

# OPERATING GUIDE MICROCOMPT+ FOR TOP LOADING

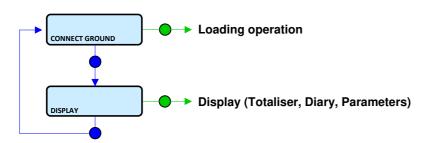
GU 7036\_2 EN G

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 optionValidate 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<sup>3</sup>

CTL: Conversion coefficient

NOTE: If the MICROCOMPT+ communicates with a system via  $\mu$ Config, 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



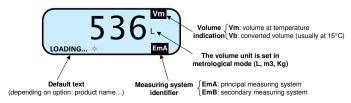
- ▲ OPEN THE DEADMAN DEVICE
- ♥ Open the deadman device

#### 2. CARRY OUT THE LOADING OPERATION

▲ START LOADING OPERATION

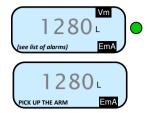


#### Display during the loading operation:



#### 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
- Temperature Instantaneous temperature
- Pressure Instantaneous pressure
- Quantity Instantaneous density
  - Instantaneous reference density
  - VMVB
  - Mass
  - MassCTL

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

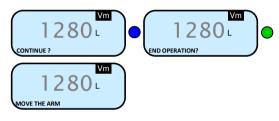
#### 3. CONTINUE THE LOADING OPERATION



Lower the loading arm

Start the loading operation §2

#### 4. END THE LOADING OPERATION



- ▲ PUT THE LOADING ARM ASIDE
- Put the loading arm aside



- A REMOVE THE GROUND
- Remove the ground



- ▲ CLOSE THE DEADMAN DEVICE
  - Close the deadman device

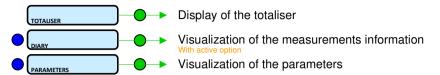
Back to main menu §1

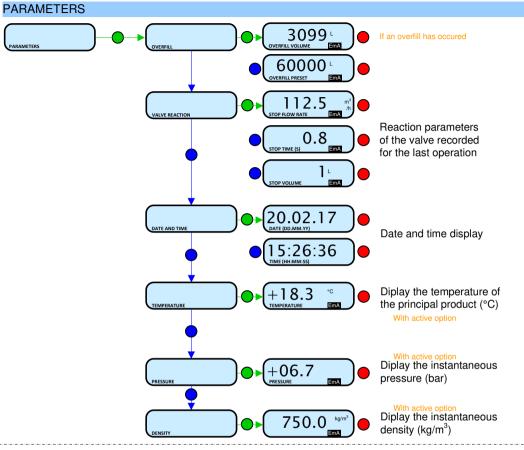
#### MEANING OF SYMBOLS

- Mandatory action
- Optional action
- ► Event during loading operation
- Action by operator

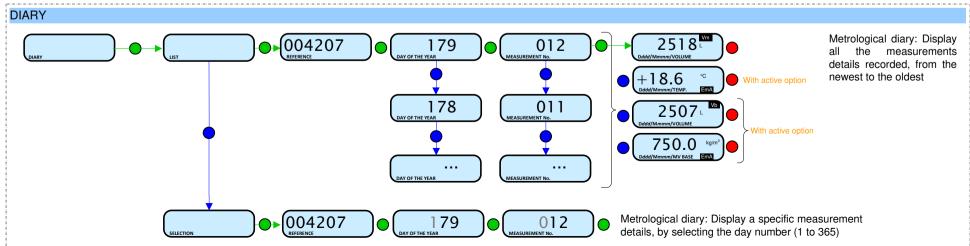
## **DISPLAY THE LOADING DATA**

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









## **LIST OF ALARMS**

		DISPLAY	MEANING	ACTION
		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 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 MANDATORY END	Over-filling of the compartment  Measurement end is required	Dry out the wet probe or end measurement  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)
HH H		ORIENTATION /2 RACKS	Detection of a loading arm oriented on both sides of the rack	Check the loading arm orientation (left or right)
USER		DEAD MAN 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
		QUALITY SELECTION	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)
		NO ADDITIVE LEAKAGE	Additivation null	Check the additive hydraulic system
		ADDITIVE LEAKAGE ADDITIVATION <>	Metering detection without injection  Additivation rate too low	Check the additive hydraulic system  Check the additive hydraulic system
		ADDITIVATION <+++>	Additivation rate too low	Check the additive hydraulic system
		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
		ACDA FAULT	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
		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
		DISPLAY FAULT	Problem with display card	If steady alarm, substitution of the display card
		DISPLAY FAULT WATCHDOG FAULT	Problem with display card Fault with display or power card or AFSEC+ card	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card
		DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card
	NG	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery
	CKING	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting
	BLOCKING	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve
	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned
	NON BLOCKING	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve
	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve
	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM.	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery
	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM.	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve If blocking alarm: end delivery If non blocking alarm: validate
	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <->	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer
OR	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+>	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer
ATOR	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <->	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery
ARATOR	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+>	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode /
PARATOR	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery  Enter and exit the METRO mode / If steady alarm, substitution of the backup battery
REPARATOR	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST (PILE)	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode /
REPARATOR	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST (PILE) MEMORY LOST COEFFICIENTS FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization Deviation between coefficient LF/HF greater than 0.5%	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery  Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1)
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST (PILE) MEMORY LOST COEFFICIENTS FAULT PROM FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST (PILE) MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization  Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration Loading diary is full	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card Substitution of the AFSEC+ electronic card
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST (PILE) MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT EEPROM MEMORY LOST	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization  Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery  Enter and exit the METRO mode / If steady alarm, substitution of the backup battery  Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card Substitution of the AFSEC+ electronic card
REPARATOR	BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT EEPROM MEMORY LOST MEMORY OVER LOADED	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization  Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration Loading diary is full Loss of date and time Disparity between the software and the version of	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card Substitution of the AFSEC+ electronic card Substitution of the AFSEC+ electronic card
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT EEPROM MEMORY LOST MEMORY OVER LOADED DATE AND TIME LOST POWER BOARD FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration Loading diary is full Loss of date and time Disparity between the software and the version of the power supply board	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST (PILE) MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT EEPROM MEMORY LOST MEMORY OVER LOADED DATE AND TIME LOST	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration Loading diary is full Loss of date and time Disparity between the software and the version of the power supply board Problem with the EMA gas detector	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT EEPROM MEMORY LOST MEMORY OVER LOADED DATE AND TIME LOST POWER BOARD FAULT GAS DETECTOR FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization  Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration Loading diary is full Loss of date and time Disparity between the software and the version of the power supply board Problem with the EMA gas detector Problem with the high-point gas detector Measure of the density meter lower than the minimum density	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT EEPROM MEMORY LOST MEMORY OVER LOADED DATE AND TIME LOST POWER BOARD FAULT GAS DETECTOR FAULT GAS DETECTOR HIGH DENSIMETER MIN FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization  Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration Loading diary is full Loss of date and time Disparity between the software and the version of the power supply board Problem with the EMA gas detector Problem with the high-point gas detector Measure of the density meter lower than the minimum density set in metrological mode Measure of the density meter higher than the maximum density	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card Set date and time in supervisor mode (supervisor key)  Remove the disparity  Check the gas detector Check the gas detector Check the metrological configuration
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT EEPROM MEMORY LOST MEMORY OVER LOADED DATE AND TIME LOST POWER BOARD FAULT GAS DETECTOR FAULT GAS DETECTOR HIGH DENSIMETER MAX FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization  Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration Loading diary is full Loss of date and time Disparity between the software and the version of the power supply board Problem with the EMA gas detector Problem with the high-point gas detector Measure of the density meter lower than the minimum density set in metrological mode Measure of the density meter higher than the maximum density set in metrological mode	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card Set date and time in supervisor mode (supervisor key)  Remove the disparity  Check the gas detector Check the gas detector Check the metrological configuration Check the metrological configuration
REPARATOR	NON BLO	DISPLAY FAULT WATCHDOG FAULT VOLUME CONVER. FAULT TOTALISER LOST TEMPERATURE FAULT VALVE FAULT FILTER FAULT ANTI-POLLUTION VALVE DENSITY L UNCONFORM. DENSITY H UNCONFORM. PRINTER FAULT <-> PRINTER FAULT <+> MEMORY LOST COEFFICIENTS FAULT PROM FAULT RAM FAULT EEPROM MEMORY LOST MEMORY OVER LOADED DATE AND TIME LOST POWER BOARD FAULT GAS DETECTOR FAULT GAS DETECTOR HIGH DENSIMETER MIN FAULT	Problem with display card Fault with display or power card or AFSEC+ card Problem during conversion of volume Loss of totaliser EMA Temperature determination failure EMA Inappropriate reaction of the EMA control valve Filter fouling Mismatch between the status awaited and the actual status of the antipollution valve Measure of the density meter lower than the density low set in supervisor mode Measure of the density meter higher than the density high set in supervisor mode Problem with the IT2 mechanical printer Problem with the IT2 mechanical printer Loss of saved memory Error on SIM memorization  Deviation between coefficient LF/HF greater than 0.5% Loss of software or resident integrity Saved memory fault Loss of metrological configuration Loading diary is full Loss of date and time Disparity between the software and the version of the power supply board Problem with the EMA gas detector Problem with the high-point gas detector Measure of the density meter lower than the minimum density set in metrological mode Measure of the density meter higher than the maximum density	If steady alarm, substitution of the display card If steady alarm, substitution of the faulty card If steady alarm, substitution of the AFSEC+ electronic card Substitution of the backup battery If steady alarm, see a reparator for trouble shooting If steady alarm, inspect the autorization valve The pressure switch and the product line must be cleaned Check the status of the antipollution valve  If blocking alarm: end delivery If non blocking alarm: validate  If steady alarm, inspect the printer If steady alarm, inspect the printer Substitution of the backup battery Enter and exit the METRO mode / If steady alarm, substitution of the backup battery Modification of the low flow coefficient (K1) Substitution of the AFSEC+ electronic card Set date and time in supervisor mode (supervisor key)  Remove the disparity  Check the gas detector Check the gas detector Check the metrological configuration