Error description for GP-Centrifuge family

| Error code | |
|--|--|
| LIVI COVC | E-01 System clock pulse unstable |
| Caused by | Defective crystal or microcontroller on main board. |
| Centrituge benavior | |
| | Otto Oyotom to ottavious on, total observe anni complete ottopi |
| Error code/ | E-02 Invalid state of the main state machine detected |
| Caused by | |
| and the state of t | Defective microcontroller on main board. |
| Centifuge behavior | Drive system is switched off, rotor coasts until complete stop. |
| | F 00 |
| Error code | E-03 Stack overflow detected |
| Caused by A. 1444 in the | Defective microcontroller on main board. |
| Gentifuge behavior | Drive system is switched off, rotor coasts until complete stop. |
| | |
| Error code (s | E-04 Stack underflow detected |
| Cecreted by a consumer | Defective microcontroller on main board. |
| Centifiting behavior | Drive system is switched off, rotor coasts until complete stop. |
| | |
| Errot code + Statute | E-05 System reset by hardware watchdog |
| Gaussa by a territory | Defective microcontroller on main board. |
| Courts se histavion | The hardware watchdog will reset the software. If the rotor is spin- |
| | ning after reboot, it will coast until completely stopped. |
| | Thing diter recoot, it will coast drittl completely stopped. |
| Etroricode | E-06 Reserved for use in other instruments |
| | L-00 Neserved for use in other institutionits |
| Enorskie astron | E-07 Reserved for use in other instruments |
| Elini Coas | E-07 Reserved for use in other instruments |
| | F 00 Draway and abada was away |
| Emoridade | E-08 Program code checksum error |
| Caused by | Defective flash memory in the microcontroller on main board. |
| Centrifuge behavior | Error is detected during boot process. If the rotor is spinning after |
| | |
| And a state of the property | reboot, it will coast until completely stopped. |
| | |
| Error scenie | E-09 Invalid checksum for transmitted external data |
| Error code Causestoy | |
| ACERTS OF A CONTRACTOR | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. |
| | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. |
| Causes by | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. |
| ACERTS OF A CONTRACTOR | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. |
| Causes by | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. |
| Gausesioy Centrifuge behavior Encircode | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. |
| Catised by Centritude behavior Error code Causad by | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. |
| Gausesioy Centrifuge behavior Encircode | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. |
| Caused by Centifiuge behavior Caused by Centifiuge behavior | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. |
| Caused by Centrifuge behavior Encr code Caused by Centrifuge behavior | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument |
| Centrifuge behavior Error code Centrifuge behavior Error code Caused by | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument Wrong external memory chip installed on main board. |
| Caused by Centrifuge behavior Encr code Caused by Centrifuge behavior | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument Wrong external memory chip installed on main board. Error is detected during boot process. If the rotor is spinning after |
| Centrifuge behavior Error code Centrifuge behavior Error code Caused by | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument Wrong external memory chip installed on main board. |
| Centrifuge behavior Error code Centrifuge behavior Error code Caused by Centrifuge behavior | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument Wrong external memory chip installed on main board. Error is detected during boot process. If the rotor is spinning after reboot, it will coast until completely stopped. |
| Caused by Centrifuge behavior Error code Caused by Centrifuge behavior Error code Caused by Centrifuge behavior | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument Wrong external memory chip installed on main board. Error is detected during boot process. If the rotor is spinning after reboot, it will coast until completely stopped. E-12 Checksum error in factory settings |
| Centrifuge behavior Error code Caused by Centrifuge behavior Error code Caused by Centrifuge behavior Error code Caused by | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument Wrong external memory chip installed on main board. Error is detected during boot process. If the rotor is spinning after reboot, it will coast until completely stopped. E-12 Checksum error in factory settings Defective external memory chip on main board. |
| Caused by Centrifuge behavior Error code Caused by Centrifuge behavior Error code Caused by Centrifuge behavior | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument Wrong external memory chip installed on main board. Error is detected during boot process. If the rotor is spinning after reboot, it will coast until completely stopped. E-12 Checksum error in factory settings Defective external memory chip on main board. Error is detected during boot process. If the rotor is spinning after |
| Centrifuge behavior Error code Caused by Centrifuge behavior Error code Caused by Centrifuge behavior Error code Caused by Centrifuge behavior | E-09 Invalid checksum for transmitted external data Defective data in external memory on main board. Defective external memory chip on main board. Drive system is switched off, rotor coasts until complete stop. E-10 No communication with external memory Defective external memory chip on main board. External memory on main board not installed. Drive system is switched off, rotor coasts until complete stop. E-11 Data in external memory not valid for this instrument Wrong external memory chip installed on main board. Error is detected during boot process. If the rotor is spinning after reboot, it will coast until completely stopped. E-12 Checksum error in factory settings Defective external memory chip on main board. |

| Error code | E-13 Checksum error in user defined settings |
|---|--|
| Caused by | Defective external memory chip on main board. |
| 网络中国国际共和国 | Centrifuge switched off during write access to external memory. |
| Centrituge behavior | Error is detected during boot process. If the rotor is spinning after |
| | reboot, it will coast until completely stopped. Software will try to re- |
| | cover from error during next boot process. |
| | TO VOLUME TO A COUNTY TO A COU |
| Error code | E-14 Measured chamber temperature above limit |
| Catused by | Defective temperature sensor. |
| | Not enough refrigerant in cooling system. |
| ritegerada (se antigo de su e | |
| Centrifuge behavior | Compressor not working. |
| MEGAMINISHARKEMINA | Drive system is switched off, rotor coasts until complete stop. |
| Elifar cock | E 45 |
| | E-15 Temperature sensor not connected |
| Caused by | Temperature sensor not connected or defective. |
| | Broken cable temperature sensor. |
| Centifutis behavior | Drive system is switched off, rotor coasts until complete stop. |
| | |
| Error cade | E-16 Temperature sensor shorted |
| Sended by The F | Temperature sensor defective. |
| Centifuge behavior | Drive system is switched off, rotor coasts until complete stop. |
| | |
| Englished I will be | E-17 Maximum speed for automatic rotor identification exceeded |
| Caused by | Start pressed with coasting rotor above 4700rpm. |
| 化线解的 在这 是一种 | Defective main board. |
| Centrituge behavior | Centrifuge starts decelerating using the fastest deceleration profile. |
| | |
| Error code | E-18 Bucket not defined for identified rotor |
| Caused by | Selected bucket is not defined for the identified rotor. |
| Centrifuge behavior | Centrifuge starts decelerating using the fastest deceleration profile. |
| | some state of the |
| Entor code | E-19 Identified rotor not in the list of allowed rotors |
| Caused by U.S. | Rotor not intended to be use in this centrifuge. |
| | Wrong external memory chip installed on main board. |
| Cestiffuge behavior | Centrifuge starts decelerating using the fastest deceleration profile. |
| | and the second and second and the se |
| Effor code | E-20 No valid rotor identification found |
| Caused by | Defective rotor identification board. |
| | Broken cable rotor identification board. |
| Control of the second of the second | Bad connection to main board. |
| Centrifuge behavior | Centrifuge starts decelerating using the fastest deceleration profile. |
| | general profile. |
| Error code | E-21 No rotor identification signal detected |
| Carrector | Defective rotor identification board. |
| | Broken cable rotor identification board. |
| | Bad connection to main board. |
| | Defective main board. |
| Centrifuge behavior | Centrifuge starts decelerating using the fastest deceleration profile. |
| NEW and the American Company of the | Continued States decelerating using the fastest deceleration profile. |
| Effor cede | E-22 No valid signal for speed measurement detected |
| Causediby | Defective rotor identification board. |
| | Broken cable rotor identification board. |
| | Bad connection to main board. |
| NASHSI PARAMANINI III | Defective main board. |
| Centrifage behavior | Drive system is switched off, rotor coasts until complete stop. |
| | PUIVE SYSTEM IS SWICHED ON, TOIDT COASTS UNTIL COMPLETE STOP |

| Error code | E-23 Secondary speed measurement failed |
|---|---|
| Caused by | Defective rotor identification board. |
| | Broken cable rotor identification board. |
| | Bad connection to main board. |
| | Defective main board. |
| Centrifuge behavior | |
| | |
| Error code | E-24 Lid latch blocked |
| Gaused by | Lid latch blocked by obstacles. |
| | Defective lid latch. |
| | Defective main board. |
| Centrifuge behavior | |
| | End occurs with rotor is not opening. |
| Entor code | E-25 Timeout opening lid latch |
| Caused by | Lid latch micro switch defective. |
| | Broken cable lid latch. |
| | Bad connection to main board. |
| | Defective main board. |
| Centrifuge behavior | |
| Solitariogy Political | Error is detected while rotor is not spirming. |
| Error code | E-26 Timeout closing lid latch |
| Caused by | Lid latch micro switch defective. |
| MALE REPORT BUILDING STATE | Broken cable lid latch. |
| | Bad connection to main board. |
| ### | Defective main board. |
| Centriluge behavior | |
| | Error is detected while rotor is not spirining. |
| Error code | E-27 Illegal state information for lid latch |
| Caused by | Lid latch micro switch defective. |
| (32,550, 6) | Defective main board. |
| Centrifuge behavior | Error is detected during boot process. If the rotor is spinning after |
| | reboot, it will coast until completely stopped. |
| | toscot, it will count artist completely stopped. |
| Egercode | E-28 Drive system motor spins in wrong direction |
| Caused by | Wrong connection of drive system motor. |
| Centrifuge behavior | Error occurs immediately after run has been started. Drive system is |
| | switched off, rotor coasts until complete stop. |
| | switched on, total coasts until complete stop. |
| Erfor code | E-29 Drive system motor did not start spinning |
| Caused by | Defective rotor identification board. |
| | Broken cable rotor identification board. |
| | Bad connection to main board. |
| | Defective main board. |
| Centrifuge behavior | Error occurs immediately after run has been started. Drive system is |
| Activities per level | switched off, rotor coasts until complete stop. |
| *************************************** | switched on, rotor coasts until complete stop. |
| Error code | E-30 Reserved for use in other instruments |
| | L GO Frieddived for dae in other instruments |
| Error code | E-31 Drive system motor overtemperature |
| Caused by | Temperature sensor in motor has tripped. |
| | Bad connection of motor cable to main board. |
| | Broken cable motor temperature sensor. |
| | Defective main board. |
| Centrifuge behavior | Drive system is switched off, rotor coasts until complete stop. |
| | Shive system is similariou on, rotor codata until complete atop. |

| Error code | E-32 | Electronics overtemperature |
|---|--------------|---|
| | | |
| Caused by | | ure sensor main board has tripped. |
| | | main board. |
| Centrifuge behavior | Drive syst | em is switched off, rotor coasts until complete stop. |
| - | F 00 | On allian acceptant acceptant |
| Error code | | Cooling system overpressure |
| Gaused by | Air inlet bl | |
| 横线 化多角色色色 | | er fan not working. |
| estimation of a transfer men | | ection of pressure sensor cable to main board. |
| The same transfer and the same | | ble pressure sensor. |
| 化新型 化中间混构 经基础证明 | | main board. |
| Centrify of centarior | Drive syst | em is switched off, rotor coasts until complete stop. |
| | | |
| Enoldside William | E-34 | Frequency converter voltage above upper limit |
| Caused by | | istor not connected or defective. |
| ครา วส าวราชสาสสัสสัสสัสสัสสัสสัส | | ure protection of brake resistor activated. |
| | | ection of brake resistor to main board. |
| | | able brake resistor. |
| | Defective | main board. |
| ្ត្រីទៅព្រះប្រឡានមិនជានិស្សស្នា | Drive syst | em is switched off, rotor coasts until complete stop. |
| | | |
| Error code | E-35 | Frequency converter overcurrent occurred. |
| Caused by | Defective | drive system motor. (windings short) |
| NA SHEERING SURENCES | | main board. |
| Centrituge behavior | Drive syst | tem is switched off, rotor coasts until complete stop. |
| | | |
| Error code | E-36 | Frequency converter protection system activated |
| Caused by | Defective | drive system motor. (windings short) |
| | | main board. |
| Centrifuge behavior | | tem is switched off, rotor coasts until complete stop. |
| | | |
| Error code | E-37 | Reserved for use in other instruments |
| | | |
| Error code | E-38 | Reserved for use in other instruments |
| | | |
| Error code | E-39 | Reserved for use in other instruments |
| 3000000 April 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | | |
| Effer code | E-40 | Poor acceleration of rotor detected |
| Gaused by | | ensively imbalanced. |
| | | drive system motor. (windings short, too much friction) |
| | Defective | main board. |
| Centrifuge behavior | | e starts decelerating using the fastest deceleration profile. |
| | | |
| Error code | E-41 | Invalid input signal imbalance detection |
| Caused by | | rotor identification board. |
| | | able rotor identification board. |
| | Bad conn | ection to main board. |
| | Defective | main board. |
| Centrifuge benavior | Error is de | etected while rotor is not spinning. |
| | | |
| Error code | E-42 | Reserved for use in other instruments |
| TO STATE OF | | |
| Error code | E-43 | Reserved for use in other instruments |



| Errer code | E-44 DC link voltage low |
|-------------------------|--|
| Caused by | Low line voltage Defective main board. |
| Centrifuge behavior | Drive system is switched off, rotor coasts until complete stop. |
| | |
| Error code Caused by | E-45 Drive system safety test failed. No rotor installed and centrifuge switched off after start pressed. |
| | Defective rotor identification board. |
| | Broken cable rotor identification board. |
| | Bad connection to main board. Defective main board. |
| Centrifuge behavior | Error is detected during boot process. If the rotor is spinning after |
| | reboot, it will coast until completely stopped. |
| Error code | E-46 Reserved for use in other instruments |
| Error cade Carlos | E-47 Reserved for use in other instruments |
| E DESCRICTOR STREET | Preserved for use in other instruments |
| Epocode | E-48 Reserved for use in other instruments |
| Epronicode | E-49 Reserved for use in other instruments |
| | |
| Error code | E-50 Reserved for use in other instruments |
| Entor code | E-51 Reserved for use in other instruments |
| Error code | E-52 Reserved for use in other instruments |
| | |
| Elfor code | E-53 Reserved for use in other instruments |
| Error code | E-54 Reserved for use in other instruments |
| Error code | E-55 Reserved for use in other instruments |
| | |
| Error code | E-56 Reserved for use in other instruments |
| Error code | E-57 Reserved for use in other instruments |
| Efforcode | E-58 Reserved for use in other instruments |
| | |
| Error code | E-59 Reserved for use in other instruments |
| Eggreode | E-60 Reserved for use in other instruments |
| Error code | E-61 Lid latch protection system failed |
| Caused by | Defective main board. |
| Centrifuge behavior | Drive system is switched off, rotor coasts until complete stop. |
| Elifer code | E-62 Reserved for use in other instruments |
| Error code | E-63 Reserved for use in other instruments |
| Erron code | E-64 Reserved for use in other instruments |
| | |
| Error code | E-65 Reserved for use in other instruments |

| ≘frai code | E-66 Reserved for use in other instruments |
|--|--|
| Error code | E-67 Reserved for use in other instruments |
| Erior code | E-68 Reserved for use in other instruments |
| Eightoge III III | E-69 Reserved for use in other instruments |
| Error cade Cadesec by Centifuge behavior | E-70 Internal microcontroller software trap occurred Defective microcontroller on main board. Drive system is switched off, rotor coasts until complete stop. |
| Ellor code | E-71 Software initiated system reset. |
| Caused by Geolating behavior | Defective microcontroller on main board. The software has reset the centrifuge. If the rotor is spinning after reboot, it will coast until completely stopped. |
| Egroræade Causad oy | E-72 Illegal state during rotor identification occurred Defective microcontroller on main board. Centrifuge starts decelerating using the fastest deceleration profile. |
| Caused by Centralige behavior | E-73 Illegal user interface identification Defective data in external memory on main board. Defective external memory chip on main board. Defective microcontroller on main board. Error is detected during boot process. If the rotor is spinning after reboot, it will coast until completely stopped. |
| Error code Caused by Centifuge behavior | E-74 Drivers of lid latch motors in error state Defective lid latches. Defective main board. Error is detected while rotor is not spinning. |
| Erroncode Causes by Centificae benevor | E-75 Microcontroller RAM test failed Defective microcontroller on main board. Error is detected during boot process. If the rotor is spinning after reboot, it will coast until completely stopped. |
| Empleode | E-76 DC link not disconnected from line voltage Defective main board. Error is detected while lid is open. |
| Error code Caused by Centifuge behavior | E-77 Changed microcontroller configuration detected Defective microcontroller on main board. Drive system is switched off, rotor coasts until complete stop. |
| Entorcode Causes by Centritude behavior | E-78 Set speed above maximum rotor speed Defective microcontroller on main board. Drive system is switched off, rotor coasts until complete stop. |
| Engreode Caused by Centifuge behavior | E-79 Actual speed above maximum rotor speed Defective microcontroller on main board. Drive system is switched off, rotor coasts until complete stop. |

| Error.code | E-80 Invalid identified rotor ID used for memory access |
|---|---|
| Catised by | Defective microcontroller on main board. |
| Centrituge behavior | Drive system is switched off, rotor coasts until complete stop. |
| | E-81 Invalid maximum rotor speed detected |
| Caused by: | Defective microcontroller on main board. Drive system is switched off, rotor coasts until complete stop. |
| | |
| Error code | E-82 Reserved for use in other instruments |
| Erroricode | E-83 Reserved for use in other instruments |
| Elistostos (estimates participales) | E-84 Reserved for use in other instruments |
| | E-85 Reserved for use in other instruments |
| Emiliasie | E-86 Reserved for use in other instruments |
| Environde | E-87 Reserved for use in other instruments |
| =morecodes a a a a | E-88 Reserved for use in other instruments |
| Broreode | E-89 Reserved for use in other instruments |
| Tamireode 1 | E-90 Reserved for use in other instruments |
| . Элопеосы на при | E-91 Reserved for use in other instruments |
| Eworacode a series | E-92 Reserved for use in other instruments |
| Error code | E-93 Reserved for use in other instruments |
| Egon code in him in | E-94 Reserved for use in other instruments |
| Entracede. | E-95 Reserved for use in other instruments |
| Kenten este and all all | E-96 Reserved for use in other instruments |
| Error code Caused by | E-97 Lid latch monitoring circuit signals error condition Lid latch opened manually while centrifuge switched on. Lid latch micro switch defective. Broken cable lid latch. Bad connection to main board. Defective main board. |
| Centri luciei penavici III | Drive system is switched off, rotor coasts until complete stop. |
| Error code Caused by Centrifuge behavior | E-98 Imbalance detected Imbalanced rotor. Defective rotor identification board. Broken cable rotor identification board. Bad connection to main board. Defective main board. Centrifuge starts decelerating using the fastest deceleration profile. |
| | |

| Exercode+ | E-99 Centrifuge stopped because of set speed mismatch |
|-----------------------------------|--|
| Aufziels piedely aproprisionalism | Entered set speed above maximum rotor speed. (Value entered be- |
| 不可能過程 智用學生學學 | fore rotor had been identified.) |
| Caniff the Religion | Centrifuge starts decelerating using the fastest deceleration profile. |