



BLUEPIRAT

BY MAGNA



BLUEPIRAT Power Backup User Guide / 30.09.2020

Version 5.0.x

Preliminary version - no production status!

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1 LICENSE AGREEMENT

Please read the license agreement of this license contract carefully, before you install the software. By the installation of the software you agree to the conditions of this license contract.

This software-license agreement, in the following called "license", contains all rights and restrictions for final users that regulate the use of the accompanying software, operating instructions and other documents, in the following called as "software".

1. This license contract is an agreement between licensor and licensee, who is being licensed to use the named software.
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12. If a regulation of this license contract is void by law, the validity of the remaining regulations is not affected. If there is such a regulation it will be replaced by a valid, according to the legal regulations and enforceable regulation with similar intention and similar economic consequence.
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15. The licensee is liable for all damages caused to the licensor by the violation of these license regulations.

2 PRODUCT LIABILITY

2.1 Terms and Conditions of Sale and Delivery

The General Terms and Conditions of Sale and Delivery of MAGNA Telemotive GmbH can be found on our website (<https://telemotive.magna.com>) under imprint.

2.2 Important operating instructions

Please note these important instructions about the handling of devices of MAGNA Telemotive GmbH!

There's a linux system running on the devices and sometimes when the device has a dirty shutdown due to a power break down or unplugging the power supply, the system is corrupt from this time. You know this situation from a PC, when you switch it off some times it maybe will not work any more or show you some mistakes.

In most cases this issue is caught up and repaired by the linux system we use, but sometimes it can happen that the system on the logger is damaged and there's no access to the device any more.

We are optimizing the handling of corrupted systems permanently and are integrating some new enhancements regarding this kind of issues with every new release to save the system. But we can't make the system for 100% save against these influences.

So please use always the provided mechanism for shutting down the device or the implemented standby function in which the device shutting down when no traffic is detected any more in an adjustable time.

3 Overview

This user manual describes the handling of the pre-serial product of the **BLUEPIRAT Power Backup**.

The **Power Backup** is a special component, which is designed to bridge short voltage interruptions. It is connected upstream of the data loggers on the voltage side, and must be connected to them via a dedicated LS CAN port for controlling.

It is designed to protect the supply voltage for the following devices of MAGNA Telemotive GmbH:

- BLUEPIRAT Rapid
- BLUEPIRAT Mini
- Remote Control Touch
- BLUEPIRAT2 5E
- BLUEPIRAT2
- BLUEPIRAT Remote

This user guide describes hardware and interfaces as well as the general functions of the **BLUEPIRAT Power Backup**. For general points, please refer to the user manuals of the data logger used and the corresponding **System Client**.

This document refers to **firmware version 05.00.01** and the **System Client** from **version 5.0.1**. Some features depending on model and feature license or may not be available in older versions.

Software updates and user guides for other, optional, licensed enhancements are available in our Service Center. (Please find the address under Contact at the last page.)

To ensure the most reliable operation of your system as possible, please make sure to use always current firmware and software versions.

4 System requirements

The communication between bus systems and control units is monitored, and relevant data can be recorded very precisely with the data logger. The collected data are stored to the logger and can be downloaded via Ethernet to a PC.

Control Unit

You need a Windows based Laptop or PC to configure the devices by the **System Client**. It also allows to save the recorded data and to use them offline later.

System Client

Update, configure and read out your data loggers with System Client. Save time with central administration of your software products. System Client is your key to success for using all our products!

BLUEPIRAT Rapid

High-performance multi-bus data logger for modern vehicle architectures based on Automotive Ethernet. With up to 3 TB internal memory and supreme recording performance. Robust and compact for in-vehicle use.

Due to the increasing complexity of driver assistance systems and the growing number of infotainment applications, the data traffic between ECUs in the most recent vehicle models has grown significantly. Consequently, besides the various classic bus systems, modern vehicle architectures are based on Automotive Ethernet according to BroadR-Reach / IEEE 802.3 100(0)Base-T1, which can keep up with the growing bandwidth demand.

Power Backup

The **Power Backup** is a special component, which is designed to bridge short voltage interruptions. It is connected upstream of the data loggers on the voltage side, and must be connected to them via a dedicated LS CAN port for controlling.

BLUEPIRAT Mini

The **BLUEPIRAT Mini** is smallest data logger in the world with an outstanding functional scope. It offers a wide range of interfaces, stable temperature behavior, very low energy consumption, four GBit Ethernet ports, and much more. Different blue PiraT Mini can be expanded flexibly to one cluster and therefore handled very easily by using [System Link](#).

BLUEPIRAT2

The **BLUEPIRAT2** is our top-class all-in-one data logger. Seven models cover a wide range of interfaces. (Device is EOL)

BLUEPIRAT2 5E

Additionally, the **BLUEPIRAT2 5E** offers improved power management and power backup, five integrated Ethernet ports and super-fast start-up behavior. The BLUEPIRAT2 can be expanded flexibly via [System Link](#). (Device is EOL)

Remote Control Touch (optional)

Operate your BLUEPIRAT data loggers safely and comfortably from the driver's or passenger seat. Via System Link our new remote control becomes part of your logger network. One remote control can handle all connected loggers.

BLUEPIRAT Remote (optional)

While Remote Control Touch is just a control unit for handling unique devices or a TSL network, the blue PiraT Remote additional has logger functionality by offering internal storage and some interfaces. (Device is EOL)

License

For some additional features an installed license is required. Settings for licensed features can be performed with a valid license only.

If you need a license for your logger, please contact our sales department (please find the address under contact at the last page).

4.1 Further manuals

Beside this user Manual, we offer the main manuals for our System Client as well as for the different data logger generations in our Service Center at

<https://sc.telemotive.de/bluepirat>.

Our licensed enhancements have own manuals which are stored in the Service Center too. You will find a list of these enhancements in the user manuals in the chapter **Additional features by optional licenses**.

Under the following links, you always will find the latest versions:

User manual for the System Client

https://sc.telemotive.de/4/uploads/media/SystemClient_UserManual.pdf

User manual for BLUEPIRAT Rapid

https://sc.telemotive.de/4/uploads/media/BLUEPIRAT_Rapid_UserManual.pdf

User manual for BLUEPIRAT Mini

https://sc.telemotive.de/4/uploads/media/BLUEPIRAT_Mini_UserManual.pdf

User manual for Remote Control Touch

https://sc.telemotive.de/4/uploads/media/RCTouch_UserGuide.pdf

User manual for BLUEPIRAT Power Backup

https://sc.telemotive.de/4/uploads/media/BLUEPIRAT_Power_Backup_UserManual.pdf

User manual for BLUEPIRAT2 / BLUEPIRAT2 5E

https://sc.telemotive.de/4/uploads/media/BLUEPIRAT2_UserManual.pdf

User manual for BLUEPIRAT Remote

https://sc.telemotive.de/4/uploads/media/BLUEPIRAT_Remote_UserGuide.pdf

For having an easy access if necessary, the most important manuals are linked in the client under the menu item [Help] and are reachable easily from there.

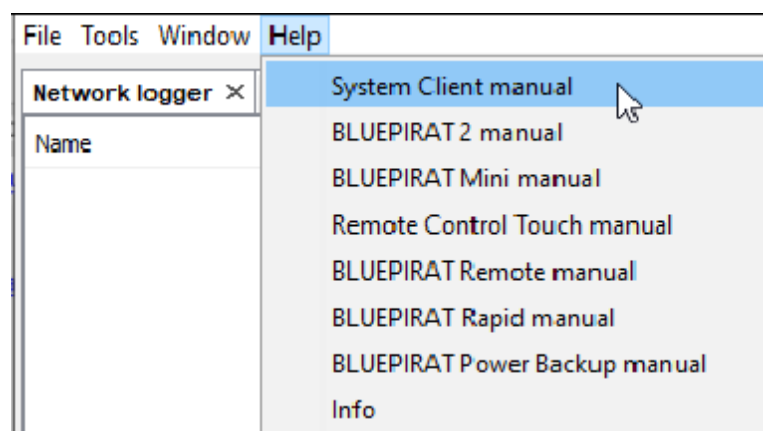


Figure 4.1: links to the manuals in the System Client

4.2 Additional features by optional licenses

Additional features can be activated by purchasing and installing licenses. Licenses can be ordered at our sales team. You find the user guides for these additional features in our Service Center. Currently the following licensed features are available.

Feature	Description
Camera Link	video recording via video server or network cameras Till now, only some cameras from AXIS were supported
WLAN	supporting wireless LAN / WiFi (802.11, 802.11a, 802.11n), (802.11ac from FW 02.04.01)
GPS logging	tracking of GPS data
Measurements with CCP	CAN Calibration Protocol
Measurements with XCP	Universal Measurement and Calibration Protocol Currently the functionality for Ethernet (XCP on Ethernet) and the CAN-bus (XCP on CAN) are available.
MOST150 Streaming	logging MOST150 synchronous/isochronous data
MLBevo / QXDM	The license Connected-Gateway MLBevo enables the recording of data of the ATOP control unit MLBevo via USB to the Magna Telemotive data logger and convert these data with the System Client. (from FW 02.03.01) Additional this license allows to log Qualcomm QXDM logs via USB (from FW 03.06.XX)
Download Terminal	The in the System Client integrated Download Terminal allows an automatization of configured tasks for a defined group of devices. (from FW 02.03.01)
Test automation	Interface for connecting to test automation tools. At the moment, the sending of CAN messages is supported. (from FW 02.04.01)
Cellular network	Allows the logger to send status messages over cellular network. (from FW 03.01.01)
Firmware Care	As part of the " Service Product Firmware Care ", new software and firmware versions are made available for download for a limited period of time. This service is available for 12 months from the date of purchasing the BLUEPIRAT . This period can be extended by licenses.

Table 4.1: Additional features by optional licenses

4.3 Firmware Care

MAGNA Telemotive GmbH invests a great amount in the further development of its products.

For this we regularly provide new functions and enhancements via firmware and client releases.

Basic conditions

As part of the " Service Product Firmware Care ", new software and firmware versions are made available for download for a limited period of time. This service is available for 12 months from the date of purchasing the **BLUEPIRAT**. This period can be extended.

For details, please contact your sales partner (see contact at the end of the manual for addresses).

Affected products

- **BLUEPIRAT Rapid**
- **BLUEPIRAT Mini**
- **Remote Control Touch**
- **BLUEPIRAT2 5E**
- **BLUEPIRAT2**
- **BLUEPIRAT Remote**

Note:

Enhancements are only possible in current firmware releases.

Attention:

Please note that updates to main firmware versions (05.00.01 / 06.00.01) need a special update license and can't be flashed to a device without this license.

To buy these licenses please contact our sales department under TMO.Sales@magna.com (please find the complete address under Contact on the last page).

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5 The BLUEPIRAT Power Backup

The Power Backup is a power supply with internal energy storage for the short-term supply of connected consumers in the event of a drop of the external supply voltage, comparable to an uninterruptible power supply. It is specially designed to ensure the power supply to connected data loggers of MAGNA Telemotive GmbH in a motor vehicle (motor vehicle) during voltage dips, which occur, for example, during vehicle starting procedures, in order to prevent data loss or damage to the data loggers.

5.1 The front side

The front view of the Power Backup with all connection and control elements



Figure 5.1: Power Backup front view



Figure 5.2: connection and control elements of the Power Backup front view

5.1.1 ON button

Use the **[ON]** button to switch on the device when it is connected to the power supply and in standby mode



Figure 5.3: Power button

5.1.2 State LEDs

The status LEDs indicate the status of the Power Backup

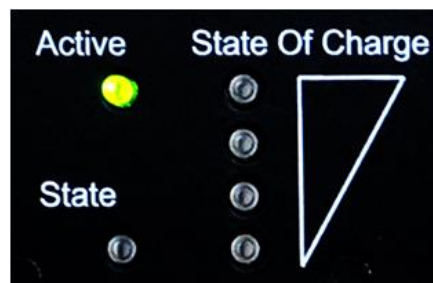


Figure 5.4: State LEDs of the Power Backup

5.1.2.1 Active LED (grün)

State	Meaning
off	Device is off or in standby mode.
on	Device has started up and active.

Table 5.1: Active LED

5.1.2.2 State LED (rot)

State	Meaning
off	No error, normal operational status
on	Alarm - Device is in error state. <ul style="list-style-type: none"> Alarm due to over- or undertemperature of the power supply, the charge controller or the high-performance capacitors
blinking	Warning <ul style="list-style-type: none"> Shutdown request to the data logger connected via CAN bus, the warning display is active until the data logger signals shutdown, but at least for 2 s Warning due to over- or undertemperature of the power supply, the charge controller, the high-performance capacitors or the microcontroller

Table 5.2: State LED

5.1.2.3 State Of Charge LEDs (grün)

State	Meaning
○ ○ ○ ○	State of charge 100%: All 4 indicators switched on
X ○ ○ ○	State of charge 75%: 3 indicators switched on from the bottom
X X ○ ○	State of charge 50%: 2 indicators switched on from the bottom
X X X ○	State of charge 25%: 1 indicator switched on from the bottom
X X X X	State of charge 0%: all 4 indicators switched off

Table 5.3: State Of Charge LEDs

5.1.3 The connectors at the front side

On the front side there is a combined 9-pin SUB-D connector for CAN and clamp 15, as well as the 2-pin connectors to which the power supply for the consumer is connected.

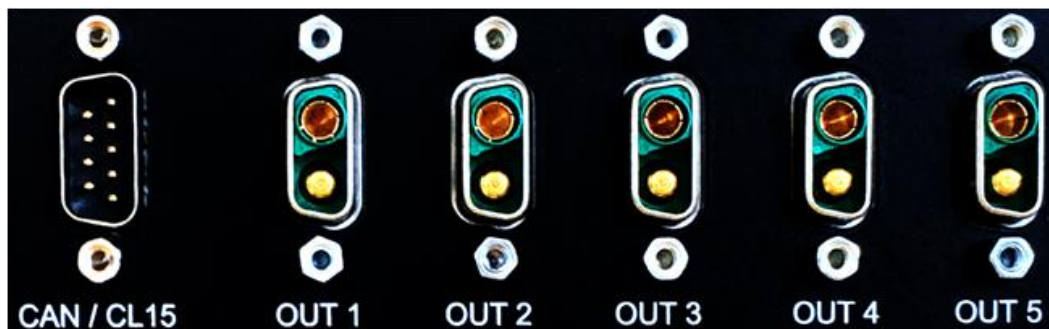


Figure 5.5: The connectors of the Power Backup at the front side

The Power Backup has a CAN interface, which must be connected to a data logger to communicate with it. The Power Backup can send status messages via this interface, e.g. to shut down the logger / TSL network. Configuration and firmware updates can be received via this interface too.

The data logger can wake up the power backup by sending its own messages and keep it in normal operation for the duration of a data recording (Power Management)



Figure 5.6: Connector for CAN / KI 15

To the front side of the Power Backup up to 5 consumer can be connected.

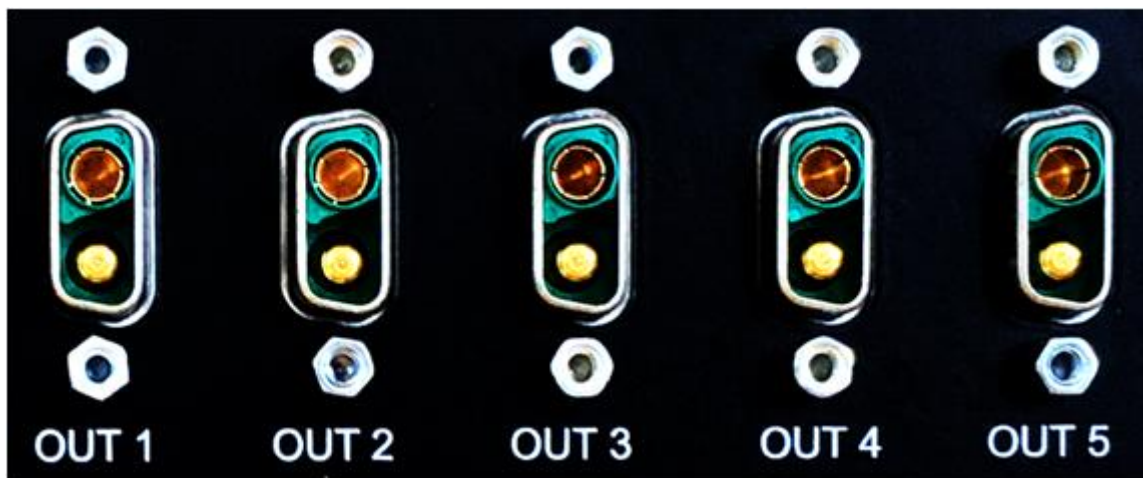


Figure 5.7: Power out connectors at the Power Backup

5.2 The rear side of the Power Backup



Figure 5.8: Rear side of the Power Backup

The Power IN connector for the power supply of the Power Backup is located on the rear side.



Figure 5.9: Power IN

6 Starting up and functionality

6.1 Starting up of the power Backup

For starting up, the Power Backup is connected to the vehicle's electrical system on the rear side via its connection cable and up to 5 data loggers are connected to the voltage outputs of the Power Backup on the front side.

In addition, a connection e.g. from an LS-CAN of a BLUEPIRAT Rapid to the Power Backup must be established for communication.

The Power Backup is charging only in normal mode! To save the vehicle battery, the Super-CAPs are not charged in standby mode, or when the device is switched off.

When the energy supply is ensured, e.g. when the engine is running via the alternator, the energy storage of the power backup is charged from the vehicle electrical system. If the charge level is high enough, the Power Backup provides the connected data loggers with 140 W power at a stabilised voltage of 12 V for 10 s (so-called back-up operation).

If the Power Backup can no longer guarantee the supply of the connected consumers during backup operation or if a waiting period expires, it signals the consumer connected via the CAN bus by means of a TMTTP message that the data loggers should shut down (so-called shutdown request). The data logger connected via the CAN bus forwards the shutdown request via MAGNA Telemotive System Link (TSL) to the other data loggers supplied via the power backup.

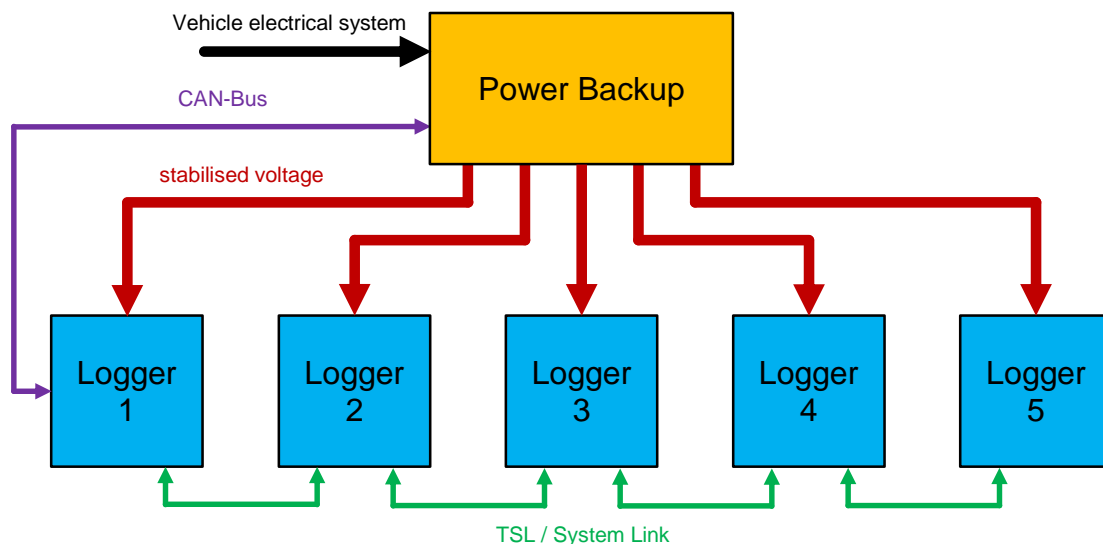


Figure 6.1: Typical setup

Additional to the backup operation in case of a strong undervoltage of the vehicle's electrical system, the voltage stabilization in case of a lower vehicle electrical system undervoltage is used to generate the stabilized 12 V voltage for the data loggers from the vehicle electrical system voltage.

The CAN bus is used not only for shutdown requests but also for the transmission of messages with measured value data of the power backup. In addition, the configuration and firmware update of the Power Backup is carried out via TMTTP communication via the data logger connected via CAN bus.

6.1.1 Using the LS-CAN interface for the Power Backup

For a working communication between the power backup and the data logger / TSL network, an LS-CAN channel on a connected data logger must be configured and connected for this communication.

This is made by the configuration of the logger in the system client. For a single BLUEPIRAT Rapid, this is CAN-LS #17, where only the port must be activated in the configuration and the option [Use for Power Backup] must be checked.

The option [Acknowledge on] is automatically set internally and does not need to be activated here.

Figure 6.2: Activating LS-CAN for Power Backup

If the LS-CAN channel has been configured for the power backup, all further options for this channel are removed and this message appears:



Figure 6.3: Message, that this channel will not be logged from now

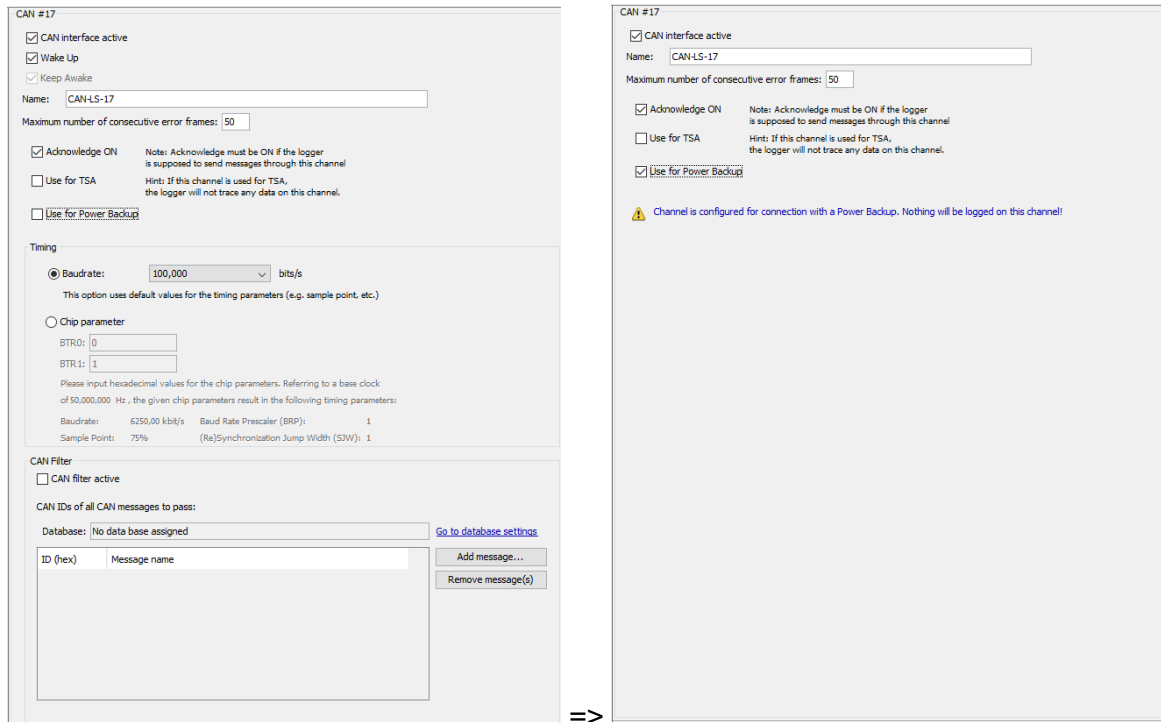


Figure 6.4: Channel, which is used for Power Backup

6.2 Operating states

Depending on the monitored parameters, the Power Backup enters the operating states described below. After a cold start, the Power Backup is initially in standby mode.

Forwarding of the input voltage to the connected data loggers is permanently active, so that the data loggers can be used when the vehicle's electrical system has enough voltage, regardless of the operating status of the power backup.

6.2.1 Standby mode

In standby mode the Power Backup has the lowest power consumption. It is designed to place as little load as possible on the vehicle's electrical system when the Power Backup is supplied exclusively from the vehicle battery.

The functionality of the power backup in standby mode is limited to forwarding the input voltage to the connected data loggers and monitoring the following wake-up events, if configured:

- Push button operation
- Terminal 15 signal active
- CAN activity of the data logger connected via CAN bus

When one of these wake events occurs, the Power Backup switches to normal mode. The normal mode is reached within 100 ms.

The Power Backup automatically enters standby mode for self-protection in any of the following critical environmental conditions:

- Overvoltage filtered terminal 30 voltage
- Alarm due to over- or undertemperature of a Microcontroller

6.2.2 Normal mode

In normal mode, the full functionality of the Power Backup is available, but the activation of some functions depends on additional conditions that are specified in the respective function descriptions.

The Power Backup will remain in Normal mode until the waiting time for switching to Standby mode has expired. One of the following wake events, if configured, resets the wait time and keeps the Power Backup awake longer

- Push button operation
- Terminal 15 signal active
- CAN activity of the data logger connected via CAN bus

When the 30s timeout period for switching to standby mode expires after a switch to normal mode or after the last wake-up event, the Power Backup switches into standby mode, even under critical environmental conditions.

In normal mode, the voltage stabilization is also activated, but due to the parallel, permanent input voltage forwarding, it only has an effect on input voltages < 12 V.

6.3 Backup mode

After charging the SuperCAPs, their energy can be passed on to the connected consumers in case of power failure.

Backup mode is activated in normal mode as soon as the filtered terminal 30 voltage falls below the voltage threshold for activation the backup mode.

6.4 Shutdown request

The Power Backup starts the repeated transmission of a shutdown request to the data logger connected via CAN bus if the backup mode is activated and one of the following conditions is fulfilled:

- Voltage of the energy storage device \leq voltage threshold for starting the shutdown request
- Waiting time for the start of the shutdown request since activation of the backup mode expired

The shutdown request is sent in 500 ms intervals until a shutdown signal is received from the data logger or until the backup mode is deactivated.

After receiving a shutdown signal from the data logger, no shutdown requests are sent until a valid TMTTP message is received from the data logger or the Power Backup is switched to standby mode.

6.5 Charging the SuperCAPs

In normal mode the SuperCAPs of the Power Backup are charged, but the energy storage is only charged when the input voltage of the charge controller is between approx. 11 V and approx. 35 V. The power consumption of the Power Backup for the energy storage charging alone is maximum 50 W.

Charging of the energy storage device is deactivated, if one of the following conditions is fulfilled:

- Over- or under temperature warning or alarm of the charge controller or high power capacitors

A temperature warning alone leads to the deactivation of the charging of the energy storage device, because the service life of the high-performance capacitors is already greatly reduced in these temperature ranges.

As long as the backup mode is activated, the charge controller is activated regardless of the under voltage condition and any temperature warning, so that the voltage of the energy storage device can be measured.

6.6 Temperature threshold values

The temperature is measured by three sensors. A fourth temperature value is determined as a weighted average of two sensors next to the SuperCAPs.

The four temperature values are checked for exceeding their individual limits.

The warning thresholds are +80 degrees for the SuperCAPs (direct measurement and weighted value), +85 degrees for the MCU sensor, and +90 degrees for the one on the power block. The alarm thresholds are 5 degrees above those of the power block.


7 Firmware Update

The firmware of the Power Backup can be flashed separately via the System Client.

Normally, the firmware for the Power Backup is integrated into the firmware package for the BLUEPIRAT Rapid, and it will take care of version verification. If a difference in the versions is found, it is recommended to update the firmware if a Power Backup with lower firmware is connected.

The communication and transfer of the firmware is performed via the connected LS-CAN channel.

To flash the firmware separately, the Power Backup must be connected to a device via LS-CAN and this device must be available via the System Client. In the network logger window the log-

ger can now be selected and the application  **Firmware Update** can be opened.

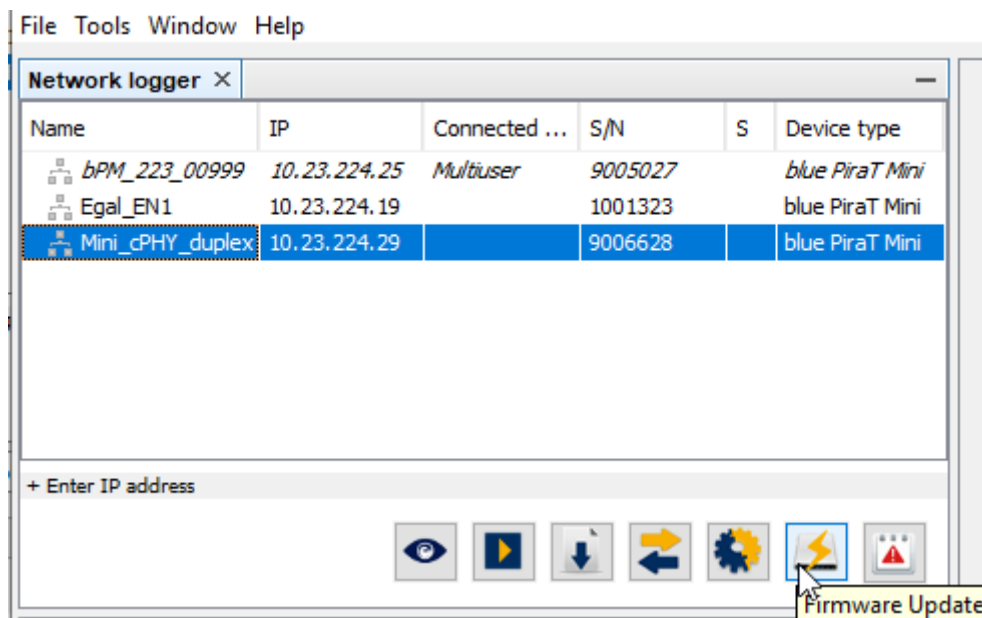


Figure 7.1: Starting the application Firmware Update

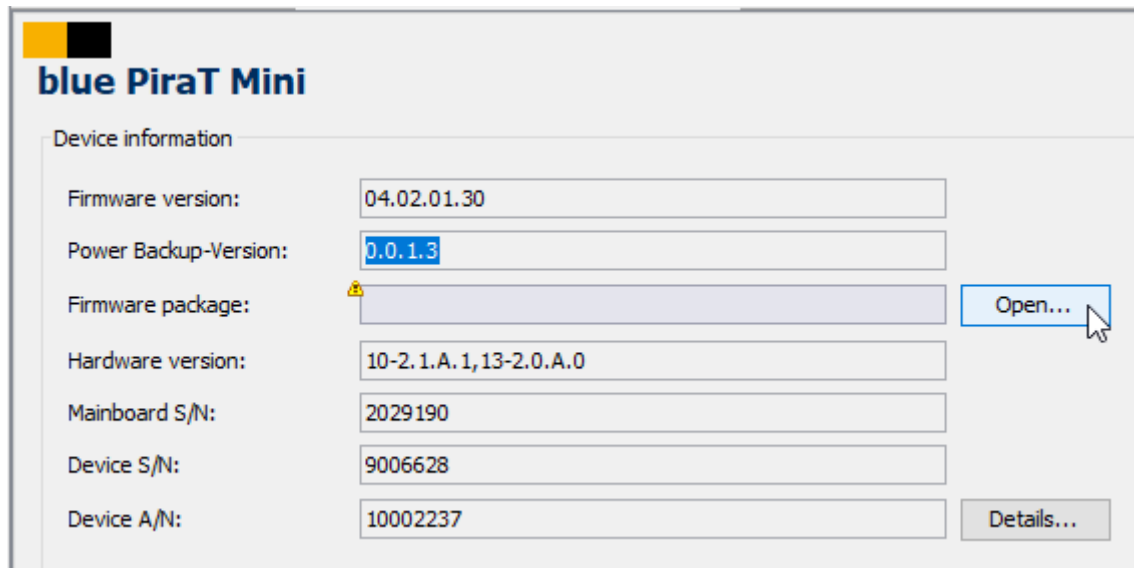


Figure 7.2: Showing the Power Backup-Version

Only when a Power Backup is connected to the device, additionally the Power Backup-Version is shown in the Device information field.

After selecting the button [Open...] beside the field [Firmware package] the update package for the Power Backup can be selected.

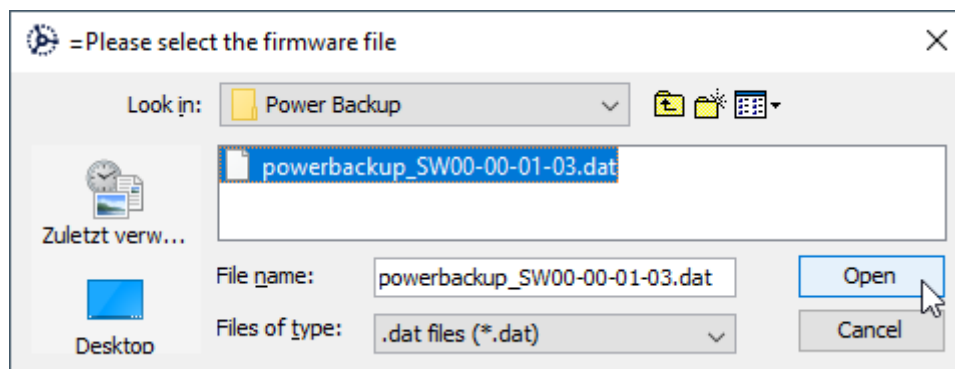


Figure 7.3: Selecting the matching firmware package

Once the matching file has been selected, the update can be started with the button [Update firmware]

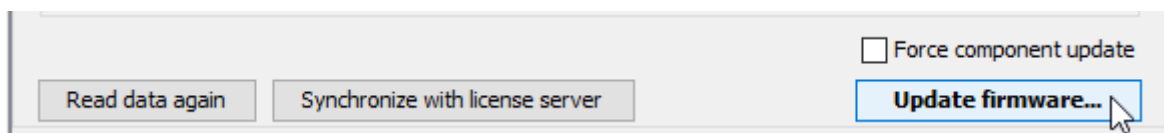


Figure 7.4: Starting the firmware update

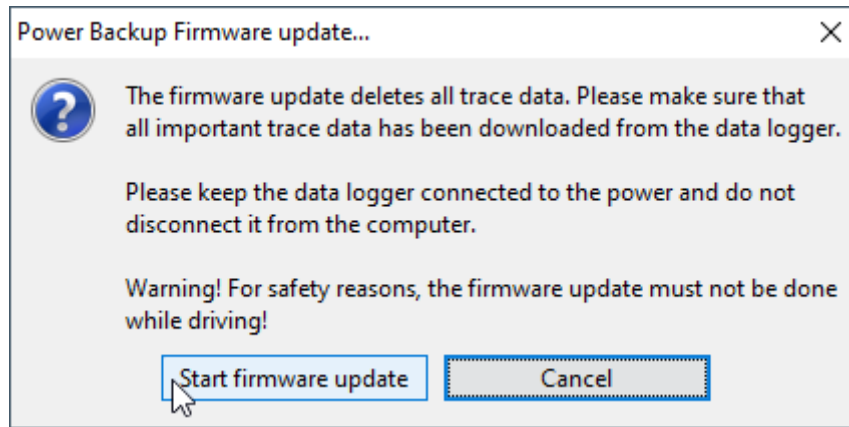


Figure 7.5: Confirming the firmware update

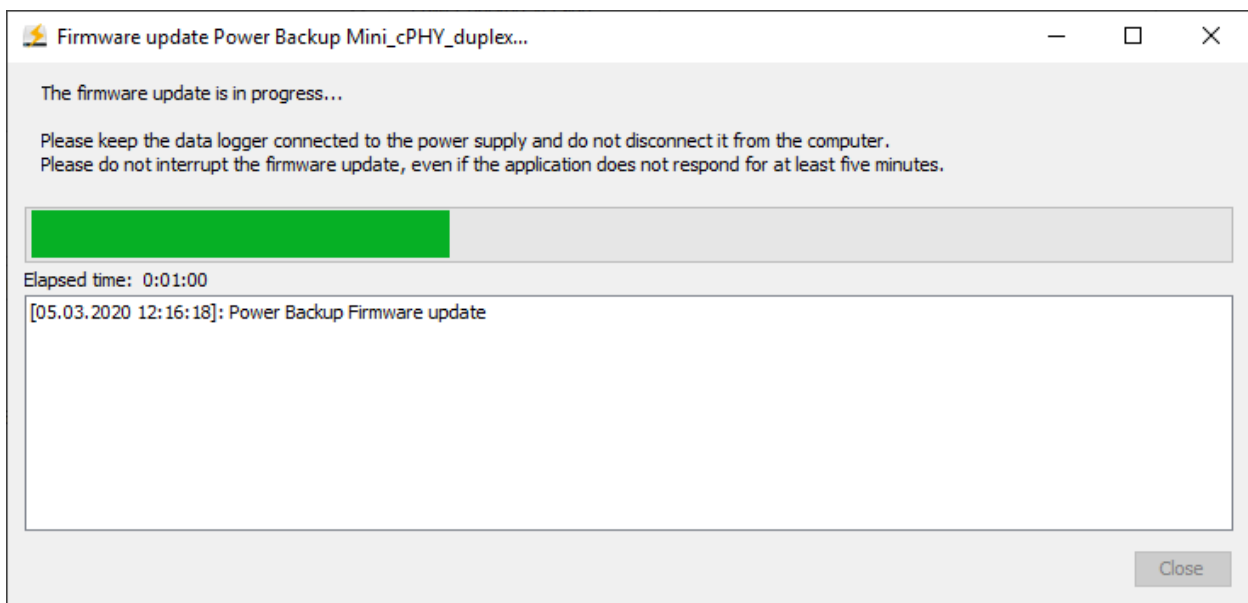


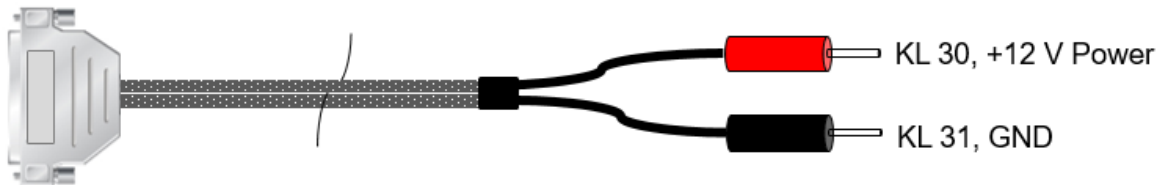
Figure 7.6: Progress of the firmware update

8 Adapter cables & pinning

8.1 Power Backup | cable set Power IN

Cable Art. No: 10002171 - KAB Power Backup POWER IN V1.0.A.0

This cable set is the power supply for the Power Backup



SUB-D 7W2 Combo

Length: ~ 50 cm

Figure 8.1: Power Backup | cable set Power IN

8.1.1 Power Backup | Power IN - plug

Name	Type	manufacturer-No.	manufacturer
	DSUB, 7W2 kombo, female	680M7W2203L401	NorComp
	Shell (UNC4-40)	8655MH1501BLF	Amphenol FCI

Table 8.1: Power Backup | Power IN – plug | components

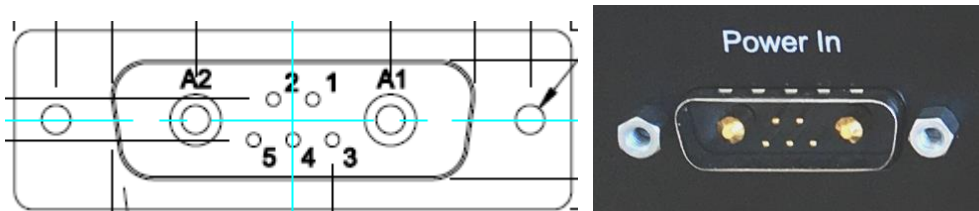


Figure 8.1: Power Backup | Power IN – plug | picture

8.1.2 Power Backup | Power IN | pinning

<= Power Backup				cable set =>	
Pin	Comment / Illustration / Signal Name	Labeling	type	Pin	
1	not used	---		---	
2	not used	---		---	
3	not used	---		---	
4	not used	---		---	
5	not used	---		---	
A1	KL 31 (V-)	KI 31 (V-)	banana plug schwarz	1	
A2	KL 30 (V+)	KI 30_IN (V+)	banana plug rot	1	

Table 8.2: Power Backup | Power IN | pinning

8.2 Power Backup | CAN / KI 15 plug

8.2.1 Power Backup | CAN / KI 15 - plug



Figure 8.2: Power Backup | CAN / KI 15 – plug | picture

8.2.2 Power Backup | CAN / KI 15 | pinning

<= Power Backup				cable set=>
pin	Comment / Illustration / Signal Name	labeling	Type	Pin
1	not used	---	---	---
2	Low Speed CAN LOW	LSCAN_L	DSUB-9 / male	2
3	not used	---	---	---
4	High Speed CAN LOW	HSCAN_L	DSUB-9 / male	2
5	not used	---	---	---
6	not used	---	---	---
7	Low Speed CAN HIGH	LSCAN_H	DSUB-9 / male	7
8	High Speed CAN HIGH	HSCAN_H	DSUB-9 / male	7
9	Aufwecken über KL 15	KL15_Wake	banana plug blau	----

Table 8.3: Power Backup | CAN / KI 15 | pinning

8.3 Power Backup | cable set BLUEPIRAT Rapid

Cable Art. No.: 10002170 - KAB Power Backup POWER OUT V1.0.A.0

This cable set connects a BLUEPIRAT Rapid to the Power Backup.

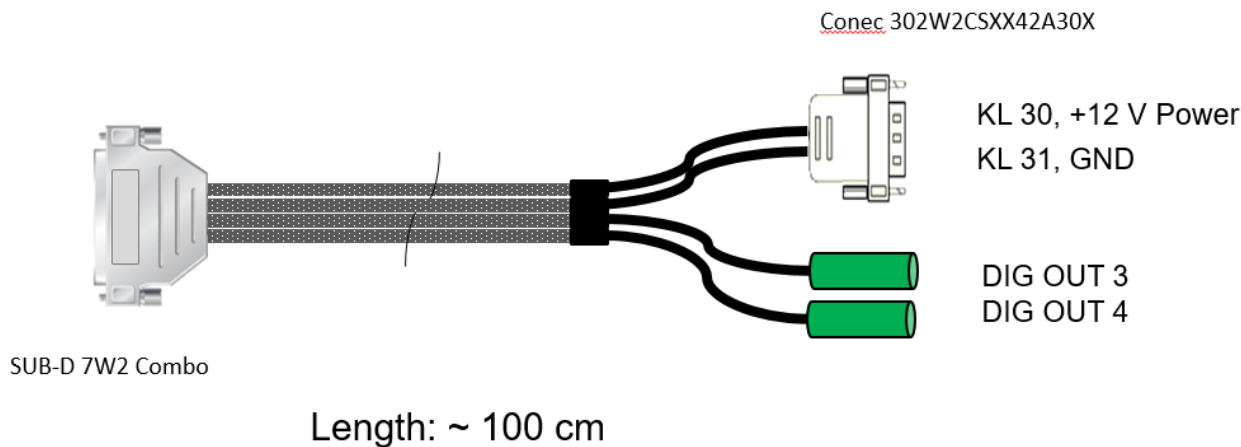


Figure 8.3: Power Backup | cable set BLUEPIRAT Rapid

8.3.1 Power Backup | Power OUT #1 - #5 | plug

Name	Type	Manufacturer-No.	Manufacturer
	DSUB, 7W2 kombo, female	680M7W2203L201	NorComp
	Shell (UNC4-40)	8655MH1501BLF	Amphenol FCI

Table 8.4: Power Backup | Power OUT #1 - #5 – plug | components

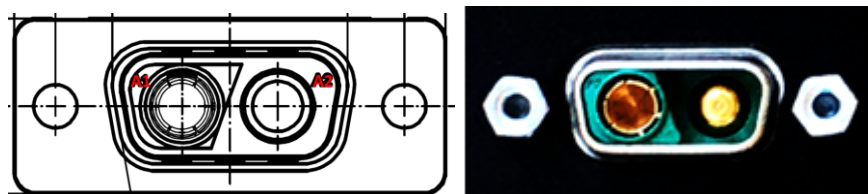


Figure 8.4: Power Backup | Power OUT #1 - #5 – plug | picture

8.3.2 Power Backup | Power OUT #1 - #5 | pinning

<= Power Backup			Kabelsatz ==>	
Pin	Comment / Illustration / Signal Name	Labeling	Type	Pin
A1	KL 31 (V-)	KI 31 (V-)	DSUB, 7W2 combo, female	A1
A2	KL 30 (V+) & -[Fuse 10 A]-	KI 30_IN (V+)	DSUB, 7W2 combo, female	A2

Table 8.5: Power Backup | Power OUT #1 - #5 | pinning

8.3.4 Power Backup | Power IN – plug for Rapid

Name	Typ	Hersteller-Nr.	Hersteller
	Power DSUB	302W2CPXX42A10X	Conec
	Shell (UNC4-40)	165X10139X	Conec

Table 9.1: Power Backup | Power IN plug for Rapid | components

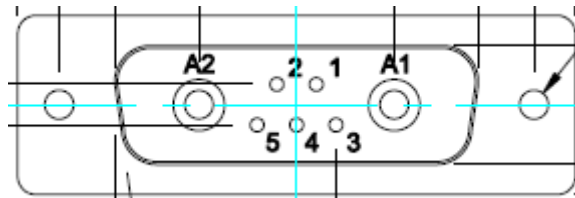


Figure 8.5: Power Backup | Power IN plug for Rapid | picture

8.3.5 Power Backup | Power IN – plug for Rapid | pinning

<= Power Backup				Cable set=>	
Pin	Comment / Illustration / Signal Name	Labeling	Type	Pin	
1	DIG OUT 1	---		1	
2	DIG OUT 2	---		1	
3	not used	---		---	
4	not used	---		---	
5	not used	---		---	
A1	KL 31 (V-)	KI 31 (V-)	Bananenstecker schwarz	1	
A2	KL 30 (V+)	KI 30_IN (V+)	Bananenstecker rot	1	

Table 9.1: Power Backup | Power IN plug for Rapid | pinning

8.4 Power Backup | cable set BLUEPIRAT Mini => tbd

Figure 8.6: Power Backup | cable set BLUEPIRAT Mini

8.4.1 Power Backup | Power OUT #1 - #5 | plug

⇒ See Cable set for BLUEPIRAT Rapid

8.4.2 Power Backup | Power IN – plug for Mini

Table 9.1: Power Backup | Power IN plug for Mini | components

Figure 8.7: Power Backup | Power IN plug for Mini | picture

8.4.3 Power Backup | Power IN – plug for Mini | pinning

Table 9.1: Power Backup | Power IN plug for Mini | pinning

8.5 Power Backup | cable set Remote Control Touch => tbd

Figure 8.8: Power Backup | cable set Remote Control Touch (RCT)

8.5.1 Power Backup | Power OUT #1 - #5 | plug

⇒ See Cable set for BLUEPIRAT Rapid

8.5.2 Power Backup | Power IN – plug for RCT

Table 9.1: Power Backup | Power IN plug for RCT | components

Figure 8.9: Power Backup | Power IN plug for RCT | picture

8.5.3 Power Backup | Power IN – plug for RCT | pinning

Table 9.1: Power Backup | Power IN plug for RCT | pinning

8.6 Power Backup | cable set BLUEPIRAT2 5E => tbd

Figure 8.10: Power Backup | cable set BLUEPIRAT2 5E

8.6.1 Power Backup | Power OUT #1 - #5 | plug

⇒ See Cable set for BLUEPIRAT Rapid

8.6.2 Power Backup | Power IN – plug for BLUEPIRAT2 5E

Table 9.1: Power Backup | Power IN plug for BLUEPIRAT2 5E | components

Figure 8.11: Power Backup | Power IN plug for BLUEPIRAT2 5E | picture

8.6.3 Power Backup | Power IN – plug for BLUEPIRAT2 5E | pinning

Table 9.1: Power Backup | Power IN plug for BLUEPIRAT2 5E | pinning

8.7 Power Backup | cable set BLUEPIRAT2 => tbd

Figure 8.12: Power Backup | cable set BLUEPIRAT2

8.7.1 Power Backup | Power OUT #1 - #5 | plug

⇒ See Cable set for BLUEPIRAT Rapid

8.7.2 Power Backup | Power IN – plug for BLUEPIRAT2

Table 9.1: Power Backup | Power IN plug for BLUEPIRAT2 | components

Figure 8.13: Power Backup | Power IN plug for BLUEPIRAT2 | picture

8.7.3 Power Backup | Power IN – plug for BLUEPIRAT2 | pinning

Table 9.1: Power Backup | Power IN plug for BLUEPIRAT2 | pinning

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9 Support

If problems occur with a product from Magna Telemotive GmbH, please take following steps:

- Read the User Manual
- Please check if you are using an up-to-date software
- Please check if all cables are correctly attached to the data logger
- If you are able to establish a connection to the data logger, run the program "Bug Reporter" in the System Client. This program creates a zip file, which you should please put into a ticket into our [OTRS Ticket system](#)
- Contact Customer Support at TMO.productsupport@magna.com (+49 89 357186-518)

9.1 Service Center

In our Service Center you will find the newest firmware versions and the latest version of the System Client as well as older versions for download. In addition, we offer detailed documentations and specifications for our current products.

There are two ways to reach the service center:

1. Using the current link:

<https://sc.telemotive.de/4/index.php?id=154&L=1>

2. Go to the Telemotive homepage and use the login link top right.

<http://www.telemotive.de>

Note: If you do not have an account for our service center and OTRS ticket system, please send a mail to TMO.Produktsupport@magna.com and we will generate an account for you.

9.2 OTRS Ticket system

With the login data for the service center you have access to our OTRS-Ticket system too. Every email sent to TMO.productsupport@magna.com generates automatically a ticket and can therefore be forwarded to the responsible person promptly.

At <https://produktsupport.telemotive.de> the status of your tickets can be checked fast and easily.

You can log in using your access data above. Creation of new tickets is also possible as upload an bugreport. The most important steps are described in a manual that can be found in the upper right corner of the website or under this link directly:

https://sc.telemotive.de/4/uploads/media/OTRS_Kurzanleitung.pdf

Note: If you want to upload more than 20 MB please create a ticket first and upload the file in a second step without the limitation.

9.2.1 What is OTRS?

The Open Ticket Request System (OTRS) of MAGNA Telemotive GmbH enables our customers to send inquiries and to report problems in a fast and easy way to our Customer Support, and to monitor these inquiries via a proprietary account. The personal login-area also offers the possibility to upload files to the corresponding inquiry.

9.2.2 Needed information in a ticket

If you notice any behavior with a MAGNA Telemotive GmbH product that does not correspond to the expected process, you are welcome to inform us via our ticket system.

Please report only one problem per ticket and do not create collective tickets to keep a clear overview.

In order to keep the processing time as short as possible for both sides, we would like to ask you to provide the following data when creating the ticket, so that the analysis can take place promptly.

9.2.2.1 Ticket | Checklist

- Observed behavior
- Exact time
- Used hardware
- Which system client / firmware version was used
- Location
- Reproducibility
- Last Steps
- Screenshots
- Error Report
- Offline data set

9.2.2.2 The points in detail

Observed behavior

What exactly have you observed that does not match the behavior you expected or described in the manual?

Exact time

The most accurate possible time when an unexpected behavior was observed.

Please always remember: Since we do not know which tests you are doing at what time, a concrete error time is absolutely necessary for the analysis. Without this information, an effective analysis is unfortunately not possible.

Used hardware

A list of the exact devices you were using when you observed the behavior. Is it a single device or a TSL group? If so, with which TSL participants and in which order are they connected?

Which system client / firmware version

Exact information about the version of the system client and the firmware used is also important, since it could possibly be a known problem in an older version. It is also important to specify whether you process data with the System Client, the Download Terminal or the ClientLib.

Location

Was the behavior observed in a vehicle or in a test system?

Reproducibility

Has the problem occurred once, or can it be reproduced with defined steps? Does the behavior occur with one or more setups?

Does the problem still occur after a restart and can it possibly be solved by a firmware update?

Last Steps

What was done last before this behavior was observed?

Screenshots

Screenshots can often explain something faster than words, so screenshots of the problem are always welcome to show or compare something. Especially for screenshots from your own tools please include an explanation of the values / representation.

Error report

An error report of the device / TSL network contains internal logs of the devices, the configuration, the error report of the system client with which the error report was created and optionally trace data. This combination helps us to understand what happened in the device at the specified time.

The creation of an error report is described in detail in the [User Manual of the System Client](#).

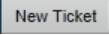
Offline data set

Especially if you have the feeling that something is wrong with the recording or conversion of the data, we also need an offline data set to be able to reproduce / analyze the problem.

The creation of an offline dataset is described in detail in the [User manual of the System Client](#).

9.2.3 Sending Inquiries

You can send inquiries as usual via your own email client to TMO.Productsupport@magna.com. This email arrives automatically the OTRS and generates a ticket. Furthermore you can write inquiries directly in the Open Ticket Request System (OTRS).

By clicking on the button  you can create a new ticket directly in your personal login-area at <https://produktsupport.telemotive.de>.

9.2.4 Login and Initial Steps

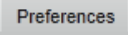
You can find the OTRS ticket system of Telemotive AG at <https://produktsupport.telemotive.de>.

There you can login to the OTRS using your access data, which you already use in the Service Center of MAGNA Telemotive GmbH.

After a successful login you will see a screen (see image 1), in which you can manage further activities.



Figure 9.1: OTRS Ticket system

By clicking on the button  you can adjust language and view settings.

This screen also gives you an overview of your current tickets.

Shortly after the submission of an inquiry, you will find the corresponding ticket in your personal account.

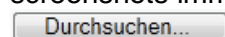
If there is more than one ticket in your account, all tickets are listed by date.

You can see the content of the sent message by clicking on the corresponding ticket.

As soon as you receive a new message from the Customer Support, it will be shown in your personal login-area. In addition, you will receive an email.

9.2.5 Adding Files

You have different possibilities to add files to a ticket. You can add files, such as error reports or screenshots immediately when a new ticket is created by clicking on the button



Warning:

There's a limitation up to 20 MB like in an e-mail. If you want to upload bigger files please upload these in the next step.

You can also upload an error report or trace files to your problem description afterwards.

By clicking on the button **Dateiupload / Fileupload** in the main screen of the login-area a new screen opens (see image 2).

With the button **Add files** you can choose your desired files for the upload. The upload can be started by using the button **Start upload**.

The upload of the file will be shown in your personal login-area.

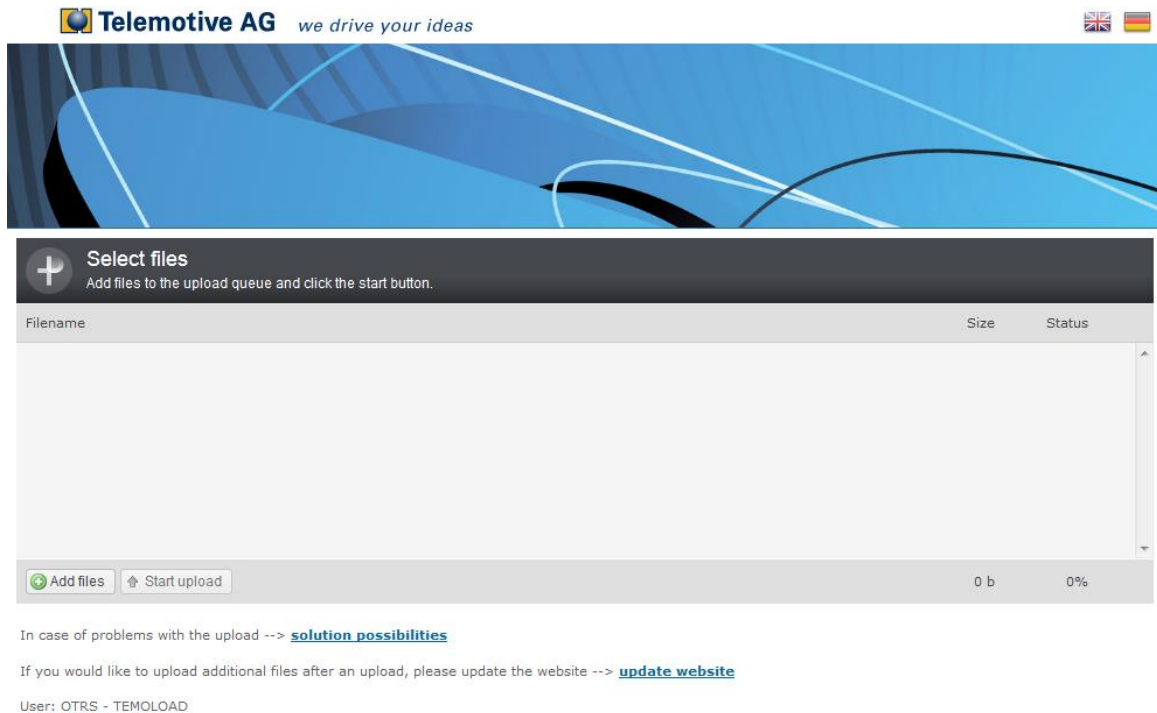


Figure 9.2:

9.2.6 Search Function

To search for a particular ticket, you can define your search criteria over the button **Search**. These criteria can be saved as a template.

9.2.7 Closing a ticket

In case that a problem description shall not be processed any longer, you can close the ticket yourself by clicking on the button **Reply** in the main screen of the login-area. Here you can change your status to “closed” and add a comment.

9.2.8 Contact

If you have any questions regarding the login or the procedure, please contact our Customer Support at TMO.Productsupport@magna.com.

9.3 Sending in defective devices

If your device needs to be return for repair, please complete the Service report for the device, print it out and send it with the defective device directly to Mühlhausen for repair.

9.3.1 Service report

The service report is available as Word and PFD file:

Word: [MagnaTelemotive-Servicereport.doc](#)

PDF: [MagnaTelemotive-Servicereport.pdf](#)

Note: Please note that no repair can be performed if the service report is missing or incomplete. A separate form is required for 'each' device!

9.3.2 Shipping address

Shipping address for repair devices:

MAGNA Telemotive GmbH
to. Repair Department
Industrie und Business Park
73347 Mühlhausen
-Germany-

- Please make sure to ship the package on the basis of DDP (Delivery Duty Paid) and that the total value of the loggers in the pro forma invoice is under 1000 euros.
- The logger will be analysed and, if it is still in warranty, repaired and shipped back to you. If the devices warranty is expired we will send you a quotation for the repair.
- Please note that in the case of rejected quotations, the costs for analysis, function test and shipping will be charged in form of a service charge of 205€ per data logger.
- If you need help with shipping due to the included batteries, please follow the instructions in our [BatteryGuide!](#)

Attention: On devices with internal memory the data will be deleted after the repair!

You can find this information as well on our website at
<https://sc.telemotive.de/4/en/servicecenter/faqs-support/support/>

9.3.3 Batteries:

If you need help with shipping due to the included batteries, please follow the instructions in our [BatteryGuide!](#)

(<https://sc.telemotive.de/4/fileadmin/bluepirat/support/BatteryGuide.pdf>)

9.4 Release info – informed just in time

With Magna Telemotive release info we will inform you about new firmware versions for our data loggers as soon as they are available. This allows you to keep your devices up to date with the latest state of development.

The notes about new features or fixed bugs can be found in the directly linked release notes.

By signing up you accept our [privacy policies](#). Opting out is possible at any time.

10 Abbreviations

Kürzel / abbreviation	Bedeutung / meaning
blue PiraT	Processing Information Recording Analyzing Tool
bP	blue PiraT => BLUEPIRAT
bP2	blue PiraT2 => BLUEPIRAT2
bP2 5E	blue PiraT2 5E => BLUEPIRAT2 5E
bPMini	blue PiraT Mini => BLUEPIRAT Mini
RC Touch	Remote Control Touch
bP Remote	blue PiraT Remote => BLUEPIRAT Remote
bP Rapid	BLUEPIRAT Rapid
A2L	ASAM MCD-2 MC Language
AE	Automotive Electronics
ACK	ACKnowledged
CAN	Controller Area Network
CCP	CAN Calibration Protocol
CF	Compact Flash
CRO	Command Receive Object
DAQ	Data Acquisition
DTO	Data Transmission Object
ECL	Electrical Control Line
ECU	Electronic Control Unit
FIBEX	Field Bus Exchange Format
FW	Firmware
GMT	Greenwich Mean Time
INCA	INtegrated Calibration and Application Tool
LAN	Local Area Network = Netzwerk
LIN	Local Interconnect Network
MAC	M edia A ccess C ontrol
MCD	M easure C alibrate D iagnose
MDX	M eta D ata E Xchange Format
MEP	M OST Ethernet Packet
MOST	Media Oriented Systems Transport (www.mostnet.de)
ODT	O bject D escriptor T able
ODX	O pen D ata E Xchange
OEM	O riginal E quipment M anufacturer
PHY	PH ysical Bus Connect
PW	Passwort
RX	Receiver Data
SD	Secure Digital
SFTP	Secure File Transfer Protocol
SHA	Secure Hash
SSL	Secure Sockets Layer
TCP/IP	Transmission Control Protocol/Internet Protocol
TLS	Transport Layer Security

tmt	Telemotive Trace
bPP	blue PiraT Packetformat
bPSA	blue PiraT System Access
bPSL	blue PiraT System Link
UDP	User Datagram Protocol
USB	Universal Serial Bus
UTC	Universal Time, Coordinated
Wi-Fi	W ireless F idelity
WLAN	W ireless L ocal A rea N etwork
XCP	Universal Measurement and Calibration Protocol
xtmt	eXtended Telemotive Trace

Table 10.1: Abbreviations

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DRIVING **EXCELLENCE.**
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