REMOTE CAR ALARM

SYSTEM SR100

TECHNICAL HELP LINE - 01429 862616
email: technicalsupport@stadium.co.uk
SR100 FEATURES

- 2 Radio remote controlled transmitters. DTI approved. Instant arm/disarm.
- Starter motor circuit immobilisation - disables starter motor when alarm is sounding.
- Passive Arming option - allows automatic arming on closure of last door. Disarm by Remote Control.
- Safety Circuit prevents accidental arming whilst the vehicle is being driven.
- Valet Key Switch - service/override feature.
- Powerful integral high power speaker siren.
- Integral electronic shock sensor. Detects forced entry or shock due to exterior attack.
- Remote control panic. Provides additional personal protection by sounding siren for up to 30 seconds.
- Arming and disarming confirmed by audible chirp and flashing indicators.
- Siren sounds and indicators flash for 30 seconds (nominal) when alarm is triggered.
- Entry alert. Audible signal on disarming if attempted break in has occurred.
- Door switch sensing circuit. Detects doors, bonnets and boot opening via pin switches.
- Electric fan inhibit. Prevents false alarms due to cooling fan running after alarm is armed.
- Alarm armed LED (Light Emitting Diode) as a visible deterrent.
- Door open alert. Advises driver doors are not correctly closed when alarm is armed.
- Automatic reset. Gives continuous protection until alarm is disarmed by remote control.
- Door locking control wire. Allows doors to be locked/unlocked by remote control when connected to optional SR911 Central Door Locking Interface.
The Sparkrite SR100 compact remote control car alarm system incorporates the latest “state of the art” microprocessor technology offering the ultimate in product reliability and performance. The unique easy-fit design offers easy installation and ensures many years of trouble free operations.

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OPERATING YOUR SPARKRITE SR100 ALARM SYSTEM

The radio remote control transmitter conforms to DTI legislation with each unit allocated a unique security code. Additional remote controls are available on special order from Halfords or direct from Sparkrite using the enclosed order form, quoting the serial number on the back of the remote control.

ARMING YOUR ALARM

To arm the SR100 alarm system proceed as follows:

- Remove the ignition key and leave the vehicle, making sure all doors, windows, sunroof, boot and bonnet are closed.
- Press the button on the remote control firmly once. The indicators on the vehicle will flash once and the alarm siren will chirp once. The dash mounted LED will illuminate to confirm the alarm has been armed.
- After a 20 seconds delay the LED will start to flash, confirming that the alarm is now fully armed.

DOOR OPEN ALERT

NOTE: If the siren chirps four times when attempting to arm the alarm, this indicates that a door, the bonnet or the boot (if connected) has been left open. All doors, boot and bonnet must be fully closed before attempting to rearm the alarm. When the alarm is armed, the current sensing and shock sensing circuits will not trigger the alarm until a 20 seconds exit delay has expired. This is to allow movement of the vehicle and in some cases interior light delays to cease.

DISARMING YOUR ALARM

To Disarm the Alarm:

- Press the remote control transmitter button once, the indicators will flash twice and the siren will chirp twice.
- If you trigger the alarm accidentally, follow the normal disarming procedure keep the remote control button depressed until the alarm stops.

ENTRY ALERT

If when disarming the alarm the siren gives 3 chirps and 3 flashes of the indicators this indicates that the alarm has been triggered in your absence. You should carefully check your vehicle before attempting to drive away.
REMOTE PANIC

If you feel threatened outside of your vehicle and within range you can trigger your SR100 by holding the remote control button depressed for 3 seconds. This will commence an alarm cycle of 30 seconds and draw attention to your situation and the vehicle. The alarm can be silenced by pressing the remote control button again.

PASSIVE ARMING/CURRENT SENSING DISABLE

PASSIVE ARMING

Passive arming is a feature whereby the alarm will automatically “arm” a short time after the last door on the vehicle has been closed.

Disarming the alarm is achieved by pressing the remote control button or by turning on the vehicle ignition. To switch ON the passive arming feature, move switch number TWO located on the rear of the alarm to the ON position, as shown on page 9.

IMPORTANT NOTE: If passive arming is selected, when the last door of the vehicle has been closed, the LED will flash for 15 seconds followed by one chirp from the siren. The LED will then light continuously for 15 seconds, then revert to flashing mode to indicate the alarm is fully armed.

CURRENT SENSING DISABLE

If the vehicle has any electrical accessory which draws power from the battery when the vehicle is parked i.e. car telephone, electro-mechanical mechanical clock, (pre 1980). It will be necessary to disable the current sensing feature to reduce the risk of false alarms.

This is done by ensuring switch number ONE is in the downwards (OFF) position- see page 9
VALET/SERVICE OVERRIDE FEATURE

This feature disables the alarm. It is useful if you are taking your car to a garage for servicing, particularly if the “Passive Arming” feature is selected.

Turn ON the vehicle ignition.
Turn the Valet Switch on the alarm, clockwise 90 degrees to the disable position and remove the key.
Turn OFF the ignition.
The dash board LED displays continuously to indicate the alarm is disabled.

TO ENABLE THE ALARM (After Disable)
Turn ON the vehicle ignition.
Turn the Valet Switch anti-clockwise and remove key.
Turn off the ignition.
The LED light will go out.

NOTE: If the valet switch is turned to the enable position without the ignition being turned on first, when the alarm is armed, the siren will sound after 30 seconds arm-up period.
If this occurs, repeat the disable/enable sequence.
FITTING INSTRUCTIONS

IMPORTANT:
- Your SR100 is suitable for 12V negative earth vehicles only.
- Refer to Car Owners manual for the procedure for disconnection of your battery before commencing the installation of this Alarm.
- The vehicle battery must be disconnected during the installation procedure except where it is necessary to carry out circuit testing specified.
- Vehicles fitted with digital radios having a security code or memory feature will require re-programming on completion of the installation.
- Ensure you have noted the security code of your radio to disconnecting the vehicle battery.
- It is suggested that the alarm is tested before the ultrasonic unit has been fitted.

VEHICLE WIRING TESTING

If you are unable to easily identify the correct wire on the vehicle to make a connection it is recommended a 12 volt test lamp or multi-meter is used. Care must be taken to ensure that the wire being tested is not accidentally shorted to earth by the test lamp or multi-meter probes.

INSTALLATION NOTES

The wiring harness is fully assembled and supplied with in-line fuses on the RED wire (10 amp), VIOLET (5 amp) and GREY (5 amp) wires, if any fuse blows, it is essential to investigate the cause and then replace with a fuse of the correct rating. When routing the harness around the engine compartment and through a bulkhead inside the vehicle ensure the wires insulation cannot be damaged in sharp metal edges. The harness should be concealed and protected wherever possible by using good quality insulation tape.

It is recommended that wherever possible connection to the vehicle wiring is carried out at the steering column or at the fuse box. This will prevent tampering of the wiring from outside of the vehicle.
MAKING RELIABLE CONNECTIONS

All connections in the engine bay area must be made by using either **solder-joints** or good quality **crimp termination’s**.

**Warning:** The use of Insulation Displacement Connectors (idc.s) such as scotch locks is not recommended in the engine bay area. The use of IDCs in this area may result in the alarm failing to operate correctly or cause false alarms.

IDC connectors can by used **inside** the vehicle interior but you must follow the instructions below to ensure a reliable connection.

**USING IDC CONNECTORS**

1) Place the wires in position as shown in the Fig. 1 and hold in place whilst firmly pressing in the metal insert with pliers. The metal insert will then automatically strip the insulation from both wires at the point of contact.

2) Close the locking tab to hold the connector together as in Fig. 2.

3) Ensure that the vehicle wire and alarm wire is positioned where they cannot be snagged by vehicle controls or the drivers and passengers feet.

**SCOTCH LOCK CONNECTORS**

1. Place wires in position as shown and hold carefully in place whilst firmly pressing in the metal inserts with the pliers. The metal insert automatically strips the insulation from the wires at the points of contact.
2. Close the locking-tab to hold the connector together.

**MOUNTING THE MAIN ALARM MODULE**

Locate a mounting position for the alarm in the vehicle engine compartment close to the front of the vehicle and in a position where it is difficult to again access to the alarm wiring from below the car.

Ensure that the alarm is located away from extreme heat, areas subject to water and at least 12” from the ignition system. (Use silicone sealant enclosed when refitting boot).

Using the alarm bracket as template, drill 2 holes and secure the bracket to the car body-work using the self tapping screws provided, making sure the alarm bracket is solidly mounted. **Check behind any panels for hidden pipes or wiring before drilling holes.** Secure the alarm to the bracket using the small bolts supplied making sure that front face of the alarm is kept vertical to ensure effective operation of the shock sensor.
HARNESS LOCATION

Position the harness to the rear of the main alarm module and secure where necessary to the vehicle wiring using insulation tape.

Plug in the main harness connector to the rear of the alarm unit. Do not fit the rubber boot to the alarm at this stage.

You can now make connections to the car wiring as shown.

All wires **MUST** be connected in the sequence outlined in these instructions.
ARMED INDICATOR LED

Remove the retaining nut from the LED bezel. Drill a suitable mounting hole in the dashboard where the indicator LED may be seen from the exterior of the vehicle as a visible deterrent.

Feed the two way connector and wire through the hole and secure the LED with the retaining nut (see Fig. 3).

Route the wire through a bulkhead grommet to the alarm and push it carefully through the flexible boot.

Insert the two way connector into the socket on the rear of the alarm unit.

![Fig. 3]

PURPLE AND GREY WIRES-INDICATORS

PURPLE (R/H): Using the vehicles wiring diagram or with the aid of a 12 volt test lamp, locate the wire at the indicator switch which illuminates the test lamp when the RIGHT indicator flashes. Connect the PURPLE wire to this wire using a solder joint, crimp termination’s or an IDC connector.

GREY (L/H): Repeat the above procedure connecting the GREY wire to the LEFT hand indicator circuit.

NOTE: The Alarm gives a 12 volt (+) positive output to flash the indicators. In the rare case where indicators are negatively (earth) switched, contact Sparkrite for assistance.
GREEN WIRE-ALARM ANTENNA

The GREEN antenna wire must not be cut or connected to anything metal otherwise the alarm operating range will be affected. Extend the GREEN wire and secure to the outside of the wiring harness to achieve optimum performance. Ensure the wire cannot come into contact with a hot surface, bare metal or immersed in water.

YELLOW WIRE-ELECTRIC FAN INHIBIT

IMPORTANT: If you have a mechanical cooling fan or the electric fan does not operate with the ignition turned off, then the yellow wire MUST be connected to a good earthing point BEFORE connecting the RED wire of the alarm.

If the electric fan still operates when the ignition is turned OFF then a connection from the SR100 must be made to prevent the current sensing function from triggering the alarm. The cooling fan wiring will be configured as shown in Fig. 4 or 5.

NOTE: The engine must be cold before proceeding.

Locate the fan thermal switch by tracing the wiring from the fan motor. Connect the YELLOW wire as shown in Fig. 4 or 5 using a solder joint or a crimp termination to the wire which runs between the fan motor and thermal switch.

Fig 4

![Fig 4 Diagram]

Fig 5

![Fig 5 Diagram]
BLUE WIRE-DOOR SWITCH

NOTE: To ensure correct operation of your alarm, the BLUE wire must be connected prior to connecting BLACK earth wire or RED main alarm supply wire.

Most four door cars operate the courtesy light from all four doors so connecting the alarm to one door switch will connect all of the doors. The BLUE alarm wire should be connected to the existing door switches provided they are of the switched earth type.

To determine this, close all doors except the drivers door. The courtesy light should be on. Remove the retaining screw from the door switch and carefully pull out the switch. If the interior light goes out when the door switch is removed your existing courtesy light switches are suitable for direct connection to the BLUE alarm wire.

The BLUE wire can then be connected to the door switch wire using a solder joint, crimp termination or an IDC connector. If the courtesy light remains on when the door switch is removed, contact Sparkrite for installation details specific to your car.

IMPORTANT: The Passive Arming function will only work if the BLUE wire is connected as described above.

BLACK WIRE-EARTH

The BLACK wire must be connected to a good clean metal earthing point on the body-work of the vehicle. Drill a suitable hole near the main alarm unit and secure the BLACK wire through the ring terminal.

NOTE: Do not mount the BLACK earth wire on the alarm bracket as the anti-corrosion paint will prevent a good earth contact. If in any doubt the BLACK earth wire can be connected directly to the battery negative terminal.

ORANGE/WHITE WIRE-CENTRAL LOCKING

This is only applicable for vehicle that has central locking as a standard feature. Do not attempt to directly connect the ORANGE/WHITE wire to any part of the vehicle central locking system. The ORANGE/WHITE wire is connected to the optional Sparkrite SR911 Central Locking Interface and will allow the vehicle’s doors to be locked and unlocked by remote control. (An AC1 actuator may be required for the drivers door see page 24 for details).
PINK-IGNITION INPUT

Using a test lamp, locate a 12 volt wire on the ignition switch, which is live **ONLY** in the STARTING and RUN positions of the ignition key. This is normally the wire that becomes live when the ignition key is turned from position 1 to position 2. Connect the PINK wire using the procedure described on page 10.

**NOTE:** The auxiliary power supply to radios/cassettes must not be used.

BROWN/ORANGE WIRE-VEHICLE IMMOBILISATION

Vehicle immobilisation is performed by inhibiting the starter motor operation. This is done by breaking the power to the starter solenoid drive. Identify the thin wire on the starter solenoid which prevents the starter motor operating when the wire is disconnected from the solenoid terminal. Connect the BROWN alarm wire direct to Starter solenoid terminal. Connect the ORANGE alarm wire direct to the wire previously **removed** from the starter solenoid using the in-line crimp connector supplied.

**IMPORTANT:** The immobiliser wires should be kept as short as possible and any excess wire cut off.

Ensure all wiring is correctly secured and that the insulation on the wire cannot be damaged on sharp metal edges. Connect the immobiliser harness to the matching connector from the alarm unit.

RED WIRE-POWER SUPPLY CURRENT SENSING

**NOTE:** The Current Sensing feature will only operate if Selection Switch No. 1 is in the ON position. (This is located on the rear of the Alarm).

It is also important that the BLUE Door Wire is connected and that the Valet Key Switch is in the Enable position before attempting to connect the RED wire.

The SR100 is triggered by the operation of the interior light or any electrical circuit on the vehicle. This is detected by the RED power supply wire. The trigger sensitivity will vary from vehicle to vehicle depending on size and age of the car battery and the rating of the interior light bulb. As a general principle the sensitivity will increase the further from the battery the main supply connection is made. For reliable operation the interior light should be rated at 10 watts minimum. To determine the best connection point a simple test procedure should be followed as below.
1) Temporarily connect the RED wire to the battery POSITIVE terminal.
2) Close all doors, boot and bonnet then arm the alarm with the remote control.
3) Wait at least 20 seconds then open any door. If the alarm triggers you can make the connection to the battery positive terminal permanent.
4) If the alarm fails to trigger during step 3 disconnect from the battery and route the RED alarm wire to the fuse box and repeat the test using permanent live at the fuse box, following steps 2 and 3 as above
5) When the test is successful make your connection permanent.

BOOT AND BONNET SWITCHES

If your vehicle is not fitted with Boot/Bonnet switches which operate the interior light, these switches are available from Sparkrite as an accessory. The Switch Kit (Part No. SR910) should be installed and connected as shown in Fig. 6. Ensure the fixing screw for the switch makes a good earth contact, crimp a piece of wire to the switch terminal and then connect into the existing interior light circuit.

![Fig. 6]

SHOCK SENSOR

The SR100 includes an electronic shock sensing device to detect sudden impact or shock which is transmitted through the bodywork of the vehicle.

The sensitivity adjuster is located on the rear of the main alarm unit to set adjustment

1) Remove the adjuster blanking plug, arm the alarm and wait for 30 seconds arming period to elapse.
2) Starting with the adjuster at minimum, progressively increase the sensitivity using a small flat bladed screwdriver, until the shock sensor detects a sharp blow to the windscreen.
3) .
NOTE: Do not set the shock sensor at a higher than necessary setting otherwise false alarms will occur. If a bonnet switch is fitted, ensure the switch is held closed position (or disconnected) to eliminate the circuit whilst adjusting this feature finally replace the blanking plug.

TESTING THE ALARM INSTALLATION

1) check all connections are secure and the vehicle battery is connected.
2) Ensure the car ignition is turned off.
3) Press the remote control button. The alarm will disarm with one chirp and one flash of the indicators.
4) Press the remote control button. The alarm will disarm with two chirps and two flashes of the indicators.
5) Arm the alarm. Wait approximately 20 seconds, open a door ensuring interior light operates. The alarm will trigger. Disarm the alarm. (Refer to trouble shooting section if alarm fails to trigger).
6) Repeat the arming procedure and trigger via shock sensor. Disarm alarm.
7) Repeat the arming procedure and trigger the alarm by opening the door. Alarm will sound. Now attempt to start vehicle (Vehicle starter motor should NOT operate whilst the Alarm Siren is sounding).
8) Test remote panic features by holding down the remote control button for 3 seconds. The alarm will trigger. Release button and press again to disarm the alarm. If problems are encountered, refer to trouble shooting guide before proceeding further. Once the alarm has been successfully tested you may now secure the ultrasonic unit in place.

Complete the installation by securing all wiring and the main ultrasonic control unit neatly.

IMPORTANT

Finally ensure that all wiring is neatly secured/insulated where necessary and fuses etc. are checked for safety.
Install the window warning labels on the drivers and passenger windows and make a note of your remote control serial number in the space provided on page 22.
Installing the Waterproof Rubber Boot

To protect the alarm from water ingress, the rubber boot must be finally installed using Silicone Sealant (supplied) and should be applied as follows:

**CAUTION:**
Uncured sealant irritates eyes. In case of contact wash with water and consult your doctor.
Avoid prolonged skin contact. Acetic acid fumes are released during curing, ensure adequate ventilation is provided.

Firstly, clean all surfaces thoroughly. Apply a thin even bead of silicone around the outer lip of the back alarm moulding. The remaining silicone will now be applied down the narrow section of the rubber boot. The silicone should be worked between and around the wires ensuring ample coverage. Once the silicone is in place a tie wrap (supplied) should be fastened around the narrow section of the rubber boot. The tie wrap will force part of the silicone back out of the rubber boot, this excess should **NOT** be wiped/cleaned away, but worked back into the boot.

The silicone sealant will be fully cured after 24 hours.

Complete the installation by neatly securing the ultrasonic unit and alarm wiring harness using tie wraps and/or insulation tape.

**WARNING:** Failure to carry out these instructions will result in water ingress, false alarms and will invalidate any warranty claim.

Complete the installation by neatly securing the ultrasonic unit and the alarm wiring harness.
TROUBLE SHOOTING GUIDE

REMOTE CONTROL TRANSMITTER

Pressing button on remote control does not light LED

*Discharged or missing battery.* Replace battery.
*Poor connection.* Adjust terminal to ensure good battery contact.

BATTERY REPLACEMENT

The battery needs replacing if the transmitter indicator LED does not light when the transmitter button is pressed.
To replace the battery remove the screw from the near of the casing and carefully separate the transmitter moulding.
Replace with 12 volt Sparkrite battery Part No. SR904 observing correct polarity.

ARMING AND DISARMING

Pressing button on remote control lights the transmitter indicator LED but alarm does not arm/disarm.

*No power supply to unit.* Check wiring, fuse and using a suitable tester,
Check that 12V is present on the RED wire.
Check the BLACK wire is securely connected to a good earth.

*Distance between transmitter and receiver is too great.* Move closer and try again.

NOTE: The operating range can vary due to changes in atmospheric conditions.

CURRENT SENSING

Check position of selection switch.

*Interior light failed.* Check bulbs.

*Current sensing not working when interior light illuminated* Increase trigger sensitivity by relocating RED wire to an alternative 12V supply further from the battery in the fuse box.
INDICATOR OUTPUT

*When the alarm is activated indicators do not flash.*

Wiring fault or fuse blown in harness.

Check wiring and replace any blown fuses.

STARTER INHIBIT NOT WORKING

When PINK wire is connected to a 12V ignition controlled supply in the START and RUN position of the ignition switch.

CAR WILL NOT START

Check the connections to the ORANGE and BROWN immobiliser wires.

If none of the above solutions solve the problem either consult your dealer, or contact the Sparkrite Technical and After Sales Service (T.A.S.S.) on 01429 862616.

ALARM GIVES FALSE ALARMS

Check position of Valet Switch and Reset using Enable/Disable sequence.

*Bad Earth of Supply Connection.*

Check connection of BLACK earth wire.

Check connection of RED supply wire.

*Post Ignition.*

Check that your vehicle does not have any electrical circuit operating when the vehicle is parked, i.e. Hazard lights, radiator cooling fan, etc.

*Shock Sensor too Sensitive.*

Check and re-adjust shock sensor.

*Current Sensing too Sensitive.*

Decrease trigger sensitivity by relocating RED wire to an alternative 12V position closer to the battery.

*Wiring Fault*

Test operation of all switches and ensure all triggering connection are secure and make good electrical contact.
ADDITIONAL REMOTE CONTROL TRANSMITTERS

Available from HALFORDS or from Stadium Consumer Products at the following address:

STADIUM CONSUMER PRODUCTS
STADIUM NORTH
UNITS 8-11 TOFTS FARM
INDUSTRIAL ESTATE
BRENDA ROAD
HARTLEPOOL
TS25 2DH

TELEPHONE: 01429 862616

QUOTE YOUR SERIAL NUMBER FROM THE REAR OF THE TRANSMITTER OR THE MAIN ALARM MODULE AND REMEMBER TO SPECIFY THE MODEL OF THE ALARM.

REMOTE CONTROL SERIAL NO.___________________

TECHNICAL HELP

If you have any problems with the installation of this alarm and the problem cannot be solved by consulting the troubleshooting section the this manual, either consult Halfords or contact the Sparkrite Technical and After Sales Service (T.A.S.S).

PRODUCT APPROVALS

Your SR100 has been tested and approved by various governmental bodies to comply with the latest European directives for E.M.C. and Low power transmission.

Approvals:

EMC European directive 95/54. Approval No: ell 020042
RA/DTI Low power transmission. Approval No: 4179 for 418MHz
Approval No: 11835 for 433MHz
MPT 1340 Licence Exempt.
ACCESSORIES FOR THE SR100 ALARM

**SR911 Central Locking Interface**

Allows your alarm system to be integrated with existing central locking system to allow the vehicle to be locked or unlocked by the use of the remote control.

**ACI door lock actuator used with SR911**

used with SR911 if your vehicle central locking system can only be locked/unlocked from the *drivers door*

**SR915** professional style ultrasonic interior detector with discreet sensors.

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