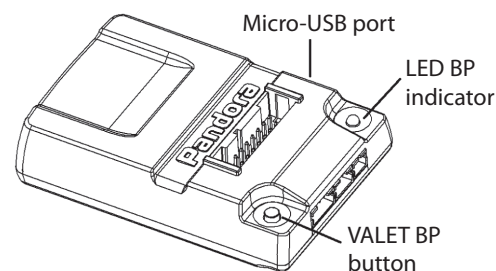


REMOTE ENGINE START MODULE

Pandora BMW Bypass

Small-size interface module for bypass of an original immobilizer (Car Access System CAS3) is designed to control engines of BMW/MINI cars with a Start/Stop button and a slot for an original key. Control over the module and engine start procedure is performed only by Pandora security systems with an IMMO-KEY port.

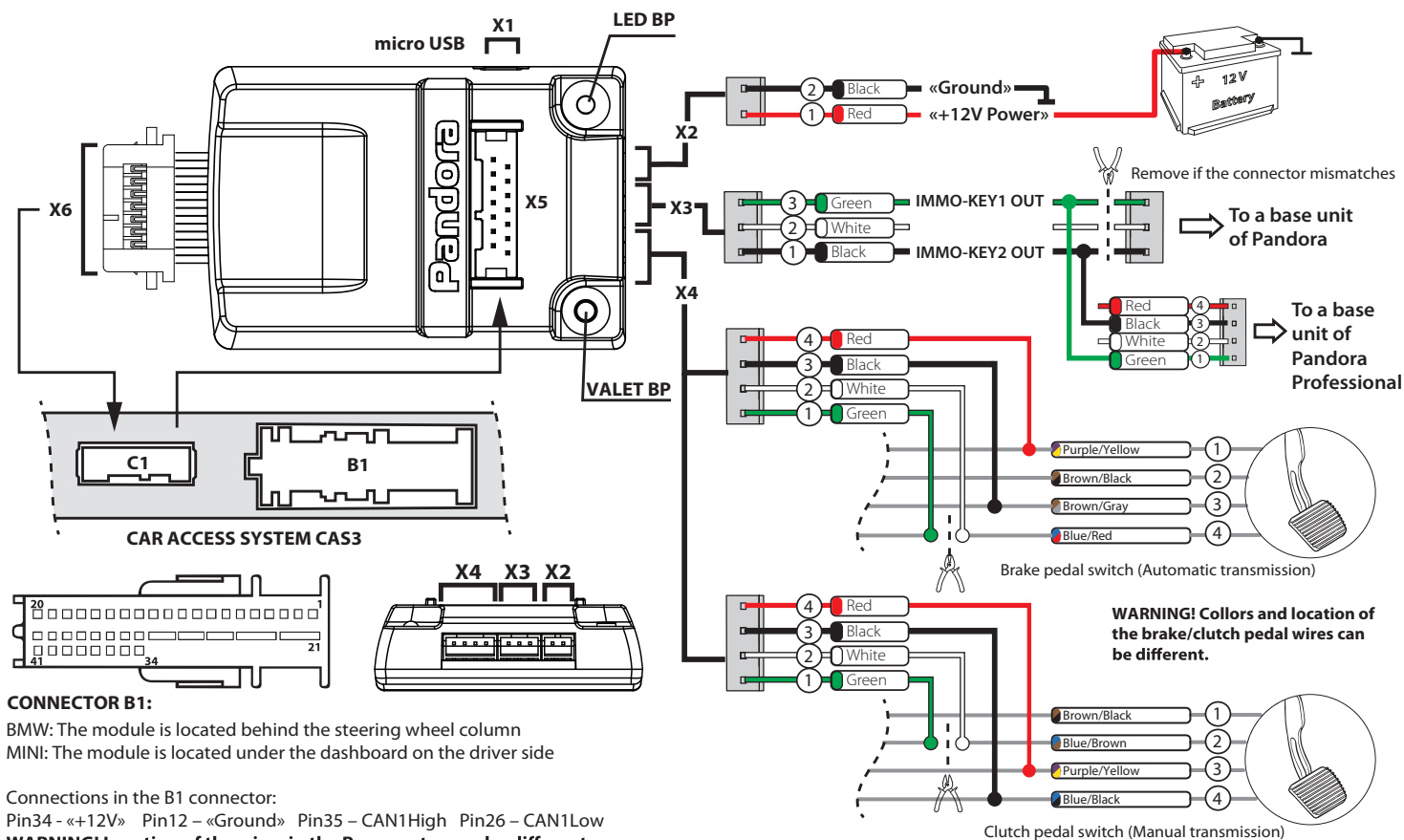
Supported systems: Pandora Light Pro, Pandora Smart v2, Pandora Smart Pro, Pandora Smart Pro v2, Pandora Professional v2.



LIST OF SUPPORTED CARS

Brand	Model	Years	Model code	Brand	Model	Years	Model code
BMW	1 Series (E82/88)	2008-2013	5111		X1 (E84)	2012-2013	5111
	1 M (E82)	2008-2013	5111		X5 (E70)	2008-2013	5111 / 5113
	3 Series Sedan (E90/91)	2006-2011	5111		X5 M (E70)	2010-2013	5111 / 5113
	3 Series Coupe (E92/93)	2007-2013	5111		X6 (E71/72)	2008-2013	5111 / 5113
	M3 Sedan (E90)	2008-2011	5111		X6 M (E71/72)	2010-2013	5111 / 5113
	M3 Coupe (E92/93)	2008-2013	5111		Z4 (E89)	2009-2013	5111
	5 Series (E60/61)	2005-2010	5111 / 5112	MINI	Cooper	2007-2013	5111
	M5 (E60/61)	2006-2010	5111 / 5112		Cooper Convertible	2008-2013	5111
	6 Series (E63/64)	2005-2010	5111 / 5112		Clubman	2008-2013	5111
	M6 (E63/64)	2006-2010	5111 / 5112		Coupe / Roadster	2012-2013	5111

CONNECTION DIAGRAM



WARNING! This manual has the status of a recommendation. Configuration, connection and installation of the system must be performed by highly qualified specialists.

WARNING! The system installation should be performed when the system sockets and the negative battery terminal are disconnected.

WARNING! It is required to update firmware of the remote engine start module before the installation.

REMOTE ENGINE START WITH THE BMW BYPASS MODULE

«Program neutral» procedure (reservation mode for mechanical transmission)

If a car has a manual gearbox, the “Program neutral” procedure is required for remote and automatic engine starts. This procedure can be activated automatically by handbrake or manually by pressing and holding the “Arm” button on a remote control when handbrake is activated (it depends on the settings). The engine must be running for 30 seconds and more to activate the “Program neutral”.

- Do not switch off the ignition, fixate a car by the handbrake and put a gear lever to the neutral position.
- The key slot will be unlocked when the “Program neutral” is activated
- Do not press the START/STOP button, press the original key and remove it from the slot.
- Leave the car, close the doors.

NOTE! There is a setting “Switch on neutral when the last door is closed”. It allows to stop the engine after closing the last door (not after arming). If a door is opened after stopping the engine and before arming, the “program neutral” will be deactivated.

- Arm the system, the engine will be stopped and the system will be ready for remote engine start.

NOTE! The bypass module allows using “Turbotimer” and “Ignition backing” functions.

Remote and automatic engine start

The way to start the engine depends on the type of system (see the User manual).

The module allows not to stop the engine when disarming. To do this, disarm the system during a remote engine start procedure, insert a key into the key slot and hold it for 3-5 seconds (until it is fixed). Control over the engine will be delegated to the car original systems. After this you can start driving.

WIRING DESCRIPTION

X2 Socket (power supply)

- Wire №1 (Red) (+12V) — “Power supply” of the module. It connects to a reliable wire with constant +12V.
- Wire №2 (Black) (-) — “Ground”. It connects to a grounding spot of a car. This wire must be connected first during installation.

X3 Socket(module control)

This socket is used to connect the module with a Pandora system.

- Wire №1 (Black) — It connects to the IMMO-KEY2 OUT of a Pandora system.
- Wire №2 (White) — This wire is not used.
- Wire №3 (Green) — It connects to the IMMO-KEY1 OUT of a Pandora system.

X4 Socket (brake/clutch pedal control)

This socket is used for brake (automatic transmission)/clutch (mechanical transmission) switch connections.

X5 and X6 sockets (bypass of CAS3 immobilizer)

This sockets are used for «pin-to-pin» connection to the original wires of a CAS3 module.

INSTRUCTIONS

1. Configure a base unit of Pandora system using the Alarm Studio:
 - select a model code;
 - select a transmission Type (Automatic or Manual) in the “Automatic start” settings, enable the “Car with Start/Stop button” and “Enable bypass when engine is running” settings;
 - select the “BMW CAS3 bypass” in the “Original immobilizer bypass” settings.
2. Connect the module to a car and to the base unit of Pandora system.
3. Make bypass learning procedure:
 - enter the level 17 of the programming menu, the LED of the system and the LED BP of the module will light green;
 - insert an original key into the key slot, wait until the LED BP becomes orange, remove the key from the key slot;
 - wait until the LED BP becomes green, insert an original key into the key slot, wait until the LED BP becomes orange, remove the key from the key slot;
 - wait until the LED of the system starts flashing green, press the VALET button of the base unit of the system, disconnect all connectors from the base unit and make the Cloning procedure.
4. Make Cloning procedure:
 - connect the base unit of the system to a PC by a USB-cable;
 - enter the programming mode by entering the “Service PIN-code”;
 - run the Pandora Alarm Studio and log in;
 - confirm data transmission, wait for the procedure to be finished.
 - the system is ready to work, connect the base unit to the connectors.

UPDATING FIRMWARE

- Run the Pandora Alarm Studio on a PC, connect a USB cable to it.
- Disconnect the power supply from the module. Press and hold the VALET BP button, connect the USB cable to the module, release the button after connecting – the module will enter the boot mode.
- Upload firmware to the module. Disconnect the USB cable after updating.

TECHNICAL SPECIFICATIONS

Voltage 12V
Current consumption 0,5mA
Dimensions 50x74x17 mm