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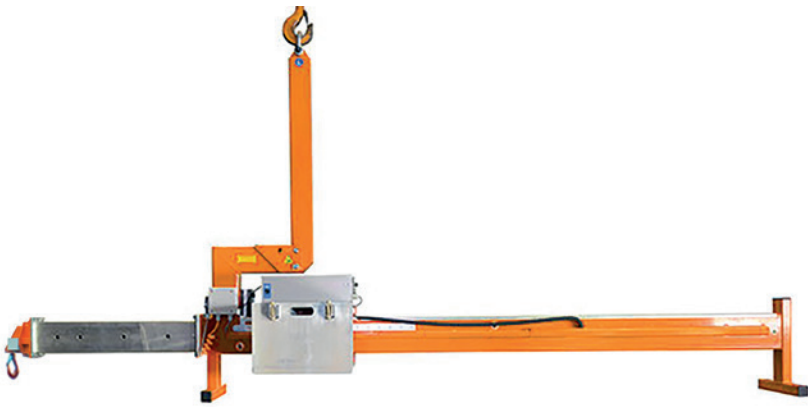
OPERATORS MANUAL

COUNTERBALANCE LIFITNG BEAM

CBL900



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1.1 Manufacturer's information

Manufacturer's name and registered office:

Wirth GmbH
Vacuum Lifting Technology Division
Brehnaer Straße 1
D-06188 Landsberg

Device characteristics:

Product denomination:	Counterweight balancer
Type:	GGA 800 24/2,0/4,8 oVH-e
Serial number:	(see type plate)
Year of Manufacture:	(see type plate)
Weight:	ca. 1010 kg (incl. 24 pieces counterweights)
	1 piece counterweight = ca. 26,5 kg
Working Load limit:	max. 900 kg (s. also section 2.3 und 2.6)
CE marking:	in accordance with EC conformity declaration Annex I

Inspection tag according to Annex II on the device.

1.2 Service workshop

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Brehnaer Str. 1	Fax.:	+49 (0) 34 602 / 70 88 - 111
D-06188 Landsberg	E-Mail:	info@wirth-gmbh.com

1.3 Scope of application

This operation manual represents the state-of-the-art and the safety measures defined by the European Machinery Directive valid at the editing date of the manual.

Diverging or amending national regulations may not be considered eventually.

The user is responsible exclusively to observe such regulations.

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2 Proper use of the counterweight balancer

2.1 Functional principle, use and safety concept

The counterweight balancer 800 24/2,0/4,8 oVH-e is a load lifting attachment. It is used for the lifting and positioning of construction elements in difficult to access areas (e.g. below eaves). Motor-driven counterweights enable to equilibrate the load.

Specific safety requirements, which have been taken into account during construction, execution, technical documentation and in drawing up the operating instructions, result from the function of the counterweight balancer being a load lifting attachment.

Therefore, strict adherence to the instructions and information for proper and safe use given in the operating manual is a prerequisite for the manufacturer's warranty during the stipulated warranty period.

Combining the counterweight balancer with a hoist is the responsibility of the user of the counterweight balancer. The user himself is responsible for proper implementation of the relevant guidelines and instructions. The instructions given in this operating manual by the manufacturer of the counterweight balancer are considered to be additional support.

Prior to initial start-up of the machine the suitability of the combination hoist/counterweight balancer in operating conditions has to be checked by skilled personnel.

Furthermore, the counterweight balancer has to undergo regular inspections by an expert (s. section 4.1). An expert is a person that due to their technical training and experience has sufficient knowledge in the area of load lifting attachments and is familiar with relevant occupational and safety instructions, regulations and generally recognized codes of practice which enables them to assess operational safety of load lifting attachments.

The initial inspection of the combination hoist/counterweight balancer as well as successful performance of the annual inspection of the counterweight balancer by an expert has to be documented.

The manufacturer of the counterweight balancer offers expert inspections as a service and documents the inspections on the counterweight balancer by placing the inspection tag on the inspection card according to Annex II indicating the next inspection date.

For further information please do not hesitate to contact us or visit our website: www.wirth-gmbh.com.

2.2 Safety instructions

(1) Only employ cranes that have a sufficient Working Load Limit in all possible working positions. Please take into account that the load to be lifted consists of the weight of the counterweight balancer, the weight of the construction element to be handled and, if applicable, the weight of the lifting accessory!

(2) Never use a damaged, not fully functional or not complete counterweight balancer!

(3) Have your crane/counterweight balancer combination checked and documented by an expert before initial operation!

(4) Only operate the crane if you have an operating license!

(5) Only operate the combination crane/counterweight balancer, if you are familiar with the control and display elements as well as the operating manuals. You have to know how the functions affect the entire installation!

(6) Prior to using crane and counterweight balancer check the function of the control and display elements as well as the warning devices!

(7) Never stand or walk under suspended load!

(8) Do not lift the load higher than necessary!

(9) Make sure that nobody climbs the counterweight balancer and/or the suspended load and tries to ride along.

(10) In case of malfunctioning and maintenance work turn off the counterweight balancer. Therefore, turn the main switch to position OFF and if applicable, remove the connected battery charger.

(11) Never employ the counterweight balancer in explosive areas or in the area of aggressive media!

(12) Only work at wind speeds less than 30 km/h, otherwise you risk uncontrollable swinging of the load!

(13) Always wear suitable protective clothing, helmets, gloves and safety shoes, in order to avoid for example crush and cut injuries!

(14) Never leave the lifted load unsupervised!

(15) Comply with the stipulated maintenance information:

- daily visual and functional inspection of the control elements!
- depending on the operating conditions, but at least annually, inspection by an expert!

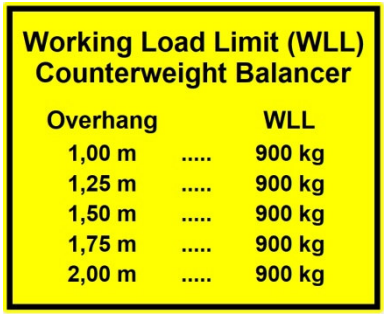
(16) Never modify the counterweight balancer in a way that its safety is impaired. Otherwise the manufacturer's warranty will be void!

(17) Do not remove information signs, safety signs and inspection tags and plates from the counterweight balancer! Otherwise the manufacturer's warranty will be void!

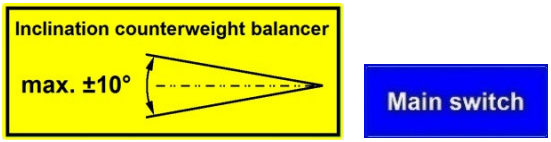
2.3 Symbols and markings

Signal word	Meaning	Consequences of non-compliance
DANGER	Warns of imminent threat of danger	Death or serious injury or substantial material damage as consequence.
WARNING	Warns of potential threat of danger	Death or serious injury or substantial material damages are possible.
ATTENTION	Warns of possibly dangerous situation	Light injury or material damages are possible.

The following safety-related signs and pictograms are affixed on the counterweight balancer besides the type plate:



(Working Load Limit)



(General notes)

(Before commissioning, read and observe the operating instructions and the safety instructions!)

(Attachment point counterweight balancer)

(Warning of hand injuries)

(Warning of dangerous electrical voltage)

(Warning of hand injuries)

Inspection card in accordance with Annex II

(Inspection card

2.4 Structure of the counterweight balancer

The functional main assemblies of the counterweight balancer are (s. fig. 1):

- the crane eye (1) for attaching the counterweight balancer to the crane,
- the load hook of the counterweight balancer (12) for attaching the load,
- the travelling cage (17) with counterweights (16) for equilibrating the load,
- depending on equipment, the cable remote control (18) or the radio remote control (s. fig. 6) for operating the travelling cage and the main switch (9) for switching the counterweight balancer on and off.

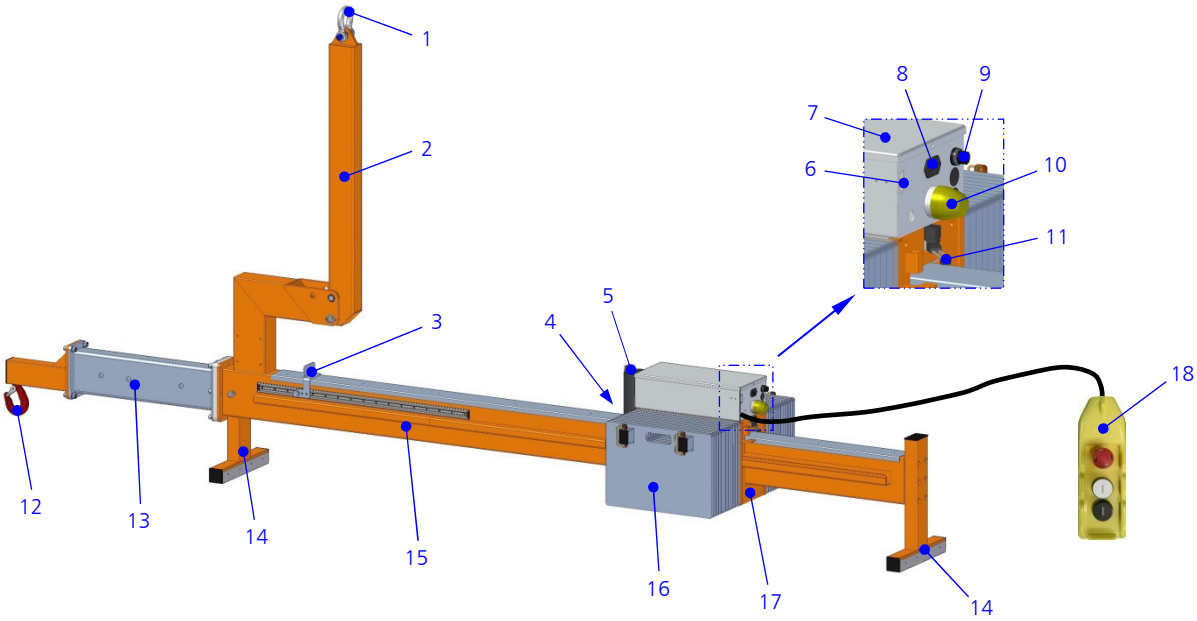


Fig. 1: Counterweight balancer GGA 800 24/2,0/4,8 oVH-e

1	Crane eye (shackle)	7	Bonnet	13	Overhang
2	Crane arm	8	Charge indicator	14	Base
3	Stop plate	9	Main switch	15	Main girder
4	Front limit switch	10	Signal light yellow	16	Counterweight
5	Drive travelling cage	11	Back limit switch	17	Travelling cage
6	Battery charging socket	12	Load hook counterweight balancer	18	Cable remote control

The counterweight balancer GGA 800 24/2,0/4,8 oVH-e is designed as a load lifting attachment and is mounted to a crane according to fig. 2.

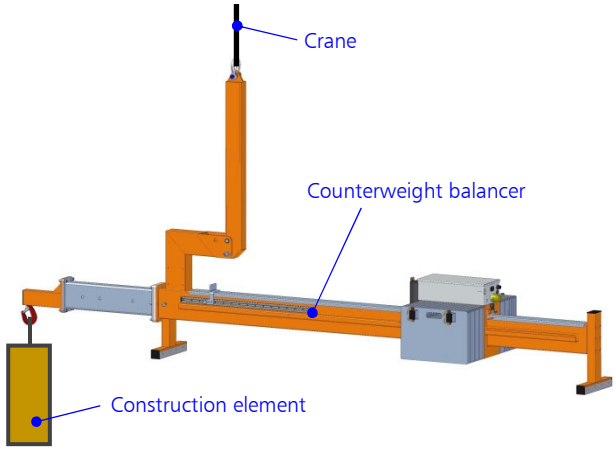


Fig. 2: Load lifting attachment GGA 800 24/2,0/4,8 oVH-e

2.5 Operating conditions and restrictions

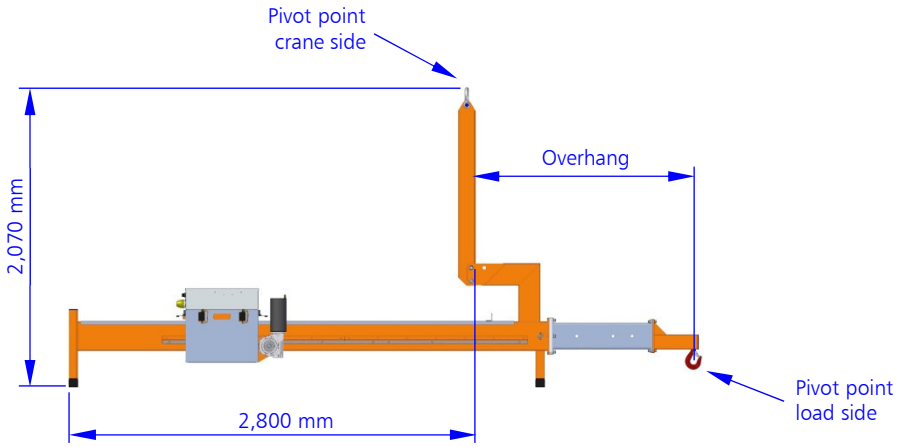
The counterweight balancer GGA 800 24/2,0/4,8 oVH-e may only be operated by instructed personnel.

Ambient temperature has to be at least 0 °C and must not exceed 40 °C (applies to 1013 mbar and sea level). At low temperatures the capacity of the used batteries is decreased. The airborne sound emitted by the counterweight balancer amounts to 70 dB(A).

Operating restrictions result from the Working Load Limit of the counterweight balancer (s. section 2.3 and/or 2.6) as well as the performance data of the crane used and the construction site conditions.

Using the counterweight balancer in combination with a vacuum lifting device is not permitted!

2.6 Functional dimensions and Working Load Limit of the counterweight balancer



Overhang [m]	Working Load Limit [kg]
1,00	900
1,25	900
1,50	900
1,75	900
2,00	900

Fig. 3: Functional dimensions and Working Load Limits of the counterweight balancer

Due to the arrangement of the crane side's and load side's pivot point as well as the vertical distance of both pivot points from one another, the counterweight balancer has a positive position of stability. Thus, it is always stable.

2.7 Transport and storage

The counterweight balancer may be moved only by a suitable hoist/means of transport of sufficient Working Load Limit.

WARNING For transport purposes put the counterweight balancer out of operation! Turn the main switch to position OFF and if applicable, disconnect any connected battery charger!

ATTENTION In order to avoid damage to the batteries due to deep discharge during storage, the counterweight balancer has to be charged at least every two weeks.

ATTENTION If necessary, conserve the counterweight balancer in order to prevent damages to the device when storing it for a longer period of time.

For transport and storage, the height of the counterweight system can be reduced to approx. 850 mm and the length to approx. 3,700 mm (incl. adapter load hook) or approx. 3,400 mm (without adapter load hook). Carry out the following steps in succession to reduce the height of the counterweight system.

1. Place the counterweight system on a firm, level surface.

2. Move the cage to the position shown in figure 4 (see also point 3.2 "Operating the counterweight balancer").
3. Remove the locking bolt B with lynch pin type 1 (s. fig. 9).
4. Swivel the crane arm by 90° and fix its new position by mounting the previously removed locking bolt B with lynch pin type 1 (see fig. 4).

Adjusting the overhang and thus the length of the counterweight balancer is described in point 3.3 (Preparing the counterweight balancer) of these operating instructions.

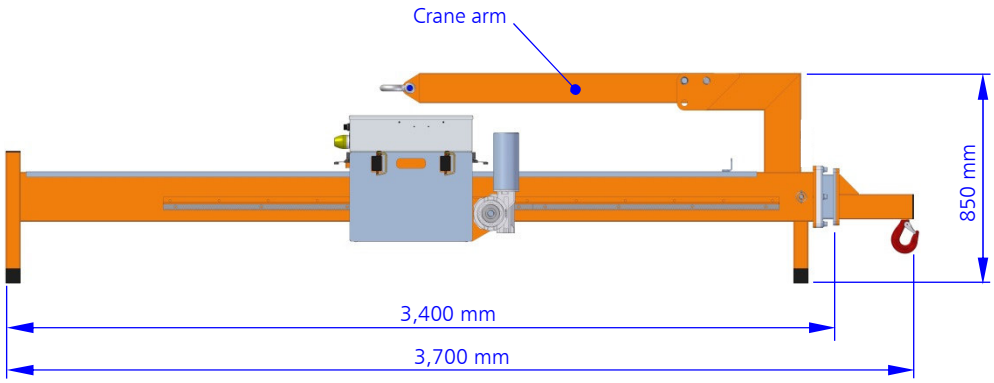


Fig. 4: Transport and storage of the counterweight balancer

2.7.1 Transport of the counterweight balancer by airplane (only radio remote control)

For safety reasons, remove the batteries from the transmitter if it is to be transported by airplane.

WARNING **Remove the batteries from the transmitter if it is to be transported by airplane!**

3 Instructions for using the counterweight balancer

3.1 Electrical power supply

Electrical power is supplied by a 24 V / 24 Ah battery (2 pieces 12 V batteries).

The charge level of the battery is monitored by a charge indicator according to figure 5. Light-emitting diodes (LED) in the signal colors green, yellow and red indicate the current charge level after the counterweight balancer has been switched on.

The charge indicator shows the following charging states:

- If one of the green LEDs lights up, the battery is charged. The counterweight balancer is ready for use.
- If the third LED from the left (yellow LED) lights up, the battery should be charged.
- If the second LED from the left (yellow LED) flashes or if the second LED from the left (yellow LED) and the red LED flash in turns, the battery has to be charged without delay, in order to avoid deep discharge and potential damages.

The charge indicator is arranged on the counterweight balancer as per fig. 1.

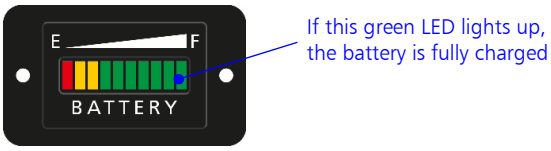


Fig. 5: Charge indicator

WARNING

Do not use the counterweight balancer, if the yellow LED is flashing, or the yellow and the red LED are flashing alternately. Possibly suspended loads shall be lowered. The counterweight balancer has to be charged instantly in order to avoid deep discharge and by that possible damage to the battery.

ATTENTION

The user has to ensure that the battery is properly charged when operating the counterweight balancer.

ATTENTION

The charge indicator responds rather slowly. The actual charge level is indicated only about 3 minutes after switching the counterweight balancer on.

ATTENTION

The charge indicator only shows the current voltage level of the battery. It does not give any reliable information regarding the battery's capacity.

3.2 Operating the counterweight balancer

3.2.1 Cable remote control

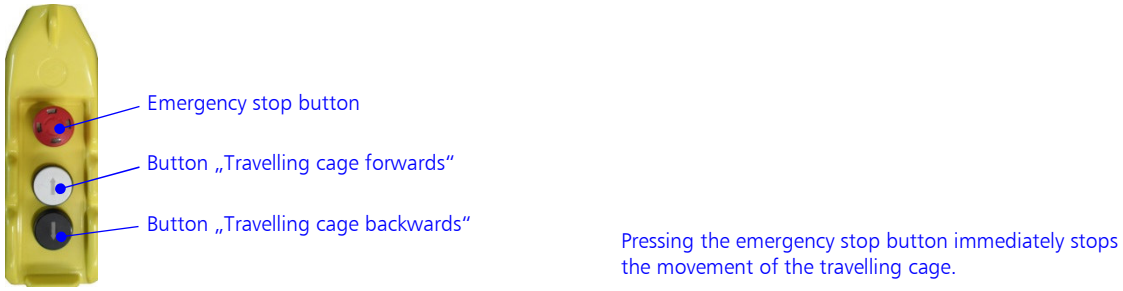
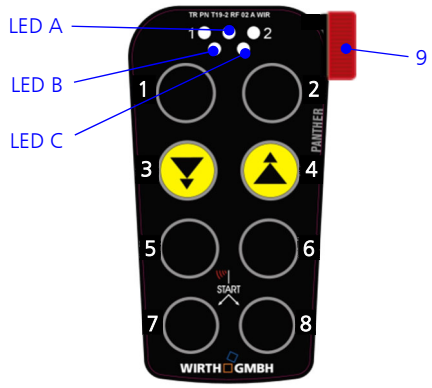


Fig. 6: Control panel cable remote control

3.2.2 Radio remote control

ATTENTION

Radio remote controls are subject to national standards. The 2.4 GHz radio system installed in the counterweight balancer is approved worldwide. However, some countries, such as Japan and China, require their own approval for use. If necessary, contact the manufacturer of the counterweight balancer already during your project planning phase.



Functions of the transmitter

Button 1 none
Button 2 none
Button 3 Travelling cage back
Button 4 Travelling cage forward
Button 5 none
Button 6 none
Button 7 start
Button 8 start
Button 9 stop button

Fig. 7: Transmitter radio remote control

Starting transmitter

1. Turn and pull out stop button (9) in direction of the arrow.
   ⇒ The LED (A) lights up green or red (green = battery capacity is OK, red = transmitter battery must be charged).
   ⇒ The LED's (B) and (C) flash red.
2. Press both start buttons (7 and 8) simultaneously for at least one second.
   ⇒ The LED's (B) and (C) light up red.
3. Release the start buttons (7 und 8).
   ⇒ The LED's (B) and (C) go out.
   ⇒ The LED (A) flashes green.

Switching of the transmitter

The transmitter is switched off by pressing the stop button (9).

Transmitter power supply

The transmitter is powered by three AAA/LR03 alkaline batteries. The corresponding battery holder is depicted in figure 10.

When approx. 10% of the battery capacity is still available, the LED (A) lights up red. In this case, the batteries must be replaced immediately. Proceed as follows

1. Remove the battery holder from the transmitter.
2. Replace the 3 x 1.5 V AAA batteries. Use alkaline batteries for optimal performance. Make sure the polarity is correct.
3. Insert the battery holder into the transmitter.

Fig. 8: Battery holder

WARNING

The batteries cannot be recharged. Attempts to recharge the battery can lead to destruction or leakage of dangerous liquids! There is a risk of explosion if the battery is replaced with an incorrect type!

3.3 Preparation of the counterweight balancer

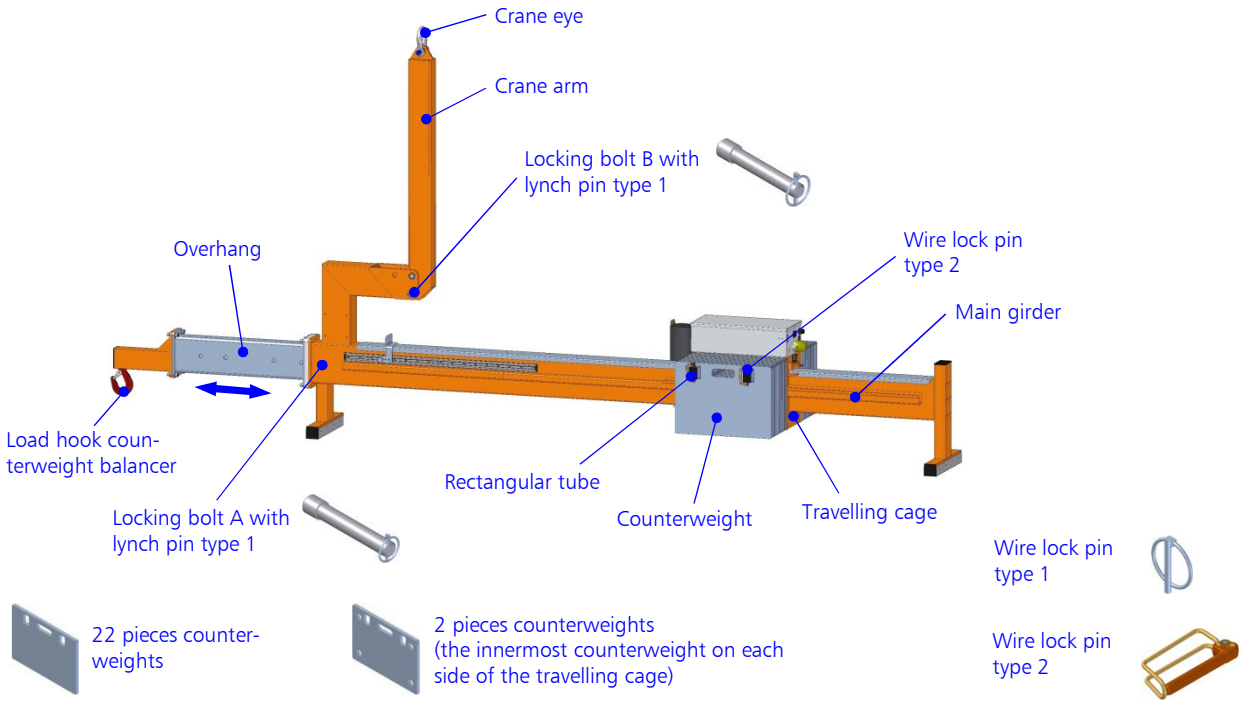


Fig. 9: Counterweight balancer mounted

Perform the following steps successively in order to assemble the counterweigh balancer:

- Place the counterweight balancer on a solid, even ground.
- If you have not already done so, swivel the crane arm of the counterweight balancer upwards by 90° and fix it with the locking bolt B with lynch pin type 1 (see fig. 9).
- Set the desired overhang on the counterweight balancer. To do this, remove the locking bolt A, slide the overhang to the desired position and mount the previously removed locking bolt A. Secure the locking bolt A with a lynch pin type 1.
- Install a number of counterweights that corresponds to the load to be lifted. To this end proceed as follows:
  1. Remove the four type 2 lynch pins (s. fig. 9).
  2. Remove the counterweights or push the counterweights onto the rectangular tubes of the car. Make sure that there is always the same number of counterweights on both sides of the travelling car. *Notice:*
     - Two of the 24 counterweights differ in their form of the other ones. Push each of them at first on the rectangular tubes (1x left, 1x right).
     - The use of less than 24 pieces of the counterweights leads to a reduced Working Load Limit compared to the limit mentioned on the sticker with the Working Load Limit!
  3. Mount the previously removed type 2 lynch pins as close as possible to the outermost counterweight. This is the only way to ensure that the counterweights do not slip or even slide off the rectangular tubes during use or transport of the counterweight balancer.
- Position the stop plate (s. fig. 11) as follows:

Loosen the wing screw of the stop plate, push the stop plate as far as possible towards the load hook and re-tighten the wing screw.

WARNING

Make sure that after mounting/dismounting counterweights, the mounted counterweights are fixed to the travelling car by the four type 2 lynch pins!

WARNING

Only use the counterweight balancer when its crane arm is completely fixed using the lanyards included in the scope of delivery!

3.4 Inclination of the counterweight balancer

The movable counterweights enable to equilibrate the counterweight balancer, if applicable, including a suspended load. Due to safety-related aspects, the inclination angle of the main girder is limited to ±10° by sensors. If the main girder reaches ±10° of inclination, the travelling cage with the counterweights stops. It can then only be moved in the opposite direction.

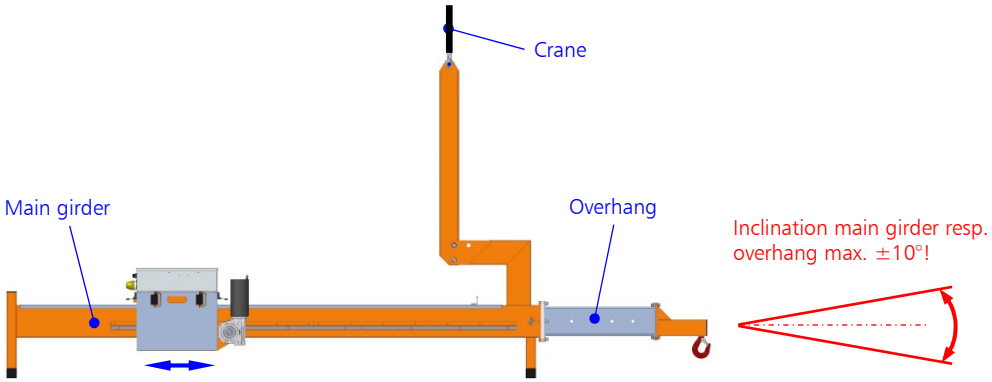


Fig. 10: Inclination of the counterweight balancer

WARNING

By moving the counterweights, make sure that the main girder of the counterweight balancer is always equilibrated! The maximum admissible angle deviation is ±10°.

3.5 Stop plate and yellow signal light

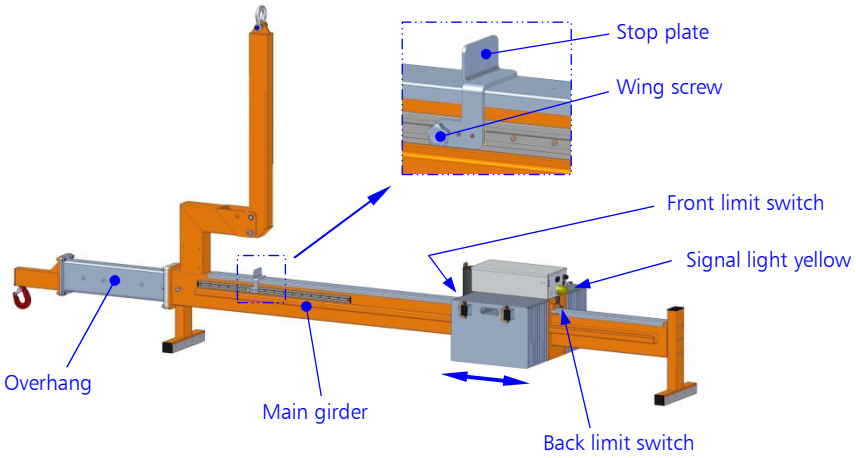


Fig. 11: Stop plate and yellow signal light

Equilibrating the counterweight balancer that was equipped with an appropriate number of counterweights, depending on the load to be lifted, marking the corresponding position of counterweights by adjusting the stop plate on the front limit switch of the travelling cage, extinguishing of the yellow signal light when this position is reached, ensure that the main girder is equilibrated at the moment the load is released. Thus, sudden forwards or backwards tilting of the counterweight balancer is prevented.

Note: The yellow signal light is coupled to the front limit switch of the travelling cage, i.e. the signal light extinguishes if the limit switch is triggered by approaching the stop plate or manually, when the counterweight balancer is switched on. However, the signal light remains active, if the limit switch is not triggered.

3.6 Start-up

In order to start-up the counterweight balancer, proceed as follows:

- Turn the main switch of the counterweight balancer to the position "ON" and, if there is, activate the transmitter of the radio remote control according to point 3.2.2 of these operating instructions.
  - → The yellow signal light on the travelling cage is illuminated.

    If this is not the case, check if the signal light was turned off by contact of the front limit switch of the travelling cage with the stop plate. In this case, check if the yellow signal light is activated by moving the stop plate.
- Check the battery's charge level on the charge indicator:
  - → if the green LED lights up, the device is ready for operation,
  - → if the second LED from the left (yellow LED) flashes or the second LED from the left (yellow LED) and the red LED light up in turns, the battery needs to be charged!

3.7 Handling of loads

Prior to the grabbing of construction elements:

- ⇒ the counterweight balancer has to be prepared according to section 3.3 of this operating manual and following this, it has to be coupled to the crane (s fig. 2).
- ⇒ the counterweight balancer has to be started-up according to section 3.6.

Always lift the counterweight balancer slowly and carefully using the crane. Equilibrate it by moving the travelling cage while lifting!

When handling loads, always wear a helmet, suitable protective clothes (long trousers), working gloves and safety shoes!

Before commencing to work make sure that all components are properly mounted and/or linked!

The handling of construction elements is realized as follows:

- ⇒ Lift the counterweight balancer and move the travelling cage with the help of the buttons "travelling cage forwards" and "travelling cage backwards" until the main girder is balanced. The yellow signal light is illuminated.
- ⇒ Loosen the wing screw of the stop plate (s. fig.11) and push the stop plate onto the travelling cage until the front limit switch is triggered. The yellow signal light turns off. Retighten the wing screw.
- ⇒ Move the counterweight balancer to the construction elements by means of the crane.
- ⇒ Couple the construction element to be lifted to the counterweight balancer.

⇒ Slightly lift the counterweight balancer including the load and equilibrate the load by moving the counterweights. As soon as the travelling cage is moved away from the stop plate and the front limit switch is not triggered anymore, the yellow signal light is illuminated.

⇒ Do not lift the load higher than necessary!

⇒ Bring the load into the required position by the driving and lifting movements of the crane as well as by manual guidance of the counterweight balancer.

⇒ Place the construction element at its destination in such a way that it does not constitute a threat after the release of the counterweight balancer.

⇒ Now release the construction element from the counterweight balancer. To this end, move the travelling cage in the direction of the stop plate until the travelling cage stops itself. The yellow signal light turns off and thus signalizes that the counterweight balancer is equilibrated in a load-free condition. If applicable, lower the counterweight balancer by means of the crane so far that the load hook is not under load while the construction element is detached. This procedure prevents a sudden downward or upward tilting of the main girder while the construction element is detached.

Always carefully release the counterweight balancer from the construction element. Make sure that the load hook is not under load during detachment and the counterweight balancer is equilibrated! Non-compliance with these instructions can lead to severe injuries.

4 Service and maintenance

4.1 General information

Since the counterweight balancer is a load lifting attachment, both the manufacturer and the operator bear a high responsibility to guarantee the relevant safety standard throughout the entire operating time. Thus, service and maintenance are of great importance.

For maintaining a high level of operational safety, the counterweight balancer GGA 800 24/2,0/4,8 oVH-e has to be inspected by the service workshop of Wirth GmbH or by an especially qualified person (expert:

- at least every 12 months or in shorter intervals, if this is stipulated by national standards or regulations, or
- after specific incidents.

Additional operative and scheduled maintenance and service work may only be performed by a skilled expert.

Maintenance and service work may only be performed when the counterweight balancer is taken out of operation.

WARNING **Before performing any repair or maintenance work turn the counterweight balancer off; turn the main switch to position "OFF" and if applicable, disconnect any connected battery charger.**

Defective parts may only be replaced with original spare parts. They will be provided on request after consulting with the service team of the manufacturer of the counterweight balancer. Using non-original spare parts leads to an exemption from liability by the manufacturer.

In order to perform maintenance and service work an appropriate tool kit has to be used.

WARNING **Maintenance always has to be followed by a functional check.**

If damages cannot be repaired by the operator's staff, the Wirth GmbH service workshop needs to be informed.

4.2 Mechanical system

The mechanical system is sturdy and surface protected. For maintenance perform:

- prior to start-up, **daily** visual inspection of the mechanical components of the counterweight balancer GGA 800 24/2,0/4,8 oVH-e for damages.

The counterweight balancer GGA 800 24/2,0/4,8 oVH-e is a load lifting attachment. Therefore, repairs on the mechanical functioning parts shall be exclusively carried out by the manufacturer.

WARNING **Do not perform any repairs at mechanical functioning parts!**

4.3 Electrical and electronic components

The counterweight balancer GGA 800 24/2,0/4,8 oVH-e is powered by maintenance-free lead-gel batteries (acidic). The battery casings are sealed hermetically.

Maintenance focuses on:

- daily visual inspection of the external electrical functional and alarming equipment:
  - → limit switches of the travelling cage,
  - → yellow signal light,
  - → battery charging socket and charge indicator.
- visual inspection of the battery's charge level shown on the charge indicator (s. fig. 5).
- charging the battery:

For charging the battery a 24 Volt charger is supplied by the manufacturer of the counterweight balancer (s. fig. 12).

WARNING

Prior to connecting the charger, check whether it is compatible with your mains grid! The performance data is stipulated on the charger.

ATTENTION

Please absolutely contact the Wirth Service Team in advance, if you want to use a different charger than the one supplied with the delivery of the counterweight balancer!

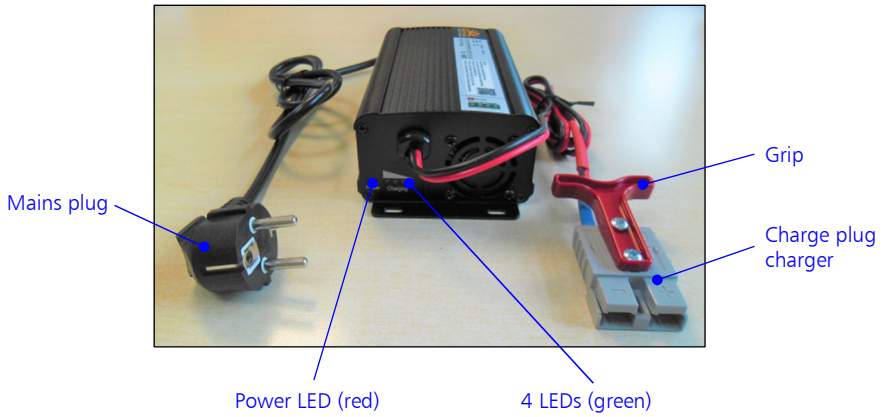


Fig. 12: Battery charger (example)

Safety instructions for the battery charger:

- Only use the battery charger for its intended purpose.
- The battery charger should neither be exposed to very high humidity nor to high temperatures.
- To eliminate the risk of fire and the risk of an electric shock, the battery charger has to be protected against rain/spray water.
- Do not open the battery charger.
- In case of maintenance and breakdown of the battery charger, please contact our Service Team.
- Cleaning should be done with a dry cloth only. During cleaning disconnect the battery charger from the power grid by unplugging the mains plug!
- Do not run the battery charger unsupervised.
- Improper use of the battery charger could endanger the operator.

Non-compliance with the safety instructions could result in damages to the battery charge or to serious personal injuries!

The charging process is carried out as follows:

- Turn the counterweight balancer off by turning the main switch to position "OFF"!
- Connect the charge plug of the battery charger with the socket of the counterweight balancer.
- In order to start the charging process, connect the mains plug of the battery charger to a power outlet and by that with the mains grid (red Power LED is illuminated).
- The charging process is completed when the 4 green LEDs are permanently illuminated.
- Proceed as follows to disconnect the battery charger from the counterweight balancer:
  1. Disconnect the battery charger from the mains grid,
  2. Disconnect the battery charger from the battery.

LED Display (green LEDs)

→ *Stage 1 (LED 1 is illuminated, LEDs 2 to 4 are turned off)*
Charger recognizes sulphated batteries. Pulsing current and voltage remove sulphate from the lead plates of the battery, thus restoring the battery's capacity. – Desulphation

→ *Stage 2 (LEDs 1 to 4 are flashing successively)*
Charging with maximum current until approximately 80% of the battery's capacity is reached. – Bulk charge

→ *Stage 3 (LEDs 1 to 3 are illuminated, LED 4 is flashing)*
The batteries are almost fully charged. The charging voltage remains about the same, the charging current slowly declines. – Absorption charge

→ *Stage 4 (LEDs 1 to 4 are illuminated)*
The batteries are fully charged. – Trickle charge

For maintenance and in case of breakdown of the battery charger, please contact our Service Team.

The sealed lead-gel battery requires strict adherence to the charging instructions!

In order to avoid damage due to deep discharge of the batteries, the counterweight balancer has to be charged at least every two weeks.

The battery charger has to be protected from spray water and has to be set up in a way that the venting slots and the fan are unobstructed and cannot be pierced through by pointed objects.

5 Handling incidents

In case of mechanical and/or electrical failures, immediately leave the hazardous area. Locate and rectify the cause for the failure. If you cannot remedy the fault, stop operating the counterweight balancer immediately and secure the counterweight balancer against further use.

In case of faults that cannot be remedied, working with the counterweight balancer shall be stopped immediately. The counterweight balancer has to be secured against further use. Contact the service workshop of Wirth GmbH.

If the display of the charge indicator is not illuminated when turning the counterweight balancer on, please contact the service workshop of Wirth GmbH immediately.

6 Disposal and recycling

For packaging of the counterweight balancer materials like wood, cardboard, paper and film are used. These materials shall be recycled according to national regulations.

To dispose the counterweight balancer hand it over to a waste management company. If you have any question, please do not hesitate to contact Wirth GmbH.

For environmental reasons, hand over the counterweight balancer for disposal to a waste management company being fully aware of and observing the respective national regulations!

Declaration of conformity

according to Annex II A of the EC Machinery Directive 2006/42/EC

Manufacturer: WIRTH GMBH
Vacuum Lifting Technology Division
Brehnaer Straße 1
D-06188 Landsberg

We hereby confirm that the machine hereinafter described, is in conformity with any provision relevant to the EC Machinery Directive 2006/42/EC:

Product description:	Counterweight balancer
Type:	GGA 800 24/2,0/4,8 oVH-e
Serial number:	
Year of manufacture:	

Furthermore, the machine corresponds with the requirements of **EC Directive 2009/104/EC concerning the minimum safety and health requirements for the use of work equipment by workers at work,** of **EC Directive 2001/95/EC on general product safety** and of **EC Directive 2014/30/EU on electromagnetic compatibility**.

Applied harmonized standards:

DIN EN ISO 12100 (03/11)
Safety of Machinery - General Principles for Design - Risk Assessment and Risk Reduction

DIN EN ISO 13857 (06/08)
Safety of Machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs

DIN EN 60204 Part 1 (06/07)
Electrical Equipment of machines – General Requirements

DIN EN 13155 (08/09)
Cranes - Safety – Non-fixed Load Lifting Attachments

Authorized Representative for compiling the relevant technical documents:
Sven Röthe, Brehnaer Straße 1, D-06188 Landsberg

This declaration solely corresponds to the machine in the status as put on the market, any parts additionally installed and/or modifications additionally carried out by the end user shall be unconsidered. This declaration shall become invalid, in case the product is modified without approval.

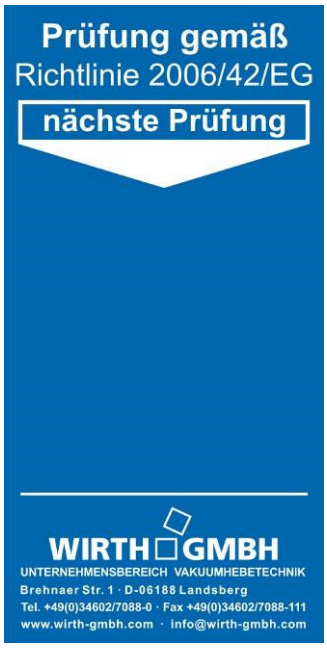
Landsberg,

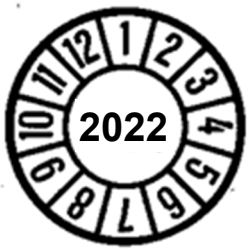
_____
Holger Schadwinkel
(Managing Director)

Inspection tag

Inspection Tag of the counterweight balancer GGA 800 24/2,0/4,8 oVH-e

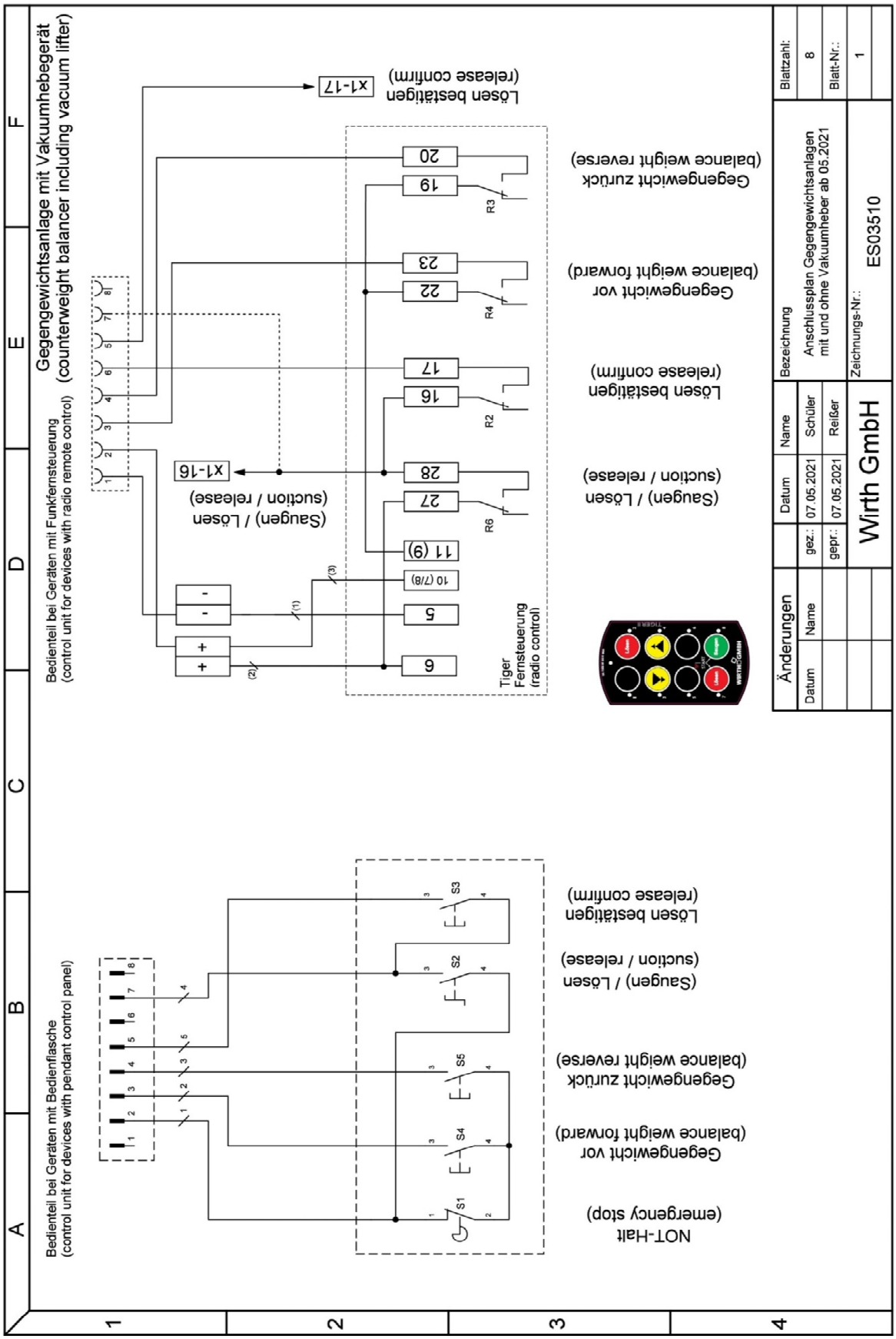
according to Directive 2006/42/EC

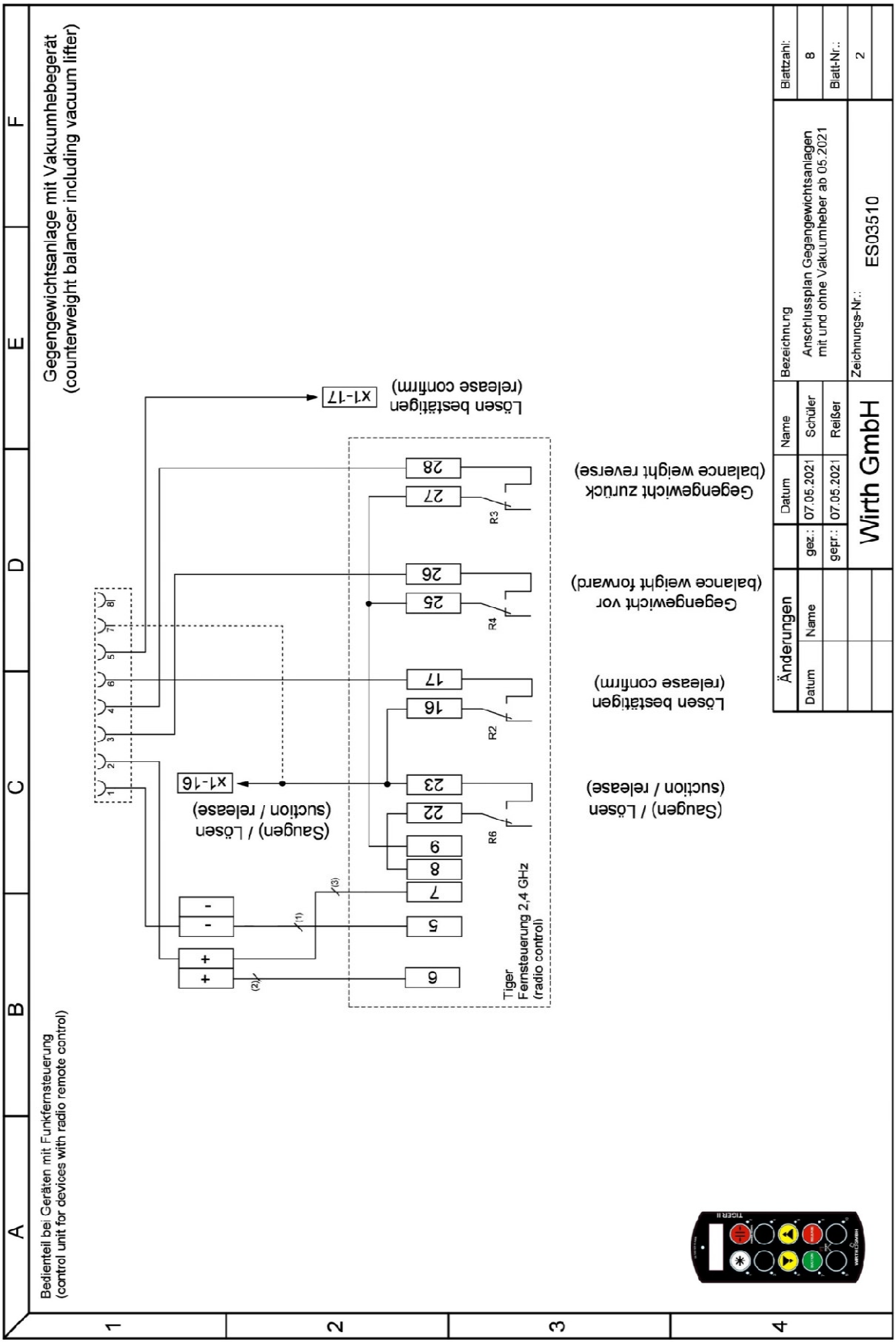


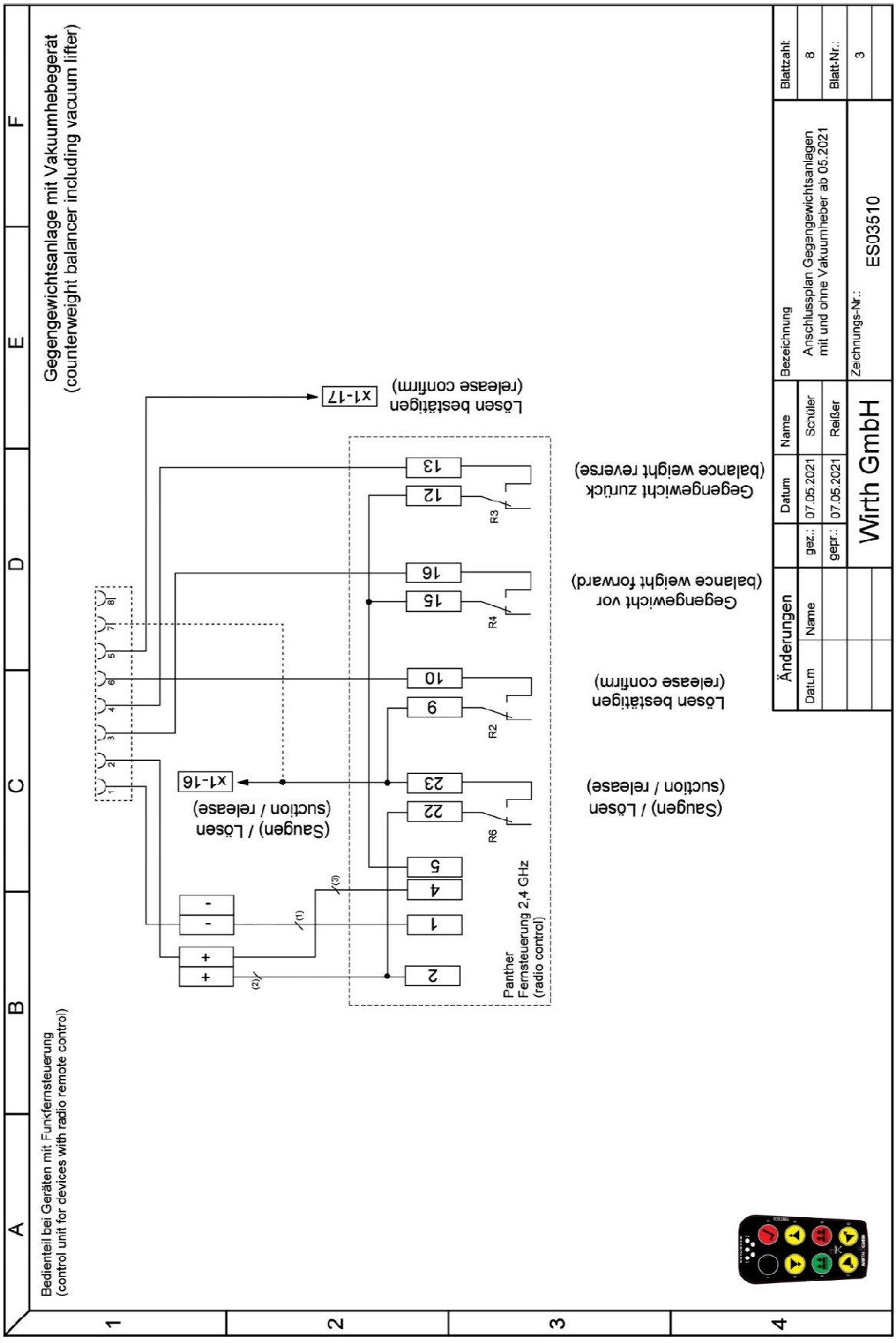


Sign size:	80 x 40 mm
Background:	blue
Foreground:	white
Font:	white on blue
Plate size:	diameter 30 mm
Background:	depending on the year
Foreground:	depending on the year

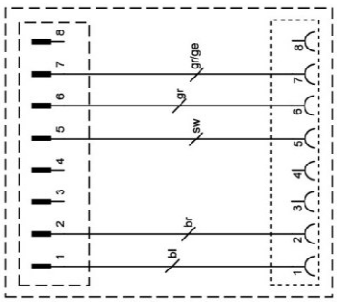
Electrical circuit diagram




Gegengewichtsanlage mit Vakuumhebegerät
(counterweight balancer including vacuum lifter)
Bedienteil bei Geräten mit Funkfernsteuerung
(control unit for devices with radio remote control)
Tiger
Fernsteuerung 2,4 GHz
(radio control)
X1-17
Lösen bestätigen
(release confirm)
X1-16
(Saugen) / Lösen
(suction / release)
Gegengewicht zurück
(balance weight reverse)
Gegengewicht vor
(balance weight forward)
Lösen bestätigen
(release confirm)
(Saugen) / Lösen
(suction / release)
Änderungen
Datum
Name
gez.: 07.05.2021 Schüler
gepr.: 07.05.2021 Reißer
Bezeichnung
Anschlussplan Gegengewichtsanlagen
mit und ohne Vakuumheber ab 05.2021
Zeichnungs-Nr.: ES03510
Wirth GmbH
Blattzahl: 8
Blatt-Nr.: 2


Gegengewichtsanlage mit Vakuumhebegerät
(counterweight balancer including vacuum lifter)
Bedienteil bei Geräten mit Funkfernsteuerung
(control unit for devices with radio remote control)
Panther
Fernsteuerung 2,4 GHz
(radio control)
Lösen bestätigen
(release confirm)
Gegengewicht zurück
(balance weight reverse)
Gegengewicht vor
(balance weight forward)
Lösen bestätigen
(release confirm)
(Saugen) / Lösen
(suction / release)
Änderungen
Datum
Name
gez.: 07.05.2021 Schüler
gepr.: 07.05.2021 Reißer
Bezeichnung
Anschlussplan Gegengewichtsanlagen
mit und ohne Vakuumheber ab 05.2021
Zeichnungs-Nr.: ES03510
Blattzahl: 8
Blatt-Nr.: 3
Wirth GmbH

Gegengewichtsanlage mit Vakuumhebegerät
(counterweight balancer including vacuum lifter)



Verbindungskabel Gerät --> Gegengewichtsanlage
(cable connection machine --> counterweight balancer)

Änderungen			Datum	Name	Bezeichnung	Blattzahl:
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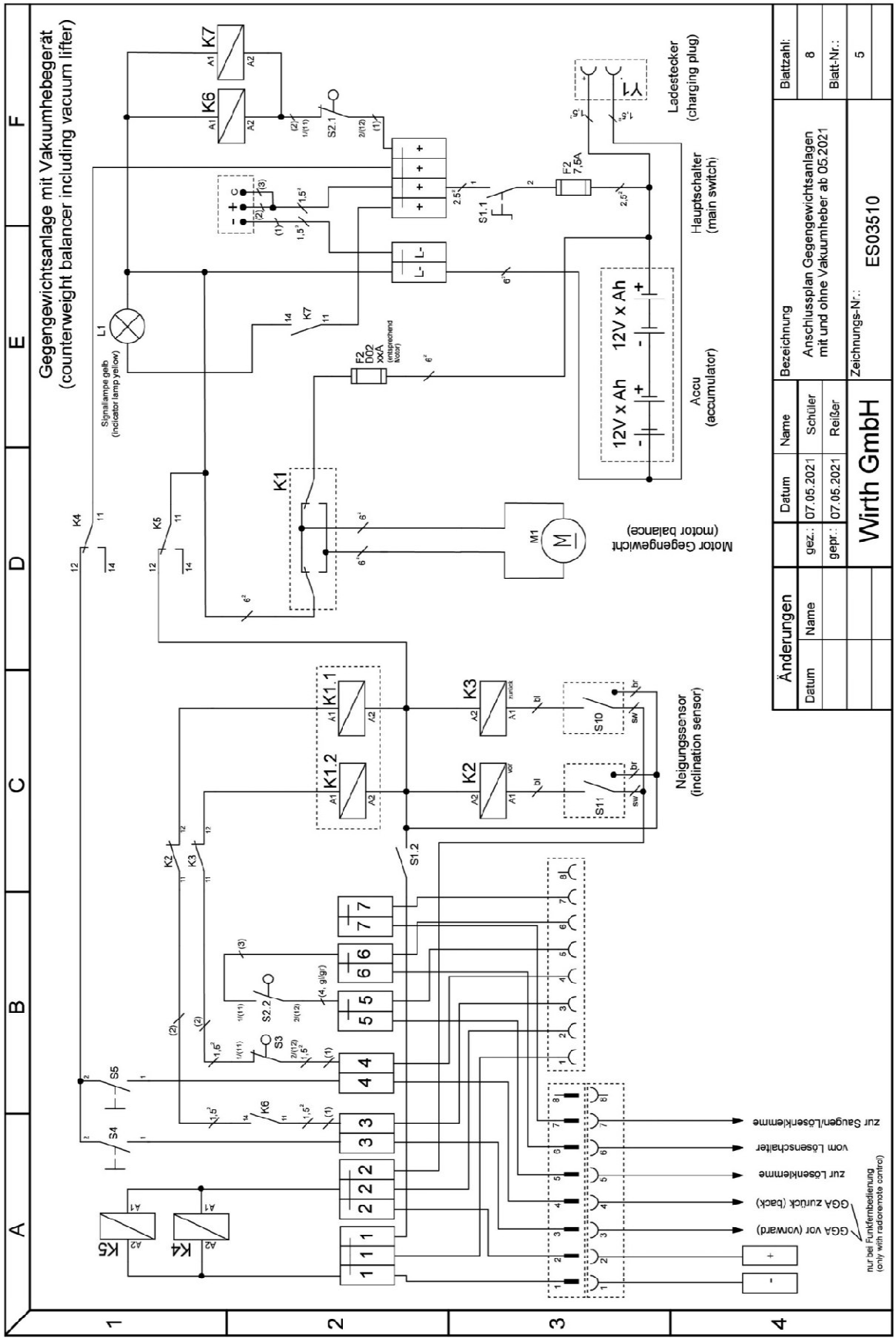
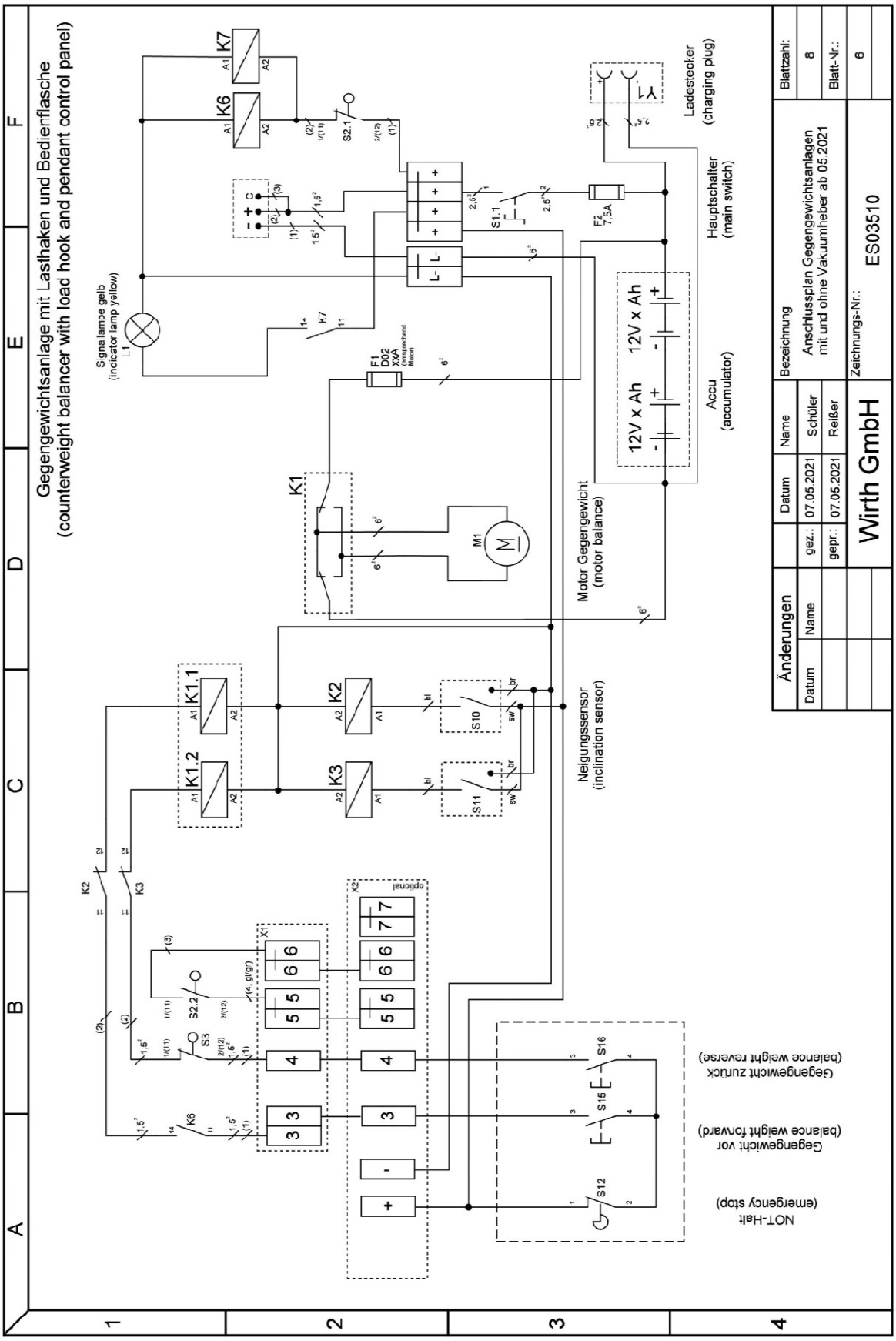
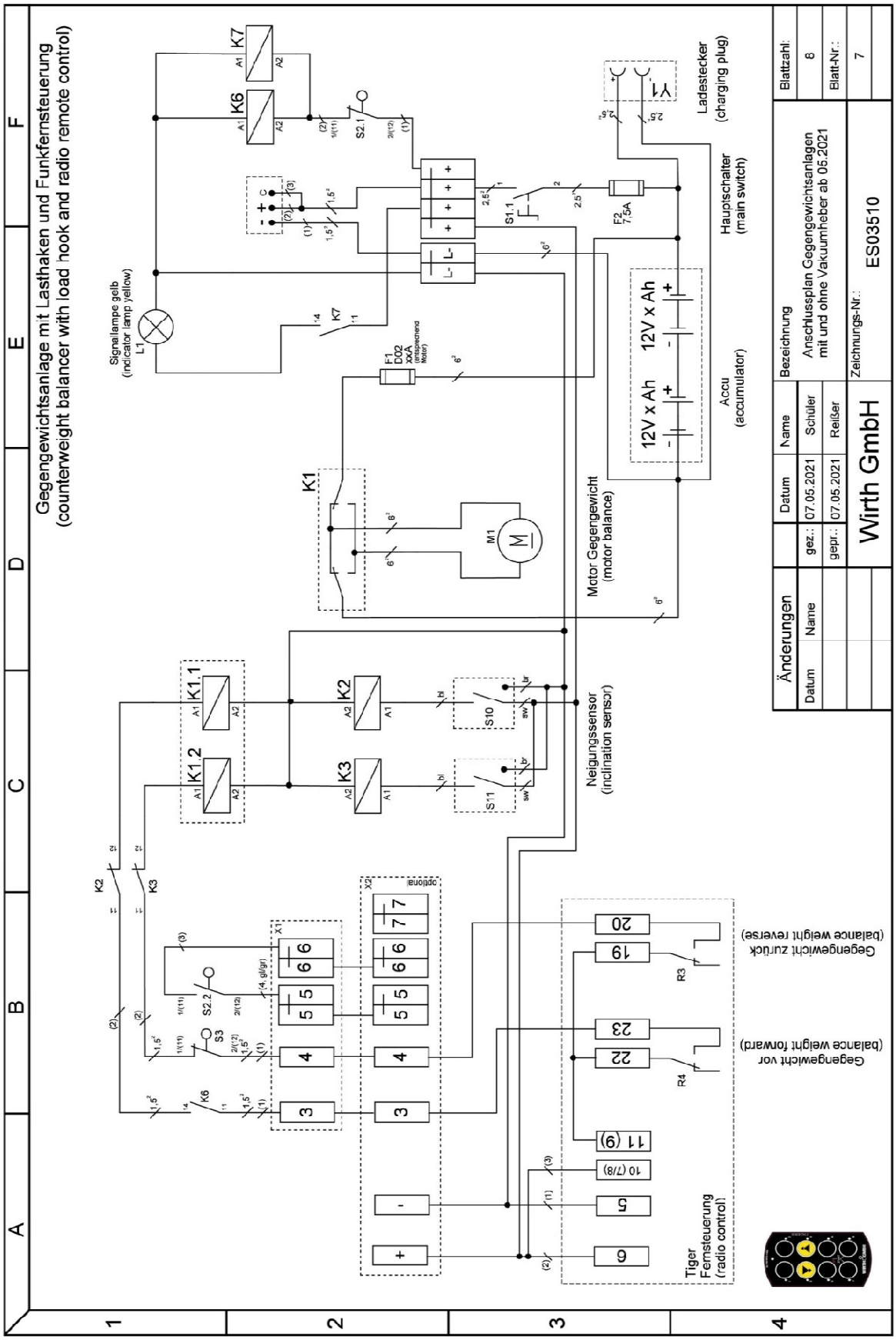
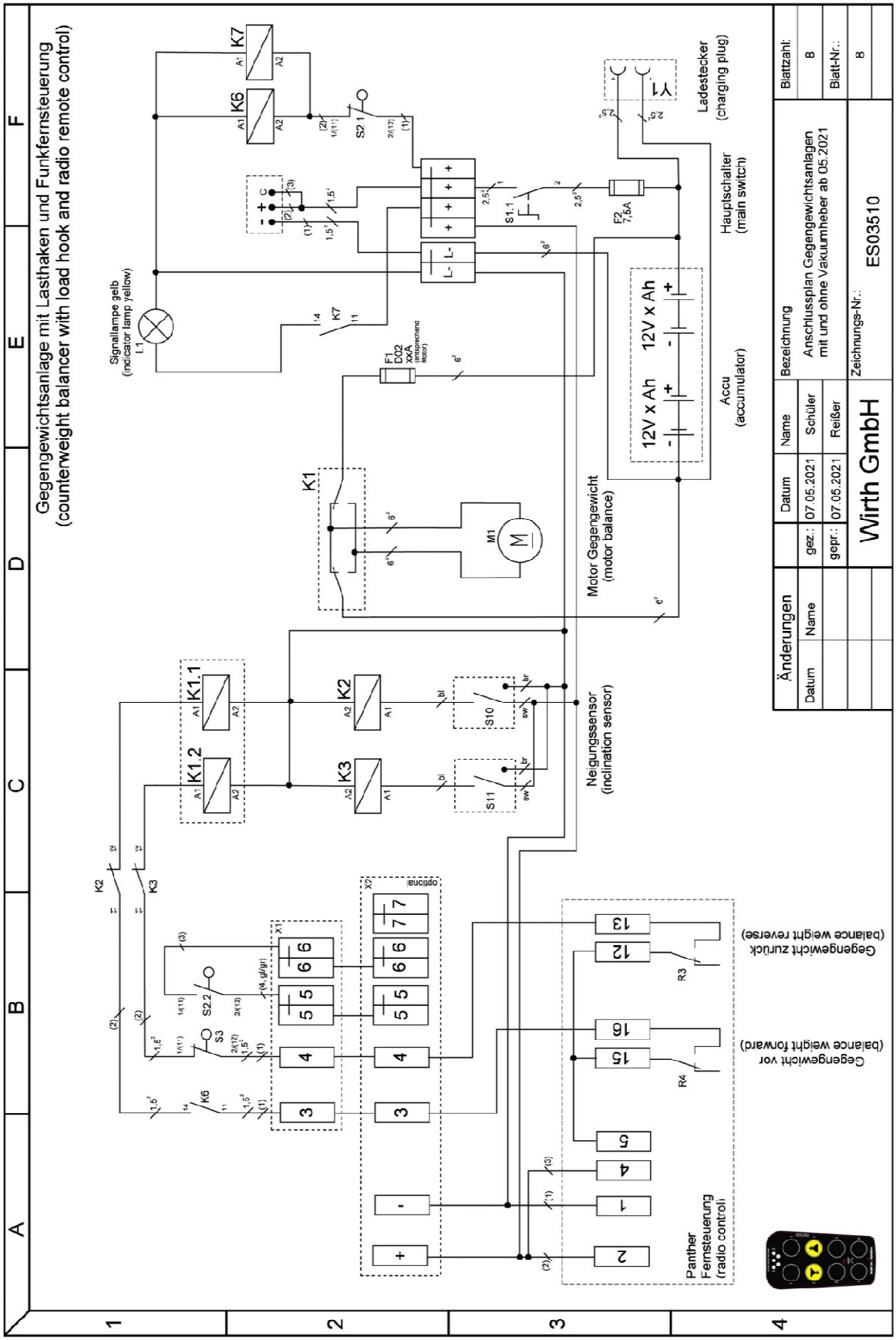
		gepr.:	07.05.2021	Reißer		Blatt-Nr.:
		Wirth GmbH			Zeichnungs-Nr.: ES03510	4


Gegengewichtsanlage mit Vakuumhebegerät
(counterweight balancer including vacuum lifter)
Signallampe gelb
(indicator lamp yellow)
Ladestecker
(charging plug)
Hauptschalter
(main switch)
Accu
(accumulator)
12V x Ah
Motor Gegengewicht
(motor balance)
Neigungssensor
(inclination sensor)
zur Saugen/Lösenklemme
vom Lösenschalter
zur Lösenklemme
GGA zurück (back)
GGA vor (forward)
nur bei Funkfernbedienung
(only with radioremote control)
Änderungen
Datum
Name
gez.:
gepr.:
07.05.2021
Schüler
07.05.2021
Reißer
Bezeichnung
Anschlussplan Gegengewichtsanlagen
mit und ohne Vakuumheber ab 05.2021
Blattzahl:
8
Blatt-Nr.:
5
Zeichnungs-Nr.:
ES03510
Wirth GmbH


Gegengewichtsanlage mit Lasthaken und Bedienflasche
(counterweight balancer with load hook and pendant control panel)
Signallampe gelb
(indicator lamp yellow)
L1
K7
K6
S2.1
Ladestecker
(charging plug)
Hauptschalter
(main switch)
S1.1
F2
7,5A
F1
D02
XXA
Accu
(accumulator)
12V x Ah
12V x Ah
K1
M1
Motor Gegengewicht
(motor balance)
K1.1
K1.2
K2
K3
S10
S11
Neigungssensor
(inclination sensor)
S2.2
S3
K6
optional
S16
S15
S12
Gegengewicht zurück
(balance weight reverse)
Gegengewicht vor
(balance weight forward)
NOT-Halt
(emergency stop)
Änderungen
Datum
Name
gez.: 07.05.2021 Schüler
gepr.: 07.05.2021 Reißer
Bezeichnung
Anschlussplan Gegengewichtsanlagen
mit und ohne Vakuumheber ab 05.2021
Blattzahl: 8
Blatt-Nr.: 6
Zeichnungs-Nr.: ES03510
Wirth GmbH


Gegengewichtsanlage mit Lasthaken und Funkfernsteuerung
(counterweight balancer with load hook and radio remote control)
Signallampe gelb
(indicator lamp yellow)
L1
K7
K6
S2.1
Ladestecker
(charging plug)
Hauptschalter
(main switch)
S1.1
F2
7,5A
F1
D02
XXA
(entsprechend Motor)
12V x Ah
12V x Ah
Accu
(accumulator)
K1
M1
Motor Gegengewicht
(motor balance)
K1.1
K1.2
K2
K3
S10
S11
Neigungssensor
(inclination sensor)
S2.2
S3
X1
X2
optional
Gegengewicht zurück
(balance weight reverse)
Gegengewicht vor
(balance weight forward)
R3
R4
Tiger
Fernsteuerung
(radio control)
Änderungen
Datum
Name
gez.:
gepr.:
07.05.2021
07.05.2021
Schüler
Reißer
Bezeichnung
Anschlussplan Gegengewichtsanlagen
mit und ohne Vakuumheber ab 06.2021
Zeichnungs-Nr.:
ES03510
Blattzahl:
8
Blatt-Nr.:
7
Wirth GmbH


Gegengewichtsanlage mit Lasthaken und Funkfernsteuerung
(counterweight balancer with load hook and radio remote control)
Signallampe gelb
(indicator lamp yellow)
L1
K7
K6
S2
Ladestecker
(charging plug)
Y1
Hauptschalter
(main switch)
S1.1
F2
7,5A
L- L-
F1
D02
xxA
(entsprechend Motor)
12V x Ah
12V x Ah
Accu
(accumulator)
K1
M1
Motor Gegengewicht
(motor balance)
K1.1
K1.2
K2
K3
S10
S11
Neigungssensor
(inclination sensor)
optional
X1
X2
S2.2
S3
K2
K3
K6
R3
R4
Gegengewicht zurück
(balance weight reverse)
Gegengewicht vor
(balance weight forward)
Panther
Fernsteuerung
(radio control)
Änderungen
Datum
Name
gez.:
07.05.2021
Schüler
gepr.:
07.05.2021
Reißer
Bezeichnung
Anschlussplan Gegengewichtsanlagen
mit und ohne Vakuumheber ab 05.2021
Zeichnungs-Nr.:
ES03510
Wirth GmbH
Blattzahl:
8
Blatt-Nr.:
8