

TROUBLESHOOTING

This chapter shows basic help for solving simple problems without intervention from 'meler' technical personnel.

It is very important to respect the security instructions in this manual at all times. Failure to do so may result in personal injury and/or damage to the machine or to the rest of the installation.

Warning: The melter/applicator equipment is equipped with current technology, but with certain foreseeable risks. Therefore, only allow appropriate personnel with enough training and experience to use, install or repair this equipment.



Each observed problem corresponds to a chapter section. There are four different columns in each one:

- Possible causes
- Verification to be performed
- Useful observations
- Actions

The system is simple. Locate the chapter section that corresponds to the observed problem. Starting from the column on the left, follow vertically the causes. Once the cause is found check, the action is performed taking into account the comments and once the error checked carried out in each case corrective action.

If you do not reach the cause follow to the next problem.

If you are unable to solve the problem with the help provided in this chapter, contact your Area Technical Service Center or 'meler' headquarter directly.

Melter

The equipment doesn't turn on

Causes	Checking	Comments	Actions
Failure in equipment power supply	Check voltage between phases and neutrals of the main terminal Check voltage in X7 connector (TC board)	The voltages will vary depending on the equipment	Check over cables. Check network voltage.
Failure ON/OFF switch	Check continuity of the switch (250) Check power supply	Ensure that the supply receives 220 volts and outputs 24 v	Change switch
Power supply failure	Check input voltage(230 v ac) Check output voltage (24v dc)	Ensure visually that the green LED of the supply turns on	Replace power supply
HMI board failure (does not turn on)	Check voltage in X9 and X6 Check power supply output (24V)	Ensure that voltage arrives	Change HMI board
TC board failure (does not turn on)	Check voltage in X6 Check power supply output (24V)	Ensure that voltage arrives	Change TC board

Short circuit in the equipment

Causes	Checking	Comments	Actions
Short circuit in tank	Release connector X10 from the TC board	If the short circuit is there, the thermal magnetic circuit breaker of the installation will stop pulling. The equipment turns on	Check over cables Change tank
Short circuit in distributor	Release connector X10 from the TC board	If the short circuit is there, the thermal magnetic circuit breaker of the installation will stop pulling. The equipment turns on	Check over cables Replace resistance of the distributor
Short circuit in hose-applicator	Release each of the connectors from the different channels (X11, X12 and X13) of the TC board	Later it will be necessary to find out if it is in the hose or in the applicator	Check over cables Change hose or applicator

TANK

The tank does not heat

Causes	Checking	Comments	Actions
Failure in equipment power supply	Check voltage between phases and neutrals of the main terminal. Check voltage between phases and neutrals of the X7 connector	The voltages will vary depending on the equipment	Check over cables Check network voltage
Broken tank fuse	Check continuity in fuse (FH2) between FH2.1 and FH2.2	Release fuse to verify it by unplugging the equipment	Replace fuse
Damaged TC board	Check voltage in X6 Check power supply output (24V)	Correct operation if 24V and the D5 LED is on	Replace TC board
Supply cable to damaged tank	Check voltage in X10 between TANK and N1 Check voltage in tank resistance	If there is voltage in X10 and not in the tank connections, replace cable *The voltage at this point may oscillate between 0 and 230V	Check over cables Replace cables

Causes	Checking	Comments	Actions
Melted or damaged resistance	Check ohm value of resistance and make sure it has voltage	The ohm value of the resistance can vary depending on the size of the tank *Check in the electric diagram	Replace tank
Power contacts fail (*)	Check continuity in the power contacts (5K2)	If there is continuity between the contacts in the contactor, they are okay	Change contactor
Thermal magnetic circuit breaker fails (*)	Check continuity of the thermal magnetic circuit breaker (5F5)	If there is no continuity with the thermal magnetic circuit breaker, the device is damaged	Change thermal magnetic circuit breaker
Solid state relay damaged (*)	Check output voltage of each relay and neutral (5K4 and 5K6)	If there is 230V when the tank is heating, relay OK, if not, damaged *The voltage at this point may oscillate between 0 and 230V	Change solid state relay
Melted or short circuited resistance (*)	Check ohm value of resistance and make sure it has voltage	The ohm value of the resistance can vary depending on the size of the tank *Check in the electric diagram	Replace tank

The tank doesn't stop heating

Causes	Checking	Comments	Actions
Failure in TC board	Visually ensure that the TANK led is turned off Check voltage in X10 between TANK and N1 Visually ensure that the TANK led is turned on or blinking Check voltage in X10 between TANK and N1	If it is turned off and there is voltage, the TC board is damaged If it is turned on and there is voltage, the HMI board is damaged	Replace TC board
Failure in solid state relay	Check output voltage of each relay and neutral (5K4 and 5K6)	If there is voltage when the TANK LED is off and there is no voltage in X10, replace the relay or capacitor. *The voltage at this point may oscillate between 0 and 230V	Change solid state relay Change condenser

The tank has temperature fluctuations

Causes	Checking	Comments	Actions
Failure temperature sensor	Check ohm value of the sensor with the multimeter	Look at connector X17, between TANK - and TANK + and their status, as well as that of the cables	Change the sensor / Exchange the connector
Sensor wrongly positioned	See position of the sensor in its positioning	The sensor must be put in all the way	Put sensor in up to the end of the housing
Failure in TC board	Last breakage option	Check before sensor, connections and cables	Change TC board

(*) Take these effects into account only in the case of the Micron 35 equipment

DISTRIBUTOR

The distributor does not heat

Causes	Checking	Comments	Actions
Failure in equipment power supply	Check voltage between phases and neutrals of the main terminal Check voltage between phases and neutrals of the X7 connector	The voltages will vary depending on the equipment	Check over cables Check network voltage
Broken distributor fuse	Check continuity in fuse (FH2) between FH1.1 and FH1.2	Release fuse to verify it by unplugging the equipment	Replace fuse
Damaged TC board	Check voltage in X6 Check power supply output (24V)	Correct operation if 24V and the D5 LED is on	Replace TC board
Supply cable to damaged distributor	Check voltage in X10 between DISTR and N1 Check voltage in distributor resistance	If there is voltage in X10 and not in the distributor connections, replace cable *The voltage at this point may oscillate between 0 and 230V	Check over cables Replace cables
Melted or damaged resistance	Check ohm value of the distributor resistance and make sure it has voltage	The ohm value of the resistance can vary depending on the type of equipment *Check in the electric diagram	Replace tank

The distributor doesn't stop heating

Causes	Checking	Comments	Actions
Failure in TC board	Visually ensure that the DISTRIBUTOR led is turned off Check voltage in X10 between DISTR and N1 Visually ensure that the TANK led is turned on or blinking Check voltage in X10 between DISTR and N1	If it is turned off and there is voltage, the TC board is damaged If it is turned on and there is voltage, the HMI board is damaged	Replace TC board

The distributor has temperature fluctuations

Causes	Checking	Comments	Actions
Failure temperature sensor	Check ohm value of the sensor with the multimeter	Look at connector X17, between DISTR - and DISTR + and their status, as well as that of the cables	Change the sensor / Exchange the connector
Sensor wrongly positioned	See position of the sensor in its positioning	The sensor must be put in all the way	Put sensor in up to the end of the housing
Failure in TC board	Last breakage option	Check before sensor, connections and cables	Change TC board

PUMP

The shaft does not move (manometer does not indicate pressure)

Causes	Checking	Comments	Actions
Lack of air pressure	Check pressure in network	In the manometer, we would only see pressure if the equipment is at OK temperature and has pumping activated	Connect the equipment with air to a maximum of 6 bars
Lacks OK temperature	Check all the components connected on the screen	Check it from the HMI board	Repair broken component
Electrovalve (4Y5) does not open	Check that the electrovalve receives 24 V DC Ensure that the board gives 24 V DC when complying with the conditions	If it receives voltage but does not let air through, the electrovalve is damaged If the HMI board does not send voltage, it is damaged	Change electrovalve Change HMI board

The shaft does not move (manometer indicates pressure)

Causes	Checking	Comments	Actions
The shaft does not change pumping direction	Ball joint incorrectly positioned (adjustment)	The ball joint must be placed on the end of the shaft	Reposition the ball joint
The shaft does not change pumping direction	Try the pneumatic cylinder outside of the equipment or substitute valves	Outside of the equipment it does not change direction, damaged valves, start with the differential	Replace valves in pneumatic cylinder
Stuck or blocked shaft	Uncouple the ball joint and move the shaft manually	If, at OK temperature, the shaft does not move pneumatically or by hand, shaft seized	Replace shaft and collars
Air leaks	Put the equipment on & bars of pressure	Any component may leak	Change fittings, valves, etc.

The pumping is not efficient

Causes	Checking	Comments	Actions
Absence of hot-melt in the tank	Check adhesive level in tank	Fast movement in both directions of the shaft	Fill the tank with adhesive
Dirty tank filter	Check the status of the filter emptying the equipment and cleaning the bottom	Clean the bottom of the tank well before removing the filter	Replace filter
Malfunctioning of the intake valve	Put the equipment under pressure and check visually if there is a return of adhesive through the valve	The fast pumping occurs in the direction of the tank	Tighten or replace intake valve
Malfunctioning of the shaft	Observe if there is pressure return of the adhesive to the tank when putting the equipment under pressure through one of the return holes.	The fast pumping occurs in the direction of the pneumatic cylinder	Change shaft or collars

Causes	Checking	Comments	Actions
Depressurization valve malfunctioning	Observe if there is a return of adhesive through the valve during pumping, putting the equipment under pressure and temperature	Fast pumping in both directions. Discontinuous output of adhesive	Change depressurizing valve

ADHESIVE LEAKS

Causes	Checking	Comments	Actions
Leak through pump shaft	Place the system (equipment+hose+applicator) under pressure.	The bushings are worn	Change full shaft.
Purge through depressurized valve.	Place the system (equipment+hose+applicator) under pressure.	The distributor indicator is stained with glue.	Change depressurized valve.
Leak through distributor lids.	Place the system (equipment+hose+applicator) under pressure.	Dripping below the distributor.	Change joint of the lid and press it. Possibility of broken thread.
Leak due to tank-pump connection.	Place the system (equipment+hose+applicator) under pressure.	Dripping through pump	Change the connection joint of both parts.
Leak through hose fittings.	Place the system (equipment+hose+applicator) under pressure.	Dripping through outer part of the distributor	Change joint of the fitting and press it.

HOSE

Hose not hot

Causes	Checking	Comments	Actions
Damaged hose.	Exchange the hose with another one that we know works.	Exchange hose in another channel	Change the hose
Faulty pin and cable layout.	Check voltages at the power connectors of the board and at the hose outlet (with the hose attached).	Board connector (X11, X12, X13, Hx and Nx Cable)	Change connectors
Damaged TC board fuse.	Check continuity in the fuse.	Look at continuity with the equipment turned off	Change the fuse.
Damaged TC board.	Check the voltage at the board outlet (with the hose attached).	Board connector (X11, X12, X13, Hx and Nx Cable). Fuse has continuity. LED stays on.	Change TC board

The distributor hose doesn't stop heating

Causes	Checking	Comments	Actions
Damaged TC board	Check TC board	HOSE LED indicator constantly turned off.	Replace TC board
Failure in connection of temperature sensor	Ensure that the actual temperature shown is correct	Exchange hose with another channel	Repair or replace connector

Temperature fluctuations

Causes	Checking	Comments	Actions
Failure hose temperature sensor.	Exchange with another hose that doesn't have problems.	Change the hose's channel.	Change the hose.
Sensor cables	Look at sensor connectors of the TC board and the hose connection.	Connect temperature board	Change connector

APPLICATOR**Applicator does not heat**

Causes	Checking	Comments	Actions
Broken applicator	Exchange the applicator with another one that we know works	Try the applicator in another channel.	Change applicator.
Hose broken	Exchange the hose-applicator set with another.	Change the set to another channel	Change the hose.
Faulty pin and cable layout	Check voltages at the connectors of the board and at the applicator outlet (with the applicator attached)	[X11, X12, X13, Cable G? And N?]	Change connectors
Broken TC board fuse.	Check continuity in the fuse	Remove the fuse with the equipment turned off and look at the continuity of the fuse outside of the equipment.	Change the fuse.
Damaged TC board.	Check the voltage at the board outlet.	[X11, X12, X13, Cable G? And N?] Board connector. Fuse gives continuity. LED ++ stays on.	Change TC board.

The applicator doesn't stop heating

Causes	Checking	Comments	Actions
Damaged TC board	Check TC board	HOSE LED indicator constantly turned off.	Replace TC board
Failure in connection of temperature sensor	Ensure that the actual temperature shown is correct	Exchange applicator with another channel	Repair or replace connector

Temperature fluctuations

Causes	Checking	Comments	Actions
Failure applicator temperature sensor.	Exchange with another applicator that doesn't have problems.	Change the applicator's channel.	Change applicator.
Sensor cables	Look at sensor connectors of the temperature board and applicator connection.	Connect temperature board	Change applicator.

ALARM

TANK OVERHEATING

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A01: General tank overheating"	The actual tank temperature is higher than the general temperature limit	FFailure in TC board	Visually ensure that the TANK led is turned off	If it is turned off and there is voltage, the TC board is damaged	Replace TC board
"A15: "Tank overheating"	The actual tank temperature is higher than the set point temperature due to a difference higher than the programmed error limit		Check voltage in X10 between TANK and N1		
			Visually ensure that the TANK led is turned on or blinking	If it is turned on and there is voltage, the HMI board is damaged	Replace TC board
			Check voltage in X10 between TANK and N1		

DISTRIBUTOR OVERHEATING

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A02: General distributor overheating"	The actual distributor temperature is higher than the general temperature limit	Failure in TC board	Visually ensure that the DISTRIBUTOR led is turned off	If it is turned off and there is voltage, the TC board is damaged	Replace TC board
"A16: Distributor overheating"	The actual distributor temperature is higher than the set point temperature due to a difference higher than the programmed error limit		Check voltage in X10 between DISTR and N1		
			Visually ensure that the TANK led is turned on or blinking	If it is turned on and there is voltage, the HMI board is damaged	Replace TC board
			Check voltage in X10 between DISTR and N1		

HOSE OVERHEATING

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A03: General hose 1 overheating"	The actual hose temperature is higher than the general temperature limit	Damaged TC board	Check TC board	HOSE LED indicator constantly turned off.	Replace TC board
"A05: General hose 2 overheating"		Failure in connection of temperature sensor	Ensure that the actual temperature shown is correct	Exchange hose with another channel	Repair or replace connector
"A07: General hose 3 overheating"					
"A09: General hose 4 overheating"					
"A11: General hose 5 overheating"					
"A13: General hose 6 overheating"					
"A17: Hose 1 overheating"	The hose temperature is higher than the set point temperature due to a difference higher than the programmed error limit				
"A18: Hose 2 overheating"					
"A20: Hose 3 overheating"					
"A22: Hose 4 overheating"					
"A24: Hose 5 overheating"					
"A26: Hose 6 overheating"					

APPLICATOR OVERHEATING

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions	
"A04: General applicator 1 overheating"	The actual applicator temperature is higher than the general temperature limit	Damaged TC board	Check TC board	GUN LED indicator constantly turned off.	Replace TC board	
"A06: General applicator 2 overheating"		Failure in connection of temperature sensor	Ensure that the actual temperature shown is correct	Exchange applicator with another channel	Repair or replace connector	
"A08: General applicator 3 overheating"						
"A10: General applicator 4 overheating"						
"A12: General applicator 5 overheating"						
"A14: General applicator 6 overheating"						
"A18: Applicator 1 overheating"	The actual applicator temperature is higher than the set point temperature due to a difference higher than the programmed error limit					
"A19: Applicator 2 overheating"						
"A21: Applicator 3 overheating"						
"A23: Applicator 4 overheating"						
"A25: Applicator 5 overheating"						
"A26: Applicator 6 overheating"						

TANK UNDERHEATING

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A27: Tank underheating"	The actual tank temperature does not reach the set point and the difference is greater than the maximum programmed error limit	Broken tank fuse	Check continuity in fuse (FH2) between FH2.1 and FH2.2	Release fuse to verify it by unplugging the equipment	Replace fuse
		Damaged TC board	Check voltage in X6	Correct operation if 24V and the D5 LED is on	Replace TC board
		Supply cable to damaged tank	Check voltage in X10 between TANK and N1	If there is voltage in X10 and not in the tank connections, replace cable	Check over cables
			Check voltage in tank resistance	*The voltage at this point may oscillate between 0 and 230V	Replace cables
		Melted or damaged resistance	Check ohm value of resistance and make sure it has voltage	The ohm value of the resistance can vary depending on the size of the tank	Replace tank
				*Check in the electric diagram	

DISTRIBUTOR UNDERHEATING

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A28: Distributor underheating"	The actual distributor temperature does not reach the set point and the difference is greater than the maximum programmed error limit	Broken distributor fuse	Check continuity in fuse (FH2) between FH1.1 and FH1.2	Release fuse to verify it by unplugging the equipment	Replace fuse
		Damaged TC board	Check voltage in X6	Correct operation if 24V and the D5 LED is on	Replace TC board
			Check power supply output (24V)		
		Supply cable to damaged distributo	Check voltage in X10 between DISTR and N1	If there is voltage in X10 and not in the distributor connections, replace cable	Check over cables
			Check voltage in distributor resistance	*The voltage at this point may oscillate between 0 and 230V	Replace cables
		Melted or damaged resistance	Check ohm value of the distributor resistance and make sure it has voltage	The ohm value of the resistance can vary depending on the type of equipment	Replace tank
					*Check in the electric diagram

HOSE UNDERHEATING

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
	The actual hose temperature does not reach the set point and the difference is greater than the maximum programmed error limit	Damaged hose.	Exchange the hose with another one that we know works.	Exchange hose in another channel	Change the hose
"A31: Hose 2 underheating"		Faulty pin and cable layout.	Check voltages at the power connectors of the board and at the hose outlet (with the hose attached).	Board connector (X11, X12, X13, Hx and Nx Cable)	Change connectors
"A33: Hose 3 underheating"		Damaged TC board fuse.	Check continuity in the fuse.	Look at continuity with the equipment turned off	Change the fuse.
"A35: Hose 4 underheating"		Damaged TC board.	Check the voltage at the board outlet (with the hose attached).	Board connector (X11, X12, X13, Hx and Nx Cable). Fuse has continuity. LED stays on.	Change TC board
"A37: Hose 5 underheating"					
"A39: Hose 6 underheating"					

APPLICATOR UNDERHEATING

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A30: Applicator 1 underheating"	The actual hose temperature does not reach the set point and the difference is greater than the maximum programmed error limit	Broken applicator	Exchange the applicator with another one that we know works	Try the applicator in another channel	Change applicator.
"A32: Applicator 2 underheating"		Hose broken	Exchange the hose-applicator set with another.	Change the set to another channel	Change the hose.
"A34: Applicator 3 underheating"		Faulty pin and cable layout	Check voltages at the connectors of the board and at the applicator outlet (with the applicator attached)	[(X11, X12, X13, Cable G? And N?)	Change connectors
"A36: Applicator 4 underheating"		Broken TC board fuse.	Check continuity in the fuse	Remove the fuse with the equipment turned off and look at the continuity of the fuse outside of the equipment.	Change the fuse.
"A38: Applicator 5 underheating"		Damaged TC board.	Check the voltage at the board outlet.	[(X11, X12, X13, Cable G? And N?) Board connector. Fuse gives continuity. LED ++ stays on.	Change TC board.
"A40: Applicator 6 underheating"					

TANK SENSOR BROKEN

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A41: Sensor tank broken"	The board does not detect the tank sensor	Failure temperature sensor	Check ohm value of the sensor with the multimeter	Look at connector X17, between TANK - and TANK + and their status, as well as that of the cables	Change the sensor / Exchange the connector
		Sensor wrongly positioned	See position of the sensor in its positioning	The sensor must be put in all the way	Put sensor in up to the end of the housing
		Failure in TC board	Last breakage option	Check before sensor, connections and cables	Change TC board

DISTRIBUTOR SENSOR BROKEN

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A42: Sensor distributor broken"	The board does not detect the distributor sensor	Failure temperature sensor	Check ohm value of the sensor with the multimeter	Look at connector X17, between DISTR - and DISTR + and their status, as well as that of the cables	Change the sensor / Exchange the connector
		Sensor wrongly positioned	See position of the sensor in its positioning	The sensor must be put in all the way	Put sensor in up to the end of the housing
		Failure in TC board	Last breakage option	Check before sensor, connections and cables	Change TC board

HOSE SENSOR BROKEN

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A43: Sensor hose 1 broken"	The board does not detect hose sensor	Failure hose temperature sensor.	Exchange with another hose that doesn't have problems.	Change the hose's channel.	Change the hose.
"A45: Sensor hose 2 broken"		Sensor cables	Look at sensor connectors of the TC board and the hose connection.	Connect temperature board	Change connector
"A47: Sensor hose 3 broken"					
"A49: Sensor hose 4 broken"					
"A51: Sensor hose 5 broken"					
"A53: Sensor hose 6 broken"					

APPLICATOR SENSOR BROKEN

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A44: Sensor applicator 1 broken"	The board does not detect the applicator sensor	Failure applicator temperature sensor	Exchange with another applicator that doesn't have problems.	Change the applicator's channel.	Change applicator.
"A46: Sensor applicator 2 broken"		Sensor cables	Look at sensor connectors of the temperature board and applicator connection.	Connect temperature board	Change connector
"A48: Sensor applicator 3 broken"					
"A50: Sensor applicator 4 broken"					
"A52: Sensor applicator 5 broken"					
"A54: Sensor applicator 6 broken"					

OTHER ALARMS

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A66: Thermostat"	Safety thermostat	Thermostat	Reset tank thermostat		Monitor to find out why it fired
		Thermostat cable	Check cables		Change or clean cables
		TC board	Change TC board		Change TC board

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A71: Cabin overheating"	Temperature of the electric cabinet high	Room temperature	Ensure that the room temperature isn't too high		Change locations or cool the area

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A72: RTC"	Real time clock Clock failure	Battery	Ensure that the battery is charged		Change battery

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A65: Watchdog"	Conflict notice	Programming out of range	Check programming	Notice that is used to protect the board from a possible programming conflict	Reset or send to the system by default (factory settings)

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A61: CAN communications"	Communication failure between boards	Software missing	Check software versions		Update or install the different software
		CAN cable damaged	Check communication cable between boards		Substitute CAN cable

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A79: Test time expired"	The test time of the equipment has expired	Equipment on loan for xxx minutes	Call salesperson or after sales service	Equipment unused after going through test time	Call salesperson or after sales service

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A68: Open lid"	The lid of the equipment is open	Open tank lid	Close lid		Close lid
		Damaged open lid sensor	Check the sensor, make sure its clean, check cables, signal, etc.		Replace lid sensor

Alarm	Meaning of the alarm	Causes	Checking	Comments	Actions
"A67: Adhesive level low"	Adhesive level low in tank	Adhesive missing	Check adhesive level by opening the tank lid		Llenar deposito
		Damaged sensor	If there is enough of a level, the sensor could be damaged	Check sensor	Replace sensor