

OPERATING MANUAL**CMA TRONIQUE**

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MU 7034 EN B
CMA TRONIQUE
 Alma Ingénierie (Service Technique)

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1. GENERAL PRESENTATION AND DESCRIPTION

The CMA TRONIQUE measuring system must be fitted on road tankers to measure liquids such as fuel, diesel, off-road diesel (GNR), ethanol and ad-blue. It has no gas elimination device because its principle of functioning avoids the introduction of a gaze phase into the pump.

It performs the following functions:

- measure products when they are delivered to the station,
- monitor the reception of products (lorry/wagon),
- split compartments,
- measure product returns,

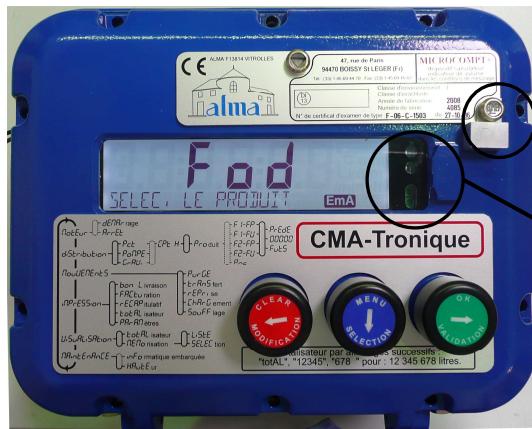
The CMA TRONIQUE measuring system comprises:

- a turbine meter
- a MICROCOMPT+ electronic calculator-indicator
- a relative pressure sensor with its associated hydraulic shock absorber
- a pump
- a sight glass just downstream the meter
- either one (or two) full hoses or an empty hose or a mix of a full hose and an empty hose
- a pneumatic valve in case of double delivery way
- if required, overfill probes
- if required, a temperature sensor
- a printer

The CMA TRONIQUE can be equipped with an additive injection device. This injection has to occur upstream the meter.



Presentation of the MICROCOMPT+ calculator-indicator:

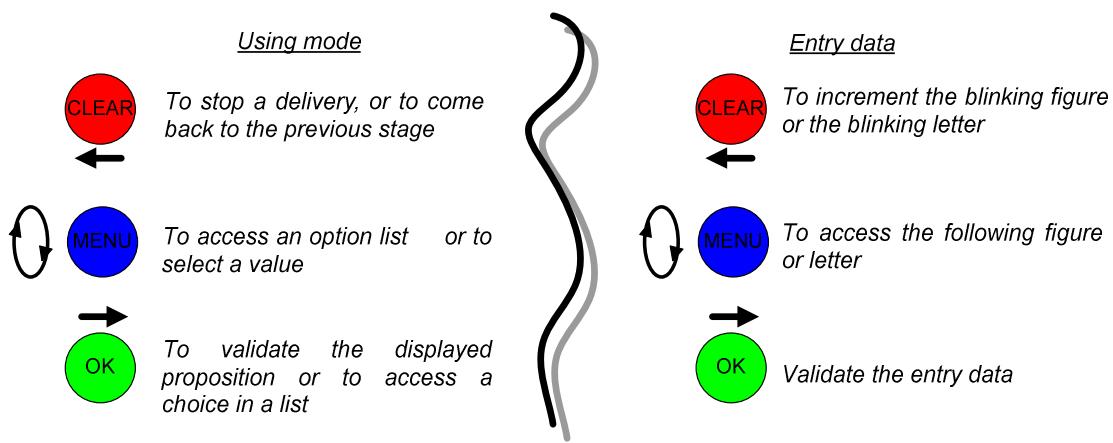


Sealed cup protecting access to metrological functions



SUPERVISOR key to access to configuration and gauging menu

Buttons function:



The MICROCOMPT+ calculator-indicator manages measuring operation and computerizes the measuring system defaults.

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2. OPERATING RECOMMENDATIONS

When using the CMA TRONIQUE, the operator must make sure that the following conditions are satisfied:

- the tank operating position does not differ by +/- 2° (dependant from tank design, refer to tank manufacturer) from the horizontal reference position (to avoid product retention)
- the unloading hose must be installed to ensure an easy outflow during delivery. The maximum length of the discharge hose (3" diameter) is 12 metres;
- the operator must remain beside the metering system during delivery to stop the flow, if necessary, by closing the API valve on the outlet of the tank compartment .

3. CONFIGURATION, SETUP AND GAUGING

3.1 CONFIGURATION

To access the METROLOGICAL mode, the MICROCOMPT+ has to be unsealed. Only an authorized person can remove the seal.

According to the METROLOGICAL configuration, the CMA TRONIQUE would manage one or two distribution ways.

Refer to METROLOGICAL MODE for configuration.

3.2 SETUP

To access the supervisor mode, the key must be set at the right of the MICROCOMPT display. This mode is used to set the measuring system and to access the calibration menu. Before using the CMA TRONIQUE, enter the value of the parameters such as:

- ⇒ Products: name, product type, price, additivation, correction
- ⇒ Vehicle identification
- ⇒ Volumes, flow rates and timing settings
- ⇒ Printing conditions
- ⇒ Language

Refer to SUPERVISOR MODE for setup.

3.3 CALIBRATION

Having made the proving of the metering, this menu "CALIBRATION/GAUGE" allows calculating the error and the new coefficient.

Refer to SUPERVISOR MODE for details on the gauging procedure.

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4. DRIVER MODE

The use of the CMATRONIQUE measuring system depends on the hardware configuration of the truck, the features and the configuration of the equipment carried out during the putting into use.

The user menu therefore depends on several items:

- The number of distribution ways (one or two);
- The remote control;
- The number of compartments;
- The control of the compartments flaps;
- The control of the return product system (SRP);
- The distribution mode (pumped counted, pumped no counted, gravity);
- The temperature control (conversion of the volume).

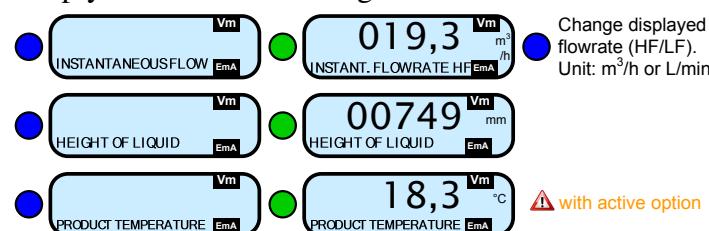
There are several delivery modes:

- PRESET of the volume;
 - PRESET of the volume + hose PURGE: only available if the flap control is activated.
- In addition, this mode of delivery is not proposed:
- For a delivery with empty hose,
 - In case of pollution of the hose;
 - BARRELS mode (only in low flow rate);
 - FREE mode (in low or high flow rate).

While measuring, it is possible to display the following quantities:

- The instantaneous flow rate (m^3/h or L/min; depending on the display unit set) in high or low flow rate delivery;
- The product height (mm);
- The temperature ($^\circ\text{C}$) if it is taken into account.

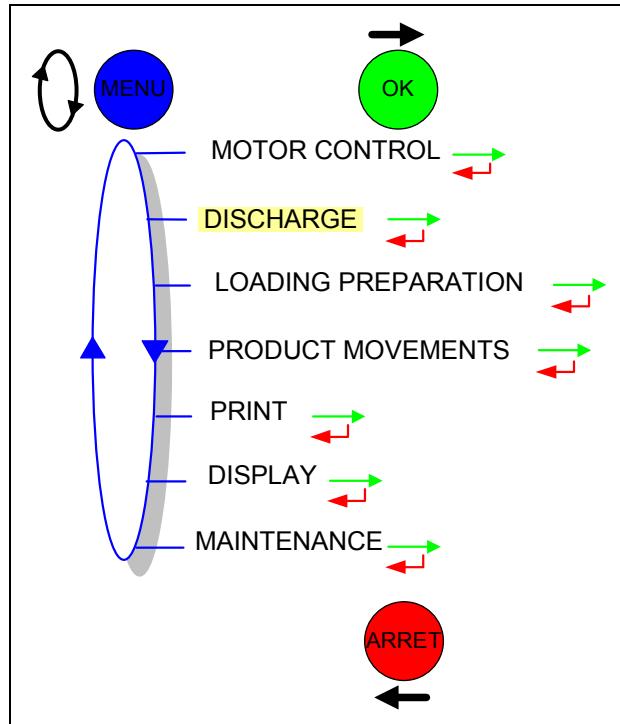
Simply follow the following information:



DO NOT PRESS THE RED STOP BUTTON during the display sequence to avoid stopping the delivery.

In user mode, the CMATRONIQUE displays a blinking volume which is the volume that just has been delivered.

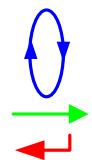
Delivery can be performed in high or low flow. This choice is made for pumped deliveries at the display of the message 'START HF DISCHARGE'. The blue MENU BUTTON switches on the display 'START LF DISCHARGE'. The choice is made by pressing the green OK BUTTON. Switching is possible during the delivery.



4.1 DISCHARGE: WHICH CONFIGURATION FOR YOUR CMA TRONIQUE?

- | | |
|---|----|
| A One distribution way | 8 |
| B One distribution way + compartment selection | 9 |
| C One distribution way + motor control (PTO) | 10 |
| D One distribution way + compartment selection + motor control (PTO) | 12 |
| E Two distribution ways | 14 |
| F Two distribution ways + compartment selection | 15 |
| G Two distribution ways + motor control (PTO) | 16 |
| H Two distribution ways + compartment selection + motor control (PTO) | 18 |
| I Pumped counted /nc rule | 20 |
| J Pumped counted /nc rule + compartment selection | 21 |
| K Pumped counted /nc rule + motor control (PTO) | 23 |
| L Pumped counted /nc rule + compartment selection + motor control (PTO) | 25 |

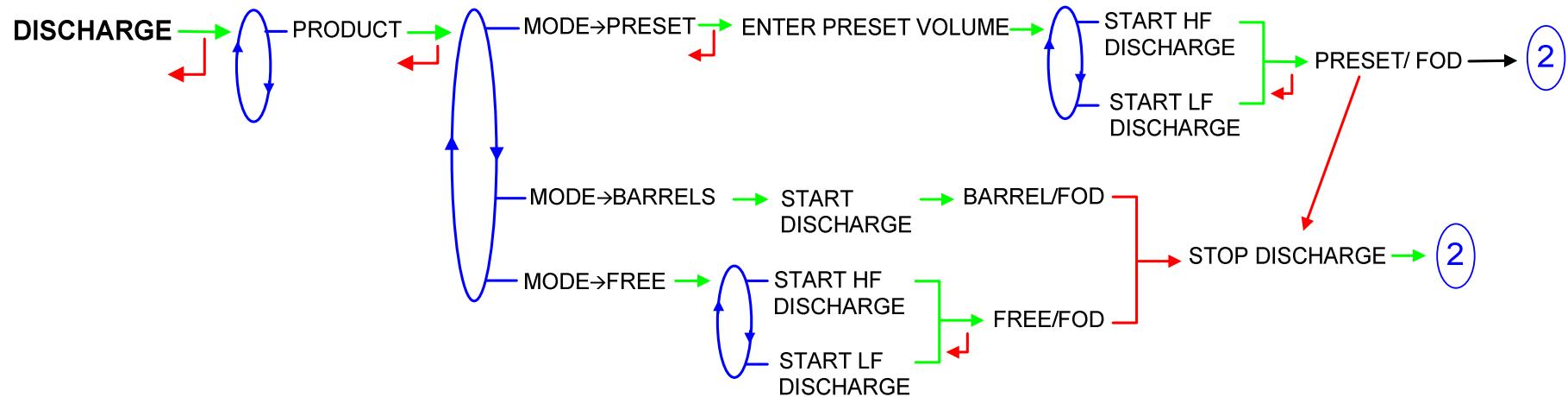
LEGEND:



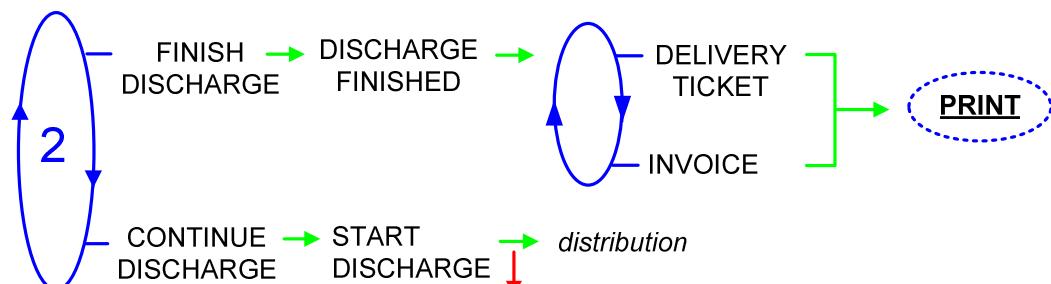
Press the button (red, blue or green)
as many times as necessary to display
the next message

A. ONE DISTRIBUTION WAY

A.1 DISCHARGE



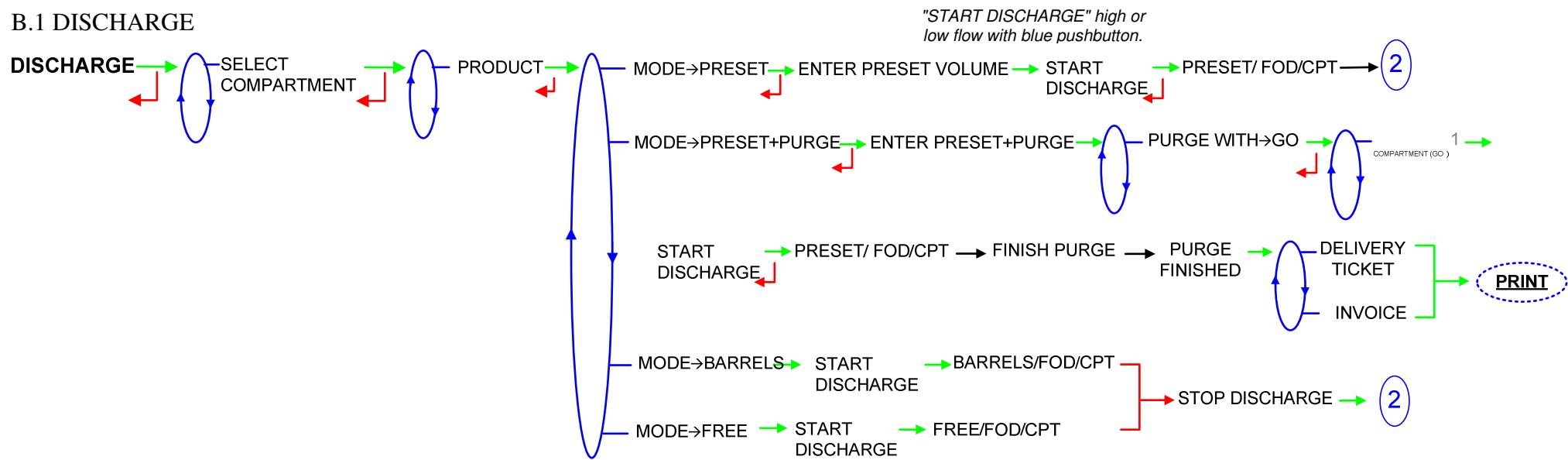
A.2 FINISH/CONTINUE



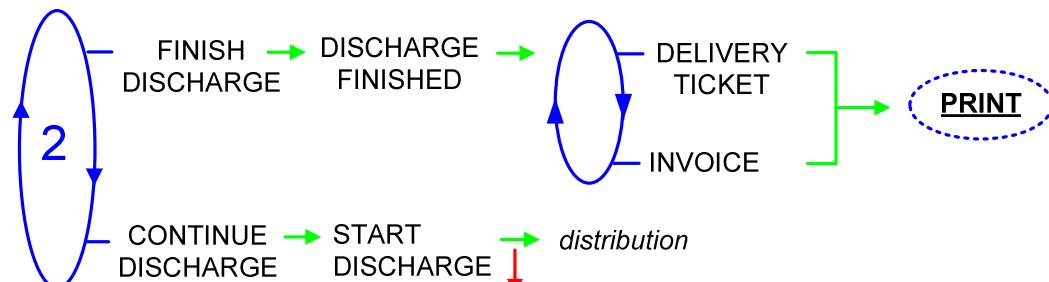
To change the delivery mode:
Press the red button when "START DISCHARGE" is displayed with the volume already discharged.

B. ONE DISTRIBUTION WAY + COMPARTMENT SELECTION

B.1 DISCHARGE



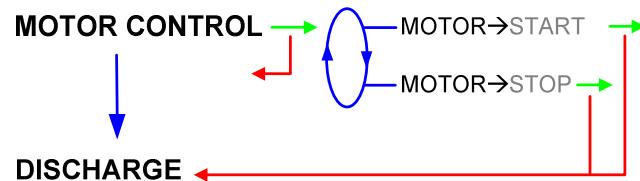
B.2 FINISH/CONTINUE



To change the delivery mode: press the red button when "START DISCHARGE" is displayed with the volume already discharged.

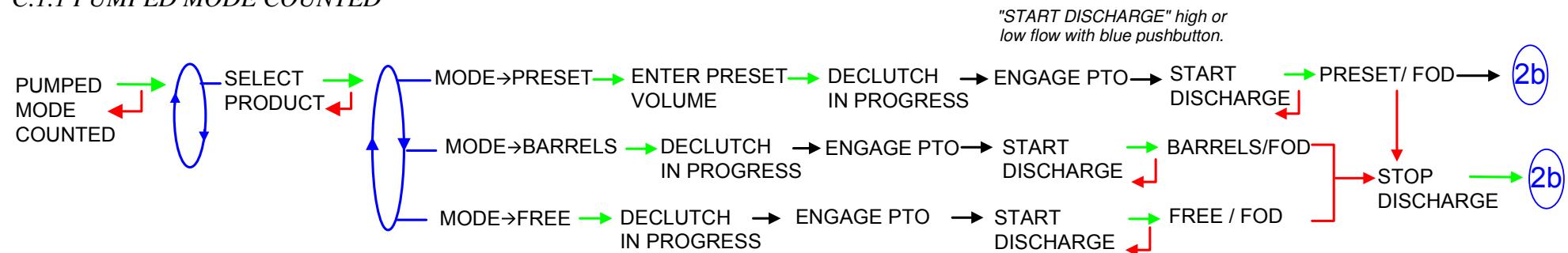
C. ONE DISTRIBUTION WAY + MOTOR CONTROL (PTO)

C.1 DISCHARGE

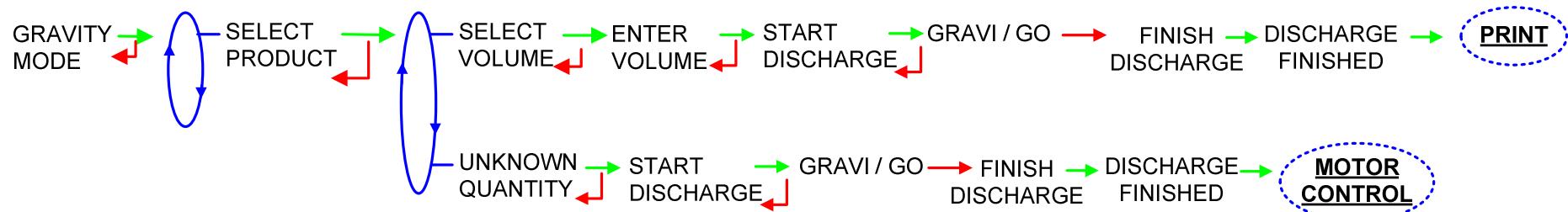


The commands for the pump clutch/declutching and for the power take-off control are realised by the MICROCOMPT device at the beginning and at the end of distribution.

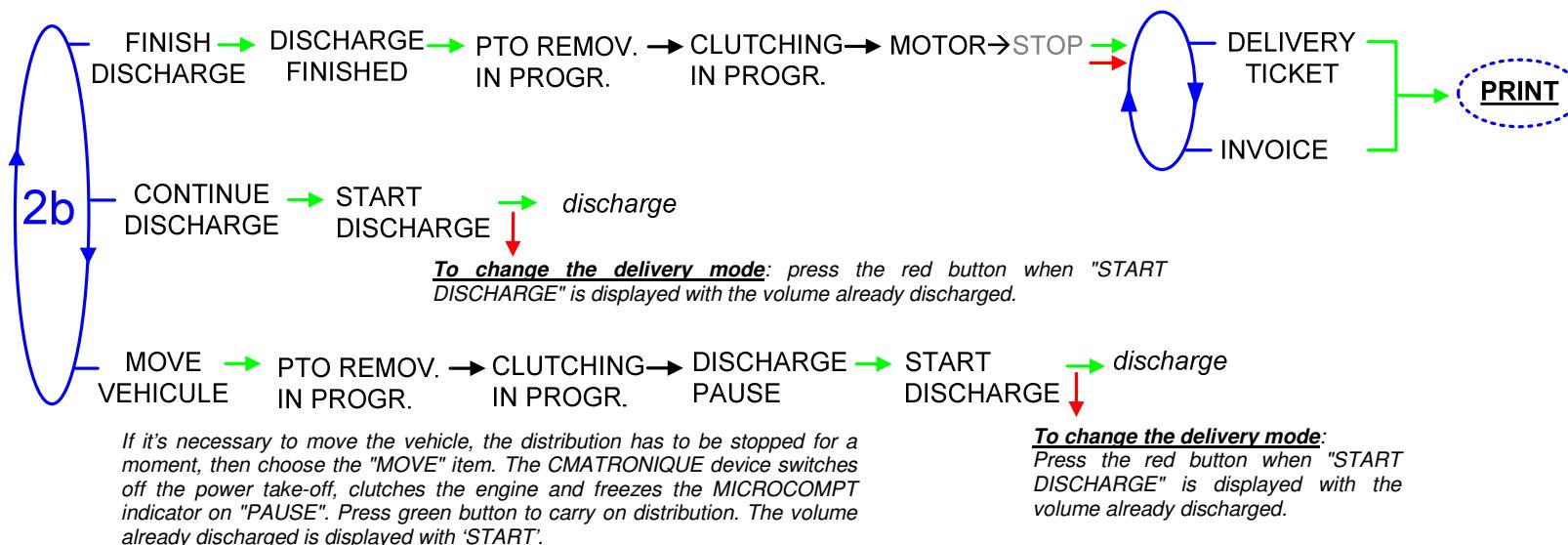
C.1.1 PUMPED MODE COUNTED



C.1.2 GRAVITY MODE

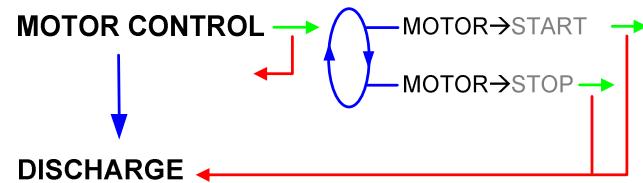


C.2 FINISH/CONTINUE



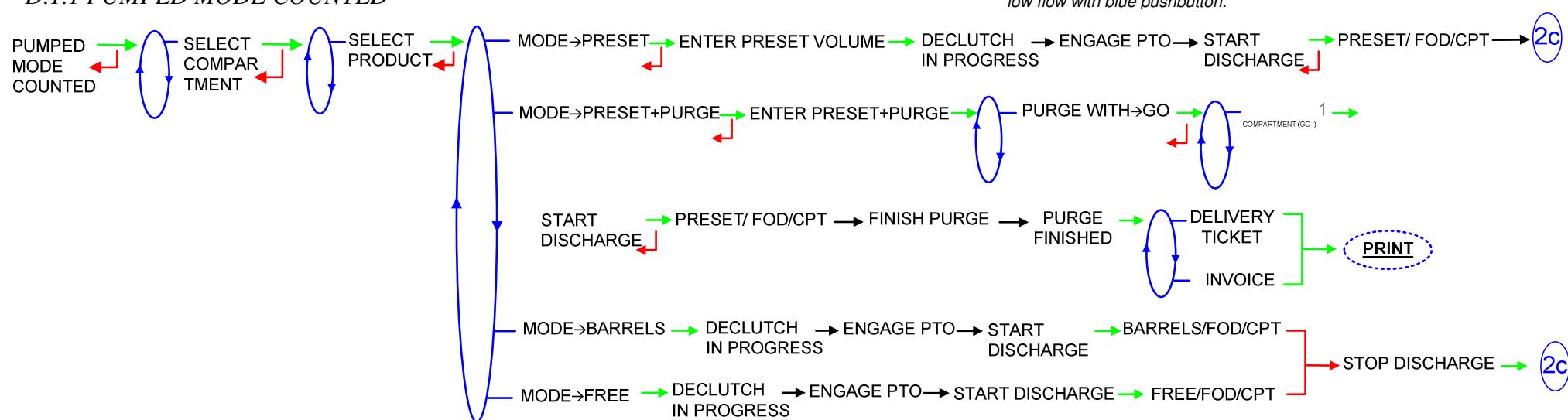
D. ONE DISTRIBUTION WAY + COMPARTMENT SELECTION + MOTOR CONTROL (PTO)

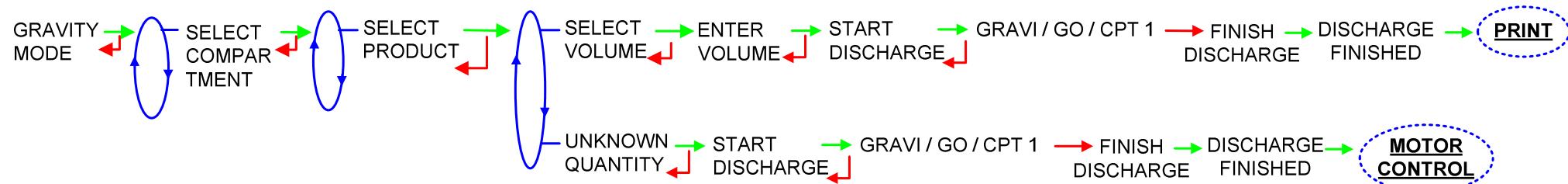
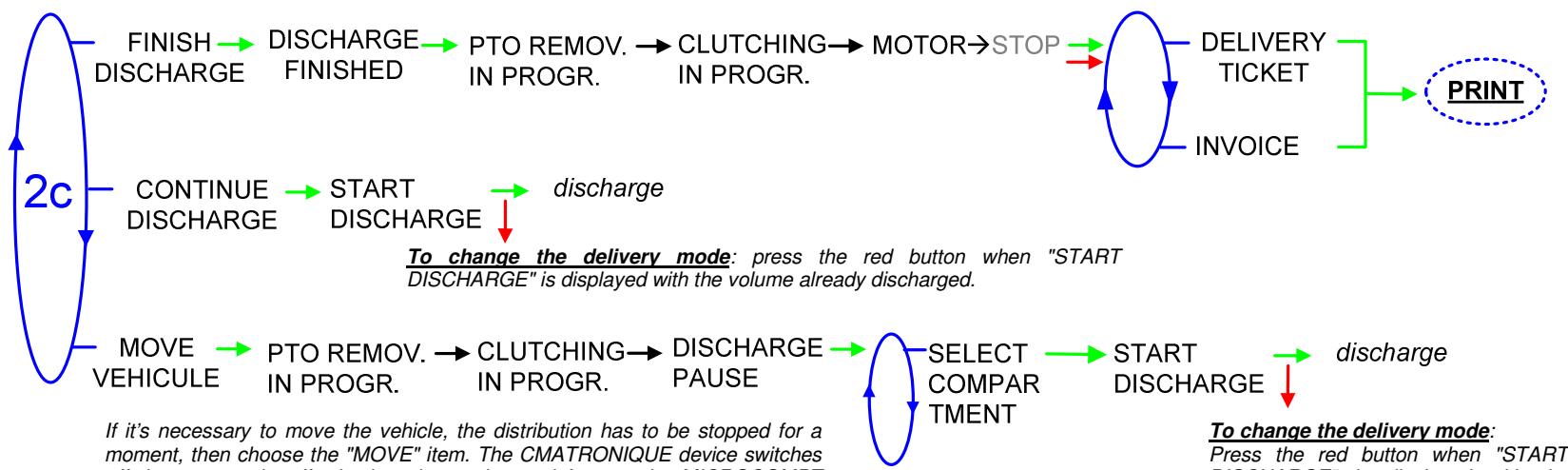
D.1 DISCHARGE



The commands for the pump clutch/declutching and for the power take-off control are realised by the MICROCOMPT device at the beginning and at the end of distribution.

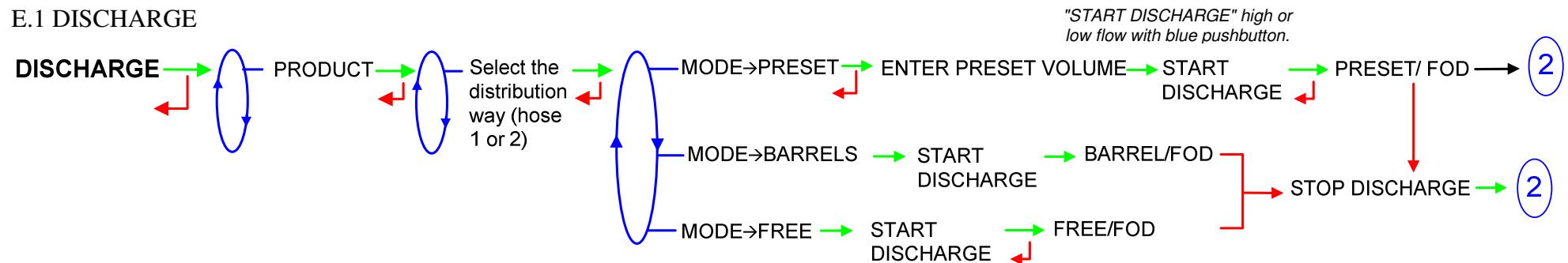
D.1.1 PUMPED MODE COUNTED



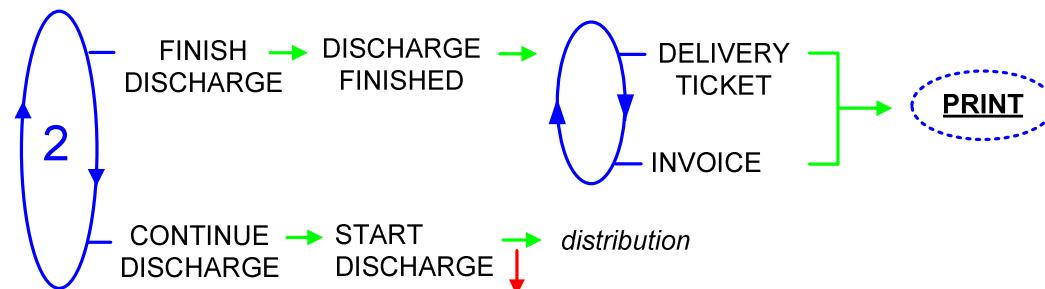
D.1.2 GRAVITY MODE**D.2 FINISH/CONTINUE**

E. TWO DISTRIBUTION WAYS

E.1 DISCHARGE



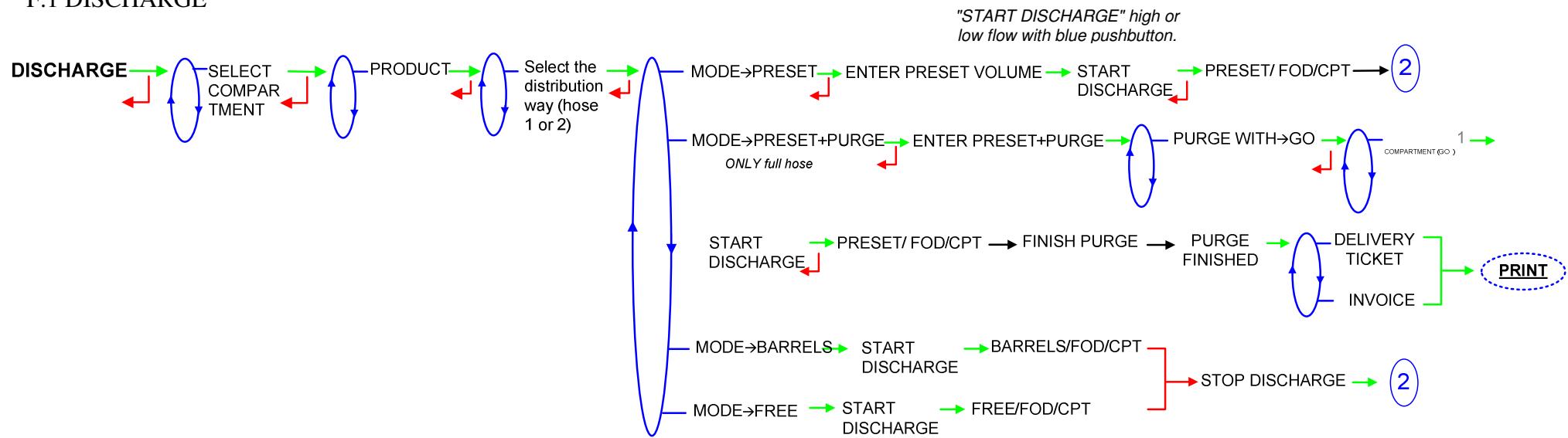
E.2 FINISH/CONTINUE



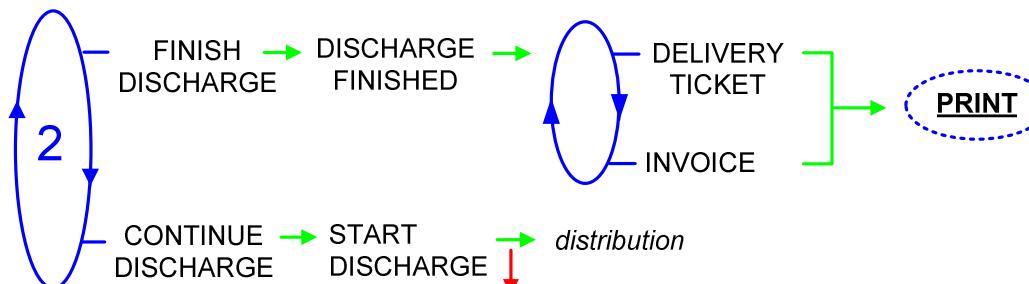
To change the delivery mode:
Press the red button when "START DISCHARGE" is displayed with the volume already discharged.

F. TWO DISTRIBUTION WAYS+ COMPARTMENT SELECTION

F.1 DISCHARGE

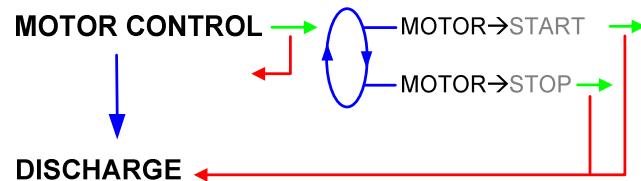


F.2 FINISH/CONTINUE



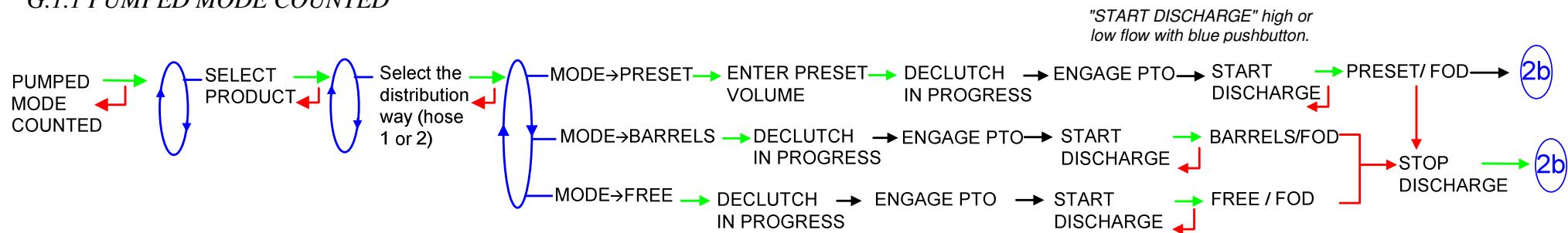
G. TWO DISTRIBUTION WAYS + MOTOR CONTROL (PTO)

G.1 DISCHARGE

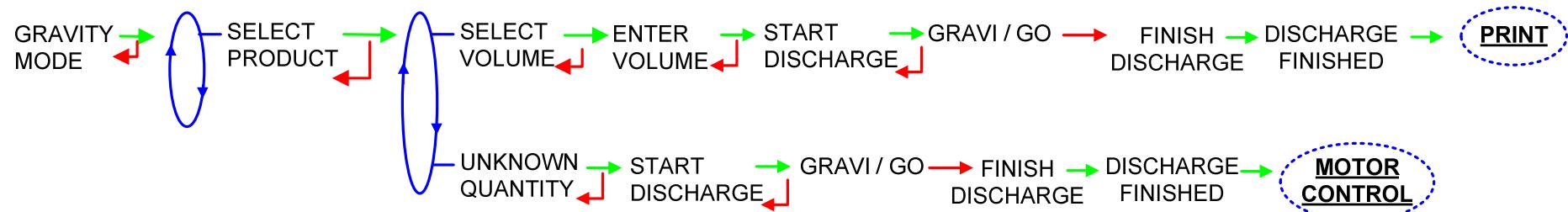


The commands for the pump clutch/declutching and for the power take-off control are realised by the MICROCOMPT device at the beginning and at the end of distribution.

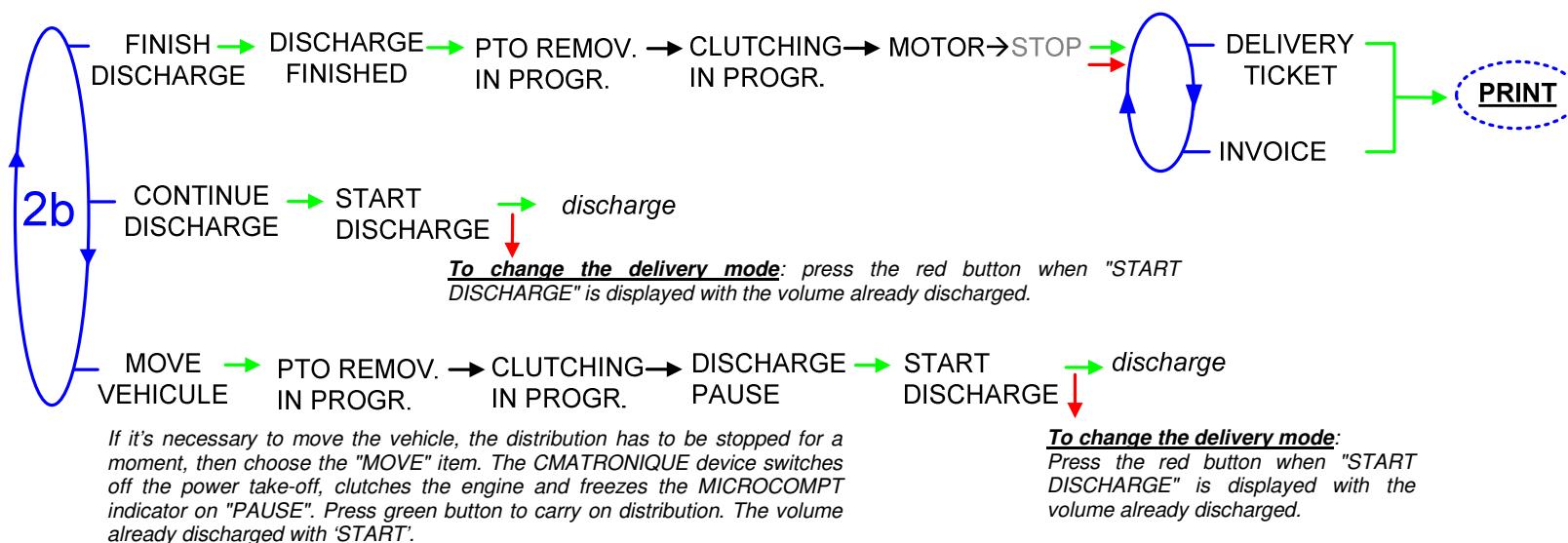
G.1.1 PUMPED MODE COUNTED



G.1.2 GRAVITY MODE

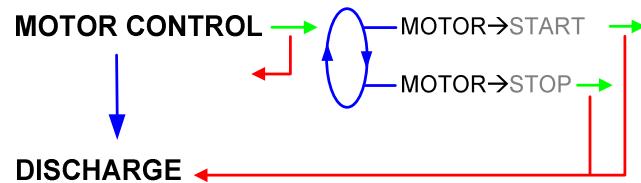


G.2 FINISH/CONTINUE



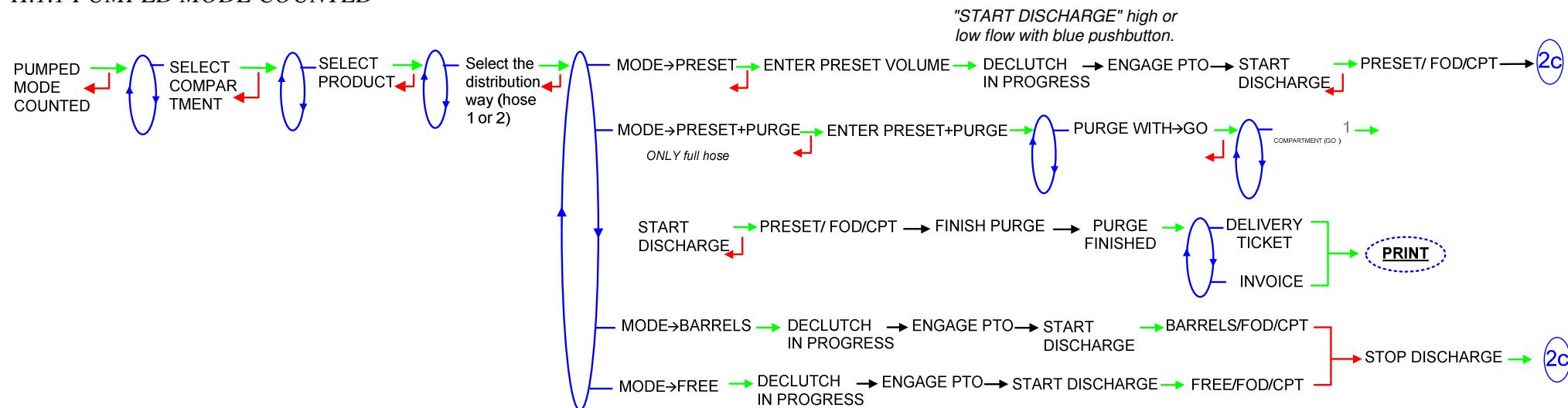
H. TWO DISTRIBUTION WAYS + COMPARTMENT SELECTION + MOTOR CONTROL (PTO)

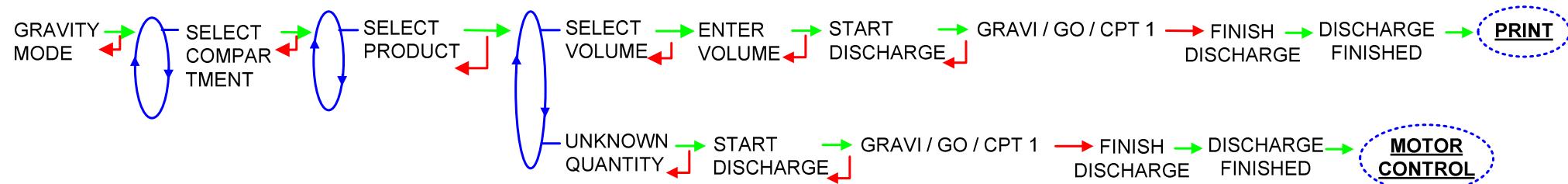
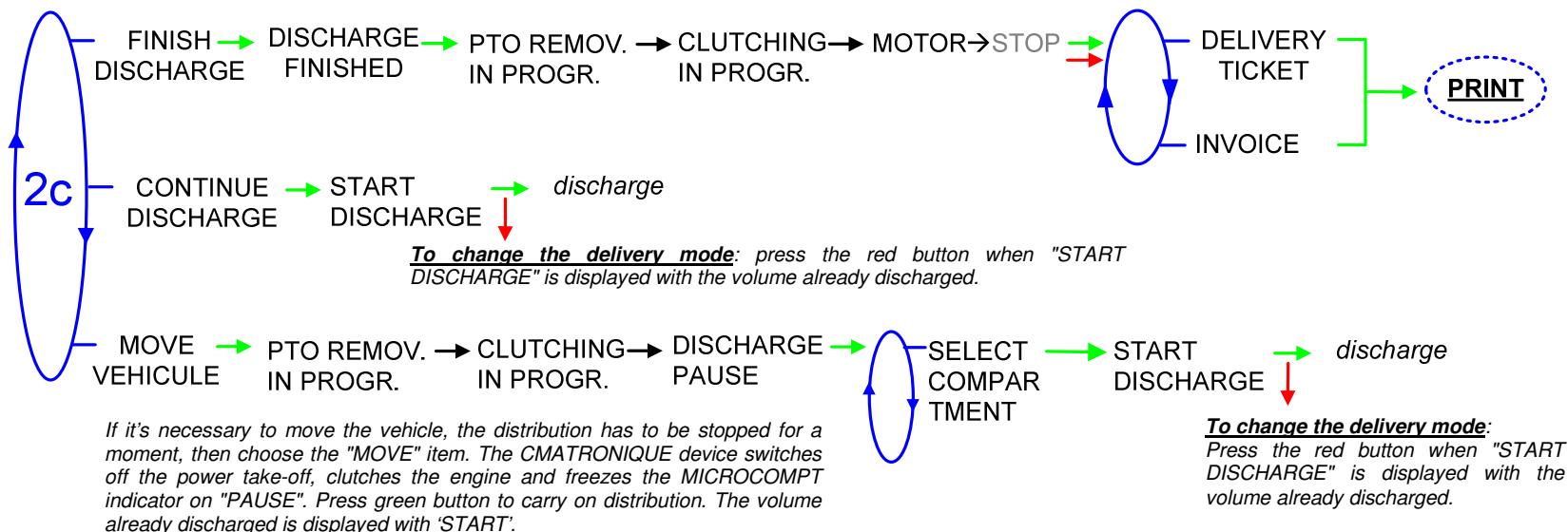
H.1 DISCHARGE



The commands for the pump clutch/declutching and for the power take-off control are realised by the MICROCOMPT device at the beginning and at the end of distribution.

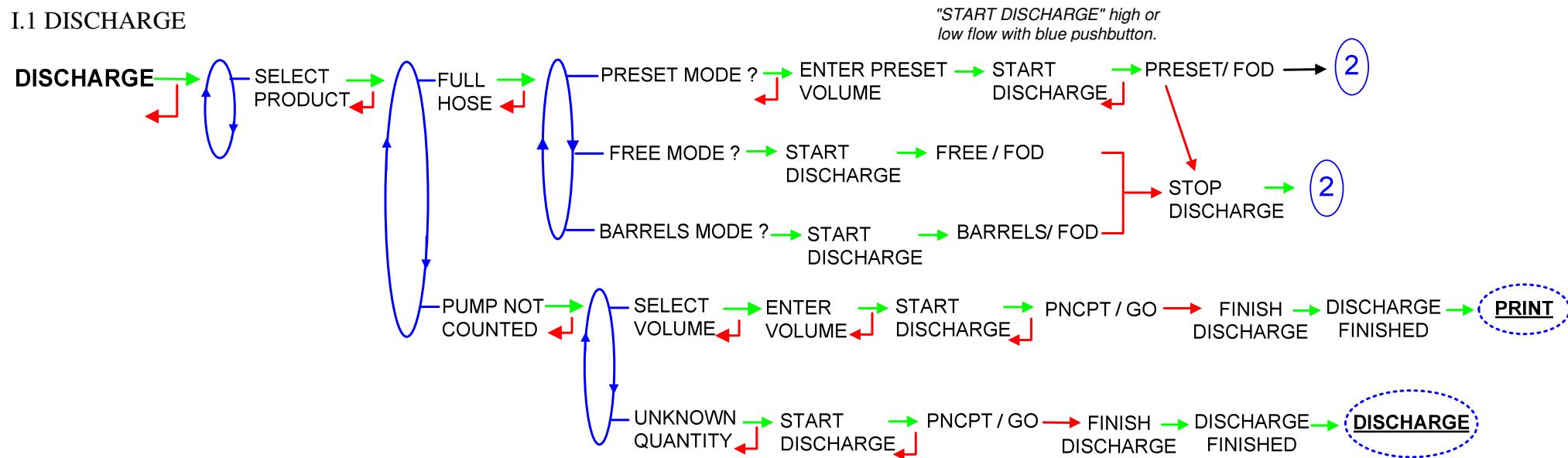
H.1.1 PUMPED MODE COUNTED



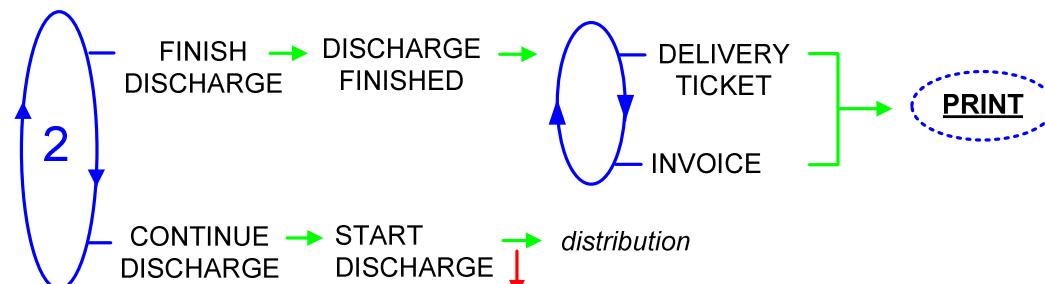
H.1.2 GRAVITY MODE**H.2 FINISH/CONTINUE**

I. PUMPED COUNTED/NC RULE

I.1 DISCHARGE



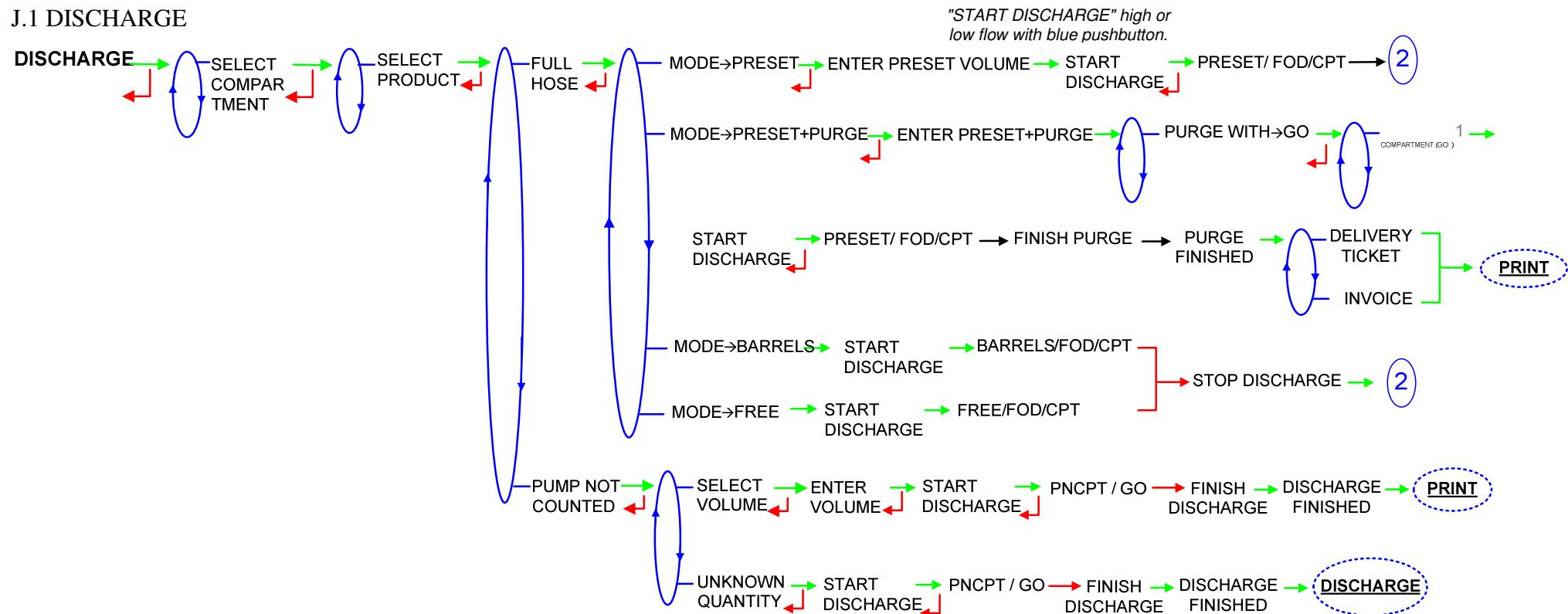
I.2 FINISH/CONTINUE



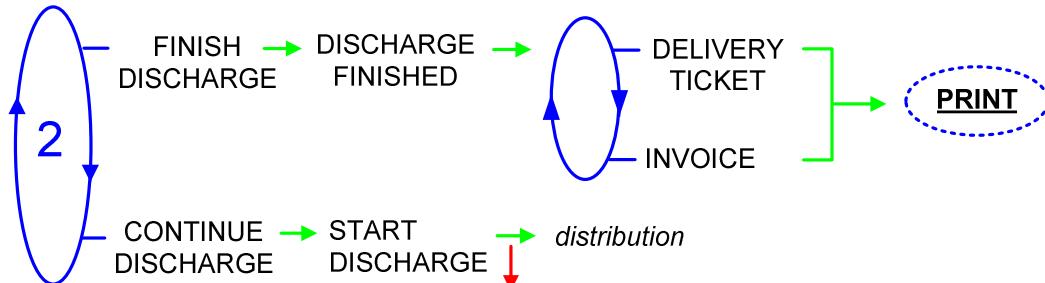
To change the delivery mode: press the red button when "START DISCHARGE" is displayed with the volume already discharged.

J. PUMPED COUNTED/NC RULE + COMPARTMENT SELECTION

J.1 DISCHARGE



J.2 FINISH/CONTINUE



To change the delivery mode:
Press the red button when "START DISCHARGE" is displayed with the volume already discharged.



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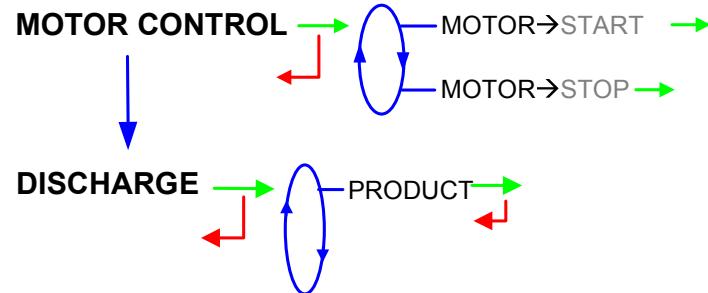
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DRIVER

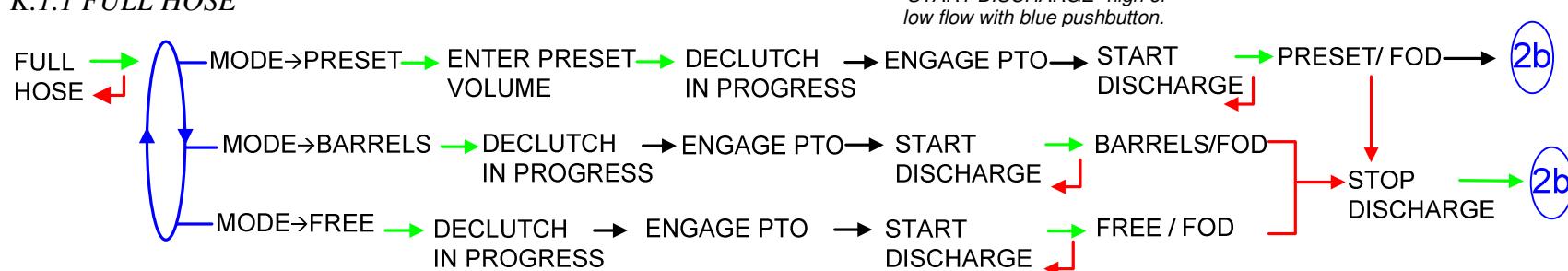
K. PUMPED COUNTED/NC RULE + MOTOR CONTROL (PTO)

K.1 DISCHARGE

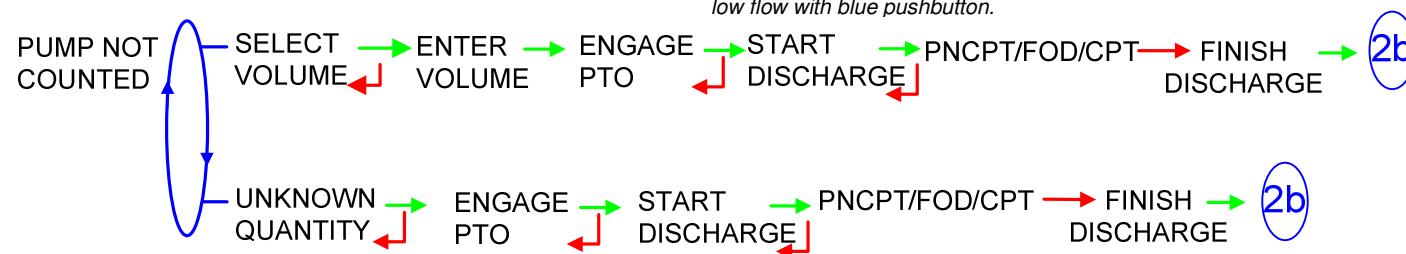


The commands for the pump clutch/declutching and for the power take-off control are realised by the MICROCOMPT device at the beginning and at the end of distribution.

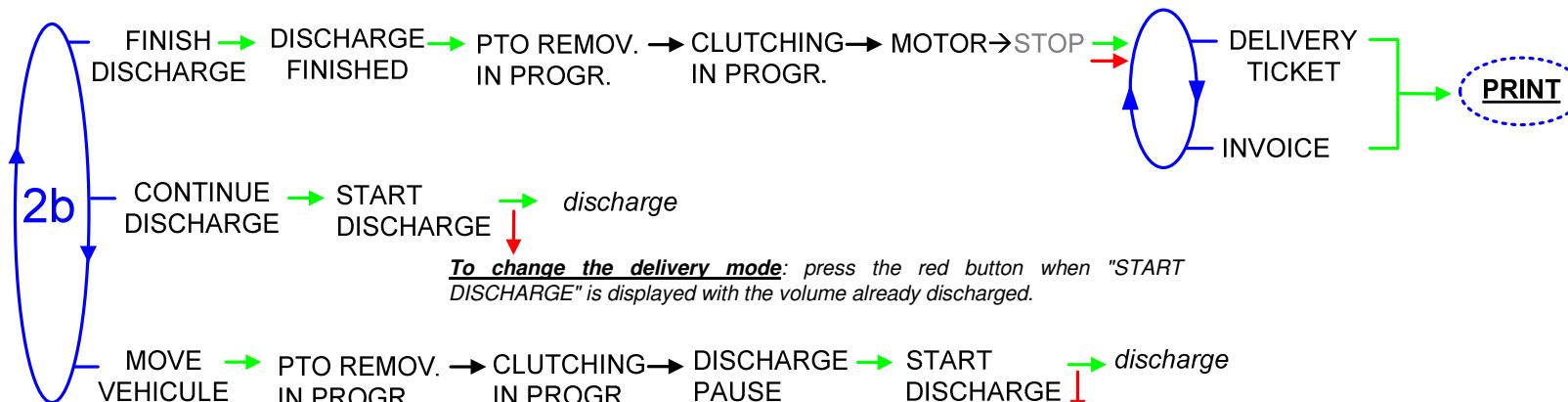
K.1.1 FULL HOSE



K.1.2 PUMP NOT COUNTED



K.2 FINISH/CONTINUE

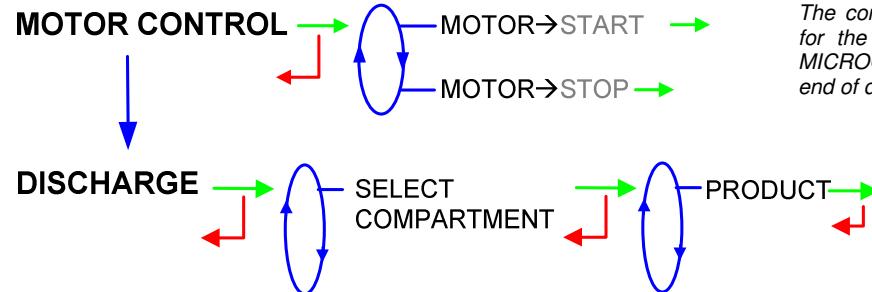


If it's necessary to move the vehicle, the distribution has to be stopped for a moment, then choose the "MOVE" item. The CMATRONIQUE device switches off the power take-off, clutches the engine and freezes the MICROCOMPT indicator on "PAUSE". Press green button to carry on distribution. The volume already discharged is displayed with 'START'.

To change the delivery mode:
Press the red button when "START DISCHARGE" is displayed with the volume already discharged.

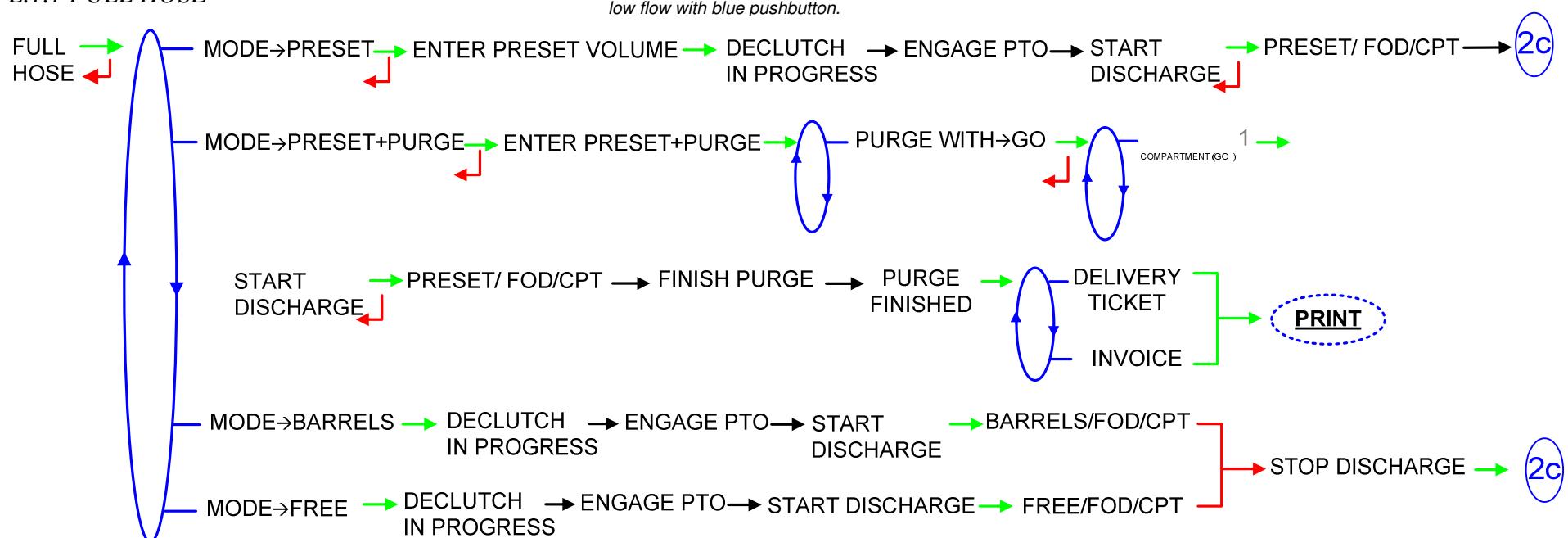
L. PUMPED COUNTED/NC RULE + COMPARTMENT SELECTION + MOTOR CONTROL (PTO)

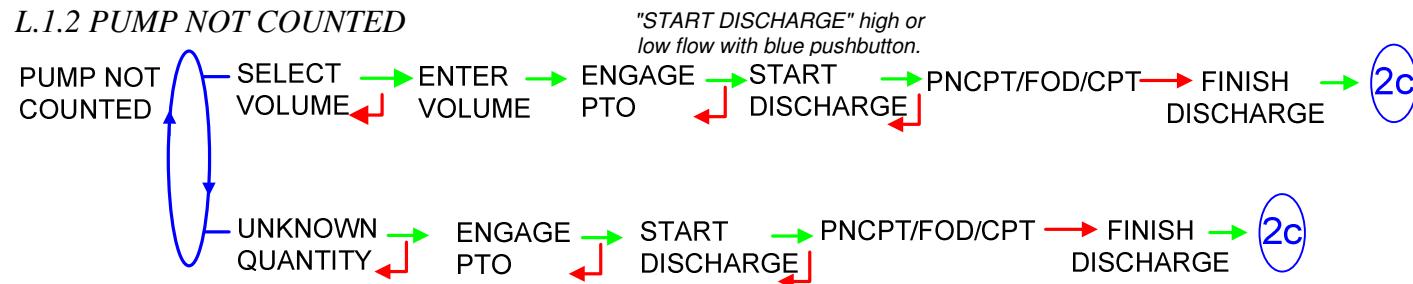
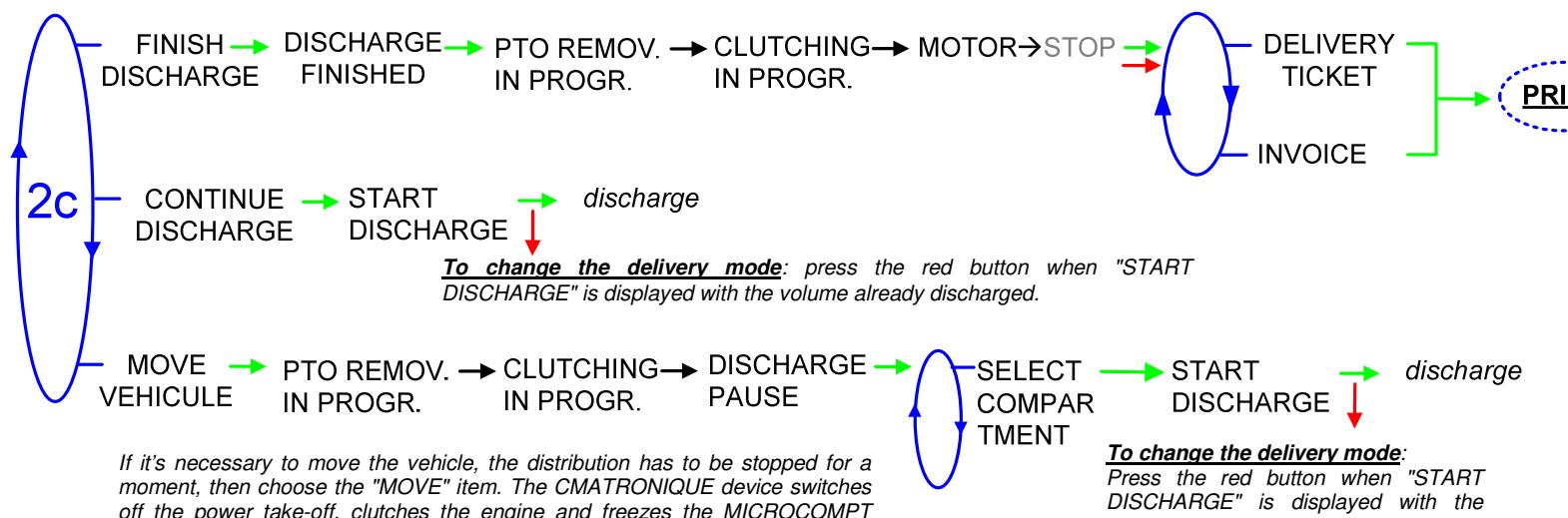
L.1 DISCHARGE



The commands for the pump clutch/declutching and for the power take-off control are realised by the MICROCOMPT device at the beginning and at the end of distribution.

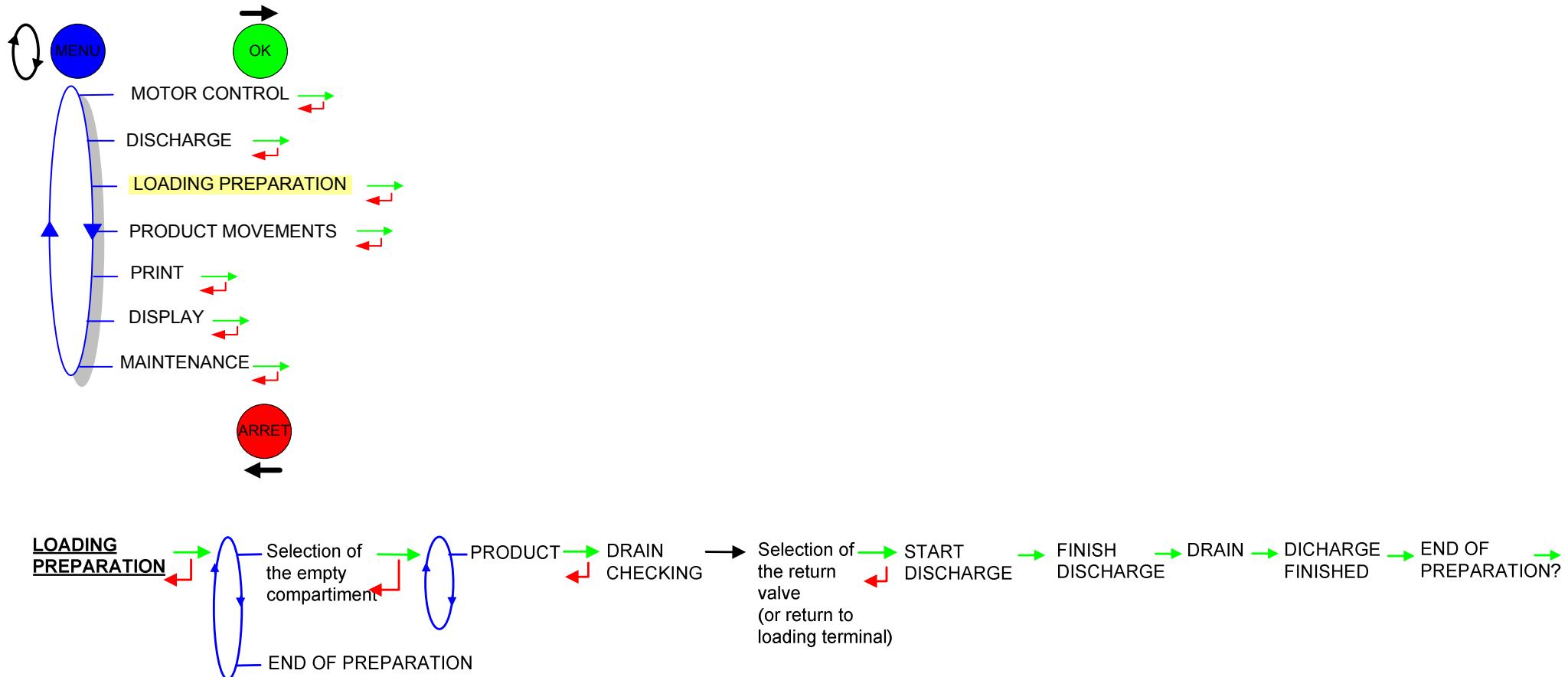
L.1.1 FULL HOSE



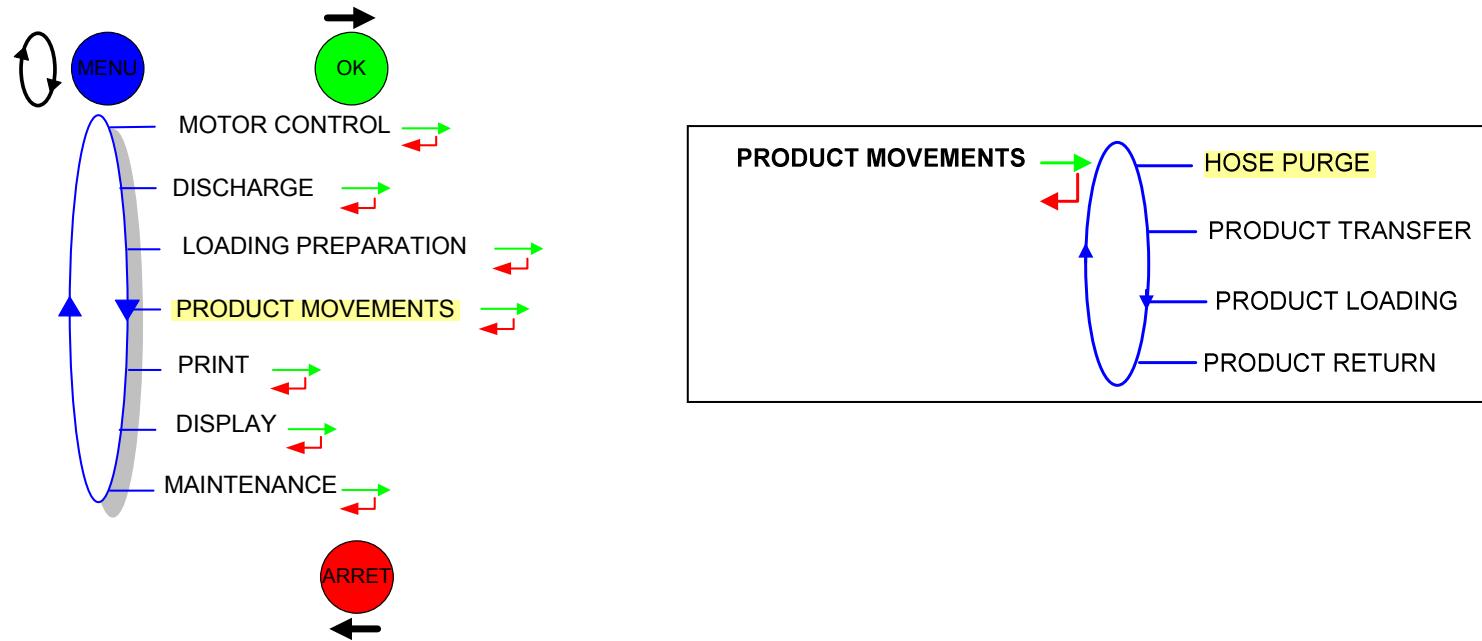
L.1.2 PUMP NOT COUNTED**L.2 FINISH/CONTINUE**

4.2 LOADING PREPARATION: In case of rupture during delivery, this menu guarantees the quality of the product delivered later on.

Before filling an empty compartment, use the LOADING PREPARATION menu (at least 30 minutes after rupture) to guaranty that the compartment is really empty. Then fill the compartment. The quality of the product delivered hereafter is guaranteed.



4.3 PRODUCT MOVEMENTS



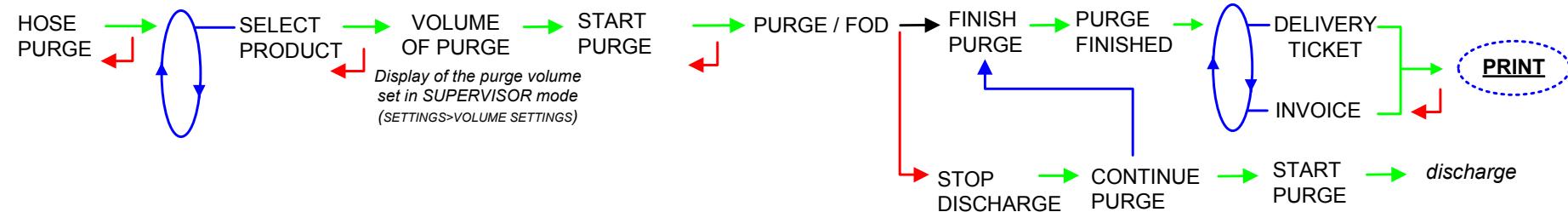
4.3.1 HOSE PURGE: this menu allows purging the hose in order to change the quality of the product

WHICH CONFIGURATION FOR YOUR CMA TRONIQUE?

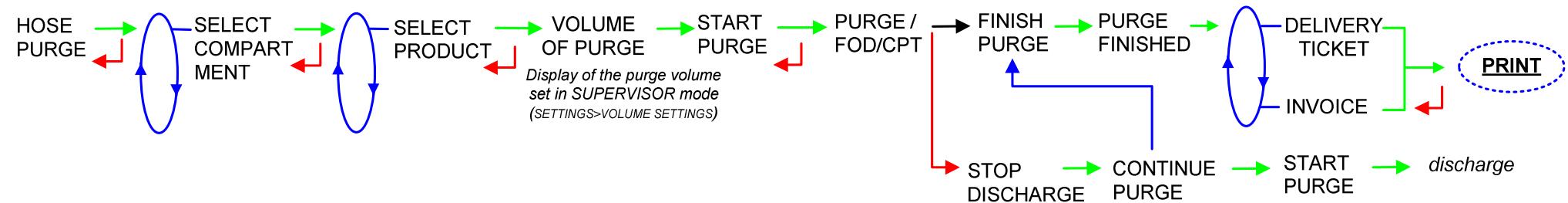
- | | |
|---|----|
| A Standard..... | 29 |
| B Compartment selection..... | 29 |
| C Compartment selection + return valve | 30 |
| D Standard + motor control (PTO) | 30 |
| E Compartment selection + motor control (PTO) | 31 |
| F Compartment selection + return valve + motor control (PTO)..... | 31 |



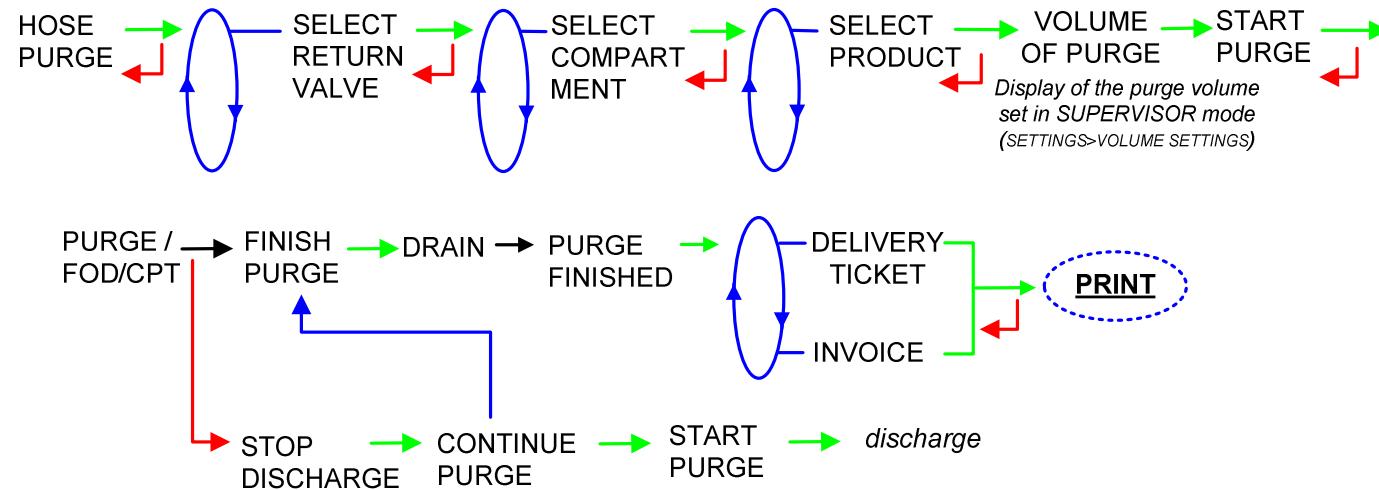
A. STANDARD



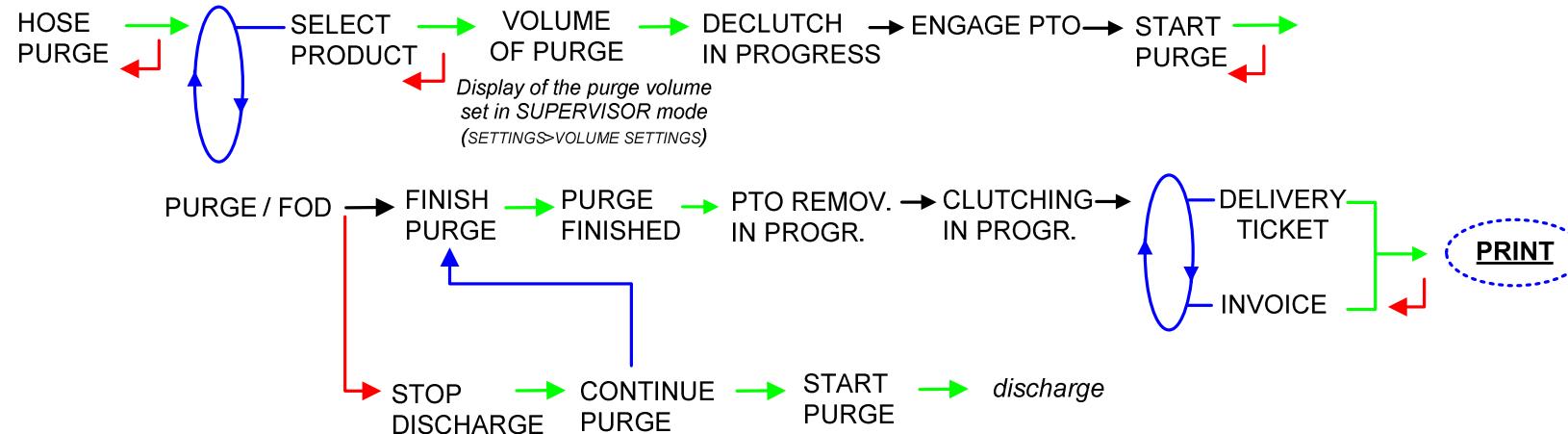
B. COMPARTMENT SELECTION



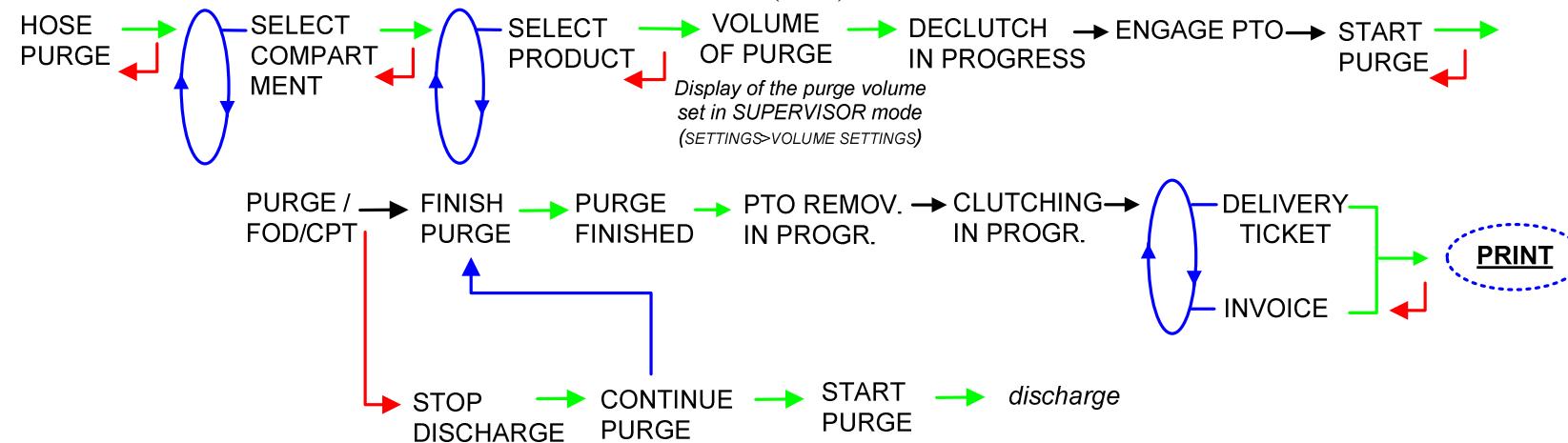
C. COMPARTMENT SELECTION + RETURN VALVE OPTION



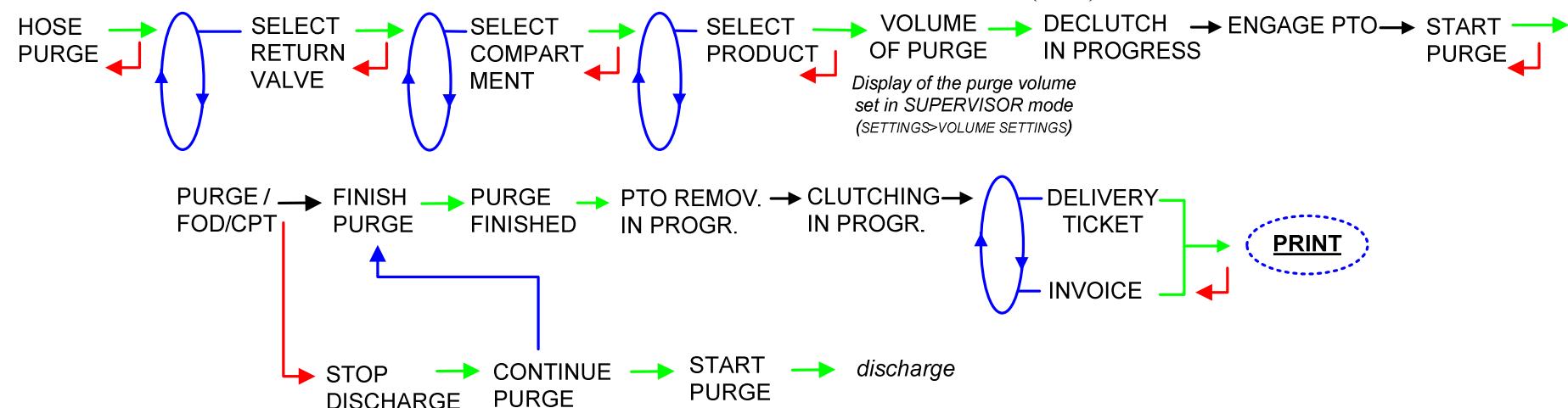
D. STANDARD + MOTOR CONTROL (PTO)



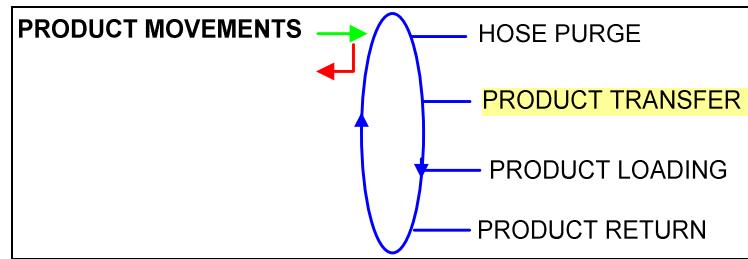
E. COMPARTMENT SELECTION + MOTOR CONTROL (PTO)



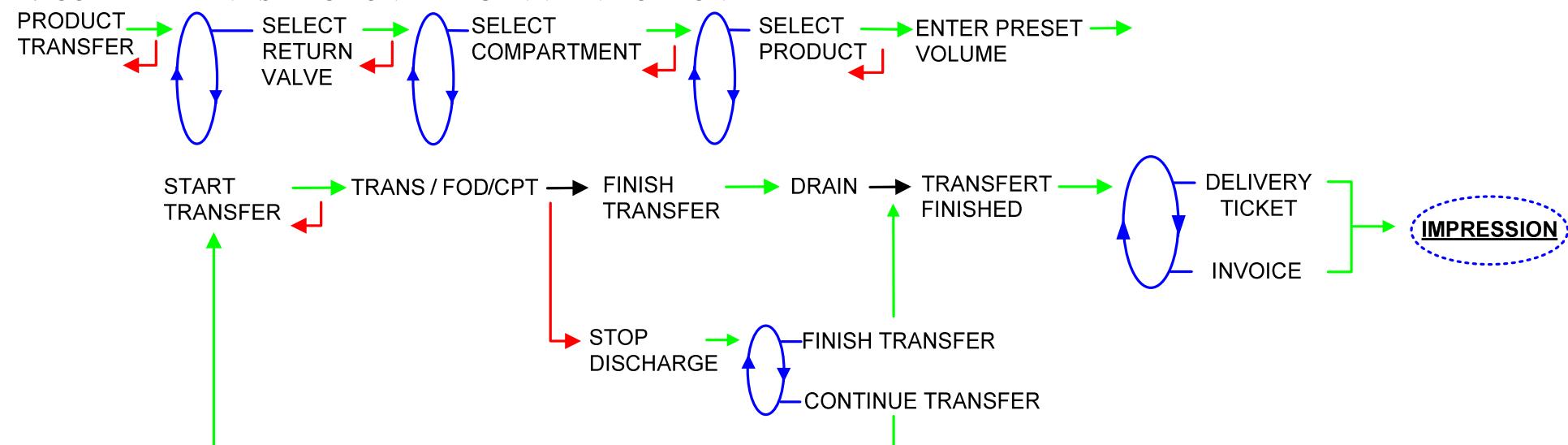
F. COMPARTMENT SELECTION + RETURN VALVE OPTION + MOTOR CONTROL (PTO)



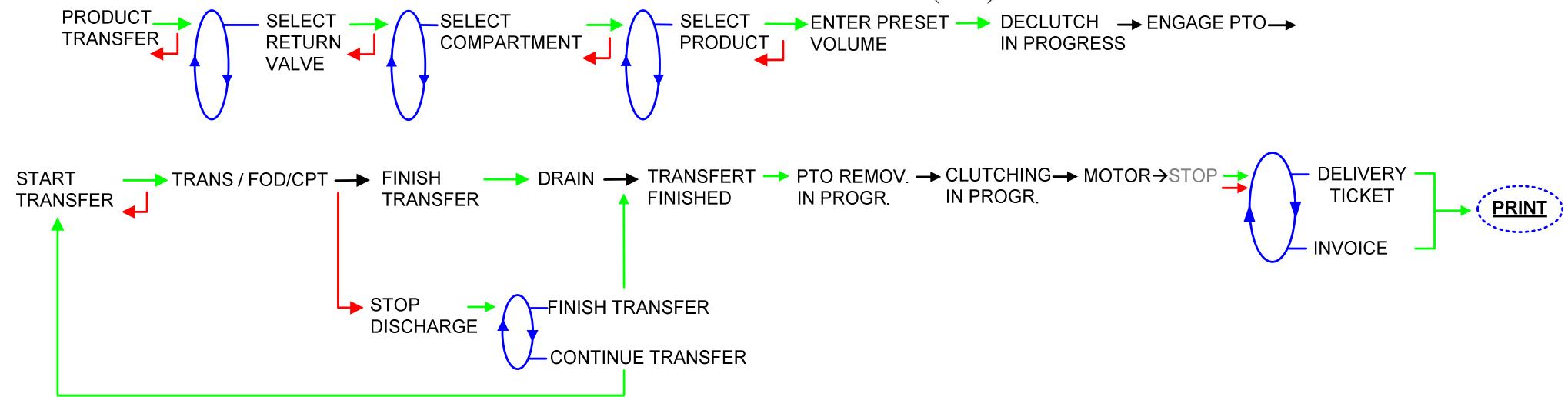
4.3.2 PRODUCT TRANSFER: this menu allows unloading the product from one compartment either to another compartment or to a compartment of another truck or to a loading terminal.



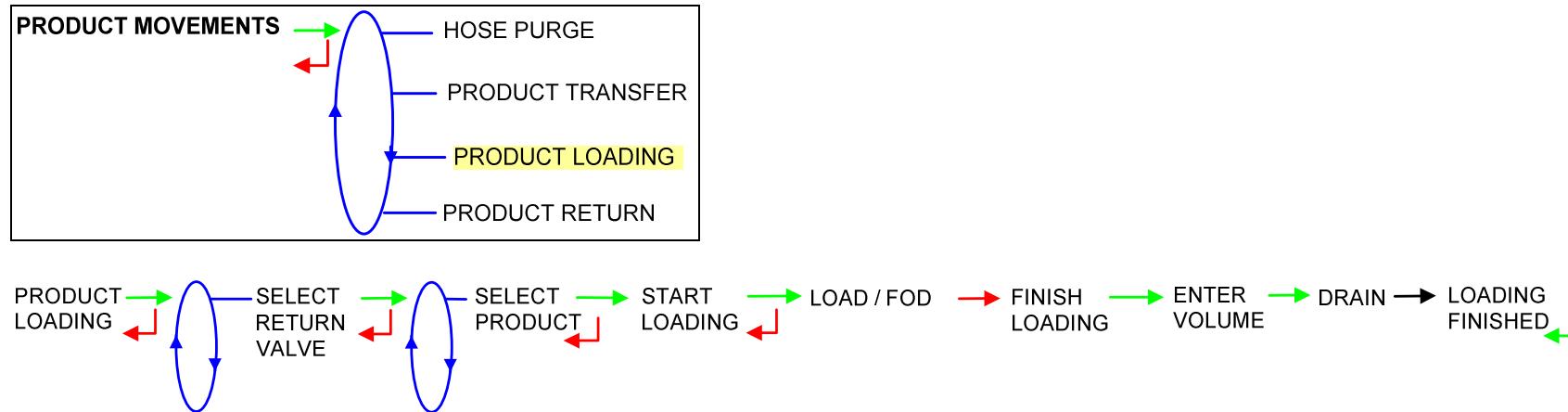
A. COMPARTMENT SELECTION + RETURN VALVE OPTION



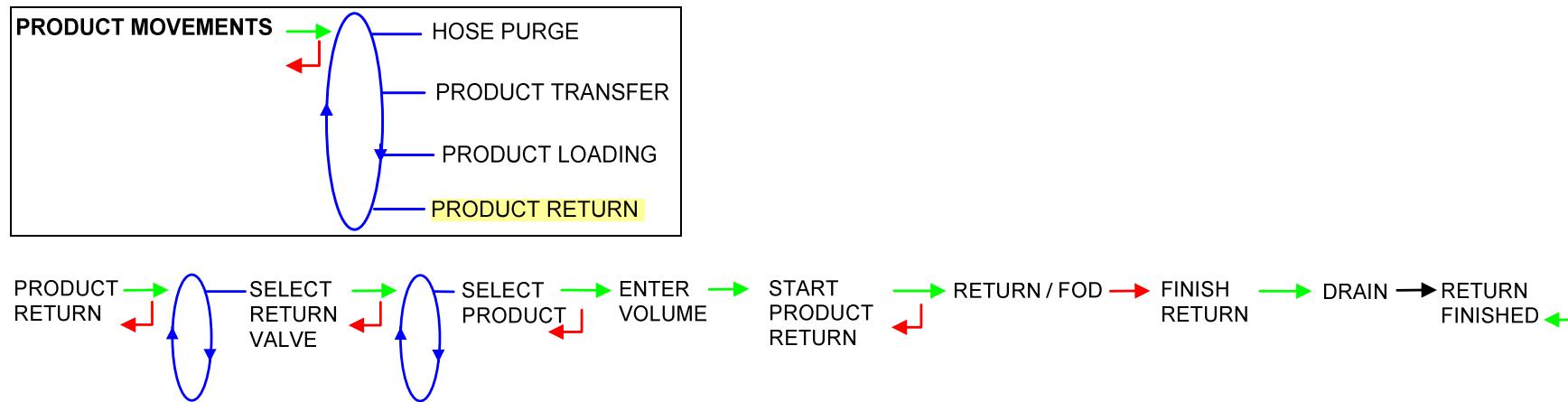
B. COMPARTMENT SELECTION + RETURN VALVE OPTION + MOTOR CONTROL (PTO)



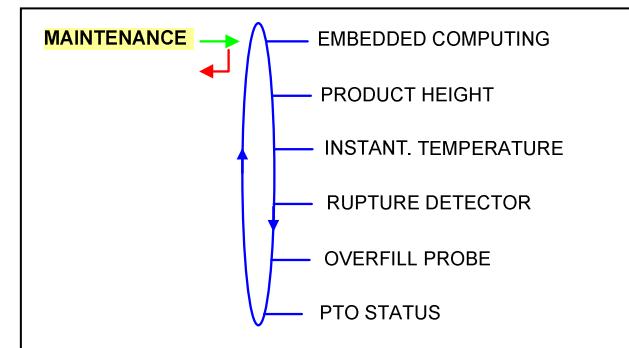
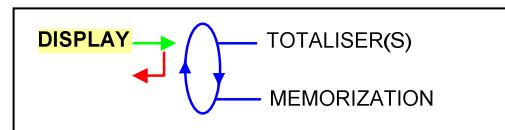
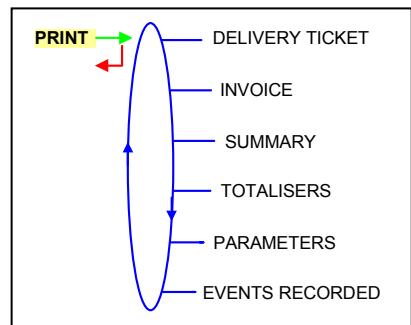
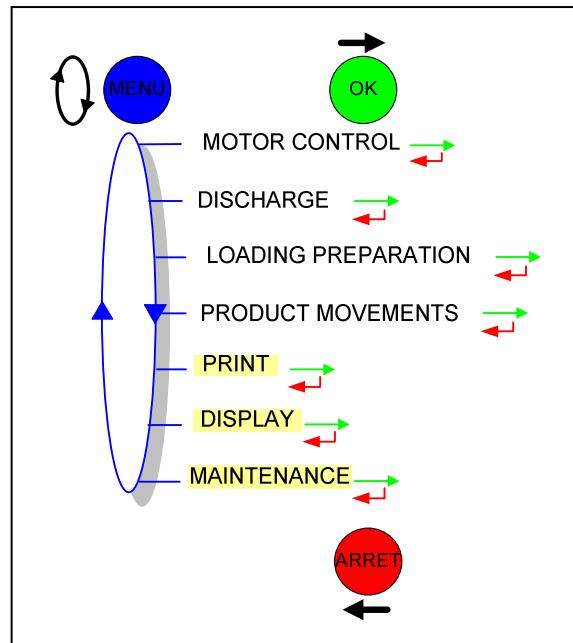
4.3.3 PRODUCT LOADING: this menu allows shifting product from one truck to another truck.



4.3.4 PRODUCT RETURN



4.4 ADDITIONAL FUNCTIONS

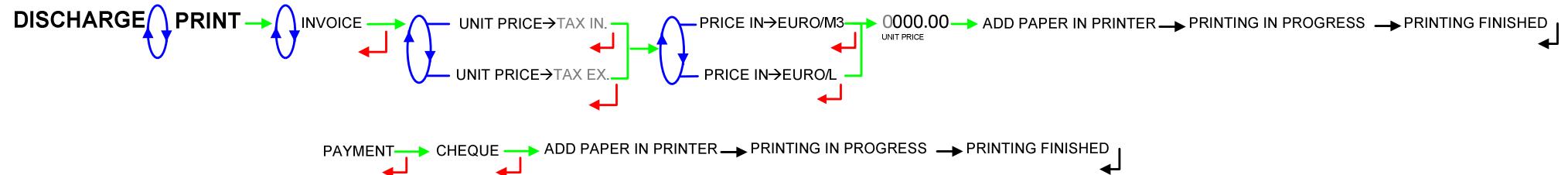


4.4.1 PRINT

DELIVERY TICKET: print the last delivery order



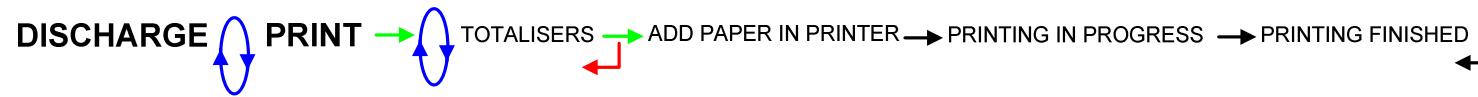
INVOICE: print the invoice of the last measurement



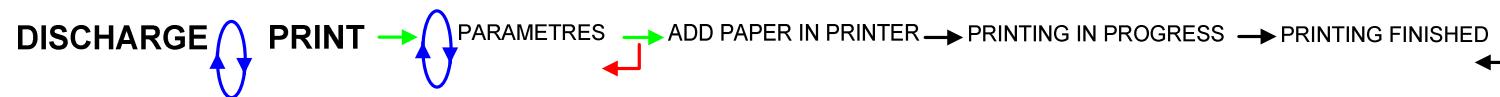
SUMMARY: print a daily summary (see ANNEX)



TOTALISERS: print the internal totaliser (general and by product) (see ANNEX)



PARAMETERS: print the calculator parameters (see ANNEX)



EVENTS RECORDED: print the events recorded (see ANNEX)



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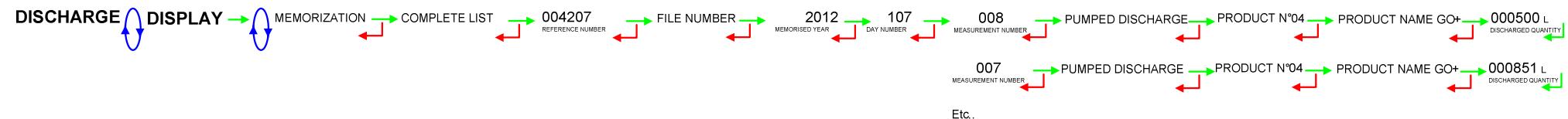
DRIVER

4.4.2 DISPLAY

TOTALISER: general totaliser displayed in liters



ALL THE MEASUREMENTS: display sequence of all measurements results memorized by the MICROCOMPT, from the last to the first one, sorted by day number and then by measurement number in the day

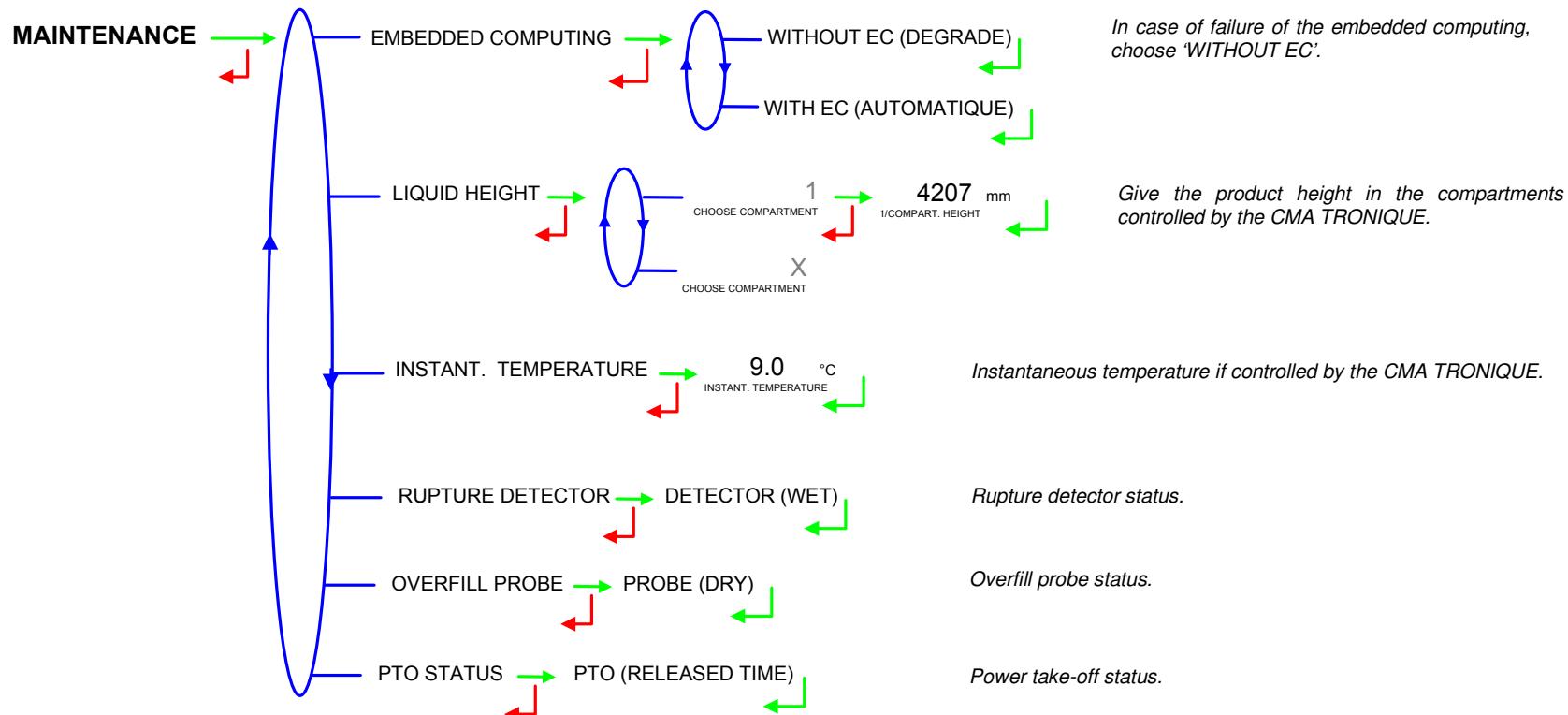


A PARTICULAR MEASUREMENT: display sequence of a particular measurement that is chosen by setting the day number and the measurement number



4.4.3 MAINTENANCE

Menus depend on the configuration of the measuring system.



In case of failure of the embedded computing, choose 'WITHOUT EC'.

Give the product height in the compartments controlled by the CMA TRONIQUE.

Instantaneous temperature if controlled by the CMA TRONIQUE.

Rupture detector status.

Overfill probe status.

Power take-off status.

NOTE: indication on the gas detector leds

GREEN LED: gaz detector powered on	RED LED: ON: gas detector dry OFF: gas detector wet
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DRIVER

4.5 LIST OF ALARMS OF THE CMA TRONIQUE

	DISPLAY	MEANING	ACTION
ALL	STOP DISCHARGE	Intentional interruption of discharge	Continue, stop or finish the discharge
	PRINTER FAILURE	Communication with the printer lost	Check the connection cable, on-off switch and fuse
	POWER SUPPLY PROBLEM	Power outage during discharge	Check the cause / Restore power supply
	ZERO FLOW DEFAULT	Zero flow	Check if the pulse transmitter is powered (red indicators)
	LOW FLOW DEFAULT	Low flowrate (less than 4m³/h)	Check the parameters / Check the hydraulic system (valve, strainer, nozzle...)
	HIGH FLOW DEFAULT	High flowrate (greater than maximum flowrate)	Check the parameters / Reduce flowrate
	DIARY DEFAULT	Reset of the events diary	Acknowledge the alarm, check the date in supervisor mode (supervisor key)
USER	INCOHERENT SIGNAL	Coherence failure in metering lines	Check the position of the manual selection valves
	EMA METERING PROBLEM	Metering problem with the measuring device	Check if the pulse transmitter is powered (red indicators), if not check the wiring / Change the sensor if required
	PTO DEFAULT	Coherence failure with power take-off	Check the power take-off status in driver's cab
	OVERFILL DEFAULT	Overfilling during a product movement	Transfer product in another compartment
	RUPTURE DG DEFAULT	Rupture detector failure	Use the maintenance mode to check the status of the detector
	PURGE NOT FINISHED	Purge of manifold (and/or hose) not finished	Finish the purge
	EMB METERING PROBLEM	Metering problem with the measuring device	Check if the pulse transmitter is powered (red indicators), if not check the wiring / Change the sensor if required
PUMPED	GAS DETECTOR DEFAULT	Gas detector failure	Use the maintenance mode to check the status of the detector
	DISPLAY DEFAULT	Problem with display card	If steady alarm, substitution of the display card
	WATCHDOG DEFAULT	Fault with display or power card or AFSEC+ card	Switch on-off the Microcompt+ / If steady alarm, substitution of the faulty card
	VOLUME CONVER DEFAULT	Problem during conversion of volume	If steady alarm, substitution of the AFSEC+ electronic card
	TOTALISER 1 LOST	Loss of totalizer	Substitution of the backup battery
	PRESSURE DEFAULT	Pressure determination failure	If steady alarm, see a reparator for trouble shooting
	TEMPERATURE 1 DEFAULT	Temperature determination failure	If steady alarm, see a reparator for trouble shooting
FLEXI TRONIQUE	TOTALISER 2 LOST	Loss of totalizer	Substitution of the backup battery
	TEMPERATURE 2 DEFAULT	Temperature determination failure	If steady alarm, see a reparator for trouble shooting
	MEMORY LOST (PILE)	Loss of saved memory	Substitution of the backup battery
	MEMORY LOST	Error on SIM memorization	Enter and exit the METRO mode / If steady alarm, substitution of the backup battery
	DATE AND TIME LOST	Loss of date and time	Set date and time in supervisor mode (supervisor key)
	COEFFICIENTS DEFAULT	Deviation between coefficient LF/HF greater than 0.5%	Modification of the low flow coefficient (K1)
	PROM DEFAULT	Loss of software or resident integrity	Substitution of the AFSEC+ electronic card
BLOCKING	RAM DEFAULT	Saved memory fault	Substitution of the AFSEC+ electronic card
	EEPROM MEMORY LOST	Loss of metrological configuration	Substitution of the AFSEC+ electronic card
	MEMORY OVER LOADED	SIM memory full	Substitution of the AFSEC+ electronic card



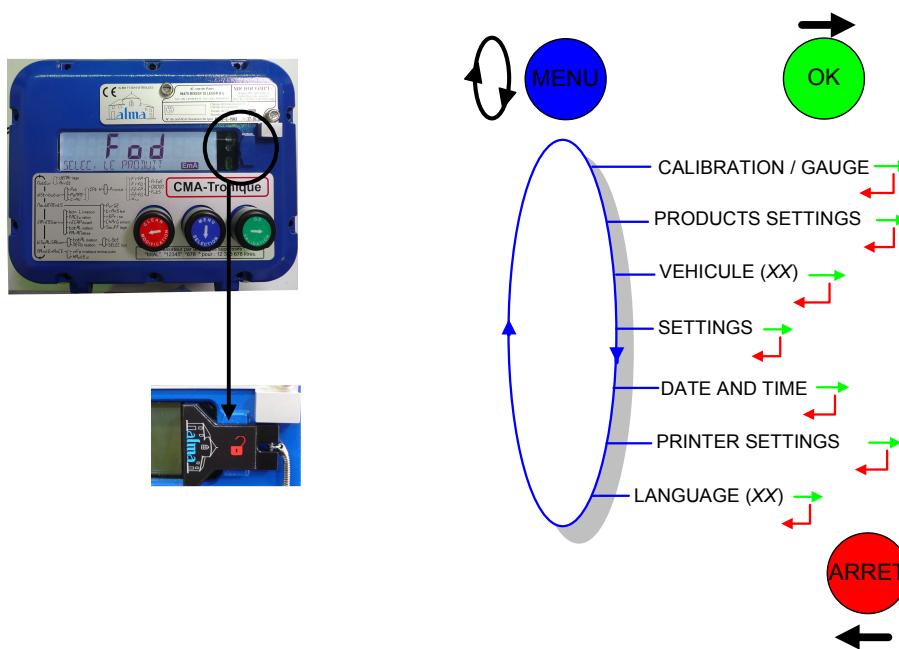
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DRIVER

5. SUPERVISOR MODE



5.1 CALIBRATION/GAUGE

This menu allows you to check the accuracy of the measuring system by calculating the measuring device error and the new corrected coefficient. It is possible then to linearise the curve on 2 points of measurement

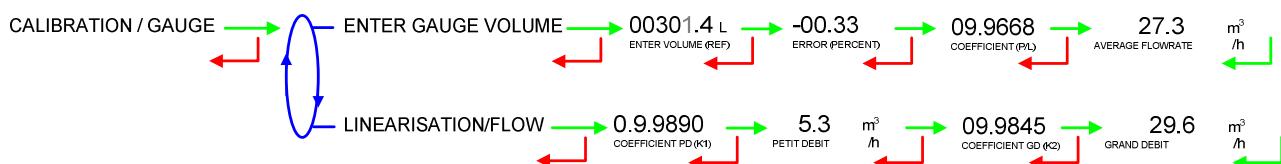
The product must be discharged in a gauge.

First, fill the gauge (DRIVER mode) in high or low flow with predetermination of the volume. Switch to SUPERVISOR mode, choose 'CALIBRATION/GAUGE > ENTER GAUGE VOLUME' and validate. Enter the volume read on the gauge and validate. The following information is then displayed:

- The signed error in %,
- The coefficient revised as a function of the error,
- The average flow of the delivery.

To linearise the curve, follow these instructions:

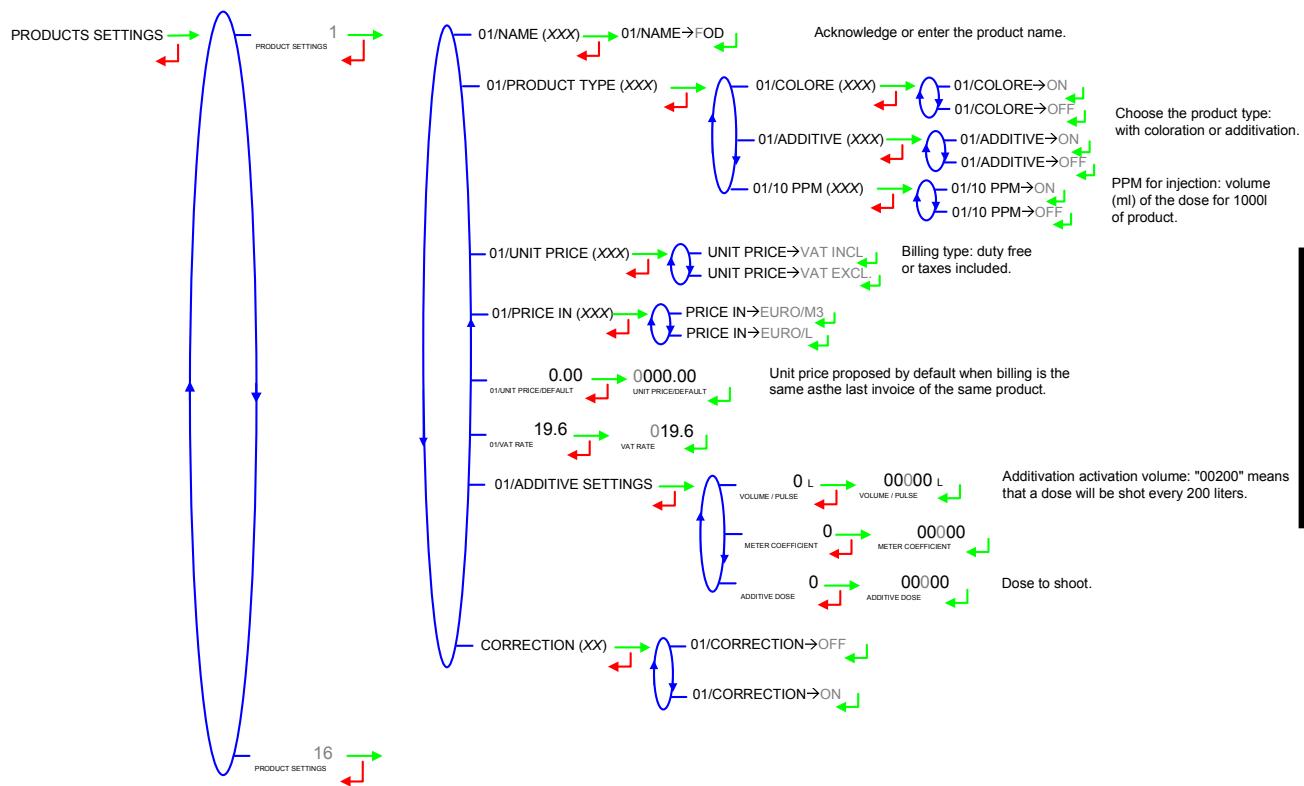
- Fill the gauge in high flow (HF) and enter the volume read on the gauge in the menu 'CALIBRATION/GAUGE > ENTER GAUGE VOLUME' as described above;
- Fill the gauge in low flow [flow_{min}] Ølow flowØ [flow_{minG2}], enter the volume read on the gauge in the menu 'CALIBRATION/GAUGE > ENTER GAUGE VOLUME' as described above;
- Choose 'CALIBRATION/GAUGE > LINEARIZATION/FLOW' and validate. It is then possible to see the coefficients and the flow rates data for the two tests carried out.



5.2 SETUP

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5.2.1 PRODUCTS SETTINGS

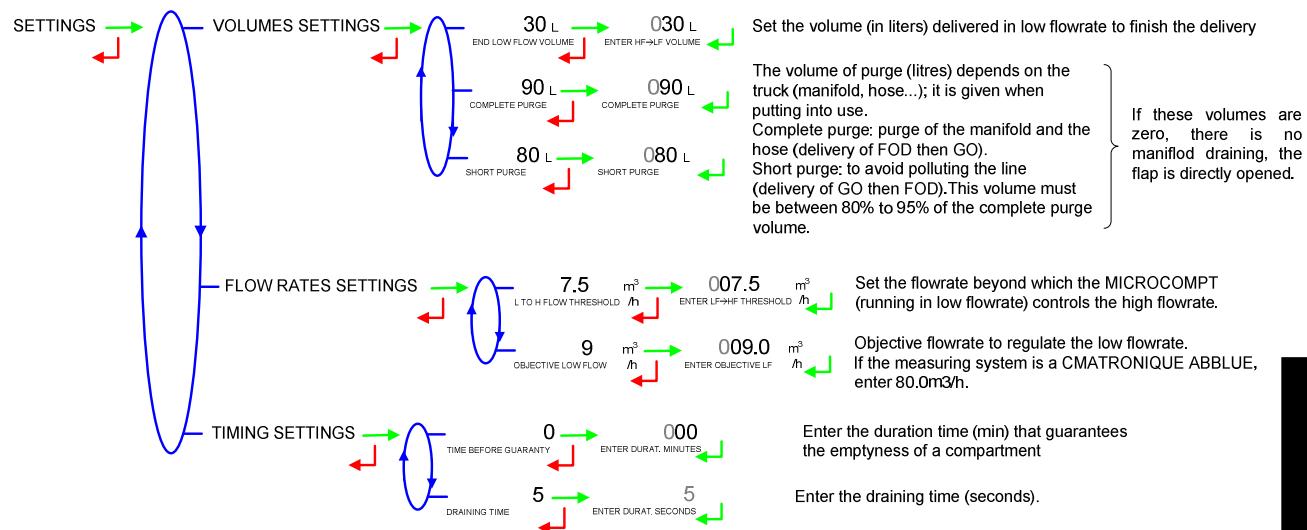


5.2.2 VEHICULE NUMBER

Set the vehicle registry number on which the CMATRONIC is installed. This number will be printed on delivery tickets, invoices...



5.2.3 SETTINGS

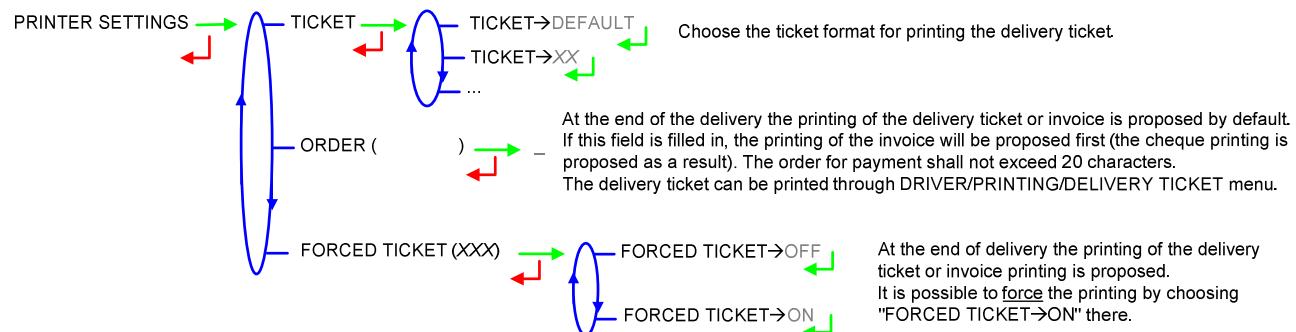


5.2.4 HOUR ADJUSTMENT

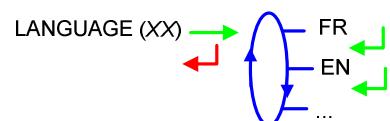
Date and time are set in METROLOGICAL mode. The hour may be adjusted ($\pm 2\text{h}$) one time a day through this menu.



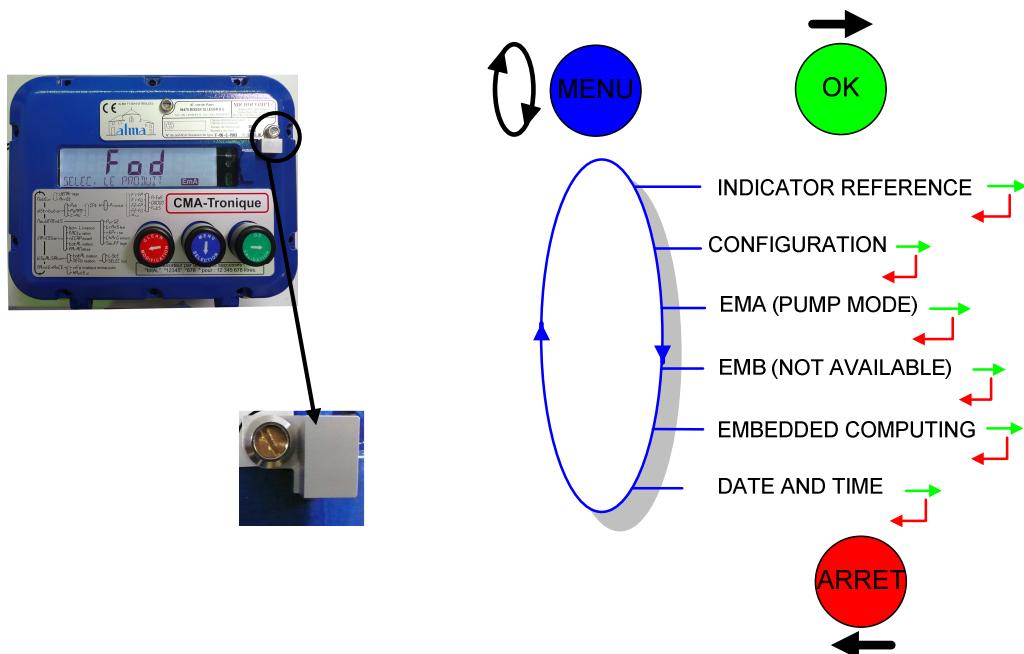
5.2.5 PRINTER SETTINGS



5.2.6 LANGUAGE



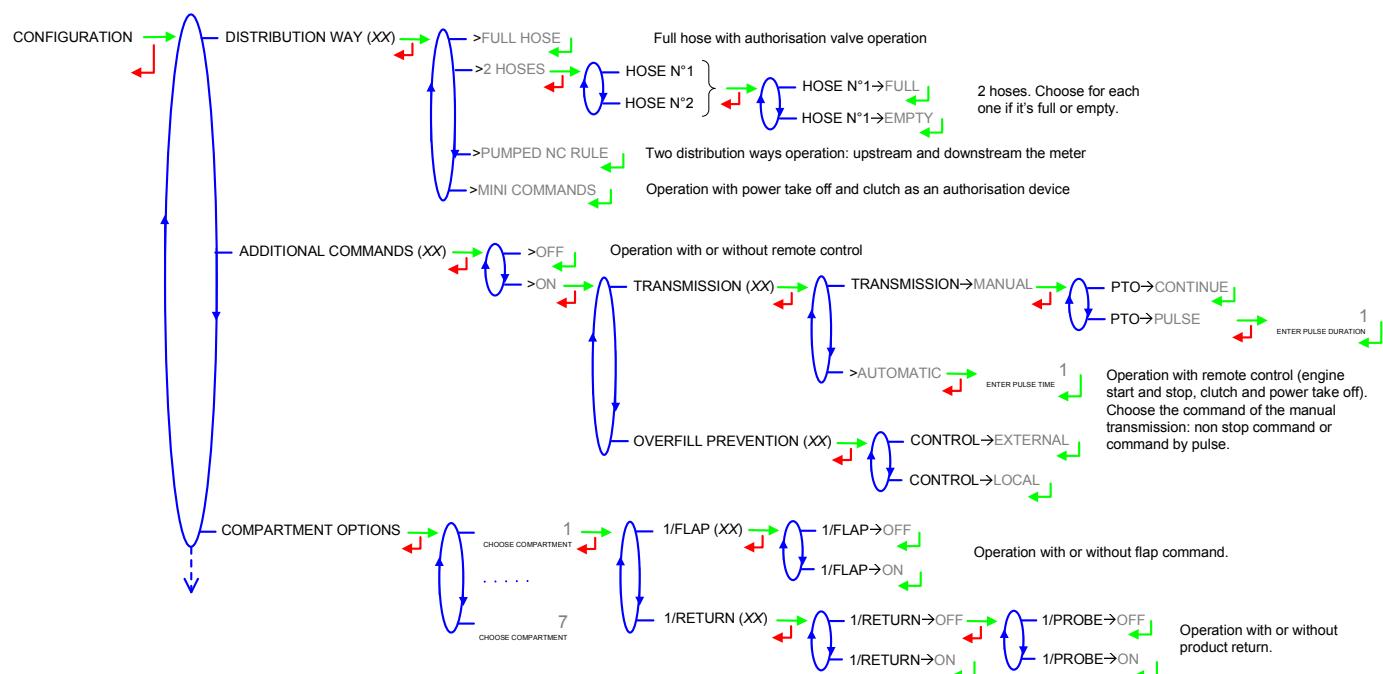
6. METROLOGICAL MODE

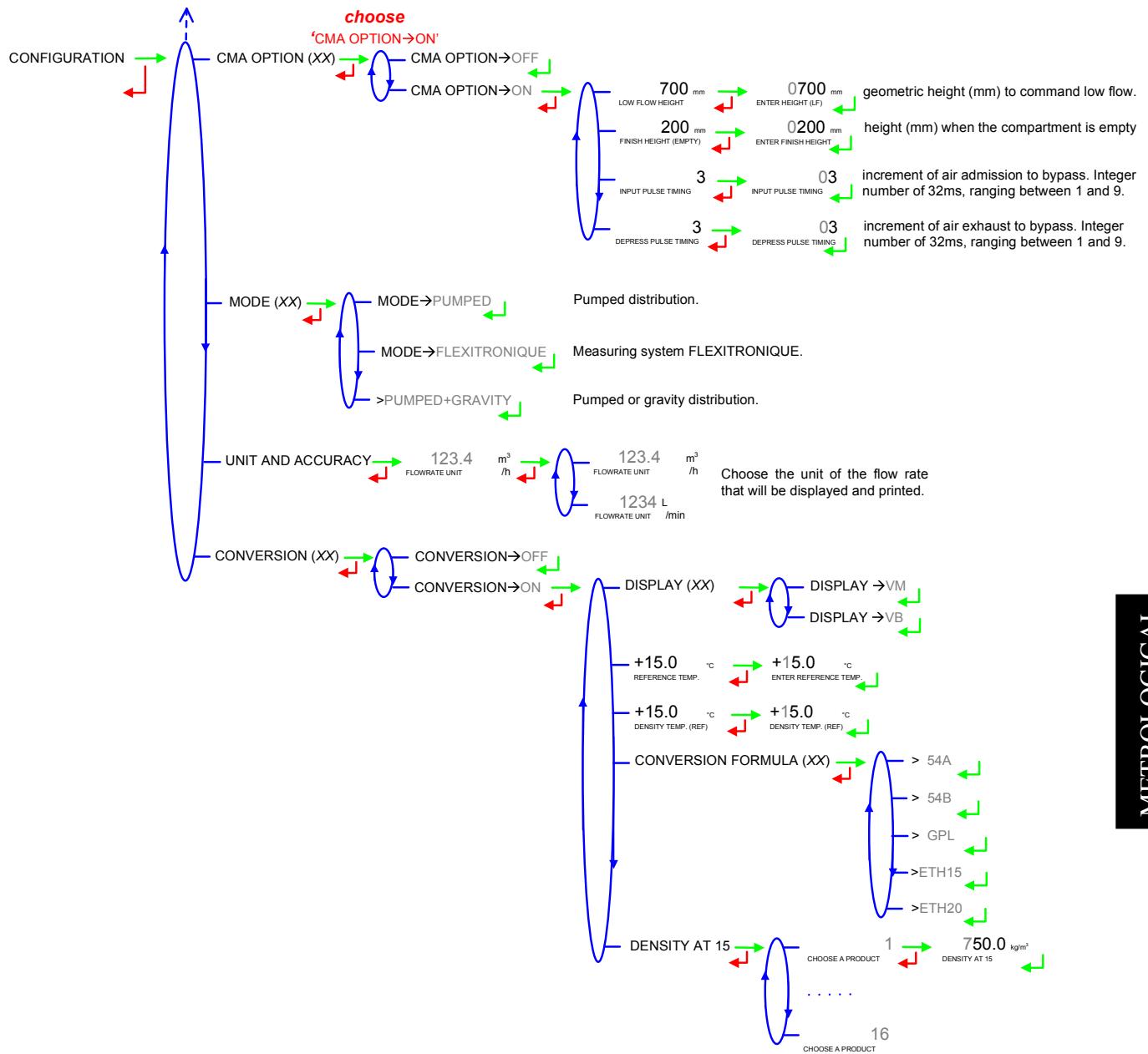


6.1 INDICATOR REFERENCE

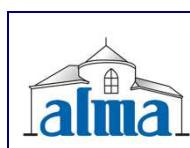


6.2 CONFIGURATION

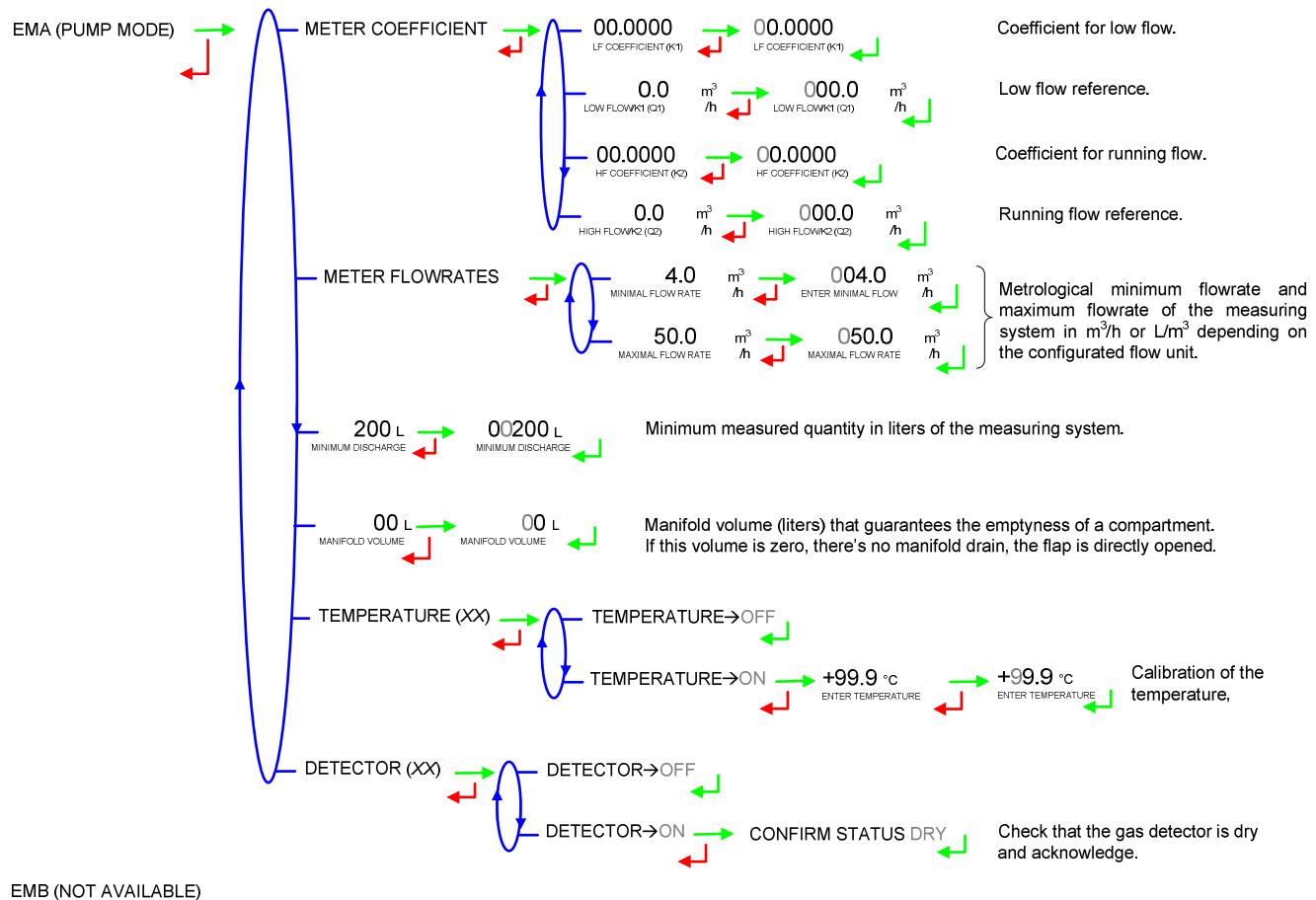




METROLOGICAL

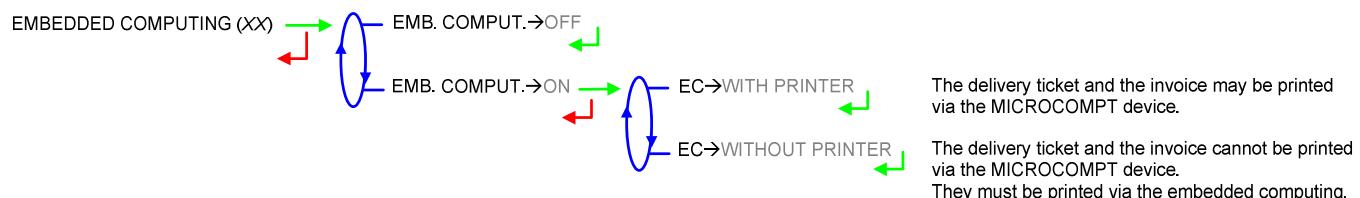


6.3 EMA (PUMP MODE), EMB (NOT AVAILABLE)



METROLOGICAL

6.4 EMBEDDED COMPUTING



6.5 DATE AND TIME

Enter the day, the month and the year, and then enter hour and minutes.



ANNEX

SUMMARY: print a daily summary

<p>The vehicle number shall be set in SUPERVISOR MODE. The indicator number shall be set in METROLOGICAL MODE (unsealed).</p> <p>Sort of summary (intermediate or complete), date, number of the day in the year, and number of memorised results in the day.</p> <p>Daily totalisers with printing for each product : the totaliser and the average temperature weighted in volume (if option set in METROLOGICAL MODE). The sum of all product totalisers is printed above</p> <p>List of measurement results with: - beginning of flow - end of flow - distribution mode (S for preset, F for free...) - measurement number in the day - product name - quantity delivered - average temperature weighted in volume (if option is set in METROLOGICAL MODE).</p>	<p>X.TRONIQUE 341+.001 card rev8 Version v09.02.00 dated 22.05.12 Printed on the 16 05 12 at 15 02 Vehicule : AA-215-EL Indicator : 03201</p> <p>Summary of deliveries of 07.06.12 Day 159 - 003 memorised results</p> <p>**** DAILY TOTALISERS ****</p> <table style="width: 100%; border-collapse: collapse;"> <tr><td>FOD</td><td>(01) :</td><td>00026000 L</td><td>+11,3°C</td></tr> <tr><td>FOD+</td><td>(02) :</td><td>00005000 L</td><td>+10,6°C</td></tr> <tr><td>GO</td><td>(03) :</td><td>00000000 L</td><td>+00,0°C</td></tr> <tr><td>GO+</td><td>(04) :</td><td>00000000 L</td><td>+00,0°C</td></tr> <tr><td>GNR</td><td>(05) :</td><td>00000000 L</td><td>+00,0°C</td></tr> <tr><td>GNR+</td><td>(06) :</td><td>00000000 L</td><td>+00,0°C</td></tr> </table> <p>Total from 1 to 6 : 00031000 L +11,2°C</p> <p>***** DAILY SUMMARY *****</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Hr start</th><th>Hr end</th><th>N° Mesur</th><th>(L) Prod</th><th>Volume</th><th>(°C) Temp</th></tr> </thead> <tbody> <tr><td>09:40</td><td>09:50</td><td>S01</td><td>FOD</td><td>14000</td><td>+11,3</td></tr> <tr><td>09:51</td><td>10:01</td><td>F02</td><td>FOD</td><td>12000</td><td>+11,3</td></tr> <tr><td>10:02</td><td>10:23</td><td>F03</td><td>GO</td><td>05000</td><td>+10,6</td></tr> </tbody> </table> <p>Pre(S)et; (F)ree; (B)arrels; (P)urge; fle(X)i; (T)rans; (Drips); (A)nticipatory purge.</p>	FOD	(01) :	00026000 L	+11,3°C	FOD+	(02) :	00005000 L	+10,6°C	GO	(03) :	00000000 L	+00,0°C	GO+	(04) :	00000000 L	+00,0°C	GNR	(05) :	00000000 L	+00,0°C	GNR+	(06) :	00000000 L	+00,0°C	Hr start	Hr end	N° Mesur	(L) Prod	Volume	(°C) Temp	09:40	09:50	S01	FOD	14000	+11,3	09:51	10:01	F02	FOD	12000	+11,3	10:02	10:23	F03	GO	05000	+10,6
FOD	(01) :	00026000 L	+11,3°C																																														
FOD+	(02) :	00005000 L	+10,6°C																																														
GO	(03) :	00000000 L	+00,0°C																																														
GO+	(04) :	00000000 L	+00,0°C																																														
GNR	(05) :	00000000 L	+00,0°C																																														
GNR+	(06) :	00000000 L	+00,0°C																																														
Hr start	Hr end	N° Mesur	(L) Prod	Volume	(°C) Temp																																												
09:40	09:50	S01	FOD	14000	+11,3																																												
09:51	10:01	F02	FOD	12000	+11,3																																												
10:02	10:23	F03	GO	05000	+10,6																																												



TOTALISERS: print the internal totaliser (general and by product)

The vehicle number shall be set in SUPERVISOR MODE.
 The indicator number shall be set in METROLOGICAL MODE (unsealed).

Non zero set totaliser including a general totaliser and one for each product.
 The sum of all products totalisers added with leakages (flow of liquid without authorization) correspond to the general totaliser value.

The no allocated volume corresponds to the flow of liquid without authorization and only appears if the volume is not null.

X.TRONIQUE 341+.001 card rev8
 Version v09.02.00 dated 22.05.12
 Printed on the 16 05 12 at 15 02
 Vehicule : AA-215-EL
 Indicator : 03201

***** TOTALISERS *****

General totaliser 1: 00056638 L

FOD	(01) :	00028000 L
FOD+	(02) :	00028000 L
GO	(03) :	00000000 L
GO+	(04) :	00000000 L
GNR	(05) :	00000000 L
GNR+	(06) :	00000000 L
	(07) :	00000000 L
	(08) :	00000000 L
	(09) :	00000000 L
	(10) :	00000000 L
	(11) :	00000000 L
	(12) :	00000000 L
	(13) :	00000000 L
	(14) :	00000000 L
	(15) :	00000000 L
	(16) :	00000000 L

Total from 1 to 16 : 00056000 L
 No allocated volume: 00000008 L



PARAMETERS: print the calculator parameters

The vehicle number shall be set in SUPERVISOR MODE.
The indicator number shall be set in METROLOGICAL MODE (unsealed).

Metrological configuration (unsealed MICROCOMPT).

Products setup shall be made in SUPERVISOR MODE.
Only the configurated products appear.
Price information are printed if the cheque order has been set in SUPERVISOR mode.

Setup of set points for low and high flow rate command shall be made in SUPERVISOR MODE.

X.TRONIQUE 341+001 card rev8
Version v09.02.00 dated 22.05.12
Printed on the 16 05 12 at 15 02
Vehicule : AA-215-EL
Indicator : 03201

***** PARAMETERS *****

Outlets/valve: full hose
CD option: no

Flap/return/probes option:

N*CPT :	1	2	3	4	5	6	7
Flap :	0	N	N	0	0	N	N
Return :	0	N	N	N	N	N	N
Probes :	N	N	N	N	N	N	N

CMA option :

LF height: 700 / End: 200 mm
PIT: 3 UT / DPT: 3 UT
Height:4035 mm / Coef PD: 1.50000

Mode: TRONIQUE

Emb. computing: off

Ticket: off

Language catalogue: env9.02.00

EM1 pump:

Coefficient K1:	1.00000 imp/L
Flowrate Q1 (LF):	4.0 m3/h
Coefficient K2:	1.00000 imp/L
Flowrate Q2 (HF):	50.0 m3/h
Min flowrate:	4.0 / Max: 50.0 m3/h
Minimum discharge:	00200 L
Temperature:	off
Vacuity sensor	wet

FOD (01) Co+nA+BA	off	00020 L/rec
FOD+ (02) Co+A+BA	off	00020 L/rec
GO (03) nC+nA+10	off	00020 L/rec
GO+ (04) nC+A+10	off	00020 L/rec
GNR (05) Co+nA+10	off	00020 L/rec
GNR+ (06) Co+A+10	off	00020 L/rec

End low flow volume:	30 L
Flow activated HF:	7.5 m3/h
Objective low flow:	9.0 m3/h
Complete purge volume:	90 L
Short purge volume:	80 L
Manifold volume:	20 L
Time: draining 5s / guaranty	0min
Stop flow at 7.8 m3/h with 0.3 L	



EVENTS RECORDED: print the events of a day

The vehicle number shall be set in SUPERVISOR MODE.
 The indicator number shall be set in METROLOGICAL MODE (unsealed).

List of the events of a day from the switch on to discharge stop.
 Events appear from the newest to the oldest.

X.TRONIQUE 341+.001 card rev8
 Version v09.02.00 dated 22.05.12
 Printed on the 16 05 12 at 15 02
 Vehicule : AA-215-EL
 Indicator : 03201

137 recordings(s)

14:33:33 Stop discharge
 14:30:03 Pto default
 14:24:33 Driver mode
 ...

09:47:15 Param@49= 700
 09:47:06 Param@48= 1
 09:42:57 Param@ 0= 2000
 08:59:02 Metrological mode
 08:58:57 Switch on

