

Control box	TC22
-------------	------

Dimension (L x W x H)	340,6x100x42,2 mm			
MCU	STC8A8K64S4A12			
<b>Switching Power Supply</b>	SPM-180Q			
Power consumption in standby	< 0.1 W			
Wake up time	0.1 second			
Works with TEKxx	<ul><li>1 motor to 4 motors height afjustable system (All TEK series)</li><li>2 independent systems</li></ul>			
Max load, complete frame	Optional			
Rated input	100 - 240VAC			
Rated output	32 V			
Power consumption in use	Full load: Optional / Average: Optional			
Duty cycle	10%, Max 1 min. run / 9 min. stop			
Connection of actuators	1 - 4 columns			
Lifetime	10.000 cycles			
Soft start/stop function	15 mm			
Sensi Touch, Built-in**	Optional			
Pre-set of min/max height				
Error tracing				
Exchangeable AC cable				
Safety functions	Overload/overcurrent protection			
	Overheat protection			

Wireless charger	Optional
USB Charger	Optional
Bluetooth App, Built-in	Optional
Bluetooth App, Dongle	Optional
Sensi Touch, Dongle**	Optional
Battery	Optional
Programmer	N/A

<sup>\*</sup> No standby facility - no wake up time

<sup>\*\*</sup> Note: Sensi touch is blocked for the first 20 mm (in both directions) to prevent unintended activation caused by eventually unsynchronization in the start-up phase.

## Sensi touch

Sensi touch is a collision sensor based on sensi-touch technology. Sensi touch is a new hardware based solution that can detect if a desk has collided with an object, become uneven or has shifted during operation. If one of these conditions are met, the sensor immediately sends the controlbox a command to stop and reverse the desk 50 mm from raising or lowering. Sensi touch is sensitive, stable and works independently of load and temperature.

Sensi touch minimize the risk for damages to the sit stand desk if it accidentally collides with obstacles or person during operation.

## Important information



When the tabletop is already misaligned by an obstacle, trying to drive the desk to opposite direction may trigger sensi touch protection again. Remove the obstacle to operate the desk normally.



Due to the high degree of sensitivity, a work station may stop unexpectedly if it is impacted by the sudden placement of objects during raising and lowering



Protection may be delayed, or may not be triggered, when the collision occurs with a soft object.

Detection will depend on the object which is involved in the collision.



While reset procedures are being performed sensi touch will not be activated.



Sensi touch is blocked for the first 30 mm (in both directions) to prevent unintended activation caused by eventually unsynchronization in the start up phase.



For sensi touch to work properly the control box or dongle MUST be fixed to the frame.

## Adjusting the sensitivity

**Note:** Only possible with Control boxes produced after 26 August 2019, see label with serialnumber. Setting method by using handset with display and memory function

- 1. Press 1 + 2 together for 5 seconds to enter setting mode The display flashes
- 2. Press ▲ or ▼ to adjust the level of sensitivity

0 = deactivating sensi touch

9 = most sensitive

Level	0	1	2	3	4	5	6	7	8	9
Sensitivity	Deactivate Sensi touch	200	150	125	100	70 (Default)	50	30	20	10

3. Press 1 + 2 together or leave it for 5 seconds, it will go back to normal operation.

## Troubleshooting by error codes on handset display or by beeps

Perform a reset (synchronization) operation:

Press and hold the up/down buttons simultaneously to run the desk all the way down.

You will hear a Beep when the reset has been completed.

The desk is now operational again.



Please use this QR-code for extended version of troubleshooting:

Error code	Buzzer	Description	Situation	Action
0-0	No beep, the display will show 0-0 in flashing	No built-in sensi touch or TCS1 is detected	The control box does not detect built-in sensi touch or TCS1.	1) Check to make sure the control box has a built-in T-touch. 2) Check to make sure the cable of the TCS1 is fully connected to the control box. 3) If adjusting the sensitivity cannot be performed, the device is defective, and needs to be replaced.
E00 000	No beep	Reset is in progress	Perform a reset.     Make sure to release the buttons before the reset has been completed.	Press and hold the up/down buttons simultaneously to run the desk all the way down. You will hear a Beep when the reset has been completed.). The desk is now operational again.
E01	3 beeps	Overuse protection	Operating over the duty cycle's normal. Time and frequency.	Wait for about 5 minutes, and the desk will be operational again.
E02	2 beeps	Unbalanced protection	A Desk tilt is detected.	1) Even out the load on the desk and perform a reset. 2) If a reset can't be performed, or the error keeps being triggered after a reset, one of the columns is defective and needs to be replaced.
E03	No beep Desk reverses 40 mm, no matter pressing the button or not	Anti-collision by current	Detecting if the desktop has collided with an object.	If no obstacle occurs, the desk is operational after reversing,     If any obstacle occurs: Remove the obstacle and the desk is operational.
E04	No beep Desk reverses 30 mm, no matter pressing the button or not	Sensi touch protection	Detecting if the desktop has collided with an object, become uneven or has shifted in angles during operation.	If no obstacle occurs, the desk is operational after reversing,     If any obstacle occurs: Remove the obstacle and the desk is operational.
E11 E12 E13 E14	5 beeps	Overcurrent protection of M1 M2 M3 M4	Overload of M1 M2 M3 M4	1) Remove the heavy load and the desk will return back to normal operation. 2) If the desk still cannot be operated normally, perform a reset and operate the desk. 3) If a reset can't be performed, or the error keeps being triggered after a reset, the column (M1, M2, M3 or M4) is defective and needs to be replaced.
E21 E22 E23 E24	1 long beep	No signal-feedback from M1 M2 M3 M4	Signal is not detected from M1 M2 M3 M4	1) Unplug the motor cable, wait for a moment, then plug it back in. 2) Perform a reset and operate the desk. 3) If a reset can't be performed, or the error keeps being triggered after a reset, the column (M1, M2, M3 or M4) is defective and needs to be replaced
E31 E32 E33 E34	4 beeps	No power consumption M1 M2 M3 M4	No current is detected from M1 M2 M3 M4	1) Unplug the motor cable, wait a moment, then plug it back in. 2) Perform a reset and operate the desk. 3) If a reset can't be performed or the error keeps being triggered after a reset, the column (M1, M2, M3 or M4) is defective and needs to be replaced.