

functionality + healthcare technology =

Functionology
*deployed*TM



Spec Guide

April 2012

Mobile Technology Workstations — Powered

functionality +
healthcare technology =

Functionology *deployed*[™]

func•tion•ol•o•gy [fuhngk-shuhn-ol-uh-jee]
The science of technology access
at the point of care—or anywhere

At Altus, form follows **Functionology**[™], making our mobile and wall-mounted technology workstations the best available. Altus Functionology[™] deploys **optimized mobility, adjustability, access to patient data, and documentation at the point of care**—or anywhere.

Functionology[™] is an exclusive combination of:

- patented, easy-to-operate Ascend[™] Sit-to-Stand lift technology available in lite, standard and heavy duty
- maximum mobility from the lightest weight cart available
- fast, easy, and extensive customization
- no assembly required
- deployment 10x faster than others
- unsurpassed value
- an exclusive focus on the needs of healthcare clinicians
- unlimited support for clinicians, IT and integrators



Altus **Functionology**[™] is successfully optimizing EMR/CPOE initiatives, patient care, clinician comfort, and efficiency in thousands of healthcare facilities around the country.

Altus designs and manufactures mobile and wall-mounted technology workstations at our state-of-the-art headquarters in Grand Rapids, Michigan.

Integrator partnerships are available exclusively from integrators who receive ongoing, comprehensive training and support from Altus engineering and sales teams.

Learn how to put **Functionology**[™] to work for you at **Functionology.net**.




Power System & Battery Chemistry

Willo Power System

Willo Mobile Powered Technology Workstations are designed to deliver the most lightweight and the best performing power system. Willo's LiFe (Lithium Iron Phosphate) battery is lightweight in design, but packs a punch with its impressive charge time and cycle life.

Willo Mobile Powered Workstations are hospital-grade power systems.

- On/Off Switch
- 3 AC Output Plug
- Intuitive Worksurface Interface
- Integrated Cable Management
- Quiet design
- Recovery from prolonged discharge
- 20 AMP Charger
- 150 Watt Output
- Multi-level low battery warning alarm
- Data Logging
- Universally compatible output (120 VAC)
- High output efficiency (87%)
- TUV tested, certified and compliant with IEC 60601-1, UL 60601, UL1778 Standards 
- Meets the compliance requirements of JCAHO
- ROHS Compliant

Battery Chemistry Options

LITHIUM IRON PHOSPHATE BATTERY

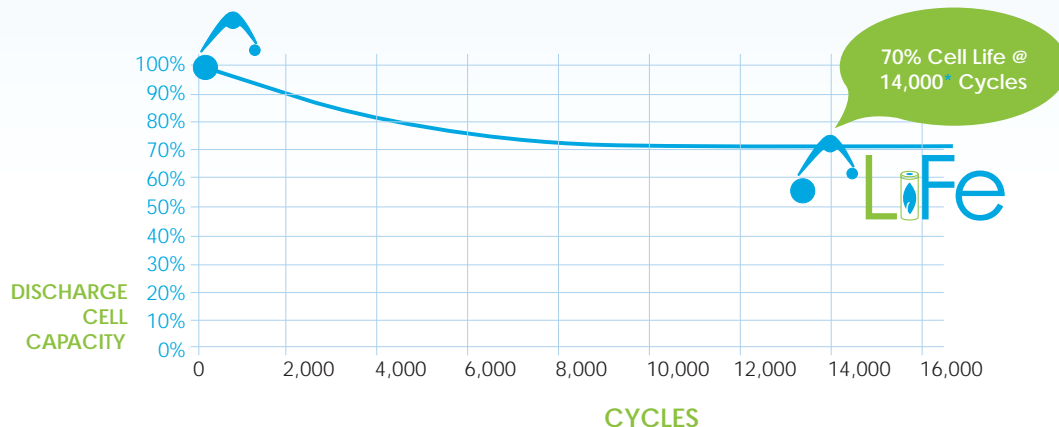


40 AMP/Hr. (AH)

- High energy density/Light weight (11 lbs.)
- Fast charging (100% recharge in 2 hours)
- High cycle life (8,000 cycles / 5 years)
- Durable
- Superior safety and abuse tolerance
- Built-in intelligence to protect the battery
- Lower cost of ownership for life of product
- 3 Year Warranty

SLA BATTERY: 55 AMP/Hr. (AH)

- Battery size - 55Ah (39 lbs.)
- Charging (up to 5 hours to 100%)
- Cycle life (up to 1,200 cycles)
- Durable
- Safe
- Low cost of initial ownership
- 90 Day Warranty



One LiFe cycle = 100% complete discharge and full recharge
 *14,000 cycles in laboratory testing

WilloCare Power System Software

WilloCare software can be installed on a local/native workstation that is connected to a Willo Power System via a USB cable. The software runs as a service on the local/native machine. The software keeps its own independent log file on the local workstation that can be viewed using the Graphical User Interface (GUI).

Software Capabilities:

- Real-time information (Battery life, Battery charge level)
- Data logging
- Detailed event logs
- Real-time alerts



Device Settings

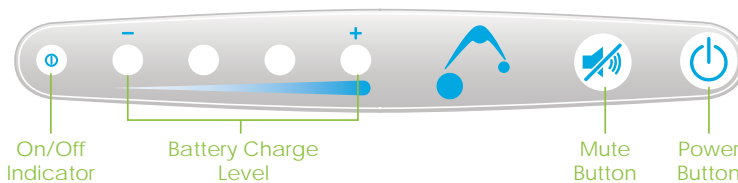


Power System Software & Status Indicator

Willo Battery User Interface

The easy-to-read battery user interface, which is located on the front surface of the cart handle, gives the user a real-time status of the battery. Each LED will illuminate in several sequences to indicate the approximate charge level of the battery.

- The first LED displays power on/off indicator
- LEDs two through five indicate charge level and correspond to a percent of charge range.
- Power Alert Mute Button (second to last button on right) - If the battery level falls below 10% for LiFe Battery/20% for SLA battery, an alarm will sound. This button will mute the alarm.
- Power Button (last button on right) - To power up press and hold for 2 seconds, and the on/off Indicator will beep and power on. To power down, press and hold for 2 seconds, and the on/off Indicator will beep and power off.





Making a Difference

Accessing technology at anytime and anywhere, working safely within different healthcare environments, and enhancing productivity are just some of the ways that we are making a difference in mobile computing. Below are other ways you'll see why Altus is differentiating itself in today's healthcare market.

1. Ease of Mobility:

Giving you a **lightweight (as low as 90 lbs.)** and highly mobile solution (**100 mm Heavy Duty casters**) helps assist you with delivering technology where you need it.

2. True Sit to Stand adjustment capability:

Ascend[®]™ lift technology offers 18" of effortless height adjustment range, with the added bonus of an easy height adjustment hand lever.

3. Counterbalance System:

With each cart there are variable worksurface and accessory weights. For maximum performance, we offer three counterbalance systems (lite, standard and heavy duty). See page 12 for more information.

4. Small footprint:

With our cart being at only 18" wide, we are helping you fit into tight spaces.

5. Ships fully assembled:

Making deployment faster and easier.

6. Cable Management

Our Cord Tray manages all of your cables and technology components into one easy to reach area.

7. LiFe (Lithium Iron Phosphate) Battery:

Don't let the lightweight design fool you. Our LiFe Battery packs a punch with its impressive charge time and cycle life.

8. Color Choices:

Three solid, two abstract and four wood grain 3D Laminate worksurface colors gives you more color choices.

9. Handle and Integrated User Interface:

While our sleek handle ensures effortless navigation, it also gives the user a easy-to-read status of the battery.

10. Customization:

There are unique needs for every healthcare environment. That is why customization is key. Let our professional sales and engineering team help you customize your cart.





Cable Management & Storage



Cable Access Holes are 5"W x 6.5"H
(middle dimension is 3"W)
Middle Access Hole is 2.5"W x 3.25"H

Cord Tray Area Dimensions
are 16"W x 8"D x 5"H (168 sq. in.)



Cable Management

Our spacious cable management area (cord tray) is able to store all of your technology component cables and more. Top-side access ensures an ergonomic approach to speed deployment. Once your cables are stored, the cover encloses the area.

While the cable management area offers clever storage and accessibility, the rear basket gives your clinicians more options for storage.

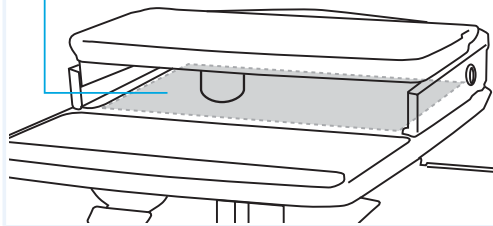
When the coiled power cord is unplugged from the wall outlet, it can be placed simply in the cord plug holder.

Technology Component Storage

When integrating various technology components, having extra storage is a must. Our technology storage comes both keyed and keyless for optimal security.

The storage area fits a variety of technology components. From laptops to small form factors, easy integration is only a step away.

Technology Device Area:



The upper surface has three levels of incremental height adjustment: 2", 2.5", and 3". The total space within is 20"W x 12"D.



Rear Basket (RB-2)
See page 11





Laptop Carts

Willō Laptop Cart W1

LiFe Model Number	Worksurface Dimensions	Base Dimensions	Weight	MSRP Price
W1L-XX-YYYY-Z	20"D x 20"W	18"W x 20"D	90 lbs.	\$3,820
SLA Model Number	Worksurface Dimensions	Base Dimensions	Weight	MSRP Price
W1S-XX-YYYY-Z	20"D x 20"W	18"W x 20"D	118 lbs.	\$2,620

(L= LiFe Battery, S= SLA Battery, XX = counterbalance system - refer to pg.12, YYYY = worksurface color, refer to pg.13, Z = Accent Color, refer to pg. 13)



Base

• **A19P**
(Ascend Base w/ 100mm Heavy Duty Casters)

• **WLT-40**
(LiFe Battery System)

OR
• **WST-55**
(SLA Battery System)

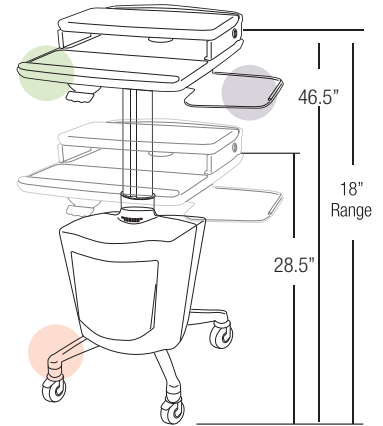
Worksurface

• **TLB2020**
(Dual Surface)
• 1" 3D Laminate -
Upper Surface: slope edge
Lower Surface: reversed tear drop edge

Accessory

- **SAM-3**
(Swing A Mouse)
- **HW**
(Handle)
- **CT**
(Cord Tray)

• For Additional Color Options See Pg. 13



Key Features:



Power System Enclosure



Handle with User Interface



Cable Management Area Access Holes



Cable Management Area with Clear Acrylic Cover



Coiled Power Cord (Left and Right Rear Worksurface Mounting)



Detail of Sloped Edge Worksurface (allows viewing of the entire laptop screen)



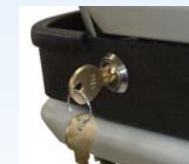
Swing A Mouse (SAM3) 8"W x 9"D



Height Adjustment Hand Lever



Adjustable Upper Surface Laptop Security Spacing: 2", 2.5", 3"H 20"W x 10"D, No Tools Required



Laptop Lock w/Key for Security & HIPAA



100mm Highly Mobile Heavy Duty Tente Casters 2 Locking/2 Non-Locking



**Willo
Flat Panel Cart
W3**

LiFe Model Number	Worksurface Dimensions	Base Dimensions	Weight	MSRP Price
W3L-XX-YYYY-Z	20"D x 20"W	18"W x 20"D	93 lbs.	\$3,995
SLA Model Number	Worksurface Dimensions	Base Dimensions	Weight	MSRP Price
W3S-XX-YYYY-Z	20"D x 20"W	18"W x 20"D	112 lbs.	\$2,795

(L= LiFe Battery, S= SLA Battery, XX = counterbalance system - refer to pg.12, YYYY = worksurface color, refer to pg.13, Z = Accent Color, refer to pg. 13)



Flat Panel Carts



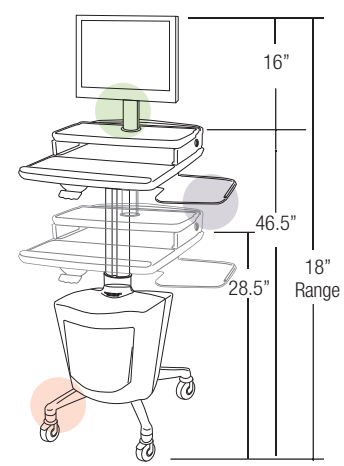
Base
• **A19P**
(Ascend Base w / 100mm Heavy Duty Casters)

• **WLT-40**
(LiFe Battery System)
OR
• **WST-55**
(SLA Battery System)

Worksurface
• **THB2020**
(Dual Surface)
• 1" 3D Laminate -
Upper Surface: slope edge
Lower Surface: reversed tear drop edge

Accessory
• **SAM-3**
(Swing A Mouse)
• **HW**
(Handle)
• **CT**
(Cord Tray)
• **FSA-2**
(Flat Panel Monitor Arm)

• For Additional Color Options See Pg. 13



Key Features:



Power System Enclosure



Handle with User Interface



Cable Management Area Access Holes



Cable Management Area with Clear Acrylic Cover



Flat Screen Monitor Arm (FSA-2), 16" Height Adj., +100/-40° Tilt, +/- 90° Swivel, +/- 180° Rotation, VESA Std., 75mm or 100mm 20 lb. Maximum Weight Limit



Coiled Power Cord (Left and Right Rear Worksurface Mounting)



Swing A Mouse (SAM3) 8"W x 9"D



Height Adjustment Hand Lever and Black Vinyl Palm Support



Adjustable Upper Surface Laptop Security Spacing: 2", 2.5", 3"H 20"W x 9"D, No Tools Required



Laptop Lock w/Key for Security & HIPAA



100mm Highly Mobile Heavy Duty Tente Casters 2 Locking/2 Non-Locking





Medical Drawer Carts

Medical Drawer Laptop Cart W4 Series



*Photo shown as W41

Medical Drawer Laptop Cart Reference:

- W40** - Includes Medical Drawer (Ref. MD-30), Keyless Lock, Removable Insert, Integrated Handle
- W41** - Includes Medical Drawer (Ref. MD-31), No Keyless Lock, Removable Insert, Integrated Handle
- W42** - Includes Chart Pocket (Ref. MD-32) (18.5"W x 2"H x 9"D)

LiFe Model Number	Worksurface Dimensions	Base Dimensions	Weight	MSRP Price
W40L-XX-YYYY-Z (w/ lock)	20"D x 20"W	18"W x 20"D	100 lbs.	\$4,220
W41L-XX-YYYY-Z (no lock)	20"D x 20"W	18"W x 20"D	99 lbs.	\$4,070
W42L-XX-YYYY-Z (w/cht. pocket)	20"D x 20"W	18"W x 20"D	96 lbs.	\$3,970
SLA Model Number	Worksurface Dimensions	Base Dimensions	Weight	MSRP Price
W40S-XX-YYYY-Z (w/ lock)	20"D x 20"W	18"W x 20"D	128 lbs.	\$3,020
W41S-XX-YYYY-Z (no lock)	20"D x 20"W	18"W x 20"D	127 lbs.	\$2,870
W42S-XX-YYYY-Z (w/cht. pocket)	20"D x 20"W	18"W x 20"D	124 lbs.	\$2,770

(L= LiFe Battery, S= SLA Battery, XX = counterbalance system - refer to pg.12, YYYY = worksurface color, refer to pg.13, Z = Accent Color, refer to pg. 13)

Base

- **A19P**
(Ascend Base w/ 100mm Heavy Duty Casters)

- **WLT-40**
(LiFe Battery System)

OR

- **WST-55**
(SLA Battery System)

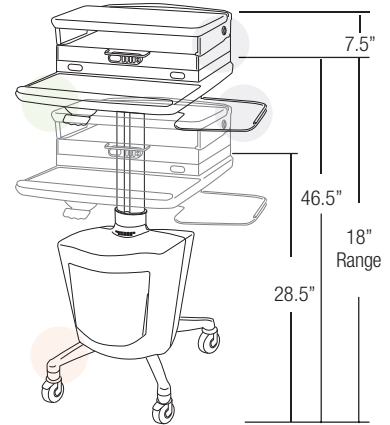
Worksurface

- **TLB2020**
(1" Dual Surface)
- 1" 3D Laminate -
Upper Surface: slope edge
Lower Surface: reversed tear drop edge

Accessory

- **SAM-3**
(Swing A Mouse)
- **HW**
(Handle)
- **CT**
(Cord Tray)
- **MD-30**
(Medical Laptop Drawer)
- Drawer Front available in Matching 3D Laminate
- Drawer Housing - Platinum Finish

• For Additional Color Options See Pg. 13



Key Features:



Power System Enclosure



Handle with User Interface



Rear Access to Cord Tray



Coiled Power Cord
(Left and Right Rear
Worksurface Mounting)



Keyless Security System
for Front Storage Compartment
(W40 Only)



Drawer front in matching
3D Laminate



Pull-Out Drawer w/ Removable Insert (Incl.)
Dw. & Ins. Dimensions: 18.44"W x 2.2"H x 8.75"D
Six Compartments
4 - 2.625"W x 2.125"H x 8.5"D
2 - 2.625"W x 2.125"H x 7"D
(W40 & W41 Only)



Back Compartment
with Locking Panel
Secures Technology
Components and provides
Cable Management



Swing A Mouse (SAM3)
8"W x 9"D



Height Adjustment Hand Lever



100mm Highly Mobile
Heavy Duty Tente Casters
2 Locking/2 Non-Locking



Medical Drawer Flat Panel Cart W5 Series



*Photo shown as W51

Medical Drawer Flat Panel Cart Reference:

- W50** - Includes Medical Drawer (Ref. MD-40), Keyless Lock, Removable Insert, Integrated Handle
- W51** - Includes Medical Drawer (Ref. MD-41), No Keyless Lock, Removable Insert, Integrated Handle
- W52** - Includes Chart Pocket (Ref. MD-42), (18.5"W x 2"H x 9"D)

LiFe Model Number	Worksurface Dimensions	Base Dimensions	Weight	MSRP Price
W50L-XX-YYYY-Z (w/ lock)	23"D x 20"W	18"W x 20"D	101 lbs.	\$4,270
W51L-XX-YYYY-Z (no lock)	23"D x 20"W	18"W x 20"D	100 lbs.	\$4,120
W52L-XX-YYYY-Z (w/cht. pocket)	23"D x 20"W	18"W x 20"D	98 lbs.	\$4,020

SLA Model Number	Worksurface Dimensions	Base Dimensions	Weight	MSRP Price
W50S-XX-YYYY-Z (w/ lock)	23"D x 20"W	18"W x 20"D	129 lbs.	\$3,070
W51S-XX-YYYY-Z (no lock)	23"D x 20"W	18"W x 20"D	128 lbs.	\$2,920
W52S-XX-YYYY-Z (w/cht. pocket)	23"D x 20"W	18"W x 20"D	126 lbs.	\$2,820

(L= LiFe Battery, S= SLA Battery, XX = counterbalance system - refer to pg.12, YYYY = worksurface color, refer to pg.13, Z = Accent Color, refer to pg. 13)

Base

- A19P** (Ascend Base w/ 100mm Heavy Duty Casters)
- WLT-40** (LiFe Battery System)
- OR**
- WST-55** (SLA Battery System)

Worksurface

- TFB2020** (Flat Panel Surface)
- 1" 3D Laminate - Upper Surface: slope edge Lower Surface: reversed tear drop edge

Accessory

- SAM-3** (Swing A Mouse)
- HW** (Handle)
- CT** (Cord Tray)
- FSA-2** (Flat Screen Monitor Arm)
- MD-40** (Medical Flat Panel Drawer)
- Drawer Front available in Matching 3D Laminate
- Drawer Housing - Platinum Finish

• For Additional Color Options See Pg. 13

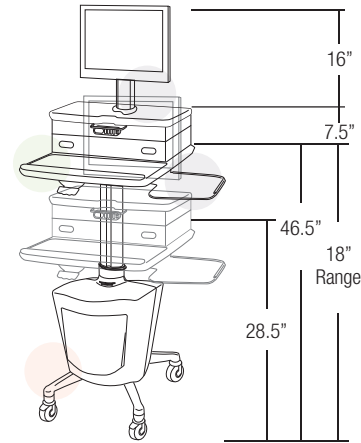


Drawer front in matching 3D Laminate

Chart Pocket Option



Chart Pocket Inside Dimensions: 18.5"W x 2"H x 9"D (W52 Only)



Key Features:



Power System Enclosure



Handle with External User Interface



Rear Access to Cord Tray



Coiled Power Cord (Left and Right Rear Worksurface Mounting)



Flat Screen Monitor Arm (FSA-2), 16" Height Adj., +100/-40" Tilt, +/- 90° Swivel, +/- 180° Rotation, VESA Std., 75mm or 100mm 20 lbs. Maximum Weight Limit



Keyless Security System for Front Storage Compartment (W50 Only)



Pull-Out Drawer w/ Removable Insert (Incl. Dwn. & Ins. Dimensions: 18.44"W x 2.2"H x 8.75"D - Six Compartments
4 - 2.625"W x 2.125"H x 8.5"D
2 - 2.625"W x 2.125"H x 7"D (MED-80P & MED-81P Only)



Back Compartment with Locking Panel Secures Technology Components and provides Cable Management



Swing A Mouse (SAM3) 8"W x 9"D



Height Adjustment Hand Lever and Black Vinyl Palm Support



100mm Highly Mobile Heavy Duty Tente Casters 2 Locking/2 Non-Locking



Medical Drawer Carts





Accessories

barcode holders

BCH
Bar Code Holder
MSRP Price: \$50
Weight: 1 lbs.



4"W x 6"D x 3.5"H
Worksurface Mount
Black Finish

BCH-4
Cordless Bar Code Holder
MSRP Price: \$50
Weight: 1 lbs.



4.5"W x 9.5"D
90° Swivel
Worksurface Mount
Platinum Finish

keyboard/mousing

SAM-3 Left
Left-handed Swing a Mouse
MSRP Price: \$50
Weight: 2 lbs.



8"W x 9"H
Worksurface Mount
Adjustment Paddle Drops Down to Allow for Dual Mousing
Black Finish

MH
Mouse House
MSRP Price: \$25
Weight: .5 lbs



2.75"W x 4"H x 1.5"D
Adhesive Mount
White Finish

vital signs monitor holder

VS-10
Phillips Vital Signs Monitor Holder
MSRP Price: \$100
Weight: 3 lbs.



5"W x 9.5"D
Worksurface Mount
Weight Limit Not to Exceed 10 lbs.
Platinum Finish

monitor arms

FSA
Flat Screen Monitor Arm
MSRP Price: \$175
Weight: 6 lbs.



16" Height Adj., +100/-40° Tilt,
+/- 90° Swivel, +/- 180° Rotation,
VESA Std., 75mm or 100mm,
Weight Limit Not to exceed 30 lbs.
Worksurface Mount
Black Finish

cpu holders

CPU-FSM
CPU Holder
MSRP Price: \$100
Weight: 1 lbs.



Vesa Std. Mounting
(75mm or 100mm)
3.5"W x 4.75"H
Monitor Arm Mount
Mounts to Back of FSA-2
Weight Limit Not to Exceed 5 lbs.
Black Finish

miscellaneous

IVP
IV Pole - Telescoping
MSRP Price: \$150
Weight: 4 lbs.



Locking Collar
Adjusts height from 22" to 40"
Anodized aluminum tubing
Weight Limit Not to Exceed 8 lbs.
Anodized Aluminum

USB hub

USB-4PH
USB 4-Port Hub
MSRP Price: \$30
Weight: .5 lbs.



Expands 1 USB port into 4
Speeds up to 480 Mbps
23" cable length with 90° USB connector end
2.25" in Diameter, .5" H
PC: Windows SE, 2000, ME, Vista or 7
Mac: OS X 10.3 or higher
Inside Cord Tray Mount
Grey Finish

miscellaneous

CF
Cool Feet™ Laptop Adj.
MSRP Price: \$20
Weight: .5 lbs.



Set of 4
(2) 1" H and (2) .5" H,
Keeps Laptop Cool
Suction Cup Attachment
Grey Finish

drawer insert

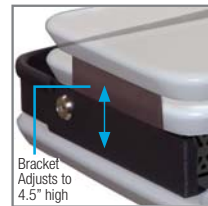
RDI
Removable Drawer insert
MSRP Price: \$30
Weight: .5 lbs.



Removable Drawer Insert
Insert Dimensions: 18.44"W x 2.2"H x 8.75"D
Six Compartments:
4 - 2.625"W x 2.125"H x 8.5"D
2 - 2.625"W x 2.125"H x 7"D
(W4 & W5 Only)
White Plastic

adapter bracket

AB
Adapter Bracket
MSRP Price: \$50
Weight: .5 lbs.



Height Adjustable Upper Surface
Adapter Bracket
Fits taller technology components
Height Spacing: 3.5", 4", 4.5"H
(for use with model's W1, W3 & W4)
Black Finish

Rear Basket

RB-2
Rear Basket
MSRP Price: \$120
Weight: 1 lbs.



The Rear Basket is designed to hold everything from blood pressure cuffs, IV bags, and even cordless barcode holder chargers.

Basket dimensions: 16.25"W x 5.24"D x 6"H

Light Grey or Medium Grey or Black Finish





*Depending on the total weight of your technology equipment and accessories, we offer three counterbalance systems for maximum performance: Lite Duty (LD), Standard Duty (SD), and Heavy Duty (HD).

The following guideline illustrates which system is best for your individual use. To start guideline equation, add model number weight + optional accessory(s) weight + technology component(s) weight.

1 Model Number (includes worksurface and accessory) & Weights:



+

Model #	Included Surface Assembly	Included Accessory(s)	Total Weight
W1P	TLB2020 (20 lbs.)	+ SAM-3 (2 lbs.)	= 22 lbs.
W3P	THB2020 (23 lbs.)	+ SAM-3 (2 lbs.) + FSA-2 (3 lbs.)	= 28 lbs.
W40P	TLB2020 (20 lbs.)	+ SAM-3 (2 lbs.) + MD-30 (8 lbs.)	= 30 lbs.
W41P	TLB2020 (20 lbs.)	+ SAM-3 (2 lbs.) + MD-31 (7 lbs.)	= 29 lbs.
W42P	TLB2020 (20 lbs.)	+ SAM-3 (2 lbs.) + MD-32 (4 lbs.)	= 26 lbs.
W50P	TFB2020 (13 lbs.)	+ SAM-3 (2 lbs.) + FSA-2 (3 lbs.) + MD-40 (13 lbs.)	= 29 lbs.
W51P	TFB2020 (13 lbs.)	+ SAM-3 (2 lbs.) + FSA-2 (3 lbs.) + MD-41 (12 lbs.)	= 28 lbs.
W52P	TFB2020 (13 lbs.)	+ SAM-3 (2 lbs.) + FSA-2 (3 lbs.) + MD-42 (10 lbs.)	= 26 lbs.

2 Optional Worksurface Mounted Accessory(s) & Weights

+

Surface Mounted Accessory	Accessory Weight
BCH	1 lbs.
BCH-4	1 lbs.
CF	0.5 lbs.
CPU-FSM	1 lbs.
IVP	4 lbs.
RB-2	1 lbs.
SAM-3 Left	2 lbs.
VS-10	1 lbs.

3 Technology Component Estimated Weight:

=

Component	Weight	Component	Weight
Laptop	6 lbs.	Flat Panel	6 lbs.
Thin-Client	4 lbs.	Small Form Factor	7 lbs.
All-in-One	11+ lbs.	Keyboard & Mouse	2 lbs.

4 Recommended Counterbalanced System:



Lite Duty (LD):	Supports Lifting Loads:	0-12 lbs.
Standard Duty (SD):	Supports Lifting Loads:	13-40 lbs.
Heavy Duty (HD):	Supports Lifting Loads:	41-60 lbs.

Counterbalance Guideline Step-by-Step Example:

	Surface (Included)	Accessory(s) (Included)	Optional Accessory	Technology Component	Total Weight	Recommended System
Example: W1P:	TLB2020	+ SAM-3 Left	+ BCH	Laptop, Keyboard & Mouse	= 31 lbs.	= Standard Duty System (SD)
weights:	20 lbs.	+ 2 lbs.	+ 1 lbs.	+ 8 lbs.		