

ARCODE Error Descriptions

(Descriptions in this document are valid for and after 24.11.2014 version.
Previous versions may not have some of these errors checks)

Last revision: 07/01/2015

Error Code: Er01

Description:

Could not read parameters. Checksum wrong

Conditions:

Hardware fault. Contact Arkel Technical Support.

Error Code: Er02

Description:

Could not write parameters. Verify error

Conditions:

Hardware fault. Contact Arkel Technical Support.

Error Code: Er04

Description:

No connection with ENCA board

Conditions:

- Damage in ENCA board or in the flat cable connecting ENCA board to mainboard.
 - Motor type may have been mistakenly selected as "Synchronous" when it should be "Induction"
 - ENCI board may have been connected mistakenly instead of ENCA board.
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Error Code: Er05

Description:

DIP-switch configuration wrong or could not be read.

Conditions:

Hardware fault. Contact Arkel Technical Support.

Error Code: Er07

Description:

Current was over driver limit

Conditions:

Motor current exceeded the Arcode device current limit.
The limits according to Arcode Power Classes are as follows:

| | |
|-----------------|--------|
| ARCODE 5.5 KVA: | 39.4 A |
| ARCODE 7.5 KVA: | 52.5 A |
| ARCODE 11 KVA: | 75.8 A |

Possible solutions:

- Make sure you are using an Arcode with suitable power class for your application.
- If this error occurs in only one direction, check the counter-weight
- Check current and speed PID settings
- Try with higher comfort values (with less acceleration)

Error Code: Er08**Description:**

Current was near motor limit continuously

Conditions:

Motor current was over the below limits during 6 seconds:

ARCODE 5.5KVA: 40 A

ARCODE 7.5 KVA: 40 A

ARCODE 11 KVA: 60 A

Possible solutions:

- Make sure you are using an Arcode with suitable power class for your application.
 - If this error occurs in only one direction, check the counter-weight
 - Check current and speed PID settings
 - Try with higher comfort values (with less acceleration)
-

Error Code: Er09**Description:**

Motor or control cabinet overheated.

Conditions:

The temperature sensor (PTC) connected between T1-T2 has opened the circuit.

Possible solutions:

- Motor or cabinet temperature may actually be too high. Check the cooling fans.
 - Check the PTC and its connection.
-

Error Code: Er10**Description:**

Dropping of main contactors could not be sensed

Conditions:

Main contactor (RP) has dropped but (KRC) input still inactive.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Possible solutions:

Check main contactors and their auxillary contacts.

Error Code: Er11**Description:**

Picking of main contactors could not be sensed

Conditions:

Main contactor (RP) has picked but (KRC) input still active.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Possible solutions:

- Check main contactors and their auxillary contacts.
 - Check if SEV switch is left open
-

Error Code: Er12**Description:**

Holding of mechanical brake not sensed

Conditions:

"(P0045) Mechanical brake monitoring" or "(P0800) Mechanical brake-2 monitoring" parameters are set to "On" and brake relays (MBR)/(MBR2) has dropped but (BRC)/(BRC2) inputs are still inactive.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Possible solutions:

Check brake microswitches and connections.

Error Code: Er13**Description:**

Release of mechanical brake not sensed

Conditions:

"(P0045) Mechanical brake monitoring" or "(P0800) Mechanical brake-2 monitoring" parameters are set to "On" and brake relays (MBR)/(MBR2) has picked but (BRC)/(BRC2) inputs are still active.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Possible solutions:

Check brake microswitches and connections.

Error Code: Er14**Description:**

DC-bus voltage is too high

Conditions:

DC-bus voltage is over the following limits:

For ARCODE 380VAC Type: 715 V

For ARCODE 220VAC Type: 420 V

Possible solutions:

- Check if a suitable brake resistor is connected between B1-B2 terminals.
 - Check L1-L2-L3 input voltage levels.
 - Check "System Info" screen to see if you are using the correct voltage type of Arcode for your application.
-

Error Code: Er15**Description:**

DC-bus voltage is too low

Conditions:

DC-bus voltage has dropped under the limit calculated with the below formula:

$$V_{min} = 1.414 * 0.8 * (P416)$$

Possible solutions:

- Check "(P416) Mains voltage" parameter.
 - Check L1-L2-L3 input voltage levels.
-

Error Code: Er16**Description:**

Power-module (IPM) reported error.

Conditions:

The power module (IPM) inside Arcode has sent an alarm signal. This signal may be caused by over-current, over-voltage or over-temperature.

Possible solutions:

Most frequent cause of this error is releasing the direction buttons during inspection or recall operations. In that case, the safety circuit will be cut-off and main contactors will drop when under current and this will trigger an over-current alarm. When operation in inspection or recall modes, please stop the car by pressing up&down buttons together until stopping (except the cases in which you need an emergency stop)

Error Code: Er17

Description:

Inconsistent encoder speed reading

Conditions:

Encoder reported an improbable acceleration ($>5\text{m/s}^2$)

Possible solutions:

- Check the mechanical coupling between the motor and the encoder.
 - Check encoder connections.
-

Error Code: Er18

Description:

Car overspeeded.

Conditions:

Speed measured by the encoder (V_{act}) has exceeded the target speed (V_{ref}) plus the calculated speed tolerance (V_{tol}):

$$\{ V_{act} > V_{ref} + V_{tol} \}$$

The V_{tol} tolerance is 8% of "(P135) Maximum travel speed"

$$\{ V_{tol} = [P135] * 0.08 \}$$

If measured speed (V_{act}) is lower than (P135), this error is triggered only after staying over the limit during 600 msec.

If measured speed (V_{act}) is higher than (P135), this error is triggered only after staying over the limit during 50 msec.

This error is not triggered in open-loop mode.

Possible solutions:

This error indicates that Arcode cannot control the motor sufficiently.

Check the "Driver graphs" screen during travel. If V_{act} cannot follow V_{ref} properly, you may try increasing the PID gains in (P387), (P388), (P420), (P421)

Error Code: Er19

Description:

Could not reach required speed.

Conditions:

Speed measured by the encoder (V_{act}) has stayed lower than 30% of targeted speed during 5 seconds.

$$\{ V_{act} < V_{ref} * 0.30 \}$$

If targeted speed is below 0.05 m/s, this error will not be triggered.

Possible solutions:

- Check motor connections
 - This error may be triggered if Arcode cannot control the motor sufficiently. If the error shows itself only when going in the hard-direction, try increasing the PID gains in (P387), (P388), (P420), (P421).
 - In asynchronous motors, try to run in open-loop mode in inspection. If the motor runs in open loop, check encoder connections and direction.
 - Check if the mechanical brake is actually released during travel.
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Error Code: Er20**Description:**

Encoder connection fault

Conditions:

No communication with the absolute encoder.

This error can be triggered only on synchronous machines (with ENCA board)

Possible solutions:

Check encoder connections.

Error Code: Er21**Description:**

At least one phase missing.

Conditions:

At least one of L1, L2 or L3 inputs has no voltage or has too low voltage.

Error Code: Er22**Description:**

3-Phase sequence is wrong.

Conditions:

L1, L2, L3 phases are connected in the wrong sequence.

Possible solutions:

Exchange any two of the L1, L2, L3 inputs.

Error Code: Er23**Description:**

24V supply voltage too low

Conditions:

24V supply voltage is too low.

Possible solutions:

- Check if power-supply filtering capacitors are present and connected properly
 - Check if the power of AC/DC transformer is sufficient for your application.
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Error Code: Er24**Description:**

Car was below bottom floor level

Conditions:

The car has descended below the lowest door-zone.

This error is sensed only using 817, ML1 and ML2 inputs. Encoder readings has no role in triggering this error.

Error Code: Er25**Description:**

Car was over top floor level

Conditions:

The car has ascended above the highest door-zone.

This error is sensed only using 818, ML1 and ML2 inputs. Encoder readings has no role in triggering this error.

Error Code: Er26**Description:**

Total current measurement was non-zero

Conditions:

Total of currents measured from U,V,W motor outputs are not zero.

Possible solutions:

Check motor connections and contactor contacts.

If error continues, current sensors of the device might be faulty. Consult Arkel technical Support.

Error Code: Er27**Description:**

Maximum allowed time of travel between two adjacent floors is exceeded

Conditions:

Motor has been running for longer than the period set by "(P0044) Maximum allowed time of travel between floors" parameter and no door-zones were passed (ML1, ML2 change) during this time.

Possible solutions:

- This can be caused by the car being mechanically jammed for some reason.
- In very-long floor distances (as in tower-like buildings), the maximum adjustable time of 45 seconds might not be enough for travelling between 2 floors. Due to EN81 regulations, this value cannot be adjusted to higher values. In those cases, additional magnets must be installed on the shaft and another magnetic switch must be used to read these magnets as the "(TTR): Time travel reset" input.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on AreM.

Error Code: Er28**Description:**

No EN signal

Conditions:

If the main contactor relay (RP) is picked and (140P) is active but (EN) input is still inactive after 3 seconds, this error will be triggered.

Possible solutions:

- Check if the main contactor is picking when (RP) is active.
 - Check the connection of (EN) signal in the control panel
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Error Code: Er29**Description:**

ML1-ML2 short circuited

Conditions:

This error is triggered if ML1 and ML2 inputs turn-on or turn off simultaneously.

Possible solutions:

- Check if there is a short-circuit between ML1 and ML2 inputs
- If electronic sensors are used as ML1/ML2 sensors, a power cut of both sensors may also trigger this error. Check the power supply of the sensors.
- Check if the placement of magnets related to ML1,ML2 signals are correct by running the car in inspection mode. (i.e: When moving slowly, observe ML1,ML2 signals. When moving upwards, on arrival of a door-zone, first ML2 then ML1 should activate. When departing a door-zone, first ML2 then ML1 should deactivate. And the opposite must happen when moving downwards)

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on AreM.

Error Code: Er30**Description:**

ML1-ML2 sequence wrong or could not be read

Conditions:

- ML1 and ML2 state changes were in an unexpected sequence.

Possible solutions:

- ML1 or ML2 is not connected or faulty
- A high voltage line might be passing next to ML1 or ML2
- ML1 or ML2 may be connected in the wrong order.
- Check if the placement of magnets related to ML1,ML2 signals are correct by running the car in inspection mode. (i.e: When moving slowly, observe ML1,ML2 signals. When moving upwards, on arrival of a door-zone, first ML2 then ML1 should activate. When departing a door-zone, first ML2 then ML1 should deactivate. And the opposite must happen when moving downwards)

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on AreM.

Error Code: Er31**Description:**

Door(s) could not close.

Conditions:

If door-close command (K3A/K3B) and door-lock command (LIR) is sent to the door controller but (140) input is still not activated after the expected time, the doors will move back to unjam and will retry to close again.

This unjamming is tried number of times set by the "(P0033) Number of unjamming times" parameter. After that, if (140) is still off, this error will be triggered.

The amount of time to wait for the doors to close is the value set by "(P0017/P0050) Door-A/B normal closing time" parameter plus 5 seconds.

(If "(P0013/P0020) Door-A/B limit switches" parameter is set to "Installed", the door-close waiting time is 5 seconds after touching the close-limits)

Possible solutions:

- (P0013/P0020) parameter might be set shorter than the actual duration which the doors may close. Set it higher.
 - If (140) is inactive even after the doors are closed, check the door contacts.
 - Door controller close-command input might be connected to (LIR) output. Do not use (LIR) output as a door-command signal.
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Error Code: Er34**Description:**

130 off when 140 on. Check safety circuit

Conditions:

This error will be triggered if 140 safety chain input is active while 130 is inactive. (except the times when DBR board has bridged the doors)

Possible solutions:

This means the door contacts are not connected correctly. Check the connections.

Error Code: Er35**Description:**

Safety circuit (120) was OFF.

Conditions:

If "[P0795] When safety chain (120) is OFF" parameter is set to "Block elevator" value and if (120) is off when in service mode, this error will be triggered.

Error Code: Er37**Description:**

140 interrupted during travel

Conditions:

This error is triggered if (140) signal gets off during travel.

Possible solutions:

Check door safety contacts and door mechanisms.

Error Code: Er38**Description:**

Encoder position was too different from magnet reading.

Conditions:

In normal service mode, if the car passes by a door-zone magnet but according to encoder value, there shouldn't be a door-zone magnet on that position, this error will be triggered. There is a tolerance of 15 cms for triggering this error.

Possible solutions:

- Check encoder-motor mechanical couplings.
 - Check if the position of door-zone magnets were changed.
 - Check if the magnetic switches are giving false signals for some reason.
-

Error Code: Er39**Description:**

Door-zone magnet could not be found

Conditions:

In normal service mode, if the car should be closer than 3 cms to a door-level position and ML1 and ML2 signals are still off; this error will be triggered.

Possible solutions:

- Make sure that the ML1 and ML2 magnetic switches are not too far away from magnets.
 - Check encoder-motor mechanical couplings.
-

Error Code: Er40**Description:**

Earthquake sensor activated

Conditions:

(DEP) signal was activated.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Error Code: Er41**Description:**

817 signal was not OFF when it should

Conditions:

In normal service mode, if the car is more than 15 cm below 817 position (according to encoder value) but 817 is still active.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Error Code: Er42**Description:**

817 signal was not ON when it should

Conditions:

In normal service mode, if the car is more than 35 cm above 817 position (according to encoder value) but 817 is still inactive.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Error Code: Er43**Description:**

818 signal was not OFF when it should

Conditions:

In normal service mode, if the car is more than 15 cm above 818 position (according to encoder value) but 818 is still active.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Error Code: Er47**Description:**

Brake resistor overheated.

Conditions:

There is no sensor for brake resistor temperature, but knowing the DC bus and on/off states of the brake resistor, Arcode estimates the temperature of the brake resistor. If this estimation exceeds the limit, this error is triggered.

Error code: Er48**Description:**

Heatsink overheated

Conditions:

Temperature of the heatsink inside the device is monitored by a temperature sensor.
If the temperature exceeds the value set by “(P0774) Heatsink overheat error threshold”, this error will be triggered.

Possible solutions:

Check if the cooling fans of the device are operative. Replace the fans if not.

Error Code: Er49

Description:

External error (XER1) signal activated

Conditions:

This error is triggered when (XER1) input is activated.
Controller resumes operation 5 seconds after the signal is deactivated.

Error Code: Er50

Description:

External error (XER2) signal activated

Conditions:

This error is triggered when (XER2) input is activated.
Controller resumes operation 5 seconds after the signal is deactivated.

Error Code: Er51

Description:

External blocking (XBL1) signal activated

Conditions:

This error is triggered when (XBL1) input is activated.
Controller is blocked and stays in error even if the signal is deactivated.

Error Code: Er52

Description:

External blocking signal (XBL2) activated

Conditions:

This error is triggered when (XBL2) input is activated.
Controller is blocked and stays in error even if the signal is deactivated.

Error Code: Er55

Description:

Contactors dropped

Conditions:

(EN) signal was deactivated while the motor is running.

Possible solutions:

- Check the safety circuit
 - Check connection of the EN signal
 - Check the contactor auxiliary contacts
-

Error Code: Er56**Description:**

817 & 818 cut at the same time

Conditions:

This error will be triggered when 817 and 818 signals are inactive at the same time.

This state should never happen except 2-floor elevators.

In elevators with 2 floors, this error is disabled.

Possible solutions:

- Check the 817,818 signals and sensors
 - If electrical sensors are used, check their power supplies
 - If mechanical switches or proximity switches are used; if the length of the flags are not sufficient, signals will be cut-off when approaching the limit (correct) but after moving further the signals are will be active again (incorrect). By driving the car in inspection and observing the signals, check if this situation applies.
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Error Code: Er58**Description:**

Current sensors offset fault

Conditions:

Current sensors are reading wrong values.

Possible solutions:

Hardware fault. Contact Arkel Technical Support.

Error Code: Er59**Description:**

Car moving on wrong direction

Conditions:

If 817 goes from active to inactive while controller is commanding an upward movement OR if 818 goes from active to inactive while controller is commanding a downward movement, this error will be triggered.

Possible solutions:

- Check if the car is moving in the correct direction.
 - Check 817 signal if the error is triggered while moving up
 - Check 818 signal if the error is triggered while moving down
-

Error Code: Er60**Description:**

Door-bridging failure.

Conditions:

An error was sensed on DBR board.

Possible solutions:

- DBR board faulty
 - ML1, ML2 signals has electrical noise
-

Error Code: Er61, Er62, Er63**Description:**

CPU error

Conditions:

Hardware error.

Possible solutions:

Contact Arkel Technical Support

Error Code: Er71

Description:

License key (dongle) not found

Conditions:

- If the "(P0839) ARCODE smifi" parameter is set to "Arcode Midline" and there is no dongle in the system or if the parameter is set to "Arcode Highline" and there is no Highline dongle in the system, this error will be triggered.

Possible solutions:

- Contact Arkel to obtain the necessary dongle.

Error Code: Er72

Description:

Limited feature

Conditions:

If "(P0839) Arcode class" parameter is set to "Arcode Basic" and one or more of the following are true:

- "(P0002) Number of floors" is set to a value higher than 16,
- "(P0135) Maximum travel speed" is set to a value higher than 1.6 m/s,
- Number of Arcodes in the group is more than 2,
- "(P0842) Firefighter operation (Phase-2) active" is set to "Yes",
- "(P0890) Priority service function" set to "Enabled",
- "(P0942) Park floor selection method" set to anything other than "Fixed park floor"

If "(P0839) Arcode class" parameter is set to "Arcode Midline" and one or more of the following are true:

- "(P0002) Number of floors" is set to a value higher than 24,
- "(P0135) Maximum travel speed" is set to a value higher than 2.5 m/s,
- Number of Arcodes in the group is more than 4

Possible solutions:

Select the correct Arcode class in (P0839) parameter.

Error Code: Er73

Description:

Detected entry inside shaft

Conditions:

If any of "(SPR*) Shaft entry protection switch Floor-*" signals are active and the car is not on that floor, this error will be triggered.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arkel.

Error Code: Er80

Description:

Current was near motor limit continuously

Conditions:

Motor current has exceeded the product of the values "(P0159) Nominal motor current" and "(P0429) Motor overcurrent limit" during 6 seconds.

Possible solutions:

- Check motor parameters
 - Check counter-weight
 - Make sure you are using a suitable Arcode Power Class device for your application
 - Check possible mechanical jammings in the shaft
-

Error Code: Er81**Description:**

Group identity conflict error

Conditions:

Any two of the controllers in a group has the same "(P0086) Group ID" value.

Possible solutions:

Change the (P0086) such that each controller has a unique ID.

Error Code: Er82**Description:**

Number of stops of all lifts in the group must be same

Conditions:

"(P0002) Number of floors" parameter in all of the controllers in a group must be the same. If not, this error will be triggered.

Error Code: Er83**Description:**

APRE could not be unlocked

Conditions:

"(P0788) APRE monitoring" is set to "On" and (APRI) input was still inactive 3 seconds after opening of the brakes.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Possible solutions:

Check APRE system

Error Code: Er84**Description:**

APRE could not be locked

Conditions:

"(P0788) APRE monitoring" is set to "On" and (APRI) input was still active although (RP) and (APRO) signals are active.

This error is triggered with a delay of "(P0804) Speed governor locking time"

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Possible solutions:

Check APRE system

Error Code: Er85**Description:**

Encoder reference error

Conditions:

"(P0868) Encoder coupling type" is set to "Indirect incremental encoder" and the angle correction by reference signal exceeded 120 degrees (magnetic)

Possible solutions:

- Check encoder connections
 - Check encoder-motor mechanical coupling. Encoder wheel might be slipping.
 - Check if Z-channel reference signal is correct
-

Error Code: Er86

Description:

UCM detected.

Conditions:

When 140 or 130 is off (door is open), safety circuit is bridged by DBR board and one of ML1 or ML2 is off (out-of-doorzone)

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Error Code: Er87

Description:

Out of relevel-zone

Conditions:

-If "(P0075) Releveling function" is set to "with 141-142 signals":
and both of (141) and (142) signals are off

-If (P0075) is set to "with Liftsense":
and the distance of off-leveling exceeds 7 cms
... this error is triggered.

Error Code: Er88

Description:

Overspeed on releveling

Conditions:

If the car speed exceeds the value set on "(P0814) Overspeed error limit on releveling" during releveling, this error is triggered.

Error Code: Er89

Description:

Could not hold car on starting

Conditions:

If the rotor rolls back more than a quarter revolution during anti-rollback phase, this error is triggered.

Possible solutions:

Adjust Anti-rollback PID gains.

Error Code: Er90

Description:

Overspeed on preopening

Conditions:

If the car speed exceeds the value set on "(P0813) Overspeed error limit on preopening" during preopening, this error is triggered.

Error Code: Er94**Description:**

Carlight fuse is blown

Conditions:

If "(P0799) Behaviour when light fuse is blown" parameter is set to "Only inspection", and there is no voltage on 1 input of IBC board, this error is triggered.

Error Code: Er95**Description:**

Manual Rescue (SEV) key

Conditions:

"(P0810) Acceptance test tools" is set to "Off" and (MEM) signal is active

Possible solutions:

It is normal to have this error during manual evacuation operation.

Error Code: Er96**Description:**

UPS failed on test

Conditions:

UPS had shut-down during regular UPS testing.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Possible solutions:

Check UPS battery charge.

Error Code: Er97**Description:**

Direction change limit reached

Conditions:

"(P0964) Direction change count limit" is set to a non-zero value and the direction change counter has exceeded this value.

Note: This is a permanent error and can only be cleared by pressing the "Clear permanent errors" button in the "System Tools" screen on Arem.

Possible solutions:

This function is usually used to limit the usage of plastic ropes according to their lifetime. After changing the ropes, set (P0964) to the next desired limit value.
