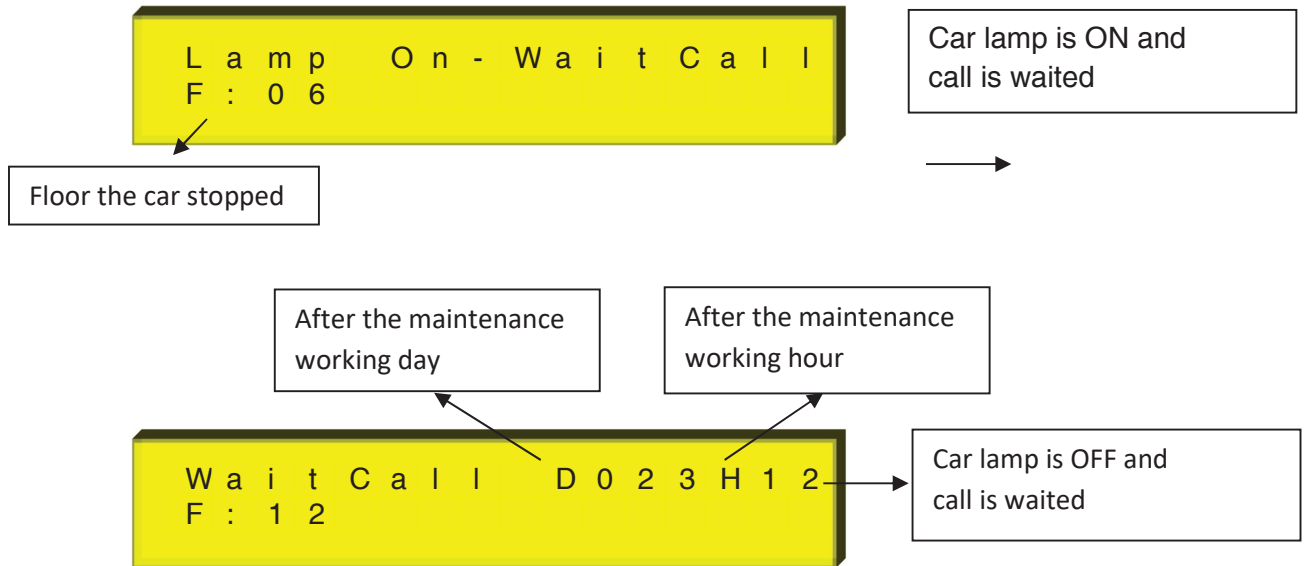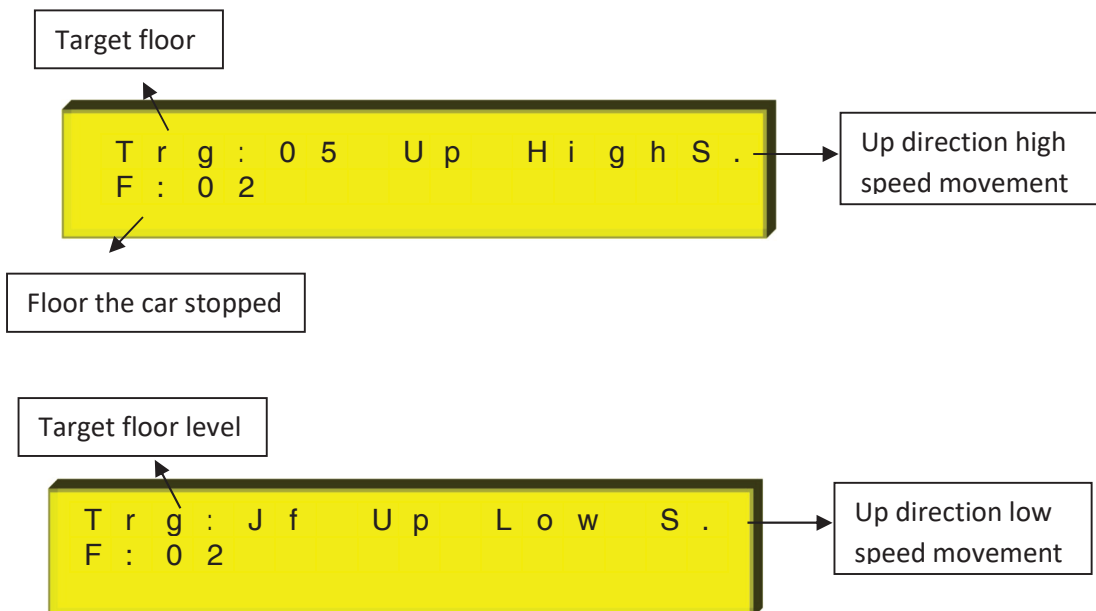# SKY25E LCD Screen Usage

Lift position and fault datas are screened on LCD top line on SKY25E card. When the car is on stand by position, floor number is on LCD lower line.

```
L a m p     O n - W a i t  C a l l
F : 0 6
```

Car lamp is ON and call is waited

Floor the car stopped

After the maintenance working day

After the maintenance working hour

```
W a i t  C a l l     D 0 2 3 H 1 2
F : 1 2
```

Car lamp is OFF and call is waited

When the car is moving, on the left side of LCD top line, there is target floor and on the right side of LCD top line, there are movement direction, speed and fault datas. On the lower line, the floor that the car position at the moment is screened.

Target floor

```
T r g : 0 5     U p     H i g h S .
F : 0 2
```

Up direction high speed movement

Floor the car stopped

Target floor level

```
T r g : J f     U p     L o w     S .
F : 0 2
```

Up direction low speed movement

SKY25E Button Usage Explanations

There are four buttons at the right side of SKY25E card . Some functions are appointed to these buttons except the situation that the car is stopped, stop signal is off or stop signal is cut and re-applied and inspection mode.

ENTER BUTTON (Red) : Manual movement mode is started when pressed this button. At this situation, if safety circuit is OK, the car is moved with UP and DOWN buttons. Soft stop is done at the end of the movements for Speed Control Systems. ESC button must be pressed to exit Manual Movement mode.

UP BUTTON (Yellow): Situation screens are shown in order when pressed this button. The explanations related this function will be done below.

DOWN BUTTON (Yellow): Car calls function is started when pressed this buton. The explanations related this function will be done below.

ESC BUTTON (Black): Registered fault observing function is started when pressed this button. The explanations related this function will be done below.
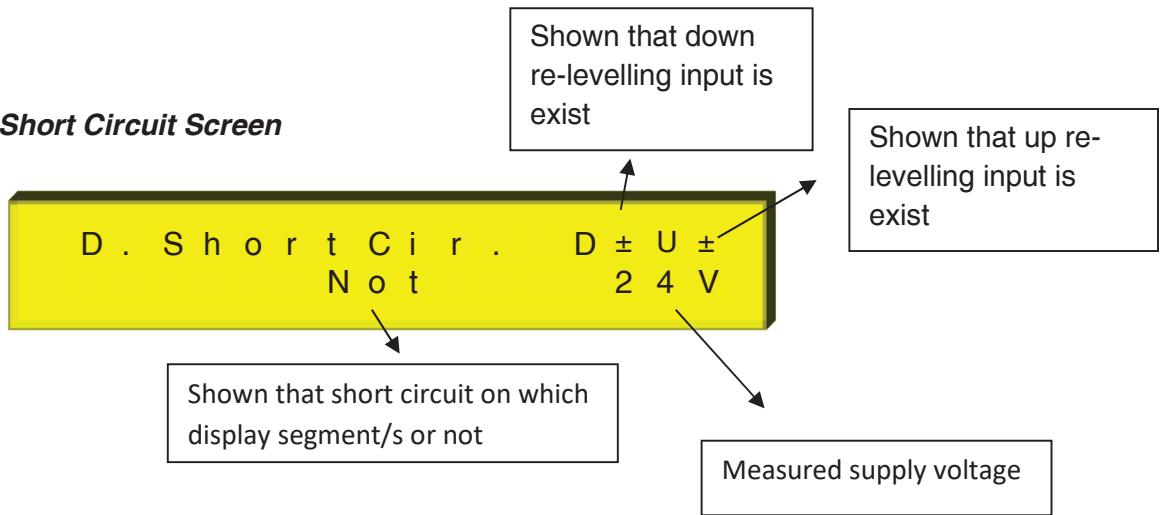
SITUATON SCREENS TRACING - UP BUTTON USAGE

When pushed the up button every time, below screens are traced. Explanations are made**.**

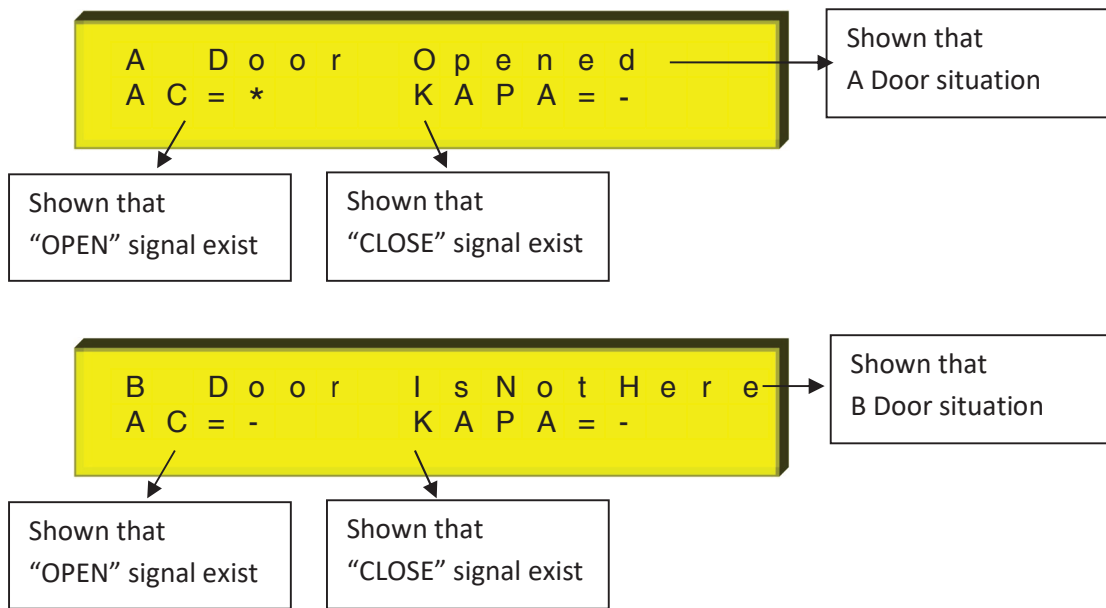Situation screens datas can be reached with up buton and looked at between the screens.
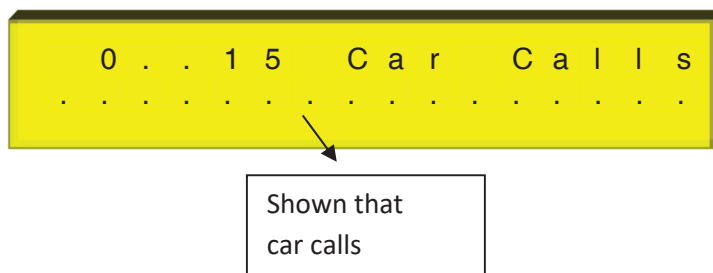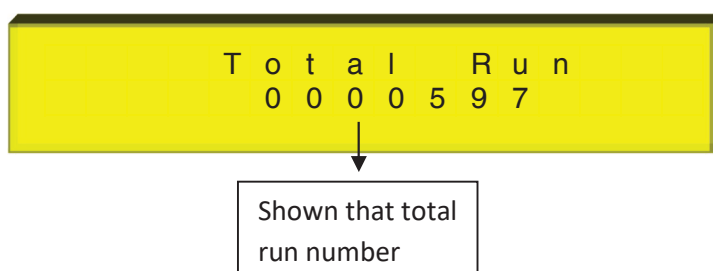
Communication Screen

Shown that car serial communication card (SERI25) is exist

Shown that doublex communication is exist

Display Short Circuit Screen

```
D . S h o r t C i r .    D ± U ±
        N o t              2 4 V
```

Shown that down re-levelling input is exist

Shown that up re-levelling input is exist

Shown that short circuit on which display segment/s or not

Measured supply voltage

Door Situation and Signals Screen

```
A   D o o r      O p e n e d
A C = *          K A P A = -
```

Shown that A Door situation

Shown that "OPEN" signal exist

Shown that "CLOSE" signal exist

```
B   D o o r      I s N o t H e r e
A C = -          K A P A = -
```

Shown that B Door situation

Shown that "OPEN" signal exist

Shown that "CLOSE" signal exist

Call Screen

```
    0 . . 1 5   C a r    C a l l s
. . . . . . . . . . . . . . . . . .
```

Shown that car calls

Total Run Screen

```
      T o t a l     R u n
      0 0 0 0 5 9 7
```

Shown that total run number

3

Run After Maintenance Screen

```
R u n   A f t e r    M a i n t .
      0 0 0 0 1 2 3 4
```

Shown that total run after maintenance

Remain Day To Maintenance Screen

```
M a i n t . R e m a i n   D a y
      2 4 0
```
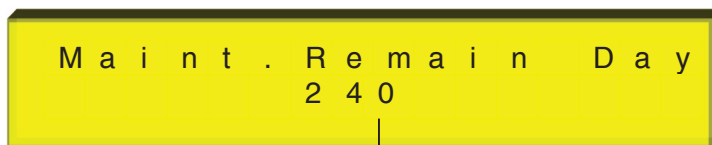
Shown that the remaining day to maintenance

Safety Circuit Bridging Fault Screen

```
L a s t   B r i d g e F a u l t
      N o   F a u l t
```
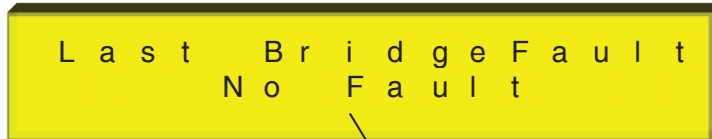
Shown that the last fault about Bridging

ENTER CAR CALL - DOWN BUTTON USAGE

Manual car call can be entered to the lift with down button.

Enter Call Screen

```
0 _ _ C a l l E n t e r _ _ 9
. . . . . . . . . .
```

Shown that floor calls

Dots on the screen indicate floor numbers in order. Floor that will be given call is selected with cursor and put "+" sign with "ENTER" on the floor number. More than one call, the other floors are selected the same.

```
0 _ _ C a l l  E n t e r _ _ 9
. . . +  . . . . +  .
```

To exit the function, it must be pressed to "ESC" button.

```
E N T = O k    E S C = C a n c l
. . . +  . . . . +  .
```

On the screen, registrations are canceled with "ESC" button or registrations are confirmed with "ENTER" button and exit from the function.

SKY25E Registration Faults Tracing ñ ESC button usage

When the lift is working, some faults being in the system are registered with the direction, station, day and hour datas. It can be registered the last 16 faults. When the car is stopped, if ESC button is pressed except the situation that the car is stopped, stop signal is off or stop signal is cut and re-applied and inspection mode, fault tracing function is started. Out of service lamp is ON.

```
L o c k    S i g n a l  E r r o r
h . 0 1    G = 0 2 8    S = 1 2 >
```
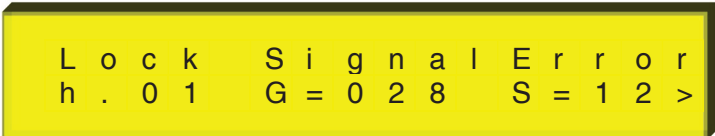
When the function is started, the first fault shown at the screen is the last fault. If another fault is not exist " No Fault " message is screened. It is get to trace the faults by pressing UP and DOWN buttons. At the tracing time, the number of the faults are not related to occuring time of the faults before or later. Day and hour determinates the occuring order of the faults.
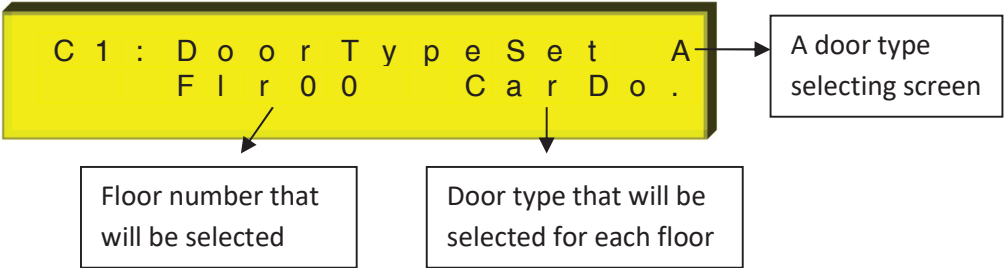
When any fault is screened, if ENTER button is pressed, during 2 sec. the direction and station of the fault are shown at the screen.

```
U p                            F : 0 2
```
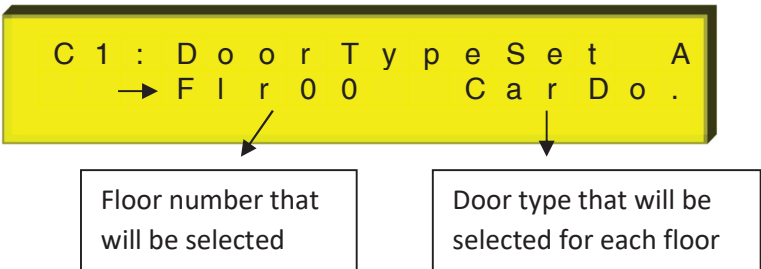
When ESC button is pressed or detected the car or control panel inspection key, fault tracing function is end. At the programming mode, if enter to "G.Maint.Settings" section and select YES in (G04) parameter "Delete Fault?" menu, registered faults are deleted.
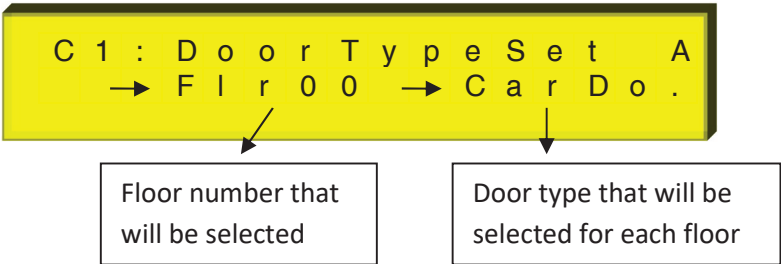
DOOR TYPES SELECTION IN PROGRAMMING

Door types on each floors can be selected A side and B side seperately. Door types can be indicated as; CarDo. (only car door automatic), F.Auto (floor +car door automatic), NoDoor (there is no door).

```
C 1 : D o o r T y p e S e t    A         →  A door type
   F l r 0 0       C a r D o .               selecting screen
```

Floor number that will be selected | Door type that will be selected for each floor

For selection, with lightening left arrow by pressing ENTER button, required floor is selected.

```
C 1 : D o o r T y p e S e t    A
  → F l r 0 0       C a r D o .
```

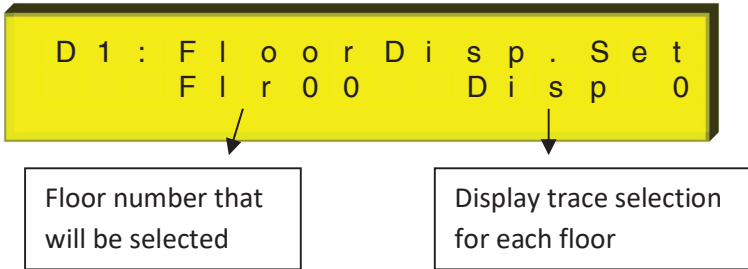Floor number that will be selected | Door type that will be selected for each floor

If floor door type is required to change, it is pressed ENTER button second time and lightened right arrow and door type is selected.

```
C 1 : D o o r T y p e S e t    A
  → F l r 0 0  →  C a r D o .
```

Floor number that will be selected | Door type that will be selected for each floor

Also if all door types are the same type, "All" on the left side floor screen is selected, it is pressed ENTER button and door type is selected with second arrow on the right side and all floors door types are defined the same type.
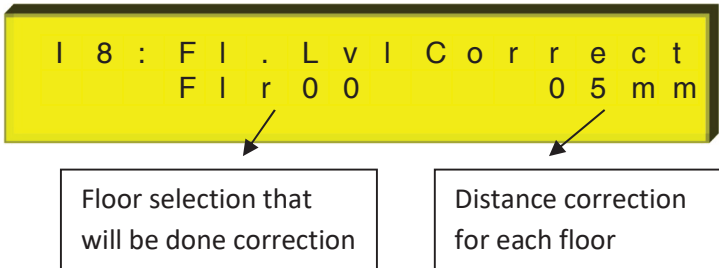
FLOOR DISPLAY SELECTION IN PROGRAMMING

```
D 1 :  F l o o r D i s p . S e t
       F l r 0 0        D i s p   0
```

Floor number that will be selected

Display trace selection for each floor

It is used for trace type selection that is required to be traced on floor for every floor. To change the parameter; first, by pressing ENTER button, floor is selected with arrow on left side. By pressing ENTER button again, display that will be traced is adjusted with arrow on right side.

If any floor display is adjusted a number value and the other floors displays are required to sort, it is pressed ENTER button during 2 seconds. "ENTER forSorting" is started to flash on LCD bottom line. At this situation if it is confirmed by ENTER, all floor displays are sorted. ESC cancels the operation.

FLOOR LEVEL CORRECTIONS IN PROGRAMMING

```
I 8 :  F l . L v l  C o r r e c t
       F l r 0 0           0 5 m m
```

Floor selection that will be done correction

Distance correction for each floor

For each floor in shaft learning, at the situation of the car doesn't stop the floor level, it is used for accuracy correction. To enter the parameter, floor is selected with the arrow on left side by pressing ENTER button and by pressing again, distance correction is done as (-) or (+) value with arrow on the right side. Distances are indicated one by one or by using "All" option in the left side of parameter, the same correction for all floors can be entered.

SKY25E General Fault Explanations

ERROR SCREEN DISPLAY	EXPLANATION
Lock SignalError	When the lift will move, the situation that the lock signal is not detected. Door lock magnet is picked up during the time in menu B05 "LockWait Time" parameter. At the end of the time, if it is not detected 140 input, fault is given. The fault is registered with the direction data. At this situation the calls are deleted and lift is out of service during 10 sec.
MaxHighSpeedTime	While the lift is high speed movement, the situation that floor changing is not detected from pulse bi-stable in adjusted time at parameter. At this situation the calls are deleted and fault is registered with direction data. If "Only Warn" on menu B35 "AtSpd.Time End" parameter is selected, fault is given during 10 sec. and then back to normal working. If "System Blocked" is selected, system is blocked.
MaxLowSpeedTime	While the lift is low speed movement, the situation that jf signal is not detected in adjusted time at parameter. At this situation the calls are deleted and fault is registered with direction data. If "Only Warn" on menu B35 "AtSpd.Time End" parameter is selected, fault is given during 10 sec. and then back to normal working. If "System Blocked" is selected, system is blocked.
Contactor Fault	The explanation of this fault will be done at 8.17 section.
817=0 818=0	The situation that both necessary cutter is not exist at the same time. At this situation the calls are deleted and the lift is out of service till the one of the cutter is detected.
DoorOpenLongTime	The situation that the door is open till the end of the adjusted time at menu C08 " Door OpenMax." parameter. At this situation the calls are deleted and the lift is out of service till the door signal is detected.
StopBut.LongTime	The situation that stop signal is remained cut till the end of the adjusted time at menu C08 "Door OpenMax." parameter. At this situation the calls are deleted and the lift is out of service till the stop signal is detected.
R PhaseError *S PhaseError* *T PhaseError*	The situation that one the phases is not exist. If this situation is occured while the lift is moving, the car is stopped by locating a call to the nearest floor in the same direction. If there is not a phase when the lift is stopped at the nearest floor or the car is stopped, the calls are deleted and the lift is out of service.
R,S PhaseError *R,T PhaseError* *S,T PhaseError* *R,S,T PhaseError*	The situation that two ot three of the phases are not exist. If the car is moving, it is stopped; the calls are deleted and the lift is out of service.
PhaseOrderError	The situation that the phases orders connected to phase protection terminals (R, S, T) are wrong. At this situation the calls are deleted and the lift is out of service (Phase order is only controlled when the lift is stopped).
M.Overheat(PTC)	Fault of motor over heated. In this situation, if the lift is moving, the lift is stayed out of service position at the nearest floor.

Driver Fault	When one of the the gearless rescue options is selected, the driver fault control is done from EIN input. When this input is not detected, this fault warning is shown at lcd screen.
No 817 Signal	Before coming the bottom floor, the situation of cutting 817 signal. The fault is registered with the direction data. At this situation the calls are deleted and lift is out of service during 10 sec.
No 818 Signal	Before coming the top floor, the situation of cutting 818 signal. The fault is registered with the direction data. At this situation the calls are deleted and lift is out of service during 10 sec.
SafetyCir.Error	After the lift movement is started, this fault is given when one of 120-130-140 inputs are cut. During 10 sec. fault is shown on the screen and then back to normal working.
OSG/BRAKE Error	The explanation of this fault will be done at 8.11 section.
Limit Error	In shaft learning systems, this fault is occured when 817 input is exist although the car is at the bottom floor or 818 input is exist although the car is at the top floor. When the fault occurs, all calls are deleted. The lift is stayed out of service position till the lift is inspection mode.
DoorOpeningError	To control the unintended openning of one or any of floor doors, it is connected to assignable inputs Door Control 1 and 2 from the control outputs of door situation control card (MLDC). This faults is occured when unintended openning of one or any of floor doors. When the fault occurs, all calls are deleted. The lift is blocked.
Low VoltageError	This fault is screened when the card supply voltage is dropped under 20V and the lift is blocked.
Shaft Learning Error	At shaft learning system, if menu B31 "Floor Detection" parameter is selected "Encoder", this fault is screened. The lift is stayed out of service position.
Encoder Reading Error	At shaft learning system, while entering the floor door zone that the car will stopped, this fault is screened when the distance between ML1 and ML2 is not detected from the encoder. In this case, all calls are deleted. The lift is blocked.

Notes :

1- Controls that phases are not exist are shown at screen during ML25E card has power.
2- Phase order fault is only controlled when the lift is stopped.
3- If one of the lifts is out of service at doublex working because of any fault, external calls appointed on this lift are transfered to the other lift.

WORKING OF DOOR BRIDGING SECTION and EXPLANATIONS OF THE FAULTS ABOUT THIS SECTION

1- Working of Door Bridging Board (MLKR1)

Door bridging section is made up of three safety relays (RML1, RML2, RML3) and a mini relay (RE). Door bridging means to bridge the 120 and 140 inputs. It is explained that how to do this operation with below substances.

- When 24V is exist on ML1 and ML2 inputs (when the leds are lighted)
- RML3 relay is dropped and picked up for a short time.
- With RML3 relays dropped, RML1 and RML2 relays are dropped and stayed like this.
- It is controlled from the ST output that RML1 and RML2 relays are dropped.
- It is ready to bridging operation that RML1 and RML2 relays are dropped and RML3 relay is picked up.
- Then RE relay is dropped to door bridging.
- If the bridging is completed, it means 120 and 140 terminal pins are short circuit.
- RML1 and RML2 relays are stayed droppped if ML1 and ML2 inputs have 24V.

If any fault is occurs about the bridging section, RE relay is picked up.

2- Door Bridging Fault Descriptions

When door bridging operation is done, if the faults that descriptions are belowed are occured, fault message is shown at lcd screen and registered to the memory. At this situation the lift is blocked by lightening out of service lamp. After the block operation, when the control panel power is cut and re-applied, "BridgeErrorExist" is traced on lcd and blockage of the card is continues. To cancel the blockage, must be entered to "J.GeneralSetings" and selected YES on "Del.BridgeErr" menu in (J05) parameter, and registered fault must be deleted. To look the registered fault, UP button must be used that is explained in button descriptions.

FAULT SCREEN DISPLAY	EXPLANATION	WHAT TO DO
ML1-ML2 Shunted	ML1 and ML2 inputs are short circuit.	Check ML1 and ML2 inputs that they are short circuit or not. Use different switches for ML1 and ML2 re-levelling zone mono-stable swithes.
RML1-2NotPickUp	There is no situation signal of RML1 or RML2 bridging safety.	If there are ML1 and ML2 signals, check RML3 relay is dropped at the start of bridging and then RML1, RML2 relays are dropped.
RML1-2 Not Drop	There is always situation signal of RML1 or RML2 bridging safety.	Check RML1 or RML2 relays are not pulled although there are no ML1 or ML2 signals.
Not Bridged	The signal is not detected from ''140'' input although bridging operations are done.	Check that RML1,RML2,RE relays are dropped and RML3 relay is picked up.

|		
140OnAfterBridge	Although the end of bridging operation, signal is detected from ''140'' input.	Check RE relay is dropped.
ML1 Shunt To 100 *ML2 Shunt To 100* *ML1=100,ML2=100*	Detecting ML1 and/or ML2 signal when the lift is at low speed movement because of detecting the target floor.	1-Check ML1 and/or ML2 input is not short circuit with 100. 2-Take the zone that the car passed to low speed to the front than the re-levelling zone.
ML1 Missing *ML2 Missing* *ML1-2 Missing*	Not detecting ML1 and/or ML2 signal when the car is stopped at call floor.	Check ML1 and/or ML2 inputs.

Door Zone Magnet Location

ML1 ve ML2 mono-stable swithes are shown how to be located below that will be used in the lift system do the re-levelling.
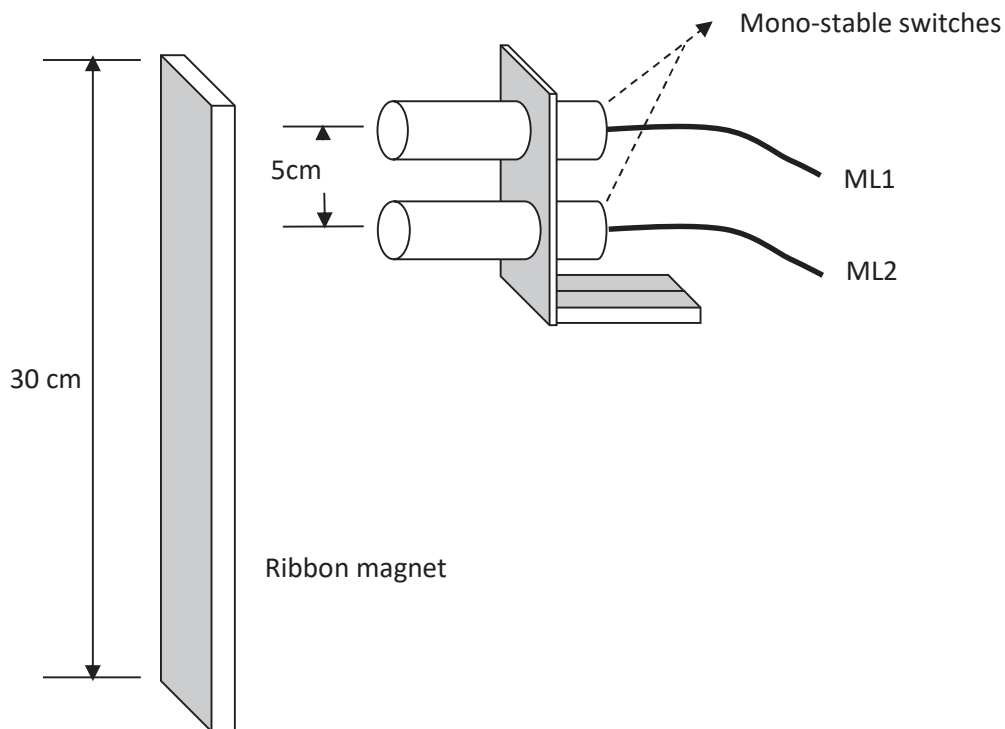
Re-levelling Magnet Location

Mono-stable swithes using for UP and DOWN re-levelling and ribbon magnets are shown how to be located below that will be used in the lift system do the re-levelling.
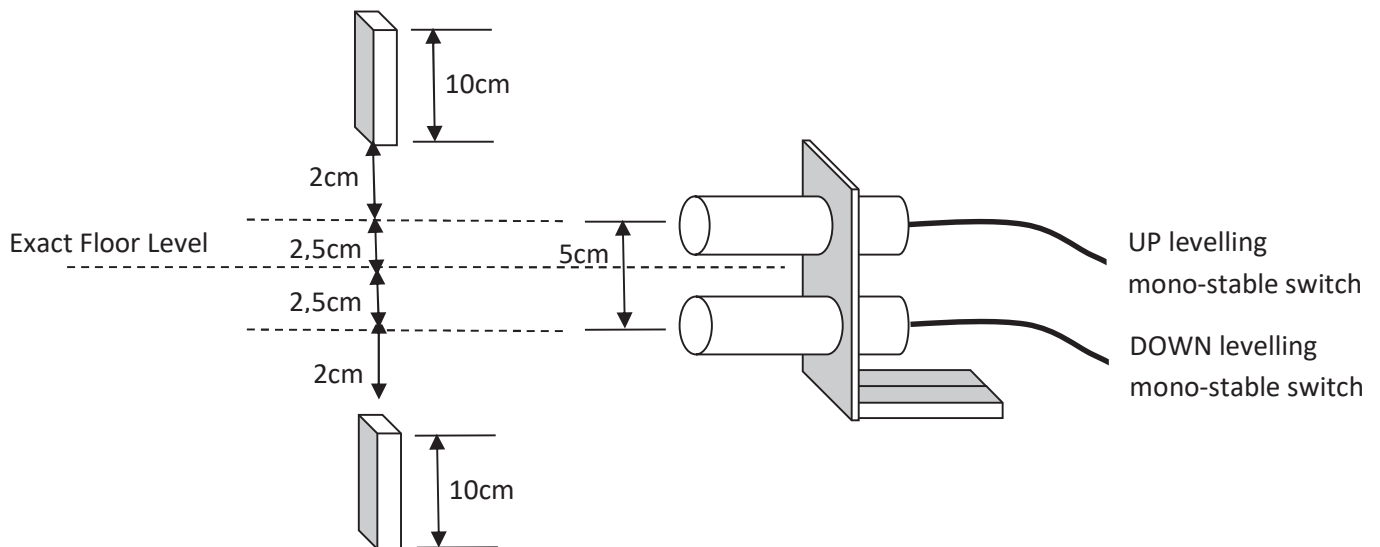
TAKING OUT THE LIFT FROM INSPECTION MODE

If the lift is taken to inspectiom mode with top of the inspection ke yor recall key, to back to the normal mode, these keys are taekn to the normal working position (869 input is energized again). After 869 input is energized, it is waited to cut the energy of 130 input (openning one of the floor doors) once for safety. If 130 input energy is cut, lift is taken to the normal working. This is important for the operator to open the door once while taking to the lift to normal working to exit from the well. So the lift movement is prevented with a call when the inspection key is passing unintented to the normal position.

UNINTENDENT CAR MOVEMENT (UCM) DETECTION OF ML25E CARD

1- UCM Detection For The Electircal Lifts

Re-levelling can be done with door open or close. When the re-levelling is being done, it is detected that the car exit out of door zone with an input from ìRML1î and ìRML2î relays closed contacts that is serial connected on SKY25E card. Thi s input also given outside from ìSTî terminal of MLKR1 board. If it is detected that the car exit from this zone ìUCMErrorDetectedî is traced on lcd and stopped running. At this situation lift is blocked with lightening out of service lamp. After the block operatio n, when the control panel power is cut and re-applied, ìUCM Error Existî is traced on lcd and blockage of the card is continues. T o cancel the blockage, must be entered to ìJ.GeneralSetingsî and selected YES on ìDel UCM Errorî menu in (J06) parameter, and registered fault must be deleted.

2- OSG Fault Detection For the Lifts Has Geared Machine

OSG seleoid working is detected from "HRF" terminal via a closed contact on OSG. If it is detected that the selenoid dropped not correctly, "OSG/Brake Error" is traced on lcd. At this situation lift is blocked with lightening out of service lamp. After the block operation, when the control panel power is cut and re-applied, *"OSG/Brake Error"* is traced on lcd and blockage of the card is continues. To cancel the blockage, must be entered to "J.GeneralSetings" and selected YES on "Del UCM Error" menu in (J06) parameter, and registered fault must be deleted.

3- Brake Fault Detection For The Lifts Has Gearless Machine

NC contacts of the two brakes that gearless machine had are connected serial to each other. It is detected that the info coming from this serial contact with "HRF" terminal. If it is detected that the brake dropped not correctly, "OSG/Brake Error" is traced on lcd. At this situation lift is blocked with lightening out of service lamp. After the block operation, when the control panel power is cut and re-applied, *"UCM Error Exist"* is traced on lcd and blockage of the card is continues. To cancel the blockage, must be entered to "J.GeneralSetings" and selected YES on "Del UCM Error" menu in (J06) parameter, and registered fault must be deleted.

4- Manual Test For Unintendent Car Movement

There are UP and DOWN direction test menus of SKY25E card for testing the detection of unintendent car movement (UCM) correctly.

Before doing UP direction test operation, car is taken to the floor level of the floor that is under the the topper floor. Than to start the test, must be entered to ìJ.GeneralSetingsî and selected YES on ìUCM Up Testî menu in (J07) parameter.

Before doing DOWN direction test operation, car is taken t o the floor level of the floor that is on the bottom floor. Than to start the test, must be e ntered to ìJ.GeneralSetingsî and selected YES on ìUCM Down Testî menu in (J08) parameter.

These test operations simulates unintendent car movement (UCM) error that occures when the door is open normally as closed door. During the test, car is moved with low speed to the test direction. When the car is exit from the door zone , unintendent car movement (UCM) error occures and reset operations of the fault must be app lied the same.

5- Cancelation OSG/Brake Control At Auto-Tuning

To do auto tuning as brake is closed in gearless systems, must be entered to ìJ.General Settingsî and selected YES on ìAuto Tuningî menu in (J09) p arameter. So in INSPECTION mode, during 100 seconds after the first movement, OSG/Bra ke Control is not done.

6- Cancelation Over Speed Governor Selenoid Or Gearless Brake Control:

If B32 parameter is selected PASSIVE, control of OSG selenoid contact or gearless brake contact that dropped or not is canceled after the lift stopped. But when the lift is moving, control is still going on. If B32 parameter is selected CANCEL A3, all controls are canceled.

> **!**
>
> ***IMPORTANT WARNING !***
>
> If B32 parameter is selected PASSIVE from SKY25E menu, system can damage more because of not checking of UCM faults that can be occured on OSG selenoid or gearless brake. If parameter selected ìCancel A3î Mikrolift does not take any responsibility for these actions and Liftinstituut certificate is no longer valid.

OVER LOAD FUNCTION

It the inside car weight is over than permitted, over load contact on the car is closed and 24V is applied to no.804 terminal. Microcontroller doesn't allow the car movement. In this situation "Over Load" is traced on the screen. Car lamp is ON and open relay is dropped to stay the door opened. Re-levelling is allowed if needed. When the over load contact is opened, movement is allowed again. While the car moving, over load control is not done.

FIRE FUNCTION

At the lifts in buildings that has fire floor, "B10.Fire Floor" parameter in B.SystemSettings is set to that floor value. If any fire contact in the floors are closed and terminal that is assigned "Fire" is energized, the car is moved automatically to the predetermined fire floor. While this input is exist, " FIRE Input Exist" is traced on the screen.

If the car is moving and fire floor is on the movement direction, all calls are deleted and the car is moved directly to the fire floor. If the car is moving to the opposite direction of fire floor, it stops the first floor, all calls are deleted and the car is moved to the fire floor without openning the doors. The car waits on the fire floor with open doors and doesn't answer the other calls. These are called "Phase-1". After this, fireman key input is waited. When this terminal voltage is cut, main power must be cut off and power again the lift is back to normal working.

FIREMAN MODE WORKING

After the fire input is detected and "Phase-1" section operations are apllied, fireman key input is started to wait. To firmen mode working, below set and assigns are must be done:

- Fireman input is assigned to a programmable input.
- Door limit types of A and B doors are selected "With Limit".
- Fireman Call Delete input is assigned a programmable input (Not obligatory).

At the end of "Step-1", if the doors are selected "WithLimit" after the doors are wide opened, fireman input is started to control. If the fireman input is active, "Fire / Phase-2" is written on the screen and the car is given to fireman service.

If the fireman wants to close the car door, he must push the CLOSE button till the door closed. When the door is closing, if he takes his hands from the button, the door will open again. If he wants to open the car door like that, he must push the OPEN button till the door opened. When the door is openning, if he takes his hands from the button, the door will close again. The door is under control of fireman during Step-2.

Fireman gives only one inside call. Before the car is moved, with pushing Call Delete input, he can delete the call and give a new call.

When the car is gone to new floor in Phase-2, the door is not opened automatically.

If the firman input is canceled, it is exit from Phase-2 and back to normal working (If the fir input is still active, back to Step-1).

EARTHQUAKE FUNCTION

Building earthquake sensor that the lift is in is connected to terminal that is assigned "Earthquake". When this input is energized, if the car is moving, it is stopped the first floor. "Earthquake Exist" is written on the screen and it is waited with the doors are opened. When this terminal voltage is cut, the lift is back to normal working.

CONTACTOR CONTROL

24 VDC that is circulating serial from the contactors closed contacts that are providing the movement is connected to "KRC" terminal. Thus the card controls the contactors that are working correct or not when the car is stopped or moved. If the fault is occured, "Contactor Fault" is written on the screen. Contactor control is done as below according to "B.SystemSettings" "B23.KRC Control" paramater content:

1) When the parameter is "Passive", contactor control is not done.

2) When the parameter is " Aktive ", control is done while the contactors are dropped.

3) When the parameter is "Full Active", control is done while the contactors are both dropped and picked up.

When the fault is detected first time, the lift is waited out of service position during 10 sec. and then back to normal working. This fault is saved temporary. After that if the contactors work 5 times correctly, this temporary fault will be deleted. If the fault occurs before 5 times normal working, the fault is saved permanently and the lift will be blocked. To back to normal working, the main power must be cut and then given again.

FULL LOAD FUNCTION

Car full load contact can be connected to any assignable input. If the car weight is full capacity, full load contact is closed and 24VDC is applied to assignable input. In this situation, because of there are any place for the other passengers, while the car is moving, microcontroller doesn't stop the floors that are given as outside calls and the calls are stored.

VATMAN FUNCTION

Vatman key can be connected to any assignable input. When the car is stopped, vatman key input is controlled. If this input is active, all calls are deletd first and while this input is exist, only car calls are accepted. When the vatman key is OFF, lift is back to normal working.

PARKING FLOOR FUNCTION

While the lift is stand-by, when the time that is adjusted with parking floor time parameter is over, the lift is gone to the floor that is adjusted with parking floor parameter. If parking floor parameter is selected passive, this function is invalid.

SHAFT LEARNING

1-What NeedsTo Be Done For Shaft Learning

1) As shown at SKY25E_8, SKY25E_9 and SKY25E_10 schemes, 30cm rib bon magnets are must be used for all floor levels.
2) ML1 and ML2 that will be located across these magnets are must be electronic mono-stable switches.
3) ML1 electronic mono-stable switch must be certainly ABOVE.
4) Location of ML1 ande ML2 electronic mono-stables must be ce rtainly done 5 cm far away from the centers as shown in section 8.8.2.
5) Shaft learning is done in INSPECTION speed and driver inspection speed input is must be connected to relay that is assigned ìInspection Speedî of SKY25E card (Inspection speed 0,30 - 0,50 m/sec. is adviced).

6) SKY25E card encoder inputs (A, A Ø,B, B Ø) must be connected to inverter tracing outputs. The shielded cables absolutely must be used in these connections.

7) If SKYKS10-S is used in the control panle, ìAtTheFloorSignalî is must be assigned to one of assignable relay outputs on SKY25E card. A relay must be connected to this assigned output. SKYKS10-S 142 input must be connected to 24VDC wit h using this relay NC contact.

2-Shaft Learning Usage Details

1) In pulse systems **817** and **818** limit switches were located a littel bit top or a little bit bottom of magnets. In this system, limit magnets or limit switches are can be located to "passing to slow speed distance" place.

2) If there is really rope creep; if encoder value is not changed with the rope creep, **ASM** and **YSM** are must be connected..

3) In high speed systems that used midlle speed output, when is moving to neighbour floor, passing to slow speed distance value (I03:Mid.Spd.Slow.) is accepted this value. In high speed systems that is not used midlle speed, slowing distance from high speed (I02:HighSpd.Slow.) and slowing distance from middle speed (I03:Mid.Spd.Slow.) are must be selected the same.

3-Shaft Learning To Be Done

When the lift is stanby, it is entered to prgramming. In "I.Shaft Learning" menu, "I01:Learn Shaft" sub menü is selected **YES**. The card is first moved to 817 bottom switch position. Then, it is moved to bottom level of ML1 and ML2 and Shaft learning is started in up direction. In the left bottom of LCD passing floor number, in the right bottom of LCD encoder value is screened. After detected that 818 top switch is not exist, when it is reached to top of ML1 and ML2 level, Shaft Learning is completed.

In the Shaft Learning operation if safety device is cut or the lift is taken to inspection mode, Shaft Learning is canceled.

4-Floor Level Corrections From The Car

Important Warning!! MLKR1 door bridging card must be used fort this process.

1) Is entered into "B.SystemSettings". "B33. Re-levelling" parameter is done ACTIVE.

2) Is entered "I.Shaft Learning". "I13.CorrectionMod" parameter is done ACTIVE.

3) Shaft learning is done.

4) Is exit from programming and is passed to normal mode. Then the car automatically will go to the bottom floor with position reset.

5) While inside the car, is gone to down direction with calling all floors in order. If level correction needed at that floor, is holded down to "OPEN" button. After 3 seconds, "d" letter is traced on digital screen and for down and up direction movement, the command is waited from "0" and "1" calls inside the car. While holding down to "OPEN" button, the car is moved to down direction if is holded down to "0" button; the car is moved to up direction if is holded down to "1" button. When the floor correction is done at that floor, "OPEN" button is dropped out. After

1 second is passed to normal working mode. If requested the correction again at that monent, the same process is done. When returned to normal working, is called another floor.

       6) After gone to bottom floor, the same processes are done for all floors to up direction to top floor in order.

       7) After floor level controls and floor corrections if needed are done with going to all floors for each direction, "I13.CorrectionMod" in "I.Shaft Learning" is selected PASSIVE. So exit "Correction Mode" and the temporary registered floor level corrections are saved permanent.

       8) After four times working of the numbers of floors, if "I13.CorrectionMod" parameter is still ACTIVE, program will select this parameter as PASSIVE and the temporary registered floor level corrections will be saved permanent.

5-Another Method for Floor Level Corrections

After Shaft Learning is completed, exit from programming mode, by calling each floors, floor level correction distances are noted one by one in up and down directions. If the car is not reached to the floor level, distance value must be stored as (+); if the car passed the level, distance value must be stored as (-). These values are registered to "I08:Up Correct" and "I09:Down Correct" menu. If correction distances are bigger than -99mm or +99mm, ribbon magnets must be checked.

6-Position Reset

In systems with working encoder, when the electric came to control panel first, the car is sent to the first floor for position reset. If the car is in the zone that the bottom cutter is not exist or between the two floors that ML1-ML2 are not exist, first the car is moved to Ml1-ML2 zone with INSPECTION speed. Then it is moved with normal speed in down direction.

7- "I11.CalculateDistance" Parameter Usage

While "I11.CalculateDistance" parameter is PASSIVE, systems with shaft learning are working like M0 pulse systems as floor based. At floor based working, increasing and decreasing floors and passing from high speed to low speed was being in floors. Because of this, slowing distance is limited by floor height.

If "I11.CalculateDistance" parameter is selected ACTIVE; distance to target floor will be always calculated as milimetric. So the slowing distance from high speed or middle speed can be selected without depending on floor heights. In systems that has very low floor height (min. 50cm) or in high speed systems (bigger than 1,6m/sec.) is started to slowing before one stop or several stops.

8- "I12.Slowing Dist.3" Parameter

This parameter is used in systems which has one floor or several floors that have low height less than normal height. In movement to next floor; if next target floor height is lower than the distance that is selected in "I03.Mid.Spd.Slow." parameter, slowing distance is being the distance that registered in "I12.SlowingDist.3" parameter.

9-Usage Shaft Learning in 2 Stops Systems

In 2 stops systems, before shaft learning, 30cm ribbon magnet is temporary placed to middle point of 0 and 1 stops. After the shaft learning operation, this ribbon magnet is placed out from its place. To be read the shaft as 3 stops by the program, "B03.Number Of Floor" parameter is again set as **2**.

Nudging Function

If the car door is left open for a long time by the passen gers for no reason with pushing OPEN button or stopping obstructively in front of photocel l (this time is the time that is adjusted in ìC.Door Settingsî section in ìC.07 PhotocellTimeî parameter), an assignable output is done active and close relay is dropped. This output is connecte d to ìSLOWî input of automatic door control card. When the automatic door control card detected this input, closes the door slowly with a sound warning. To work this function properly, automatic door type must be selected ìWith Limitî and open and close limits of the automatic door must be connected to the control card.

Sound Output Function

Sound output card (SKYREVSES) can be plugged on SKYSERI25 top of car serial communication card optionally. So floor names, movement and door situation datas can be read with an another spekare except alarm speaker. Car w arning gong sound can be given from this output or alarm speaker. Reading assigments for eve ry floors about the sond output can be done in ìK.Sound Settingsî in programming.