

MULTIGAS 8500 PLUS



М о д е л ь M U L T I G A S 8 5 0 0 P L U S
О б о р у д о в а н и е д л я
з а п р а в к и а в т о м о б и л ь н ы х
с и с т е м в о з д у ш н о г о
к о н д и ц и о н и р о в а н и я
г а з о в ы м х л а д а г е н т о м R-
1 3 4 a / R - 1 2 3 4 y f .

Р у к о в о д с т в о п о э к с п л у а т а ц и и и
т е х о б с л у ж и в а н и ю

www.tool-sto.ru

Р е д . 1 . 0

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САР. 2 - ОБЩИЕ ИНСТРУКЦИИ

2.1

BRAIN BEE SPA

()

. Brain Bee

2.2

R1234yf/R134a
)

A/C (

, R134a R1234yf,

Brain Bee

13

A

2.3

MULTIGAS 8500 PLUS :

Brain Bee S.p.A.

Via Quasimodo, 4/a

43126 Parma ()

. +39 0521 954411 - +39 0521 954490

- contact@brainbee.com

<http://www.brainbee.com>

2.4

- 12 ()

- 6 ()

1. ();

2. ;

3.
4.
5.

- (: , , ,) ;
-

Brain Bee S.p.A.

2.5

CLIMA - Brain Bee
www.brainbee.it

2.5.1

Brain Bee S.p.A

2.6

MULTIGAS 8500 PLUS

(Declaration of Conformity)

PED III (97/23/EC).





Brain Bee[®]
SAFETY VALVE
Brain Bee Spa, via Quasimodo 4/a - 43126 PARMA (I)

CE
0948
97/23/CE
CAT. III



A/C RECOVERY UNIT mod. : **MULTIGAS 8500**
SN : **333333333333**
Fluid : R134a/R-1234yf
PS : 20 bar
Operating temp. : 5-40 °C
Vessel volume : 20 l
Vessel max contents : 16.5 kg
Safety valve PSV : 20 bar

Fuses: 2 x T10 A 250 V
Power supply: 230V~ 50/60Hz
Rated power : 800 W
R.H. : 10-90% n.c.
International protection: IP20
Year : 2013

CE:

CE

САР.3 - ТРЕБОВАНИЯ К БЕЗОПАСНОСТИ

3.1

3.1.1

- _____ :
- _____ ;
- _____ ;
- _____ ,
- _____ ;
Brain Bee S.p.A.,

3.1.2

Brain Bee MULTIGAS 8500 PLUS A/C –

,
(/
).
.
Brain Bee ,
().
, A/C,
.



:
(1).
,
.
(
).
,
.
,
,
(1).

: / R134a / R1234yf
/
,
,
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.



(,). ,

:

Brain Bee S.p.A.

,
.
.
.
.
()



—

:
,
.
,
,
() () (. -26 °C
R134a . -30 °C ; R1234yf)

()



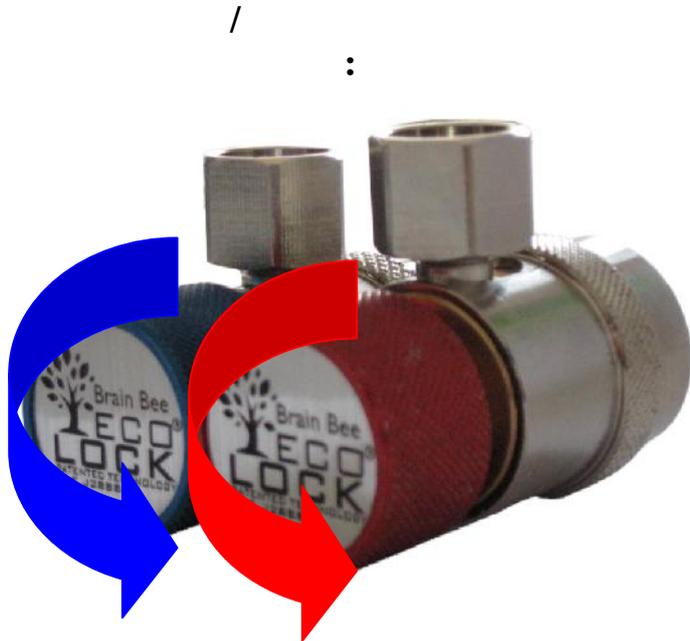
R134a R1234yf,

MULTIGAS 8500 PLUS
R134a R1234yf



(A/C).

(/ , : HP LP).



Brain Bee.

A/C

Brain Bee



R1234yf

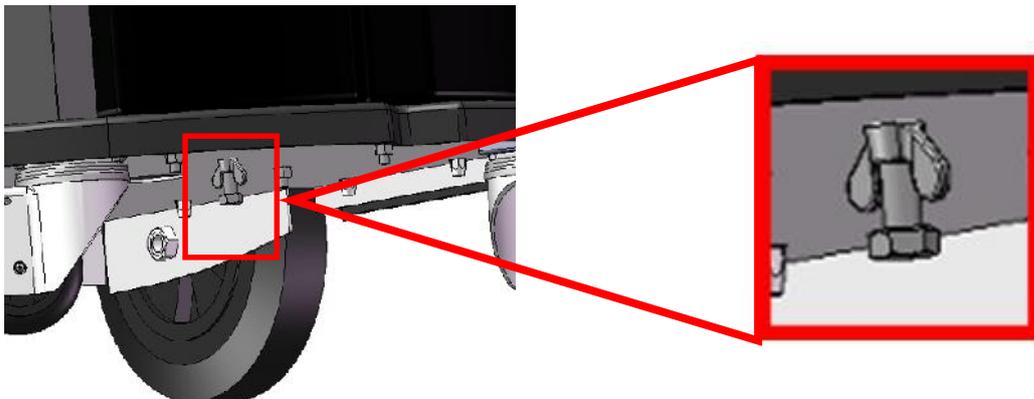
R134a

(
- www.brainbee.com),



4

R134a R1234yf



3.2



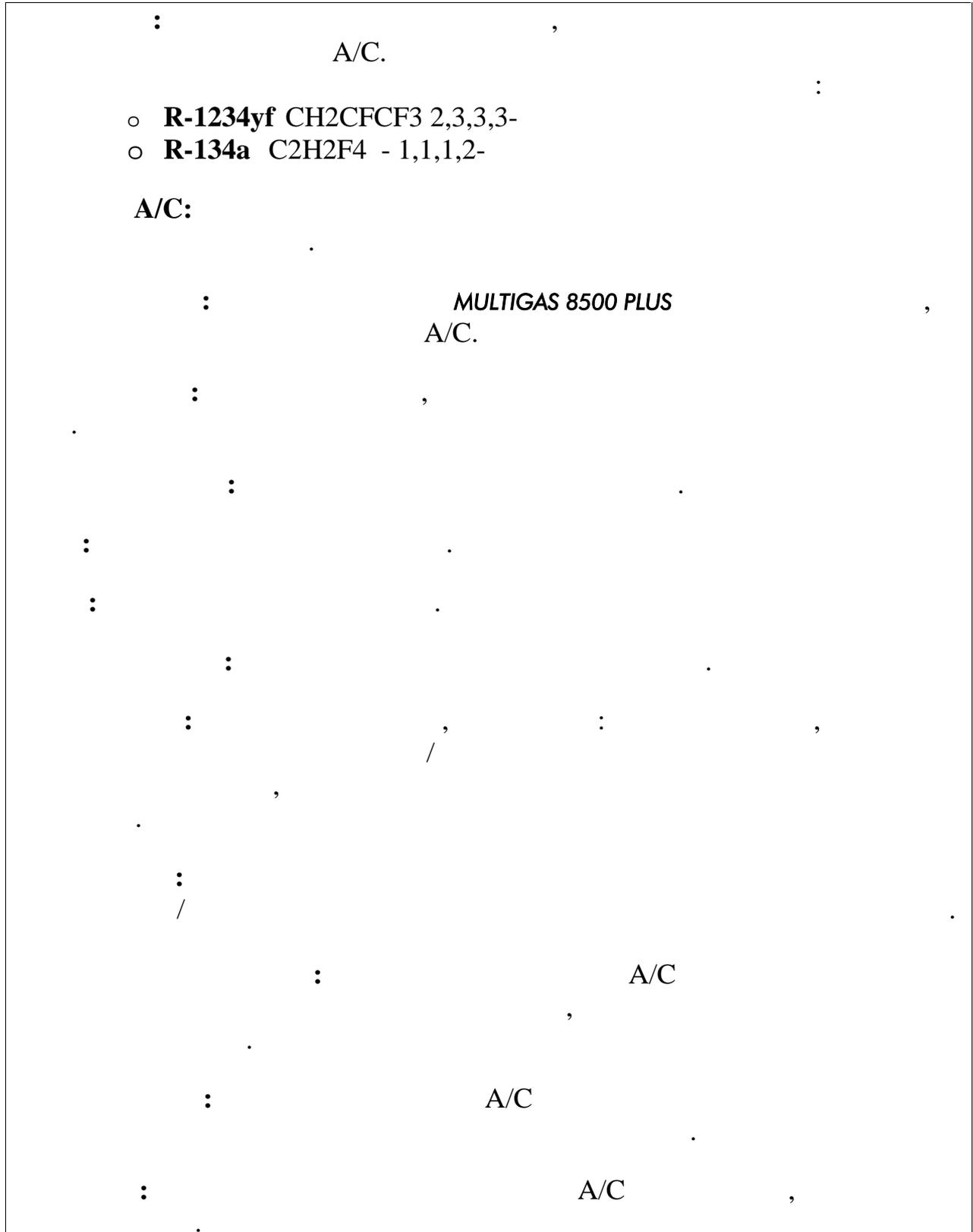
3.3

MULTIGAS 8500 PLUS

•

	!
	! ()
	.

4.3



4.4.2

A/C.

(,).

4.4.3

(.)

.

САР. 5 - ОБЩЕЕ ОПИСАНИЕ

MULTIGAS 8500 PLUS.

MULTIGAS 8500 PLUS

5

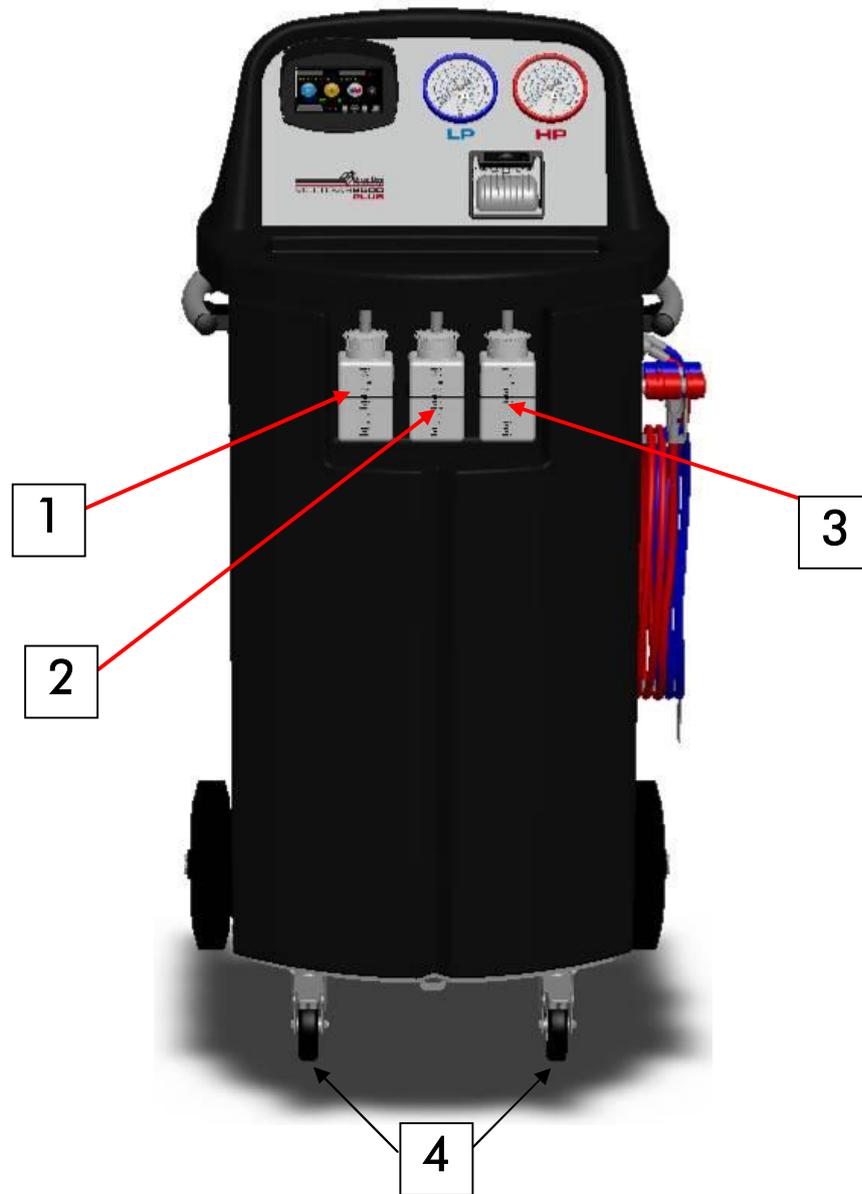
16,5

MULTIGAS 8500 PLUS



5.1

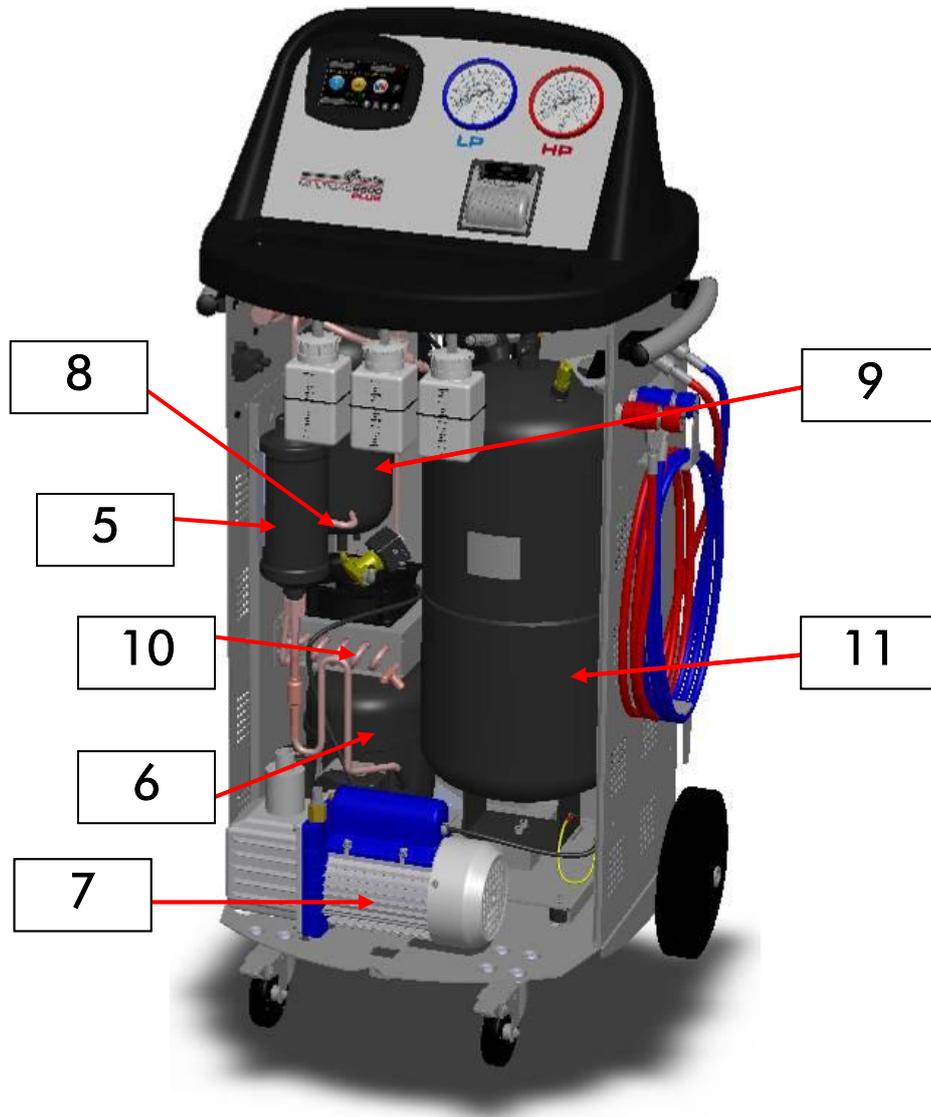
MULTIGAS 8500 PLUS –



1. “ ” 250 .
2. “ ” 250 .
3. “ ” 250 .
- 4.

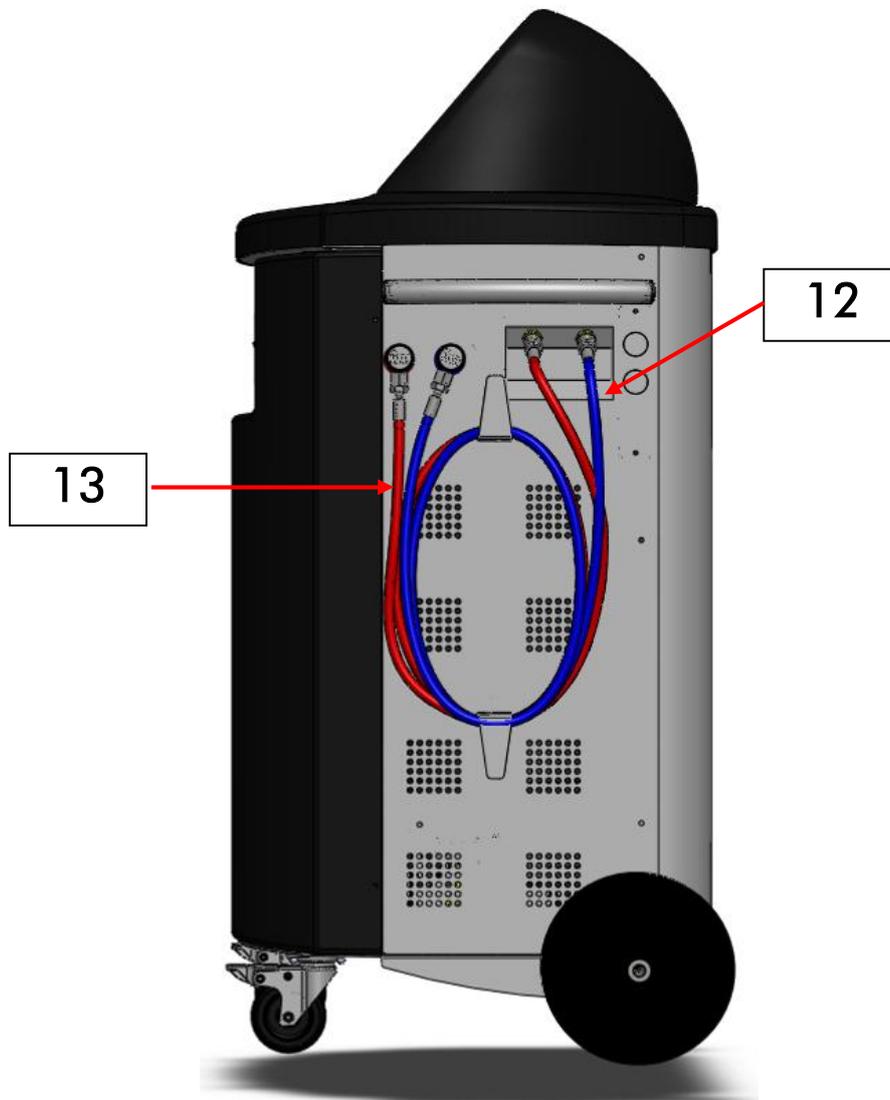
5.2

MULTIGAS 8500 PLUS –



- 5.
- 6.
- 7.
- 8.
- 9.
- 10.
- 11.

5.3 MULTIGAS 8500 PLUS -

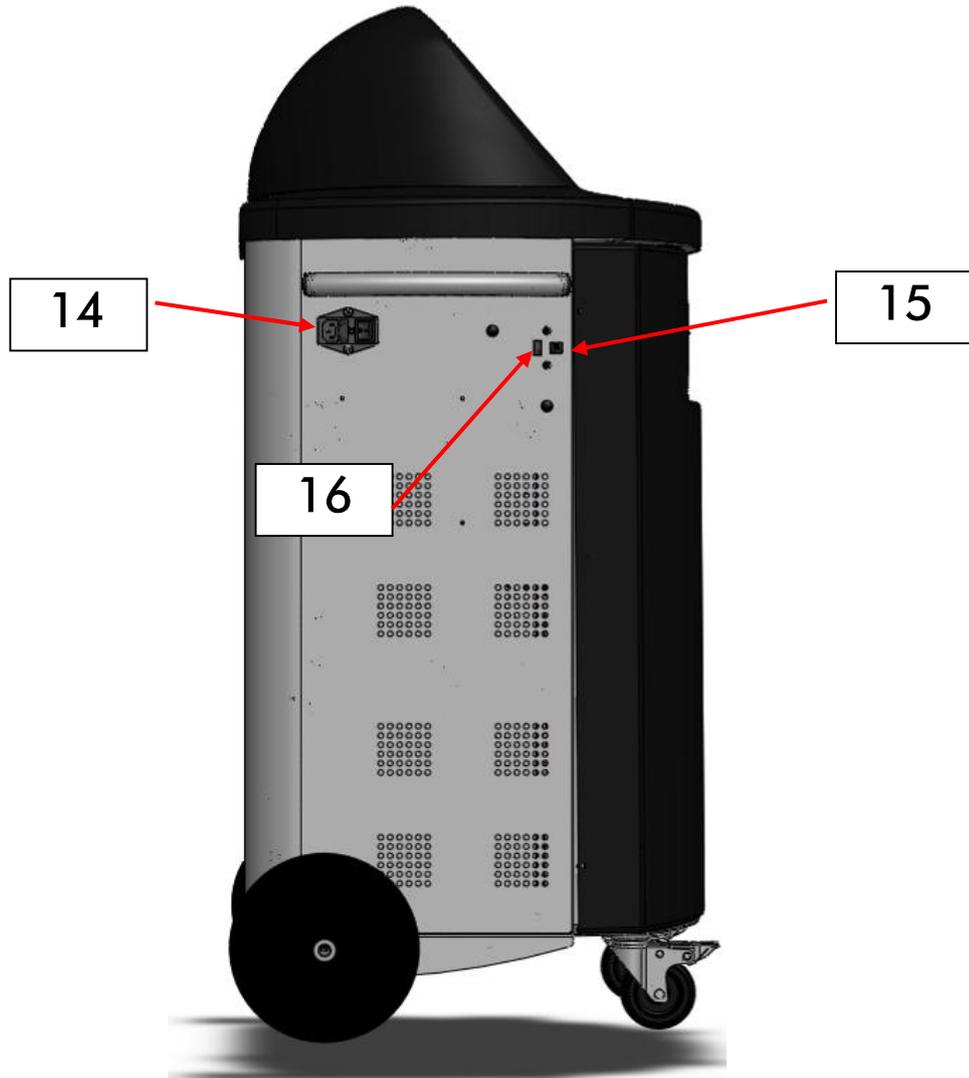


12. LP, 4,5
13. HP, 4,5



(HP – LP)

5.4 MULTIGAS 8500 PLUS -



14.

230

(VAC): 5x20 T 10A 250

15. USB type-B

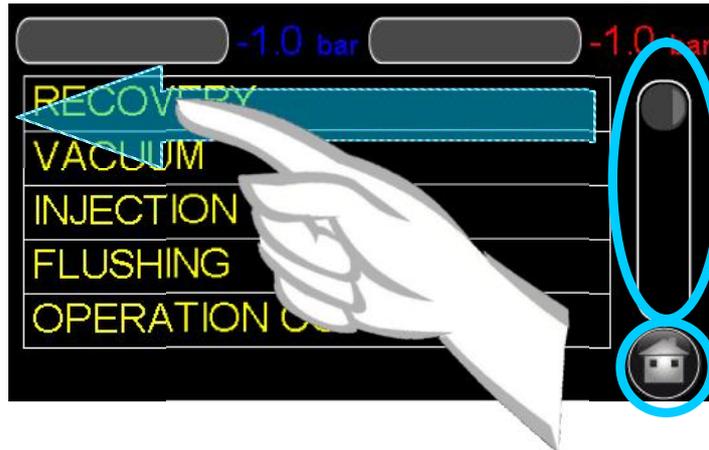
16. USB type-A

USB 2.0

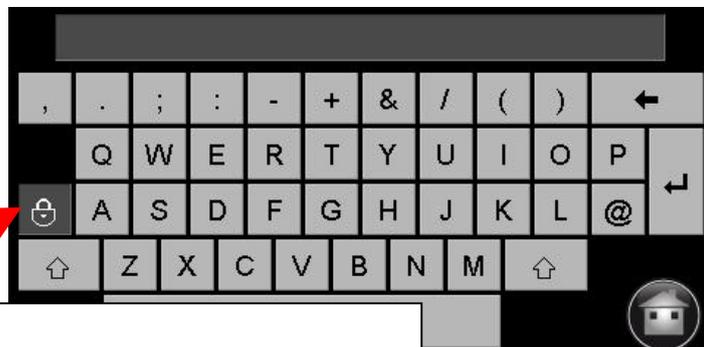
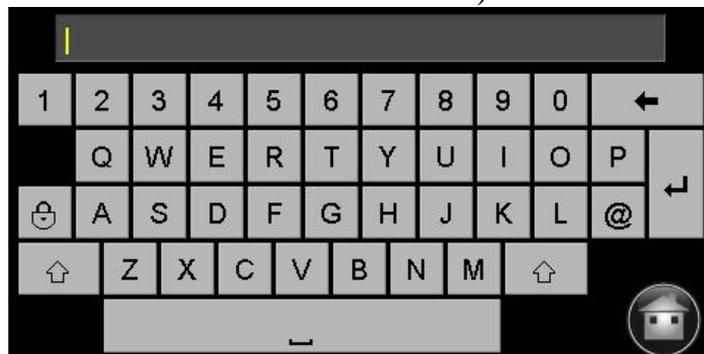
()

	<p>USB type-A</p> <p>USB 2.0</p> <p>Brain Bee.</p> <p>USB</p>
---	---

“home ()” “ ” /
 ”.
 2

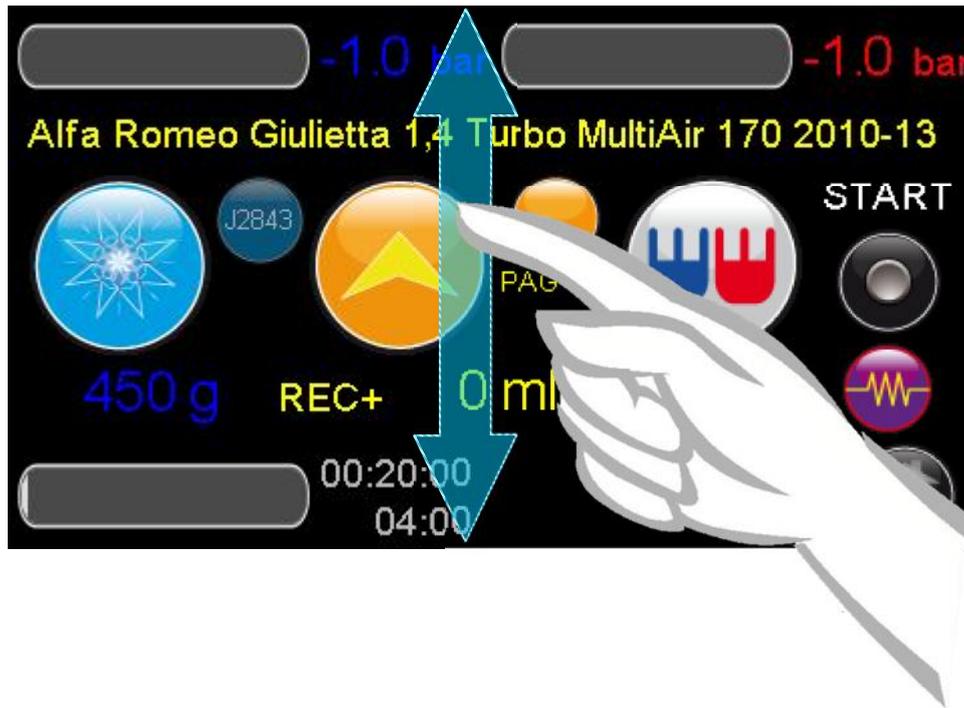


дизвольный текст или указ
 () ,
).



5.7

() . () .



:

	<p>•</p>	<p>(</p>
	<p>•</p>	<p>).</p>

5.8

9000 BUS

	A/C.	2	
	<ul style="list-style-type: none"> • A/C LP • A/C HP • A/C LP HP • A/C HP (LP) * 	2	9000 BUS:
	<ul style="list-style-type: none"> • (No OIL): A/C • (REC+): () • (Oil): () 		
	<p>A/C (,) .</p> <p>()</p> <p>A/C. :</p>	2	
			(INFO)

	<p>11.6.2)  (8-10). () 2 (30 () (2)</p>
	<p>Autodata. 2 ,</p>
	<p>A/C Autodata. 2 ,</p>
	<p>2 .</p>
	<p>2 .</p>
	<p>.</p>
	<p>2 .</p>



5.9

ECO LOCK®

ECO LOCK® -

Brain Bee

1.

2.

() ;

3.

SCHRADER



5.10

:

	<p>HP-</p>		<p>CE</p>

5.11

- NITROGEN LEAK TEST KIT () - () ()
- HYBRID PRO KIT () - POE
- ()
- - (UV kit)
- (Spray multinet)
- (Condenser cleaner)
- A/C
- () A/C (Clima CLIMA Solutions),
- A4 / (. EC 842/2006).
- MULTIGAS 134 TO 1234 KIT (134 1234) - R1234yf.
- {Identificatore R-1234yf| R-1234yf }- (R-1234yf)}

5.11.1 AGRI&WORK ()

FUNCTION DATABASE. ()

AGRI&WORK
CLIMA AGRI

GUIDED PROCEDURE

A/C,

,

,

.

CAP. 6 - ТЕХНИЧЕСКИЕ ВОЗМОЖНОСТИ

R134a		
R1234yf		
R134a	R1234yf	20
	(PS)	20
PED (97/23/EC)	III
		AIRTEK - VS14NPT20HNBRPED4
		20 R 1/4 NPT
		20
PED (97/23/EC)	IV
	PAG	250
	PAG	250 , OIL CARE
	-	250 , OIL CARE
		3 3/
		0,02
		0,5
		14 .
		45 R134a
		R1234yf
		AIR
		PURGE SYSTEM (
)
HP LP		
		13/18 1/4SAE
		18
PED (97/23/EC)	IV
	HP LP	4,5
HP LP		, 80 , ,
		1,0
		4,3 ,
		480x272, 65536

	USB type-A USB 2.0 USB type-B
	, 24
R134a R1234yf, ,	
	MULTIPASS ()
	100
	1 , 5 ,
	, 5 , 1
-	
	Autodata, ()
R-1234yf	(R- 1234yf)
/	
x x	600x522x1145
	85
	50
	230 ~

	800
	5-40°C
	-25 - +50°C, 10-90% ()
	75 106
	2000
	2
	II
	T10A 250
	II

CAP. 7 - УСТАНОВКА

7.1

7.1.1

MULTIGAS 8500 PLUS



/

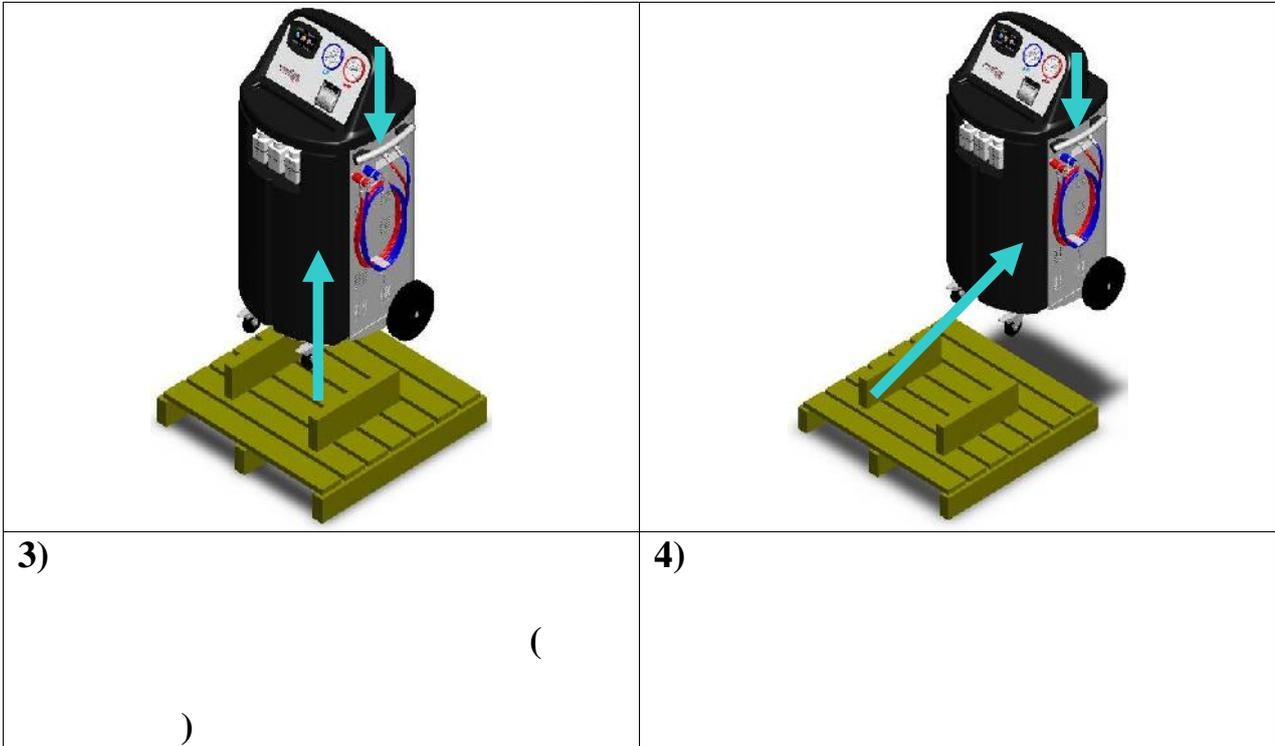
-

,

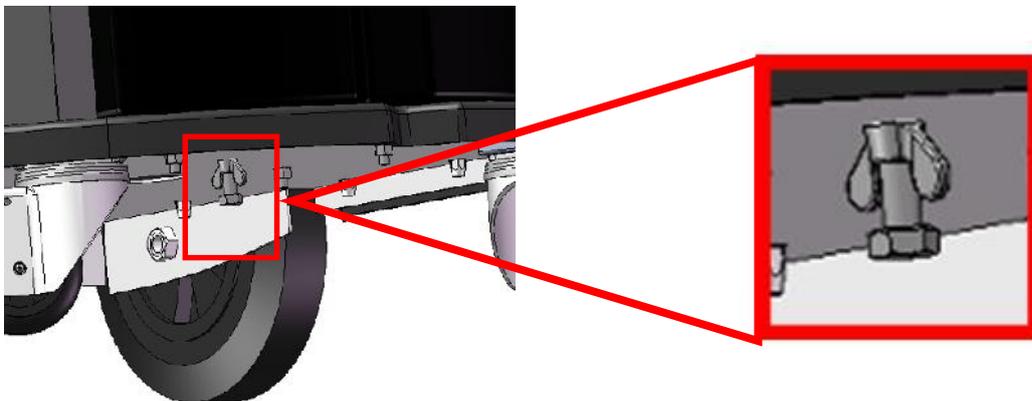
/

- 1)
- 2)

(2)



MULTIGAS 8500 PLUS



(. .)

. ,

4

.

САР. 8 - ПЕРЕДАЧА В ЭКСПЛУАТАЦИЮ

8.1

8.1.1

	<p>•</p> <p>•</p>
	<p>•</p> <p>•</p> <p>10</p> <p>•</p> <p>•</p>
	<p>•</p> <p>•</p>
	<p>•</p> <p>GND</p> <p>•</p> <p>•</p>



	: , .
---	-------------

8.1.2

-
-
-
-

	<p>.</p>	
---	----------	--

(3)

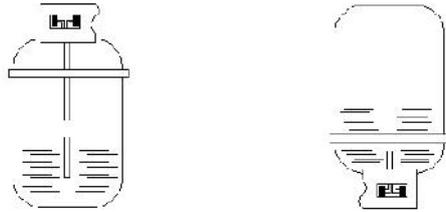
15

LP HP () R134a
R1234yf

LP

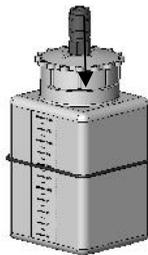
ECO-LOCK,

L (liquid,).
()



LP

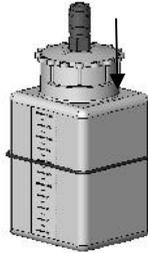
8.2



8.3

()

A/C.



САР. 9 - НАСТРОЙКА

(SETUP)

:

HYBRID FUNCTION ()

•

A/C. :

HYBRID KIT PRO

()

ECO LOCK®

•

ECO LOCK® (
 ECO

LOCK®).

RECHARGE MODE ()

•

() Zero Tolerance () : Quick Mode

).

PRESSURE CHECK ()

•

AIR PURGE SYSTEM ()

•

PURGE SYSTEM.

AIR

MULTIPASS ()

•

RECOVERED GAS AND OIL PRINTING()

•

REPORT SAVING MODE ()

- (842/2006). 842/2006).

REPORT DATA ()

- :
-
-
-
-

HOSES LENGTH()

-

UNIT OF MEASURE()

- (PSI)

CLOCK ADJUSTMENT ()

-

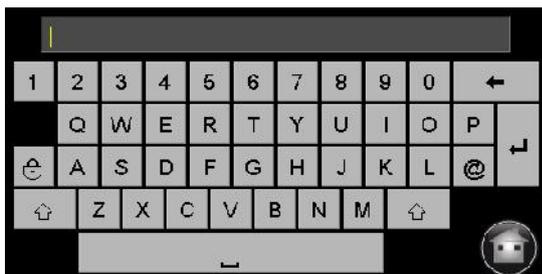
GARAGE DATA ()

-



1:	
2:	
3:	
4:	
5:	

„ (Enter)“.



LANGUAGE ()

•



RIGHT / LEFT-HAND DRIVE (/)

•

A/C

()

()

STARTUP SCREEN ()

•

:

DATABASE ACTIVATION ()

•

“

”

“

”.

GAS TYPE ():

•

,

;

Brain Bee.

DEFAULT SETUP ()

•



Brain Bee

САР. 10 - ЗАПРАВКА СИСТЕМЫ А/С

10.1

/AC

A/C,

/ /

A/C
ECO LOCK®.

1.

(

2.

A/C

()HP ()LP,

A/C

A/C

A/C

10.2

AIR PURGE SYSTEM (

),

(

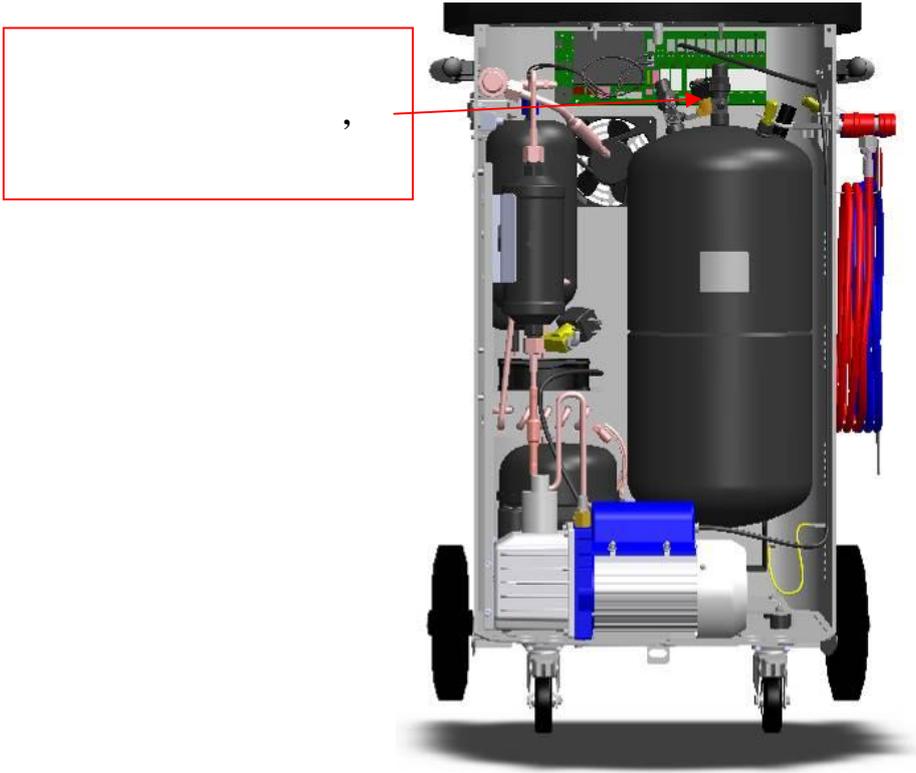
),

(

)

AIR PURGE SYSTEM.

AIR PURGE SYSTEM



	:	
	:	Air Purge
	System	

10.3 QUICK MODE ZERO TOLERANCE RECHARGE MODE

MULTIGAS 8500 PLUS ;
 Quick mode () HP. Quick Mode

Zero Tolerance ().

Zero Tolerance
 Quick Mode.

()

A/C,
 LP, ;
 HP .
 , HP LP, Zero
 Tolerance
 HP; HP
 LP (- HP).
 LP, 50%
 10
 -
 ,
 HP -
 LP),
 A/C,
 LP,
 LP 3 .

САР. 11 - АВТОМАТИЧЕСКИЕ ЦИКЛЫ

11.1

() – LP () HP
 A/C ()
 A/C).
 ()

11.2

A/C.
 :
 ⬆️ ⬇️ ⬆️
 ⬆️

11.2.1

Brain Bee

MULTIGAS 8500 PLUS

A/C

A/C

-
-
-
-
- Agri&Work (-)
-
-
- /
-
-

11.2.2

11.2.3

11.2.4

A/C



-
-
- (Oil): < > .
- REC. + < > .
- (NO OIL).
- : : PAG (ISO46/100/150)
- POE
- (UV):
- : ,
- HP ()
- LP ()
- HP () LP ()
- HP ()
- Renault.
-
-
-

“ (START)

11.2.5



4				

PAG, (START) “EXTERNAL ELECTRIC COMPRESSOR FUNCTION KIT ().

HP LP HP-LP, EXTERNAL ELECTRIC COMPRESSOR FUNCTION KIT ().



САР. 12 - ЦИКЛЫ ВРУЧНУЮ

12.1

() – LP () HP
 A/C ()
 A/C).
 ()

12.2

MANUAL CYCLES (),
 RECOVERY. (. 5.8)



A/C.

12.3

(MANUAL CYCLES)
 (VACUUM).
 (. 5.8).
 HP - LP

START ()

12.4

(MANUAL CYCLES)

(INJECTION).



(. 5.8):

- , .
 - - OIL < > . , .
 - REC. + < > .
 - (NO OIL).
 - : PAG
 - (ISO46/100/150) POE
 - (UV):
 - :
 - HP ()
 - LP ()
 - HP () LP ()
 - HP ()
- Renault.

(START).

	A/C
--	-----

	A/C (_____).
---	-------------------

12.5 FLUSHING - (_____)

/AC

(_____)

R134a R1234yf

,

.

MULTIGAS 8500 PLUS

,

.

2 : STANDARD (_____)

FLUSHING KIT VAS (_____)

).

(_____)

,

.

.



12.6 PRESSURE CHECK (_____)

A/C

,

,

.

HP - LP

- A/C.
- ;
- ;
- 2
- 3 - 5

(MANUAL CYCLES)
(PRESSURE CHECK).
() ,

HP LP; , (LP HP)



12.7 HOSES EMPTYING -

(HOSES EMPTYING).
HOSES EMPTYING (
5.8).

12.8 NITROGEN LEAK TEST -

A/C

NITROGEN LEAK TEST KIT ()

,

.

САР. 13 - Т Е Х О Б С Л У Ж И В А Н И Е

MULTIGAS 8500 PLUS –

PED.

PED “Pressure Equipment Directive,
” 97/23/EC

PED

PED:

20 -

III (

97/23/EC)



- AIRTEK - VS14NPT20HNBRPED4 20

R 1/4 NPT

IV (

97/23/EC)



-

3.3 (

97/23/EC)



- 13/18

1/4SAE -

IV

(

97/23/EC)



- ;
-

	,
	,

13.1 SELF LEAK TEST -

(MAINTENANCE)
(SELF LEAK TEST).

MULTIGAS 8500

PLUS.

- :
 -
- CLIMA () ,
- 5.8) . (;

13.2 (PRESSURE ZERO)

13.3

(

LONG LIFE PUMP

) –

LONG LIFE PUMP - Brain Bee 1000 LONG LIFE PUMP 60-60

(MAINTENANCE).

LONG LIFE PUMP

1

1000
LONG LIFE PUMP

1

1

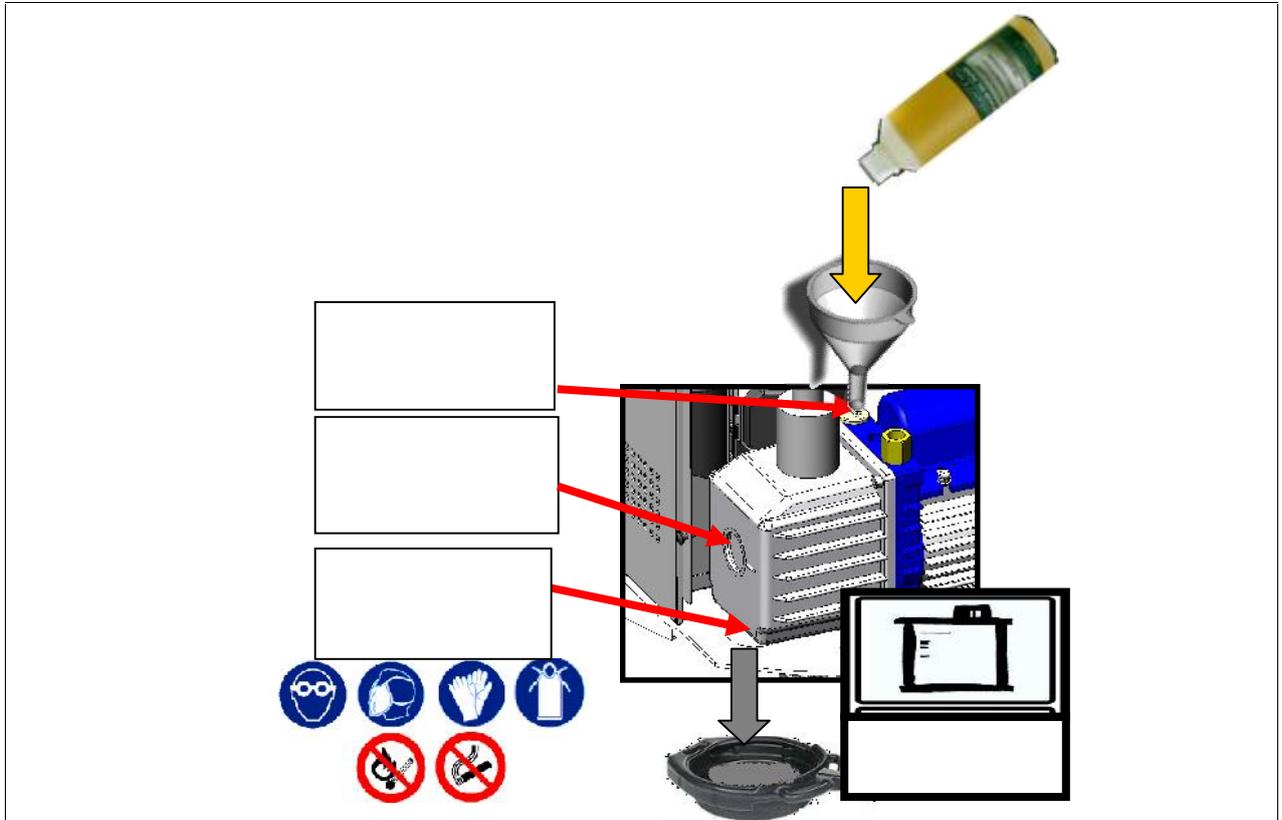
1

(10)

1

2

3.



4.

5.

6.

MAINTENANCE
():

PUMP OIL REPLACEMENT ()
RESET ()

13.4 DRYER FILTER CHANGE ()

45

(MAINTENANCE)
REPLACEMENT):

(RESET)

(DRYER FILTER

1
1
1

(17)

(24)

1. HP LP /
- 2.
3. (personal protective equipment, PPE)



R134a
A/C

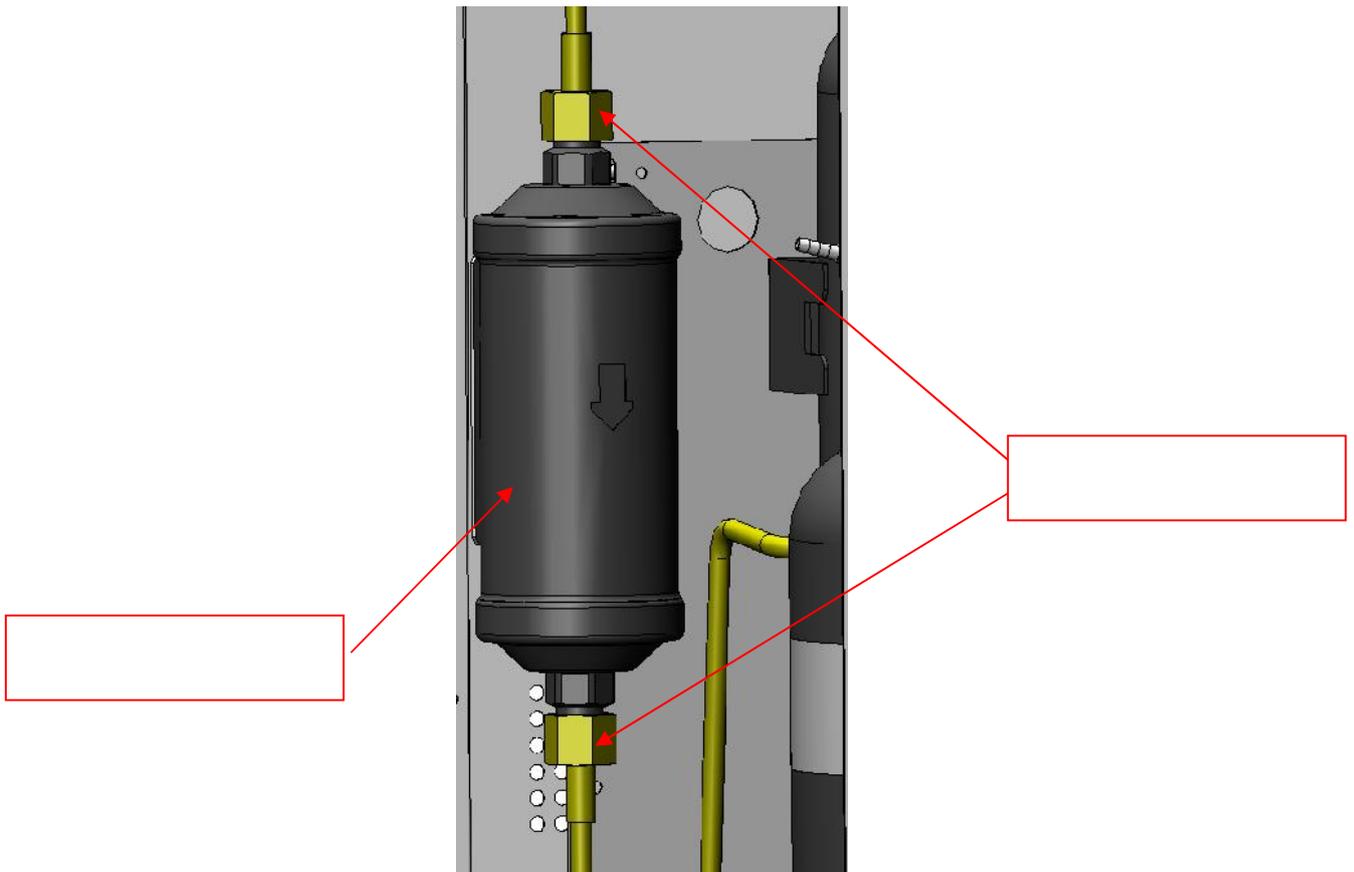
R1234yf REFRIGERANT

4.



5.
6.
7.

2



8.

9.

10.

13.5 COUNTERS ()

COUNTERS ()

;

(COUNTERS)
(MAINTENANCE)

(COUNTERS).

COUNTERS

:

-
-

-
-

13.6 STORAGE VESSEL FILLING ()



HP ()
LP ()

R134a
R1234yf

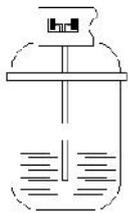
(liquid,

).

;

L

()



HP

MAINTENANCE ()

“VESSEL FILLING (

)”.

(RESIDUAL)

(TO CHARGE);

(START),



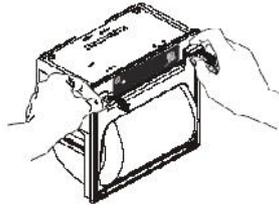
13.7 NON-CONDENSABLE GAS DISCHARGE -

(- -)

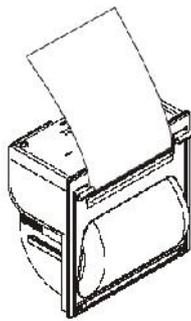
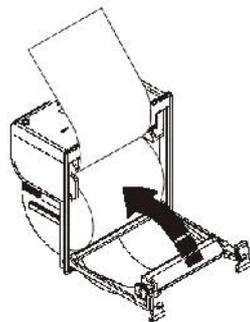
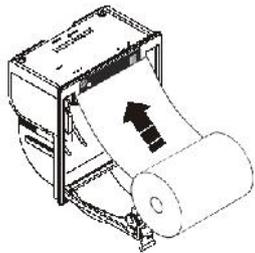
13.8 MULTIPASS -

13.9 SYSTEM INFORMATION ()

13.10



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13.11

A/C ()

• :

/ , / 2 (D.M. 1/12/2004, . 329);

•

D.M. 1/12/2004, 10 (. 329);

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•

();

•

()

MULTIGAS 8500 PLUS

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PED.

20

III (

97/23/EC)



20 (

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- AIRTEK - VS14NPT20HNBRPED4 20

R 1/4 NPT

IV (

97/23/EC)

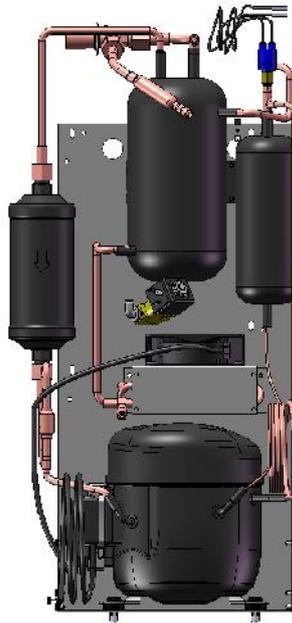


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3.3 (97/23/EC)



IV (13/18 1/4SAE 97/23/EC)

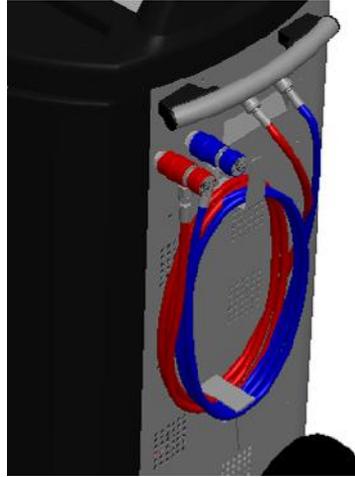


(LP) –

(HP)

MULTIGAS

8500 PLUS



, () ()

13.12

MULTIGAS 8500 PLUS
R134a,
R1234yf.

Brain Bee,
R1234yf.

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САР. 14 - УТИЛИЗАЦИЯ**14.1****A/C**

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14.2

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14.3

A/C

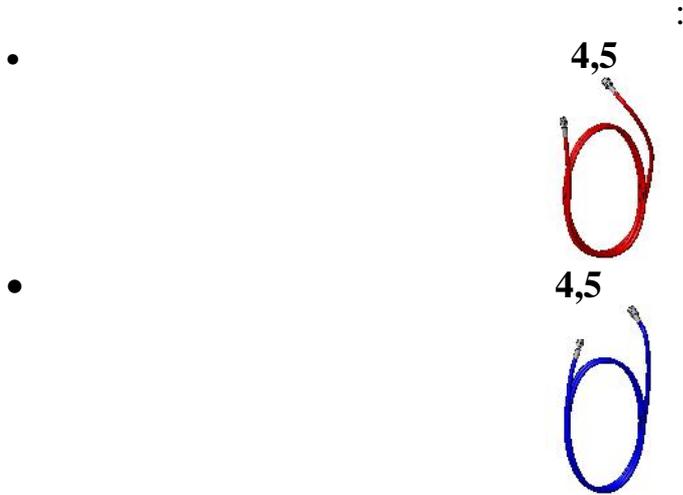
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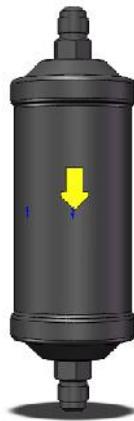
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САР. 15 - ЗАПАСНЫЕ ЧАСТИ



(LP)

(HP)



A/C

Brain Bee S.p.A.

MULTIGAS 8500 PLUS.

Brain Bee SpA

Brain Bee

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САР. 16 - СООБЩЕНИЯ И АВАРИЙНЫЕ КОДЫ

MULTIGAS 8500 PLUS.

Wxxx

W008		Pump Monitoring System		
W009				
W025				
W026			/	,
W029			/	()

				(
W032	—) A/C

W036				,
				A/C
W044				
W045	LP,		LP,	LP /
W047			A/C	--

Axxx

A000	EEPROM		EEPROM	
A001	EEPROM		EEPROM	
A002		18	,	: ■ 18 , ■ . , , ,
A003	ADC		- (ADC)	
A004		R- 1234yf	(1. :

			/)	2. 3.
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A032		,	A/C	
A033		,		,
A034		.	A/C	,
		.	,	,
		.	A/C.	,
			(
).	
A035				

A036				

A037			A/C ; . .	: .
A038				A/C , .
A039				
A043			,	() ()

A047	LP		,	(,)
			Eco-Lock	
A048	HP		,	(,)
			Eco-Lock	
A049	LP / HP		,	(,)
			Eco-Lock	

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