



uartBridge via UART interface provides a data flow rate at 57,600 bps

## Command

Key (command)	Syntax	Value	Description
add		(does not require values)	Add radio detector (it is necessary to change a battery or turn on the toggle switch of a detector) Only in engineer menu
cln		(does not require values)	Delete all radio detectors (only in engineer menu)
del	del Value	DevID	Delete radio detector (only in engineer menu)
ech		0/1	Toggle Echo mode on/off: on — 1 off — 0
frm		0/1	Toggle on/off information output about start of every frame: on — 1 off — 0
ext		0/1	Toggle on/off information output about received status of a detector: on — 1 off — 0
inf		0/1	Toggle on/off output of STATUS commands (for DeviceTester): on — 1 off — 0

par	par Value1, Value2, Value3	Value1 = DevID; Value2 = Byte1; Value3 = Byte2;	Configure settings for a particular detector (sent with two bytes). Depending on detector type, different values can be sent. For an example, Byte1 is used as a numeric value to configure sensitivity (min. sensitivity — 0, mid. sensitivity — 1, max. sensitivity — 2), Byte2 carries settings flags. For instance, settings of 24-hour zone (on — 1, off — 2). Only in engineer menu
fln	fln Value	12..300	Change frame length (only in engineer menu, outputs current value in an operation mode) — divisible by 12 sec (12, 24 ... 300)
lst		(does not require values)	Output device list (only in engineer menu)
wrk		(does not require values)	Exit from engineer menu, restore normal operation
stat		(does not require values)	Output security state and frame length
tmr		0/1	Toggle on/off information output about counters of detector operation time: on — 1 off — 0
pas		(does not require values)	Disarm the system
ver		(does not require values)	Output information about firmware version and microcontroller ID + outputs versions of all detectors (ext, tmr should be enabled)
act		(does not require values)	Enable armed mode
stop		(does not require values)	Stop main operations, enter engineering menu
rct	rct Value	DevID	Launch targeted communication test (only in operation mode). Lasts 10 minutes
rdt	rdt Value1, Value2	Value1 = DevID, Value2 = time(в минутах 2..30),	Launch targeted test of detection zone (only in operation mode). Lasts 10 minutes
los	los Value	3..60	Change amount of missed statuses in a row from detector till alarm in case of lost communication (only in engineer menu, operation mode outputs current value)
stt		—	Stop all current communication tests or detection zones, as well as search for detector registration
ssp	ssp Value1, Value2	Value1 = DevID, Value2 = 1/0	Configure separate detector to armed mode: arm — 1 disarm — 0

cat	cat Value1, Value2	Value1 = DevID, Value2 = DevType	Assign detectors through "configuration upload"
can		—	Launch search of devices, which were assigned through "configuration upload"

All messages are ending with signs of carrier return and transfer to a new row — (/r/n). All messages to receiver are typed in lowercase.

Receiver returns each message by echoing for input control (it is necessary when sending commands from keyboard through terminal program).

All messages, generated by a receiver, are outputted in uppercase.

### Possible DevType values (types of devices)

Key	Value	Description
DevType	1	DoorProtect — door opening detector
	2	MotionProtect — motion detector
	3	FireProtect — smoke detector
	4	GlassProtect — glass breakage detector
	5	LeaksProtect — flood detector
	8	CombiProtect — hybrid detector of motion and breakage
	9	FireProtectPlus — smoke + CO detector
	11	SpaceControl — keyfob (not online)
	14	MotionProtectPlus — motion detector with microwave sensor
	0	Undetermined device, reserved value

### Alarms

Key	Syntax (length)	Value	Description
ALARM	ALARM;DevType;DevID; AlarmNUM=Value;	1	Tamper alarm
		2	Tamper restored
		3	Dual restoration of tamper
		4	Loop alarm
		5	Loop restored
		6	Dual restoration of loop
		7	Terminal is open

	8	Terminal is closed
	9	Dual closing of terminal
	10	Smoke detected
	11	No smoke
	12	No smoke dual event
	13	Acceptable CO level is exceeded
	14	CO level is back to normal
	15	Dual event: CO level is back to normal
	16	Temperature level exceeded allowable threshold
	17	Temperature is at normal level
	18	Dual event: temperature level is back to normal
	19	Flood detected
	20	Flood alarm is removed
	21	Dual event: flood detector is restored
	22	Motion detected
	23	Glass breakage detected
	24	Keyfob — button 1
	25	Keyfob — button 2
	26	Keyfob — button 3
	27	Keyfob — button 4
	32	Extreme temperature growth detected
	33	Extreme temperature growth stopped
	36	CO camera in smoke detector is out of order
	37	CO camera is restored
	39	Unknown alarm from detector
	40	Unsupported device
	41	Low battery level detected
	42	Batter level back to normal
	43	Sensor is lost
	44	Sensor is back in network after connection loss
	45	Long (> 3 frames) of connection between receiver and a sensor, radio module is rebooted
	47	Camera in smoke detector is out of order
	48	Camera is restored
	49	Camera is dirty

		50	Camera is cleaned
		100	Jamming detected
		101	Jamming stopped
		110	Masking by jamming
		111	Masking by jamming is stopped

Alarm row of a keychain passes the same amount of clicks (max. value — 65535).

Example of pressing a button on a keychain: ALARM;11;0000CA;27;NSD=4;

## Initial upload

Key	Syntax (length)	Pname	Value	Description
RALLSTATE	RALLSTATE;DevID ;PNum1;.....;PNum 15;  Information about receiver condition and its parameters (mode/frame/firmw are version...)  Example: RALLSTATE;38BD 07;VER=MRR-101 V2.47;FLN=12; LST=8;ARM=0;SET =1;CTM=0;STM=0; WFA=0;FST=0;FR M=0;ONL=0;FUL=0 ;TMR=0;NSL=-75; LLS=-30;ECH=1;IN F=0;FSL=10;FRS= 0;	VER	0-999	Firmware version (/10) (240 = 2.40)
		FLN	12-300	Frame length
		LST	3-60	Misses until detector loss
		ARM	1/0	Active/passive mode
		SET	1/0	Operation mode/engineering menu
		CTM	1/0	On/off communication test mode
		STM	1/0	On/off detection zone test mode
		FST	1/0	On/off extended status
		FRM	1/0	Output notifications about frames, average noise level per frame and detectors online
		ONL	0-99	Amount of detectors online
		FUL	0-99	Total amount of assigned detectors
		TMR	1/0	On/off display of timers
		NSL	-255..0	Noise level (average per frame)
		FSL	0-99	Amount of free cells for record
ECH	1/0	On/off echo mode		
INF	1/0	On/off output of info messages		

## RSTATE

Key	Syntax (length)	Pname	Value	Description
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RSTATE	RSTATE;DevID;PName=Value;...	VER (Version)	0-999	Firmware version (/100) (240 = 2.40)
	Example: RSTATE;0FF0CE; NSL=-88; NSL=-89; NSL=-92; NSL=-93; ONL=1; FUL=1; LLS=-42; FNM=4; DPT=5;  Example: RSTATE;6FFF53;F RS=0;	FLN (Frame Length)	12-300	Frame length (12-fold)
		LST (Lost)	3-60	Misses until lost sensor
		ARM (Armed)	1/0	Active/passive mode
		SET (Settings)	1/0	Operation mode/engineering menu
		CTM (Connection test mode)	1/0	On/off communication test mode
		STM (Sensitivity test mode)	1/0	On/off detection zone test mode
		WFA (Wait For Answer)	1	Waiting for reply
		FST (Full status)	1/0	On/off extended status
		FRM (Frame/Noise message)	1/0	Output notifications about frames, average noise level per frame and detectors online
		ONL (On-line)	0-99	Amount of detectors online
		FUL	0-99	Amount of all registered detectors in the system
		TMR (Timers)	1/0	On/off display of timers
		NSL (Noise level)	-255..0	Noise level (average per frame) — four values: 1. From the first aerial on 868.0 frequency 2. From the first aerial on 868.5 frequency 3. From the second aerial on 868.0 frequency 4. From the second aerial on 868.5 frequency
		LLS (LowestLevelSignal)	-255..0	The weakest signal level of all registered and working detector
FSL (Free Slots)	0-99	Amount of free cells for record		

		ECH (Echo)	1/0	On/off echo mode
		FRS (Frame start)	0 — frame length	Time in seconds from frame start. 0 — the moment of frame start
		INF (INFOmessages)	1/0	On/off output of info messages
		FNM (Frame number)	0..5 (depends on depth of super-frame)	Number of a current frame in super-frame
		DPT(depth)	5	Depth of super-frame
		NET	1..255	Number of network
		TIM(time)	290..310	Slot length (time in milliseconds)
		STE(step)	17 (may change)	Step length in super-frame Min = 3 Max = 20

## Events

Key	Syntax (length)	Pname	Value	Description
EVENT	EVENT;DevID;PName=Value;...  Example: EVENT;8E0007;RPT=118; COM=31;  Example: EVENT;2A0004;TCR=-10;TTC=93;LTS=0;	HNL	-128..0	High noise level detected, value is provided
		AUT	0-3	Authentication result: 0 — OK 1 — no answer 2 — wrong answer 3 — "not my device"
		LOD	0/1	Settings upload: 0 — failure 1 — OK
		TCR	-50 ..50	Time correction, ms
		TTC	0..1000	Minutes from previous synchronization correction
		LTS	1/0	Low stability of synchronization. 1 — when values are corrected more often than once in 40 minutes
		DET	0-299	Detect command (request from detector for entering into synchronization), amount of seconds till start of the next frame

		ERR	0-299	Synchronization error, amount of seconds till start of the next frame
		ATO	0	Automatic shutdown of Configurator at time-out
		SCH	0/1/2/3	Search is finished/started/continued/finished at time-out (nothing is found)
		NOI	0	0 — no information from detector ID 1 — detector version is not received
		UAP	0	Wrong position of alarm output
		NOR	0-3	No response row number — no answer. During detector overriding
		UPD	1	Update registration data in detector
		NEW	1	New detector found
		WFA	Y/N	Awaits response
		FRE	0..99	Amount of free cells
		SPC	0..99	Amount of cells in this frame
		STR	1..99	Detector saved with Num system number
		RED	0/1	Reading extradata (extended status): fail — 0 success — 1
		ENT	0..2	Enter into test: 0 — fail 1 — successfully entered 2 — test finished
		STP	0..2	Test stopped: 0 — fail 1 — successfully stopped 2 — impossible to stop
		INS	1..2	Enter into test of radio communication, launched from detector: 1 — successfully entered 2 — test finished
		STR (store)	1..99	System number of device
		SLT (slot)	1..999	Slot number of device
		PRT (protect)	0/1	0 — disarmed 1 — armed
		RPT(repeat)	0..65535	Detector sent a command with repeat. Total counter of repeats.
		COM	0..102	Number of command with a repeat.



## The result of the command (errors)

Key	Syntax (length)	Result	Param	Description
RESULT	RESULT;Result;Param; (RESULT;1b;1b;)  Result of a command with a reason	OK	0	Executed
			1	Accepted, beginning the process
			2	Already executed (before the command was entered)
			3	The process has started
		NAK	Negative-Acknowledgment	
			0	Unknown command
			1	Wrong argument
			2	Cannot be called in this mode
			3	Detector does not exist
			4	Detector already exists
			5	Time out exceeded
			6	Failure
			7	Receiver is busy
			8	Not enough arguments
			9	No free space (for registration)
	10	Test has already started		
		11	Device is not reachable	

## Radio communication test

launches for 10 minutes, can be stopped with stt command

Key	Syntax (length)	Param	val	Description
TRES Test result	TRES;INST;Loc_RSSI, Rem_RSSI, Loc_Noise, Rem_Noise, Sec, FullSec TRES;AVG10(AVG100);Loc_ RSSI, Rem_RSSI, Loc_Noise, Rem_Noise, Berr, Qual  Example: TRES;INST;-33;-38;-87;-91;0; 600;	TYPE	INST	Immediate value
		AVG10		Averaged value on 10 samplings
		AVG100		Averaged value on 100 samplings
		Avg	-255..0	Average signal value
		Ber	0-100	Losses percentage

Or averaged value TRES;AVG10;-30;-47;-88;-91; 0;3;	Noise	-255..0	Average noise level
	Quality	0-3	Communication quality
	FullSec	600	Test duration — 10 minutes (600 sec)
	Sec	0..600	Current second of the test
	Loc_RSSI		Signal level, measured by receiver
	Rem_RSSI		Signal level, measured by remote radio device
	Loc_Noise	min -128db	Noise level, measured by receiver
	Rem_Noise		Noise level, measured by remote radio device

## Timers

device [detector] operation time in different modes, TMR=1

Key	Syntax (length)	Param	Param	Description
TREAD	TREAD;ID;T1;T2;T3;T4;T5;	Timer values 0-65535	T1	Active time
Results of timers	Example: TREAD;1F4510;1046;329;533;4;349693 ;		T2	Passing time
			T3	Receiving time
			T4	LED operation time
			T5	Total time of operation

## Extended status

EXT=1

Key	Syntax (length)	Param	Description
DEVINFO	DEVINFO;DevID;SysNum; SLT(slot);NumPack;NoiseRSSI_Avg;Lo c_RSSI;Rem_RSSI;VBat;OutPower;Sh iftSynchro;SettingByte1;SettingByte2;T emp; Dev_Reset; Number _of_Skip;MRR_Skip; FrecERR; ResBatCondition; V_ResBat  Example: DEVINFO;8E0007;2;77;105;-93;-46;-27 ;30;-15;2;5;2;30;161;0;15;-5124;0;0;	DevID	Device ID
		SysNum	Sequence number in a system
		NumPack	Package number from device
		SLT(slot);	Slot number of device
		NoiseRSSI_Avg	Noise level, measured by receiver

		Loc_RSSI	Signal level, measured by receiver
		Rem_RSSI	Signal level, measured by remote radio device
		VBat	Battery voltage
		OutPower	Output power of device
		ShiftSynchro	Time correction rate
		SettingByte1	First byte of settings
		SettingByte2	Second byte of settings
		Temp	Ambient temperature around microcontroller
		Dev_Reset	Reset-factor — Value of last device reboot (33 — reset by power)
		Number_of_Skip	Amount of missed statuses in a row until current received
		MRR_Skip	Amount of missed unheard packages (all and on alarm) from MRR — counter is incremented up to 65535
		FrecERR	Frequency deviation in Hz
		ResBatCondition	State of reserve battery: discharged — 1, charged — 0
		V_ResBat	Voltage of redundant battery
		Dust	Camera dustiness in %

## Normal status from detector

INF=1

Key	Syntax (length)	Param	Description
STATUS	STATUS;DevType;DevID; STR; SLT; Shifted;NumPack;Loc_Noise;-Loc_RS SI; Bat_Condition; SettingByte1; SettingByte2; ShiftSynchro; Number_of_Skip;	DevType	Device type
		DevID	Device ID
		STR(store)	System number of device (sequence number in a system)

FrecERR;Act_ANT;Bad_ANT_RSSI, Sens_Condition; Frequency  Example: STATUS;8;8E0007;2;77;113;101;-88;-3 3;0;5;2;2;0;-5490;1;-36;0;868.0;	SLT(slot);	Slot number of device
	Shifted	Account number of a slot on super-frame
	NumPack	Package number from device
	Loc_Noise	Noise level which receiver gets from the device
	Loc_RSSI	Level which receiver gets from the device
	Bat_Condition	Battery state: discharged — 1 charged — 0
	SettingByte1	First byte of settings
	SettingByte2	Second byte of settings
	ShiftSynchro	Deviation of detector synchronization from system in ms
	Number_of_Skip	Amount of missed statuses in a row until current received status
	FrecERR	Frequency deviation in Hz
	Act_ANT	Active aerial 0 or 1
	Bad_ANT_RSSI	Reception level with the worst aerial
	Sens_Condition	Sensor state (tamper, hermetic contact, terminal)
Frequency	Frequency, where status was received (868.0 or 868.5)	

### Shortened status — PING

Key	Syntax (length)	Param	Description
STATUS  Example:	STATUS;DevType;DevID; STR; SLT; Shifted;NumPack;Loc_Noise;-Loc_RS SI; Bat_Condition; SettingByte1; SettingByte2; ShiftSynchro; Number _of_Skip; FrecERR;Act_ANT;Bad_ANT_RSSI, Sens_Condition; Frequency;PING;	DevType	Device type
		DevID	Device ID
		STR(store)	System number of device (sequence number in a system)
		SLT(slot);	Slot number of device
		Shifted	The slot number for the superframe

STATUS;8;8E0007;2;77;95;98;-86;-43;0;5;2;2;0;-5002;0;-43;1;868.0;PING;	NumPack	Package number from device
	Loc_Noise	Noise level which gets receiver from the device
	Loc_RSSI	Level which gets receiver from the device
	Bat_Condition	Battery state: discharged — 1 charged — 0
	SettingByte1	First byte of settings
	SettingByte2	Second byte of settings
	ShiftSynchro	Deviation of detector synchronization from system in ms
	Number_of_Skip	Amount of missed statuses in a row until current received status
	FrecERR	Frequency deviation in Hz
	Act_ANT	Active aerial 0 or 1
	Bad_ANT_RSSI	Reception level with the worst aerial
	Sens_Condition	Sensor state (tamper, hermetic contact, terminal)
	Frequency	Frequency, where status was received (868.0 or 868.5)
PING	ID of shortened status	

## Dialogue examples

### Initial upload

uartBridge	AJAX SYSTEMS	
uartBridge	Start uartBridge BootLoader V1.06	
uartBridge	Soft Build: Jul 20 2015 13:11:18	
uartBridge	No update is found.	

uartBridge	Jump into the main application...	
uartBridge	SETID;38BD07;	Central unit ID
uartBridge	RALLSTATE;D52D30;VER=uartBridge V4.3.0;FLN=36;LOS=40;PRT=0;SET=1;CTM=0;STM=0;WFA=0;EXT=0;FRM=1;ONL=0;FUL=0;TMR=0;NSL=-75;LLS=-30;ECH=1;INF=1;FSL=10;FRS=0;	

## Transition to configuration mode

Successful

to uartBridge	stop	
uartBridge	stop	
uartBridge	RESULT;OK;0;	Executed

Already in settings

to uartBridge	stop	
uartBridge	stop	
uartBridge	RESULT;OK;2;	Already in this mode

## Transition to operation mode

Successful

to uartBridge	wrk	
uartBridge	wrk	
uartBridge	RESULT;OK;0;	Executed

Already in operation mode

to uartBridge	wrk	
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uartBridge	wrk	
uartBridge	RESULT;OK;2;	Already in this mode

## Status check

### Passive mode

to uartBridge	stat	
uartBridge	stat	
uartBridge	RSTATE;0FF117;PRT=1;	Passive mode
uartBridge	RSTATE;0FF117;FLN=36; RSTATE;0FF117;ERF=0;EID=0;ESP=0;EFR=0;	Frame length — 36 seconds

### Active mode

to uartBridge	stat	
uartBridge	stat	
uartBridge	RSTATE;0FF117;PRT=0;	Active mode
uartBridge	RSTATE;0FF117;FLN=36; RSTATE;0FF117;ERF=0;EID=0;ESP=0;EFR=0;	Frame length — 36 seconds

## Mode settings

### Active mode

to uartBridge	act	
uartBridge	act	
uartBridge	RSTATE; 0FF117; PRT=1	Active mode (000000 — event from receiver)

### Passive mode

to uartBridge	pas	
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uartBridge	pas	
uartBridge	EVENT; 0FF117; PRT=0;	Passive mode

Set separate detectors to armed state

to uartBridge	ssp 0048e0,1	
uartBridge	ssp 0048e0,1	
uartBridge	RESULT;OK;0; RSTATE;0FF117;0048E0;SSP=1;	Passive or active mode

Set separate detectors to disarmed state

to uartBridge	ssp 0048e0,0	
uartBridge	ssp 0048e0,0	
uartBridge	RESULT;OK;0; RSTATE;0FF117;0048E0;SSP=0;	Passive mode

Forbid execution of a command in operation mode

to uartBridge	add	Any unavailable command
uartBridge	add	
uartBridge	RESULT;NAK;2;	Denial — inappropriate mode of receiver

## Change frame length

Unavailable, operation mode

to uartBridge	fln 24	
uartBridge	fln 24	
uartBridge	RESULT;NAK;2;	Denial — inappropriate receiver mode
uartBridge	RSTATE; 0FF117;FLN=12;	Current frame length — 12 seconds



Length successfully changed

to uartBridge	fln 24	
uartBridge	fln 24	
uartBridge	RSTATE; 0FF117;FLN=24;	Frame length — 24 seconds
uartBridge	RESULT;OK;0;	Executed

Failed — value is equal to the current

to uartBridge	fln 24	
uartBridge	fln 24	
uartBridge	RESULT;OK;2;	Already executed

Unsuccessful — incorrect parameters

to uartBridge	fln 0	
uartBridge	fln 0	
uartBridge	RESULT;NAK;1;	Not executed — wrong argument

## Addition of a radio detector

Launch search

to uartBridge	add	
uartBridge	add	
uartBridge	EVENT;000000;FRE=99;SPC=39;	Total free space and on a current frame length
uartBridge	RESULT;OK;0;	Executed
uartBridge	EVENT;000000;SCH=1;	Transition to detector standby, search has started

Detector standby. Unsuccessful — detector not found

uartBridge	EVENT;000000;SCH=0;	Search finished
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Successful — data from detector received

to uartBridge	add	
uartBridge	add	
uartBridge	EVENT;000000;FRE=99;SPC=39;	
uartBridge	RESULT;OK;0;	
uartBridge	EVENT;000000;SCH=1;	
uartBridge	EVENT;417BC2; TYP=2,NEW=1; VER=MotionProtect 3.23.0;WFA=Y/N;	A new device is waiting for user's answer

Error while data exchange with detector (any stage)

uartBridge	EVENT;417BC2;NEW=1;TYP=1;VER=MW S-401 V2.46;WFA=Y/N;	
to uartBridge	y	Yes
uartBridge	y	
uartBridge	EVENT;000000;NOR=2;	Error (NOR=1;NOR=2:NOR=3)

This detector already exists

to uartBridge	add	
uartBridge	add	
uartBridge	EVENT;SYSTEM;FRE=88;SPC=88;	
uartBridge	RESULT;OK;0;	
uartBridge	EVENT;SYSTEM;SCH=1;	
uartBridge	EVENT;0048E0;TYP=2;UPD=1;STR=1;SLT=6 9;VER=MotionProtect 3.23.0;	Detector is updated Detector is recorded to 1 timeslot, super-frame value is 69

Results of waiting for user's answer — time has run out

to uartBridge	add	
uartBridge	add	
uartBridge	EVENT;000000;FRE=98;SPC=38;	

uartBridge	RESULT;OK;0;	
uartBridge	EVENT;000000;SCH=1;	Search started
uartBridge	EVENT;000000;SCH=0;	Search finished

Answer — record approval

to uartBridge	add	
uartBridge	add	
uartBridge	EVENT;000000;FRE=99;SPC=39;	
uartBridge	RESULT;OK;0;	
uartBridge	EVENT;000000;SCH=1;	Search started
uartBridge	EVENT;0048E0;TYP=2;NEW=1;VER=MotionProtect 3.23.0;WFA=Y/N;	A new device is waiting for user's answer
to uartBridge	y	Yes
uartBridge	y	
101	EVENT;0048E0;TYP=2;NEW=1;STR=1;SLT=69;VER=MotionProtect 3.23.0;	Detector is recorded to 1 timeslot, super-frame value is 69

Answer — "record is denied", return to search

to uartBridge	add	
uartBridge	add	
uartBridge	EVENT;000000;FRE=99;SPC=39;	
uartBridge	RESULT;OK;0;	
uartBridge	EVENT;000000;SCH=1;	Search started
uartBridge	EVENT;0048E0;TYP=2;NEW=1;STR=1;SLT=69;VER=MotionProtect 3.23.0;	A new device is waiting for user's answer
to uartBridge	n	No
uartBridge	n	
uartBridge	EVENT;000000;SCH=2;	Search is continued

## Targeted deletion of detector

Detector is successfully deleted

to uartBridge	del 417bc2	
uartBridge	del 417bc2	
uartBridge	RESULT;OK;0;	Executed

Fail — this detector does not exist

to uartBridge	del 232354	
uartBridge	del 232354	
uartBridge	RESULT;NAK;3;	Detector does not exist

Fail — not enough arguments

to uartBridge	del 232	
uartBridge	del 232	
uartBridge	RESULT;NAK;8;	Not enough arguments

Delete all radio detectors (only in engineer menu)

to uartBridge	cln	
uartBridge	cln	
uartBridge	RESULT;OK;0;	Executed

## Echo mode on/off

Echo mode is on

to uartBridge	ech 1	
uartBridge	RSTATE; 0FF117;ECH=1;	Mode is on

Echo mode is off

to uartBridge	ech 0	
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uartBridge	ech 0	
uartBridge	RSTATE; 0FF117;ECH=0;	Mode is off

Toggle on/off output of a row about starting the frame, noise, amount of devices online

On

to uartBridge	frm 1	
uartBridge	frm 1	
uartBridge	RSTATE; 0FF117;FRM=1;	On

Off

to uartBridge	frm 0	
uartBridge	frm 0	
uartBridge	RSTATE; 0FF117;FRM=0;	Off

On/off informational commands

On

to uartBridge	inf 1	
uartBridge	inf 1	
uartBridge	RSTATE; 0FF117;INF=1;	On

Off

to uartBridge	inf 0	
uartBridge	inf 0	
uartBridge	RSTATE; 0FF117;INF=0;	Off

## Output extended status of a detector

On

to uartBridge	ext 1	
uartBridge	ext 1	
uartBridge	RESULT;OK;0; RSTATE; 0FF117;EXT=1;	Extended statuses are on

Off

to uartBridge	ext 0	
uartBridge	ext 0	
uartBridge	RESULT;OK;0; RSTATE; 0FF117;EXT=0;	Extended statuses are off

## On/off output of temporary statistics

On

to uartBridge	tmr1	
uartBridge	tmr 1	
uartBridge	RSTATE; 0FF117;TMR=1;	On

Off

to uartBridge	tmr 0	
uartBridge	tmr 0	
uartBridge	RSTATE; 0FF117;TMR=0;	Off

## Configure settings for detector

Settings successfully recorded

to uartBridge	par 1d0031,5,5	
uartBridge	par 1d0031,5,5	
uartBridge	RESULT;OK;0;	Executed

Fail — no argument (short ID or not enough arguments)

to uartBridge	par 1d0031,	
uartBridge	par 1d0031,	
uartBridge	RESULT;NAK;8;	Not enough arguments

Fail — detector does not exist

to uartBridge	par 1d0131,1,1	
uartBridge	par 1d0131,1,1	
uartBridge	RESULT;NAK;3;	Detector does not exist

Output device list (only in engineer menu)

to uartBridge	lst	
uartBridge	lst	
uartBridge	LIST;1;111;0048E0;2;	Sequence number, super-frame number, ID, device type
uartBridge	LIST;2;11;1D0031;1;	
uartBridge	LIST;3;36;417BC2;1;	

## Launch targeted communication test

Fail — launch in configuration mode (launch only in operation mode)

to uartBridge	rct 1d0031	
uartBridge	rct 1d0031	
uartBridge	RESULT;NAK;2;	It cannot be called in this mode

Fail — detector does not exist (this ID does not exist)

to uartBridge	rct 1d0032	
uartBridge	rct 1d0032	
uartBridge	RESULT;NAK;3;	This detector does not exist

Fail — not enough arguments

to uartBridge	rct 1d00	
uartBridge	rct 1d00	
uartBridge	RESULT;NAK;8;	Not enough arguments

Fail — detector is out of network

to uartBridge	rct 8d02f3	
uartBridge	rct 8d02f3	
uartBridge	RESULT;NAK;11;	Device is not reachable

Fail — test is already launched (currently it is tested with another device)

to uartBridge	rct 8d02f0	
uartBridge	rct 8d02f0	
uartBridge	RESULT;NAK;10;	Test has already started

Standby, successful — test has started

to uartBridge	rct 8d02f3	
uartBridge	rct 8d02f3	
uartBridge	RESULT;OK;0;	Executed
uartBridge	EVENT;8D02F3;WFT=6100;	Time until start of the test
uartBridge	EVENT;8D02F3;ENT=1;	Test has started

Test is finished



uartBridge	EVENT; 8D02F3;ENT=2;	Test is finished
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### Communication test (launched from receiver)

uartBridge	TRES;INST;-62;-81;-91;-111;124;600;	
uartBridge	TRES;INST;-40;-45;-93;-101;125;600;	
uartBridge	TRES;INST;-45;-58;-91;-107;125;600;	
uartBridge	TRES;INST;-39;-45;-91;-99;125;600;	
uartBridge	TRES;INST;-50;-61;-92;-110;125;600;	
uartBridge	TRES;INST;-36;-39;-90;-111;126;600;	
uartBridge	TRES;INST;-37;-54;-90;-109;126;600;	
uartBridge	TRES;INST;-39;-54;-92;-111;126;600;	
uartBridge	TRES;INST;-38;-51;-94;-111;126;600;	
uartBridge	TRES;INST;-39;-54;-93;-107;126;600;	
uartBridge	TRES;AVG10;-42;-54;-91;-107;0;3;	Result in every 10 packages

### Launch of targeted detection zone test

(several devices can be launched simultaneously with successive entering of commands and IDs)

Successful

to uartBridge	rdt 0048e0,2	
uartBridge	rdt 0048e0,2	
uartBridge	EVENT; 0048e0;ZON=1;	Test has started (test isn't launched immediately after the input command, but when a detector creates communication with receiver)
uartBridge	EVENT; 0048e0;ZON=2;	Test is finished

Fail — wrong argument (can be from 2 to 30)

to uartBridge	rdt 0048e0,300	
uartBridge	rdt 0048e0,300	

uartBridge	RESULT;NAK;1;	Wrong argument
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Fail — launch in configuration mode (only in operation mode)

to uartBridge	rdt 0048e0	
uartBridge	rdt 0048e0	
uartBridge	RESULT;NAK;2;	Launch in configuration mode

Fail — detector does not exist (this ID is not used)

to uartBridge	rdt 0048e0,2	
uartBridge	rdt 0048e0,2	
uartBridge	RESULT;NAK;3;	Detector does not exist

Fail — receiver is busy (can occur if a detection zone test was launched previously)

to uartBridge	rdt 0048e0,2	
uartBridge	rdt 0048e0,2	
uartBridge	RESULT;NAK;7;	Receiver is busy

Fail — not enough arguments (test time is not specified)

to uartBridge	rdt 0048	
uartBridge	rdt 0048	
uartBridge	RESULT;NAK;8;	Not enough arguments

Fail — device is not reachable (detector is off or is out of reach)

to uartBridge	rdt 0048e0,2	
uartBridge	rdt 0048e0,2	
uartBridge	RESULT;NAK;11;	Device is not reachable

## Uploading settings to detector

Successful

uartBridge	EVENT; 0048e0;LOD=1;	Uploaded
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Fail

uartBridge	EVENT; 0048e0;LOD=0;	Not uploaded
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## Change frame misses limit until loss

Successful

to uartBridge	los 3	
uartBridge	los 3	
uartBridge	RSTATE; 0048e0;LST=8;	Old value
uartBridge	RSTATE; 0048e0;LST=3;	New value
uartBridge	RESULT;OK;0;	Executed

No argument (enter space separated argument from 3 to 60)

to uartBridge	los	
uartBridge	los	
uartBridge	RESULT;NAK;8;	No argument

Wrong argument (acceptable value from 3 to 60)

to uartBridge	los 656	
uartBridge	los 656	
uartBridge	RESULT;NAK;1;	Wrong argument

Type in operation mode

to uartBridge	los	
uartBridge	los	
uartBridge	RESULT;NAK;2; RSTATE;0FF117;LOS=3;	Impossible to change in this mode (NAK2). Current value — 3.

## Output versions of receiver and slave devices (once)

to uartBridge	ver	
uartBridge	ver	
uartBridge	RSTATE;0FF117;VER=uartBridge V4.8.2;NET=23;TIM=303;STE=3;	Receiver version
uartBridge	EVENT;0048E0;VER=MotionProtect 3.23.0	Versions of detectors (devices)