DESIGN GUIDE

for Built-in Appliances





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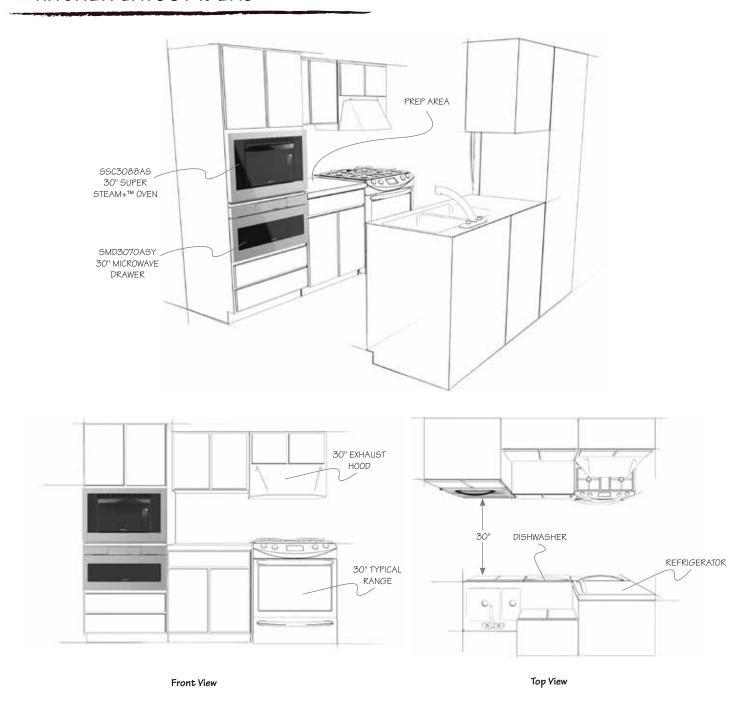
There are many options in the marketplace today for cooking appliances. It can be overwhelming choosing the cooking instrument that is right for you – let alone trying to adjust your kitchen to install the new appliance. Whether you are designing your kitchen from scratch in a new home, remodeling an older kitchen, or simply replacing a current appliance, this guide will help you choose the best cooking solution for your kitchen design and help install it properly.

Sharp is a leader in developing innovative solutions for cooking and placement. We offer a full range of microwave, microwave convection and steam oven solutions that can meet your cooking and design needs. Built-in configurations for below the counter, above the range, or in combination with a wall oven are just a few options our versatile ovens can offer. Our line of Microwave Drawers allow for unique below-the-counter installation and our newest member to the Sharp family, the SuperSteam+TM Oven, comes built-in ready to be installed in a wall configuration.

Microwave Drawer Ovens – Sharp's Microwave Drawer appliance takes the microwave off of the counter and places it right at the most convenient height, making stirring food easier and safer. The drop down angled controls make it ideal for anyone to use the microwave frequently. Most importantly, the Microwave Drawer design provides a sleek, integrated look so that the microwave oven blends in – wherever it goes. Models are available to fit 24" and 30" installations.

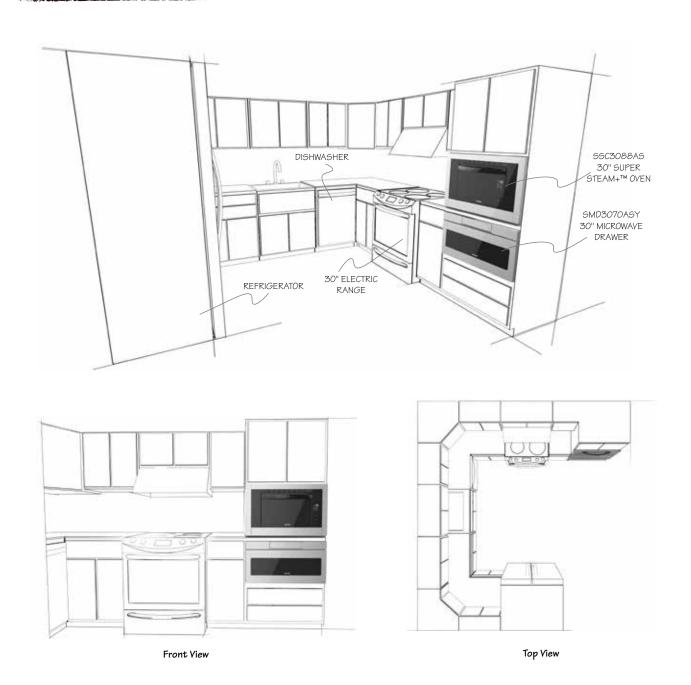
SuperSteam+™ Oven – The stylish, built-in SuperSteam+™ combination steam and convection oven is three ovens in one. You can cook with superheated steam (at browning temperature) regular steam (212°F) and convection heating. A brilliant color LCD display with touch navigation makes SuperSteam+™ easy to use. The oven's interface gives you expert guidance and built-in recipes to make the delicious meals you love. The oven comes built-in ready. You can install in both standard and flush configurations, solo or above a wall oven or microwave drawer.

Our goal is to design and build appliance products that are simply easy to use, better than the competition and designed to enhance everyday living. In the following pages, please explore the different microwave and steam oven options and placement ideas Sharp has to offer.



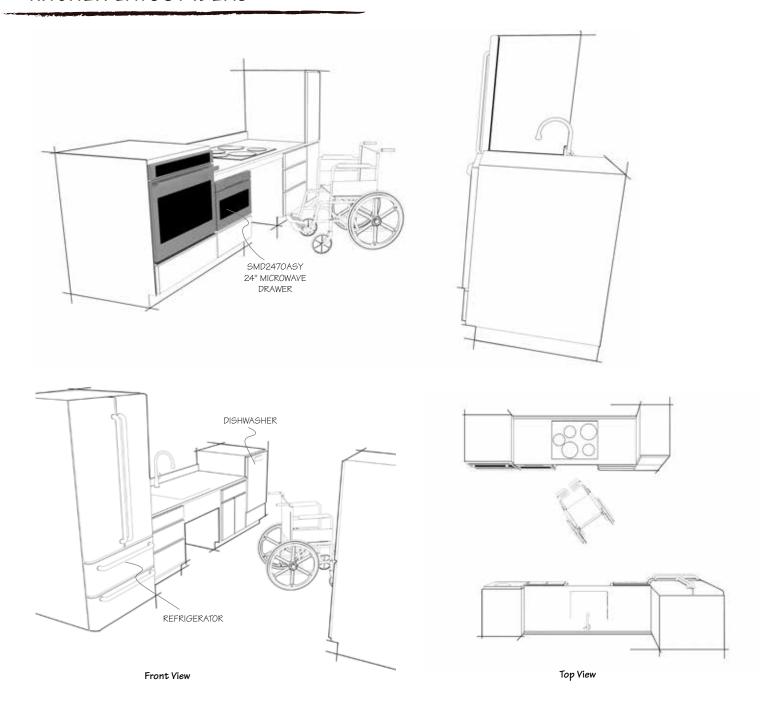
ALLEY OR GALLEY KITCHEN

The traditional Alley Kitchen may be narrow, but that doesn't mean the style options are slim. From cabinetry that reaches the ceiling to bright overhead lighting, an alley style kitchen can be designed as a functional and beautiful space. An Alley Kitchen's layout is characterized by two parallel countertops that incorporate a walking area in between. The average Alley Kitchen design will place the sink on one side of the kitchen and the range on the other. This allows for easy back-and-forth during food preparation.



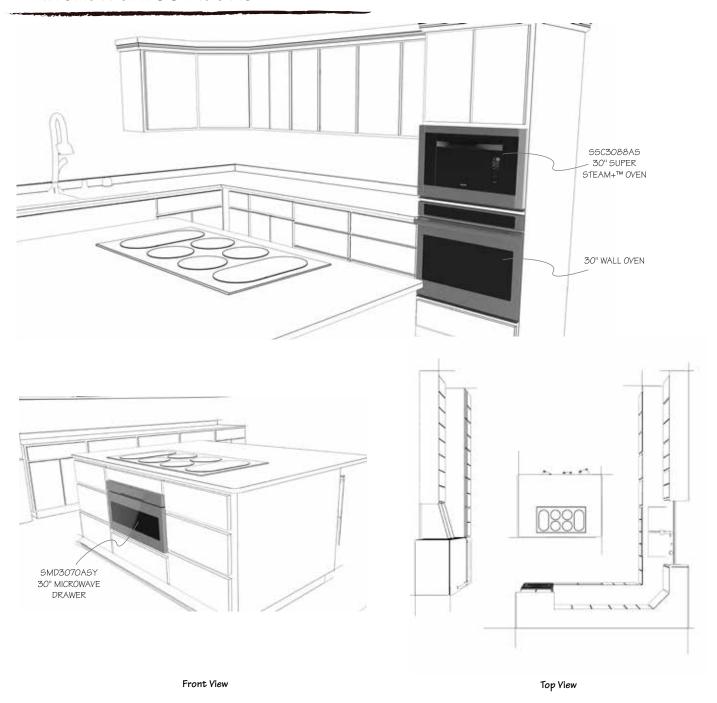
U-SHAPED KITCHEN

Shaped like a horseshoe, a U-shaped Kitchen layout has three walls that are typically lined with cabinets and kitchen appliances, such as a refrigerator and stove. These kitchens are ideal for creating a large amount of storage and allowing for a free flow of kitchen activity. U-shaped Kitchens have begun to incorporate a peninsula as the third "wall," creating a more casual atmosphere that can even allow for pub-style dining with stools.



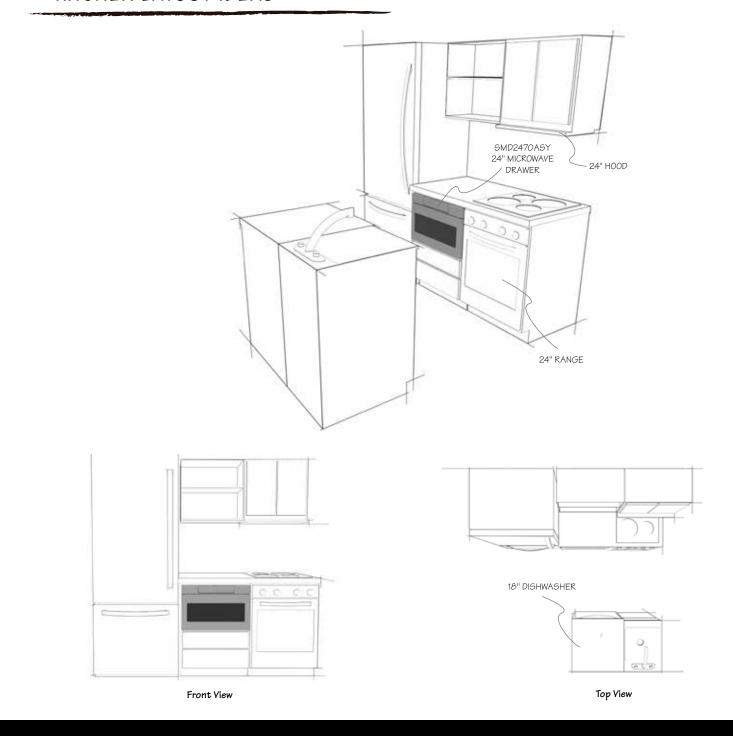
UNIVERSAL DESIGN KITCHEN

Practical and all-encompassing, the Design style kitchen is based on the premise that anyone who enters the kitchen will be able to perform comfortably and safely. A Universal Design can essentially meet the needs of many different demographics and abilities; whether it be for your kids after school, a grandparent's daily meal preparation, or for a loved one who needs wheelchair access. Using this design style can also help to alleviate future remodels as the kitchen is able to cover your changing needs. There is no need to compromise design in order to accommodate a special need. The Universal Design style allows for efficiency while providing a stylish and beautiful space.



LARGE OR OPEN KITCHEN

Perhaps the most people-friendly of all kitchen styles is the Open Kitchen layout that allows for a smooth transition between dining, living and recreational areas. The Open Kitchen layout typically allows for a kitchen, living room and dining area. By relying on properly placed furniture, you can designate separate areas without the use of walls. This kitchen design creates a large space and gives the designers endless options.



MICRO-KITCHEN

Small areas call for creative thinking and layout none more important than a kitchen. The Micro-Kitchen is an emerging layout that allows for all the amenities of a large kitchen, packed into an efficient space. These "Micro-Kitchens" can be found in high-end apartments or condos, active adult living communities, and 2nd kitchens, as well as other locations. Typically these kitchens utilize compact products in the 18" & 24" variety.



SMART SOLUTIONS

The new 24" and 30" models (SMD2470ASY & SMD3070ASY) add a touch of modern luxury to the Sharp Microwave Drawer Oven family. With a low-profile stainless steel design and concealed display, this premium Microwave Drawer complements any kitchen and a wide range of kitchen appliances brilliantly.

The Microwave Drawer offers flexible placement options below an island, peninsula or standard cabinetry and can also be installed adjacent to your wall oven. The Microwave Drawer allows you to showcase your design savvy and create a kitchen that flows with your lifestyle.

- EASY TOUCH AUTOMATIC DRAWER SYSTEM We open the door for you
- CONVENIENT KITCHEN PLACEMENT Take steps out of your cooking
- HIDDEN CONTROLS Control when you want it
- EASIER COOKING & CLEAN UP
- COOKING PERFORMANCE YOU CAN TRUST

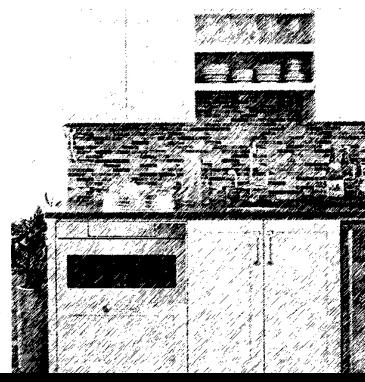


SMD2470ASY / SMD2477ASC / SMD2470AH

Kitchen designers often struggle with where to place the microwave oven and how to integrate this often-used appliance into kitchen designs. Sharp's Microwave Drawer oven takes the microwave off the counter and places it at a convenient height, making use of the microwave easier for virtually every cook in the family. It offers design flexibility and allows you to "hide" the microwave while providing superb accessibility.

REC. ROOM / SECOND KITCHEN

The 24" Sharp Microwave Drawer can also be utilized in other areas around the house too; secondary kitchens, recreational rooms, mother-in-law suites, or a Butler Pantry's, just to name a few. With its sleek design and under the counter integration, the 24" Microwave Drawer can blend almost anywhere and provide the function needed for entertaining and necessary cooking backup.



STORAGE IDEAS

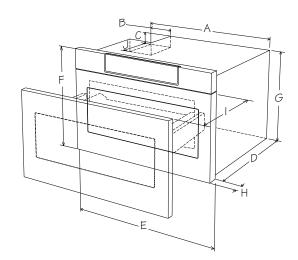


CABINET DOORS

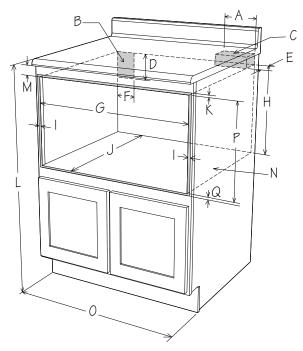
SINGLE DRAWER

DOUBLE DRAWER

24" MICROWAVE DRAWER™ DIMENSIONS STANDARD MOUNT



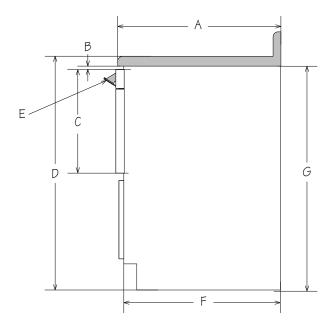
- A. 21-5/8" (549.28 mm)
- B. 4-11/16" (119.06 mm)
- C. 1-3/4" (44.45 mm)
- D. 21-7/8" (555.60 mm)
- E. 23-7/8" (606.43 mm)
- F. 15-7/8" (403.22 mm)
- G. 14-19/32" (370.69 mm)
- H. 1-9/64" (29 mm) door thickness
- I. 15" (381 mm) auto drawer opening
- J. 4" (101.6 mm)



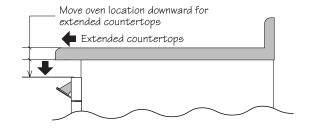
- A. 6" (152.40 mm)
- B. Suggested electrical outlet location*
- C. Anti-Tip block
- D. 5" (127 mm)
- E. 3-1/2" (88.90 mm)
- F. 4" (101.60 mm)
- G. 22-1/8" (561.98 mm) opening
- H. 14-13/16" (376.24 mm) to bottom of Anti-Tip block
- I. Allow 7/8" (22.23 mm) overlap

- J. 23-1/2" (596.90 mm) minimum depth
- K. Allow 3/16" (4.76 mm) overlap
- L. 36" (914.4 mm) countertop height
- M. Allow 7/16" (11.11 mm) minimum space
- N. Floor must support 100 lb (45.4 kg)
- 0. 24" (609.6 mm) cabinet minimum
- P. 15-9/16" (395.27 mm) opening
- Q. Allow 1/8" (3.17 mm) overlap

This drawing represents a typical standard cabinet. If installed in custom cabinets with extended counter tops, take into account visibility and access to controls.



- A. 25" (635 mm)
- B. 1/2" (12.7 mm) minimum
- C. 15-7/8" (403.22 mm)
- D. 36" (914.4 mm)
- E. Control panel shown in open position
- F. 24" (609.6 mm)
- G. 34-1/2" (876.3 mm)



30" MICROWAVE DRAWER™

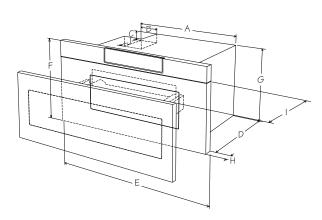


SMD3070ASY / SMD3077ASC

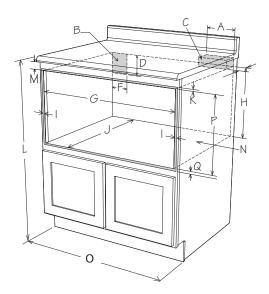
In the spirit of ease of installation and allowing design flexibility, enter the 30" Sharp Microwave Drawer. This full 30" width door unit is great for pairing below a wall oven, steam oven, or cooktop. This unit also allows for the unique under-the-counter installation for optimum height accessibility, with the added bonus of being able to install a warming drawer below. This unit is also great for integration into an island as a standalone piece.



30" MICROWAVE DRAWER™ DIMENSIONS STANDARD MOUNT



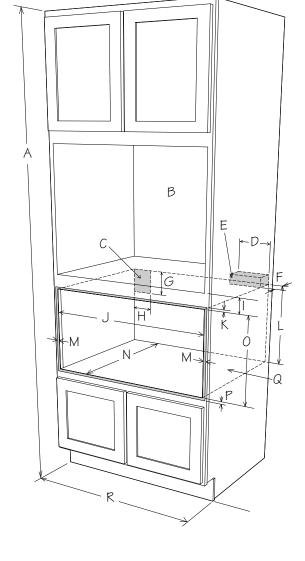
- A. 21-5/8" (549.28 mm)
- B. 4-11/16" (119.06 mm)
- C. 1-3/4" (44.45 mm)
- D. 21-7/8" (555.63 mm)
- E. 30" (762 mm)
- F. 15-7/8" (403 mm)
- G. 14-19/32" (370.68 mm)
- H. 1-9/64" (29 mm) door thickness
- I. 15" (381 mm) auto drawer opening
- J. 4" (101.6 mm)



- A. 6" (152.40 mm)
- B. Suggested electrical outlet location*
- C. Anti-Tip block
- D. 5" (127 mm)
- E. 3-1/2" (88.90 mm)
- F. 4" (101.60 mm)
- G. 22-1/8" (561.97 mm) minimum, 28-7/16" (722.3 mm) maximum
- H. 14-13/16" (376.24 mm) to bottom of Anti-Tip block
- Allow 23/32" (18.26 mm) overlap
- J. 23-1/2" (596.9 mm) minimum

depth

- K. Allow 3/16" (4.76 mm) overlap
- L. 36" (914.4 mm) countertop height
- M. Allow 7/16" (11.09 mm) minimum space
- N. Floor must support 100 lb (45.4 kg)
- 0. 30" (762 mm) cabinet minimum
- P. 15-9/16" (395.27 mm) opening
- Q. Allow 1/8" (3.17 mm) overlap



- A. 84" (2133.6 mm) wall cabinet
- B. Optional wall oven cutout illustrated in sketch
- C. Suggested electrical outlet location*
- D. 6" (152.40 mm)
- E. Anti-Tip block
- F. 3-1/2" (88.90 mm)
- G. 5" (127 mm)
- H. 4" (101.60 mm)
- I. 2" (50.8 mm) minimum
- J. 22-1/8" (561.97 mm) minimum,28-7/16" (722.3 mm) maximum
- K. Allow 3/16" (4.76 mm) overlap

- L. 14-13/16" (376.24 mm) to bottom of Anti-Tip block
- M. Allow 23/32" (18.26 mm) overlap
- N. 23-1/2" (596.9 mm) minimum depth
- O. 15-9/16" (395.27 mm) opening
- P. Allow 1/8" (3.17 mm) overlap
- Q. Floor must support 100 lb (45.4 kg)
- R. 30" (762 mm) cabinet minimum

FLUSH MOUNT DIMENSIONS

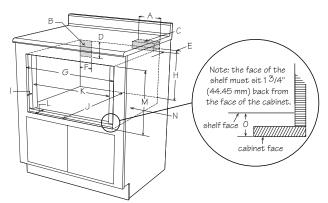
KIT # SKMD24F0AS/SKMD30F0AS 1/4" FRONT EXTENDED

A growing trend in the installation of kitchen appliances is mounting flush. This allows the consumer to present their appliances with a clean, flush with the cabinet face appearance. In this installation type, there are two ways to accomplish this look: ¼" front extended and true flush.

In the ¼" front extended application, the appliance can be mounted slightly "proud" of the cabinet cutout, which will create a flush appearance. Having the ¼" extension also allows to hide the cabinet cutout edges.

In the true flush application, the appliance is mounted just as described, truly flush with the cabinet face. However, due to the appliance face and the cabinet face being on the same plane, the cabinet cutout edges will be visible and exposed. It is recommended in this true flush installation to finish / stain these edges.

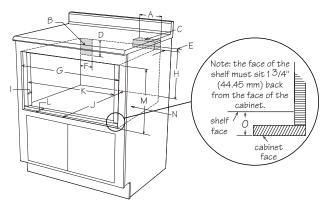
24" MICROWAVE DRAWER



- A. 6" (152.40 mm)
- B. Suggested electrical outlet location
- C. Anti-Tip block
- D. 5" (127 mm)
- E. 3-1/2" (88.90 mm)
- F. 4" (101.60 mm)
- G. 24-3/16" (614.35 mm) minimum 24-1/2" (622.3 mm) maximum
- H. 14-13/16" (376.24 mm) to bottom of Anti-Tip block

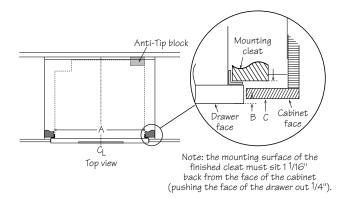
- I. 1-1/16" (26.97 mm)
- J. 23-1/2" (596.90 mm) minimum depth
- K. 22-1/8" (561.97 mm)
- L. 1-3/4" (44.45 mm)
- M. 16-7/8" (428.62 mm) opening
- N. Floor must support 100 lb (45.4 kg)
- 0. 1-3/4" (44.45 mm)

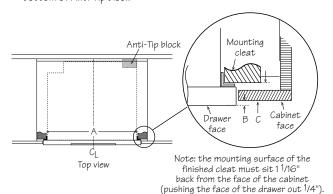
30" MICROWAVE DRAWER



- A. 6" (152.40 mm)
- B. Suggested electrical outlet location
- C. Anti-Tip block
- D. 5" (127 mm)
- E. 3-1/2" (88.90 mm)
- F. 4" (101.60 mm)
- G. 30-5/16" (769.92 mm) minimum 30-5/8" (777.87 mm) maximum
- H. 14-13/16" (376.24 mm) to bottom of Anti-Tip block

- I. 1-1/16" (26.97 mm)
- J. 23-1/2" (596.90 mm) minimum depth
- K. 28-7/16" (722.3 mm)
- L. 1-3/4" (44.45 mm)
- M. 16-7/8" (428.62 mm) opening
- N. Floor must support 100 lb (45.4 kg)
- 0. 1-3/4" (44.45 mm)

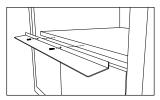




- A. 28-1/2" (723.9 mm) mounting cleat opening width
- B. 1/4" (6.35 mm)
- C. 1-1/16" (26.97 mm)

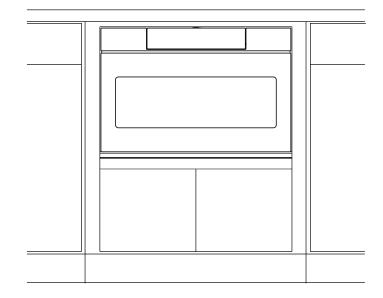
INSTALL DEFLECTOR

Shelf detail showing the deflector vent during installation.
Position deflector vent and mark holes.
Pre drill using a ¹/16" (1.57 mm) bit before mounting.

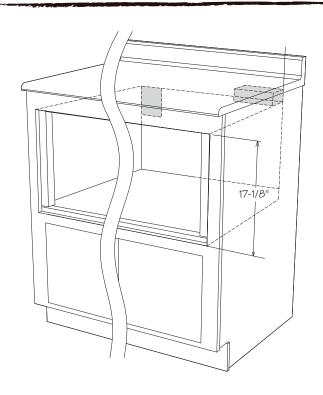


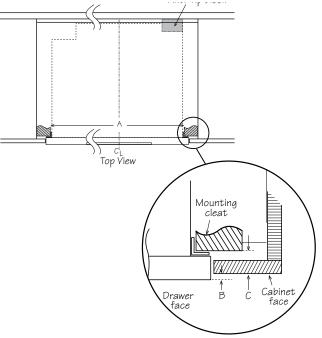
Shelf detail showing the deflector vent installed.





TRUE FLUSH DIMENSIONS





Note: the mounting surface of the finished cleat must sit $1\,^1/16$ " back from the face of the cabinet (pushing the face of the drawer out 1/4").

SUPERSTEAM+™ OVEN





SSC3088AS

Rethink Steam

The Sharp® SuperSteam+™ Built-In Wall Oven is the start of a cooking revolution. The innovation is simply that steam can be hotter, cook better, and promote healthy living.

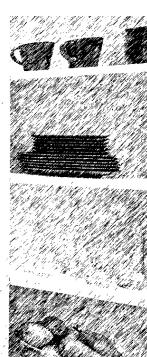
Simple steam only reaches 212°F, but the SuperSteam+™ also creates super-heated steam at 485°F. Meats and proteins will brown. Sugars will caramelize. You can grill without smoke, roast without drying and your food is crispy on the outside, tender and juicy on the inside.

And don't forget, the Sharp® SuperSteam+™ built-in wall oven is also a powerful convection oven with even heating for superior baking. That's three ovens in one!

The bright, beautiful and easy-to-read touch screen display keeps the control at your fingertips. Cleanup is a breeze with two, preset cleaning modes.

The oven comes built-in ready with a sleek trim kit to make installation elegant and simple.



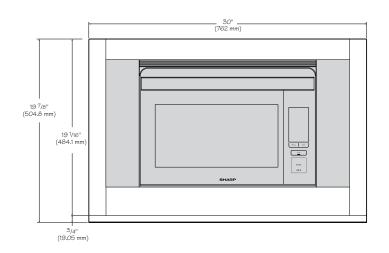


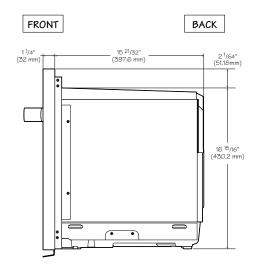
IDEAS

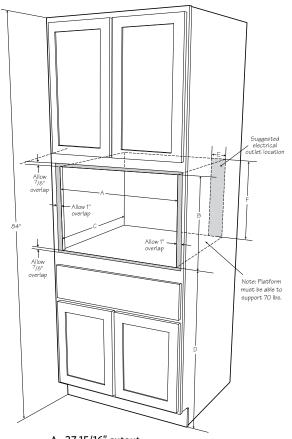
As a fully dedicated built-in-ready unit, the Sharp SuperSteam+TM Oven allows for multiple installation locations and appliance pairings. A full 30" width unit, the SuperSteam+TM Oven can be paired above a 30" Sharp Microwave Drawer,TM warming drawer, or a wall oven. The innovative Supersteam+TM built-in oven combines performance, versatility and elegance into a stunning design statement for your dream kitchen.

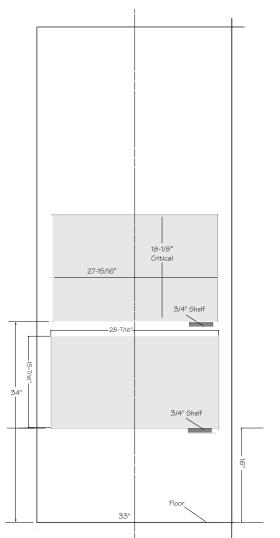


SUPERSTEAM+™ OVEN





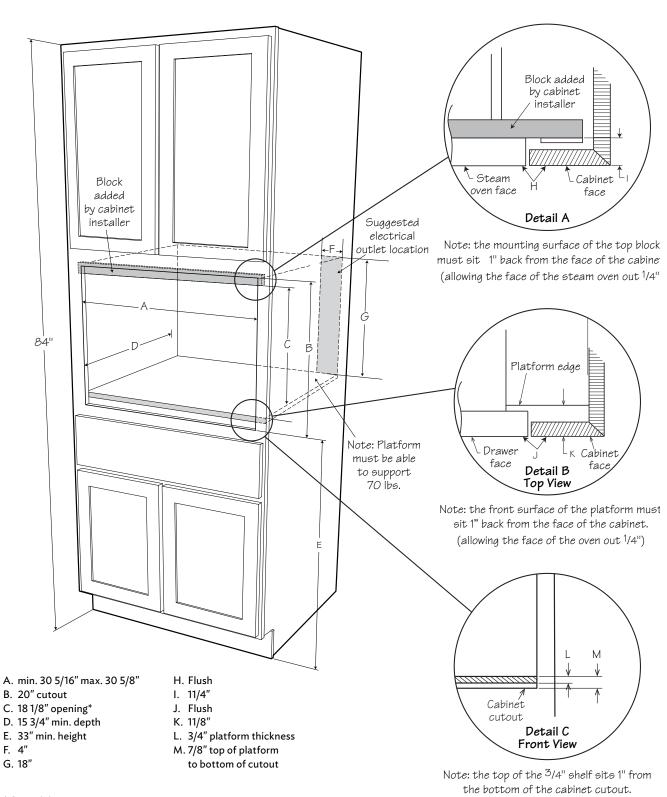




- A. 27 15/16" cutout
- B. 18 1/8" cutout*
 C. 15 3/4" min. depth
- D. 33" min. height
- E. 4"
- F. 18"

^{*} Critical dimension

FLUSH MOUNT 1/4" EXTENDED



^{*} Critical dimension

R-1210TY / R-1211TY / R-1214TY

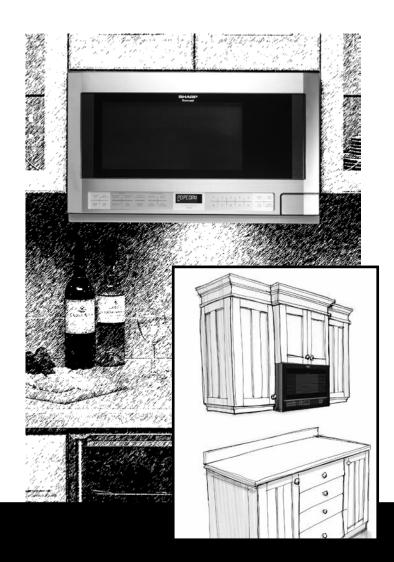
PROFESSIONAL TIPS

Sharp's Over-the-Counter Microwaves open new design options for kitchen designers. This space saving location offers accent and task lighting with Auto-Touch controls on the door at easy-to-read eye level.

An OTC* (Over-the-Counter) Microwave located in standard wall cabinets creates a perfect cook station and preparation area.

Add an OTC microwave in a wet bar or refreshment center. It's always ready so friends and family can enjoy snacks with a little wine and cheese.

Make good use of a corner space! Locate an OTC microwave in a corner using standard 27" wall cabinets and custom trim wall mounting.

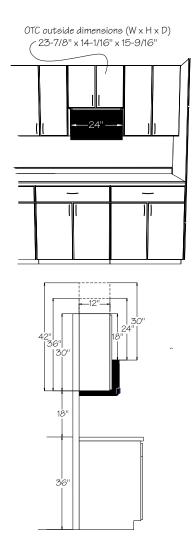


FEATURES

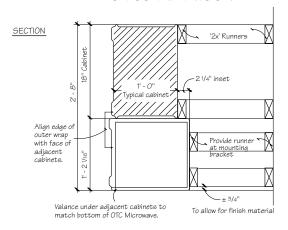
- Over-the-Counter Microwave Ovens enable easy and affordable installation, including applications in corner cabinets, above islands, over food preparation areas and in nearly any wall cabinet. The OTC design saves valuable counter space and moves a step beyond other "built-in solutions" that require special kits and tools.
- Clean and uncluttered design with Auto-Touch[™] Control Panel located on the oven door so the controls are easy to see and reach.
- Stainless Steel finish with smooth glass window—elegant and practical.
- Large 14 1/8" diameter Carousel® turntable—the largest turntable of any microwave oven in its class—for added capacity and versatility.

- Sensor Cook® Center includes 11 Smart & Easy® sensor settings for the most popular microwaved foods. No need to set times or power levels—and virtually no guesswork!
- Interactive Cooking System with Custom Help® feature includes options for English, Spanish or French.
- Defrost Center quickly defrosts meats and poultry by weight. Specific program for each category assures excellent, even results.
- Keep Warm Plus lets you keep hot food hot up to 30 minutes after cooking is finished with no loss of food quality.
- Instant Action[™] Keys save time and make microwaving easy! Touch once for each serving—up to eight. Oven starts automatically.

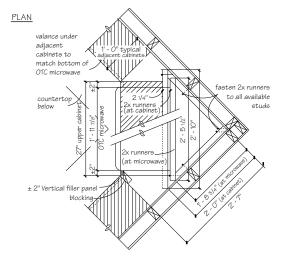
OVER-THE-COUNTER MICROWAVE



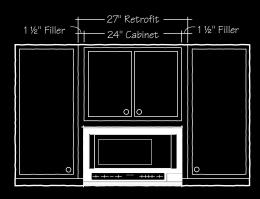
FOR CORNER MOUNT

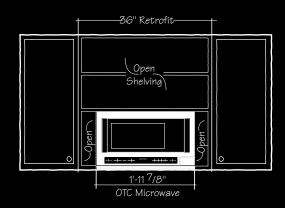


The arrangement shown illustrates the OTC microwave located in a corner using standard 27" wall cabinets and custom trim wall mounting.



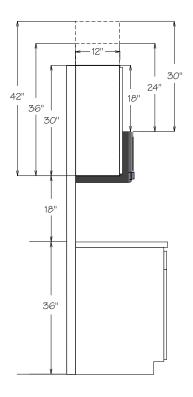
IDEAS

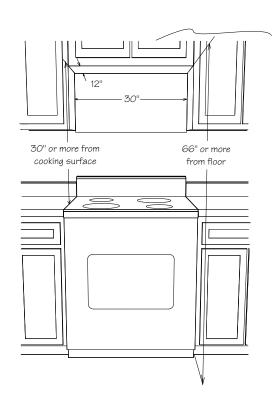




You can turn a blank wall into functional space. Simply mount an OTC microwave with a small cabinet above and place wall cabinets or finished panels on the side. Below, place a conventional cabinet or use a kitchen cart for a unique application and lighted work area.

OVER-THE-RANGE MICROWAVE





Separate 15 amp or greater electrical receptacle must be located in the cabinet directly above the microwave oven.

R-1874TY

- Sharp's Convection Microwave Over-the-Range browns, bakes, broils, crisps and roasts with microwave, convection, combination and broil options. By combining convection cooking with microwave energy, it's the perfect second oven.
- 13" diameter ceramic turntable with on/off flexibility accommodates oversized or oblong-shaped dishes.
- Automatically computes broiling, roasting and baking time and temperature settings. For microwave cooking, Sharp's Smart & Easy* Sensor automatically determines cooking times and power levels for 12 microwave favorites.



R-1514TY

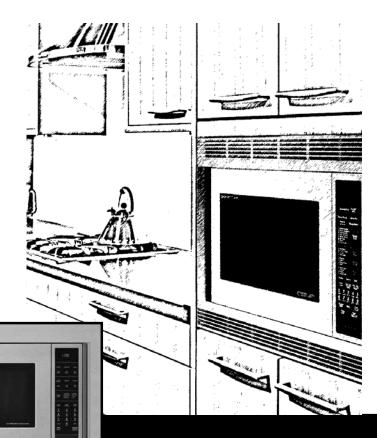
- Hide & Sleek[™] design is clean, uncluttered and symmetrical. The Auto-Touch[™] control panel is discreetly concealed behind the oven door, and its flush design fits beautifully with other appliances.
- Large 14 ¹/8" diameter turntable accommodates oversized or oblong-shaped dishes.
- Interactive Cooking System with Custom Help[®] feature includes options for English, Spanish or French. Sensor Cook[®] Center includes 11 sensor settings.
- Make sure the top of the OTR is at least 66" from the floor and at least 30" from the cooking surface. A separate 15 amp or greater electrical receptacle must be located in the cabinet directly above the microwave oven.



PROFESSIONAL TIPS

When building in a Sharp counter top microwave oven, be sure to use the proper Sharp built-in kit. All Sharp kits are UL approved and provide ductwork to assure proper air circulation around the product. Never enclose a microwave oven so tightly that air cannot circulate around it. It will not function properly in a tight enclosure. Prepare the cabinet or wall opening to provide access to a separate 3-pronged, 120V AC outlet of 15 amps or larger. Not all microwave ovens can be built-in. Check the nameplate and/or carton of the microwave oven for the correct built-in kit. Please refer to operation manual for installation recommendations. This information is also available at

www.SharpUSA.com/trimkits.



BUILT-IN KITS FOR COUNTERTOP MICROWAVE



For counter top, convection and specialty microwave ovens
For full and family size microwaves stylish integrated appearance
Includes ducts, finish trim strips and easy-to-follow instructions

MODEL	UPC	DESCRIPTION (STAINLESS STEEL-LOOK)	PRODUCT DIMENSIONS						CLUBBING
			FRAME DIMENSIONS		CUTOUT DIMENSIONS			SHIPPING DIMS	SHIPPING WEIGHT (LBS)
			Α	В	С	D	Е		(===,
RK49S27	074000620445	27" BUILT-IN TRIM KIT FOR SMC1842CS/1843CM. STAINLESS STEEL-LOOK.	18-15/32"	26-7/8"	15-3/4"	24-11/16" TO 25-5/16"	MIN 20"	32.5" x 20" x 3.5"	15.7
RK49S30	074000620438	30" BUILT-IN TRIM KIT FOR SMC1842CS/1843CM. STAINLESS STEEL-LOOK.	18-15/32"	29-7/8"	15-3/4"	24-13/16" TO 26-3/4"	MIN 20"	32.5" x 20" x 3.5"	16.7
RK52S27	074000619197	27" BUILT-IN TRIM KIT FOR R-651ZS	19"	27"	16-1/8"	26-1/8" TO 26-3/8"	MIN 20"	32" x 19.8" x 3.4"	9.8
RK52S30	074000619203	30" BUILT-IN TRIM KIT FOR R-651ZS	19"	29-7/8"	16-1/8"	26-1/8" TO 26-3/8"	MIN 20"	32" x 19.8" x 3.4"	10.2
RK94S27	074000620025	27" BUILT-IN TRIM KIT FOR SMC1585BS	20"	26-7/8"	18-1/2"	25-3/4" TO 26"	MIN 20-1/8"	31" x 21.25" x 7.63"	21.0
RK94S30	074000620018	30" BUILT-IN TRIM KIT FOR SMC1585BS	20"	29-7/8"	18-1/2"	25-3/4" TO 26"	MIN 20-1/8"	31" x 21.25" x 7.63"	22.5



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