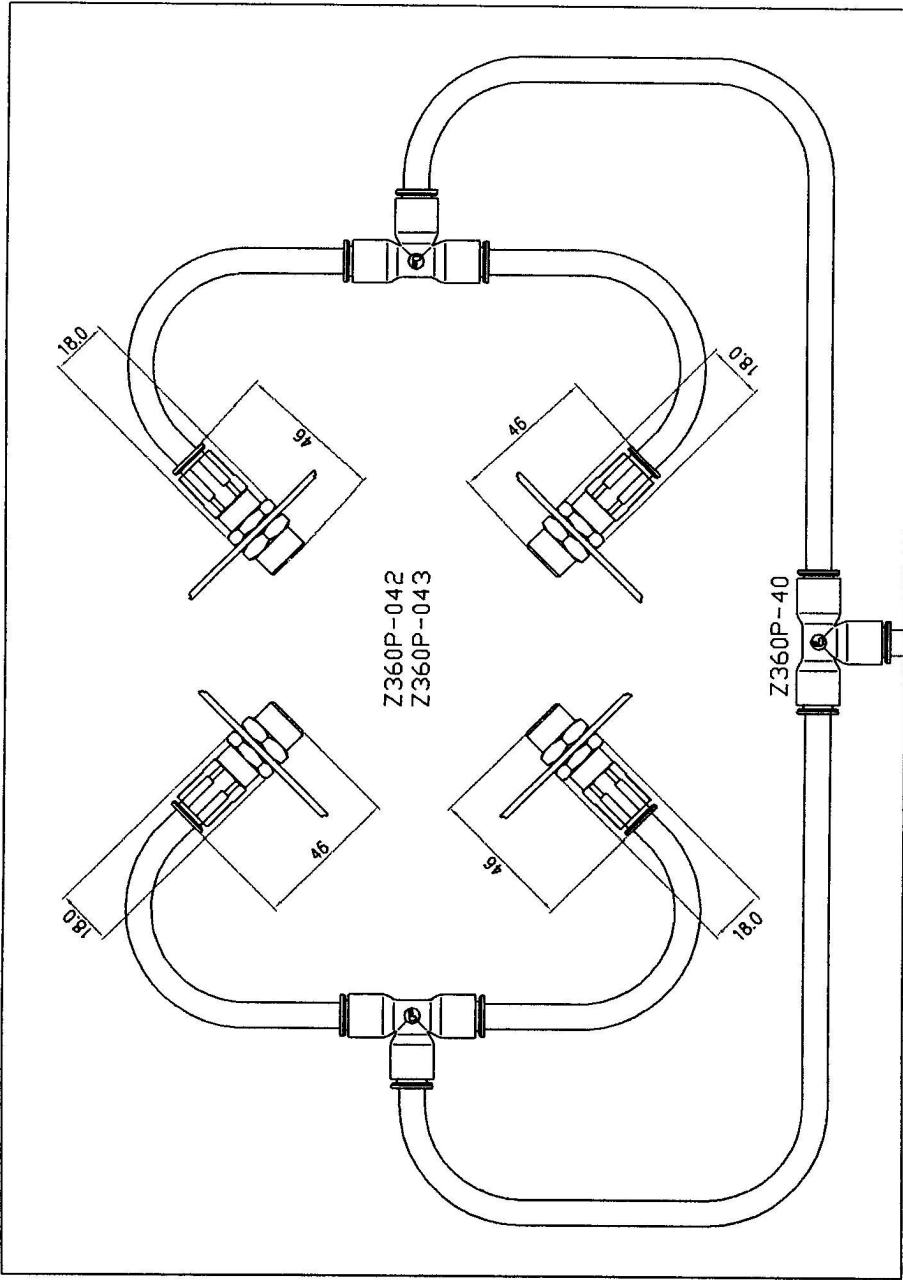


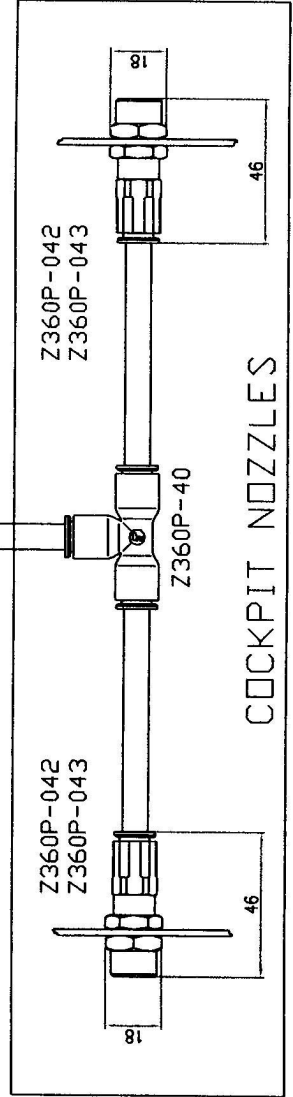
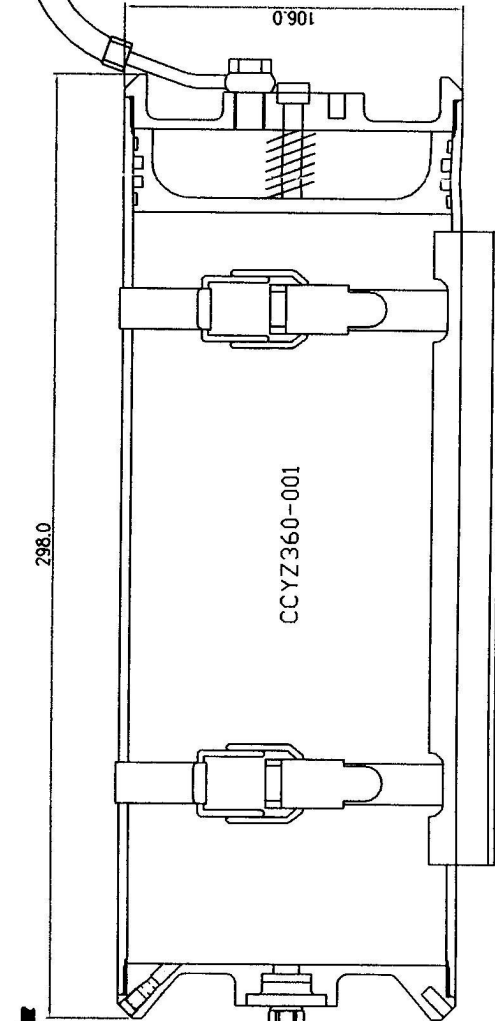
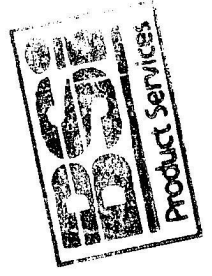
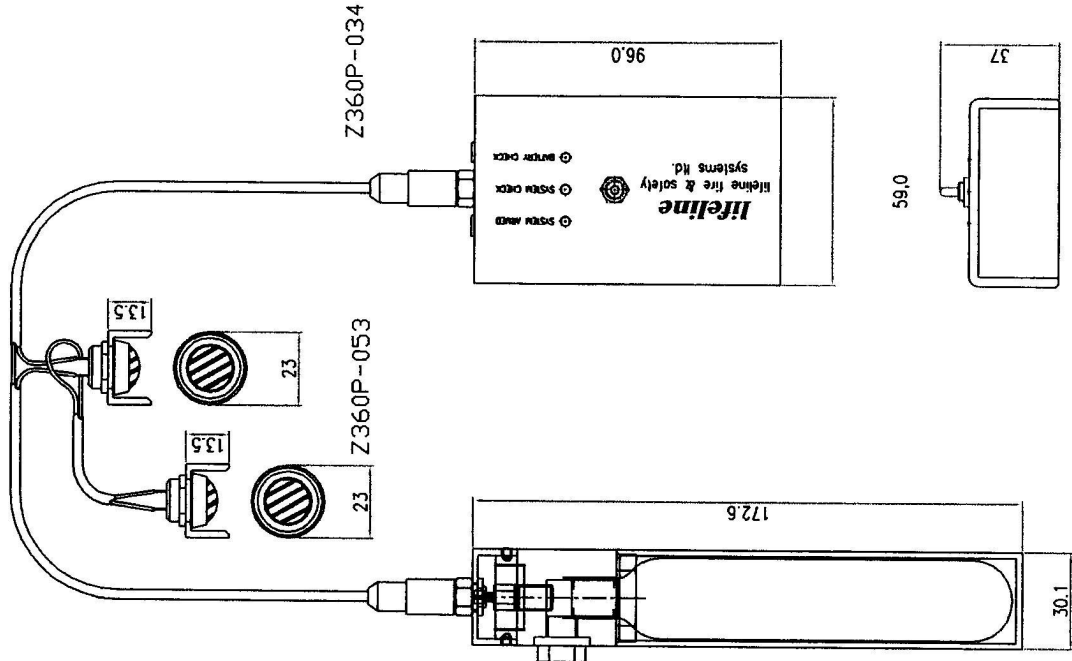
ENGINE COMPARTMENT NOZZLES



FIA approved system
EX:018.00A



Z360-001



COCKPIT NOZZLES

lifeline FIRE AND SAFETY SYSTEMS LTD. BURNSALL ROAD, COVENTRY, CV5 6BU Tel: +44 (0) 24 7671 2999 Fax: +44 (0) 24 76712998		COMPONENT / TITLE ZERO 360 COMPLETE ASSEMBLY		SHT 1 OF 1 DRG. No. -----		DATE M.D. Mar. '04.		CHECKED DATE		MATERIAL. FINISH		CUSTOMER NAME		DATE	
						THIRD ANGLE PROJECTION								SIGNATURE	



FITTING INSTRUCTIONS

Page 1 of 5

Date 13/7/03

istruzione
N° 24 4004 00

Sparco S.p.A. – Km 0,500 Autostrada TO-MI 10036 Settimo T.se (TO) ITALY - Tel +39 0112240911 Fax +390112240900

Cod. 0146EE225G

Thank you for purchasing an FIA approved Sparco Fire Warrior GAS fire system. It is important that you read these instructions carefully before attempting to install your extinguisher system.

The system should in no way be modified or tampered with as by doing so, you could seriously affect its performance. If you need to replace parts, only genuine Sparco components should be used.

Should you experience any difficulties installing your system, please do not hesitate to contact Sparco.

IMPORTANT NOTE

The purpose of any vehicle fire protection system is to provide a time envelope in which to control the fire in order to accomplish evacuation of the occupants. Ideally, the fire will be totally extinguished, but this cannot be guaranteed. Holding back the intensity of an engine or a cockpit fire to enable the occupants to evacuate or allow outside assistance to be given, is the main purpose.

FITTING INSTRUCTIONS

Unpack the kit carefully and check that all components are complete; lay out the components so that each may be identified.

See page 5 for kit component listings.

Remove the extinguisher from its mounting brackets by undoing the over-centre clips. Decide upon the best position for the extinguisher to be mounted bearing in mind that the extinguisher label, showing its contents etc and piston location indicator should be clearly visible. Securely mount the brackets for the extinguisher and remote charge unit and replace the system.

ELECTRICAL SYSTEMS

Mount the power pack so that it is clearly visible. Mount the switches to the vehicle. The cockpit switch should then be mounted so that it is within easy reach of the driver and/or co-driver when sitting in the normal position and wearing fully fastened seat belts.

WIRING OF SYSTEM

See wiring diagrams on page 2

All Sparco Fire Warrior electrical extinguisher kits have a separate power pack unit to provide the current needed to operate the system. The power pack should be wired independently from the vehicle's electrics as failure to do this may result in the actuation of the system due to electrical interference from the vehicle's power source.

Once the system has been wired in accordance with the wiring diagram shown on page 2, a test check should be carried out to ensure that the system will fire properly. Before you start the check procedure, ensure that the bottle and the power pack are connected.

On top of the power pack is a three position switch. This provides checking facilities for the battery and wiring. If the switch is pulled against its spring towards the amber diode, the diode will light if there is sufficient current in the battery. IF THE DIODE DOES NOT LIGHT, OR IMMEDIATELY GOES OUT, IT SHOULD BE REPLACED. THE BATTERY SHOULD BE OF THE MAGANESE/ALKALINE TYPE ONLY, TYPE PP3.

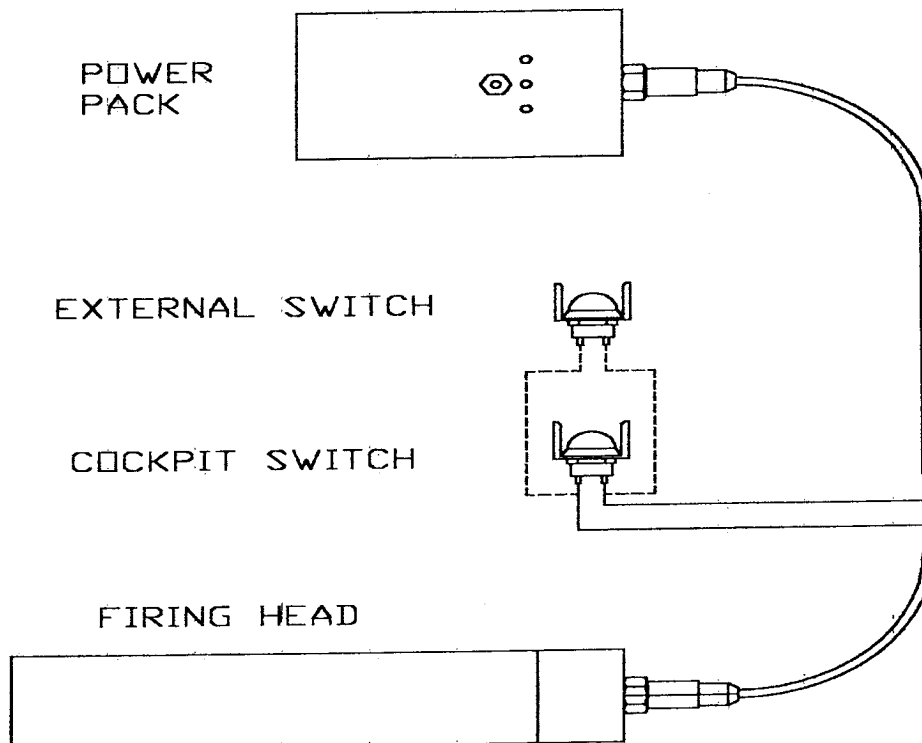
With the switch in the centre ('system isolated') position, and the centre position only, the wiring of the circuit can be checked. With the extinguisher connected, press one of the firing buttons and the green diode should light. If it does not, there is a break in the circuit. If the diode lights before the switch is pressed, there is a short in the circuit and the system is permanently 'live'. If this occurs, DO NOT PUT THE SWITCH INTO THE 'SYSTEM ARMED' POSITION, OR YOU WILL DISCHARGE THE SYSTEM.

If for any reason the green LED does not illuminate when the system is tested, check the wiring against the wiring diagram shown on page 2; If the problem persists, consult Sparco.

To arm the system place the switch in to the 'SYSTEM ARMED' position. The red LED will illuminate to indicate the system is armed.

To prolong battery life and prevent accidental activation, it is recommended that the power pack switch be in the 'SYSTEM ISOLATED' position and the plug disconnected when the vehicle is not being used.

WIRING DIAGRAM FOR FIRE WARRIOR GAS



PLEASE NOTE:
THE SYSTEM HAS NO POLARITY

NOZZLES

It is important that the correct nozzles supplied with the system are used. The nozzles will produce a flat 110° spray pattern. The nozzles must be positioned so that the slot through the center axis of the outlet side of the nozzles is horizontal. See diagram below.

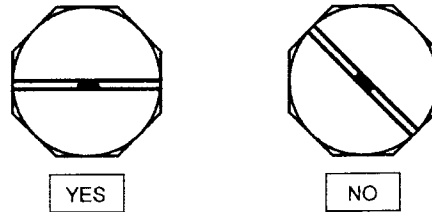
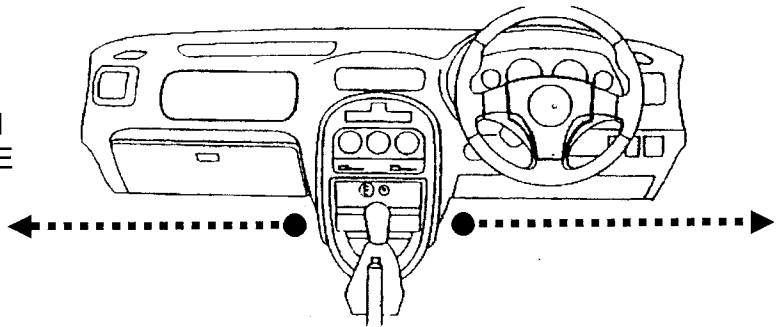


FIGURE 1

Cockpit Nozzle Location for Closed Cars

Two nozzles must be mounted in the cockpit area. We recommend that these are mounted so that they spray horizontally in to the footwell area of both the driver and passenger compartment. See figure 2.

FIGURE 2
ARROWS DENOTE NOZZLE
LOCATION AND DIRECTION
ENSURE THE NOZZLES ARE
ORIENTATED CORRECTLY



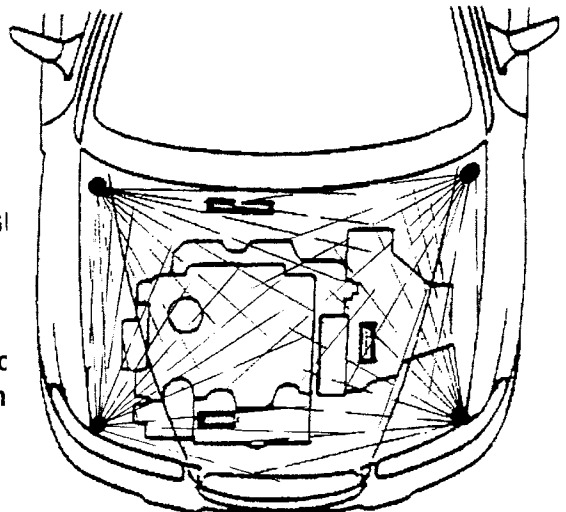
Cockpit Nozzle Location for open cars

Both nozzles should be mounted in the cockpit area of an open car. The nozzle should be aimed at the driver's midriff, in the normally seated position. Special care should be taken to ensure that the nozzle will not spray into the driver's face.

Engine Nozzle Location for both Open and Closed Cars

Four nozzles must be mounted in the engine compartment. These nozzles spray all around the engine, ensuring full coverage. We recommend that the nozzles are mounted diagonally apart and approximately 200mm below the bonnet shut line. See figure 3.

FIGURE 3
DENOTES NOZZLE LOCATION
ENSURE NOZZLES ARE ORIENTATED AS PER FIGI



Lifeline nozzles are designed so that they can be mounted through a bulkhead or to a specially made brace. Nozzles should be mechanically secured and not be simply supported by their own pipework.

TUBING

Each extinguisher kit is supplied with a roll of plastic coated aluminium tube, and a roll of protective heat resistant overbraid. We strongly recommend that you use this overbraid as it will protect the tube to temperatures up to 450°C. The system has been designed and homologated to use this type of tube. **Under no circumstances should the tubing be changed for another type.**

TUBE CONNECTIONS

To enable a simple installation, the extinguisher and nozzles use push-in fittings for the tube. To attach the tube to the fitting, ensure that the end of the tube is cut at 90° and that the outside diameter has retained its circular shape. Insert the tube into the fitting, pushing firmly until it clicks. You should then be unable to pull the tubing back out of the fitting.

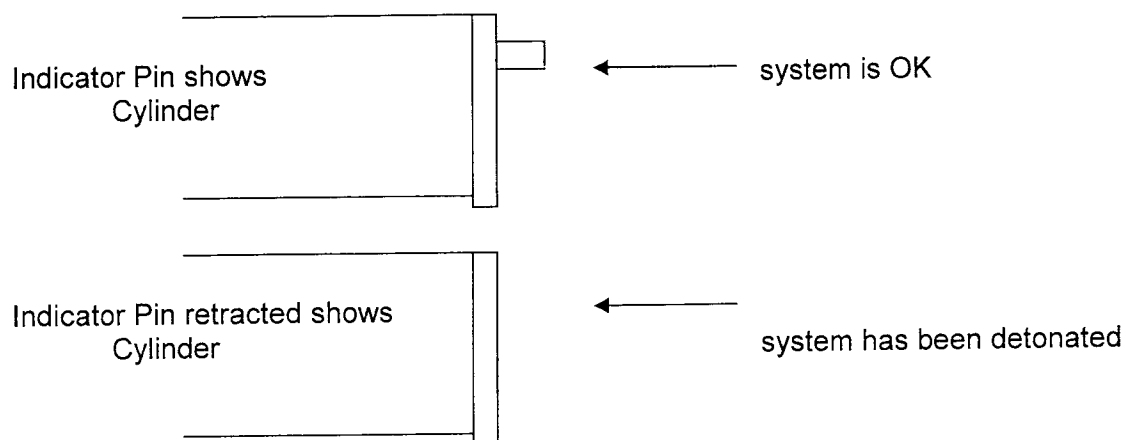
To remove the tubing, push the tube into the fitting and pull the black collar on the fitting in the same direction. Once this is done, pull the tube from the fitting.

INDICATION THAT SYSTEM HAS BEEN ACTIVATED

As the Fire Warrior GAS is a normally non-pressurised system it is not possible to use a pressure gauge as an indication of the integrity of the system. In order to show that the system is full a mechanical indicator has been designed. When the system is full the indicator will stand proud of the end cap. Once the system has been detonated this will spring back in to the end cap and cannot be seen.

To check the integrity of the system we advise the following:

1. Check the indicator is protruding from the end cap.
2. Weigh the cylinder and compare the actual weight to that on the cylinder. If the weight is more than 5% less than the weight indicated on the label the extinguisher should be taken out of service for repair.



KIT CONTENTS

- 1 x Extinguisher cylinder c/w 2 way outlet, remote charge & mounting bracket
- 1 x Power Pack
- 2 x Wiring Loom
- 2 x Firing Switches
- 6 x Meters of 8mm Tubing
- 6 x Meters of Heat Proof Protective Over Braid
- 4 x 8mm T Connectors
- 6 x Flat Spray Discharge Outlets
- 1 x Pack Pipe Clips
- 1 x Decal Pack
- 1 x Fitting Manual

2

sparco

FIRE WARRIOR EAS

SISTEMA OMOLOGATO FIA N° EX.00.00 PER USO IN COMPETIZIONI INTERNAZIONALI
 THIS SYSTEM IS APPROVED FOR USE IN INTERNATIONAL MOTORSPORTS BY THE FIA N° EX.00.00
 CE SYSTEME EST HOMOLOGUE PAR LA FIA N° EX.00.00 POUR UNE UTILISATION DANS LES EPREUVES AUTOMOBILES SPORTIVES
 DIESER SYSTEM IST FÜR DEN INTERNATIONALEN MOTORSPORT VON DER FIA N° EX.00.00 ZUGELESSEN
 CSAI APPROVED No. 00/00

- Riconsegnare al distributore per la revisione ogni 2 anni.
- This system must be returned to distributor for servicing every two years.
- Ce système doit être retourné tous les 2 ans au distributeur pour révision.
- Sad System muß alle zwei Jahre zum Händler zur Überprüfung.

YEAR OF MANUFACTURE

03	04	05	06
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N° SERIE - SERIAL No.
N° DE SERIE - SERIEN Nr.

SP

1.5kg

0.75kg

05	08	1	7
06	09	2	8
07	10	3	9
		4	10
		5	11
		6	12

REGU Le

13 JAN 2005

Settimo Torinese 26/10/2004

Sirs

we are pleased to communicate that the following companies :

Adventure Car Racing
Via San Giovanni Evangelista 142
41053 Maranello (MO) - ITALY
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Fax +39 0536 1848148
info@adventurecar.com

A.M.C. Racing
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3052 Limassol - CYPRUS
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Autosport Sorrento s.a.s.
di Aprea Michelina
Vico Sant' Aniello, 32
80067 Sorrento (NA) - ITALY
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e-mail: autosport.sorrento@tin.it

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07100 -Sassari - ITALY
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biressi@tiscali.it

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Fax. + 48 61 8120 859
biuro@compact.inc.pl
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0753 Oslo - NORWAY
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Fax 0935 37040

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Fax. +39.02.69.31.18.37
service@rrs-tuning.com

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VL Motorsport
Autopista del Norte, 29-D
Los Naranjeros, Tacoronte 38350
SANTA CRUZ DE TENERIFE, ISLAS CANARIAS
Tel.: (+34) 922 563 333(4 líneas) / Fax: (+34) 922 572 910
e-mail: info@vlmotor.com
www.vlmotorsport.com

who operate the servicing and refilling of Sparco fire extinguishers FIA homologated, have followed a training course. As a result, Sparco systems carrying a service label of the following, have to be considered as regular.

Company

Siries s.r.l.
Via Stampini 26
10148 Torino (Italia)
Tel. +39 011 2267622 Fax +39 011 2267630
e-mail : siries@tin.it

previously authorized, has to be joined to this list.

We kindly ask you to inform the ASN.

We attach a fac-simile of the labels for your archive.

We are always available for further informations.

Kindest regards


Diego Basso

Sparco S.p.A. Managing Director


eparco [™]			
AUTHORIZED SERVICE CERTIFICATE			
 ADVENTURE CAR <i>Racing</i>			
Via San Giovanni Evangelista 142 41053 Maranello (MO) ITALY Tel +39 0536 948205 Fax +39 0536 1848148 E-mail info@adventurecar.com			
MONTH	SERVICE DUE		YEAR
	HOMOL. #		
	SERIAL #		
	SERVICE #		
6	12	THIS SYSTEM HAS BEEN SERVICED ON THE DATE INDICATED IN ACCORDANCE WITH SECTION 5 OF THE FIA REGULATIONS FOR PLUMBED IN FIRE EXTINGUISHER	04
5	11		05
4	10		06
3	9		07
2	8		08
1	7		09


eparco [™]			
AUTHORIZED SERVICE CERTIFICATE			
A.M.C. RACING			
35, Paphos str. 3052 Limassol Cyprus Tel +357 25 575377 Fax 25 572500 e-mail amcracing@cytanet.com.cy			
MONTH	SERVICE DUE		YEAR
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AUTHORIZED SERVICE CERTIFICATE			
Biressi Racing			
Viale Porto Torres 101 07100 Sassari Tel +39 79397328 Fax +39 793026219 www.biressiracing.com biressi@tiscali.it			
MONTH	SERVICE DUE		YEAR
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AUTHORIZED SERVICE CERTIFICATE			
Gundersen motorsport			
Gundersen Motorsport A/S Aslakveien 20D 0753 Oslo Norway Tel +47 22503848 www.Gundersenmotorsport.com			
MONTH	SERVICE DUE		YEAR
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sparco		
AUTHORIZED SERVICE CERTIFICATE		
LA BARBERA		
C. da Mugavero 94100 ENNA Tel + 39 0935 37431 Fax + 390935 37040		
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AUTHORIZED SERVICE CERTIFICATE		
		
AMP Motorsport S.L. C/Valdelella, 15 250035 - Lleida - SPAIN Tel + 34 973 221306 Fax + 34 973 246873 veritas@amp-motorsport.com www.amp-motorsport.com		
MONTH		YEAR
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AUTHORIZED SERVICE CERTIFICATE			
ORECA 			
ORECA PPH Aktywa i Usługi Alameda de Turcja 45/70 Poznań Tel: +38 474388774 Fax: +38 474388707 www.oreca.com.pl			
MONTH	SERVICE DUE		YEAR
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AUTHORIZED SERVICE CERTIFICATE			
 Prince			
Prince S.J. ul Dabrowskiego 495 60-451 Poznan Tel/Fax +61 8488826 8499019 www.prince.com.pl			
MONTH	SERVICE DUE		YEAR
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AUTHORIZED SERVICE CERTIFICATE									
RRS									
RRS V.le Marche 68/70 20159 Milano Tel +39 0269311829 Fax +39 0269311837 service@rrs-tuning.com									
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AUTHORIZED SERVICE CERTIFICATE									
SANDTLER									
L.SANDTLER Heidestrasse 85B D 44866 Bochum Telefon +49 02327/9867-0 www.sandtler.de									
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