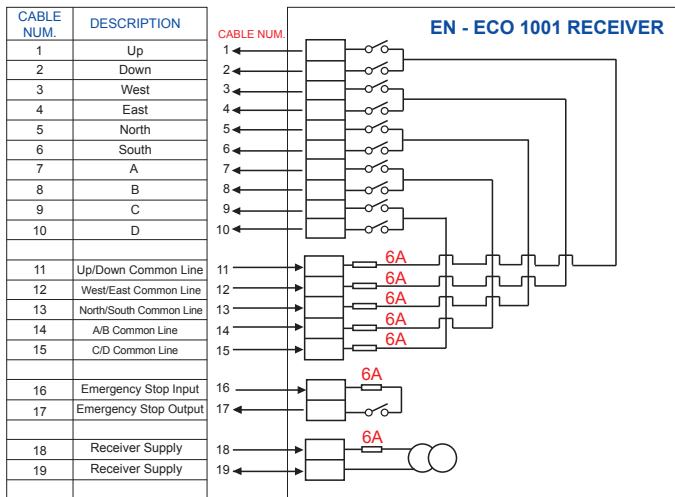
EN - ECO 801 WIRING DIAGRAM



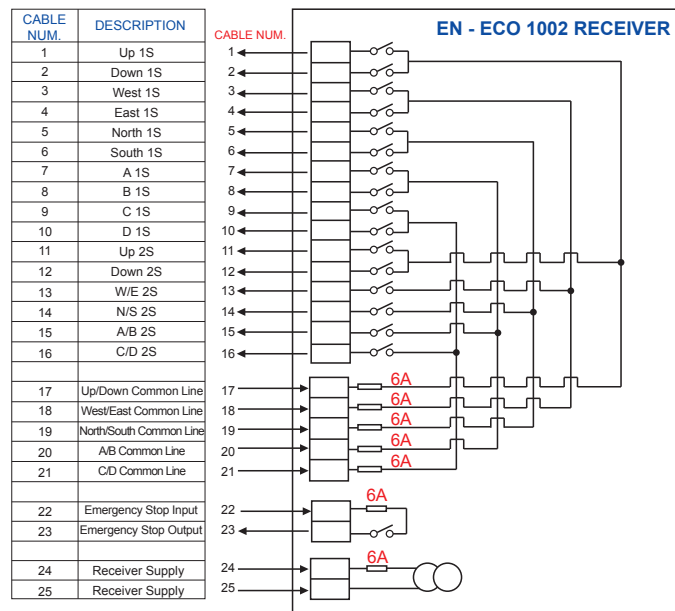
EN - ECO 802 WIRING DIAGRAM



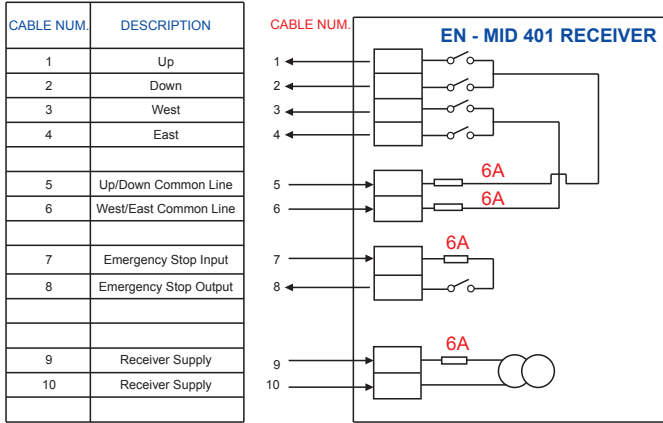
EN - ECO 1001 WIRING DIAGRAM



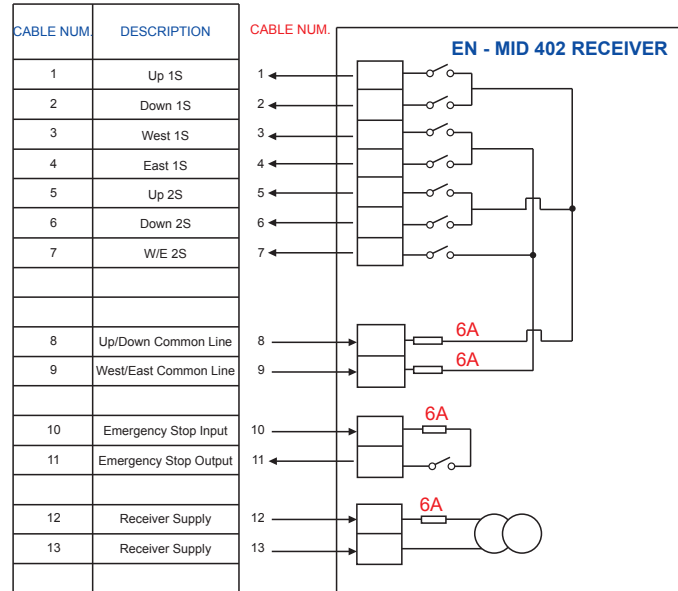
EN - ECO 1002 WIRING DIAGRAM



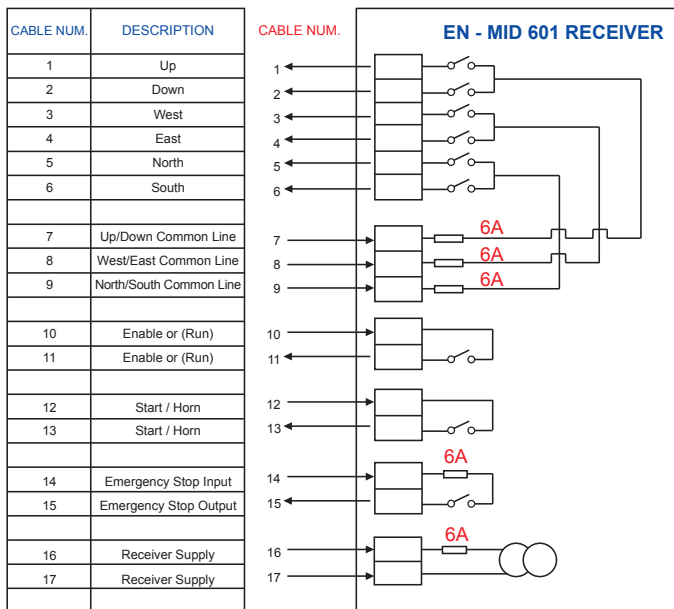
EN - MID 401 WIRING DIAGRAM



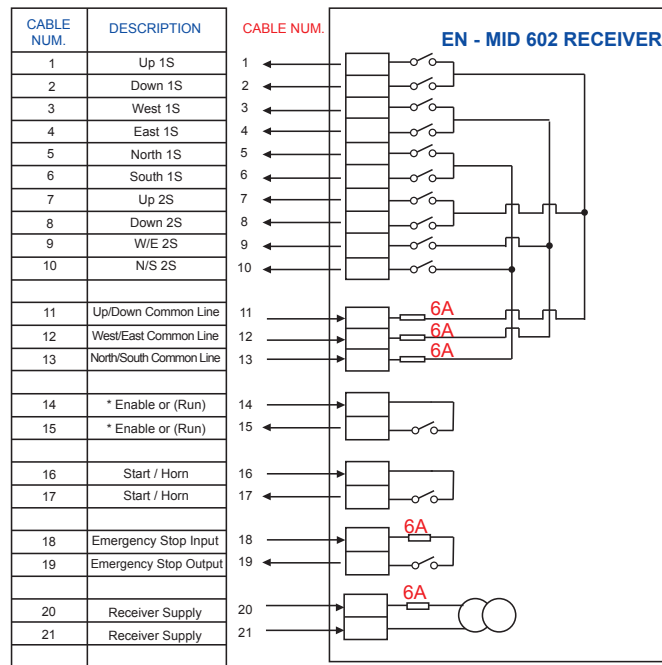
EN - MID 402 WIRING DIAGRAM



EN - MID 601 WIRING DIAGRAM

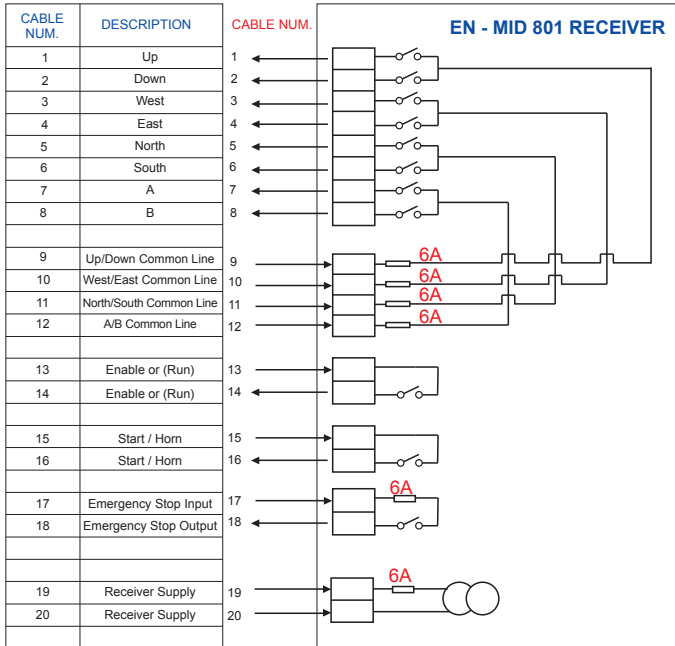


EN - MID 602 WIRING DIAGRAM

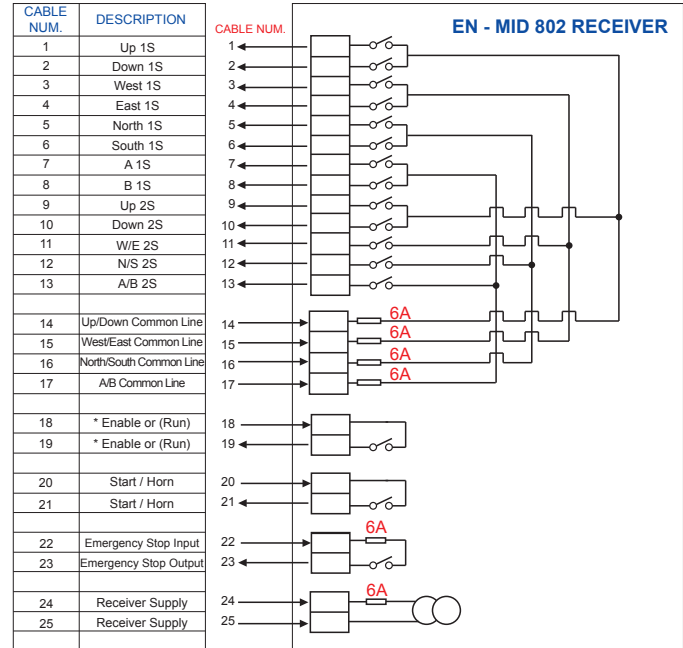


*Enable or (Run); This Relay is activated during when any button pressed on the remote keypad

EN - MID 801 WIRING DIAGRAM

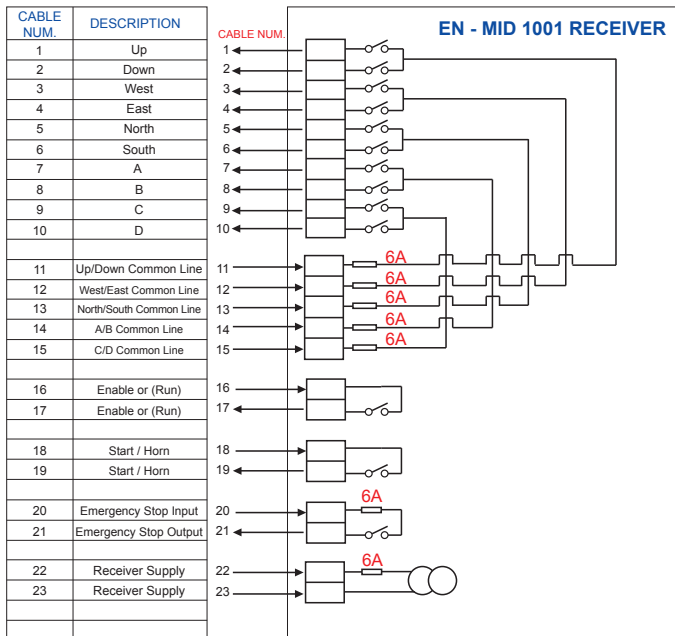


EN - MID 802 WIRING DIAGRAM

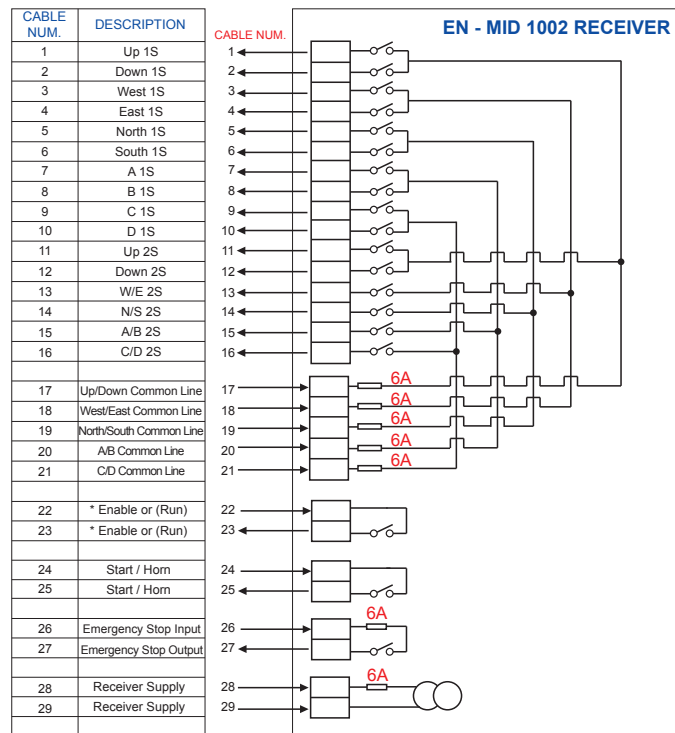


*Enable or (Run); This Relay is activated during when any button pressed on the remote keypad

EN - MID 1001 WIRING DIAGRAM

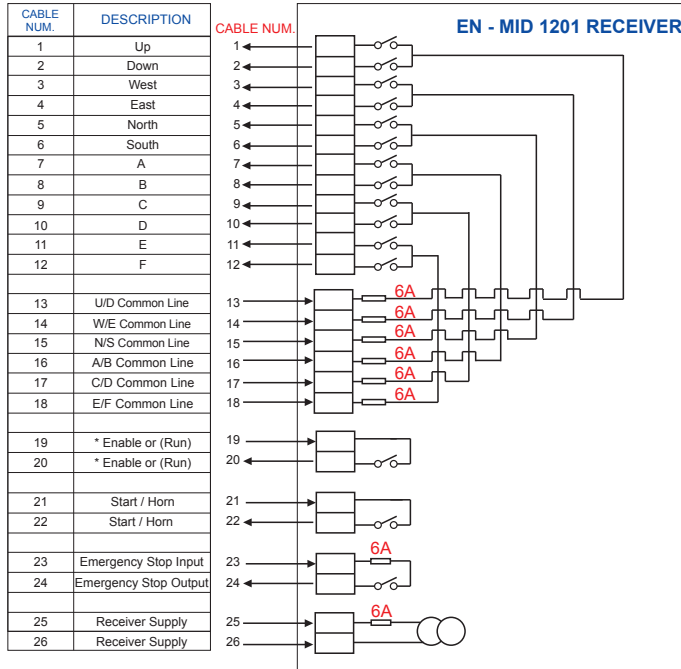


EN - MID 1002 WIRING DIAGRAM

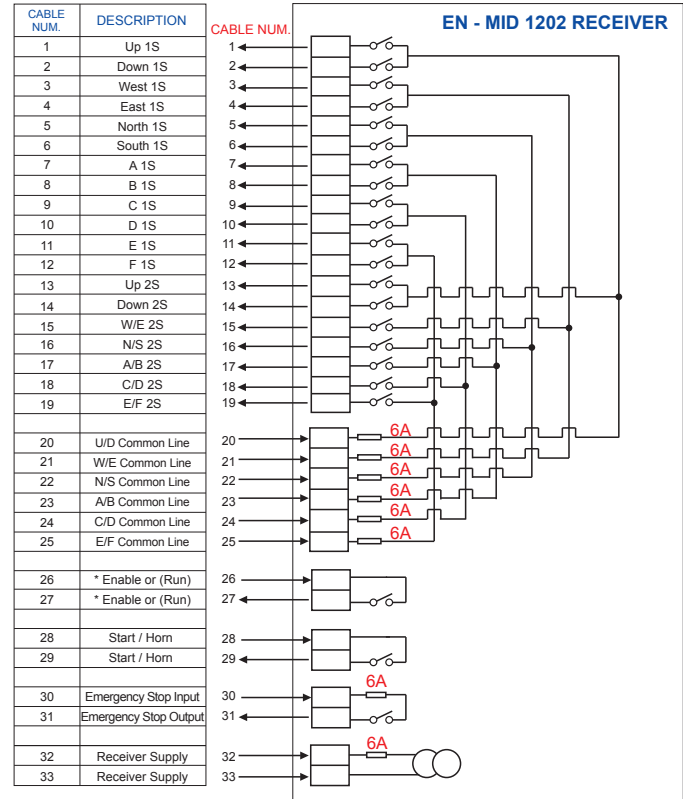


*Enable or (Run); This Relay is activated during when any button pressed on the remote keypad

EN - MID 1201 WIRING DIAGRAM



EN - MID 1202 WIRING DIAGRAM



*Enable or (Run); This Relay is activated during when any button pressed on the remote keypad



WARRANTY CERTIFICATE

Device is guaranteed against all kind defect of manufacturing for **one (1) years**.

Warranty does not cover the following points: To use the device except to purpose stated in the manual or to use incorrect, Buttons, relays and switches, To intervene into devices.

You may contact us with mentioned address or telephone in the manual for any failure or complaint, you may ask for help.

All remote control parts are designed and produced by Elfatek Elektronik, we carry all spare parts in stock.

Our technical service will ship defected remote control devices for maintenance and repair in 20 business days.

Serial No :
Barcode No :
Date :/...../.....
Manufacturer : **Elfatek Elektronik Ltd. Sti.**
Max. Period of Repair : **20 business days**
The Warranty Period : **One (1) Years**

Manufacturer
Stamp/Signature

A large, empty rounded rectangular box with a thin blue border, intended for a manufacturer's stamp or signature.

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