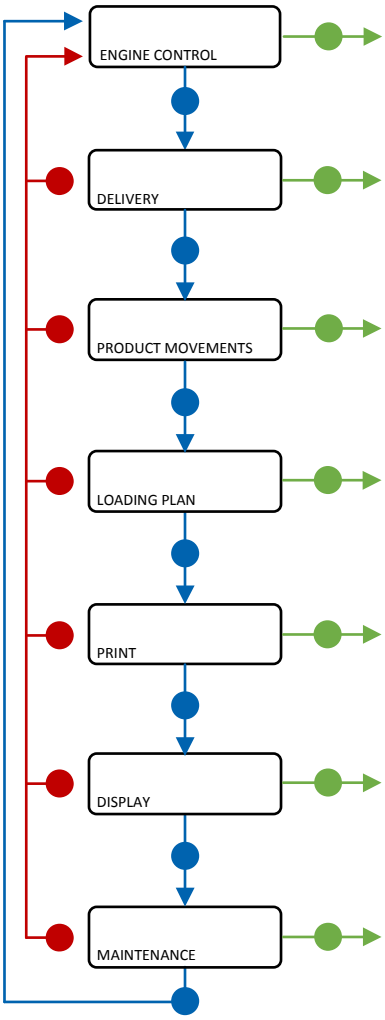
This document sketches out the main menus (please refer to operating manual MU 7093 EN for further information)

USING THE BUTTONS OF THE MICROCOMPT+

- Come back to the previous step
- Increment the blinking Digit

- Choose the menu options
- Select the next digit
- Display the delivery information

- Validate the menu option
- Validate the data
- Validate the default



Control of the engine function (Option start and stop the engine)

Control of the delivery

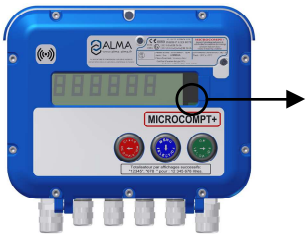
Control of the product movements (Hose purge, Product transfer, Product loading)

Loading plan

Printing (Delivery ticket, Invoice, Summary, Totalisers, Parameters: Complete / General+EM / Products+Additives , *Loading plan, Cargo plan,* Events recorded)

Display (Totaliser(s), Memory)

Maintenance parameters (*Embedded computing,* Software, Pressures, Temperatures, Inputs, Outputs



	Left-hand LED: Bluetooth or Wi-Fi		Middle LED: GSM / GPS		Right-hand LED: NFC (RFID)	
Steady light	Bluetooth / Wi-Fi	Connection OK		Waiting for internet connection		
				Internet connection OK		
		Waiting for initialization		Waiting for initialization		
Flashing light	Bluetooth / Wi-Fi	Slow flashing: Waiting for connection	every 2 seconds	GPS OK		Authentication of the RFID key OK
	Bluetooth / Wi-Fi	Rapid flashing: Communication in progress		Transfer in progress		RFID key not accepted, but authentication is ok
			every 2 seconds	Coordinates not found		
		Initialization error		Initialization error		Authentication error of the RFID key

GU 7093 EN C – 4053+v1.5.x / FORM DOC 124 B

RUN A DELIVERY

1. POWER UP AND START THE ENGINE

Power up (battery isolation switch)

ENGINE CONTROL 1000 L → ENGINE→START → Press until engine starts

Back to DELIVERY menu

2. PREPARE THE DELIVERY

DELIVERY 1000 L → Display test

▲ CHOOSE THE MEASURING SYSTEM ⚠ With EM DUAL

If required, turn the manual valve on EMA or EMB

DELIVERY→EMA / DELIVERY→EMB → Validate with

▲ SELECT THE DISTRIBUTION OUTLET ⚠ With active option

HOSE 1 (FULL) EmA / HOSE 2 (EMPTY) EmA → Validate with

▲ CHOOSE THE PRODUCT

PRODUCT→FUEL / PRODUCT→DIESEL → Validate with

▲ SELECT THE DISTRIBUTION MODE

MODE→PRESET EmA → Preset volume

MODE→PRESET+PURGE EmA → Preset+hose purge* (⚠ With control of compartment flaps)

MODE→FREE EmA → Free with nozzle

→ Validate with

**With the distribution mode PRESET+PURGE: choose the product and the compartment for the purge.*

▲ SET THE VOLUME ⚠ With mode PRESET or PRESET+PURGE

ENTER PRESET VOLUME 00000 L EmA

▲ CHOOSE THE COMPARTMENT ⚠ With active option

COMPARTMENT NUMBER 1

COMPARTMENT NUMBER X

...

SCHEDULING? → See § ENTRY MODES

→ Validate with

**With the distribution mode PRESET+PURGE: after the scheduling, choose the compartment for the purge and the hose for the next delivery.*

▲ ENGAGE THE PUMP ⚠ With active option

ENCLENCHEMENT PTO 1000 L EmA

3. CARRY OUT THE DELIVERY

▲ START THE DELIVERY

START HIGH FLOW 0 L EmA → High flowrate

START LOW FLOW 0 L EmA → Low flowrate

→ Validate with

Display during the delivery:

Pictogram / Displayed quantity: Vm: volume at temperature; Vb: converted volume; : mass

Unit depends on settings

Distribution mode / Product / Compartment

Measuring system EMA or EMB

Interruption of the delivery

▶ THE COMPARTMENT IS EMPTY

COMPARTMENT 2 EMPTY → CONTINUE DELIVERY

Choose another compartment

Start the delivery (§3)

▶ APPEARANCE OF A FAULT AND DISPLAY OF AN ALARM

(see list of alarms)

Continue/suspend (§4) or end (§5) the delivery

▶ INTENTIONAL INTERRUPTION OF THE DELIVERY

STOP DELIVERY

Continue/suspend (§4) or end (§5) the delivery

Display the delivery information

INSTANTENEOUS FLOW Vm EmA → INSTANT. HIGH FLOW 59,3 Vm m³/h EmA → Change flowrate (HF/LF) Unit depends on settings

LIQUID HEIGHT Vm EmA → LIQUID HEIGHT 00749 Vm mm EmA → ⚠ With active option

PRODUCT TEMPERATURE Vm EmA → PRODUCT TEMPERATURE +12.3 Vm °C EmA → ⚠ With active option

Back to normal display is automatic: DO NOT PRESS RED STOP BUTTON TO KEEP FROM INTERRUPTING DELIVERY.

4. CONTINUE OR SUSPEND THE DELIVERY

▲ CONTINUE THE DELIVERY

CONTINUE DELIVERY 980 Vm L EmA

Start the delivery §3

▲ SUSPEND THE DELIVERY TO MOVE THE VEHICLE

x2 MOVE VEHICLE 980 Vm L EmA → ENG. DECLUTCHING 980 Vm L EmA → DELIVERY PAUSE 980 Vm L EmA ...

Choose the compartment (⚠ With active option)

Engage the pump

Start the delivery §3

→ After vehicle moving

5. END THE DELIVERY

▲ END THE DELIVERY

END DELIVERY 1000 Vm L EmA → DELIVERY FINISHED 1000 Vm L EmA

Move the vehicle §4

Continue the delivery §4

▲ REMOVE THE PUMP ⚠ With active option

PTO REMOVING 1000 Vm L EmA

6. STOP THE ENGINE

STOP ENGINE? → Press until engine stops (⚠ With active option) / or

7. PRINT THE DELIVERY DOCUMENTS

DELIVERY TICKET → PRINT → PRINTING FINISHED

INVOICE → (choose taxes) → (choose unit price)

Printing of the invoice

Back to main menu

MEANING OF SYMBOLS

▲ Mandatory action

▲ Optional action

▶ Event during delivery

Action by operator

alma-alma.fr

GU 7093 EN C – 4053+v1.5.x / FORM DOC 124 B

RUN A PRODUCT MOVEMENT

HOSE PURGE for change of product

HOSE PURGE

▲ CHOOSE THE MEASURING SYSTEM ⚠ With EM DUAL

EMA / EMB — Validate with

▲ SELECT THE DISTRIBUTION OUTLET ⚠ With EMA pumped 2 hoses

HOSE 1 (FULL) EmA / HOSE 2 (EMPTY) EmA — Validate with

▲ SELECT THE RETURN VALVE ⚠ With active option

RETURN VALVE 1 / RETURN VALVE X — Validate with

▲ CHOOSE THE NEW PRODUCT

PRODUCT→FUEL / PRODUCT→DIESEL — Validate with

▲ CHOOSE THE COMPARTMENT ⚠ With active option

COMPARTMENT NUMBER 1 / COMPARTMENT NUMBER X — Validate with

▲ SELECT THE DISTRIBUTION OUTLET ⚠ With EMA pumped 2 hoses

Choose the hose for the next delivery

▲ ENGAGE THE PUMP

72 L VOLUME OF PURGE EmA — 72 L ENGAGE PTO EmA

▲ START THE PURGE

72 L START PURGE EmA — 19 Vm L PURGE / FUEL / CPT 1 EmA

▲ END THE PURGE

72 Vm L END PURGE EmA — 72 Vm L BLOWING EmA — 72 Vm L PURGE FINISHED EmA

⚠ With return product control

▲ REMOVE THE PUMP

72 Vm L PTO REMOVING EmA — STOP ENGINE?

⚠ With active option
Press until engine stops
or

▲ PRINT THE DELIVERY DOCUMENTS

PRODUCT TRANSFER from a compartment to another

⚠ With control of product return and overfill sensors

PRODUCT TRANSFER

▲ CHOOSE THE MEASURING SYSTEM ⚠ With EM DUAL

EMA / EMB — Validate with

▲ VALIDATE THE PRODUCT TO TRANSFER

Display of the product contained in the hose

PRODUCT→FUEL — Validate with

▲ SET THE VOLUME

00000 L ENTER PRESET VOLUME EmA — 300 L ENGAGE PTO EmA

▲ SELECT THE RETURN VALVE

RETURN VALVE 1 / RETURN VALVE X — Validate with

▲ CHOOSE THE COMPARTMENT ⚠ With active option

COMPARTMENT NUMBER 1 / COMPARTMENT NUMBER X — Validate with

▲ START THE TRANSFER

300 L START TRANSFER EmA — 19 Vm L TRANS / DIESEL / CPT 2 EmA

▲ END THE TRANSFER

300 Vm L END TRANSFER EmA — 300 Vm L BLOWING EmA — 300 Vm L TRANSFER FINISHED EmA

▲ REMOVE THE PUMP

300 Vm L PTO REMOVING EmA — STOP ENGINE?

⚠ With active option
Press until engine stops
or

▲ PRINT THE DELIVERY DOCUMENTS

ENTRY MODES

SET THE VOLUME:

Ex: Set the volume 2600 liters

00000 L ENTER PRESET VOLUME

Change the blinking figure value — x2 → 02000 L ENTER PRESET VOLUME

Access to the following figure — x1 → 02000 L ENTER PRESET VOLUME

Change the blinking figure value — x6 → 02600 L ENTER PRESET VOLUME

Validate the entry data — x1 → 02600 L ENTER PRESET VOLUME

SCHEDULING: Choose the compartment order

Ex: Compartment order C6-C1-C7

000000 C1 C2 C3 C4 C5 C6

Move on to the C6-digit — x5 → 000000 C1 C2 C3 C4 C5 C6

Increment the digit value — x1 → 000001 C1 C2 C3 C4 C5 C6

Move on to the C1-digit — x5 → 000001 C1 C2 C3 C4 C5 C6

Increment the digit value — x1 → 200001 C1 C2 C3 C4 C5 C6

Move on to the C7-digit — x6 → 000 C7 C8 C9

Increment the digit value — x1 → 300 C7 C8 C9

Validate the data — x7 → SCHEDULING OK?

Back to data entry — x1 → 200001 C1 C2 C3 C4 C5 C6

alma-alma.fr

GU 7093 EN C – 4053+v1.5.x / FORM DOC 124 B

LIST OF ALARMS

		DISPLAY	MEANING	ACTION
USER	COMMON	DELIVERY STOP	Intentional interruption of the discharge	Continue, stop or finish delivery or product return
		EMERGENCY SHUTDOWN	Emergency stop triggered by remote control	Continue, stop or finish delivery or product return
		EC COMM.DEFAULT	Communication problem with the embedded computing	Try again and switch to degraded mode if the problem persists. COMPUTING→WITHOUT EC (DEGRADE)
		PRINTER DEFAULT	Communication with the printer lost	Make sure the connections are ok: cable, on-off switch and fuse
		The ticket is jammed	Jammed paper in the printer	Use the RELEASE button to eject the paper
		POWER SUPPLY PROBLEM	Power outage during operation	Check the cause / Restore power supply
		PTO DEFAULT	Inconsistency PTO return / run command	Check the power take-off status in the driver's cab
		DSPGI DEFAULT	Communication problem with the DSPGI	Make sure the DSPGI device is in operation
	COMMON PUMPED	INCOHERENCE WAY A/B	Inconsistent choice for EMA/EMB circuit	Make sure the manual selection valves are well-positioned
		INCOHERENCE WAY C/NC	Inconsistent choice for Pumped Counted/Pumped Not Counted circuit	Make sure the manual selection valves are well-positioned
		OVERFILL DEFAULT	Overfill detected on a compartment	Transfer the product in another compartment
		PURGE NOT FINISHED	The purge sequence is not finished	Finish the purge of the manifold (and/or hose)
		FLOW PUMP DEFAULT	No flow after switching on the pump	If necessary, adjust the timer parameter
		ADDITIVATION FAULT	Problem with the additive system (cannot be managed properly)	Check the additive system
		ADDITIVE Y LOW LEVEL	(Y=1 or 2) Low level of the additive tank	Fill the additive tank
		ADDITIVE Y CONTROL	(Y=1 or 2) Non-guaranteed injection of the additive rate	Check the hydraulic system
		OVERFILL CLIENT DEF.	Overfill detected on the customer tank	End delivery
	EMX (X=A or B)	EMX LOW FLOW DEFAULT	Flow<Qmin consecutively during 0,2*MMQ	Check the parameters and the hydraulic system (valve, strainer, nozzle...)
		EMX HIGH FLOW DEFAULT	Flow>Qmax consecutively during 3 sec	Check the parameters / Reduce flowrate
REPARATOR		EMX METERING PROBLEM	Inconsistency of metering channels	Make sure the pulse emitter indicators are blinking and the wiring is well done / Change the pulse emitter if required
		EMX PULSES PROBLEM	Problem with the metering pulses	Make sure the pulse emitter indicators are blinking and the wiring is well done / Change the pulse emitter if required
		EMX TEMPER. DEFAULT	Temperature determination failure T<Tmin or T>Tmax	If steady alarm, see a reparator for trouble shooting
		EMX K-FACTOR DEFAULT	Deviation between coefficients K1 and K2 greater than 0.5%	Change the low-flow coefficient (K1)
		EMX TOTALISER LOST	Totalisers integrity problem	Substitution of the backup battery
		EMX PRESSURE DEFAULT	Pressure sensor out of range 4/20 mA	If steady alarm, see a reparator for trouble shooting
		EMX CONVER. DEFAULT	Problem during volume conversion	Make sure the set density is consistent
	COMMON	LEAK DETECTED	Metering detection without measurement	Make sure the check valve is tight
		DISPLAY DEFAULT	Integrity problem between the display and the display RAM proofreading	If steady alarm, substitution of the display card
		WATCHDOG DEFAULT	Triggering the watchdog function	Switch on-off the MICROCOMPT+ If steady alarm, substitution of the faulty card If steady alarm, substitution of the faulty card
		DATE AND TIME LOST	Problem with the clock	Set date and time
		DIARY DEFAULT	The events diary is lost	Acknowledge the alarm, make sure the date is ok If steady alarm, substitution of the backup battery
		MEMORY LOST	The measurements diary is lost	Acknowledge the alarm (enter then exit the metrological mode) If steady alarm, substitution of the backup battery Acknowledge the alarm (enter then exit the metrological mode) If steady alarm, substitution of the backup battery
		MEMORY OVER LOADED	Measurement storage area saturated (too many registrations over 90 days)	Acknowledge the alarm (enter then exit the metrological mode) If steady alarm, substitution of the backup battery
		BOOT LOADER DEFAULT	Inconsistency between the app and the version of the boot loader	Match the application software with the boot loader
		PARAMETER LOST	Loss of supervisor parameters	Acknowledge the alarm If steady alarm, substitution of the backup battery
		EEPROM MEMORY FAIL	Loss of metrological parameters	Substitution of the AFSEC+ electronic card
		SAVE MEMORY DEFAULT	Integrity problem with memorized data	Substitution of the AFSEC+ electronic card
		FRAME WORK DEFAULT	Integrity problem with software	Substitution of the AFSEC+ electronic card