

Carlos Silva®

*Program*

**KST03-K40** / 08-2011



**KDTsystem**  
**SIRIUS**

*Electronic Controller  
for Platformlifts*

*Operation Manual*

## INFORMATION ON SAFETY

### Sirius & Cargo controllers

**Please read this manual attentively before installing the control. Then put it away carefully for later use.**

#### **1. Personnel Safety**

Some voltages present in the control panel can cause electrical discharges, which could have a mortal effect. Special care must be taken at all times when working near to the control or to the power leads that come out of it.

To guarantee the safety of the personnel, no work must be carried out on the control and/or installation unless the **MAIN SWITCH** has previously been disconnected and the **F1** fuse (**CONTROLLER**) has been removed.

#### **2. Electrical Safety**

Qualified personnel must carry the installation out conforming to the national regulations of the country where it is installed and. EMC directive (2004/108/CE), machine directive (2006/42/CE) and low voltage directive (2006/95/CE) must be satisfied in all the countries of the EC.

#### **3. System design**

This operation has been designed to control elevating platforms for people with speed of 0.15m/s or lower and for goods lift. If not correctly installed, operating the final equipment may be dangerous for the user. The personnel carrying out the installation must read this safety information with care as well as the different installation directions provided.

#### **4. Compliance with regulations**

The installer is responsible for satisfying all the relevant regulations. He must pay special attention to the section and to the insulation of the conductors, to the line protection controls, as well as about the protection ground connections.

#### **5. Motor, brake/valves and controller**

It must be ensured that the motor and control voltage correspond to that of the mains and the valves voltage with the type of control.

The total sum of the stroke carried out by the safety series conductors shall not exceed 125 metres, if the section used is 0.75 mm<sup>2</sup>.

#### **6. Configuration of the controller**

Some configurations have an enormous effect on the final working of the equipment. These configurations must not be modified without previously considering the effect that they may have.

## LEDS MEANING (CONTROLLER STATE) AND FUSE NOMENCLATURE

KDT11 V3, software version <sup>3</sup> KST03-K40

LED	Status	Description
DL1	Lighted on	Controller running correctly
	Flashing 1 flash	<b>Out of service</b> – Faulty on contactors or valves relays
	Flashing 2 flashes	<b>Out of service</b> – Travel time between floors exceeded
	Flashing 3 flashes	<b>Out of service</b> – Incongruity in the signals from magnets and/or from limit switches
	Flashing 4 flashes	<b>Out of service</b> – Faulty on locks circuit or automatic doors circuit (*1)
	Flashing 5 flashes	<b>Out of service</b> – Faulty on wedge/pawl (electrical anti-creep system) (*2)
	Flashing 6 flashes	<b>Out of service</b> – Incongruity in the configuration of the switches
	Flashing 7 flashes	<b>Out of service</b> – Temporally by overload signal (weight unit or high pressure switch)
	Flashing 8 flashes	<b>Out of service</b> – Temporally by temperature exceeded
	Flashing 9 flashes	<b>Out of service</b> – Temporally by controller in inspection
Flashing 12 flashes	<b>Car stopped between floors</b> – The shaft calls are inhibited.	

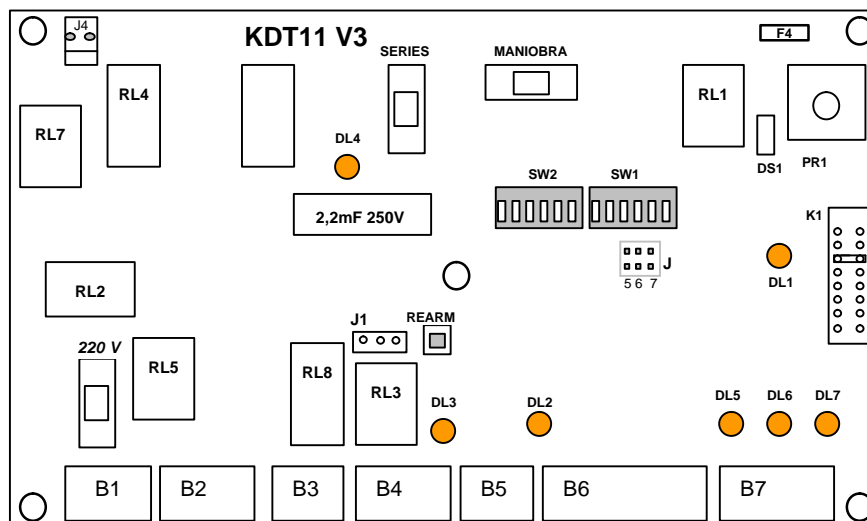
**IMPORTANT!:** Press **REARM** pushbutton (located in KDT board) to **reset the controller** when it is out of service

LED	Status	Description
DL 2	Lighted off	Manual doors circuit open
DL 3	Lighted off	Locks circuit (unlocking) and/or automatic doors circuit open
DL 4	Lighted off	Contactors or valves relay might be faulty, if car is stopped
DL 5	Lighted on	CRD is in front of a PS magnet
DL 6	Lighted on	CRD is in front of a PB magnet
DL 7	Lighted on	Cabin is on reset zone

Fuse holder	Fuse	Description
F1 Maniobra	4A, 5x20	Control panel protection 12V and valves on <b>SIRIUS</b> controllers
F2 Series	2A, 5x20	Safety circuit protection (lock circuits) ( <b>SIRIUS</b> controllers: 12V, <b>CARGO</b> controllers: 48V)
F3 220VAC	2A, 5x20	230VAC circuit protection

(\*1) After 10 retries

(\*2) Only on goods lift with levelling by wedges, pawl or any electrical anti-creep system



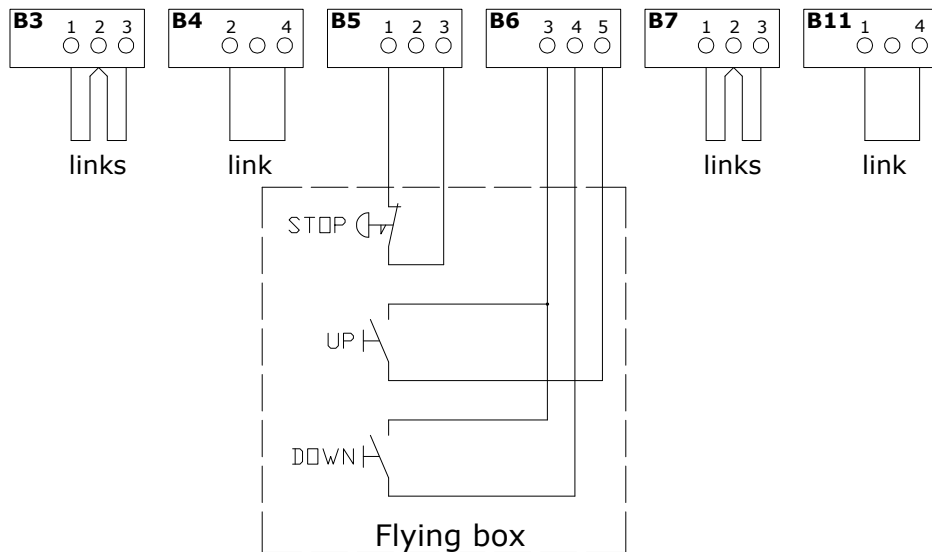
## PROVISIONAL WIRING FOR SIRIUS & NORMAL CARGO PLATFORM LIFTS INSTALLATION

**KDT11 V3, software version <sup>3</sup> KS03-K40**

The configuration and wiring shown here are exclusively for the platform lift installation.

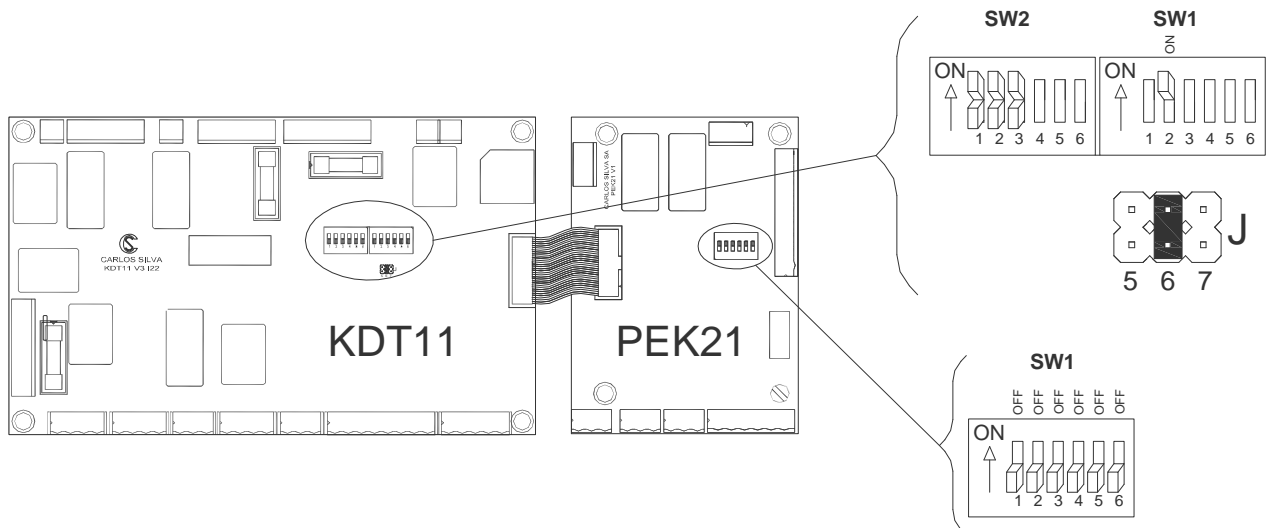
**IMPORTANT!** Prior to operate the platform lift, check out all the risks that can occur.

Once the installation is finished, **DO NOT FORGET TO REMOVE THE LINKS MADE AND CONFIGURE THE PLATFORM LIFT CORRECTLY.**



### KDT & PEK configuration for PROVISIONAL INSTALLATION MODE




- 1.- In the **KDT11** board:  
 Place the jumper in **J6**, ensure J5 and J7 are not fitted.  
 In **SW2**, configure the **A, B, C** switches depending on the valve block type.  
 (see the controller configuration page).  
 In **SW1**, set the switch number **2** to **ON**.
- 2.- In the **PEK2x** board all the switches must be OFF



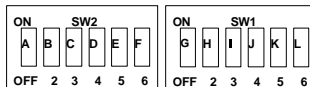
## CONFIGURATION FOR SIRIUS CONTROLLERS

KDT11 V3, software version <sup>3</sup> KST03-K40

### Selection of the working mode

 Jumper on J5	<b>SIRIUS:</b> controlled movement dependent upon hold-to-run in car and override landing operation. <b>According to EN 81-41:2009 standard &amp; 2006/42/CE</b>	 Jumper J5, J6	<b>SIRIUS:</b> without hold-to-run movement control neither in car nor at landing. Valid configuration for closed cabins <b>(Directive 2006/42/CE annex I, 6.2)</b>
 Jumper on J6	<b>SIRIUS:</b> with controlled movement dependent upon hold-to-run		<b>ATTENTION!</b> Other possible combinations are not valid for <b>SIRIUS</b> controllers

### KDT11 V3 microswitches



### Selection of the hydraulic power unit (configuration of the valves operation)

SW2				
A	B	C		
1	2	3		
OFF	OFF	OFF	Up & down valves with cushion (soft stop)	Soft stop with 0.3s delay
ON	OFF	OFF	Up & down valves with cushion (soft stop)	Soft stop with 0.6s delay
OFF	ON	OFF	Down valve and 2 speed ( <b>high</b> )	(*1) High speed if energised
ON	ON	OFF	Down valve and 2 speed ( <b>slow</b> )	(*1) Low speed if energised
OFF	OFF	ON	Down, 2 speed ( <b>high</b> ) and <b>emergency</b>	(*1) 3 valves
ON	OFF	ON	Up & down valves with cushion and <b>high</b> valve	High-speed valve only downwards
OFF	ON	ON	Valve blocks GMV NGV or MORIS HL with valves EA+EVMI	
ON	ON	ON	Not used	

(\*1) Make sure that aerial connector **J4** is placed on J4 male from KDT board

### Controller's features



SW2				
D	E	F		
4	5	6		
ON	-	-	Platform lift <b>without</b> releveling	
OFF	-	-	Platform lift <b>with</b> releveling (anti-creeping system)	In the unlocking zone
-	ON	-	<b>Starting at rated speed</b>	
-	OFF	-	<b>Starting at low speed</b> (only block valves with 2-speed valve)	
-	-	ON	<b>Maximum travel time</b> between two floors: <b>180 seconds</b>	
-	-	OFF	<b>Maximum travel time</b> between two floors: <b>45 seconds</b>	

SW1				
G	H	I		
1	2	3		
ON	-	-	<b>Automatic return</b> (homing) temporised to a selected floor: <b>300 seconds</b>	(*2)
OFF	-	-	<b>Automatic return</b> (homing) temporised to a selected floor: <b>30 seconds</b>	(*2)
-	ON	-	Only for <b>provisional</b> working during assembling period	
-	OFF	-	<b>Standard</b> positioning method	8 floors with PEK20 board
-	-	ON	<b>Automatic doors</b> in car	Configure J, K, L switches
-	-	OFF	<b>Manual doors</b> in car and at landing	Configure J, K, L switches

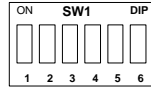
(\*2) To activate the homing mode, make a link between B6.1 and the destination floor (B6.4... B6.8)

### Doors control configuration

SW1				
J	K	L	<i>Automatic doors</i>	<i>Manual doors</i>
4	5	6	Reopening time when faulty on door lock circuit	Temporisation of the common of landing buttons
OFF	OFF	-	<b>10 seconds</b>	<b>8 seconds</b>
ON	OFF	-	<b>14 seconds</b>	<b>12 seconds</b>
OFF	ON	-	<b>18 seconds</b>	<b>16 seconds</b>
ON	ON	-	<b>32 seconds</b>	<b>30 seconds</b>
-	-	OFF	Ramp signal for <b>electrical retiring ramp</b> and/or to control the <b>door operator</b> ( <b>doors open</b> when in rest)	
-	-	ON	Ramp signal <b>exclusively</b> to control <b>electrical doorlocks</b> or the <b>door operator</b> ( <b>doors closed</b> when in rest)	

 J1	Doors interlock by <b>mechanical fix ramp</b> , activated by the automatic doors	 J1	Doors interlock by <b>electrical retiring cam</b>
---	--	---	---

## PEK2x microswitches



SW1 en la PEK20						Controller operation mode
M	N	O	P	Q	R	
1	2	3	4	5	6	
ON	-	-	-	-	-	I $\mathbf{O}$ set positional outputs
OFF	-	-	-	-	-	Standard positional outputs
-	ON	-	-	-	-	Telescopic pistons <b>synchronization procedure enabled</b> <span style="float: right;">(*3)</span>
-	OFF	-	-	-	-	Telescopic pistons <b>synchronization procedure disabled</b>
-	-	ON	-	-	-	<b>Disables</b> the emergency lowering when the temperature contact <b>opens</b>
-	-	OFF	-	-	-	<b>Enables</b> the emergency lowering when the temperature contact <b>opens</b>
-	-	-	ON	-	-	Operation according to EN81-41:2009
-	-	-	OFF	-	-	Operation like older versions to KST02- J16
-	-	-	-	ON	-	Landing door-opener device control.
-	-	-	-	OFF	-	Standard operation (manual and/or automatic doors)
-	-	-	-	-	ON	Without function
-	-	-	-	-	OFF	Without function

### (\*3) Special feature for direct telescopic pistons

With this option enabled (ON), every 7 days and when the lift is in the lowest floor, the system will descend during 4 seconds, in order to lean on the case of the piston telescopic and then, it will relevel. (During all the synchronisation procedure the system must be detecting the PB magnet)

**ATTENTION!** If PB signal is lost during the synchronization procedure, the controller goes out of service.

**IMPORTANT!** It's compulsory to rearm the controller after inserting new parameters. Press REARME-key when the platform lift is on rest. Turning the **MAIN SWITCH WON'T MODIFY** new configuration.

## Fault diagnostics of KDT11-V3 mainboard

1 Flash	Out of service – Faulty on contactors or valves relays
<ul style="list-style-type: none"><li>- Check that KDT11 board LED DL4 is ON when the platform is stopped and OFF when running.</li><li>- Check that contactor-monitoring signal reaches A3.4 pin. Ensure that both contactor voltage and NC auxiliary contacts are properly installed.</li></ul> <p><i>The controller must be reset manually</i></p>	
2 Flashes	Out of service – Travel time between floors exceeded
<ul style="list-style-type: none"><li>- Check that the platform runs at proper speed. If necessary, increase maximum travel time between two floors up to 180 seconds.</li></ul> <p><i>The controller must be reset manually</i></p>	
3 Flashes	Out of service – Incongruity in the signals from magnets
<ul style="list-style-type: none"><li>- Check the magnets. Check that the magnets are not totally fitted in parallel.</li><li>- See magnet placing in the diagram enclosed in the documentation.</li></ul> <p><i>The controller must be reset manually</i></p>	
4 Flashes	Out of service – Faulty on locks circuit or automatic doors circuit
<ul style="list-style-type: none"><li>- Check that KDT11 board LEDs DL2, DL3 or both are not OFF.</li><li>- Ensure that the security circuits are closed prior to starting up.</li></ul> <p><i>The controller must be reset manually</i></p>	
5 Flashes	Out of service – Faulty on wedge/pawl (electrical anti-creep system)
<ul style="list-style-type: none"><li>- Check that platform configuration is correct.</li><li>- Check pawls operation: connection, pawls valve voltage and take in &amp; out signals.</li><li>- Check that pawls circuit breaker is ON.</li><li>- Check pawls limit switches operation (B9.1, B9.2 &amp; B9.3 at PEK20).</li></ul> <p><i>The controller must be reset manually</i></p>	
6 Flashes	Out of service – Incongruity in the configuration of the switches
<ul style="list-style-type: none"><li>- Check that J5, J6 &amp; J7 jumpers are set accordingly with the installation characteristics.</li><li>- Check that the PEK20 board is connected in K1 socket; otherwise the K1 socket must have installed a jumper in its third position from above.</li></ul> <p><i>The controller must be reset manually</i></p>	
7 Flashes	Out of service – Overload signal (weight unit or high pressure switch)
<ul style="list-style-type: none"><li>- Check that <i>overload</i> contact, connected between B11.1 &amp; B11.2, is a normally open contact (NO).</li></ul> <p><i>The controller resets this fault automatically</i></p>	
8 Flashes	Out of service – Temporally by temperature exceeded
<ul style="list-style-type: none"><li>- Check that <i>temperature control</i> contact, connected between B11.1 &amp; B11.4 pins, is a normally closed contact (NC).</li></ul> <p><i>The controller resets this fault automatically</i></p>	
9 Flashes	Out of service – Temporally by controller in inspection
<ul style="list-style-type: none"><li>- The inspection switch is ON (terminal B9.3 of the PEK board). In this situation, only accepts cabin calls and only in permanent pressing mode.</li></ul> <p><i>The controller resets this fault automatically</i></p>	
12 Flashes	Car stopped between floors – The shaft calls are inhibited [ACCORDING TO DIRECTIVE 2006/42/CE Art. 6.4.2]
<ul style="list-style-type: none"><li>- When the car is stopped between floors (no IS+IB magnets detection), the lift does not accept shaft calls, it only can be moved from car calls.</li></ul>	



Carlos Silva SA

Electronic Lift Control Solutions & Systems

Salvador Albert i Riera, 3 . 08339 Vilassar de Dalt . Barcelona . ESPAÑA

tel. +34 937541980 fax +34 937541983

[www.carlos-silva.com](http://www.carlos-silva.com)

e-mail: [info@carlos-silva.com](mailto:info@carlos-silva.com)

DT1580902