

## special $T$

Patriot Height Adjustable Table
User Guide

## TABLE OF CONTENTS

| Parts Diagram | $4-5$ |
| :--- | ---: |
| Independent | 4 |
| Three-Leg | 5 |
| Safety Information | $6-7$ |
| Assembly Instructions | $8-11$ |
| Operations | $12-13$ |
| Initialization and Reset | 12 |
| Handswitch Operation | 12 |
| Programmable Handswitch Operation | 12 |
| -Adjust Height Display | 13 |
| -Save Memory Position | 13 |
| -Recall Memory Position | 13 |
| Troubleshooting | $14-15$ |
| Unit Errors | 14 |
| Handswitch Errors | 15 |
| Technical Data | 16 |
| Customer Service | 17 |
| Warranty | 17 |
| Standards \& Certifications | 17 |

This manual explains how this sit-stand desk is assembled, used, and maintained. All sit-stand tables are subjected to functional and quality tests before leaving our facility.

# OV1000 PARTS DIAGRAM 

## FULL LENGTH




## SAFETY INFORMATION

IMPORTANT SAFETY INSTRUCTIONS Save these instructions.

## DANGER To reduce the risk of electric shock:

Always unplug this furnishing from the electrical outlet before cleaning.
Special-T.


#### Abstract

WARNING: , To reduce the risk of death, serious injury, or property damage, read and follow this safety information and the provided instructions when assembling this product. Do not change or replace components and accessories provided by OMT-Veyhl.


## INSTALL ONLY APPROVED WORK SURFACES

This table system does not include a work surface (desktop). Work surface must be at least $3 / 4$ " thick and weigh no more than 5 lb . per square foot (For example, a 3'x6' desktop should weigh no more than 90 lb ). Do not exceed a maximum weight for the desktop of 75 lb . To prevent table from tipping or collapsing, make sure the desk frame is not overloaded by the weight of tabletop and objects you plan to put on the table. If you are unsure, contact customer service.

## KEEP AWAY FROM CHILDREN

This table system is not designed for use in homes or other areas accessible by small children. For indoor commercial office use only.

## BE CAREFUL WHEN ADJUSTING DESK HEIGHT

Body parts and property can be caught between the moving work surface and an immobile obstacle (such as shelves, furniture, window sills, or walls). Keep at least one inch of clearance around desk and make sure nothing is in table's path for its entire range of motion.

## Before raising or lowering:

- Check surroundings on all sides of desk are clear
- Make sure corded objects will not be pulled off table or cause other objects to fall
- Make sure desk power cord moves freely as desk moves up and down



## DO NOT OVERLOAD DESK

To prevent table from tipping or collapsing, make sure the desk frame is not overloaded by the weight of tabletop and objects on table. Evenly distribute load; excess loads near edges can reduce stability and lead to tip over.

- Do not exceed maximum load (including weight of desktop) of 200 lb . (91Kg)
- Do not exceed edge load of 25 lb . when positioning monitors or mounting accessories.
- Do not sit or stand on table


## USE CARE WHEN MOVING DESK

- Clear objects and equipment from table before rolling to reduce the risk of tipping over.
- Adjust the desk to its lowest height before moving
- To disconnect, turn all controls to the off position, then remove plug from outlet
- Do not move a loaded desk
- Do not lift the desk by the work surface (desktop)


## DO NOT OPEN ELECTRICAL COMPONENTS

Do not attempt to service table components. There are no user-serviceable parts inside the motor control units or table legs. If your table needs service, contact customer service. Never operate this furnishing if it has a damaged cord or plug, if it is not working properly, if it has been dropped or damaged. Return the furnishing to a service center for examination and repair.

## KEEP TABLE FRAME DRY

Keep all electrical components away from water and high humidity. Clean only with a dry or slightly damp cloth. Do not spray cleaning solutions directly onto table system.

## GROUNDING INSRUCTIONS

This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. Use only the cord provided. Make sure that the product is connected to an outlet having the same configuration as the plug (as shown in Illustration A) that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided with the product - if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

No adapters are to be used with this product. Keep cord away from heated surfaces.


# ASSEMBLY INSTRUCTIONS 

The assembly of the table frame to be made in accordance with this manual.
Changes to the table frame or improper use may affect the safety, function, and life of your product.

This manual is for all sit-stand tables from the Patriot series.
Due to different models or types, pictures may vary.

ASSEMBLY OVERVIEW

1. Assemble the foot to the column
2. Assemble the column to the beam
3. Assemble the top support to the beam and column
4. Fasten the table frame onto the table top
5. Fasten the control box and handswitch to the table top
6. Connect the motor cables to the control box
7. Connect the handswitch (HS) cable to the control box
8. Connect the supplied power cord (AC) to the control box
9. Attach all cables to the table frame or on the underside of the table top
u have any difficulty assembling this unit, or need to order If you have any difficulty assembling this unit, or need to order replacement parts, please contact our Customer Service department. Use the parts diagrams on page 4-7 as a reference.

## 1

 ASSEMBLE THE FOOT TO THE COLUMNAssemble using the $\mathrm{M} 10 \times 1.5 \times 50 \mathrm{~mm}$ length screws ( 2 per column). The maximum tightening torque for these screws is 48 Nm . ( $35 \mathrm{lbs}-\mathrm{ft}$ ).


2
ASSEMBLE THE COLUMN TO THE BEAM
Make sure that the male hex adapter on the column is aligned with the female hex adapter in the motor. If they are not aligned, use a 9 mm wrench to turn the male hex adapter on the column to align with the female hex adapter in the motor. Failure to do so will damage the motor! Do not try to turn the female hex adapter in the motor.


## ๑) ASSEMBLE THE TOP SUPPORT TO THE BEAM AND COLUMN

Assemble using the M8x1.25 x 12 mm length screws (4 per column). The maximum tightening torque for these screws is 24 Nm (18 lbs-ft). Align top support holes with independent beam assembly. Repeat as necessary for remaining columns.

## FASTEN THE TABLE FRAME ONTO THE TABLE TOP

Be sure to use approved screws per the table top supplier.


## 5 <br> FASTEN THE CONTROL BOX AND HANDSWITCH TO THE TABLE TOP <br> Make sure the control box and handswitch are fastened

 in a location where all the cables will connect without being in tension. Be sure to use approved screws per the table top supplier.

## CONNECT THE MOTOR CABLES TO THE CONTROL BOX

The motor cable plug-connection has to click into place. If a control box is used which has more plug-terminals than needed, you have to connect to M1 first. (The extra terminals can be left open.)

Connections to the control box:
M1-M2 = Connectors for the columns
HS = Connectors for the handset
AC = Connector for the power cord (3-pin)

## 7 CONNECT THE HANDSWITCH (HS) CABLE TO THE CONTROL BOX

 TO THE CONTROL BOX

ATTACH ALL CABLES TO THE TABLE FRAME OR ON THE UNDERSIDE OF THE TABLE TOP
Attach cables in order to avoid any damage during operation.

# OPERATION INFORMATION 

## INITIALIZATION/RESET

The desk may need to be initialized/reset after any of the following:

- After assembly
- After disconnection from the power supply
- After any impact on the table top.

To initialize/reset, you will need to move the table to the lowest position by holding the DOWN button of the handswitch until all columns reach the lowest position. Then press the DOWN button again and hold it pressed for five seconds or until a slight movement of the table drops down to the machine zero point and back up to the operation zero point. Once the table stops moving, release the DOWN button. If the button is released too early, this leads to a malfunction of the table and you must repeat the reset process.

The upper height position is programmed into the control box. For this reason, only use the control box that has been provided with the specific table frame. Under no circumstance should a control box from one table be moved to another.

## NORMAL HANDSWITCH OPERATION <br> (for all handswitch types)

By pressing the UP or DOWN buttons, the table will move up or down to the desired position. Once the desired position is reached, let go of the UP or DOWN button. The table will stop once it reaches the lower or upper height position.

## PROGRAMMABLE HANDSWITCH OPERATION (optional)

This programmable handswitch is equipped with a display for showing the current table height in centimeters or inches.


The handswitch also will display an error code if an error is detected by the control box. When an error is detected, the display will show an error code "EXX," instead of the current table height. To resolve the error, see the Troubleshooting Section (p. 14-15 of this guide).

The programmable handswitch also has the ability to save up to four different height positions.

## PROGRAMMABLE HANDSWITCH OPERATION (continued)

## ADJUSTMENT OF THE HEIGHT DISPLAY

If the indicated value does not match the actual height of the table top, the display can be corrected as follows:

1. Press and release the "S" button.
2. Press and hold the DOWN button for 5 seconds until the display starts to flash.
3. Measure the table height and enter the measured value (depending on the setting in centimeters or inches) with the UP or DOWN button. Confirm the entry by pressing the " S " button.

To exit the menu without making a selection, wait 10 seconds and the height display will appear again.

## SAVE MEMORY POSITION

Drive the table up or down to the desired height. Press the " S " button (in the display " S -" is shown.) Select a position by pressing on any of the four number buttons, 1-4, (the display will show the setting as "S1"). The save position procedure is confirmed by the control box with a double click sound. After approximately 5 seconds, the display shows the current table height. Repeat steps to save a maximum of four different positions.

## RECALL MEMORY POSITION

Press and hold the desired memory location button (1, 2,3 or 4 ) and the table moves independently from the current position into the saved position. The button must be pressed until the position is reached. If the button is released, the table will stop short of the desired height.

## TROUBLESHOOTING

## UNIT

| ERROR CODE | SOURCE | SOLUTION |
| :---: | :---: | :---: |
| Table does not move | No power supply | Plug in the power cord or check the connection on the control box |
|  | No connection or a loose connection to the drives | Verify the plug connections of the motor cable to the control box |
|  | No connection or a loose connection to the handswitch | Verify the plug connections of the motor cable to the control box |
|  | Max lifting capacity is exceeded | Reduce the weight or load on the desktop |
|  | Max time limit is exceeded | Control is activated automatically after approx. 9 minutes |
|  | Defective drive | Contact customer service |
|  | Defective control box | Contact customer service |
|  | Handset is defective | Replace the handset |
| Table moves down at a slow rate | Control box expects new reset | Reset control box. (See page 12) |
| During operation, tables moves at a slow rate | Max lifting capacity is exceeded | Reduce weight |
| Table moves on one side only briefly and then stops | No connection or a loose connection to the drives | Verify the plug connections of the motor cable to the control box and reset the control box |
|  | Defective drive | Contact customer service |

## HANDSWITCH DISPLAY

| ERROR CODE | SOURCE | SOLUTION |
| :---: | :---: | :---: |
| HOT | The control box monitors the duty cycle (time-controlled) and its max temperature. A value has been exceeded. | Wait until the "HOT" display goes out - the table is working properly again |
| E00 | M1 - Internal Fault | Unplug and contact customer service |
| E01 | M2 - Internal Fault |  |
| E02 | M3 - Internal Fault |  |
| E12 | M1 - Defect | Unplug. <br> Correct the external short circuit and/or verify the cable to the drives. Plug cables into the control box and re-run table. |
| E13 | M2 - Defect |  |
| E14 | M3 - Defect |  |
| E24 | M1 - Overcurrent | Collision $\longrightarrow$ resolve if necessary |
| E25 | M2 - Overcurrent | Max load exceeded $\longrightarrow$ remove excess load from the table |
| E26 | M3- Overcurrent | If the problem still exists, please contact customer service |
| E36 | M1 - Not connected | Motor not connected. <br> Check cable / connector to the drive. Reset the table (See page 12) |
| E37 | M2 - Not connected |  |
| E38 | M3 - Not connected |  |
| E48 | Overcurrent drive 1 | Collision $\longrightarrow$ resolve if necessary |
| E49 | Overcurrent drive 2 | Max load exceeded $\longrightarrow$ remove excess load from the table |
| E55 | Drive 1-Synchronization is lost | If necessary, reduce the load on the table |
| E56 | Drive 2 - Synchronization is lost | Reset the table (See page 12) |
| E60 | Collision identified | Option ISP function. Remove source. |
| E61 | Drive replaced | The connection to the drive is interrupted or a new drive is connected. Reset the table (See page 12) |

If it is not possible to resolve an error as described, disconnect the power cord, wait a few minutes and reset the table again. If the error still occurs, remove the table from the power source and contact customer service. (Error Code list is valid from firmware 1.7.5 and higher)

## TECHNICAL DATA

| GENERAL CONTROL BOX |  |
| :--- | :--- |
| Power supply | $120 \mathrm{VAC} \pm 10 \% / 60 \mathrm{~Hz}$ |
| Standby power consumption, primarily | $<0.3 \mathrm{~W}$ |
| Operating temperature | $0-35^{\circ} \mathrm{C}$ |
| Protection class | IP 20 |
| Maximum power output | $216 \mathrm{VA} / 24 \mathrm{~V}$ |

TWO-COLUMN FRAME WITH CONTROL BOX

| Maximum lift capacity | $200 \mathrm{lb}(\approx 90 \mathrm{~kg} / 890 \mathrm{~N})$ |
| :--- | :--- |
| Adj. range, depending on version | View Illustration B |
| Maximum input current | 5 A |
| Maximum duty cycle | $10 \%$ (2 min. on / 18 min. off) |

## ILLUSTRATION B



# CUSTOMER SERVICE 

If you have any questions about your table base, please contact our Customer Service team.

customerservice@specialt.net<br>678-879-0777

## WARRANTY

Patriot Electric table bases are warranted to the original purchaser for a period of 10 years from the date of delivery. Under normal use for one, 8 hour shift per day against manufacturing defects. We will repair or replace, at our discretion, any products that we determine to be defective as a result of faulty workmanship. In no event shall our liability under this warranty exceed the original purchase price of the product determined to be defective. This warranty does not apply where product has been abused, mishandled or subjected to use other than that for which it was designed. For purposes of this warranty, normal wear to the product finish shall not be considered a defect.

## STANDARDS \& CERTIFICATIONS

The drive system is tested according to the following standards:
UL 962
Intertek Listing - OMT-Veyhl USA
CSA C22.2\#68
Issued: 2009/09/01 Ed: 7 (R2014)
Motor-Operated Appliances (Household and Commercial);
Gen. Inst. No.1: 2010, Gen. Inst. No.2: 2010
Meets 2014 BIFMA standards.

## special $\uparrow$ <br> TABLES \& BASES

888.705.0777<br>www.specialt.net

