

2 SYSTEM DESCRIPTIONS

2.1 SYSTEM DESCRIPTION 800 SERIES

The DEFA Auto Security 800 series are complete alarm systems operated through a radio based remote control. The alarm series include all primary alarm functions and several other comfort functions. All models can operate the cars original central locking system directly.

A complete 800 series alarm package includes the following:

1. Central unit
2. 2 Remote control 1:1 units
3. Siren /Backup alarm (B)
4. LED
5. Glass breakage sensor (G)
6. Microwave sensor (M)
7. Usage/Installation directions
8. Installation kit
9. Wire kit 800
10. Alarm decals (stickers)
11. PIN-code card



820X-MG

2.1.1 Model program 800

The model program is extensive and flexible.

820X - G	821X - G	823X - G
820X - M	821X - M	823X - M
820X - MG	821X - MG	823X - MG
820X - G BACKUP	821X - G BACKUP	823X - G BACKUP
820X - M BACKUP	821X - M BACKUP	823X - M BACKUP
820X - MG BACKUP	821X - MG BACKUP	823X - MG BACKUP

Explanations to the model program:

8	2	3	X	M	G	B
Model type	Number of remote controls	Number of immobiliser circuits	Central locking control	Microwave sensor	Glass breakage sensor	Backup alarm



Please note that models with Backup Alarm (B) can not be connected to Standard siren. Otherwise all models can be upgraded with all equipment available. Not all models listed above are available as complete alarms out of stock

2.1.2 Model 800 series - functions

Alarm/Immobiliser functions :

- 3 Alarm mode through LED.
- 3 Alarm activated blinkers.
- 3 Alarm activated siren.
- 3 Passive activation
- 3 Activation if a door or a hatch is not closed on activation.
- 3 Remote activation of alarm. (Panic function)
- 3 Standard siren (30W) with six optional sounds.
- 3 Backup alarm (battery) with six optional sounds and shock sensor.(B)
- 3 Alarm with Central unit built-in start lock, 1-circuit. (821)
- 3 Immobiliser module with 3-circuits. (823)
- 3 Glass breakage sensor, with Watch Dog function. (G)
- 3 Microwave sensor for passenger compartment monitoring. (M)
- 3 Securing doors, bonnet and luggage compartment lid with separate circuits.
- 3 Securing auxiliary equipment like radio, extra lights etc.
- 3 Securing the ignition signal.
- 3 Automatic reactivation.
- 3 Automatic interior lights by deactivation (30 sec)
- 3 Alternative emergency activation, in case remote control is lost.
- 3 Automatically changing remote control code.
- 3 Alarm history

Comfort functions:

- 3 Remote controlled central locking, unlocking/locking. (Standard on all models)
- 3 Remote control operated electrical windows. (Power Module)
- 3 Remote control operated electrical sunroof. (Power Module)
- 3 Remote control operated electrical luggage compartment opener. (Standard)
- 3 Remote control operated electrical fuel tank opener.(Standard)
- 3 Remote control operated DEFA car heater system. (Standard)
- 3 Remote control operation of the car's original comfort closing function. (Standard)

2.1.3 Line-in and line-out connections

All models in the 800 series have the following line-in and line-out connections:

Line-in (I):

- 3 Auxiliary equipment (NEG;NC)
- 3 Bonnet switch (NEG;NO)
- 3 Luggage compartment lid switch.(NEG)
- 3 Door switch 1 Interior light control (NEG)
- 3 Door switch 2 (NEG;NO)
- 3 Ignition signal
- 3 Glass breakage sensor with Watch Dog
- 3 Microwave sensor
- 3 Auxiliary sensor
- 3 Current supply / Ground

Line-out (O):

- 3 Central lock control
- 3 Siren
- 3 Backup alarm (B)
- 3 3 circuit Immobiliser module
- 3 Power Module
- 3 Pager
- 3 Channel 1 (electr. luggage lid) (NEG)
- 3 Channel 2 (NEG)
- 3 Channel 3 (DEFA heating system) (POS)
- 3 Flashers
- 3 LED

2.1.4 Approvals 800 series

- The radio transmitter (Remote control) has been approved in accordance with ETS 300220.
- The radio receiver (Central unit) has been approved according to ETS 300220.
- The microwave sensor has been approved according to ETS 300440.
- All models are CE-marked according to ETS 300683.
- All models except the Siren and Backup alarm are e₁₁-marked according to EU-directive 95/56/EC
- All models are approved by the insurance companies approval procedures from SSF, FG and VAT.

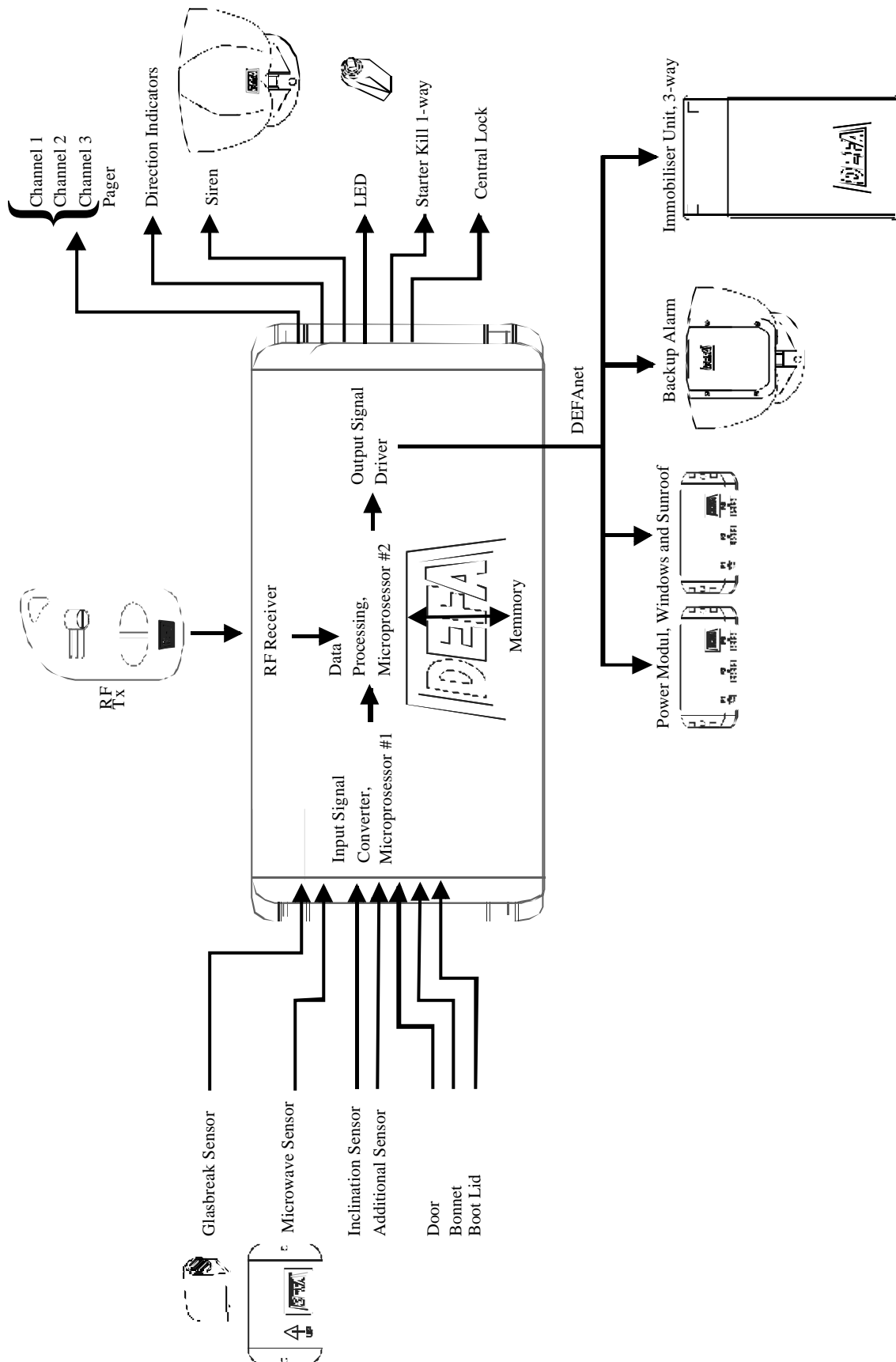
2.1.5 Technical specifications

Central unit 800 series:			Remote control:	
Operating voltage: 9 -16 volt DC			Communication:	RF (UHF)
Operating temperature: -40 to +85° C			Frequency:	433,92MHz
External measures: 159x80x34 mm			Modulation:	KOO (Keyed On/Off)
Current consumption:			Number of codes:	4 billion pseudo
			Computer type:	64bit, 250bps
	Activated	Deactivated	Working voltage:	6 volts
820/821X-G	13mA	18mA	Range:	15-40 meters
820/821X-M	19mA	18mA	Battery type:	2 pcs CR2016 Lithium
820/821X-MG	19mA	18mA	Battery life:	Approx.1 year
820/821X MGB	29mA	35mA 1)	Working temp.:	-40 to +55° C
823X MG	19mA	20mA	External measures:	53x30x8 mm



1) Substantially larger current consumption on the (B) models is due to current needed for charging the internal NiCd batteries on the Backup alarm. This amounts to approximately 9mA in activated mode and approximately 17mA during driving (deactivated alarm)

2.1.6 System design 800 series



2.2 SYSTEM DESCRIPTION 400 SERIES

The DEFA Auto Security 400 series are alarm modules designed for use in cars originally fitted with a remote controlled central locking system. It is possible to operate the alarm through the original Remote control. The 400 series models can be adapted to most of today's car models.

A complete 400 series alarm package includes the following:

1. Central unit
2. Siren / Backup alarm (B)
3. Programming panel
4. LED
5. Glass breakage sensor (G)
6. Microwave sensor (M)
7. Usage-/Installation directions
8. Installation kit
9. Wire kit 400
10. Alarm decals (stickers)
11. PIN-code card



400-MG

Please note that a remote control is not included in the 400 series alarms.

2.2.1 Model program 400 series

The model program is extensive and flexible.

400 - G	401 - G	403 - G
400 - MG	401 - MG	403 - MG
400 - G BACKUP	401 - G BACKUP	403 - G BACKUP
400 - M BACKUP	401 - M BACKUP	403 - M BACKUP
400 - MG BACKUP	401 - MG BACKUP	403 - MG BACKUP



Please note that models with Backup Alarm (B) can not be connected to Standard siren. Otherwise all models can be upgraded with all equipment available. Not all models listed above are available as complete alarms out of stock.

Explanations to the model program:

4	0	3	M	G	B
Model type	Number of remote controls	Number of immobiliser circuits	Microwave sensor	Glass breakage sensor	Backup alarm

2.2.2 Model 400 series - functions.

Alarm/Immobiliser functions:

- 3 Alarm mode through LED.
- 3 Alarm activated flashers.
- 3 Alarm activated siren.
- 3 Automatic reactivation
- 3 Warning if a door or a hatch is not closed on activation.
- 3 Standard siren (30W) with six optional sounds
- 3 Backup alarm (battery) with six optional sounds and shock sensor. **(B)?**
- 3 Built-in start lock, 1-circuit. **(401)**
- 3 Immobiliser module with 3-circuits. **(403)**
- 3 Glass breakage sensor, with Watch Dog function. **(G)**
- 3 Microwave sensor for passenger compartment monitoring. **(M)**
- 3 Securing doors, bonnet and luggage compartment lid with separate circuits.
- 3 Securing auxiliary equipment like radios, extra lights etc.
- 3 Securing the ignition signal.
- 3 Alternative emergency deactivation, in case Remote control is lost.

2.2.3 Line-in and line-out connections.

All models in the 400 series have the following line-in and line-out connections:

Line-in (I):

- 3 Auxiliary equipment (NEG;NC)
- 3 Bonnet switch (NEG;NO)
- 3 Luggage lid switch (NEG;NO)
- 3 Door switch 1 (NEG;NO)
- 3 Door 2 (NEG;NO)
- 3 Ignition signal
- 3 Glass breakage sensor with Watch Dog
- 3 Microwave sensor
- 3 Extra sensor
- 3 Current supply/ earth
- 3 Reference signal from orig. central locking

Line-out (O):

- 3 Lights (90W)
- 3 Siren
- 3 Backup alarm (B)
- 3 3 circuit Immobiliser module
- 3 LED

2.2.4 Approvals 400 series

- The Microwave sensor has been approved according to ETS 300440
- All models are CE-marked according to ETS 300683
- All models are e₁₁-marked according to EC-directive 95/56
- All models are approved by the insurance companies approval procedures from SSF, FG and VAT.

2.2.5 Technical specification

Central unit 400 series:	Current consumption:		
		Armed	Disarmed
Operating voltage: 9 -16 V DC	400/401- G	10mA	10mA
Operating temp.: -40 to +85° C	400/401- M	16mA	10mA
External measures: 159x80x34 mm	400/401- MG	16mA	10mA
	400/401-MGB	26mA	27mA
	403- MG	16mA	10mA

2.2.6 System design 400 series

