LUBRICANTS AND FLUIDS

Recommendations for all climates and conditions.

Note: *Recommended oils are complete in themselves and additives should not be used.*

Note: *It is essential to change oil much more frequently if the vehicle is operated under severe conditions, especially if deep wading is carried out.*

Engine oil - Petrol vehicles

Use a 5W/30 oil meeting specification ACEA A3.

Land Rover oil to specification WSS M2C913B is recommended.

Engine oil - Diesel vehicles

Use 5W/30 oil meeting ACEA B1 or B3.

Power steering

Texaco Cold Climate PAS fluid.

Dynamic Response

Texaco Cold Climate PAS fluid.

Brake reservoir

Use Shell DOT4 ESL or a low viscosity DOT4 brake fluid that meets ISO 4925 class 6.

Brake pedal free travel: No adjustable free travel.

Windscreen washers

Screen washer fluid.

Engine cooling system

Caution: Be aware that different types of antifreeze are VERY different from each other; even different types from the same manufacturer.

The use of non-approved antifreeze will have an adverse effect on the engine cooling system and therefore engine durability.

Antifreeze: Use Havoline XLC to WSS-M97B44 (Texaco XLC), orange colour, with one part antifreeze to one part water for protection down to -40°C (-40°F).

CAPACITIES

The following capacities are approximate and provided as a guide only. All oil levels must be checked using the dipstick or level plugs as applicable.

Fuel tank:		
- Diesel vehicles	84 litres	18.4 gall
- Petrol vehicles	88 litres	19.3 gall
Engine oil refill and filter change:		
- Diesel vehicles	5.45 litres	9.6 pints
- Petrol vehicles	7.7 litres	13.6 pints
Washer reservoir	5.0 litres	8.8 pints
Cooling system (refill):		
- V6 Diesel vehicles	8 litres	14 pints
- V8 Diesel vehicles	12 litres	21.1 pints
- V8 NA Petrol vehicles	9.5 litres	16.7 pints
- V8 SC Petrol vehicles	12 litres	21.1 pints

ENGINES

V6 Diesel

Recommended fuel	Diesel or Automotive Gas Oil (AGO) to EN 590 specification. Maximum allowable Bio-diesel mix is 5%.
Capacity	2720 cm^3
Firing order	1-4-2-5-3-6
Bore	81.0 mm
Stroke	88.0 mm
Number of cylinders	6
Compression ratio	18.0:1

V8 Diesel

Recommended fuel	Diesel or Automotive Gas Oil (AGO) to EN 590 specification. Maximum allowable Bio-diesel mix is 5%.
Capacity	3626 cm^3
Firing order	1-5-4-2-6-3-7-8
Bore	81.0 mm
Stroke	88.0 mm
Number of cylinders	8
Compression ratio	17.3:1

V8 Petrol Naturally aspirated (NA)

Recommended fuel	UNLEADED 95 RON to EN 228 specification. Unleaded with a RON no lower than 90 may be used.
Capacity	4394 cm^3
Firing order	1-5-4-2-6-3-7-8
Bore	88.0 mm
Stroke	90.3 mm
Number of cylinders	8
Compression ratio	10.5:1
Spark plugs	NGK IFR5N10
Spark plug gap	Non-adjustable

V8 Petrol Supercharged (SC)

Recommended fuel	UNLEADED 95 RON to EN 228 specification Unleaded with a RON no lower than 90 may be used.
Capacity	4197 cm^3
Firing order	1-5-4-2-6-3-7-8
Bore	86.0 mm
Stroke	90.3 mm
Number of cylinders	8
Compression ratio	9.1:1
Spark plugs	NGK IFR5N10
Spark plug gap	Non-adjustable

WHEELS AND TYRES
Wheel size and tyre specification

Wheel size	Tyre	Load index
7J x 17 (alloy wheel)	235/65 R17 - All terrain tyre	108H
8J x 18 (alloy wheel)	255/55 R18 - All terrain tyre	109V
8J x 19 (alloy wheel)	255/50 R19 - All terrain tyre	107Y
9J x 19 (alloy wheel)	255/50 R19 - All terrain tyre	107Y
9.5J x 20 (alloy wheel)	275/40 R20 - All terrain tyre	106Y
5.5J x 19 (steel wheel)	T175/80 R19 - Temporary spare tyre	122M

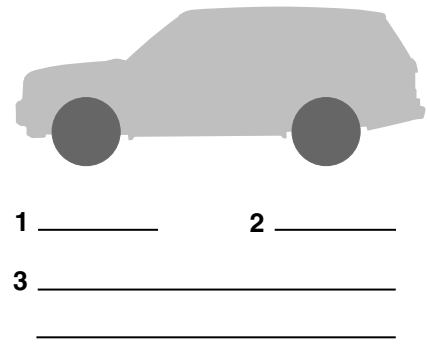
Caution: If a 9J x 19 alloy wheel requires balancing, the inner surface of the wheel must only be fitted with adhesive balance weights. Other types of weights will cause damage to the vehicle.

Tyre pressures

Tyre pressures are listed on a label on the B pillar on the driver's side (visible with the driver's door open). See **Tyre pressure and loading label, 239**.

Temporary spare tyre pressure	kPa	bar	lbf/in^2
Any position or load condition	420	4.2	60

Accessory wheels and tyres - insert details



1. Front tyre pressure.
2. Rear tyre pressure.
3. Wheel/tyre size, type and specification

Note: *Accessory fit off-road tyres (with a speed rating of Q or T) are subject to speed restrictions. Q-rated tyres should not be used at speeds greater than 160 km/h (100 mph), T-rated tyres should not be used at speeds greater than 190 km/h (118 mph).*

Note: *Consult your Land Rover Dealer/Authorised Repairer before you fit any accessory wheel or tyre.*

VEHICLE WEIGHTS

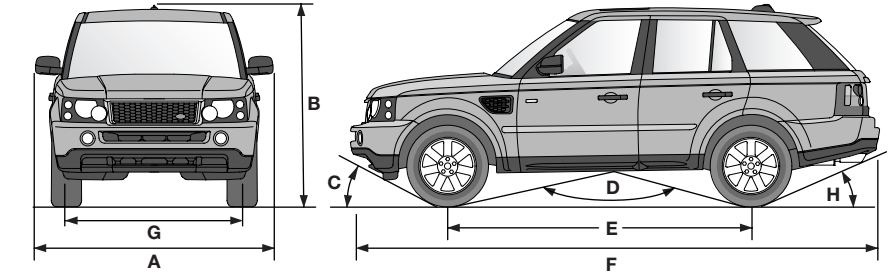
Approximate unladen vehicle weight (full fuel tank, excluding options)		
Petrol engine vehicles (NA)	2 480 - 2 485 kg	5 467 - 5 478 lb
Petrol engine vehicles (SC)	2 572 - 2 614 kg	5 671 - 5764 lb
Diesel engine vehicles	2 455 - 2 479 kg	5 412 - 5 465 lb
Maximum gross vehicle weight (GVW)		
Petrol engine vehicles (NA)	3 070 kg	6 768 lb
Petrol engine vehicles (SC)	3 125 kg	6 889 lb
V6 Diesel engine vehicles	3 070 kg	6 768 lb
V8 Diesel engine vehicles	3 175 kg	7 000 lb
Maximum front axle load		
All vehicles	1 470 kg	3 241 lb
Maximum rear axle load		
All vehicles	1 710 kg	3 770 lb
Gross Train Weight (Weight of vehicle plus trailer with overrun brakes)		
Petrol engine vehicles (NA)	6570 kg	14484 lb
Petrol engine vehicles (SC)	6625 kg	14605 lb
Diesel engine vehicles	6570 kg	14484 lb
Roof rack load (including the mass of roof rack)		
All vehicles	75 kg	165 lb

Note: *Axle weights are non-additive. The individual maximum axle weights and gross vehicle weight must not be exceeded.*

TOWING WEIGHTS

Maximum permissible towing weights	On-road	Off-road
Unbraked trailers	750 kg (1 654 lb)	750 kg (1 654 lb)
Trailers with overrun brakes	3 500 kg (7 716 lb)	1 000 kg (2 205 lb)
Nose weight	250 kg (550 lb)	250 kg (550 lb)

DIMENSIONS

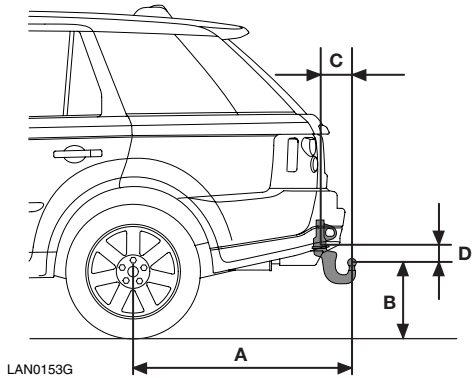


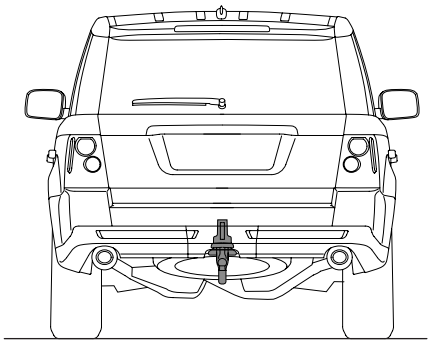
LAN0391G

Dimensions

A	Overall width	2 170 mm	85.4 in.
	Overall width (mirrors folded)	1 928 mm	75.9 in.
B	Overall height (including roof rails)		
	- Access height	1 734 mm	68.3 in.
	- Standard height	1 784 mm	70.2 in.
	- Off-road height	1 839 mm	72.4 in.
	- Including roof antenna at Standard height	1 812 mm	71.3 in.
C	Approach angle (at EEC kerb weight and Off-road height)	34^0	
D	Ramp breakover angle (at EEC kerb weight and Off-road height)	130^0	
E	Wheelbase	2 745 mm	108 in.
F	Overall length	4 788 mm	188.5 in.
	Overall length (including number plate plinth)	4 798 mm	188.9 in.
G	Track:		
	- Front	1 605 mm	63.2 in.
	- Rear	1 612.5 mm	63.5 in.
H	Departure angle without tow hitch (at EEC kerb weight):		
	- On-road	26.0^0	
	- Off-road	29.0^0	
H	Departure angle with tow hitch (at EEC kerb weight):		
	- On-road	15.1^0	
	- Off-road	17.8^0	
	Maximum gradient (at EEC kerb weight)		
	- Continuous operation	35^0	
	- Drive through operation	45^0	
	Turning circle	10.96 m	35.96 ft.
	Wheel alignment:		
	- Front	$-0.16^0 \pm 0.20^0$	-10' ±12'
	- Rear	$0.16^0 \pm 0.20^0$	10' ±12'

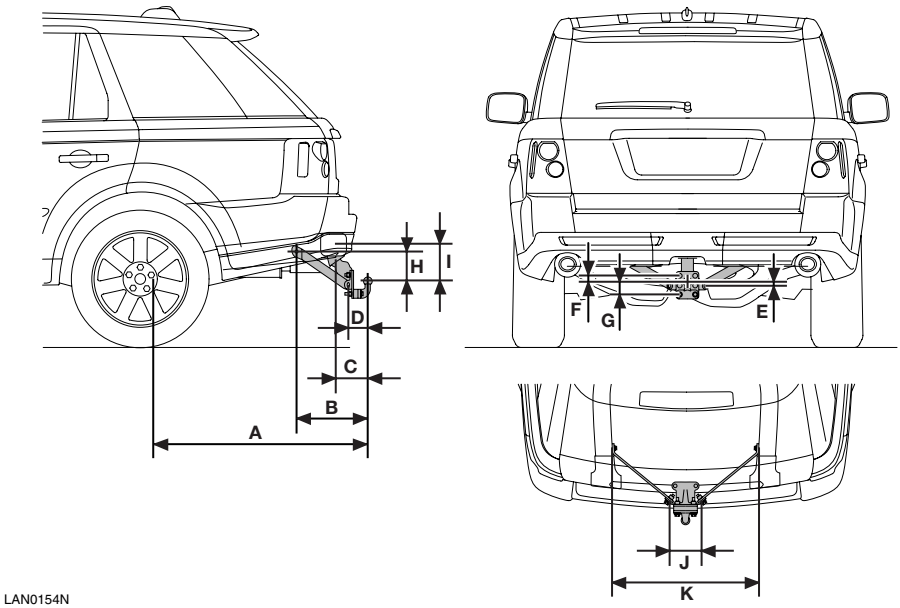
TOW BAR DIMENSIONS





A	Wheel centre to centre of towball	1,191 mm	46.9 in.
B	Ground to centre of towball	395 mm	15.55 in.
C	Centre of towball to tow bar attachment	170 mm	6.7 in.
D	Centre of towball to tow bar attachment	124 mm	4.9 in.

MULTI-HEIGHT DROP PLATE TOW BAR DIMENSIONS



LAN0154N

A	Wheel centre to centre of towball (horiz)	1,210 mm	47.64 in.
B	Centre of outer attachment points to centre of towball (horiz)	403.6 mm	15.89 in.
C	Centreline of housing bayonet slot tip radius to centre of towball (horiz)	192.4 mm	7.57 in.
D	Centre of inner attachment points to centre of towball (horiz)	108 mm	4.25 in.
E	Centre of inner attachment points to centre of towball (vert)	20 mm	0.79 in.
F	Centre of upper towball plate bolt to centre of towball (vert)	36 mm	1.42 in.
G	Centre of lower towball plate bolt to centre of towball (vert)	70 mm	2.76 in.
H	Centre of outer attachment points to centre of towball (horiz)	167.3 mm	6.59 in.
I	Centreline of housing bayonet slot tip radius to centre of towball (vert)	174.3 mm	6.86 in.
J	Distance between inner attachment point centres	180.5 mm	7.10 in.
K	Distance between outer attachment point centres	822.5 mm	32.38 in.
Dimensions refer to towing equipment officially released by Land Rover			

FUEL CONSUMPTION

The fuel consumption figures shown below have been calculated using a standard testing procedure (the new EC test procedure from Directive 99/100/EC), and produced in accordance with The Passenger Car Fuel Consumption (Amendment) Order 1996.

Under normal use, a vehicle's actual fuel consumption figures may differ from those achieved through the test procedure, depending on driving technique, road and traffic conditions, environmental factors, vehicle load and condition.

Fuel consumption figures

	URBAN		EXTRA-URBAN		COMBINED	
	l/100km	mpg	l/100km	mpg	l/100km	mpg
Petrol S/Charged	22.8	12.4	11.9	23.8	15.9	17.8
Petrol	21.1	13.4	11.4	24.8	14.9	18.9
Diesel	13.2	21.4	8.5	33.2	10.2	27.6

Urban cycle

The urban test cycle is carried out from a cold start and consists of a series of accelerations, decelerations and periods of steady speed driving and engine idling. The maximum speed attained during the test is 50 km/h (30 mph) with an average speed of 19 km/h (12 mph).

Extra-urban cycle

The extra urban test cycle is carried out immediately after the urban test. Approximately half of the test comprises steady-speed driving, while the remainder consists of a series of accelerations, decelerations and engine idling. The maximum test speed is 120 km/h (75 mph) and the average speed 63 km/h (39 mph). The test is carried out over a distance of 7 km (4.3 miles).

Combined

The combined figure is an average of the urban and extra-urban test cycle results, which has been weighted to take account of the different distances covered during the two tests.

Note: *These figures should not be compared with the figures produced using the ECE/EEC procedure previously required by The Passenger Car Fuel Consumption Order 1983. Because of the changes in test procedure, even the urban figures would differ if the same car were subjected to both tests.*

Conformity

DECLARATIONS OF CONFORMITY

The Declarations of Conformity are from manufacturers of RF (Radio Frequency) equipment, whose components are used in the manufacture of your Range Rover Sport.

These manufacturers state that their components comply with relevant rules of the R and TTE (Radio and Telecommunication Terminal Equipment) directive.

The directive requires the manufacturer of short range radio devices to self-certify that RF parts fitted to Land Rover vehicles are fit for use and that the declarations are supplied with the vehicle documentation. If at a future date a technical inspection is required, the declarations will provide all necessary information.

Note: *The Declarations of Conformity are published in the native language of the RF equipment manufacturer, in compliance with the R and TTE Directive.*

Declaration of Conformity appropriate to the Directive 1999/5/EC (R&TTE)
Annex IV

Visteon Deutschland GmbH
.....
Manufacturer,

Notified Body consulted: **Phoenix Test-Lab, Königswinkel 10, D-32825 Blomberg**
ID-Number of Notified Body: **0700**

declare under our responsibility that the product: **RKE Transmitter**

Type: **TXRET5**

☐ Telecommunications Terminal Equipment ☒ Radio Equipment

Remote Keyless Entry System Transmitter **2**
....
Intended Purpose Equipment Class

complies with the appropriate essential requirements of the Article 3 of the R&TTE and the other relevant provisions, when used for its intended purpose.

Health and Safety requirements contained in Article 3 (1) a)

EN 60 950: 2001 Information technology equipment – Safety --
EN 50 371: 2002, Generic standard to demonstrate the compliance of low power electronic and electrical apparatus with the basic restrictions related to human exposure to electromagnetic fields (10 MHz – 300 GHz) – General public.

Protection requirements with respect to electromagnetic compatibility Article 3 (1) b)

EN 301 489-03 V.1.4.1: 08/2002, Electromagnetic Compatibility and radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services, Part 3: Specific conditions for Short Range Devices (SRD) operating on frequencies between 9 kHz and 40 GHz.

Means of the efficient use of the radio frequency spectrum

☒ Air interface specification of the radio path contained in Article 3(2)

EN 300 220-3 V1.1.1: 09/2000, Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices (SRD); Radio equipment to be used in the 25 MHz to 1000 MHz frequency range with power levels ranging up to 500 mW; Part 3: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive.

Address:

Visteon Deutschland GmbH
Visteonstrasse 4 - 10
50170 Kerpen
Germany
URL: www.visteon.com

Dr. Wilfried Janke
Managing Director Visteon Deutschland GmbH

CE 0700

LAN0505G

DECLARATION OF CONFORMITY

Trade Name: Connaught Electronics Ltd.
Model No: LQN5752

Tested to comply FCC Standards 15B

FOR HOME OR OFFICE USE

Canadian 2306A-5752

Model 5752 by Connaught Electronics

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

This declaration is the responsibility of the manufacturer / authorised representative within the Community:

Supplier
Connaught Electronics Ltd.
Supplier Address
Dunmore Road,
Tuam
Co. Galway,
Ireland

This certifies that the following designated product

T5 RECEIVER 315MHZ PART NO. 5752

.....
(Product identification)

complies with the essential protection requirements of R&TTE Directive 1999/5/ EC on the approximation of the laws of the Member States relating to ***Radio Spectrum Matters, EMC*** and ***Electrical Safety.***
This declaration applies to all specimens manufactured in accordance with the technical documentation described in the annex II. Connaught Electronics Ltd. keep this documentation at the proposal of the relevant national authorities of any Member State for inspection purpose.
Assessment of compliance of the product with the requirements relating to the essential requirements acc. to Article 3 R&TTE was based on Annex IV of the Directive 1999/5/ EC and the following standards:

Radio Spectrum : .....EN 300 220-1.....
(Identification of regulations / standards)

EMC : .....EN 300 683 .....
(Identification of regulations / standards)

Safety : .....EN 60950.....
(Identification of regulations / standards)

(Place, date) (Signature)

Tuam, Ireland

16/03/2004

(Signature)

Alan Moran

LAN0506G

DECLARATION OF CONFORMITY

CE 0682

This declaration is the responsibility of the manufacturer / authorised representative within the Community:

Supplier
Connaught Electronics Ltd.
Supplier Address
Dunmore Road,
Tuam
Co. Galway,
Ireland

This certifies that the following designated product

T5 RECEIVER 433MHZ PART NO. 5751

(Product identification)

complies with the essential protection requirements of R&TTE Directive 1999/5/ EC on the approximation of the laws of the Member States relating to ***Radio Spectrum Matters, EMC*** and ***Electrical Safety.***
This declaration applies to all specimens manufactured in accordance with the technical documentation described in the annex II. Connaught Electronics Ltd. keep this documentation at the proposal of the relevant national authorities of any Member State for inspection purpose.
Assessment of compliance of the product with the requirements relating to the essential requirements acc. to Article 3 R&TTE was based on Annex IV of the Directive 1999/5/ EC and the following standards:

Radio Spectrum : EN 300 220-1
(Identification of regulations / standards)

EMC : EN 300 683
(Identification of regulations / standards)

Safety : EN 60950
(Identification of regulations / standards)

(Place, date) (Signature)

Tuam, Ireland

16/03/2004



LAN0507G

Conformity

SIEMENS VDO
Automotive

Siemens VDO Automotive AG · Postfach 10 09 43 · 93009 Regensburg

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Fax	+49(0)941/790-133554
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Internet	www.siemensvdo.de
Ihr Schreiben	
Unser Zeichen	Decl_variant_8883_6.doc
Datum	22.08.2002

Declaration of Conformity

We, the undersigned, declare that the

Receiver type 5WK4 8883 and 5WK4 8886 are based on receiver type 5WK4 8812.

The assembly and layout differs in the following items:

Data Filter
Data Slicer
VCC blocking capacitor
ESD protection

The changed assembly and layout does not influence the RF characteristics.

Yours truly,

Siemens VDO Automotive AG

i.V. .....
Helmut Matschi
Vice President and CEO
Carbody Electronics

i.V. .....
Norbert Müller
Director
Access & Immobilisation Systems

SIEMENS

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Fax.	+49(0)941/202-95 35 54
Email:	regina.quegwer@at.siemens.de
Your Letter	
Our Ref.	ECDOC_RF_RX3Gen433.doc
Date	2000-12-01

EC Declaration of Conformity according to Annex II of Directive 1999/5/EC

Manufacturer:	Siemens Automotive AG Access Control & Security Systems
Address:	Wernerwerkstrasse 2 D-93049 Regensburg Germany
Product type designation:	5WK4 8812
Intended use:	radio receiver for vehicle locking/unlocking systems

The product mentioned above complies with the following European Directive:

1999/5/EC: Directive of the European Parliament and of the Council on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity, dated 9th March 1999.

We, the undersigned, hereby declare that our above-mentioned product complies with all essential radio test suites according to Annex II of Directive 1999/5/EC. Proof is shown by:

- test report no. 00001036, issued by the accredited test laboratory M. Dudde Hochfrequenz-Technik, according to EN 300 220-1
- test report no. 00001038, issued by the accredited test laboratory M. Dudde Hochfrequenz-Technik, according to EN 301 489-1, -3

Siemens Automotive AG

Regensburg, 01.12.2000

i.V. .....
Helmut Matschi
Vice President and General Manager
Access Control & Security Systems

i.V. .....
Ulrich Schrey
Director Development
Access Control & Security Systems

Siemens Automotive AG

Postal Address:	Office Address:
Siemens Automotive AG AT BE AS SI 3 P.O. Box 10 09 55 93009 Regensburg Federal Republic of Germany	Wernerwerkstraße 2 93049 Regensburg Phone +49(0)941/202-0

Siemens Automotive AG • Chairman of the Supervisory Board: Edward G. Krubasik • Managing Board: Franz Wressnigg, Chairman, President and Chief Executive Officer • Member: Jürgen Mache • Registered Office: München • Commercial Register: München, HRB 132637

Conformity

SIEMENS VDO
Automotive

Siemens VDO Automotive AG · Postfach 10 09 43 · 93009 Regensburg

Name	Schneider Tanja
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Phone	+49(0)941/790-6622
Fax	+49(0)941/790-90921
E-Mail	tanja.schneider@siemens.com
Internet	www.siemensvdo.de
Your Letter	
Our Ref.	DoC_5WK45685_4
Date.	07.04.2004

Declaration of Conformity

We, the undersigned, declare that

-the transmitter S120123001 is manufactured for different customers. All transmitters use the same schematic, pcb and assembly. The following type designation is used:

5WK4 5685 for customer Land Rover and Jaguar.

-the transmitter S120123002 is manufactured for different customers. All transmitters use the same schematic, pcb and assembly. The following type designation is used:

5WK4 5684 for customer Land Rover and Jaguar.

Yours truly,

Siemens VDO Automotive AG

i.V.

Jean-Francois Tarabbia
Executive Vice President
Body & Chassis Electronics Operations

i.V.

Norbert Müller
Vice President
Wireless Products and Modules

Siemens VDO Automotive AG Body & Chassis Electronics

Helmut Matschi
Klaus Müller

Postal Address:
Siemens VDO Automotive AG

Postfach 10 09 43
93009 Regensburg

Office Address:
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93055 Regensburg
Tel. +49(0)941/790-02

Siemens VDO Automotive AG · Chairman of the Supervisory Board: Professor Dr. Edward G. Krubasik · Managing Board: Wolfgang Dehen, Chairman · Members: Dr. Klaus Egger, Günter Hauptmann, Reinhard Pinzer · Registered Office: München · Commercial Registry: München, HRB 132637

Conformity

SIEMENS VDO
Automotive

SiemensVDO Automotive AG · P.O. Box 10 09 43 · D-93009 Regensburg

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Fax	+49(0)941/790-133 554
E-Mail	Regina.Quegwer@siemens.com
Internet	www.siemensvdo.de
Our Ref.	Doc_S120123.doc
Date.	4/03/2004

Declaration of Conformity in accordance with Directive 1999/5/EC (R&TTE Directive)

Manufacturer:	Siemens VDO Automotive AG Body & Chassis Electronics
Address:	Dep. SV C BC P2 RF TG Siemensstrasse 12 D-93055 Regensburg Germany
Product type designation:	S120123
Intended use:	Radio frequency transmitter used Tire Pressure Monitoring system

The product mentioned above complies with the essential requirements and other relevant provisions of Directive 1999/5/EC, when used for its intended purpose:

Health and safety pursuant to §3.1.a:	*Applied standard(s):* EN 60950: 2000
Electromagnetic compatibility pursuant to § 3.1.b:	*Applied standard(s):* EN 301 489 -1,-3: V1.4.1 (2002-08)
Efficient use of spectrum pursuant to § 3.2:	*Applied standard(s):* EN 300 220 -1: V1.3.1 (2000-09)

The following marking applies to the above mentioned product:

CE

Siemens VDO Automotive AG

Regensburg, 2004-03-04

J. .....
Jean-Francois Tarabbia
Executive Vice President
Body and Chassis Electronics Operations

i.V. .....
Norbert Müller
Vice President
Wireless Products and Modules

Conformity

SIEMENS VDO
Automotive

SiemensVDO Automotive AG · P.O. Box 10 09 43 · D-93009 Regensburg

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Fax	+49(0)941/790-133 554
E-Mail	Regina.Quegwer@siemens.com
Internet	www.siemensvdo.de
Our Ref.	Doc_5WK47593.doc
Date.	31/03/2004

Declaration of Conformity in accordance with Directive 1999/5/EC (R&TTE Directive)

Manufacturer:	Siemens VDO Automotive AG Body & Chassis Electronics
Address:	Dep. SV C BC P2 RF TG Siemensstrasse 12 D-93055 Regensburg Germany
Product type designation:	5WK4 7593
Intended use:	Tire Pressure Monitoring system

The product mentioned above complies with the essential requirements and other relevant provisions of Directive 1999/5/EC, when used for its intended purpose:

Health and safety pursuant to §3.1.a:	*Applied standard(s):* EN 60950: 2000
Electromagnetic compatibility pursuant to § 3.1.b:	*Applied standard(s).* EN 301 489 -1,-3: V1.4.1 (2002-08)
Efficient use of spectrum pursuant to § 3.2:	*Applied standard(s):* EN 300 330 -1: V1.3.2 (2002-12)

The following marking applies to the above mentioned product:

CE

Siemens VDO Automotive AG

Regensburg, 2004-03-31

i. V. .....
Jean-Francois Tarabbia
Executive Vice President
Body and Chassis Electronics Operations

i.V. .....
Norbert Müller
Vice President
Wireless Products and Modules