ALMA	**OPERATING GUIDE** **BLENDING / DENATURANT** **MICROCOMPT+ FOR TOP LOADING**	GU 7036_4 EN F www.alma-alma.fr

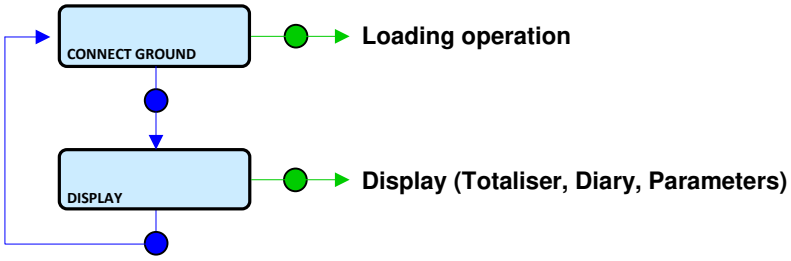
This document sketches out the main menus (please refer to operating manual MU 7036 EN for further information).

USING THE BUTTONS

- Come back to the previous stage
- Increment the blinking figure

- Choose the menu option
- Access to the following figure

- Validate the displayed option
- Validate the entry data



REMINDER:
VM: Volume measured at metering conditions
VB: Volume at base conditions (converted volume, usually V15)
MVT: Density at temperature, in kg/m^3
CTL: Conversion coefficient

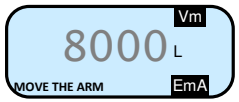
NOTE: If the MICROCOMPT+ communicates with a system via µConfig, the message 'UCONFIG…' appears on the prompter

RUN A LOADING OPERATION

1. PREPARE THE LOADING OPERATION

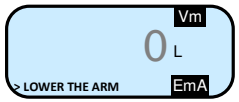
▲ CONNECT THE GROUND

Connect the ground



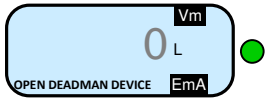
▲ MOVE THE LOADING ARM

Move the arm (right or left)



▲ LOWER THE LOADING ARM

Lower the loading arm

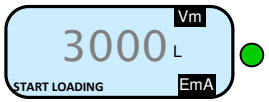


▲ OPEN THE DEADMAN DEVICE

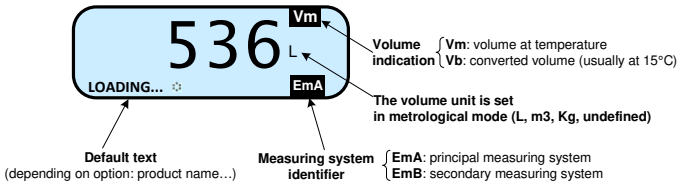
Open the deadman device

2. CARRY OUT THE LOADING OPERATION

▲ START LOADING OPERATION

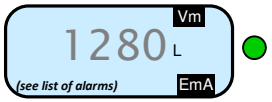


Display during the loading operation:



The loading operation may be interrupted by several situations:

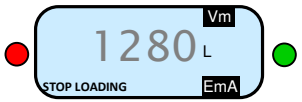
▶ *APPEARANCE OF A FAULT AND DISPLAY OF AN ALARM*



Pick up the arm

Continue or stop the loading operation (§3 or §4)

▶ *INTENTIONAL INTERRUPTION OF THE LOADING OPERATION*



Pick up the arm

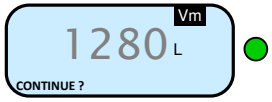
Continue or stop the loading operation (§3 or §4)

▲ DISPLAY LOADING INFORMATION

- Quantity EM1
- Quantity EM1+EM2 — Downstream blender
- Flowrate → Instantaneous flow EM1+EM2 — Downstream blender
  - Instantaneous flow EM1
  - Instantaneous flow EM2
- Temperature → Instantaneous temperature EM1 — With active option
  - Instantaneous temperature EM2
- Pressure → Instantaneous pressure — With active option
- Blending rate — Blender
- Quantity → EMA Instantaneous MVT — With conversion
  - EMA Instantaneous reference MVT
  - EMA VM
  - EMA VB
  - EMA Mass
  - EMA CTL
  - EMB Instantaneous reference MVT
  - EMB VM
  - EMB VB
  - EMB Masse
  - EMB CTL

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

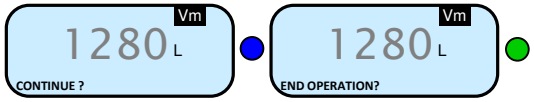
3. CONTINUE THE LOADING OPERATION

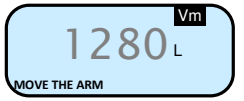


Lower the loading arm

Start the loading operation §2

4. END THE LOADING OPERATION





▲ PUT THE LOADING ARM ASIDE

Put the loading arm aside

▲ REMOVE THE GROUND

Remove the ground

Volume reset

▲ CLOSE THE DEADMAN DEVICE

Close the deadman device

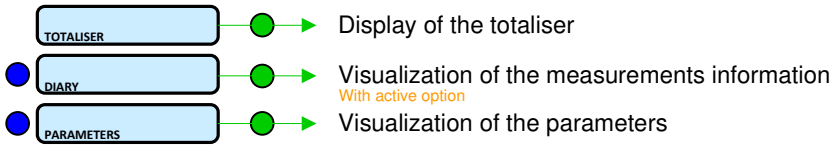
Back to main menu §1

MEANING OF SYMBOLS

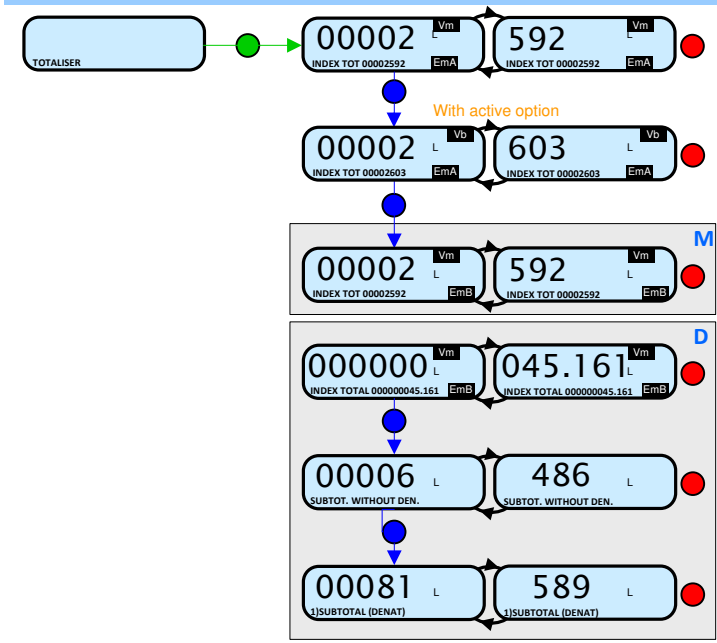
- ▲ Mandatory action
- ▲ Optional action
- ▶ *Event during loading operation*
- Action by operator
- B / D Spécifiques menus depending on the measuring system: Blender / Denaturant

DISPLAY THE LOADING DATA

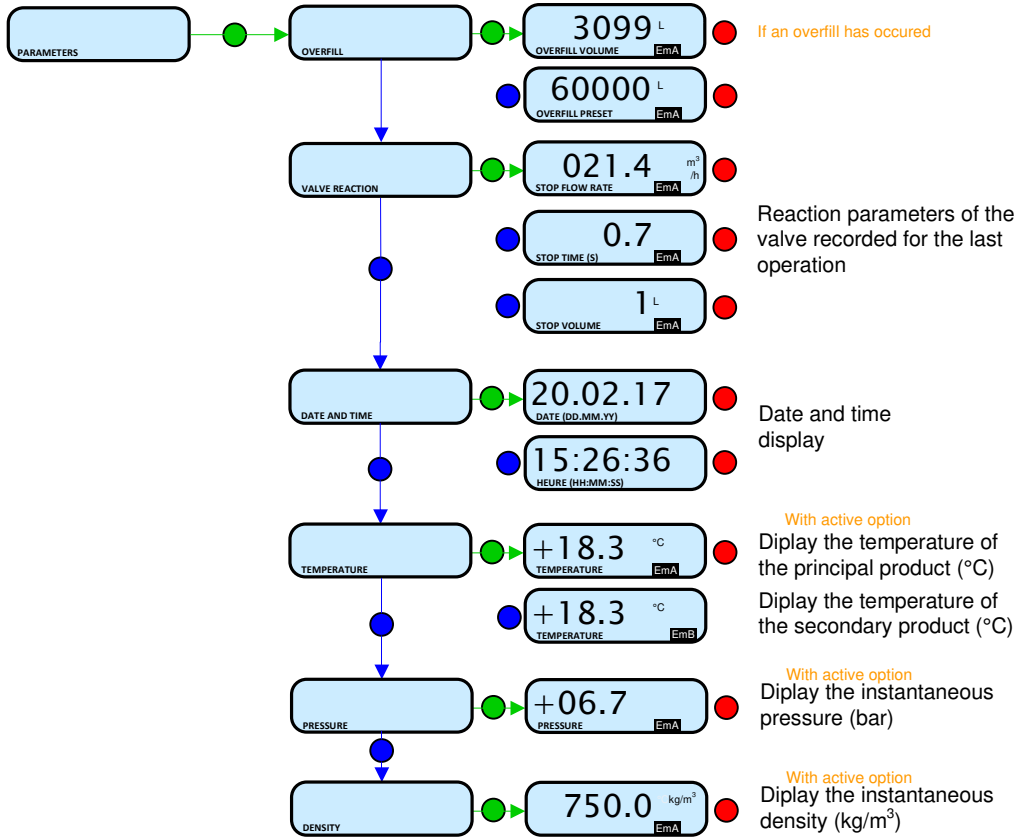
This menu is available in stand-by mode or during an intermediate stop of the loading operation.



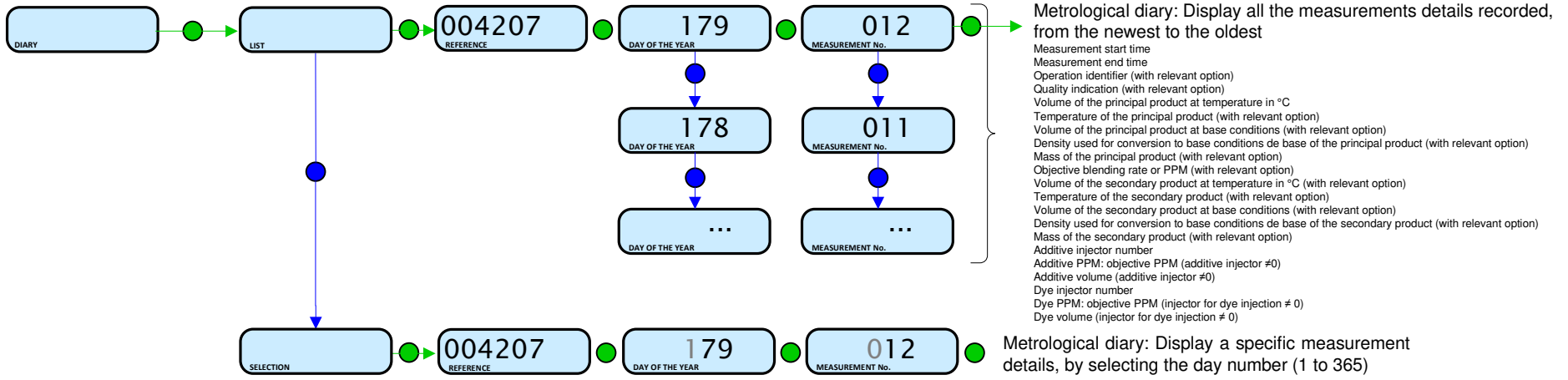
TOTALISER



PARAMETERS



DIARY



LIST OF ALARMS

TOP	DISPLAY	MEANING	ACTION
USER	STOP LOADING	Intentional interruption of the loading operation	Continue or stop the loading operation
	EMERGENCY STOP	Detection of an emergency stop	Check the status of the emergency stop
	COMMUNICATION FAULT	Absence of communication network	Check the status on the control device
	POWER SUPPLY PROBLEM	Power outage during discharge	Check the cause / Restore power supply
	LOW FLOW FAULT	Low flowrate (less than minimum flowrate)	Check the parameters / Check the hydraulic system (valve, strainer, nozzle…)
	HIGH FLOW FAULT	High flowrate (greater than maximum flowrate)	Check the hydraulic system (valve, pumping)
	ZERO FLOW FAULT	Zero flow principal product	Check the hydraulic system (safety valve)
	METERING PROBLEM	Metering problem with the principal measuring device	Check if the pulse transmitter is powered (red indicators)
	OVERFILL FAULT	Over-filling of the compartment	Dry out the wet probe or end measurement
	MANDATORY END	Measurement end is required	End operation
	NO MORE AUTHORISATION	No more loading authorisation	Check the reason on the control device
	GROUND FAULT	Loss of ground signal	Check the connection of the dead-man switch
	TICKET FAULT	No ticket in the local mechanical printer	Check the ticket is well-positioned
	ARM POSITION FAULT	Loading arm in high-position	Check the loading arm position
	ARM ORIENT. FAULT	Problem with the orientation of the arm in low-position	Check the loading arm orientation (left or right)
	ORIENTATION /2 RACKS	Detection of a loading arm oriented on both sides of the rack	Check the loading arm orientation (left or right)
	DEADMAN SWITCH	The dead man switch is not connected	Check the dead man switch
	LEAKAGE FAULT	Metering detection without measurement	Check the tightness of the loading valve
	SAMPLING FAULT	Problem with the sampler	Check the status of the sampler
	SELECTION QUALITY	No product selected	Choose a product
	TANK EMPTY	Product unavailable	Fill the tank with product
	GAS DETECTED	Detection of gas (principal product circuit EMA)	Make a purge (manual or automatic)
	EMB METERING PROBLEM	Metering problem with the secondary measuring device	Check if the pulse transmitter is powered (red indicators)
	EMB NO FLOWRATE	Zero flow (secondary measuring system)	Check the hydraulic system (safety valve)
	BLENDING RATE FAULT	Inappropriate blending ratio	Check the blending rate set in metrological mode
	EMB LEAKAGE FAULT	Metering detection without injection of secondary product	Check the hydraulic system of the denaturant
	BLENDER FAULT	Problem with the denaturant electronic device	Check the denaturant electronic device
	EMB UNDERFLOW	Flowrate less than the min. flowrate set in metrological mode	Check the hydraulic system (valve, strainer, nozzle…)
	EMB HIGH FLOW	Flowrate greater than the max. flowrate set in metrological mode	Check the hydraulic system (valve, pumping)
	EMB GAS FAULT	Detection of gas (secondary product circuit EMB)	Make a purge (manual or automatic)
	BLENDER GAS FAULT	Detection of gas	Make a purge (manual or automatic)
	DENATUR. TANK EMPTY	Denaturant unavailable	Fill the tank with denaturant
	NO DYEING	Dyeing null	Check the additive hydraulic system
	DYE LEAKAGE	Metering detection without injection	
	DYEING <--->	Dyeing rate too low	Check the additive hydraulic system
	DYEING <+++>	Dyeing rate too high	
	NO ADDITIVATION	Additivation null	Check the additive hydraulic system
	ADDITIVE LEAKAGE	Metering detection without injection	
	ADDITIVATION <--->	Additivation rate too low	Check the additive hydraulic system
	ADDITIVATION <+++>	Additivation rate too high	
	ADDITIVATION FAULT	Problem with the additivation electronic device	Check the additivation electronic device
	DOSING FAULT	Problem with the dosing of the additive	Check the additivation electronic device

TOP	DISPLAY	MEANING	ACTION
USER	ACDA PROBLEM	Problem with the ACDA (remote injector calculator)	Check the electronic device ACDA
	LINE RINSING FAULT	Rinsing cycle not finished by the injector	Wait for the end of the rinsing cycle. Blocking default if the injector is for denaturant (see ANTI BLENDING configuration)
	INJECT. LEAKAGE	Metering detection on injector XX without injection	Check the additive hydraulic system
	DIARY FAULT	Reset of the events diary	Acknowledge the alarm, check the date in supervisor mode
REPARATOR - NON BLOCKING	DISPLAY FAULT	Problem with display card	If steady alarm, substitution of the display card
	WATCHDOG FAULT	Fault with display or power card or AFSEC+ card	If steady alarm, substitution of the faulty card
	VOLUME CONVER. FAULT	Problem during conversion of volume	If steady alarm, substitution of the AFSEC+ electronic card
	TOTALISER LOST	Loss of totaliser EMA	Substitution of the backup battery
	EMB TOTALISER LOST	Loss of totaliser EMB	Substitution of the backup battery
	TEMPERATURE FAULT	Temperature determination failure EMA	If steady alarm, see a reparator for trouble shooting
	EMB TEMP FAULT	Temperature determination failure EMB	
	VALVE FAULT	Inappropriate reaction of the EMA control valve	If steady alarm, inspect the autorization valve
	EMB VALVE FAULT	Inappropriate reaction of the EMB control valve	
	FILTER FAULT	Filter fouling	The pressure switch and the product line must be cleaned
	ANTI-POLLUTION VALVE	Mismatch between the status awaited and the actual status of the antipollution valve	Check the status of the antipollution valve
	INJECT CONFIG FAULT	Disparity between metrological parameters values	Remove the disparity
	DYEING CONFIG FAULT	Disparity between metrological parameters values	Remove the disparity
	DENSITY L UNCONFORM.	Measure of the density meter lower than the density low set in supervisor mode	If blocking alarm: end delivery
	DENSITY H UNCONFORM.	Measure of the density meter higher than the density high set in supervisor mode	If non blocking alarm: validate
REPARATOR - BLOCKING	PRINTER FAULT <-> <+>	Problem with the IT2 mechanical printer	If steady alarm, inspect the printer
	MEMOTY 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
	COEFFICIENTS FAULT	Deviation between coefficient LF/HF greater than 0.5%	Modification of the low flow coefficient (K1)
	PROM FAULT	Loss of software or resident integrity	Substitution of the AFSEC+ electronic card
	RAM FAULT	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	Loading diary is full	Substitution of the AFSEC+ electronic card
	DATE AND TIME LOST	Loss of date and time	Set date and time in supervisor mode (supervisor key)
	POWER BOARD FAULT	Disparity between the software and the version of the power supply board	Remove the disparity
	GAS DETECTOR FAULT	Problem with the EMA gas detector	Check the gas detector
	GAS DETECTOR HIGH	Problem with the high-point gas detector	Check the gas detector
	EMB DETECTOR FAULT	Problem with the EMB gas detector	Check the gas detector
	DENSIMETER MIN FAULT	Measure of the density meter lower than the minimum density set in metrological mode	Check the metrological configuration
	DENSIMETER MAX FAULT	Measure of the density meter higher than the maximum density set in metrological mode	Check the metrological configuration
	NO PULSE DENSIMETER	Unable to receipt pulses from the frequency density meter	Check the density meter
	VISCOSITY FAULT	Viscosity out of range	Check the curve in metrological mode