VOLTAGE CROSS REFERENCE TABLE
BY MODEL AND MANUFACTURER
All models can measure either in car or hanging weight by selecting this option from the menu.
If you are not sure of the voltage range for your application, please call the controller manufacturer or contact K-Tech Technical Support at 1-800-993-9399.

<table>
<thead>
<tr>
<th>Voltage Range</th>
<th>New Model</th>
<th>Empty Voltage</th>
<th>Full Load Voltage</th>
<th>Auto Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-Weigh 5200 Low Voltage Analog System</td>
<td>LW5201L</td>
<td>0.0</td>
<td>5.00</td>
<td>off</td>
</tr>
<tr>
<td>K-Weigh 5200 High Voltage Analog System</td>
<td>LW5201H</td>
<td>0.0</td>
<td>10.00</td>
<td>off</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Controller Manufacturer*</th>
<th>Previous Model</th>
<th>New Model</th>
<th>Empty Voltage</th>
<th>Full Load Voltage</th>
<th>Auto Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEC</td>
<td>LW4201ACS2-E</td>
<td>LW5201L-C</td>
<td>1.2</td>
<td>5.00</td>
<td>on</td>
</tr>
<tr>
<td>Elevator Controls</td>
<td>LW4201ACS2</td>
<td>LW5201H-S4-E</td>
<td>0.0</td>
<td>10.00</td>
<td>on</td>
</tr>
<tr>
<td>GAL</td>
<td>LW4202LV-D</td>
<td>LW5202L-D-G</td>
<td>0.5</td>
<td>3.25</td>
<td>off</td>
</tr>
<tr>
<td>Kone</td>
<td>LW4202AC-G</td>
<td>LW5202L-K</td>
<td>0.5</td>
<td>5.00</td>
<td>on</td>
</tr>
<tr>
<td>MCE</td>
<td>LW4201CS4</td>
<td>LW5201H-S4</td>
<td>0.0</td>
<td>10.00</td>
<td>on</td>
</tr>
<tr>
<td>MCE</td>
<td>LW4202B</td>
<td>LW5202H-M</td>
<td>0.0</td>
<td>8.00</td>
<td>on</td>
</tr>
<tr>
<td>O Thompson</td>
<td>LW4201</td>
<td>LW5201H</td>
<td>1.0</td>
<td>8.60</td>
<td>off</td>
</tr>
<tr>
<td>O Thompson</td>
<td>LW4202</td>
<td>LW5202H-M</td>
<td>1.0</td>
<td>8.60</td>
<td>off</td>
</tr>
<tr>
<td>Otis</td>
<td>LW4201LV</td>
<td>LW5201L-O</td>
<td>0.5</td>
<td>3.25</td>
<td>off</td>
</tr>
<tr>
<td>Virginia Controls</td>
<td>LW4201ACS4</td>
<td>LW5201H-S4</td>
<td>0.0</td>
<td>10.00</td>
<td>on</td>
</tr>
</tbody>
</table>

* Information accurate to 6/1/09 - contact manufacturer for models after this date

READ CAREFULLY BEFORE INSTALLATION

If you have any questions, please contact our Customer Service Department at 1-800-993-9399

SPECIFICATIONS
Enclosure: UL Listed ABS NEMA 1 (Std) 7 5/8”L x 4 5/8”W x 2 1/2”D (19.4 cm x 11.6 cm x 6.4 cm)
8 7/8”L (22 cm) with flange
Sensor(s): 1”H x 7”W x 1/4”D (26 mm x 178 mm x 6.4 mm) bar; 8’ (2.4 m) cable
Power Input: 100 - 240 VAC, 47 - 63 Hz; 0.15 A @ 115 VAC; 0.07 A @ 230 VAC
Output Range: 0.0 - 5.0 VDC (L models), 0.0—10.0 (H models)
Zero reset: 100—240 VAC
Approvals: ETL (UL, CSA) Safety, Conforms to ASME Std. A17.5, Certified to CAN/CSA Std. B44.1

MOUNTING THE ENCLOSURE
1. Locate the enclosure away from any high voltage or AC equipment.
2. Using the enclosure, mark the mounting hole locations.
3. If possible, use the #8 sheet metal screws provided. DO NOT OVERTIGHTEN.

BOK066 08/2011
WIRING - SENSOR INPUT
1. Remove the threaded ring from each sensor cable by carefully pushing the connector through it.
2. Route the cable through the smaller knockout from the outside of the Electronics Box and insert the threaded part of the sensor cable strain relief into the knockout.
3. Carefully push the cable connector thin side first, back through the removed threaded ring, dimple side first. Slide the threaded ring up to the box and tighten on the threads protruding through.
4. Loosen the flexible part of the sensor cable strain relief.
5. Carefully insert the connector on the sensor cable into the SENSOR1 header in the upper left-hand corner of the circuit.
6. Hand tighten flexible part of the sensor cable strain relief against nut on the outside of the box. This clamps the cable in place.

WIRING - OUTPUT TO CONTROLLER
1. Route the controller wires through the traveler to the K-Weigh Electronics Box.
2. Connect the LW+ and LW- to terminals as marked.
3. If unit is equipped with CANBUS then connect controller wires to CANH, CANL and Shield terminals as marked.

WIRING - AC
The K-Weigh is equipped with a universal input power supply that will accept 100 to 240 VAC input.
1. Through the 1/2" knockout hole, pull AC wires through conduit as required by local codes.
2. Route AC HOT, AC RETURN, and GROUND through the 1/2" knockout hole.
3. Strip 0.25" insulation off the end of the wires.
4. Connect as follows:
   - AC HOT (black): connect to the terminal 1. AC/L
   - AC RETURN (white): connect to the terminal 2. AC/N
   - GROUND (green): connect to the terminal 3. FG

IMPORTANT!
Maximum wire size 16 gauge
Minimum wire size 20 gauge

Wiring – Controller Activated Reset Signal
(Note: if using Auto Mode – See pg 3, Wiring the External Reset Switch
If not using Auto Mode skip to page 4)
1. Connect one leg of the EXT RESET connector to 120VAC source.
2. Connect other leg to grounding relay.
Note: Controller should activate only with empty car at bottom floor (lowest landing)
**TROUBLESHOOTING**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot get coarse setting to 0 volts.</td>
<td>Acceptable settings are from −0.02 to 0.02.</td>
</tr>
<tr>
<td></td>
<td>Check sensor mounting.</td>
</tr>
<tr>
<td>Program does not move to the next task.</td>
<td>Wait for unit to finish the current task.</td>
</tr>
<tr>
<td>Unit does not read the empty car voltage.</td>
<td>Reset the empty car using the keypad.</td>
</tr>
<tr>
<td>Unit gives error message after full load calibration.</td>
<td>Relocate the sensor to an area of greater deflection.</td>
</tr>
</tbody>
</table>

(for Dual Sensor Models only)

<table>
<thead>
<tr>
<th>Problem</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cannot mount second sensor</td>
<td>Turn second sensor off using flow chart on page 7</td>
</tr>
</tbody>
</table>

**TIPS**

1. The sensors should be mounted at the lowest level.
2. Wire a circuit breaker or power switch into the AC feed for troubleshooting and safety.
3. Separate the controller from the load weighing unit when troubleshooting.
4. Always perform the calibration steps in the proper order. If an error comes up or you cannot get a proper result for a setting, do not continue. You may have to go back to the beginning of the calibration process after correcting the error.
5. As long as the sensors have not been disturbed, there is no reason to redo the gain setting. Zeroing can be done by either using the rezero button or by using the zero adjustment. (empty car/bottom floor)
6. For replacement PCB's call K-Tech with model or serial number.
7. Before calling K-Tech, please confirm that power is verified and properly hooked up, that any or all sensors have been connected.
8. The higher the GA (Gain Number), the less deflection of the sensor.

**REPLACEMENT PARTS**

- LW42SENKIT - Sensor Kit (with Bolt Kit)
- LW52SENKIT - Sensor Kit (with Clamps)
- LW42SENGKIT - Sensor Hardware (Bolt kit)
- LW-CR - Sensor Hardware (Clamps)
- LW-321SP - Set Point Module
- LW-321PS - Power Supply
- LW-xxDDA Az PCB Assembly
- LW-xxDDA Azassy - PCB Assembly w/power supply

**WARRANTY**

K-Tech International, Inc. warrants equipment of its own manufacture to be free from defects in material and workmanship for a period of three years from date of shipment from factory or appointed distributor to original user. This warranty does not apply to any products which have been damaged, neglected, altered, abused, used for a purpose other than the one for which they were manufactured, repaired by the customer or any party without K-Tech's authorization, or used in any manner inconsistent with K-Tech's instructions. Also excluded are field programming and adjustment errors.

K-Tech's entire obligation under this warranty shall be limited (at K-Tech's option) to repair or replacement of any parts which prove to be defective within the warranty period. Defective products must be returned by customer to K-Tech's factory in its original, unaltered form, transportation prepaid. You must have an RMA number in order to return product.

For more information call 1-800-993-9399.

**AUTO MODE**

Auto mode function switches the unit from measuring the Hanging car weight (Auto Off) to measuring the In Car weight (Auto ON)

In Car weight is used by some manufacturers who factor out traveling cable and compensation errors using the controller. It is also useful for improving accuracy in set point systems where the travel is over 100 feet. (see voltage chart on page 8 for general settings).

Note: All K-Weigh 5200 models are factory set with Auto Mode off.

**WIRING THE EXT RESET SWITCH**

When using the K-Weigh in AUTO Mode (In Car Weight Only) The RESET signal must be connected through a door circuit to ground. The other side of the connection can be powered from 100—240 VAC. The circuit should be closed at the door fully closed position, or within 6—12” of fully closed. The switch should trigger with the car motionless so the unit is not affected by accelerative or decelerative forces.

**PROGRAMMING AUTO (IN CAR) MODE**

1. Press and release M button until display reads Auto
2. Press E button and display reads off
3. Turn In-Car-Weight on by using the + button (press - button to turn off)
4. Press E button to return to main display

**SETTING UP EMPTY AND FULL WEIGHT**

When using the AUTO mode—empty and full car weight should be done at the same floor. Preferably the lowest landing possible.

**AUTO ZERO**

When using the AUTO mode the K-Weigh will do an automatic re-zeroing after the doors have remained closed for 60 seconds. You can watch the countdown on the display. If the maximum possible travel time exceeds 60 seconds contact K-Tech. NOTE: objects left in car with doors closed will be zeroed. Empty car and close doors for 60 seconds to reset zero.
ZERO ADJUSTMENT
1. Bring empty car to bottom floor.
2. Press and release the M button until display shows EPty
3. Press E button and display will show CHAc (Sensor 1 - Coarse Adjustment)
4. Press + or - button until display reads 0. (If display does not respond, Press and hold button)
5. Press E button. Display will show CHAF (Sensor 1 - Fine Adjustment)
6. Press + or - button until display reads 0. (If display does not respond, Press and hold button)
7. Press E button. For units with 2 sensors repeat steps 3-6, otherwise a 15 second timer will count down so mechanic can step off car during calibration.
8. Display will show diSP and then Clr. Wait for display to return to number.

FULL LOAD ADJUSTMENT ["AUTO" mode “ON” see note on page 3]
1. Bring loaded car to the top floor. Adjustments can be made with 50% or 100% of load. [Recommended 100%]
2. Press and release the M button until display shows LoAd.
3. Press E button and display will read Pcnt (Percent) - wait for number to display.
4. Select the percentage of weight in car using + and - keys.
5. Press E button and 15 second timer will count down so mechanic can step off car during calibration.
6. Unit will calibrate gain for Channel A and Channel B.
7. Display will show diSP and then Clr. Wait for display to return to number.

VOLTAGE RANGE ADJUSTMENT (See chart on page 8)
1. Press and release the M button until display shows Out.
2. Press E button and display will read Hi
3. Set high voltage using + and - keys.
4. Press E button until display reads Lo
5. Set low voltage using + and - keys.
6. Press E button and display will return to diSP then main display.

ERROR MESSAGES - Press M to clear
Err1—Load not Calibrated, Repeat Full Load calibration.
Err2—Check for proper load in elevator, Channel A not calibrated for empty, or improper SENSOR1 mounting.
Err3—Check for proper load in elevator, Channel B not calibrated for empty, or improper SENSOR2 mounting.

SET POINT (IF EQUIPPED)
Each set point is supplied with a 3 pole tool-less wire connector. The first is a common, second is a Normally Open, and the third is a Normally Closed, in the un-activated (below set weight) condition.
Recommended Wire size: Solid or stranded wire:16—20 AWG Strip Length: 1/4" - (6—7 mm)

SET POINT PROGRAMMING
1. Press and release M button until display reads SEIP
2. Press E button and display reads SP.1, wait for number to display
3. Adjust weight voltage using + or - buttons
4. Press E button and display reads SP.2
5. Repeat step 3 and 4 until all are adjusted
6. Display will return to diSP then main display

SET POINT MODULE SPECIFICATIONS
Adjustments: 0 to 125% of maximum load
Output: Independent SPDT NO/NC Contacts
Rated: Max Switching current: 5A  Contact rating: 62.5VA, 60 W

SAMPLE SETTINGS
If only measuring up to 100%, then the 0 - 10 volt system is sufficient.
If measuring up to 125%, then the voltage range has to be adjusted. (See Table 2)
Note: When using table 2, set point values will have to be calculated against 8 volts.

<table>
<thead>
<tr>
<th>% LOAD</th>
<th>VOLTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>10.0</td>
</tr>
<tr>
<td>80</td>
<td>8.0</td>
</tr>
<tr>
<td>60</td>
<td>6.0</td>
</tr>
<tr>
<td>10</td>
<td>1.0</td>
</tr>
</tbody>
</table>

TABLE 1.

<table>
<thead>
<tr>
<th>% LOAD</th>
<th>VOLTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
<td>10.0</td>
</tr>
<tr>
<td>100</td>
<td>8.0</td>
</tr>
<tr>
<td>75</td>
<td>6.0</td>
</tr>
<tr>
<td>50</td>
<td>4.0</td>
</tr>
</tbody>
</table>

TABLE 2.