

WORKSHOP MANUAL C ELECTRICAL 90-91 TOOLS ELECTRICAL 92-93 ELECTRICAL 94-96 PARTS CATALOGUE 04 ELECTRICAL 97-98

## Air conditioning service procedure for 1980 - 1983 Model Year vehicles converted from R12 to R134A refrigerant

### Applicable to

All Rolls-Royce and Bentley motor cars from 1980 to 1983 model year converted to use refrigerant R134A.

### Rolls-Royce Silver Spirit and Bentley Mulsanne

North American specification

\*SCBZS42A4ECX08923\* to \*SCAZS42A0HCX16929\*

including

\*SCAZS42A5DCX06388\* to \*SCAZS42A3DCX06390\*

\*SCAZS42A4ECX08876\* @ \*SCAZS42A8ECX08878\*

but excluding

\*SCAZN42A5FCX14002\* to \*SCAZN42A5FCX14013\*

Middle East specification

\*SCAZS0009ECX08522\* to \*SCAZS000XGCX15854\*

including

\*SCAZS0006DCX07312\* @ \*SCAZS000DCX07313\*

Japanese specification

\*SCAZS0001ECX09308\* to \*SCAZS0000GCX16897\*

O.T. North American, Middle East and Japanese Specification

\*SCAZS0006ECH0953\* to \*SCAZS0001GCH16930\*

including

\*SCAZS0009DCH07260\* @ \*SCAZS0004DCH07425\*

### Rolls-Royce Silver Spur (Non Division) and Bentley Mulsanne L (Non Division)

North American specification

\*SCAZN42A7ECX08846\* to \*SCAZN42AXHCX16945\*

including

\*SCAZN42A8ECX08841\* @ \*SCAZN42AXECX08842\*

Middle East specification

\*SCAZN0004ECX08774\* to \*SCAZN0001GCX15832\*

including

\*SCAZN0000DCX07328\* @ \*SCAZN0005ECX08735\*

But excluding

\*SCAZN0008FCX14014\* @ \*SCAZN000XFCX14015\*

Japanese specification

\*SCAZN0003ECX09317\* to \*SCAZN0000GCX16390\*

O.T. North American, Middle East and Japanese specification

\*SCAZN0001ECX095572\* to \*SCAZN42A9HCX16970\*

but excluding

\*SCAZN0004FCH14000\* @ \*SCAZN0006FCH14001\*

\*SCAZN0001FCX14016\* to \*SCAZN0009FCH14025\*

### Bentley Turbo

\*SCBZS0T05CCH04233\* to \*SCBZS0T03FCH12691\*

\*SCBZN0T09FCH12735\* to \*SCBZS0T01FCH12737\* and \*SCBZS0T01FCH12785\*

### Introduction

The purpose of this product support information sheet is to ensure that the correct procedures are used when servicing vehicles converted to use refrigerant R134A.

### Description

Vehicles converted to use R134A may be identified by a note in the service log 'Refrigerant system updated to use R134A' and by the label RH 20211 adhered to the top of the compressor. When servicing these systems only use the refrigerant R134A and ICI Emkarate RL 1005 oil part number RH 20006. When replacing any hoses or disturbed 'O' rings refer to Fig.

C14-1



#### C14-1 Location and identification of 'O' rings when servicing vehicles converted to use R134A refrigerant C14-1.

### Precautions

The following safety precautions should be observed and adhered to when handling R134A refrigerant.

- 1.) Always observe all the precautions stated in the appropriate service literature when handling R134A refrigerant or carrying out service operations on systems containing it.
- 2.) Always wear safety glasses and protective clothing when handling R134A refrigerant or working on systems containing it.
- 3.) Always ensure that suitable first aid equipment is close at hand when handling R134A refrigerant or working on systems containing it.
- 4.) R134A refrigerant systems have special service fittings to avoid cross-contamination with R12 systems. Do not attempt to remove fittings.

### Procedure

- 1.) When servicing the system only use refrigerant R134A and ICI Emkarate RL100S oil, Part number RH20006.

The quantity of refrigerant in the system is 15% less than that quoted in the relevant workshop manual for R12 systems.

The quantity of oil in the system remains unchanged.

- 2.) Always replace any disturbed 'O' rings with those suitable for use with R134A. For relevant part numbers refer to Fig. C14-1



#### C14-1 Location and identification of 'O' rings when servicing vehicles converted to use R134A refrigerant C14-1

- 3.) When assembling the system, always lubricate the 'O' rings with Emkarate RL100S oil, Part number RH20006 before fitting.
- 4.) Should it become necessary to replace the VIR (valves in the receiver) the new part RH 20196 must be used noting the following procedure:-
  - 4.1 Remove the liquid bleed connector from the old VIR unit.
  - 4.2 Fit the liquid bleed connector to the new VIR unit with new 'O' ring RH20231.
  - 4.3 Remove the Schraeder valve from the new VIR unit service port.
  - 4.4 Fit the R134A service port adaptor RH 20230 onto the new VIR unit service port.
  - 4.5 When the VIR unit has been fitted to the vehicle rotate the R134A service port adaptor to a position that avoids fouls with any adjacent components.
- 5.) Should it become necessary to replace the assembly discharge hose a new high pressure service adapter RH20191 will required to be fitted to the new assembly discharge hose connector noting the following procedure:-
  - 5.1 Remove the Schraeder valve from the new discharge hose assembly service port.
  - 5.2 Fit the new R134A service port adapter on to the new discharge hose assembly service port.
  - 5.3 When the new discharge hose assembly has been fitted to the vehicle, rotate the R134A service port adapter to a position that avoids fouls with any adjacent components.
- 6.) In the event of a compressor change a new compressor label Part number RH20211 must always be fitted. All the information required for this label should be read across from the old label except the compressor serial number which should be read from the new compressor and placed directly in the space above the date. The label should then be adhered to the top of the compressor between the service connection points with the clear part of the label placed over the first part of the existing label.
- 7.) If it is required to change any of the seals or valves within the existing VIR unit, the existing VIR unit must be replaced by a complete new VIR unit Part number RH20196

R.J.C.

