

SPARKRITE



REMOTE CONTROL
CAR ALARM

SYSTEM **SRA 2-2**

Technical Help Line - 01429 862616
Email : technicalsupport@stadium.co.uk

SRA 2-2 FEATURES

- Radio remote control DTI approved. Instant arm/disarm.
- 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 chirp from siren.
- Siren sounds for 30 seconds (nominal) when alarm is triggered.
- Current sensing. Detects door opening when interior light is switched on.
- Entry alert. Audible signal on disarming if attempted break in has occurred.
- 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.
- 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 SR911 Central Door Locking Interface.
- Sensor connection. Quick fit plug allows connection of optional ultrasonic detector units.

SPARKRITE SRA 2-2

REMOTE CONTROL CAR ALARM SYSTEM

The Sparkrite SRA 2-2 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 operation.

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OPERATING YOUR SPARKRITE SRA 2-2 ALARM SYSTEMS

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 your nearest stockist or direct from Sparkrite using the enclosed order form, quoting your serial number located on the back of the remote control.

ARMING YOUR ALARM

To arm the SRA 2-2 alarm system proceed as follows.

- Remove the ignition key and leave the vehicle, closing all doors, windows, sunroof, boot and bonnet.
- Press the button firmly on the remote control. The 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 commence flashing to confirm that the system is now fully armed.

When the alarm is armed, the current sensing and shock sensing circuits will not trigger the alarm until a 20 sec exit delay has expired. This is to allow movement of the vehicle and in some cases courtesy light to cease.

DISARMING YOUR ALARM

To Disarm the Alarm:

- Press the remote control transmitter button firmly once, the siren will chirp twice to indicate the alarm has been disarmed.
- If you trigger the alarm accidentally, follow the normal disarming procedure keeping the remote control button depressed until the alarm stops.

ENTRY ALERT

If when disarming the alarm the siren gives 3 chirps 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 are within operating range you can trigger your SRA 2-2 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.

FITTING INSTRUCTIONS

IMPORTANT:

- Your SRA 2-2 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 **before** disconnecting the vehicle battery.

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 shorted out to earth by the test lamp or multi-meter probes.

INSTALLATION NOTES

The wiring harness is supplied with an in-line (10 amp) fuse on the RED lead. If the fuse blows, you must investigate the cause and replace with a fuse for the same rating. When routing the harness around the engine compartment and through a bulkhead inside the vehicle, ensure the wire's insulation cannot be damaged on 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 from outside the vehicle.

MAKING RELIABLE CONNECTIONS

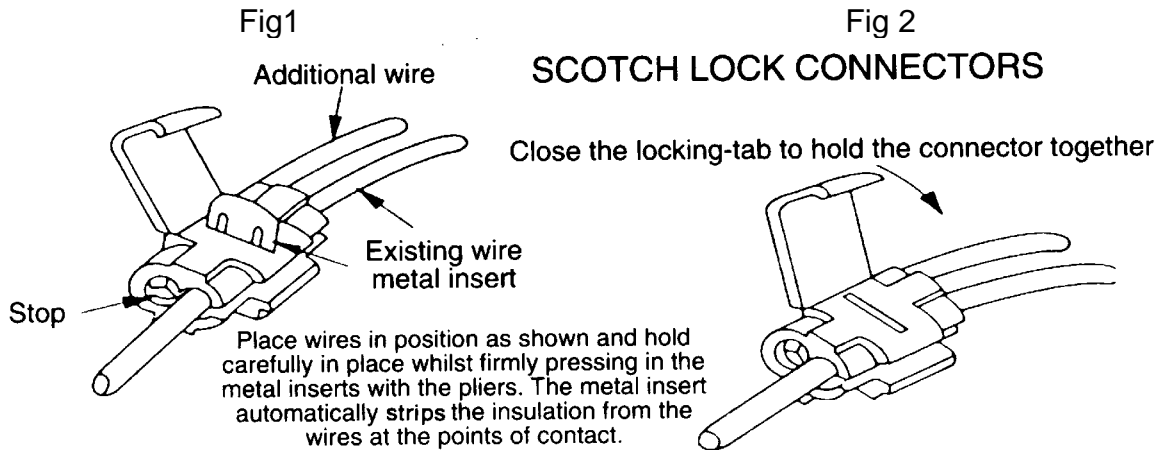
All connections in the engine bay area must be made using either solder joints or good quality crimp termination's.

WARNING: The use of Insulation Displacement Connectors such as scotchlocks (IDC's) is not recommended in the engine bay area. The use of IDC's in this area may result in the alarm failing to operate correctly or cause false alarms.

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

USING IDC CONNECTORS

- 1) Choose the correct size connector that suits the alarm and the vehicle wire diameter.
- 2) Place the wires in position as shown in the Fig.1 and hold in place whilst firmly pressing in the metal inserts with pliers. The metal insert will then automatically strip the insulation from both wires at the point of contact.
- 3) Close the locking tab to hold the connector together as in Fig.2.
- 4) Ensure that the vehicle wire and alarm wire is positioned where they cannot be snagged by vehicle controls or the drivers and passengers feet.



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 gain 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 a 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 (facing the front of the vehicle) to ensure effective operation of the shock sensor.

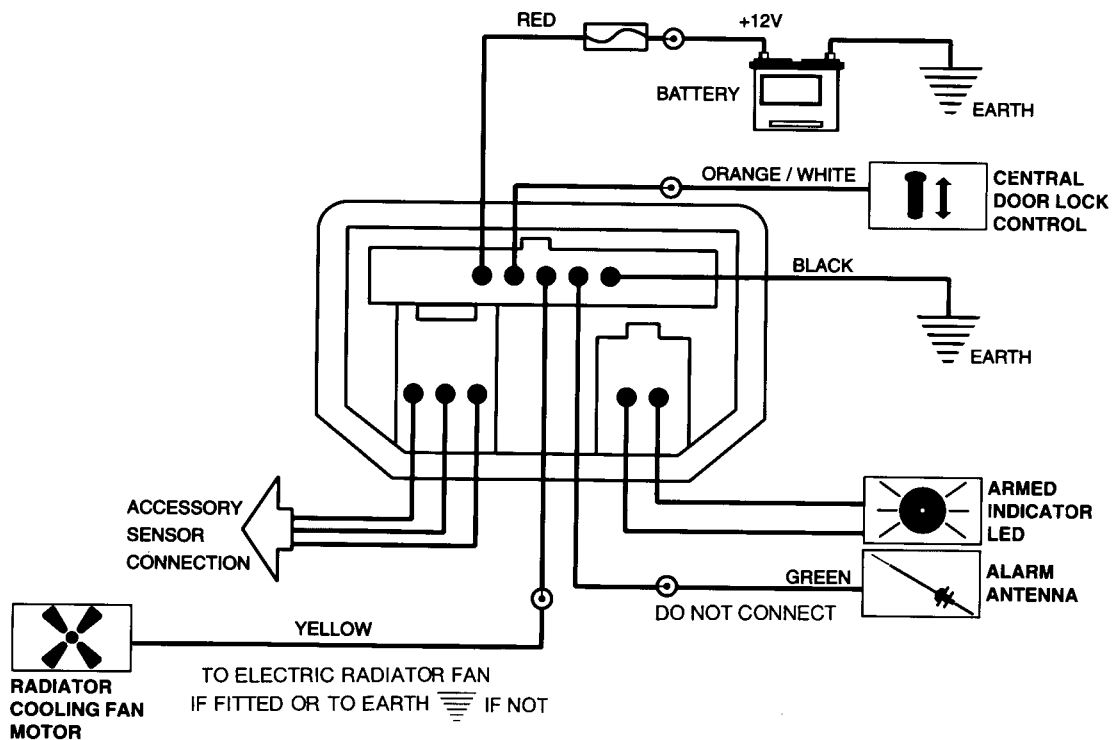
HARNESS LOCATION

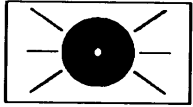
Position the harness to the rear of the main alarm module and secure where necessary to the vehicle wiring using insulation tape.

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** the wires **must** be connected in the order outlined in these instructions.

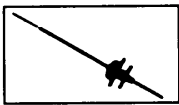
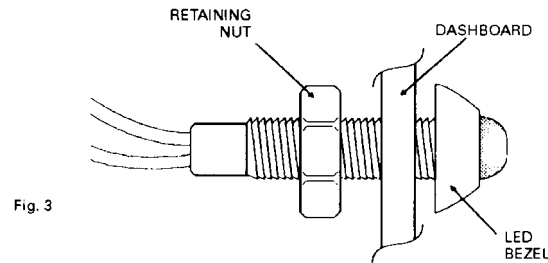
SRA 2-2 WIRING CONNECTIONS





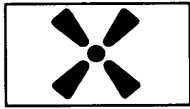
ARMED INDICATOR LED

Remove the retaining nut from the LED bezel. Drill a suitable mounting hole in the dashboard where the indicator 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 rubber boot. Insert the two way connector from the LED into the socket on the rear of the alarm unit.



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 cooling fan still operates when the ignition is turned OFF then a connection from the SRA 2-2 must be made to prevent the current sensing function from false 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 Fig. 5 using a solder joint or a crimp termination to the wire which runs between the fan motor and thermal switch.

Fig4

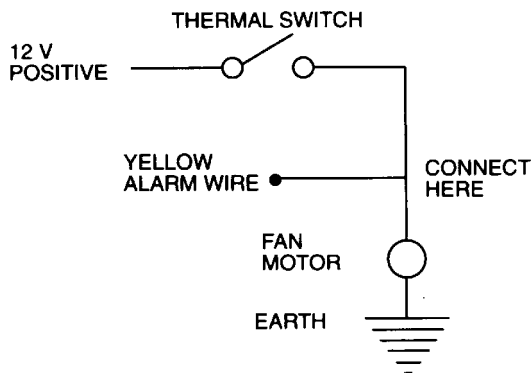
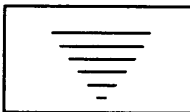
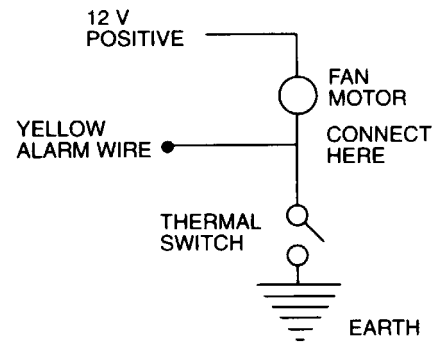


Fig 5



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 direct to the battery negative terminal.



RED WIRE-POWER SUPPLY AND CURRENT SENSING

The SRA 2-2 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 optimal operation the interior light bulb 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.



ORANGE/WHITE WIRE-CENTRAL LOCKING CONTROL

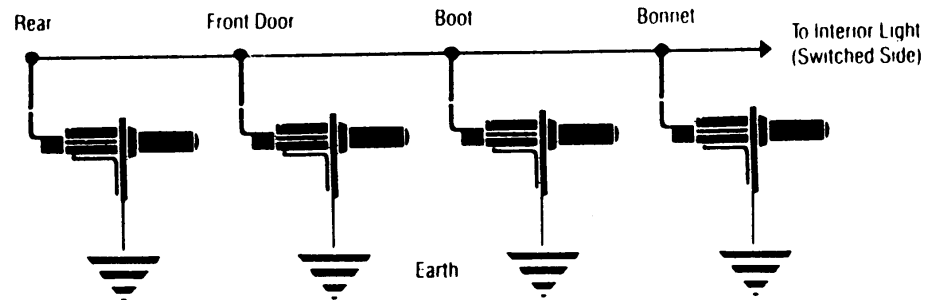
This is only applicable for vehicles that have central locking as a **standard** feature. Do not attempt to **directly** connect ORANGE/WHITE wire to any part of the vehicle central locking system. The ORANGE/WHITE wire must only be connected to the optional Sparkrite SR911 Central Locking interface. This will allow the vehicle doors to be locked and unlocked by the alarm remote control. If this feature is not used, insulate the wire and secure it in a safe position.



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 kit. 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

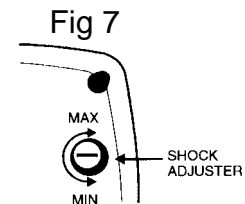
The SRA 2-2 includes an electronic shock sensing device to detect sudden impact or shock transmitted through the body-work of the vehicle.

The sensitivity adjuster is located on the rear of the main alarm unit.

To set the shock sensor adjustment:

- 1) Remove the adjuster blanking plug, arm the alarm and wait for the 30 second arming period to elapse.
- 2) Starting with the adjuster at minimum, progressively increase the sensitivity using a SMALL flat bladed screw driver, until the shock sensor detects a sharp blow to the centre of the windscreen with the flat of the hand triggering the alarm.
- 3) Refit the adjuster blanking plug to prevent water ingress.

NOTE: Do not set the shock sensor at a higher than necessary setting otherwise false alarms will result. If a bonnet switch is fitted please ensure that the switch is held closed (or disconnected) to eliminate the circuit whilst adjusting this feature.



TESTING THE ALARM INSTALLATION

- 1) Check all connections are secure and the vehicle battery is connected.
- 2) Press the remote control button. The alarm will arm with one chirp.
- 3) Press the remote control button. The alarm will disarm with two chirps.
- 4) Arm the alarm. Wait approximately 20 seconds, open a door ensuring the interior light operates. The alarm will trigger. Disarm the alarm. (Refer to trouble shooting section if alarm fails to trigger).
- 5) Repeat the arming procedure and trigger via shock sensor, disarm alarm.
- 6) 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 the trouble shooting guide before proceeding further.

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 passenger windows and make a note of your remote control serial number in the space provided on page 14.

Installing the Waterproof Rubber Boot

To protect the alarm from water ingress, the rubber boot must be 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 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.

TROUBLE SHOOTING GUIDE

REMOTE CONTROL TRANSMITTER

Pressing button on remote control does not light LED

*Discharged or missing battery.
Poor connection.*

Replace battery.
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, or the operating range is reduced

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

Interior light failed to trigger alarm.

Check bulbs and that interior light switches are set to come on when doors are opened.

Current sensing too insensitive.

Increase trigger sensitivity by relocating the RED wire to an alternative 12V supply further from the battery.

ALARM GIVES FALSE ALARMS

Bad earth or supply connection.

Check connection of BLACK earth wire.

Post ignition electric's.

Check connection of RED supply earth.

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.

Wiring fault. Test operation of all switches and ensure all triggering connections are secure and make a good electrical contact.

SENSOR CONNECTION (OPTIONAL)

The SRA 2-2 has an additional sensor connection plug located at the rear of the main alarm unit. This enables easy plug in connection of an additional Sparkrite interior detector for maximum security. If not used the socket must be Insulated against water ingress.

ADDITIONAL REMOTE CONTROL TRANSMITTERS

Available from Stadium Consumer Products at the following address:

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

TELEPHONE: 01429 862616

FAX: 01429 862696

QUOTE YOUR SERIAL NUMBER FROM THE REAR OF THE TRANSMITTER OR MAIN ALARM MODULE AND REMEMBER TO SPECIFY THE MODEL OF 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 of this manual, either consult your dealer or contact the Sparkrite Technical and After Sales Service (T.A.S.S) on 01429 862616.

PRODUCT APPROVALS

Your SRA 2-2 has been tested, and approved by various government bodies to comply with the latest European directives for E.M.C. and Low power transmission.

APPROVALS:

EMC European directive 95/54
RA/DTI Low power transmission

Approval No: ell 020043

Approval No: 4179 for 418 MHz

Approval No: 11835 for 433 MHz

MPT 1340 Licence Exempt

ACCESSORIES FOR THE SRA 2-2 ALARM

Optional extra protection for your car can be provided by fitting either of the following.

- **SR915 Professional style Ultrasonic.**
Professional style ultrasonic interior detector with discreet separate sensors.
- **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.
- **AC1 door lock actuator used with SR911**
if your vehicle central locking system can only be locked/unlocked from the drivers door.

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