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1. - KIT CONTENTS.

The following are the main parts supplied in the kit:

- Main alarm unit.
- Remote controls.
- Wireless back-up battery siren or wired siren, loudspeaker.
- Main unit universal wiring harness.
- Siren wiring harness.
- Siren bracket
- Ultrasonic sensors.
- Installation accessories.
- LED / control button.
- Quick reference user manual.
- CD Instruction Manuals (if provided).
- Pin Code card

2 - INTRODUCTION

The main unit of this system can be armed/disarmed by the remote control or with the Driver Card (optional). This manual contains all information required to fit the system on 12 V battery vehicles with the negative pole connected to the vehicle body.

HOW TO ACCESS TO THE VEHICLE SPECIFIC TECHNICAL DOCUMENTS.

Access to the web site www.cobra-es.com > **Professional area** and register yourself to be allowed to download the technical documentation.

HOW TO DEFINE THE INSTALLATION SOLUTION.

Access to the professional area of the web site www.cobra-es.com and download the vehicle information.

3. - SYSTEM'S CONFIGURATION.

Be sure to have connected all Data Linker components and to have power supplied the system. Run the specific software.

As soon as, it automatically checks - if the computer is connected to internet - if the installed version is the most updated one and, if not, it proposes its update.

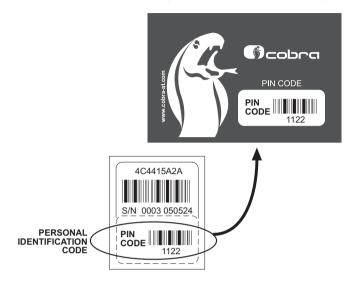
We recommend to download all times the last update.

Additional software installation and the specific software usage details are available on the manual inside the CD supplied in the Data Linker kit or in the Cobra ES site, professional area, Application manuals.



4. - HOW TO PREPARE THE PIN CODE CARD.

Remove the separate PIN Code label from the back of the system main unit and place onto the supplied PIN Code Card.





5. - INSTALLATION PROCEDURE.

System's component positioning.

As much as the components of the system will be placed in secure and difficult to access positions as higher the protection level will be.

WARNING: each element must be positioned so that it does not interfere with moving parts.

Alarm unit.

It must be fitted inside the vehicle far away from heating sources, paying attention to keep the main connector oriented down.

Siren.

It can be installed in the engine bay as inside the vehicle far away from heating sources paying attention to keep the main connector oriented down.

Ultrasonic volumetric sensor.

The ultrasonic transducers must be fixed to the top of the A pillars pointed towards the rear window or to the top of the C pillars pointed towards the windscreen. Their orientation should be as much as possible parallel to the side windows.

Emergency LED/control button

It must be fitted on the dashboard with its LED in a in sight position. The pushbutton should be easily accessible by the driver.

Bonnet pushbutton.

The installation of the supplied pushbutton is required if the vehicle is not yet equipped with the original one. The specific vehicle installation sheet supplies this info.

Antennas.

The RF antennas positioning (for both the main unit and the siren) is crucial for a proper system's performance. They must not be cut, wrapped, connected to any other cables or to the vehicle body and they must be kept separate from the main wiring harness and as far as possible from metallic parts.



Electrical connections.



WARNING: to prevent damage to the vehicle electrical system during installation, we recommend to disconnect the battery negative cable and to reconnect it only after installation is completed. If the battery is not disconnected, to avoid the possible generation of errors by the original central units of the vehicle, it is necessary to pay attention during the connections and the use of the installation tools.

Pay attention when joining two or more wires. Avoid to make "quick connections" that do not ensure a good quality. Also make sure that the wires of the Cobra 469X are routed so that they follow the original wiring of the vehicle to which they should be joined with the raps.

The addition of fuse is required as specified in the main connection diagram.

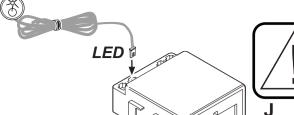


In order to avoid human exposure to radio frequency electromagnetic fields, the distance of the device respect to vehicle occupants must be greater than 0.25m

26 ways connector J pin-out

- **J-1 and J-2 Engine crank inhibition**: to get the maximum security level to the system connect the two wires as shown in the electrical diagrams to prevent the engine starter running. During the cranking phase, measure the value of the current in the circuit that has been interrupt, to make sure that it does not exceed the technical specifications of the product. Install an additional relay if required.
- J-3 Output: make the connection depending on the chosen functionality (see "FUNCTIONS PROGRAMMING TABLES" manual).
- **J-4 Power blinker output**: make the connection to the directon lights wires.
- **J-5 Power blinker output**: make the connection to the directon lights wires.
- **J-6 Analogic input**: to be connected to a vehicle device (ex. passenger compartment fan heater) to reduce the US sensitivity (step 7.12) or to be connected to a push-button for the driver recognition (step 7.22).
- **J-7 Negative input**: to connect to the wire of the bonnet original push button.
- J-8 Cobra BUS: communication line for the connection of compatible Cobra sirens and sensors.
- J-9 and J-10 Do not connect.
- J-11 (see central door locking diagrams).
- J-12 (see central door locking diagrams).
- J-13 (see central door locking diagrams).
- **J-14 12 V connection (+30)**: the positive supply must be connected to a vehicle positive connection point upstream of the fuse box. Fit a 15 A fuse as close as possible to the connection point.
- J-15 GND connection: the ground must be connected to a factory earth point or directly to the negative pole of the battery.
- **J-16 Negative output for modules**: active when the system is armed. To be used for the connection of compatible Cobra modules.
- **J-17 Horn/loudspeaker negative output**: to program in line with the connected device. See electric diagrams and functionalities programming tables. The output set automatically as per selected device, for horn choose also fix or intermittent.
- J-18 +15/54 connection: to be connected to a ignition key ON positive signal. The positive signal must be feeded while starting the vehicle and when the engine is ON.
- J-19 Negative perimetric input: to connect to the other doors wire, when the signal is separated from the one of the driver's door.

Vedi manuale tabelle di programmazione See Programming Tables manual



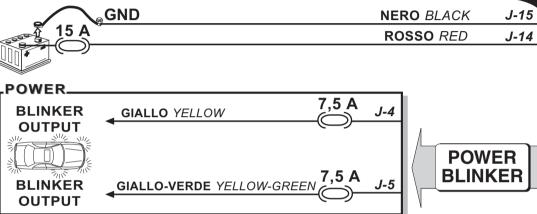
Al fine di evitare l'esposizione umana ai campi elettromagnetici, la distanza del dispositivo rispetto agli occupanti del veicolo deve essere maggiore di 0,25 m.

In order to avoid human exposure to radio frequency electromagnetic fields, the distance of the device respect to vehicle occupants must be greater than 0,25 m.



NEDO BLACK

Vedi schema "**G**"
See "**G**" diagram



J19

J-22

J20

ROSA-NERO PINK-BLACK



Non utilizzare
Do not use

VIOLA VIOLET
ARANCIO ORANGE
VIOLA VIOLET
J10

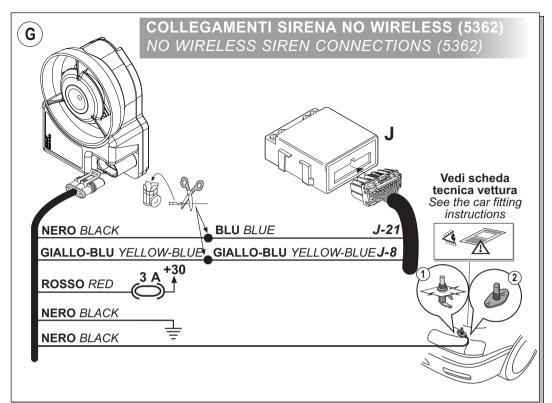


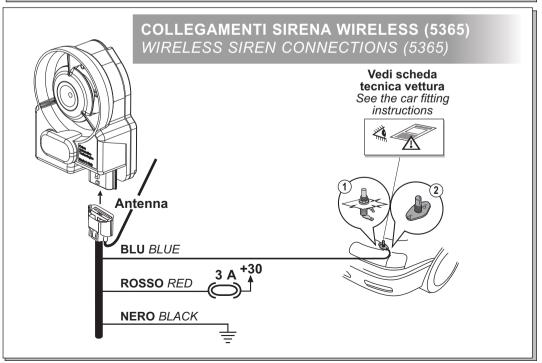


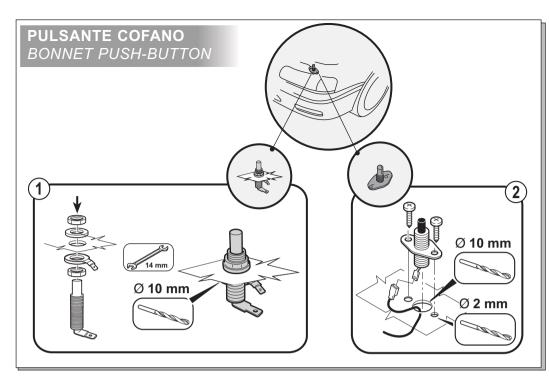
ARANCIO-NERO ORANGE-BLACK

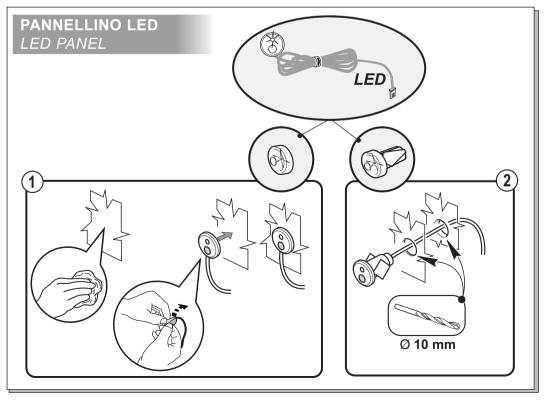
BLU-ROSA BLUE-PINK

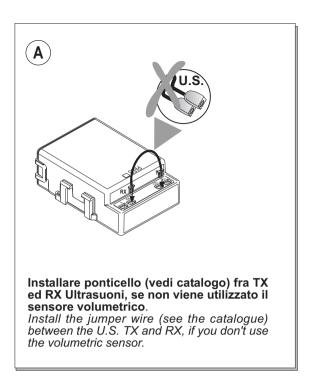
J8	GIALLO-BLU YELLOW-BLUE	COBRA BUS
J1 J2	VERDE GREEN VERDE GREEN	STARTER +50 max 20 A (1 s) 6 A cont.
J17	BIANCO WHITE	USCITA SIRENA / CLACSON SIREN / CLACSON OUTPUT
J16	MARRONE BROWN	USCITA NEGATIVA ALLARME INSERITO ARMED ALARM NEGATIVE INPUT
J23	GRIGIO GREY	INGRESSO SENSORI SENSORS INPUT
J11 J24 J26	ARANCIO-BIANCO ORANGE-WHITE VIOLA-BIANCO VIOLET-WHITE GIALLO-NERO YELLOW-BLACK	
J13	GRIGIO-NERO GREY-BLACK	Vedi schemi CDL See CDL diagrams
J25	VIOLA VIOLET	1/2/3/4
J12	ARANCIO ORANGE	
J18	VERDE-ROSSO GREEN-RED 3 A	+ 15
J-3	GIALLO-BIANCO YELLOW-WHITE	
J6	ROSA-BIANCO PINK-WHITE	

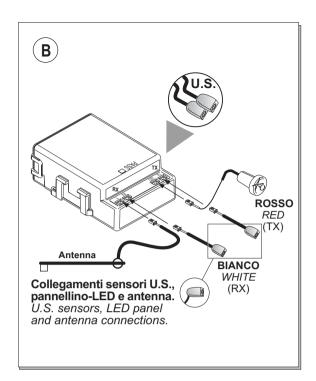


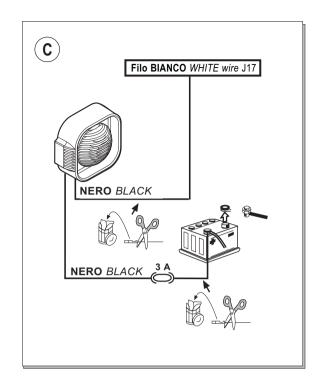


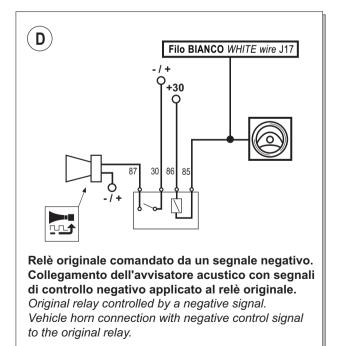


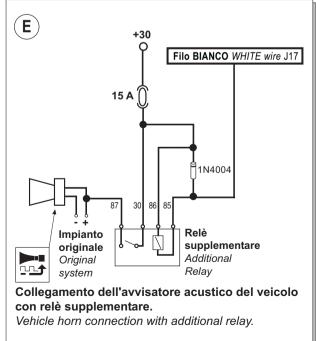


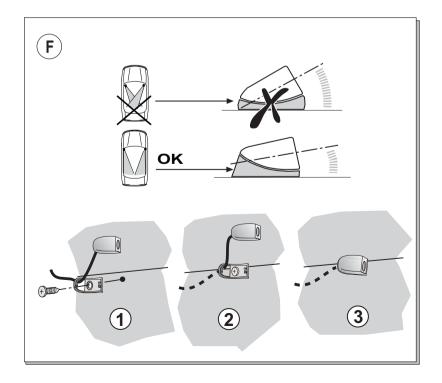


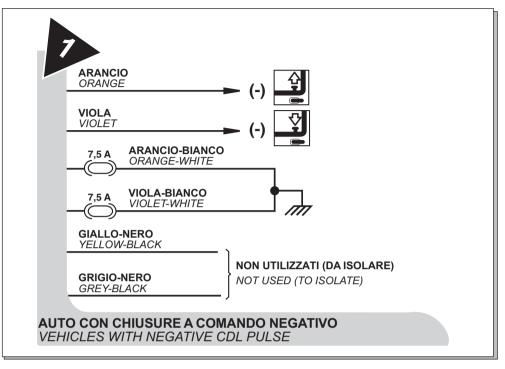


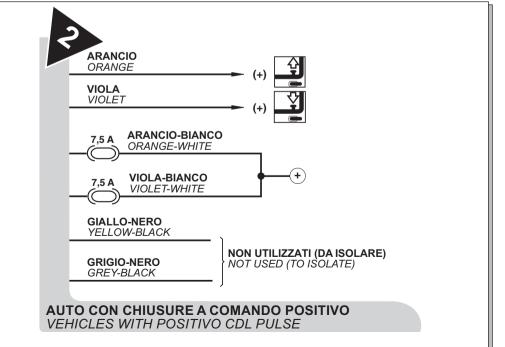


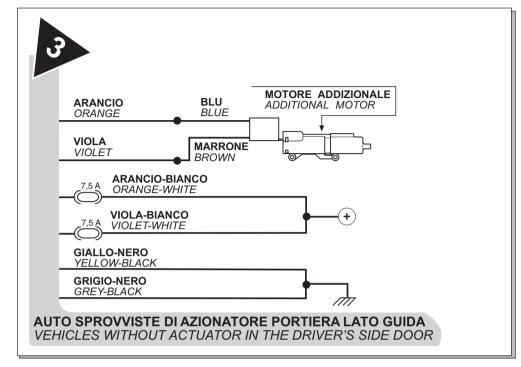


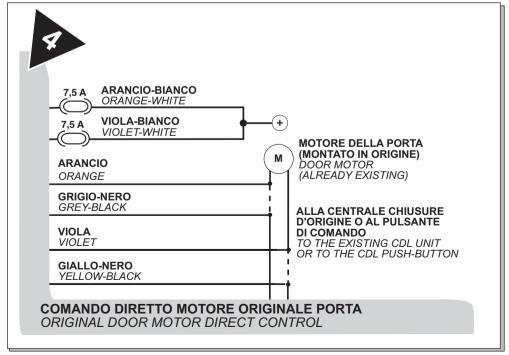














- **J-20 Positive perimetric/odometer input**: to be connected to the vehicle roof lamp only after the function has been activated (see the "FUNCTIONS PROGRAMMING TABLES manual"). The input is 7 s delayed after the system arming.
- **J-21 Negative input to enter in programming procedure/to connect bonnet pushbutton**: if connected to ground the system will enter in the programming procedure for all applications not able to detect the original bonnet pushbutton. If the siren is a wireless one this input must not be used for the bonnet pushbutton connections. For wired siren or loudspeaker this input must be used for the connection of the bonnet pushbutton as indicated in the specific vehicle PLIP installation sheet.
- **J-22 Negative perimetric input**: to be connected to the vehicle roof lamp or to the driver's door wire when the signal il separated from the one of the other doors. The input is 7 s delayed after the system arming.
- J-23 Negative input for additional modules: to be used as a triggering input for the connection of compatible Cobra modules.
- J-24 (see central door locking diagrams).
- J-25 (see central door locking diagrams).
- J-26 (see central door locking diagrams).

MAKE CONNECTIONS AS FOR ELECTRIC DIAGRAMS



6. - ACTIVE FUNCTIONALITIES.

6.1 - Interior protection with ultrasonic volumetric sensor.

The system protects the vehicle interior with a volumetric ultrasonic sensor. Any attempt to get into the vehicle will be detected and the alarm will trigger.

6.2 - Perimetric protection with door open warning diagnostic.

The alarm will trigger by opening any door, boot and bonnet. Should you have left any door opened while arming, the system will signal it by 3 flashes of the direction lights and 3 audible signals (5 audible signals if the arming/disarming audible signals function has been activated).

6.3 - Cable cutting protection (only for systems with back-up battery siren).

The alarm will trigger if the system is not power supplied (cutting of cables - battery disconnection) signalling the sabotage.

6.4 - Engine crank inhibition.

As soon as the system is armed the engine cranking is not possible anymore.

6.5 - Arming the system with the volumetric ultrasonic protection disabled.

This function allows to arm the system leaving temporarily disconnected the interior volumetric protection. The protection must be disabled any time you leave somebody or an animal in the vehicle. If you want to leave any window opened also disable the protection to avoid false alarms. All other protections remain active.

To disable the volumetric protection proceed as follow:

Arm the system pressing the "A" pushbutton of the remote control, pressing another time the "A" pushbutton the volumetric protection (Ultrasonic sensors) is deactivated, the deactivation is confirmed by one flashing of the direction indicators and one beep.

Pressing another time the "A" pushbutton the volumetric protection is re-activated and the external sensors are deactivated, the deactivation is confirmed by two flashing of the direction indicators and two beeps.

Pressing another time the "A" pushbutton, the volumetric protection and the external sensors are deactivated, the deactivation is confirmed by three flashing of the direction indicators and three beeps, or

switch the engine off being sure that the ignition switch has been turned to the OFF position. Within 5 s press the emergency panel pushbutton and keep it pressed until it will flash once to confirm only the volumetric protection has been disabled. By keeping the pushbutton pressed the system will confirm with two flashes that only the additional sensor input has been disabled, with three flashes for both of them disabled. The selected protection will remain disabled until the system will be disarmed. It will be automatically restored at the next arming.

6.6 - Emergency panel LED.

The LED main scope is to show the system arming and disarming conditions. When the system is armed the LED gets ON and remains illuminated until the 25 s arming period has elapsed. After that it starts blinking. It goes OFF as soon as the system is disarmed.



6.7 - Alarms memory.

If the system has gone off (alarm on) during the arming time it will warn you with 3 flashes of the direction lights and 3 audible signals (5 audible signals if the arming/disarming audible signals function has been activated). It also stores in its memory the reason of the occurred alarm and shows it on the emergency panel LED. Count the number of flashes and check the corresponding alarm reason on the table. By turning the key ON the memory will be deleted.

LED NUMBER OF FLASHES	ALARM ROOT CAUSE	
1 flash	Door opening detection.	
2 flashes	Ultrasonic volumetric detection.	
3 flashes	Bonnet opening detection.	
4 flashes	Ignition key ON detection.	
5 flashes	Boot opening detection.	
6 flashes	Door opening detection.	
7 flashes	Additional sensors.	
8 flashes	Siren cable cutting - Cobra Bus.	
9 flashes	Not used.	
10 flashes	Not used.	
11 flashes	Immobilizer 1 module connected to the Cobra Bus.	
12 flashes	Immobilizer 2 module connected to the Cobra Bus.	
13 flashes	Not used.	
14 flashes	Not used.	

6.8 - Emergency disarming.

If the remote control get lost or if it doesn't work, open the door with the mechanical key and disam the system following the emergency procedure described in the user manual.

6.9 - Alarm condition.

When the system goes off (alarm ON) the siren sounds and the direction lights flash for 28 s.



7. - PROGRAMMABLE FUNCTIONS.

(see the "FUNCTIONS PROGRAMMING TABLES" manual).

8 - NEW REMOTE CONTROLS AND / OR DRIVER CARDS (optionals) SELF LEARNING PROCEDURE.

(see 'PAGE 2' of the "FUNCTIONS PROGRAMMING TABLES" manual).

9. - FUNCTIONAL TEST.

During the first 25 s after the system has been armed all protection functionalities can be tested without triggering an alarm.

Make the following tests during the 28 s inhibition time with the system armed:

open then close one by one all doors and boot - Check if the system is confirming with three audible signal, each door opening detection.

Check the proper functionality of the volumetric ultrasonic sensor - Make movements, their detection will be confirmed by a LED flashing.

Open the bonnet then lock the vehicle with the remote control - After 28 s from arming the system will indicate the bonnet opening with 3 audible signals.

Try to start the engine - If the engine cranking wires have been connected the engine will not start.

Check if the PIN emergency Code works properly - By correctly entering the PIN code the system disarms.

10. - SELF LEARNING PROCEDURE REQUIRED TO REPLACE THE MAIN UNIT OR THE WIRELESS SIREN REPLACEMENT.

The siren supplied in the kit is delivered already programmed to the main unit. Should you have the need to replace the siren or the main unit it is required to perform the self learning procedure as follows:

IMPORTANT: don't perform the procedure on two different vehicles parked closed each other. Their sirens could be memorized in one main unit only.

- A. Power the main unit by connecting the 26 ways connector.
- B. Connect the main unit blue wire to GND (only when a wireless siren is fitted).
- C. Open the bonnet.
- D. Connect the siren blue wire to GND (if not already grounded through the additional bonnet pushbutton).
- E. Disconnect the siren 6 ways connector, then plug it again.
- F. Within 60 s turn the ignition key ON, an audible signal confirms that the siren has been stored in the system.
- G. Turn the ignition key OFF and disconnect the BLU wires of the main unit and of the siren from GND (if grounded through the additional pushbutton simply open the bonnet).

Check the system functionality arming the system and triggering the alarm to check the proper sounding of the siren.



11. - DOCUMENTS HANDOVER.

Be sure the user user 'quick reference' and the PIN code card is placed in the glove compartment and carry out a full functionality demonstration to the customer.

12 - SYSTEM TECHNICAL SPECIFICATIONS

The manufacturer shall not be liable for any faults or malfunctions in the anti-theft device and/or in the electrical system of the vehicle due to incorrect installation and/or to failure to comply with the indicated technical specifications. The system must only be considered as a deterrent agaist theft attempts.

TECHNICAL SPECIFICATIONS			
Rated supply voltage	+12 V DC		
Operating voltage	+8 V ÷ +16 V DC		
Current consumption (central unit, LED and siren) disarmed	8 mA		
Current consumption (central unit, LED and siren) armed	12 mA		
Central unit operating temperature	- 40 °C + 85 °C		
Siren operating temperature	- 40 °C + 85 °C		
Self power supply	Lithium Battery 6 V 1300 mAh		
Loudspeaker sound pressure level	>115 dB @ 1m		
Siren sound pressure level	>114 dB @ 1m		
- Central dimensions	91x69x35 mm		
- Siren dimensions	113x79x45 mm		
Trasmitter battery / Cobra Driver Card	Lithium Battery 3 V CR2032		

13. - FOR (UK) MARKET ONLY

Category 1,2 or 2-1 systems permanently installed as aftermarket equipment by import or distribution centres, vehicle dealers, or by Independent Installers, shall be installed by companies and technicians who are trained, qualified, industry recognised professional installers.

Thatcham recommends to its insurer members that the installations of certified products within the aftermarket are registered with an independent installation registration system which can be accessed by insurance companies. Thatcham administer the Thatcham Recognised Installer scheme, on behalf of the British motor insurance industry, providing independent registration of installations to vehicle owners. Details of the Thatcham Recognised Installer scheme can be found at www. thatcham.org/tri/home. To ensure consumers insurance cover is not adversely effected it is highly recommended that all installations are carried out by Thatcham recognised installers and that all installs are registered providing the vehicle owner with a Thatcham recognition of installation for presentation to insurers.

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www.cobra-at.com