User‘s manual

Hydraulic road blocker
Series RKB/xxx

Manufacturer:

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Acknowledgement:

Thank you for choosing our hydraulic road blocker. Our products are result of original construction and are characterised by high technical performance and long operating life in all climatic conditions as a result of top quality workmanship. All materials and components used are high – quality and are tested during process of manufacture. Our products are designed for high performance, long trouble - free lifetime and are nearly maintenance – free.
Our products are manufactured in accordance with classical technical standards and respond to regulated technical norms.

Purpose of use:

For highest security level objects, defend against unauthorised entry of vehicles.

Forbidden manipulation:

It is prohibited to leave any burdens on or near the blocker!

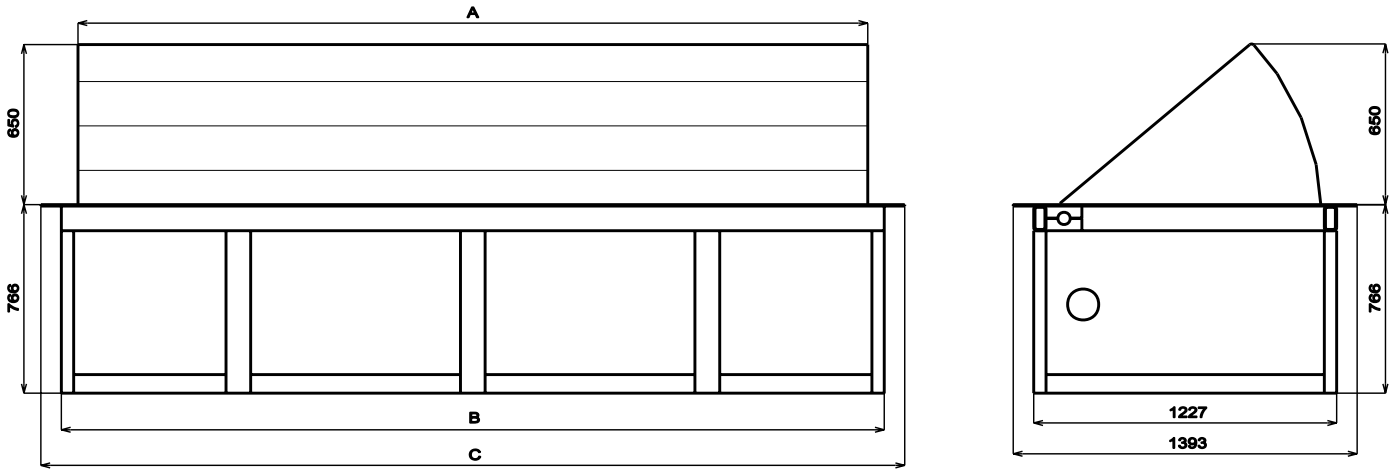
Basic description:

Hydraulic road blockers RKB series are driven by rectilinear hydraulic motor connected to hydraulic plant with electromotor, hydraulic pump device and electrically controlled switch board. Are designed for intensive permanent duty. Blocker‘s control is provided by microprocessor control unit AGN2.0. Blockers are made of steel plates class DIN UST 37-2 (EN S235 JRG1) with hot – dip galvanizing finish.

Technical datas:

		RKB/250	RKB/300	RKB/320	RKB/350	RKB/400
)ower suppl	Motor	400V/50Hz - 750W	400V/50Hz - 750W	400V/50Hz - 750W	400V/50Hz - 1500W	400V/50Hz - 1500W
	control unit	230V/50Hz 100W	230V/50Hz 100W	230V/50Hz 100W	230V/50Hz 100W	230V/50Hz 100W
Uplift height		650 mm	650 mm	650 mm	650 mm	650 mm
Uplift speed		7	7	7	7	7
Number of pistons		1	1	1	2	2
Dimensions(mm)		2800 x 770 x 1400	3300 x 770 x 1400	3500 x 770 x 1400	3800 x 770 x 1400	4300 x 770 x 1400
Weight		880kg	965kg			
Control unit		AGN 2.0	AGN 2.0	AGN 2.0	AGN 2.0	AGN 2.0

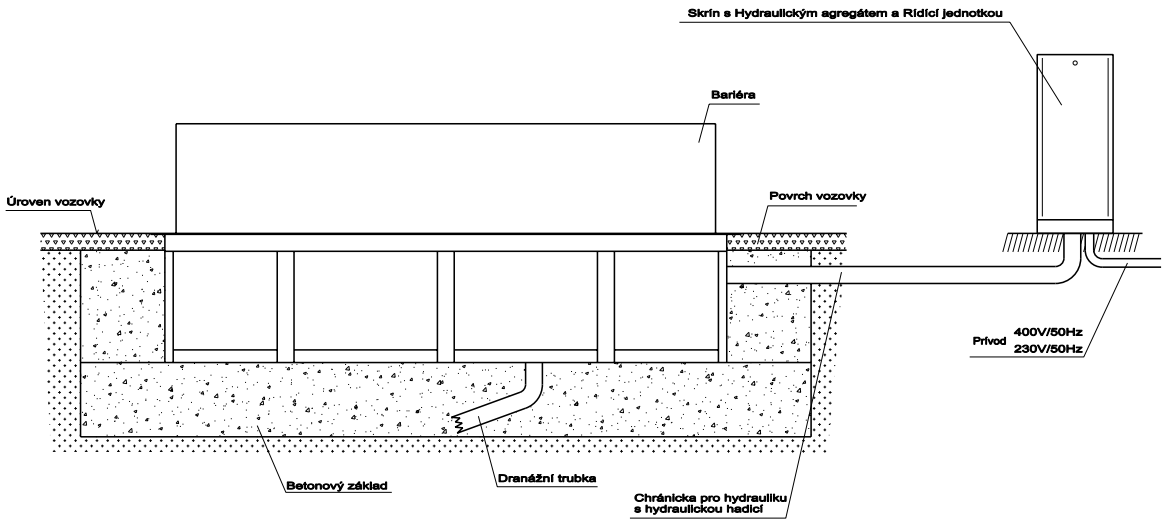
Dimensional drawing:



	A (mm)	B (mm)	C (mm)
RKB/250	2 500	2 634	2 800
RKB/300	3 000	3 134	3 300
RKB/320	3 200	3 334	3 500
RKB/350	3 500	3 634	3 800
RKB/400	4 000	4 134	4 300

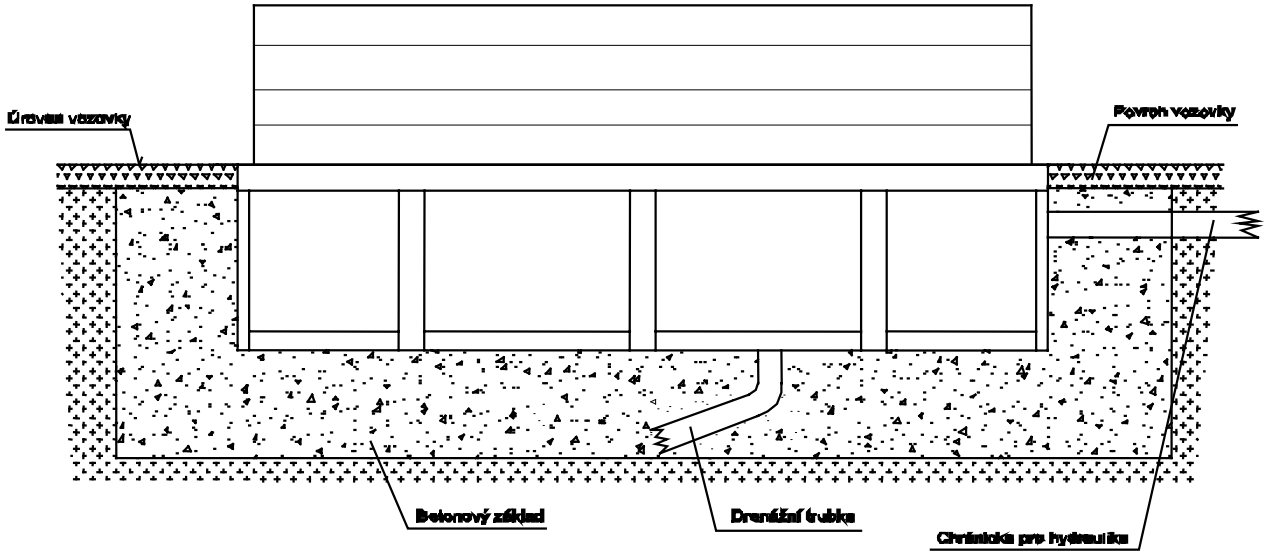
Tolerance +- 5mm

:



Construction preparation:

Drawing:



Reality according the drawing:

Pic.1

Foundation plate concreting where blocker is settled

Pic.2

Blocker‘s frame settling on top of foundation plate

Obr.3

Settled blocker + second plate with drainage pipe

Hydraulic plant - Introduction:

Hydraulic mechanisms are integral parts of modern machines and equipments. In following chapters some advices will be introduced to you witch will help you with maintenance of hydraulic equipments.

Hydraulic fluids

Quality, cleaness and operational viscosity of hydraulic medium are most important for security of operation, economy and life time. Component cathalogues include suitable oil and range of viscosity recommendation.

Viscosity

Recommended viscosity by gear – pumps ranges (20 : 120) $mm^2.s^{-1}$ and oil temperature ranges (-15 – 80) ^oC Maximum permitted viscosity is $700mm^2.s^{-1}$. Viscosity depends on temperature, from this reason maximum and minimum temperature in tank has to by complyed with. Generally cooling or heating or both of oil is necessary. Even though problems remain, different class of viscosity oil has to be used.

Other hydraulic parts (switch boards, pressure valves, throttles, etc.) have recommended viscosity ranging (10 – 500) $mm^2.s^{-1}$ and oil temperature ranging (O – 75) ^oC.

Oil type

For all used hydraulic parts is suitable mineral oil HLP according to norm DIN51525, part 2 – oils with protection ingredients against rust, oxidation and attrition protection.

Oil filtration

Generally class of oil cleaness 9 in accordance with NAS 1638 is necessary. This class can be reached by filtration with coefficient $\beta_{20} \geq 75$.

To ensure long life time class 8 in accordance with NAS 1638 is recommended. This class can be reached by filtration with coefficient $\beta_{10} \geq 100$.

Fresh, unused oils don‘t usually meet cleaness standards. **Elaborate filtration is necessary when filling the equipment, this means filling the tank with unfiltred oil is inadmissible and causes termination of warranty.**

Filtration fillers and oil are to be replaced after 1000 of working ahours, maximum after one year and everytime sensor signalises filter choking.

Hydraulic plant description

Hydraulic plant forms a complex unit. Basic part is tank with removable or unremovable front lid. Hydraulic driver is mounted vertically or horizontally on the lid also air filter and block with hydraulic units is mounted there. According to needs also electric level gauge with thermoregulater or accumulator can be mounted on the lid.

Tank

Tank is welded from steel plates and creates structural part of hydraulic plant. When tank size up to 60 dm^3 upper lid is removable, in case of bigger tank upper lid is welded and on the front side of tank there is removable cleaning lid. There is also visual level gauge with thermometer on the front side. There is a discharge outlet in the bottom of the tank.

Drive

Drive is created by electromotor, pump device, flexible coupling and fixative flange. Constant pump device drives with electromotor output up to 7,5 kW are placed vertically in the tank, drives with bigger electromotors are fixed through flexible coupling.

Filter

Filter is used as waste filter or pressure filter according to the plant construction and customer‘s wish.

Electric level gauge

Used according to customer‘s wish. Usually set to monitor maximum and minimum oil level in tank.

Thermometer

According to customer‘s wish when cooler used. Usually set to monitor minimum temperature (30°C) and maximum temperature (50°C).

Hydraulic accumulator

Hydraulic accumulators are supplied either diaphragmal or piston in suitable sizes.

Cooler

When neccesary hydraulic plant is equipped with air or water oil cooler which is fixed to the side of tank.

Hydraulic components block

Blocks are used to minimize space demands of hydraulic circuits, to maximize lucidity and cut – down the possibility of oil leaking.

Hydraulic plant parameters

Hydraulic plant type	MA-701-01-07
Serial number	M041 07 – M047 07
Tank cubature	$V = 5dm^3$
Supplied quantity	$Q_1 = 3dm^3.min^{-1}$
Working pressure	$p_1 = 100bar$
Main electromotor input	$P_1 = 0,75kW$
Main electromotor revolutions	$n_1 = 1410min^{-1}$

Electromotor voltage	400/230V; 50Hz
Hydraulic components inductor tension	24V DC
Hydraulic fluid	mineral oil class HLP, VG 32 - 46
Optimal working temperature	(25-55)°C
Filtration	minimum cleaness class - 9 according to NAS 1638 - 18/15 according to ISO/DIN4406 Filtration elements recommended ß10>=100
Hlučnost	< 80 dB(A)

Hydraulic plant connection

According to hydraulic diagram.

Piping

Various types of piping are used in hydraulic systems according to inside diameter and working pressure.

Piping connection

Most used type of piping connection is screwing with notch ring.

Filling tank with oil

- Carefully check tank‘s inner space
- Fill with producer recommended oil only
- Never fill with oil straight from the barrel, always use filtration aggregate with minimum filtration capability 25 μm

Activity before setting hydraulic device in operation

Before setting in operation it is necessary to check:

- Filling tank with prescribed oil up to maximum level
- Cleaness of piping, fastening all connection elements
- Connection according to hydraulic diagram
- Connection between electromotor and pupm device
- Wiring of electromotor, check if level, temperature and pressure sensors work
- If filters are mounted correctly, if they have prescribed filtration capacity
- If inner pupm spaces are full of oil
- If pressure valves are set to minimum pressure

Activity during setting hydraulic device in operation

- Set pump in operation in short intervals
- Check noisiness of pump and tightness of piping
- Deaerate hydraulic circuit
- Check circuit function with minimum load if possible
- Boost pressure to prescribed working level and set other regulating elements
- During operation check control and measuring devices, noisiness, temperature and level of oil in tank

- Check oil level according to visual level indicator – maximum oil level in tank is indicated by red guideline in upper part of loophole
- Check all functions simultaneously and compare these with projected calibres
- Check pressure declivity on filters

Hydraulic plant electric connection

Electric installation, electromotors and control components power supply must correspond to valid norms, namely EN 60 204-1. Before connecting to the system check cathalogues values of working tension and frequency.

Hydraulic plant maintainance

Hydraulic plant maintainance is carried out planned and when neccesary.

Working liquid refilling

In principle always refill with the same liquid system is filled with. Mind this principle even when filling mineral oils which satisfy normative regulation but may be different in basic ingredients.

Working liquids class HFA, HFC and HFD may not be mixed at all.

Working liquid replacement

Every time working liquid starts to change it‘s chemist it is necessary to be replaced. Filtration fillers have to be replaced every 1000 working hours, max. after one year. It is necessary to rinse hydraulic liquid tank and whole hydraulic system. New liquid has to be pumped over to the tank through filters which have at least the same filtration efficiency as working filters in hydraulic circuit. Filter fillings have to be replaced at the same time as well.

Pressure setting

Pressure setting on pressure valves has to be checked continously. Valves may not be set to higher presures then noted in hydraulic diagram in any case.

Piping check for leaking

Leaking parts have to be repaired when there is no pressure in piping only, leaking parts have to be replaced.

Hydraulic plant cleaning

Hydraulic plant has to be kept clean, avoid water and impurity intrusion in the hydraulic circuit. When using high – pressure cleaning devices make sure not to damage parts of hydraulic device.

Accumulator maintainance

In case of any accumulator manipulation it is necessary to decompress the hydraulic accumulator and make sure liquid from the hydraulic circuit not to get into the accumulator. Always follow accumulator service manual. Hydraulic accumulators are always filled with nitrogen.

Worn-out parts replacement

Worn-out parts are to be replaced by original parts according to spare parts list. In case of need it is possible

Security of work

Hydraulic circuits are safe and reliable even at high pressures as far as all components are correctly dimensioned and operated. Always follow these principles:

- Never use hydraulic components dimensioned for lower pressures than circuit working pressure
- Keep clean hydraulic plant environment
- Shield hydraulic plant from mechanical damage and source of heat
- In case circuit is under pressure it is recommended not to come near piping and hosing
- Do not smoke or handle with open fire near the hydraulic plant
- When doing any adjustments switch off electric installations and decompress the accumulators
- All hydraulic circuits have to be protected gainst overload with correctly set safety valve
- Responsible employee must be determined to maintain hydraulic plant
- Ekvivalent acoustic pressure level A at service working station when weight filter A exceed 85 dB (A), acoustic output level emitted by hydraulic plant doesn‘t exceed 85dB (A)
- Hydraulic plant may not be used for different purpose and different materials than noted in the service manual
- When hydraulic plant liquidated it is necessary to empty oil first
- When extinguishing fire or hydraulic plant carbon dioxide fire extinguisher has to be used with respect to the electro installation
- Hydraulic plant and pressure circuits, especially when pressure hosing is used, should be covered in the direction toward service

These principles are not complete. Every hydraulic circuit has different conditions and different possibilities of environment threat. Following these rules should contribute to improvement of user‘s working conditions.

Spare parts

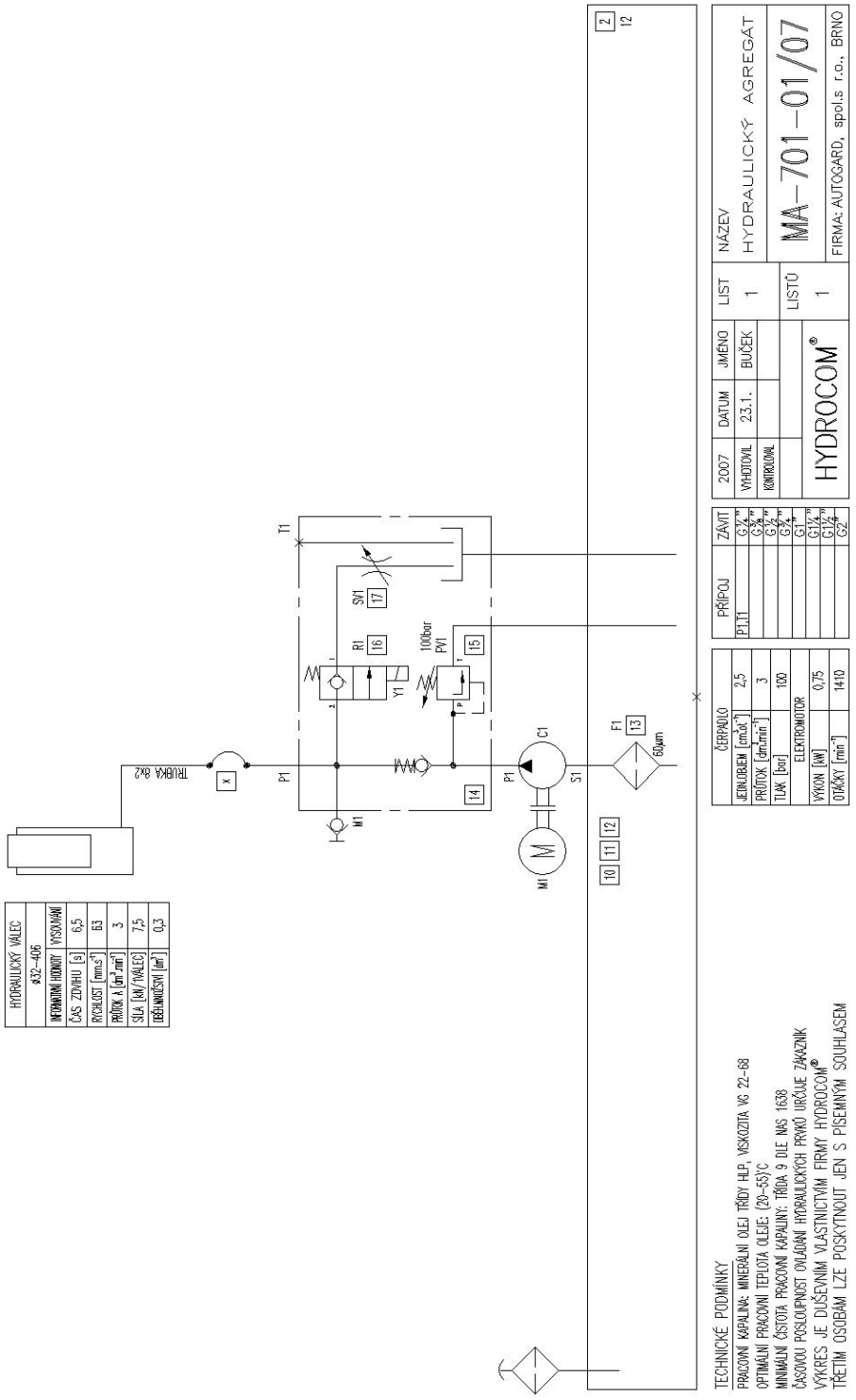
Any spare part can be oredered by the hydraulic plant supplier. Following datas have to be brought in when ordering:

- type of hydraulic component according to the list of components
- type and serial number of hydraulic plant according to the plant‘s label
- number of pieces ordered

Enclosures:

- hydraulic diagram
- hydraulic parts list
- revisory book

Hydraulic diagram:



Hydraulic parts list:

Position	Quantity MJ	Name	Label
2	1,0 ks	**V60303006** Steel tank 5,0 l horizontal/vertical	
3	1,0 ks	**V60603005** Pump 1/2,5ccm	C1
4.1	1,0 ks	**F27010002** Flange 0,55/0,75kW	
4.2	1,0 ks	**F36100002** Junction 0,55/0,75kW	
5	1,0 ks	**1LA7083-4AA12, 0,75/0,86kW,IMB14,FT100** Flange-mounted electromotor 400/230V, 50Hz, n=1395 1/min 460V, 60Hz, n=1674 1/min	M1
6	1,0 ks	**V60203003** Suction/draffish filter set	
7.1	1,0 ks	**V60103021** Interplate with back-pressure valve TP3B	
7.2	1,0 ks	**V70100003** Stopper with output for manometer	
7.3	1,0 ks	**MA3-R1/4"-WD** Measuring connector	
7.4	1,0 ks	**VSR1/4"-WD** Stopper VST R 1/4 WD	
7.5	1,0 ks	**V60513006** Console TP	
8	1,0 ks	**VMP6C2001 (OR)** Safety valve	PV1
9.1	1,0 ks	**ORS30E00000** No tension closed valve with manual emergency control	R1
9.2	1,0 ks	**EC30D024CC** Inductor 24V DC for OR30 without connector	
9.3	1,0 ks	**G1TU2VL1** Connector LED 24V, AC/DC- DIN 43650-A, 27,5x27,5 - overvoltage protection	
10	1,0 ks	**CSC04C0000** Throttle valve with hydraulic gradient stabilization, Qmax = 40 l/min	SV1
20	1,0 ks	**PLV 32x40/406/692 113A113** Single acting hydraulic cylinder	HV1

Revisory book:

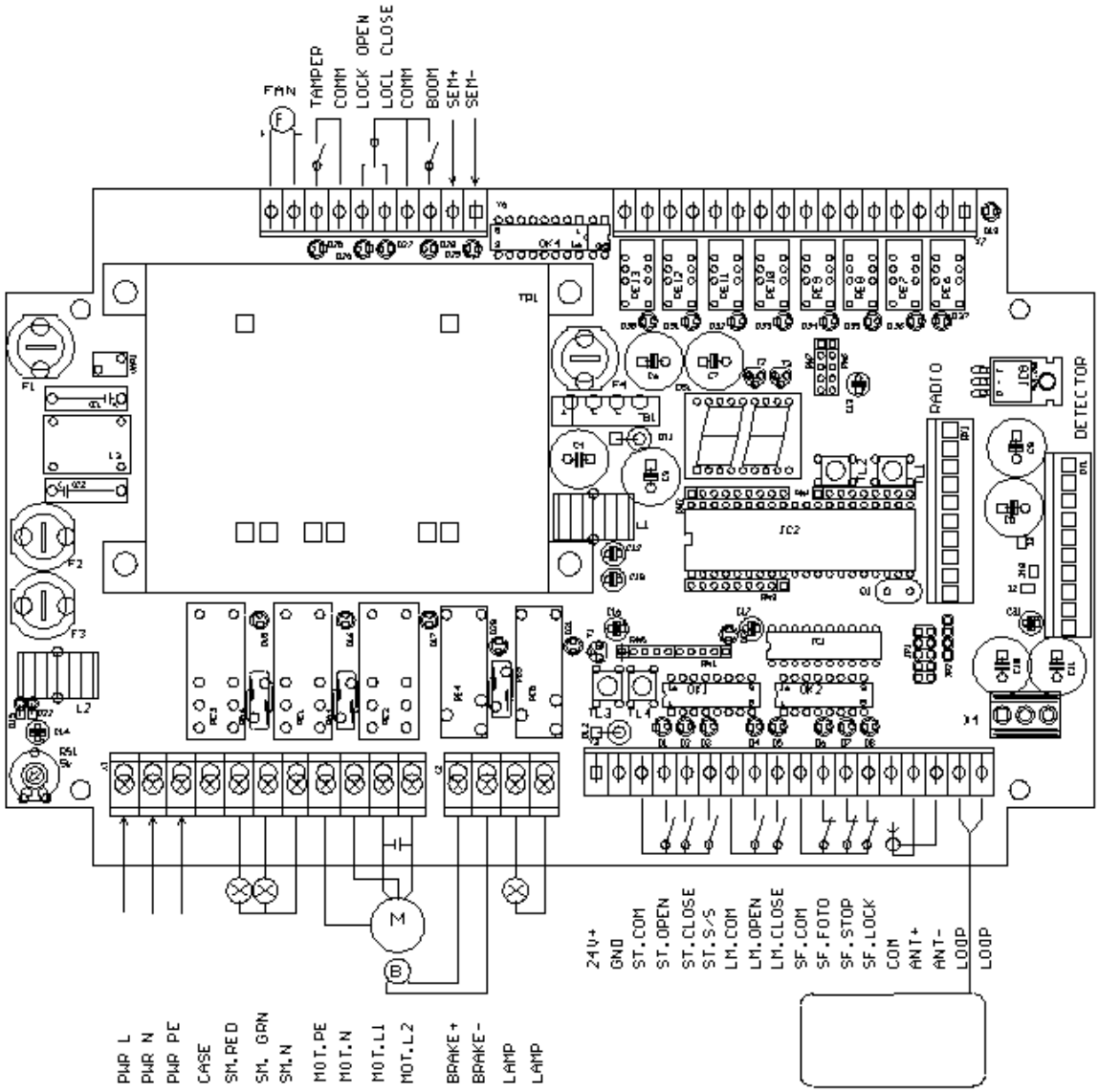
Performed controls and and maintainance of hydraulic plant are registered in the revisory book. Especially oil change and filtration fillers replacement is registered there. In accordance with revisory book are viewed possible claims.

Date	Activity	Name and signature
	Filling tank with oil – type of oil: – filtration device used:	

Control unit AGN2.0

Barriers of mod. AG500 a AG900 AGM1 are delivered with control unit AGN2.0 on microprocessor basis which enable to adapt plug-in modules of radio receiver and loop detector.

Control unit AGN2.0 – connection schema:



Fuses:

fuse	Type	Value
F1	F	1 A
F2	F	4 A (AG500, AG900) 10 A (AGM1)
F3	F	1 A
F4	F	1 A

Description of AGN2.0 connectors :

Pin	Part	Signal
L	POWER	Power supply 230V AC – L wire
N		Power supply 230V AC – A wire
PE		Power supply 230V AC – PE wire
CASE	CASE	case
RED	SEMAPHORE	Traffic light pin – phase on signal STOP
GRN		Traffic light pin – phase on signal FREE
N		Traffic light pin - common
PE	MOTOR	Motor – PE wire
N		Motor - N wire
L1		Motor – phase in direction open
L2		Motor – phase in direction close
+	BRAKE	Motor brake 24V +
-		Motor brake 24V -
+	LAMP	Output for flashing lamp or lighting 24V AC
-		Output for flashing lamp or lighting24V AC
+	24V	Output 24V DC for power supply of accesories,
GND		max 300 mA
COM	START	Common pin for control inputs
OPEN		Input of push-button „open“ (NO)
CLOSE		Input of push-button „close“ (NO)
S/S		Input of push-button „ step-step “ (NO)
COM	LIMIT	Common pin for control inputs
OPEN		Input of NC contact of limit switch upper position
CLOSE		Input of NC contact of limit switch low position
COM	SAFE	Common pin for control inputs
FOTO		Input of safety contact FOTO (blocks closing) (NC)
STOP		Input of safety contact STOP of push-button (blocks all move) (NC)
DET		Input of loop detector contact (NO) , function see programmable functions , value 01
COM		Common pin for control inputs
ANT +	ANT	Input of antenna‘s central wire for plug-in receiver of radio control
ANT GND		Input of antenna‘s shell for plug-in receiver of radio control
LOOP	DET	Pins for connecting of inductive loop

Plug-in modules:

Connector	Module
MODUL RADIO	plug-in module of radio receiver – control the barrier following programmable parameters. Suitable for type MRS2E receiver
MODUL DETECTOR	plug-in module of presence detector – closing of barrier + safety function Suitable for loop detectors of PLD1 type.

a) ***Start of control unit:***

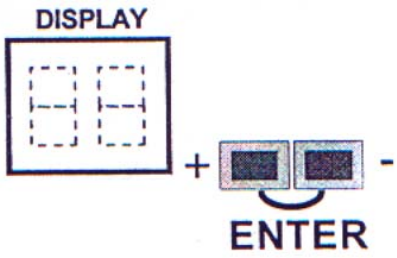
After connecting of power supply red LED in upper right corner is switched-on and in the line of LED behind the plug-in module relative LED according the activated inputs.

Than the systém is in a **standard status**, lines on display are blinking.It means the barrier will work normally.

Standard function:

In case the boom is in closed position the control unit waits for command OPEN - UP. This can be made by following kinds : Push-button UP, Push-button Step-Step or by radio transmitter. If during the opening an opposite command is given the boom stops for ca.1s and then starts to move the opposite way. During the closing cycle inputs FOTO and DET are tested. If they are active, the boom again stops and starts to move contrary. Input STOP blocks all moves.

b) new setting of control unit:



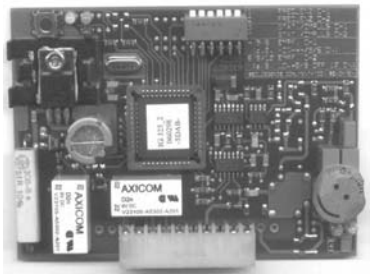
By simultanous pressing of both programming buttons you can entry to the programming modus. Number of programmable function is displayed on. This number can be changed with the help of programming keys UP and DW. Choose number of function, you want to change. By simultanous pressing of both programming keys you can entry to the parameters settings of this function. Values can be changed again with programming keys UP and DW following the table of programmable functions. After setting of required values they are saved by simultanous pressing of both keys and control unit returns to standard status (lines are blinking). When changing other parameters repeate the same way.

Table of programmable functions:

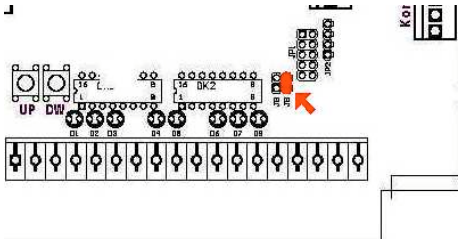
Function – number of item	Description of function	Values	Pre-setted
01	**DETECTOR – Choice of plug-in loop detector function** Function is disactivated **(00)** Safety **(01),** safety+closing **(02)**	00 - 01	01
02	**RADIO1 – Choice of relay A function of plug-in receiver MRS2E** Open **(00),** or „step-step“ **(01)**	00 - 01	00
03	**RADIO2 – Choice of relay B function of plug-in receiver MRS2E** Switched-off(00), or „closing“ (01)	00 - 01	00
04	**LAMP – Choice of function of blinking lamp or warning lamp** Blinking only during the movement **(00)**, or blinking full time**(01)**	00 - 01	00
05	**FOTO – memory of closing pulse during break of input FOTO.** Control unit disregards closing command during break of input **(00**), closing command is memorised and after performed **(01).**	00 - 01	01
06	**TIMER – setting of automatice reclosure time after opening** Reclosure is switched-off (00) , reclosure is activated, setted value coresponds to the time of reclosure **(01 – 99)**	00 - 99	00
07	**DELAY – delay of start of closing after receiving command close** (pre-blinking of flashing light) time of delay is setted in sec. **(00 – 99).**	00 - 99	00
08	**Choice of time of switching traffic light on STOP** Traffic light is switched by activation of any safety inputs (when the car is nearby the barrier)**(00),** traffic light is switched by command **(01).**	00 - 01	00
09	**Choice of plug-in detector type** detector PLD **(02).**	00 - 02	00
10	**Stop on obstacle –** if the boom bump on an obstacle motor will stop. Function is disactivated **(00)**, function is activ, the time of reaction is setted **(O1 – 20).**	00 - 20	00
11	**Blocking of closing with input OPEN –** If the contact on input OPEN is switched-on, boom cannot be closed. Function is disactivated **(00)** , or activated **(01)**	00 - 01	00

MODUL DETEKTOR	násuvný detektor přítomnosti vozidla – zavírání závory + bezpečnostní funkce Určeno pro detektory PLD – funkce viz . programovatelný parametr 01

Loop detector PLD1 – 1-channel plug-in model



For safety functions and automatic closing the barrier after leaving the loop insert plug-in loop detector module to socket "**detector**".
The safety loop connect to **LOOP** pins.
The head function of plug-in loop detector you can set with function no. **01**(as you require) and **09** (to value 02) in setup menu of AGN1.1 control unit.
Change DIP switch (on AGN1.1 control unit) according the picture (the arrow on the picture helps you).



If you want to use plug-in loop detector for opening the barrier, insert plug-in loop detector to socket "**radio**". The loop connect to **ANT** pins. This type of function requires setting of function no. **02** to value 02.

You can also apply two plug-in loop detectors in control unit (first for opening, second for safety function and closing), but the distance between opening and safety/closing loop must be more then 2 meters.

Setup **! After each device setting, a readjustment has to be made by pressing the reset key.**

Dip switch 1,2
Frequency setting - with the frequency switches, several operationg frequencies per channel can be set in order to avoid couplings by nearby loops.
Two ore more detectors may not operate at the same frequency.

Frequency high	S1 - left	S2 - left (delivery status:high)
	right	left
	left	right
Frequency low	right	right

Dip switch 3
Holding time (only relay A) - static (presence) - (S3 - on) or pulse 100 ms (S3 - off).

Dip switch 4,5,6
Sensitivity of the loop

DIP4	DIP5	DIP6	Function
on	on	on	Sensitivity high
on	on	off	
on	off	on	
on	off	off	Sensitivity med
off	on	on	
off	on	off	
off	off	on	Sensitivity low
off	off	off	DIP3 off - relay released - test operation
off	off	off	DIP3 on - relay picked-up - test operation

Status LEDs
Detect - green LED – the switching status "Loop Covered" is signalled by shining of the green LED.
Error - red LED – A loop failure through loop short-circuit, disconnection or loop inductivity beyond a permissible range is displayed by shining of the red LED.
Power – yellow LED – during the adjustment, the yellow LED is blinking for a few second. The yellow LED will shine permanently after the adjustment.
! No vehicle may be on the loop during the adjustment phase, since it will then not be detected any more.
! **After each device setting, a readjustment has to be made by pressiong** the reset key.

Technical datas

Power supply	24 V DC, +/- 10%
Input	3VA
Inductive range	15 uH – 2000 uH, recommended 100 – 300 uH, max 30 Ω
Sensitivity	Adjustable in 7 levels
Weight	70g
Working temperatrure	-25°C up to +80°C
Connector	10ti pin MOLEX connector
Output	Kontakty relé, Umax=250V, Imax=2A, Pmax=60W

Remote control Rxd1pp, Rxd2pp

Technical datas:

Power supply: 12-24 VAC/VDC
Frequency: 433,92 Mhz
Relay: 1A/30VDC
Working temperature: -20 - +60
Dimensions: 52x35x15 mm

1,2 channel plug-in receiver equipped with a 10 pole molex connector and outputs settable on customer‘s request.

- Via radio self learning functions allow to memorize up to 83 different codes
- It is possible to delete a single code from memory and insert a new one
- It enables to delete all the codes stored in memory and to insert new ones
- It is possible to either enable or disable ROLLING CODE mode
- Can be connected to portable programmer PROG2 by which it is possible to program the outputs with three different functions – monostable, bistable and timer

PROGRAMMING

Select desired channel reffering to the table below:

Selected channel	Touch nr. On SW1	LED L1	LED L2
Channel 1 monostable	1	*	
Channel 2 monostable	2		*

-Press a times receiver switch SW1 according to the table:LED LIGHT UP
- It is necessary to proceed to the programming step within 7 seconds
- Press the transmitters button until the receiver LED turn off for 1/2 second: this states that the code has been memorized
- LED immediately starts flashing for a number of timesequal to the memory cell just occupied

- After the flashing finishes, the system is ready to be used

BISTABLE AND TIMER FUNCTION PROGRAMMING

Using portable programmer PROG 2, it is possible to program receiver outputs either as BISTABLE or TIMER

„ROLLING CODE“ MODE

It is possible to enable or disable the „ rolling code“ mode , which vanishes any attempt to duplicate Personal Pass code. It is necessary to set J1 jumper on the board:

J1 open …… rolling code mode enabled
J1 close ……... rolling code mode disabled
WARNING: only with rolling code enabled Personal Pass code cannot be reproduced by others

PARTIAL DELETING FUNCTION
It is possible to delete one or more codes present inside the memory with aim to disable the desired transmitters. To enable partial deleting function, act as below:

- Press SW1 on the receiver and keep it pressed until LED turns off
- Release switch: LED must start flashing (from 1 to 83) at a low rate(about 1 blink/second)
- Count LED number of flashes till the memory cell number wished to delete
- Press SW1 switch on the receiver during the wished flash count
- Release SW1 switch and wait some seconds until LED goes off
- The selected memory cell is now free and ready to be memorized again

TOTAL CLEARING
It is necessary to follow steps below:

- Disconnect receiver alimentation
- Press and keep pressed SW1 switch on the receiver
- At the same time reconnect alimentation
- Receiver LED flashes: release SW1 switch
- All the 83 memory cells are now empty and ready to be programmed again

ATTEMPT TO INSERT A CODE ALREADY PRESENT IN MEMORY
While trying to memorize a code that is already present inside memory, receiver LED makes a number of flashes equal to the memory cell number already occupied. To differentiate this function from normal programming mode, LED flashes at a higher rate and remains on for about 4 sec. during last blink. The user can employ this feature to identify, at every time, the memory cell of any transmitter having access to the system..

Emergency barrier opening

Hydraulic valve release. Check picture below

! Emergency blocker opening or closing can be carried out only when blocker‘s circuit breaker shut off !

Blocker maintainance

Blocker is designed and manufactured as a maintainance free facility. For permanent trouble free function we advise to carry out activities as below every three months:

1) Check foundations of blocker
2) Control all screw connections and in case of need tighten them
3) Oil blocker pivots

Possible control modes

- Remote radio control
- Inductive detector control
- Card, contact card or contactless card access systems

Recommended accessories

- ✓ Inductive detector
- ✓ Safety photocell
- ✓ Remote control
- ✓ Key switch
- ✓ Button control
- ✓ STOP sign
- ✓ Access systems
- ✓ Drive-up ramp
- ✓ Second traffic light for both way access

ES – Declaration of conformity

1) Us

AUTOGARD spol. s r.o.
Dornych 47
617 00 Brno - CZ
IČ: 49446053

Hereby declare,

That subsequently marked product on the basis of it‘s conception and construction, as well as implementations set afloat by us, correspond to relevant basic security demands of European directions. This declaration loses its validity when product characteristics are changed without our reconciliation.

Product name:	**Automatic road blocker**
Series:	**RKB/xxx**
Technical datas:	**400V / 50 Hz – 1500W** **230V / 50 Hz – 100W**
Manufacturer:	**AUTOGARD spol. s r.o.,** **Dornych 47, 617 00 Brno - CZ**

Description and purpose of use: Automatic road blocker serves to regulate vehicles entrance/exit to restricted areas.

The relevant decrees of the government / the European directives:
The Decree of the Government No. 168/1997 Coll. as amended (the Directive of the European Council 93/68/EEC),
The Decree of the Government No. 169/1997 Coll. as amended (the Directive of the European Council 93/68/EEC),
The Decree of the Government No. 170/1997 Coll. as amended (the Directive of the European Council 98/37/EEC).

The applied harmonised standards, national standards and technical specifications:
ČSN EN 60204-1:2000 (EN 60204-1:1997), ČSN EN 61000-6-3:2002 (EN 61000-6-3:2001), ČSN EN 61000-6-1:2002 (EN 61000-6-1:2001), ČSN EN 292-1:2000 (EN 292-1:1991), ČSN EN 292-2+A1:2000 (EN 292-2+A1:1995)

Under conditions of common and determined using the product is safe.
The manufacturer has taken precautions for ensuring of the conformity of all launched products with the technical documentation and wit the requirements of the technical standards mentioned above.

Ing. Milan Plhák
Brno, 20.4.2007 Jednatel

……	…….	……..
Place of issue,date	Name and function Of responsible person	Signature

Single test record according to ČSN 50106:

Test name	Required values	Conclusion
Security connection test	R < 0,1 ohm	Machinery pleased
Disruptive strength test	V = 2,5 kV time 1s	Machinery pleased
Function test	Setting, adjusting control	Machinery pleased

Completeness and quality certificate

Machinery is complete with all accessories and equipment, without defects.

Type	RKB/
Serial number	
Tested by	

Content

Contacts

In Russia, please contact AbavaNet to maintain or purchasing:

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