

MAGNETI MARELLI

SERVICE MANUAL



ALASKA PREMIUM/PREMIUM HFO

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2 SERVICE MENU

2.1 SERVICE MENU ENTRY PROCEDURE

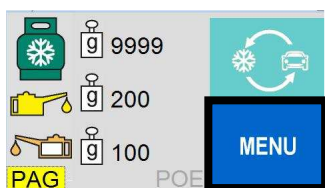
ONLY CARRY OUT THIS OPERATION AFTER CAREFULLY READING THE FOLLOWING INSTRUCTIONS. FAILURE TO CORRECTLY CARRY OUT THIS PROCEDURE MAY RESULT IN MALFUNCTIONING AND DAMAGE TO THE UNIT.

Connect the power supply to the unit.

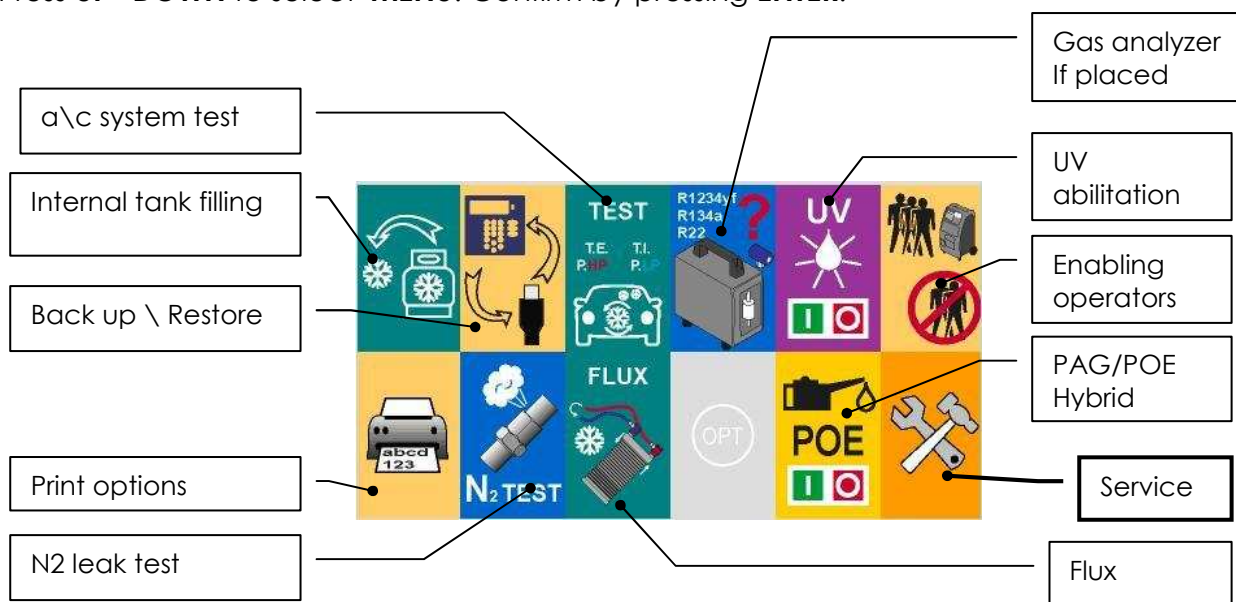
When the unit is switched on the display will show, for a few seconds, the software version installed, date and time.

ALASKA
SY-01-00-17
01/01/16 12:00

The display will then show the available resources.
This condition corresponds to the **stand-by** status.



Press **UP –DOWN** to select **MENU**. Confirm by pressing **ENTER**.



Press **UP –DOWN** to select **SERVICE**. Confirm by pressing **ENTER**.



Enter desired password (ref. table below).


| | |
|------|---|
| 9645 | Oil cells zero point calibration |
| 9245 | Gas bottle cell zero point calibration |
| 7225 | Cells calibration |
| 7736 | LP pressure sensor calibration |
| 7737 | Simultaneous LP pressure and gas bottle sensors calibration |
| 7846 | Enabling leak-proof oil containers |
| 7863 | Disabling leak-proof oil containers |
| 2248 | Enable heating strip button |
| 3248 | Disable heating strip button |
| 7272 | Modify operational parameters |
| 7781 | Loading of default parameters |
| 7782 | Reset calibration parameters |
| 7784 | Reset user models |
| 7785 | Restore 5 lines to coupon heading from language file |
| 7786 | Historical reset of services performed |
| 2668 | Display and zeroing of routine maintenance counters |
| 8266 | Display of historical counters |
| 4726 | Display IP address and serial no. |
| 8439 | Display trasducer input data |
| 7732 | Hose length correction parameter |
| 8463 | Setting hour, minutes, seconds |
| 5264 | Language selection |
| 3282 | Personalisation of print heading |
| 2225 | Backup/restore calibrations, parameters, user models |
| 3777 | Export historical of performed services |
| 3774 | Export IN/OUT refrigerant |
| 3724 | Export of last data service for print on A4 format |

Confirm by pressing **ENTER**.

2.2 OIL CELLS ZERO POINT CALIBRATION

Completely empty the oil containers and replace them in their housings.



 In order to access service menu refer to subsection 2.1.

Enter code **9645**. Confirm by pressing **ENTER**.

2.3 GAS BOTTLE CELL ZERO POINT CALIBRATION

Place the gas bottle in the safe transport position.



Enter code **9245**. Confirm by pressing **ENTER**.
Place the gas bottle in the work position.

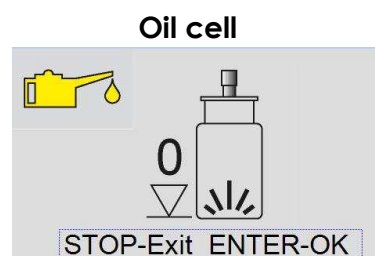
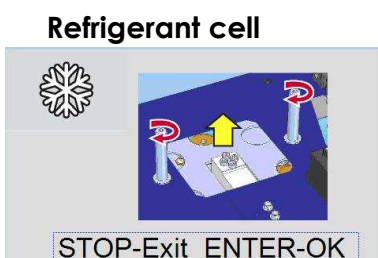
2.4 CELLS CALIBRATION



Enter code **7225**. Confirm by pressing **ENTER**.



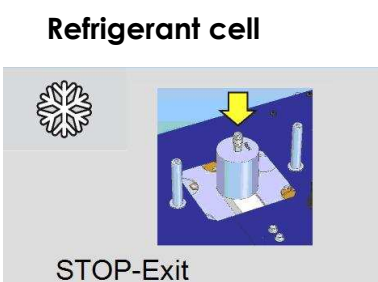
Press **UP –DOWN** to select desired scales. Confirm by pressing **ENTER**.



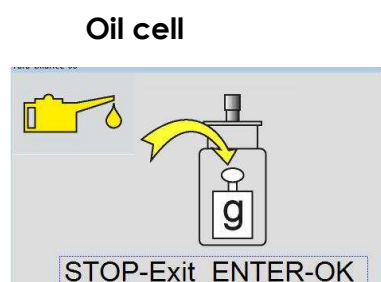
With the gas bottle lifted, or the oil container completely empty, press **ENTER**.
The unit needs to wait a few seconds to stabilise the weight.



Wait



In the case of calibration of the oil or UV cell insert the sample weight inside the container, at least **200 g** or use the sample weight provided.

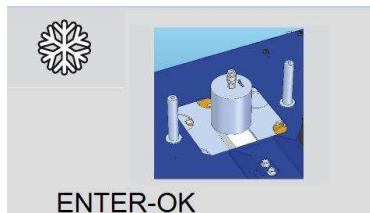


Place the sample weight of 1,5kg provided, or a known weight, e.g. **10 kg** on the cell support. The unit needs to wait a few seconds to stabilise the weight.



Wait

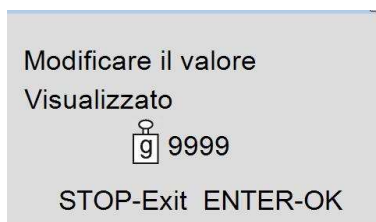
Refrigerant cell




Oil cell



Confirm by pressing **ENTER**.



 In the case of a calibration error the display shows **CALIBRATION DEFECT. RETRY OR REPLACE SCALES.**
IMPORTANT:
before replacing the load cell, enter the default parameters, password 7782 and recalibrate all the cells and the pressure sensor.



Set the sample weight value. Confirm by pressing **ENTER**.




Press **ENTER**.

Press **UP – DOWN** to select next scales.

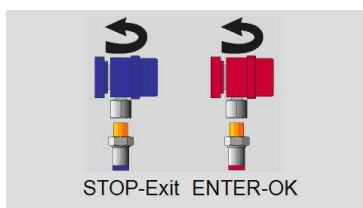
Press **STOP** to leave calibration menu.

2.5 LP PRESSURE SENSOR CALIBRATION



 In order to access service menu refer to subsection 2.1.

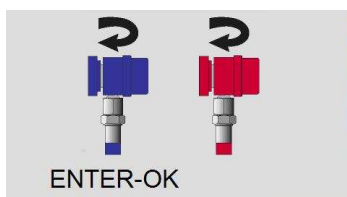
Enter the password **7736** and confirm with **ENTER** key.



WARNING:

Before removing the quick release couplings, check that the pressure gauges do not show any pressure in the filling hoses; otherwise, carry out a recovery phase.

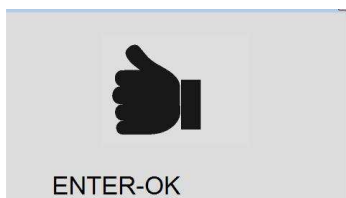
Remove both the quick release couplings from the filling hoses. Confirm with **ENTER** key.



Refit quick release couplings on filling hoses. Confirm with **ENTER** key.



Vacuum in progress



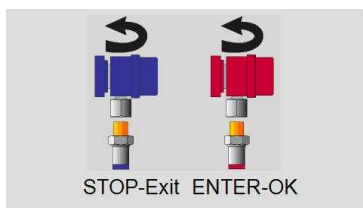
Confirm with **ENTER** key.

2.6 SIMULTANEOUS CALIBRATION OF TWO PRESSURE SENSORS

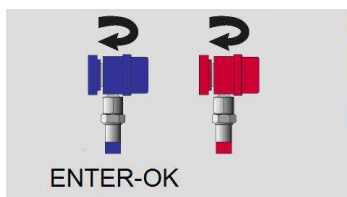


In order to access service menu refer to subsection 2.1.

Enter code **7737**. Confirm by pressing **ENTER**.



Remove both quick couplings from filling hoses. Confirm by pressing **ENTER**.



Refit quick couplings on filling hoses. Confirm by pressing **ENTER**.



CAUTION:

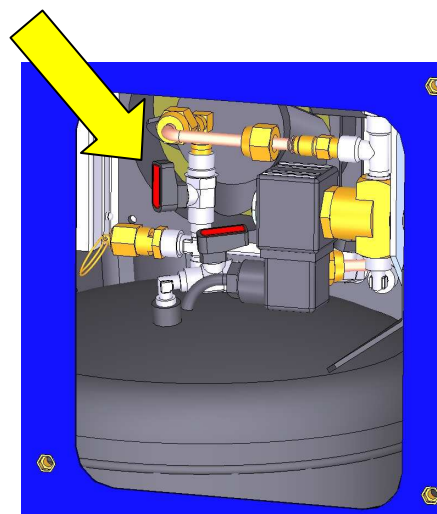
before removing the quick couplings check that the pressure gauges do not show any pressure in the filler hoses; otherwise carry out a recovery phase.



The unit perform vacuum phase



Close valve on gas bottle and confirm by pressing **ENTER**





ENTER-OK

Open valve on gas bottle and confirm by pressing **ENTER**




ENTER-OK

Press **ENTER** to leave menu.

2.7 ENABLING AND DISABLING LEAK PROOF OIL CONTAINERS

2.7.1 ENABLING LEAK PROOF OIL CONTAINERS



 In order to access service menu refer to subsection 2.1.

Enter code **7846**. Confirm by pressing **ENTER**.
Use leak proof oil containers

2.7.2 DISABLING LEAK PROOF OIL CONTAINERS



Enter code **7863**. Confirm by pressing **ENTER**.
Use the standard oil containers.

2.8 ENABLING AND DISABLING HEATER STRIP CONTROL BUTTON

2.8.1 ENABLING HEATER STRIP BUTTON



Enter code **2248**. Confirm by pressing **ENTER**.
NOTE: The button must be enabled when the relative heater strip kit is used.

2.8.2 DISABLING HEATER STRIP BUTTON



Enter code **3248**. Confirm by pressing **ENTER**.

2.9 MODIFYING OPERATIONAL PARAMETERS



Enter code **7272**. Confirm by pressing **ENTER**.

Ref Type

0=R1234yf

1=R134a

ENTER-OK STOP-EXIT

The display shows the first parameter on the list.

Press **UP -DOWN** to select desired parameter.

Use numerical keys to modify values.

Press **ENTER** to confirm entered values.

The complete list of parameters is given in the following table.

| PARAMETER | VERSION 10kg - R1234yf | VERSION 25kg R134a |
|--------------------------------------|---------------------------|-----------------------|
| R1234YF/R134A | 0 | 1 |
| EDIT TIME 0 | 30 | 30 |
| EDIT TIME 1 | 5 | 5 |
| EDIT TIME 2 | 10 | 10 |
| EDIT TIME 3 | 5 | 5 |
| EDIT TIME 4 | 30 | 30 |
| EDIT TIME 5 | 60 | 60 |
| EDIT TIME 6 | 60 | 60 |
| EDIT TIME 7 | 90 | 90 |
| EDIT TIME 8 | 90 | 90 |
| EDIT TIME 9 | 5 | 5 |
| EDIT TIME 10 | 10 | 15 |
| EDIT TIME 11 | 15 | 15 |
| EDIT TIME 12 | 20 | 20 |
| EDIT TIME 13 | 6 | 6 |
| EDIT TIME 14 | 5 | 5 |
| EDIT TIME 15 | 5 | 5 |
| TARE WEIGHT | 14300 | 20000 |
| WEIGHT FOR START COMP. IN FILLING PH | 1000 | 1000 |
| DEFAULT WEIGHT FOR FILLING PHASE | 700 | 700 |
| INTERNAL RECHARGE OFFSET WEIGHT | 0 | 0 |
| MAX RELATIVE WEIGHT | 10000 | 24000 |
| MAX ABSOLUTE WEIGHT | 24300 | 44000 |
| VDH THRESHOLD | 1400 | 1400 |
| VDL THRESHOLD | 750 | 750 |

SERVICE AND MAINTENANCE MANUAL

ALASKA PREMIUM / PREMIUM HFO




| | | |
|---------------------------------------|--------|--------|
| VD1 THRESHOLD | 50 | 50 |
| VD2 THRESHOLD | 400 | 400 |
| VD3 THRESHOLD | 100 | 100 |
| VD4 THRESHOLD | 950 | 950 |
| VD5 THRESHOLD | 120 | 120 |
| VIEW WEIGHT RECOVERED | - | |
| VIEW TOTAL WEIGHT RECOVERED | - | |
| DEFAULT TIME FOR PRESSURE CONTROL | 2 | 2 |
| DEFAULT TIME FOR VACUUM | 30 | 30 |
| DEFAULT TIME FOR LEAK TEST | 4 | 4 |
| DEFAULT OIL | 10 | 10 |
| DEFAULT UV | 5 | 5 |
| DEFAULT OIL 2 | 0 | 0 |
| DEFAULT UV 2 | 0 | 0 |
| HYBRID | 0 | 0 |
| ALARM WEIGHT FOR USED OIL | 170 | 170 |
| ALARM WEIGHT FOR USED OIL AT START | 100 | 100 |
| OIL DRAINED TARE WEIGHT | 0 | 0 |
| FRESH OIL TARE WEIGHT | 0 | 0 |
| FRESH OIL 2 TARE WEIGHT | 0 | 0 |
| FRESH OIL TARE WEIGHT (SEALED CONT) | 0 | 0 |
| FRESH OIL 2 TARE WEIGHT (SEALED CONT) | 0 | 0 |
| FRESH OFFSET | 10 | 10 |
| FRESH 2 OFFSET | 10 | 10 |
| CORRECTION PARAMETER LP PORT | 115 | 115 |
| FILTER CHANGE ALARM WEIGHT | 150000 | 150000 |
| K g->ml K=1/PSX1000 | 1000 | 1000 |
| DISPLAY REFRESH TIME | 3 | 3 |
| ATMOSPHERIC PRESSURE | 1000 | 1000 |
| VACUUM PRESSURE | 0 | 0 |
| REF. WARNING WEIGHT | 3000 | 6000 |
| SEALED OIL CONTAINERS ON/OFF | 0 | 0 |
| DEFAULT RECOVERY ECO/SPEED | 1 | 1 |
| DP OVER PRESSURE TANK | 50 | 50 |
| DEFAULT TIME PRESSURE SETTLEMENT | 3 | 3 |
| DEFAULT TIME TEST NITROGEN | 1 | 1 |
| DEFAULT PRESS LEAK TEST N2 | 100 | 100 |
| MINIMUM PRESS TANK | 80 | 80 |
| RPM FAN | 2800 | 2800 |
| %RPM FAN | 85 | 85 |
| PRESTOP CHARGE | 60 | 60 |
| DEFAULT NUMBER OF CYCLES FOR FLUSHING | 2 | 2 |
| DEFAULT FLOODING TIME FOR FLUSHING | 2 | 2 |
| DEFAULT VACUUM TIME FOR FLUSHING | 5 | 5 |
| DEFAULT LEAK TEST TIME FOR FLUSHING | 1 | 1 |
| MIN ABSOLUTE WEIGHT | 13300 | 19000 |
| SEALED CONTAINERS TARE OFFSET | 45 | 45 |

Press **STOP** to leave menu.

2.10 RESET DEFAULT PARAMETERS



 In order to access service menu refer to subsection 2.1.

Enter code **7781**. Confirm by pressing **ENTER**.

**Load default
Machine
Parameters ?
ENTER-OK STOP-EXIT**

Confirm by pressing **ENTER**.

2.11 RESET CALIBRATION PARAMETERS



Enter code **7782**. Confirm by pressing **ENTER**.

**Load default
Calibration
Parameters ?
ENTER-OK STOP-EXIT**

Confirm by pressing **ENTER**.


2.12 RESET USER MODELS



Enter code **7784**. Confirm by pressing **ENTER**.
Confirm by pressing **ENTER**.

2.13 RESTORE 5 LINES TO COUPON HEADING FROM LANGUAGE FILE



 In order to access service menu refer to subsection 2.1.

Enter code **7785**. Confirm by pressing **ENTER**.

Confirm by pressing **ENTER**.

2.14 HISTORICAL RESET OF SERVICES PERFORMED



Enter code **7786**. Confirm by pressing **ENTER**.

Confirm by pressing **ENTER**.

2.15 DISPLAY AND ZEROING OF ROUTINE MAINTENANCE COUNTERS



Enter code **2668**. Confirm by pressing **ENTER**.

Total gas recovered
g.
Counter reset ?
ENTER-OK STOP-EXIT


Confirm by pressing **ENTER**. The display shows


**Press ENTER key
for 3 seconds !**

ENTER-OK STOP-EXIT

Counter reset ok!

ENTER-OK

 In order to access service menu refer to subsection 2.1.

 The display shows the number of minutes of operation of the vacuum pump since the last zeroing of the counter.

Confirm by pressing **ENTER**. Press **STOP** to leave menu.

2.16 DISPLAY TRASDUCER INPUT DATA



Enter code **8439**. Confirm by pressing **ENTER**.

2.17 DISPLAY OF HISTORICAL COUNTERS



Enter code **8266**. Confirm by pressing **ENTER**.

View weight recovered

g.

ENTER-OK STOP-EXIT

Confirm by pressing **ENTER**.


**View total weight
recovered**

g.

ENTER-OK STOP-EXIT

Confirm by pressing **ENTER**. Press **STOP** to leave menu.

2.18 DISPLAY IP ADDRESS AND SERIAL No.

 In order to access service menu refer to subsection 2.1



Enter code **4726**. Confirm by pressing **ENTER**.


IP address

Serial N° unit .

Press **ENTER** to leave menu.

2.19 HOSE LENGTH CORRECTION PARAMETER



 Increase the displayed default parameter of 25 g for every metre of HP hose added with respect to the standard 3 metre hose

Enter code **7732**. Confirm by pressing **ENTER**.

**Additional capacity
for HP/LP hoses.**

g.

Enter desired value and confirm by pressing **ENTER**.

2.20 SETTING HOUR, MINUTES, SECONDS



Enter code **8463**. Confirm by pressing **ENTER**.

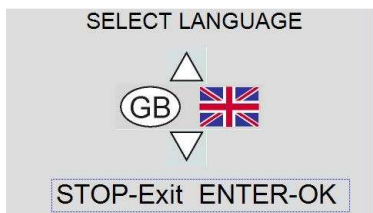


Press **UP-DOWN** to position on values to be edited, enter correct values, confirm by pressing **ENTER**.

2.21 LANGUAGE SELECTION

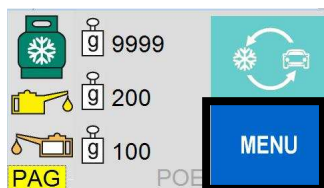


Enter code **5264**. Confirm by pressing **ENTER**.

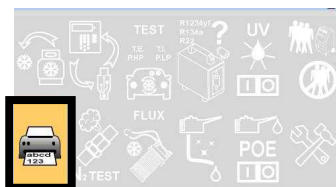


Press **UP -DOWN** to select desired language. Confirm by pressing **ENTER**.
The display shows the stand-by status.

2.22 PERSONALISATION OF COUPON HEADING



Press **UP –DOWN** to select **MENU**. Confirm by pressing **ENTER**.



Press **UP –DOWN** to select **PRINT OPTIONS**. Confirm by pressing **ENTER**.

Repeat print ☐
 Refrigerant IN /OUT ☐
 Customize data ☒
 A4 print ☐
 Enter-Ok Stop-Exit

Press **UP –DOWN** to select **Customize Data**. Confirm by pressing **ENTER**

Enter company data.
 Magneti Marelli
 ENTER-OK STOP-EXIT

One line at a time may be modified; the cursor is positioned on the first letter of the first line.

Use **UP** and **DOWN** keys to position on digit to be modified.

Modify the text with the alphanumeric keys.

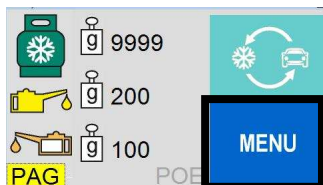
Press **ENTER** to confirm the modifications made to the first line.

The display moves to the second line.

Repeat procedure for all remaining lines.

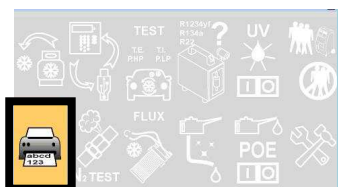
2.23 EXPORT OF LAST DATA SERVICE FOR PRINT ON A4 FORMAT

With this option you can export the data of last performed service on a memory stick, the file can be printed on A4 format using the PC application "serves Historical & A4 print out.xls" downloadable from the web site <http://professionista.magnetimarelli-checkstar.it/it>



The file name is
last job.hst

Press **UP -DOWN** to select **MENU**. Confirm by pressing **ENTER**.



Press **UP -DOWN** to select **PRINT OPTIONS**. Confirm by pressing **ENTER**.

```
Repeat print          ■
Refrigerant IN /OUT  □
Customize data        □
A4 print              □
Enter-Ok Stop-Exit   ↑
```

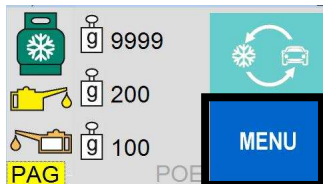
Press **UP -DOWN** to select **A4 print**. Confirm by pressing **ENTER**

```
Back up data
Last job to print
In A4
Enter-Ok Stop-Exit
```

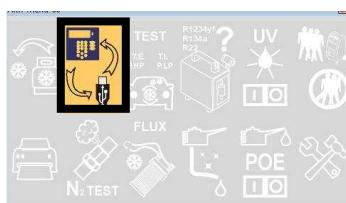
Confirm by pressing **ENTER**

2.24 BACK-UP/RESTORE CALIBRATION, PARAMETERS AND USER MODELS

This operation backs up the calibrations, parameters and user models



Press **UP –DOWN** to select **MENU**. Confirm by pressing **ENTER**.



Press **UP –DOWN** to select **Backup/Restore**. Confirm by pressing **ENTER**.

Back up/Restore ■
Service history exp. ☐
IN/OUT ref. export ☐
Enter-Ok Stop-Exit ↓

Regularly carry out the data back up from the board to the memory card.

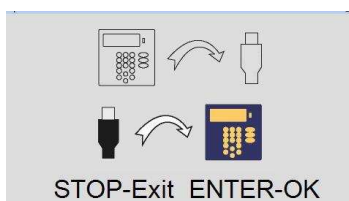
Press **UP –DOWN** to select **Backup/Restore**. Confirm by pressing **ENTER**

Press **UP –DOWN** to select the option and confirm by pressing **ENTER**



The name of the file generated is represented by the unit serial no. and it will have the .bck extension (e.g. H1234567.bck).

Transfer data from logic board to memory stick



Transfer data from memory stick to logic board

If the memory stick is not found when exporting, the following message appears

```
usb card  
not found  
Insert usb card  
Enter-Ok Stop-Exit
```

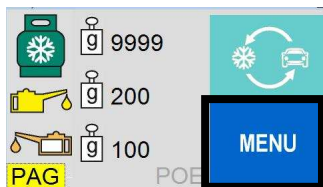
If the memory stick is not found during the data restore, the following message appears

```
File  
Back up  
Not found  
Enter-Ok Stop-Exit
```

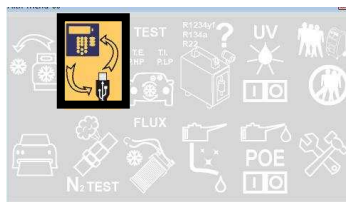
In both cases, check the presence, operation and correct installation of the memory stick.

2.25 EXPORT THE HISTORICAL OF PERFORMED SERVICE

With this option you can export the history of the performed services on a memory stick, the file can be imported using the PC application "serves Historical & A4 print out.xls" downloadable from the web site <http://professionista.magnetimarelli-checkstar.it/it>



Press **UP –DOWN** to select **MENU**. Confirm by pressing **ENTER**.



Press **UP –DOWN** to select **Backup/Restore**. Confirm by pressing **ENTER**.

```
Back up/Restore          ☐
Service history exp.    ☒
IN/OUT ref. export      ☐
Enter-Ok Stop-Exit      ↑
```

Press **UP –DOWN** to select **Service history export**. Confirm by pressing **ENTER**

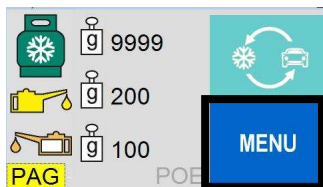
```
Back up of
Previous services
Enter-Ok Stop-Exit
```

Confirm by pressing **ENTER**

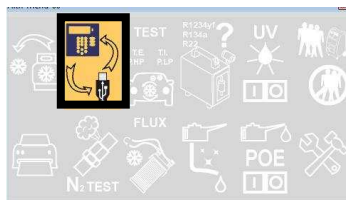
The name of the file generated is represented by the unit serial no. and it will have the .hst extension (e.g. H1234567.hst).

2.26 EXPORT THE HISTORICAL OF IN/OUT REFRIGERANT

With this option you can export the history of inlet and outlet refrigerant on a memory stick, the file can be imported using the PC application "serves Historical & A4 print out.xls" downloadable from the web site <http://professionista.magnetimarelli-checkstar.it/it>



Press **UP –DOWN** to select **MENU**. Confirm by pressing **ENTER**.




Press **UP –DOWN** to select **Backup/Restore**. Confirm by pressing **ENTER**.

```
Back up/Restore      ☐
Service history exp. ☒
IN/OUT ref. export   ☐
Enter-Ok Stop-Exit   ↑
```

Press **UP –DOWN** to select **IN/OUT ref export..** Confirm by pressing **ENTER**

```
Back up of previous
IN/OUT gas report?
Enter-Ok Stop-Exit
```

Confirm by pressing **ENTER**

 The name of the file generated is represented by the unit serial no. and it will have the .rio extension (e.g. H1234567.rio).

3 ACCESS TO OPERATORS ENABLING IN CASE OF LOST OR FORGOTTEN ADMINISTRATOR PASSWORD

If the enabling operators function is enabled (see user manual 9.11) and the administrator password is lost or forgotten, it is possible to access to the administrator settings as follows:

- 1 – Switch off the unit
- 2 – Press and hold keys 1 and 3 simultaneously
- 3 – Switch on the unit
- 4 – Digit a new admin password (see user manual 9.11)

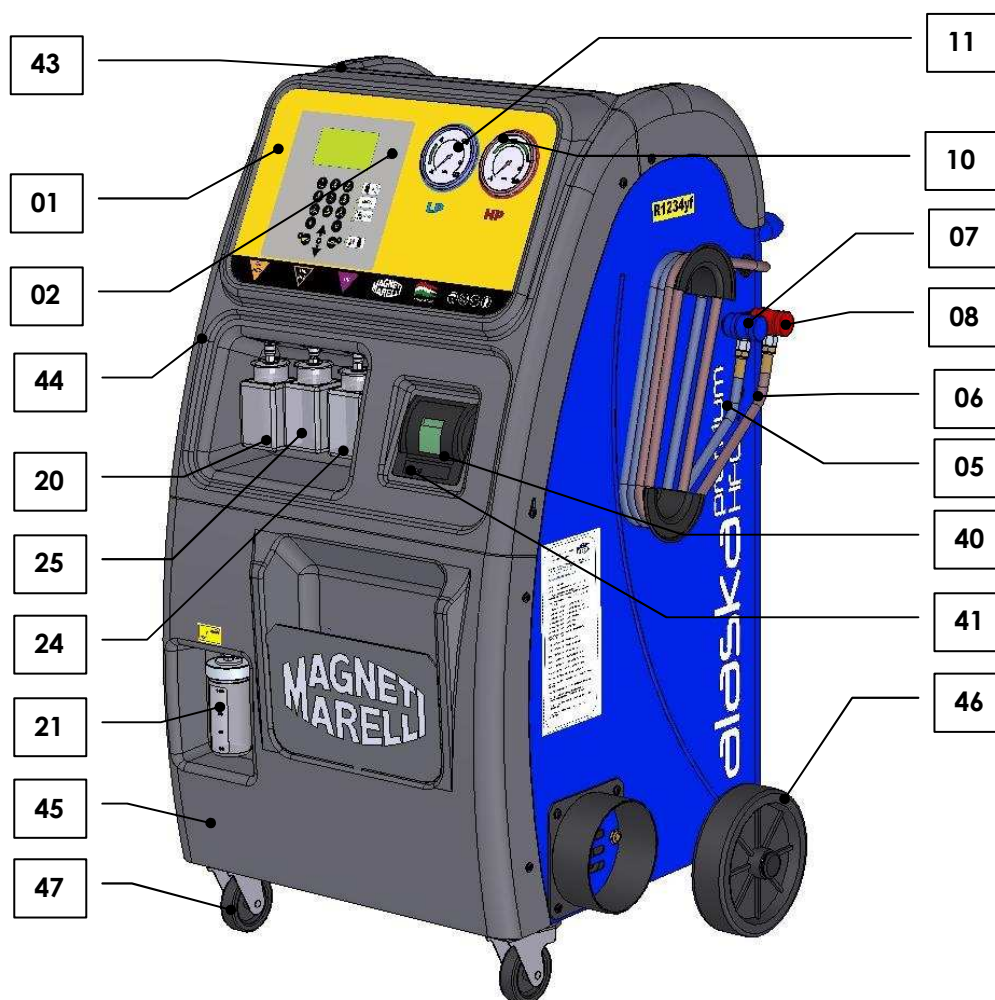
4 LOGIC CARD REPLACEMENT

The data concerning the history of the services performed, the personalised user models, the coupon heading, the chosen language and the operating parameters etc are stored on the logic card. If it is necessary to replace the logic card, the following procedure should be followed in order not to lose the data stored on the card.

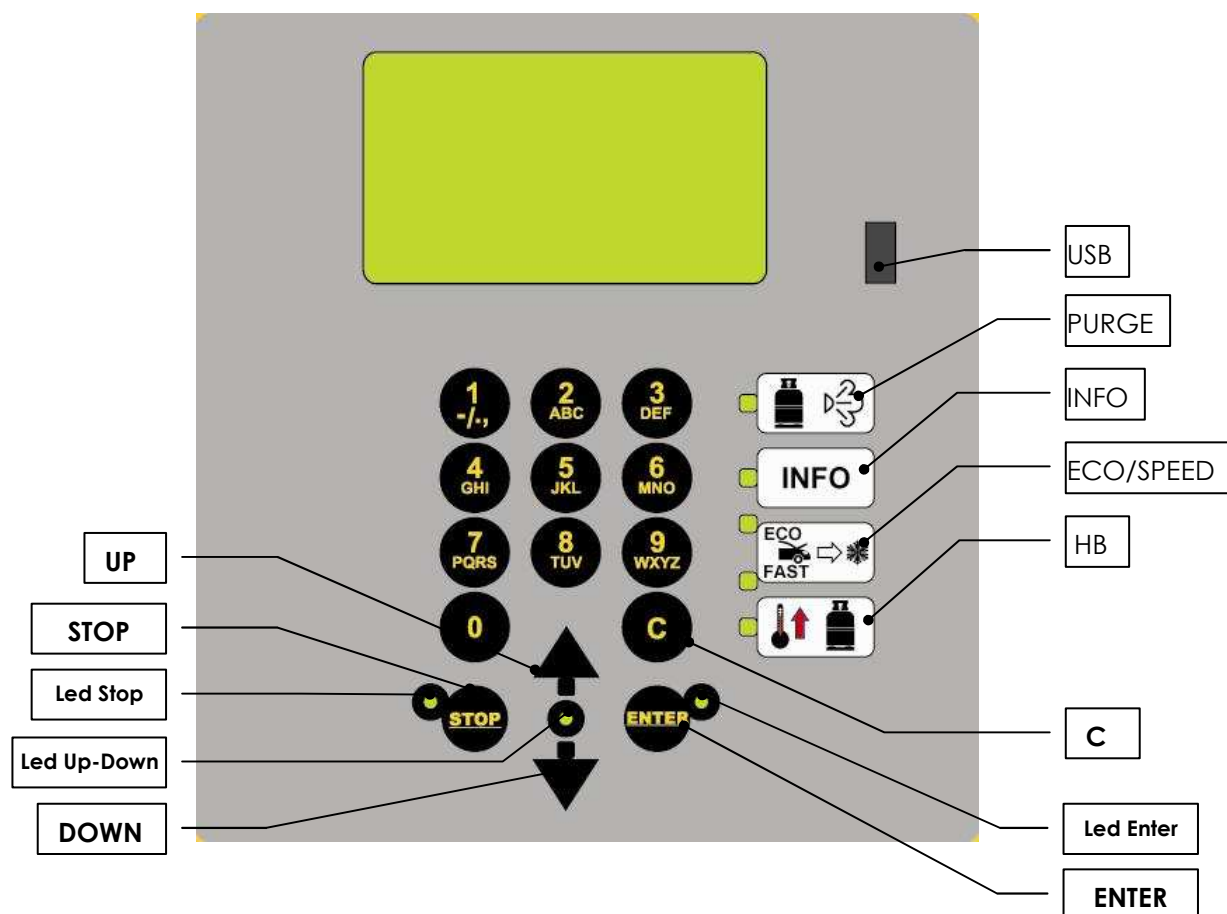
1. Carry out the data back up from the logic card to the memory card. Ref. subsection 2.26.
2. Replace logic card
3. Restore electrical connections
4. Digit the serial number
5. Enter default parameters, ref. subsection 2.10.
6. Carry out the data back up from the memory card to the logic card
7. Calibrate the pressure sensor and the load cells, ref. subsections 2.4, 2.5 and 2.6.

5 VIEWS, COMPONENT LISTS

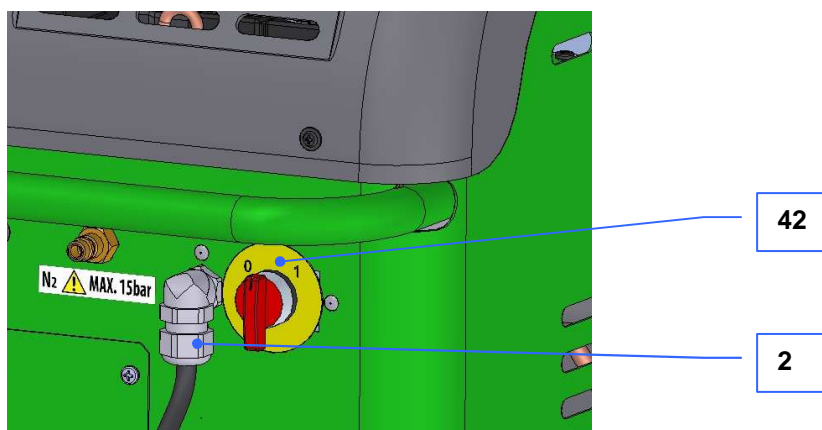
5.1 GENERAL VIEW



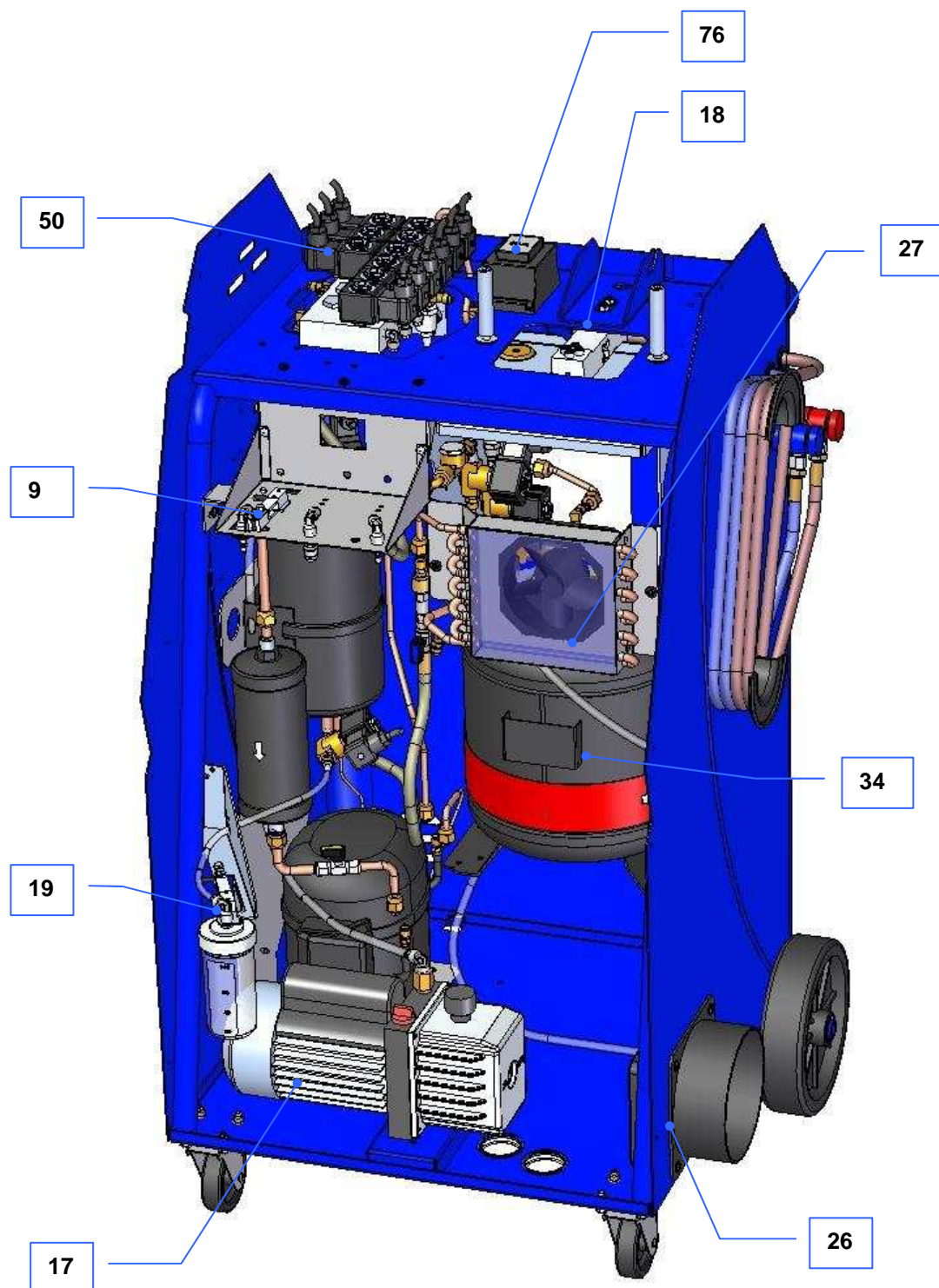
5.2 CONTROL PANEL VIEW



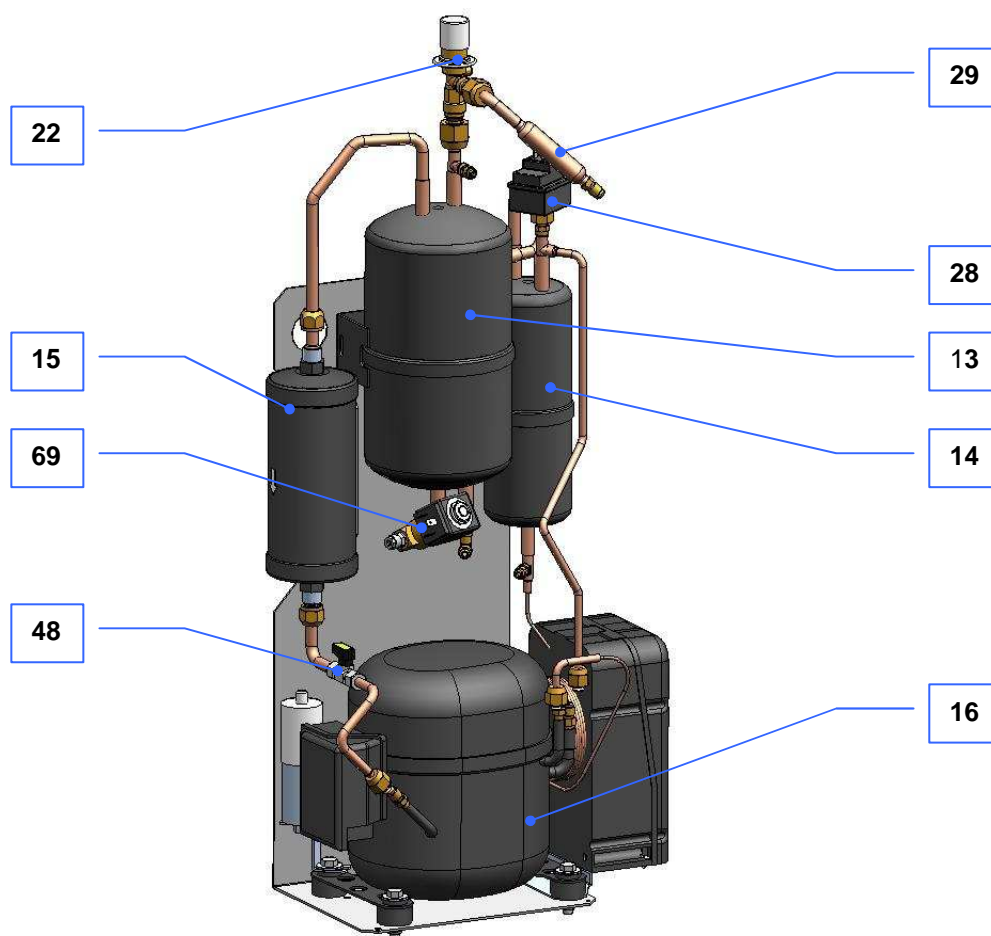
5.3 REAR VIEW



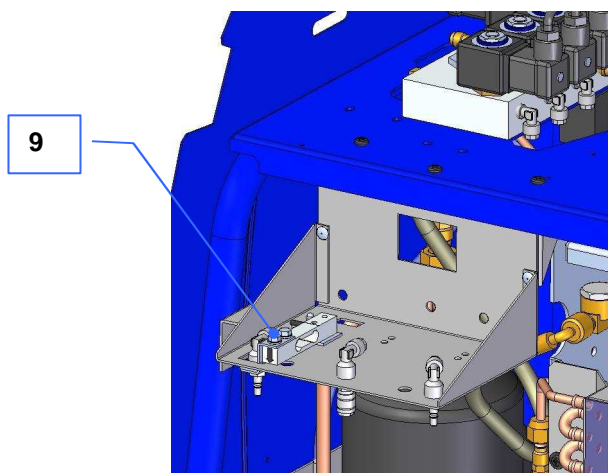
5.4 INTERNAL VIEW



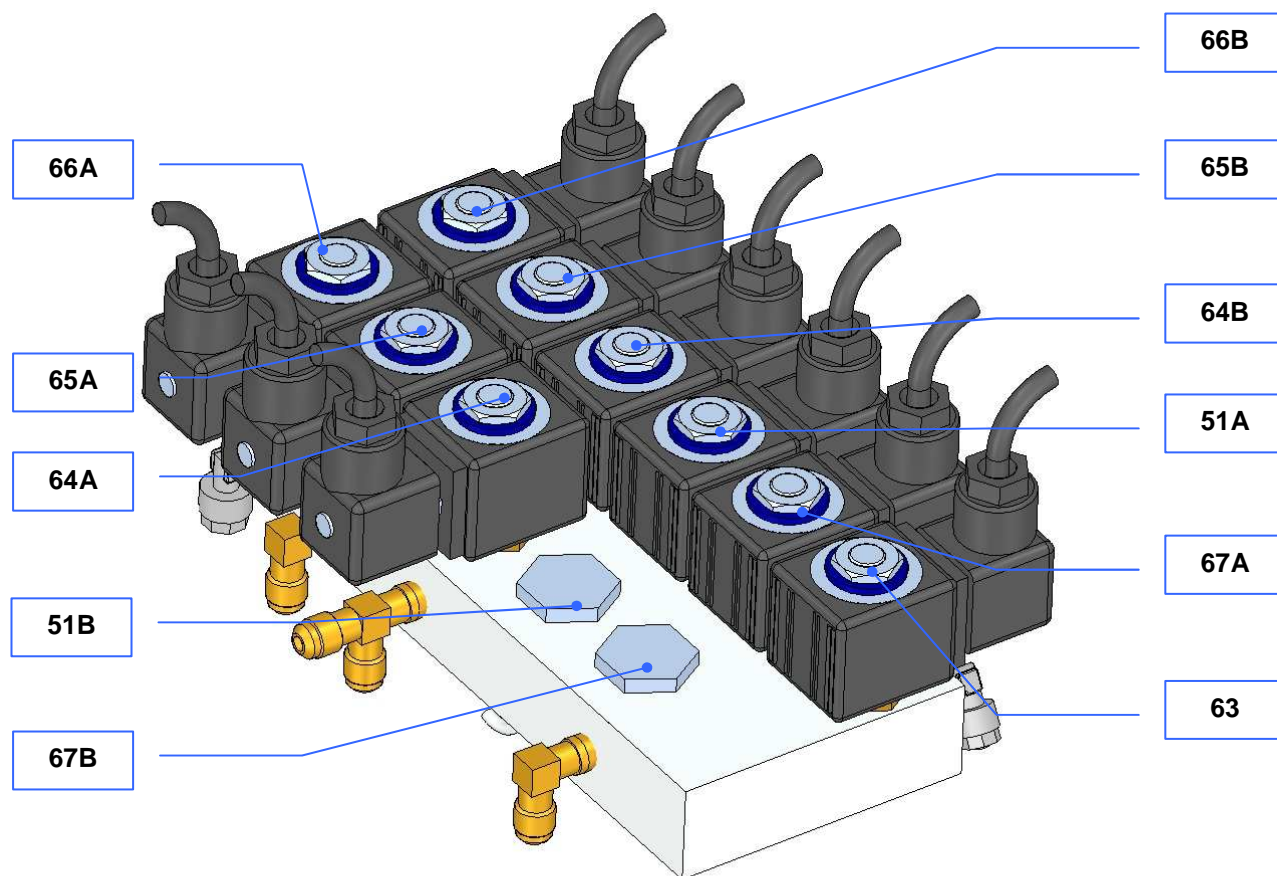
5.5 RECOVERY UNIT VIEW



5.6 OIL LOAD CELL BRACKET VIEW



5.7 VALVE UNIT 1 VIEW



| ITEM | NAME | DESCRIPTION |
|------|----------|--|
| 63 | OUT UV | UV INJECTION SOLENOID VALVE ø 2.5 mm |
| 64A | OUT I | HP-LP SOLENOID VALVE ø 4.5 mm |
| 64B | OUT I | HP-LP SOLENOID VALVE ø 4.5 mm |
| 65A | OUT A | RECOVERY SOLENOID VALVE ø 4.5 mm |
| 65B | OUT A | RECOVERY SOLENOID VALVE ø 4.5 mm |
| 66A | OUT B | VACUUM PUMP SOLENOID VALVE 4.5 mm |
| 66B | OUT B | VACUUM PUMP SOLENOID VALVE 4.5 mm |
| 67A | OUT L | OIL INJECTION SOLENOID VALVE ø 2.5 mm |
| 67B | OUT L/UV | CHECK VALVE |
| 51A | OUT L2 | POE OIL AND UV INJECTION SOLENOID VALVE ø 2.5 mm |
| 51B | OUT L2 | CHECK VALVE |

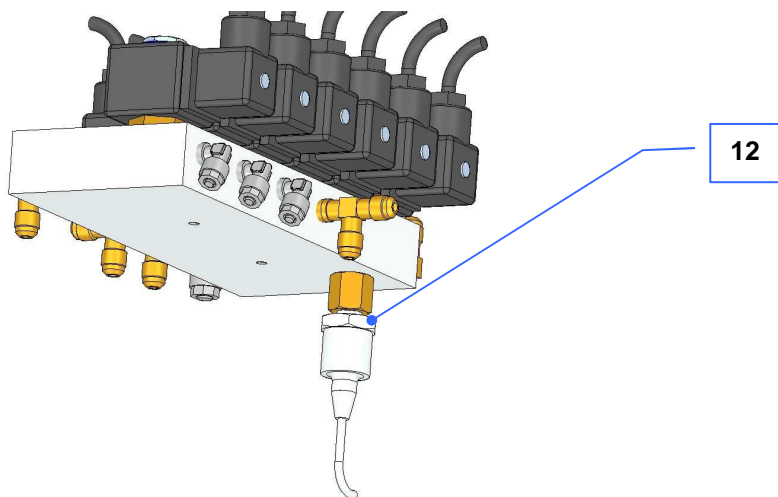
Note

The solenoid valve under item (69) is fitted at the bottom of the distiller (13).

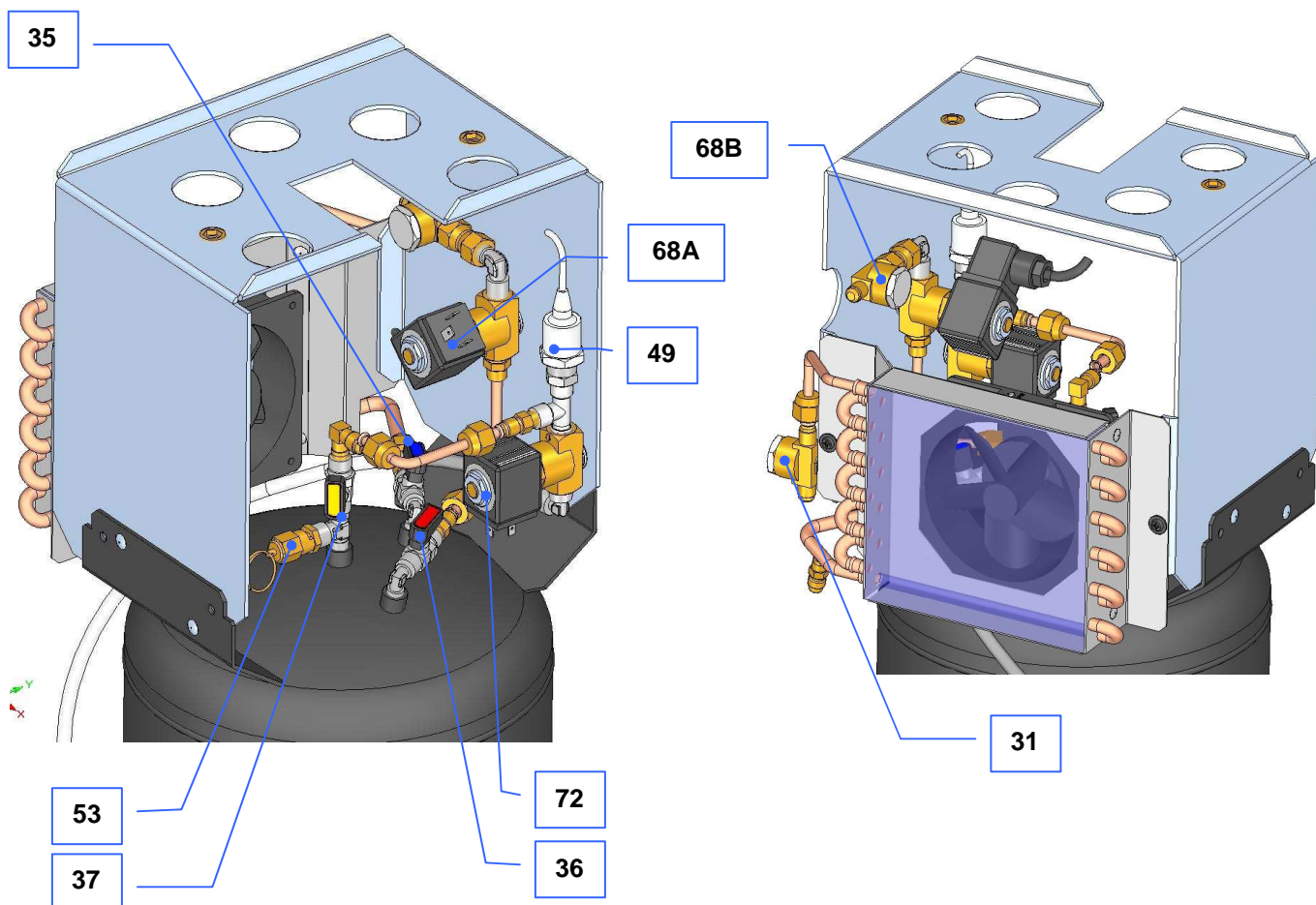
The solenoid valve and check valve under item (68) are installed on the inner container (34)

The solenoid valve for draining non-condensables under item (72) is installed on the inner container (34).

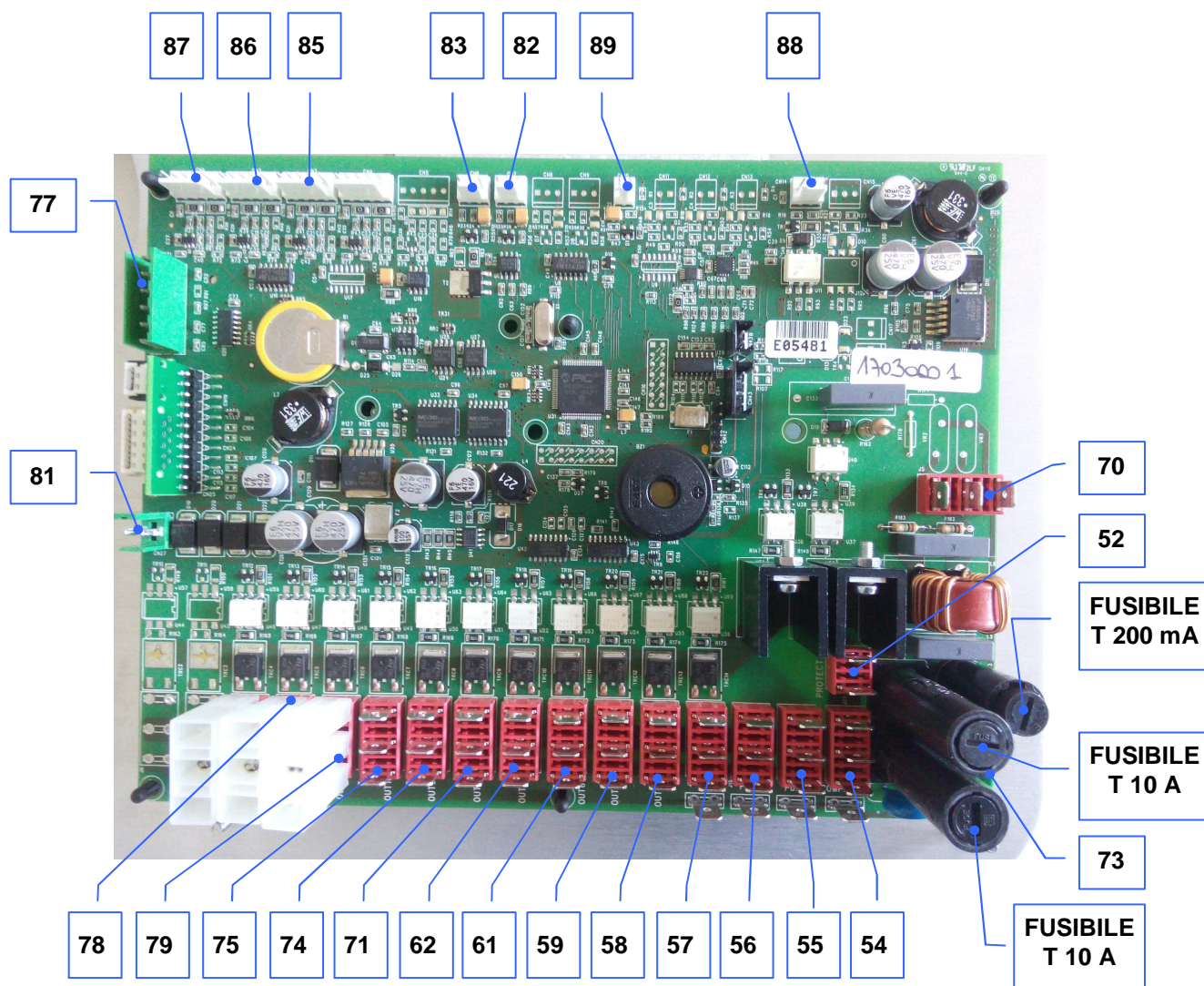
5.8 VALVE UNIT 2 VIEW



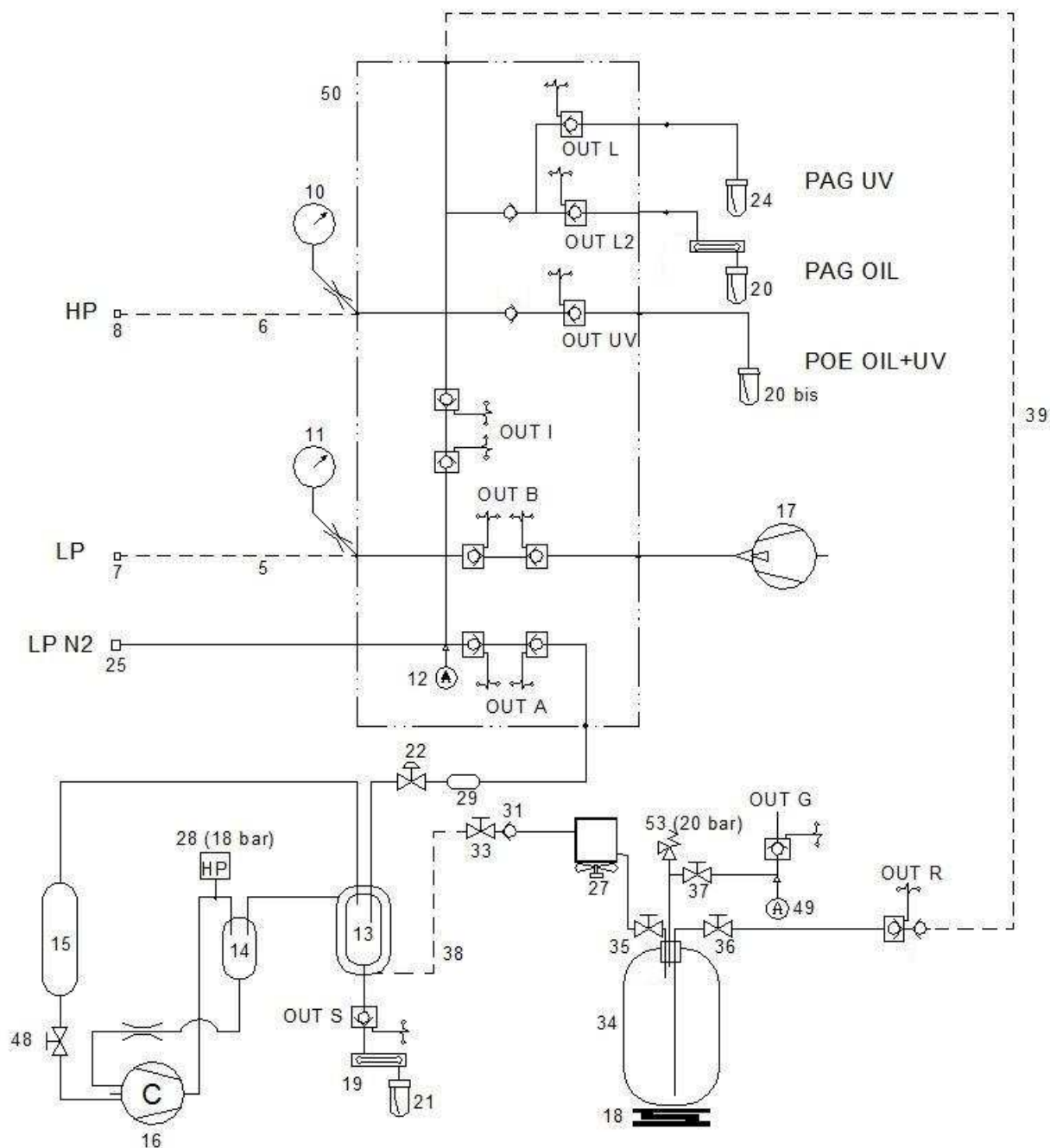
5.9 CONTAINER INTERNAL VIEW



5.10 LOGIC/POWER CARD VIEW



6 FLOW DIAGRAM



6.1 LIST OF COMPONENTS

| ITEM | DESCRIPTION |
|--------|------------------------------------|
| 1 | LOGIC/POWER CARD |
| 2 | POWER SUPPLY CABLE |
| 5 | FILLER HOSE BLUE 3000 |
| 6 | FILLER HOSE RED 3000 |
| 7 | LP QUICK COUPLING |
| 8 | HP QUICK COUPLING |
| 9 | LOAD CELL 15 kg |
| 10 | PRESSURE GAUGE HP D80 |
| 11 | PRESSURE GAUGE LP D80 |
| 12 | PRESSURE SENSOR -1/10 BAR |
| 13 | DISTILLER |
| 14 | OIL SEPARATOR |
| 15 | FILTER |
| 16 | COMPRESSOR |
| 17 | VACUUM PUMP |
| 18 | LOAD CELL 60 kg |
| 19 | LOAD CELL 15 kg |
| 20 | INJECTION CONTAINER |
| 20 BIS | POE OIL AND UV INJECTION CONTAINER |
| 21 | OIL DRAIN CONTAINER |
| 22 | EXPANSION VALVE |
| 23 | EMI FILTER |
| 24 | UV ADDITIVE CONTAINER |
| 25 | COUPLING FOR NITROGEN CONNECTION |
| 26 | TACHOMETRIC FAN |
| 27 | VENTILATED CONDENSER |
| 28 | HP SAFETY PRESSURE SWITCH |
| 29 | MECHANICAL FILTER |
| 31 | CHECK VALVE |
| 34 | CONTAINER INNER PART |
| 35 | STEAM SIDE GAS BOTTLE VALVE |
| 36 | LIQUID SIDE GAS BOTTLE VALVE |
| 37 | NON-CONDENSABLES DRAIN VALVE |
| 38 | RUBBER HOSE |
| 39 | RUBBER HOSE |
| 40 | PRINTER |
| 41 | PAPER ADVANCE BUTTON |
| 42 | SWITCH |
| 43 | UPPER PANEL |
| 44 | CONTROL PANEL |
| 45 | LOWER PANEL |
| 46 | WHEEL REAR |
| 47 | SWIVELLING WHEEL WITH BRAKE |
| 48 | BALL VALVE |
| 49 | CONTAINER INTERNAL PRESSURE GAUGE |
| 50 | VALVES UNIT |
| 53 | SAFETY VALVE |
| 76 | TRANSFORMER |

7.1 LIST OF ELECTRICAL CONNECTIONS

| SECT. | ITEM | DESCRIPTION | No. of PINS | DESCRIPTION | LOCATION |
|-------------------------|------|-------------|-------------|---|-------------------------------------|
| SOLENOID VALVES | | | | | |
| 3.7 | 63 | OUT UV | - | UV INJECTION SOLENOID VALVE | - |
| 3.7 | 64 | OUT I | - | HP-LP SOLENOID VALVE | - |
| 3.7 | 65 | OUT A | - | RECOVERY/RECYCLING SOLENOID VALVE | - |
| 3.7 | 66 | OUT B | - | VACUUM PUMP SOLENOID VALVE | - |
| 3.7 | 67 | OUT L | - | OIL INJECTION SOLENOID VALVE | - |
| 3.7 | 51 | OUT L2 | - | POE OIL & UV INJECTION SOLENOID VALVE | - |
| 3.9 | 68 | OUT R | - | FILLER SOLENOID VALVE | - |
| 3.5 | 69 | OUT S | - | OIL DRAIN SOLENOID VALVE | - |
| 3.9 | 72 | OUT G | - | NON-CONDENSABLES DISCHARGE SOLENOID VALVE | - |
| LOGIC/POWER CARD | | | | | |
| 3.10 | 77 | CN11 | 6 | PRINTER/DATA BUS POWER SUPPLY CABLE | PRINTER (40) |
| 3.10 | 70 | J14 | 3 | SWITCH POWER CABLE | SWITCH (42) |
| 3.10 | 52 | J2 | 2 | HP PRESSURE CONTROL SWITCH | HP PRESSURE CONTROL SWITCH (28) |
| 3.10 | 54 | COMPRESS | 3 | COMPRESSOR | COMPRESSOR (16) |
| 3.10 | 55 | PUMP | 3 | VACUUM PUMP | VACUUM PUMP (17) |
| 3.10 | 56 | PUMP | 3 | VACUUM PUMP SOLENOID VALVE OUT B | SV 66 |
| 3.10 | 57 | OUT 1 | 3 | RECOVERY SOLENOID VALVE OUT A | SV 65 |
| 3.10 | 58 | OUT 3 | 3 | OIL INJECTION SOLENOID VALVE OUT L | SV 67 |
| 3.10 | 59 | OUT 4 | 3 | FILLER SOLENOID VALVE OUT R | SV 68 |
| 3.10 | 61 | OUT 6 | 3 | OIL DRAIN SOLENOID VALVE OUT S | SV 69 |
| 3.10 | 62 | OUT 7 | 3 | HP-LP SOLENOID VALVES OUT I | SV 64 |
| 3.10 | 71 | OUT 8 | 3 | UV INJECTION SOLENOID VALVE OUT UV | SV 90 |
| 3.10 | 74 | OUT 9 | 3 | NON-CONDENSABLES SOLENOID VALVE. | SV 72 |
| 3.10 | 75 | OUT 10 | 3 | POE OIL & UV INJECTION SOLENOID VALVE | EV51 |
| 3.10 | 78 | OUT 12 | 3 | HEATING BELT CONNECTION | - |
| 3.10 | 82 | CN7 | 3 | INTERNAL TANK PRESSURE SENSOR | PRESSURE SENSOR (49) |
| 3.10 | 83 | CN6 | 3 | PRESSURE SENSOR | PRESSURE SENSOR (12) |
| 3.10 | 84 | CN4 | 5 | LOAD CELL FOR OPTIONAL KITS | LOAD CELL FOR OPTIONAL KITS (20bis) |
| 3.10 | 85 | CN3 | 5 | OIL DRAIN LOAD CELL | OIL DRAIN LOAD CELL (19) |
| 3.10 | 86 | CN2 | 5 | OIL INJECTION LOAD CELL | OIL INJECTION LOAD CELL (9) |
| 3.10 | 87 | CN1 | 5 | REFRIGERANT LOAD CELL | REFRIGERANT LOAD CELL (18) |
| 3.10 | 88 | CN14 | 3 | TACHOMETRIC FAN | TACHOMETRIC FAN(26) |
| 3.10 | 89 | CN10 | 2 | TEMPERATURE SENSOR | - |
| 3.10 | 81 | J1 | 2 | 12V INPUT | TRANSFORMER (76) |
| 3.10 | 73 | J13 | 3 | 220 V OUTPUT | TRANSFORMER (76) |