

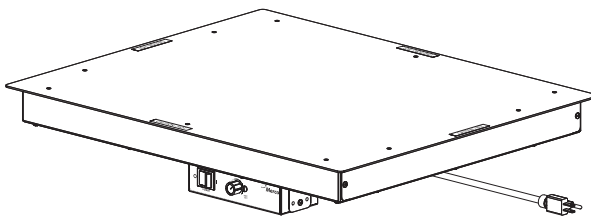
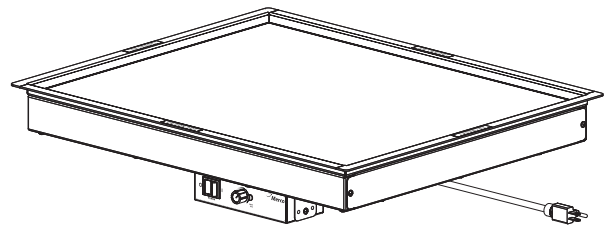
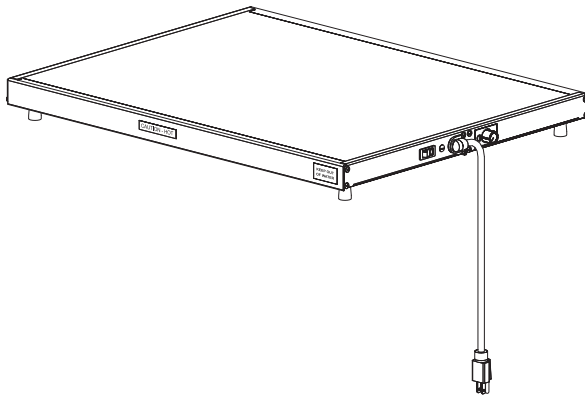


Installation and Operation Manual

Thermal Shelves

TS2 and TS2-B Series

I&W #07.05.238.00



Do not operate this equipment unless you have read and understood the contents of this manual! Failure to follow the instructions contained in this manual may result in serious injury or death. This manual contains important safety information concerning the maintenance, use, and operation of this product. If you're unable to understand the contents of this manual, please bring it to the attention of your supervisor. Keep this manual in a safe location for future reference.



No opere este equipo al menos que haya leído y comprendido el contenido de este manual! Cualquier falla en el seguimiento de las instrucciones contenidas en este manual puede resultar en un serio lesión o muerte. Este manual contiene importante información sobre seguridad concerniente al mantenimiento, uso y operación de este producto. Si usted no puede entender el contenido de este manual por favor pregunte a su supervisor. Almacenar este manual en una localización segura para la referencia futura.

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IMPORTANT OWNER INFORMATION

Record the model number, serial number (specification label on bottom of TS2 model, bottom of control box on TS2-B models), voltage, and purchase date of the unit in the spaces below. Please have this information available when calling Merco for service assistance.

Model No. _____

Serial No. _____

Voltage _____

Date of Purchase _____

Business Hours: 8:00 AM to 5:00 PM
Central Standard Time (C.S.T.)
Telephone: 800.506.9565 (Technical Support)
888.417.5462 (Customer Service)



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United States of America

Additional information can be found by visiting our web site at www.mercoproducts.com.

INTRODUCTION

Merco Thermal Shelves are designed to keep prepared foods hot in kitchen work areas, server pick-up stations, or customer serving points. They will keep all foods at optimum serving temperatures without affecting quality. These warmers have a thermostatically-controlled heated base to extend the holding times of most foods.

Thermal Shelves are a product of extensive research and field testing. The materials used were selected for maximum durability, attractive appearance, and optimum performance. Every unit is inspected and tested thoroughly prior to shipment.

This manual provides the installation, safety, and operating instructions for Merco Thermal Shelves. Merco recommends all installation, operating, and safety instructions appearing in this manual be read prior to installation or operation of a Thermal Shelf.

Safety information that appears in this manual is identified by the following signal word panels:



WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



NOTICE is used to address practices not related to personal injury.

IMPORTANT SAFETY INFORMATION



Read the following important safety information before using this equipment to avoid serious injury or death and to avoid damage to equipment or property.

WARNING

ELECTRIC SHOCK HAZARD:

- Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. If plug and receptacle do not match, contact a qualified electrician to determine and install the proper voltage and size electrical receptacle.
- Turn power switch OFF, unplug power cord, and allow unit to cool before performing any maintenance or cleaning.
- DO NOT submerge or saturate with water. Unit is not waterproof. Do not operate if unit has been submerged or saturated with water.
- Unit is not weatherproof. Locate unit indoors where ambient air temperature is a minimum of 70°F (21°C).
- Do not steam clean or use excessive water on unit.
- Do not pull unit by power cord.
- Discontinue use if power cord is frayed or worn.
- Do not attempt to repair or replace a damaged power cord. The cord must be replaced by Merco, a Factory Authorized Service Agent, or a person with similar qualifications.
- This unit must be serviced by qualified personnel only. Service by unqualified personnel may lead to electric shock or burn.
- Use only Original Equipment Manufacturer (OEM) Replacement Parts when service is required. Failure to use OEM Replacement Parts will void all warranties and may subject operators of the equipment to hazardous electrical voltage, resulting in electrical shock or burn. OEM Replacement Parts are specified to operate safely in the environments in which they are used. Some aftermarket or generic replacement parts do not have the characteristics that will allow them to operate safely in Merco equipment.

FIRE HAZARD: Locate unit a minimum of 1" (25 mm) from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.

Make sure food product has been heated to the proper food-safe temperature before placing on the unit. Failure to heat food product properly may result in serious health risks. This unit is for holding preheated food product only.

This unit is not intended for use by children or persons with reduced physical, sensory, or mental capabilities. Ensure proper supervision of children and keep them away from the unit.

Make sure all operators have been instructed on the safe and proper use of the unit.

This unit has no "user-serviceable" parts. If service is required on this unit, contact a Factory Authorized Service Agent or contact the Merco Service Department at 800-506-9565.

CAUTION

BURN HAZARD: Some exterior surfaces on unit will get hot. Use caution when touching these areas.

Locate unit at proper counter height in an area that is convenient for use. The location should be level to prevent unit or its contents from falling accidentally and strong enough to support the weight of unit and contents.

Do not operate built-in models without control box mounted properly as described in the installation instructions.

The National Sanitation Foundation (NSF) requires that units over 36" (914 mm) in width or weighing more than 80 lbs. (36 kg) either be sealed to or raised above the installation surface. If unit cannot be sealed at the point of use, 4" (102 mm) legs are included to allow for proper cleaning access below unit.

NOTICE

Unit is recommended for use in metallic countertops. Damage to non-metallic countertop material caused by heat generated from this equipment is not covered under unit warranty. For other surfaces, verify that the material is suitable for temperatures up to 200°F (93°C).

Built-in units must not have a setpoint temperature higher than 200°F (93°C). Temperatures exceeding 200°F (93°C) will damage unit and void warranty.

Do not modify wiring or cut thermostat capillary wire on control box to increase remote mounting distance. Cutting thermostat capillary wire will cause unit to overheat and may damage unit as well as surrounding countertop.

Do not use excessive force when tightening mounting screws on built-in units. This may damage unit and/or countertop.

Do not lay unit on the side with the control panel. Damage to unit could occur.

Use non-abrasive cleaners only. Abrasive cleaners could scratch the finish of the unit, marring its appearance and making it susceptible to soil accumulation.

MODEL DESCRIPTION

TS2 Model

The Thermal Shelf is ideal for pass-through areas, buffet lines, or as a heated work shelf. It features an illuminated Power On/Off switch, 80° to 200°F (27° to 93°C) adjustable thermostat, and 6' (1829 mm) power cord with plug. Surface mounted, blanket-type foil elements distribute heat under the entire stainless steel or hardcoat aluminum surface.

All TS2 models are shipped from the factory completely assembled and ready for use.

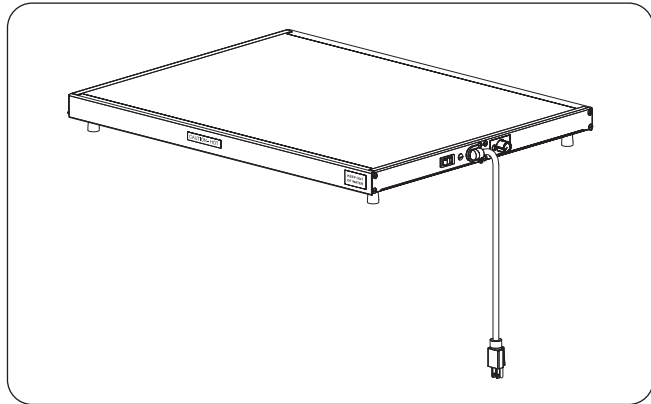


Figure 1. TS2 Model

TS2-B Models

TS2-B Built-In Thermal Shelves have either a hardcoat aluminum or stainless steel surface and a blanket-type foil element for uniform heat distribution. Ideal for server-to-customer pass-through areas, buffet/ cafeteria lines, and other self-service areas.

A 36" (914 mm) flexible conduit channels the power lines from the shelf to a remote control box. The control box comes with a control thermostat with a range of 80° to 200°F (27° to 93°C), an illuminated POWER On/Off (I/O) switch, and mounting brackets. The attached control box can be located up to 36" (914 mm) from the unit. A 6' (1829 mm) cord and plug is attached to the control box.

TS2-B Thermal Shelves are available with two different styles of tops — recessed top and flat top. Recessed top models have a 3/4" (19 mm) flanged edge that allows the unit to drop into a countertop opening for recessed mounting. Flat top models have a single piece, flat top that rests on the countertop for a continuous, "flush" look with the countertop. The shelves are easy to clean with a soft damp cloth or non-abrasive cleaner. All TS2-B models are shipped from the factory completely assembled and ready for use.

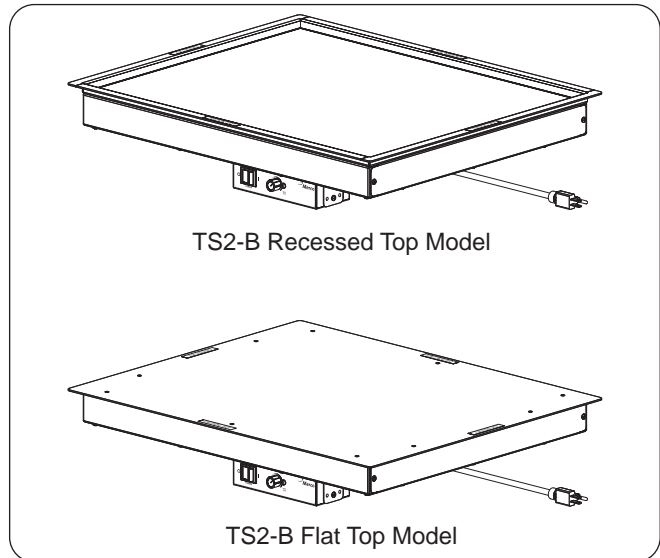


Figure 2. TS2-B Models

MODEL DESIGNATION

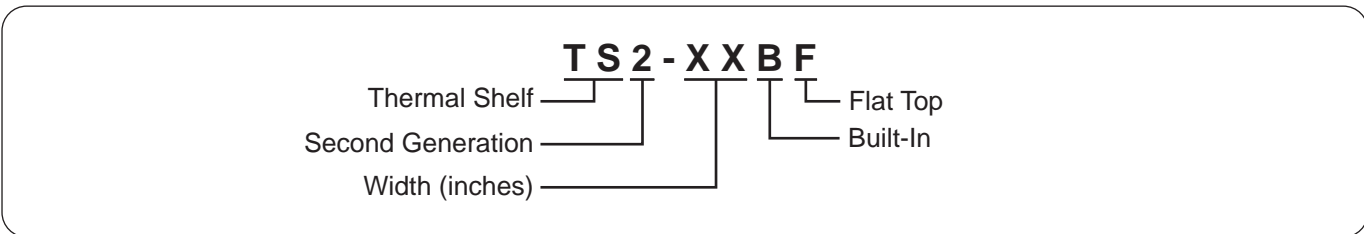


Figure 3. Model Designation

Plug Configurations

Units are supplied from the factory with an electrical cord and plug installed. Plugs are supplied according to the applications.



ELECTRIC SHOCK HAZARD: Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. If plug and receptacle do not match, contact a qualified electrician to determine and install the proper voltage and size electrical receptacle.

NOTE: The specification label is located on the bottom of TS2 models and the bottom of the control box on TS2-B models. See label for serial number and verification of unit electrical information.

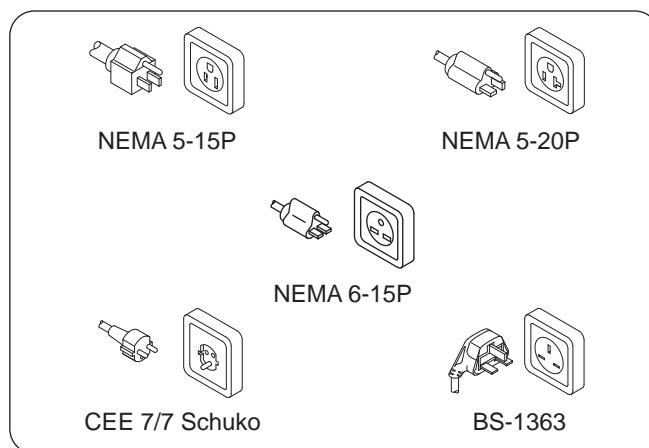


Figure 4. Plug Configurations

NOTE: Receptacle not supplied by Merco.

Dimensions — TS2-XX Models

Model	Width (A)	Depth (B)	Height (C)	Footprint Width (D)	Footprint Depth (E)
TS2-18	18" (457 mm)	19-1/2" (495 mm)	2-3/8" (60 mm)†	16-3/4" (425 mm)	18" (457 mm)
TS2-24	24" (610 mm)	19-1/2" (495 mm)	2-3/8" (60 mm)†	22-3/4" (578 mm)	18" (457 mm)
TS2-30	30" (762 mm)	19-1/2" (495 mm)	2-3/8" (60 mm)†	28-3/4" (730 mm)	18" (457 mm)
TS2-36	36" (914 mm)	19-1/2" (495 mm)	2-3/8" (60 mm)†	34-3/4" (883 mm)	18" (457 mm)
TS2-42	42" (1067 mm)	19-1/2" (495 mm)	5-3/8" (137 mm)*	40-3/4" (1035 mm)	18" (457 mm)
TS2-48	48" (1219 mm)	19-1/2" (495 mm)	5-3/8" (137 mm)*	46-3/4" (1187 mm)	18" (457 mm)
TS2-54	54" (1372 mm)	19-1/2" (495 mm)	5-3/8" (137 mm)*	52-3/4" (1340 mm)	18" (457 mm)
TS2-60	60" (1524 mm)	19-1/2" (495 mm)	5-3/8" (137 mm)*	58-3/4" (1492 mm)	18" (457 mm)
TS2-66	66" (1676 mm)	19-1/2" (495 mm)	5-3/8" (137 mm)*	64-3/4" (1645 mm)	18" (457 mm)
TS2-72	72" (1829 mm)	19-1/2" (495 mm)	5-3/8" (137 mm)*	70-3/4" (1797 mm)	18" (457 mm)

†Height includes 1" (25 mm) legs.

*Height includes 4" (102 mm) legs.

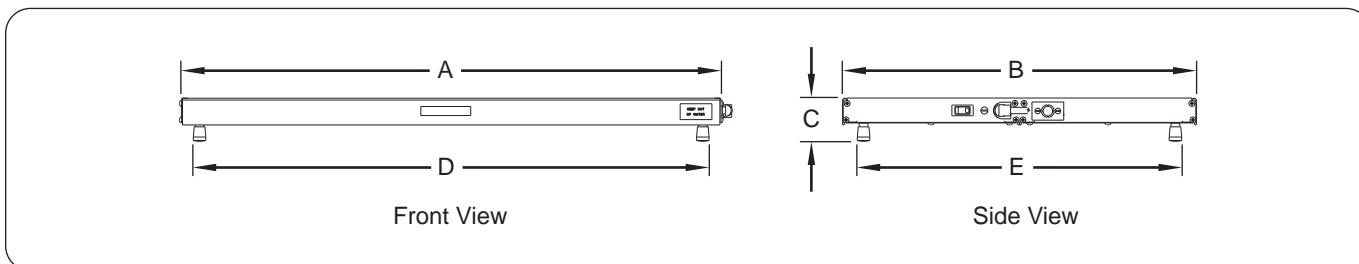


Figure 5. TS2 Model Dimensions

SPECIFICATIONS

Dimensions — TS2-XXB Recessed Top Models

Model	Width (A)	Heated Width (B)	Width (C)	Heated Depth (D)	Depth (E)	Height (F)	Height (G)
TS2-24B	25-1/2" (648 mm)	24" (610 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)
TS2-30B	31-1/2" (800 mm)	30" (762 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)
TS2-36B	37-1/2" (953 mm)	36" (914 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)
TS2-42B	43-1/2" (1105 mm)	42" (1067 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)
TS2-48B	49-1/2" (1257 mm)	48" (1219 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)
TS2-54B	55-1/2" (1410 mm)	54" (1372 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)
TS2-60B	61-1/2" (1562 mm)	60" (1524 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)
TS2-66B	67-1/2" (1715 mm)	66" (1676 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)
TS2-72B	73-1/2" (1867 mm)	72" (1829 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-7/8" (73 mm)	2-1/16" (52 mm)

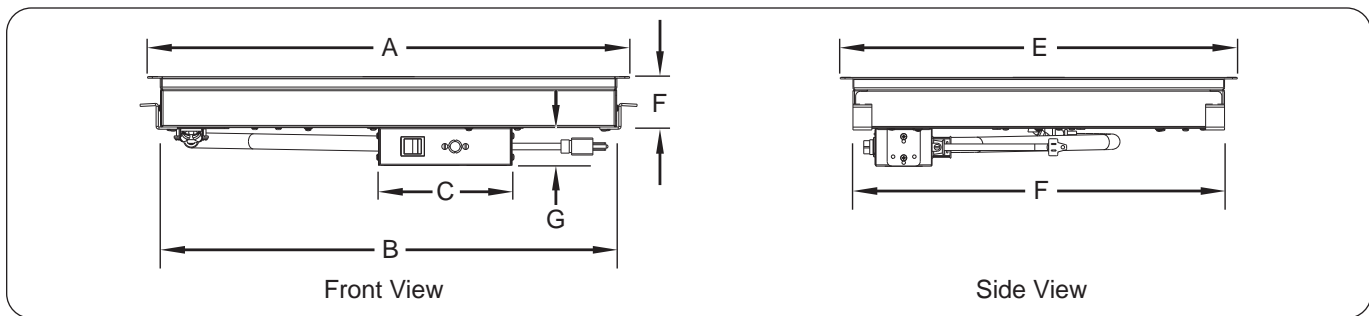


Figure 6. TS2-XXB, Recessed Top Model Dimensions

Dimensions — TS2-XXB Flat Top Models

Model	Width (A)	Heated Width (B)	Width (C)	Heated Depth (D)	Depth (E)	Height (F)	Height (G)
TS2-24B	25-1/2" (648 mm)	24-3/32" (612 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)
TS2-30B	31-1/2" (800 mm)	30-3/32" (764 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)
TS2-36B	37-1/2" (953 mm)	36-3/32" (917 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)
TS2-42B	43-1/2" (953 mm)	42-3/32" (1069 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)
TS2-48B	49-1/2" (1257 mm)	48-3/32" (1222 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)
TS2-54B	55-1/2" (1410 mm)	54-3/32" (1374 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)
TS2-60B	61-1/2" (1562 mm)	60-3/32" (1526 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)
TS2-66B	67-1/2" (1715 mm)	66-3/32" (1679 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)
TS2-72B	73-1/2" (1867 mm)	72-3/32" (1831 mm)	7-1/16" (179 mm)	19-1/2" (495 mm)	21" (533 mm)	2-1/4" (57 mm)	2-1/16" (52 mm)

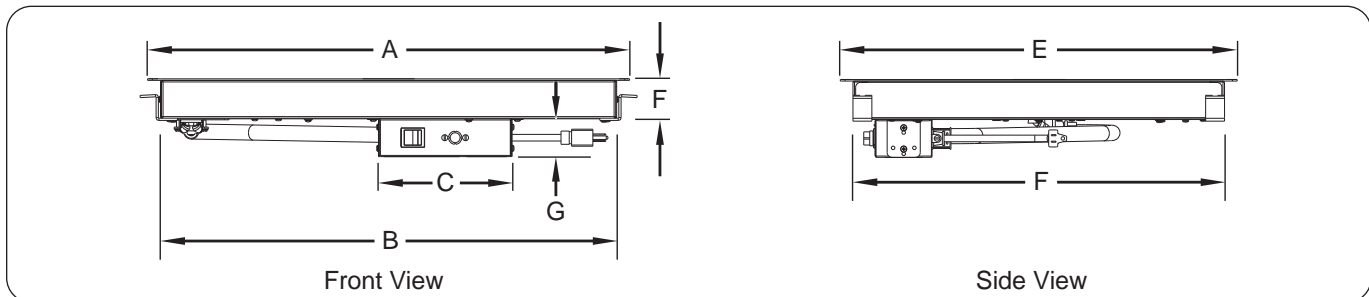


Figure 7. TS2-XXB, Flat Top Model Dimensions

NOTICE: Refer to the **INSTALLATION** section of this manual for actual countertop cutout dimensions.

Electrical Rating Chart — TS2-XX Models

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
TS2-18	100	250	2.5	NEMA 5-15P	16 lbs. (7 kg)
	120	250	2.1	NEMA 5-15P	16 lbs. (7 kg)
	220	228	1.0	CEE 7/7 Schuko	16 lbs. (7 kg)
	240	272	1.1	BS-1363	16 lbs. (7 kg)
	220-230 (CE)	228-250	1.0-1.1	CEE 7/7 Schuko	16 lbs. (7 kg)
	230-240 (CE)	250-272	1.1	BS-1363	16 lbs. (7 kg)
TS2-24	100	350	3.5	NEMA 5-15P	20 lbs. (9 kg)
	120	350	2.9	NEMA 5-15P	20 lbs. (9 kg)
	220	320	1.5	CEE 7/7 Schuko	20 lbs. (9 kg)
	240	380	1.6	BS-1363	20 lbs. (9 kg)
	220-230 (CE)	320-350	1.5-1.6	CEE 7/7 Schuko	20 lbs. (9 kg)
	230-240 (CE)	350-380	1.5-1.6	BS-1363	20 lbs. (9 kg)
TS2-30	100	450	4.5	NEMA 5-15P	25 lbs. (11 kg)
	120	450	3.8	NEMA 5-15P	25 lbs. (11 kg)
	220	412	1.9	CEE 7/7 Schuko	25 lbs. (11 kg)
	240	490	2.0	BS-1363	25 lbs. (11 kg)
	220-230 (CE)	412-450	1.9-2.0	CEE 7/7 Schuko	25 lbs. (11 kg)
	230-240 (CE)	450-490	2.0	BS-1363	25 lbs. (11 kg)
TS2-36	100	550	5.5	NEMA 5-15P	28 lbs. (13 kg)
	120	550	4.6	NEMA 5-15P	28 lbs. (13 kg)
	220	504	2.3	CEE 7/7 Schuko	28 lbs. (13 kg)
	240	598	2.5	BS-1363	28 lbs. (13 kg)
	220-230 (CE)	504-550	2.3-2.4	CEE 7/7 Schuko	28 lbs. (13 kg)
	230-240 (CE)	550-598	2.4-2.5	BS-1363	28 lbs. (13 kg)
TS2-42	100	600	6.0	NEMA 5-15P	32 lbs. (15 kg)
	120	600	5.0	NEMA 5-15P	32 lbs. (15 kg)
	220	548	2.5	CEE 7/7 Schuko	32 lbs. (15 kg)
	240	652	2.7	BS-1363	32 lbs. (15 kg)
	220-230 (CE)	548-600	2.5-2.6	CEE 7/7 Schuko	32 lbs. (15 kg)
	230-240 (CE)	600-652	2.6-2.7	BS-1363	32 lbs. (15 kg)
TS2-48	100	700	7.0	NEMA 5-15P	36 lbs. (16 kg)
	120	700	5.8	NEMA 5-15P	36 lbs. (16 kg)
	220	640	3.0	CEE 7/7 Schuko	36 lbs. (16 kg)
	240	760	3.2	BS-1363	36 lbs. (16 kg)
	220-230 (CE)	640-700	2.9-3.0	CEE 7/7 Schuko	36 lbs. (16 kg)
	230-240 (CE)	700-760	3.0-3.2	BS-1363	36 lbs. (16 kg)
TS2-54	100	800	8.0	NEMA 5-15P	42 lbs. (19 kg)
	120	800	6.7	NEMA 5-15P	42 lbs. (19 kg)
	220	732	3.3	CEE 7/7 Schuko	42 lbs. (19 kg)
	240	870	3.6	BS-1363	42 lbs. (19 kg)
	220-230 (CE)	732-800	3.3-3.5	CEE 7/7 Schuko	42 lbs. (19 kg)
	230-240 (CE)	800-870	3.5-3.6	BS-1363	42 lbs. (19 kg)
TS2-60	100	900	9.0	NEMA 5-15P	44 lbs. (20 kg)
	120	900	7.5	NEMA 5-15P	44 lbs. (20 kg)
	220	824	3.7	CEE 7/7 Schuko	44 lbs. (20 kg)
	240	980	4.1	BS-1363	44 lbs. (20 kg)
	220-230 (CE)	824-900	3.7-3.9	CEE 7/7 Schuko	44 lbs. (20 kg)
	230-240 (CE)	900-980	3.9-4.1	BS-1363	44 lbs. (20 kg)
TS2-66	100	1000	10.0	NEMA 5-15P	50 lbs. (23 kg)
	120	1000	8.3	NEMA 5-15P	50 lbs. (23 kg)
	220	916	4.2	CEE 7/7 Schuko	50 lbs. (23 kg)
	240	1088	4.5	BS-1363	50 lbs. (23 kg)
	220-230 (CE)	916-1000	4.2-4.3	CEE-Schuko	50 lbs. (23 kg)
	230-240 (CE)	1000-1088	4.3-4.5	BS-1363	50 lbs. (23 kg)
TS2-72	100	1100	11.0	NEMA 5-15P	56 lbs. (25 kg)
	120	1100	9.2	NEMA 5-15P	56 lbs. (25 kg)
	220	1008	4.6	CEE 7/7 Schuko	56 lbs. (25 kg)
	240	1196	5.0	BS-1363	56 lbs. (25 kg)
	220-230 (CE)	1008-1100	4.6-4.8	CEE 7/7 Schuko	56 lbs. (25 kg)
	230-240 (CE)	1100-1196	4.8-5.0	BS-1363	56 lbs. (25 kg)

The shaded areas contain electrical information for **International models only**.

SPECIFICATIONS

Electrical Rating Chart — TS2-XXB Recessed Top and Flat Top Models

Model	Voltage	Watts	Amps	Plug Configuration	Shipping Weight
TS2-24B	100	550	5.5	NEMA 5-15P	22 lbs. (10 kg)
	120	550	4.6	NEMA 5-15P	22 lbs. (10 kg)
	220	550	2.5	CEE 7/7 Schuko	22 lbs. (10 kg)
	240	550	2.3	BS-1363	22 lbs. (10 kg)
	220-230 (CE)	550-601	2.5-2.6	CEE 7/7 Schuko	22 lbs. (10 kg)
	230-240 (CE)	505-550	2.2-2.3	BS-1363	22 lbs. (10 kg)
TS2-30B	100	665	6.7	NEMA 5-15P	25 lbs. (11 kg)
	120	665	5.5	NEMA 5-15P	25 lbs. (11 kg)
	220	665	3.0	CEE 7/7 Schuko	25 lbs. (11 kg)
	240	665	2.8	BS-1363	25 lbs. (11 kg)
	220-230 (CE)	665-727	3.0-3.2	CEE 7/7 Schuko	25 lbs. (11 kg)
	230-240 (CE)	611-665	2.7-2.8	BS-1363	25 lbs. (11 kg)
TS2-36B	100	780	7.8	NEMA 5-15P	29 lbs. (13 kg)
	120	780	6.5	NEMA 5-15P	29 lbs. (13 kg)
	220	780	3.5	CEE 7/7 Schuko	29 lbs. (13 kg)
	240	780	3.3	BS-1363	29 lbs. (13 kg)
	220-230 (CE)	780-853	3.5-3.7	CEE 7/7 Schuko	29 lbs. (13 kg)
	230-240 (CE)	716-780	3.1-3.3	BS-1363	29 lbs. (13 kg)
TS2-42B	100	885	8.9	NEMA 5-15P	32 lbs. (15 kg)
	120	885	7.4	NEMA 5-15P	32 lbs. (15 kg)
	220	885	4.0	CEE 7/7 Schuko	32 lbs. (15 kg)
	240	885	3.7	BS-1363	32 lbs. (15 kg)
	220-230 (CE)	885-967	4.0-4.2	CEE 7/7 Schuko	32 lbs. (15 kg)
	230-240 (CE)	813-885	3.5-3.7	BS-1363	32 lbs. (15 kg)
TS2-48B	100	1000	10.0	NEMA 5-15P	36 lbs. (16 kg)
	120	1000	8.3	NEMA 5-15P	36 lbs. (16 kg)
	220	1000	4.5	CEE 7/7 Schuko	36 lbs. (16 kg)
	240	1000	4.2	BS-1363	36 lbs. (16 kg)
	220-230 (CE)	1000-1093	4.5-4.7	CEE 7/7 Schuko	36 lbs. (16 kg)
	230-240 (CE)	918-1000	4.0-4.2	BS-1363	36 lbs. (16 kg)
TS2-54B	100	1110	11.1	NEMA 5-15P	43 lbs. (20 kg)
	120	1110	9.3	NEMA 5-15P	43 lbs. (20 kg)
	220	1110	5.0	CEE 7/7 Schuko	43 lbs. (20 kg)
	240	1110	4.6	BS-1363	43 lbs. (20 kg)
	220-230 (CE)	1110-1213	5.0-5.3	CEE 7/7 Schuko	43 lbs. (20 kg)
	230-240 (CE)	1019-1110	4.4-4.6	BS-1363	43 lbs. (20 kg)
TS2-60B	100	1220	12.2	NEMA 5-15P	50 lbs. (23 kg)
	120	1220	10.2	NEMA 5-15P	50 lbs. (23 kg)
	220	1220	5.5	CEE 7/7 Schuko	50 lbs. (23 kg)
	240	1220	5.1	BS-1363	50 lbs. (23 kg)
	220-230 (CE)	1220-1333	5.5-5.8	CEE 7/7 Schuko	50 lbs. (23 kg)
	230-240 (CE)	1120-1220	4.9-5.1	BS-1363	50 lbs. (23 kg)
TS2-66B	100	1330	13.3	NEMA 5-15P	54 lbs. (24 kg)
	120	1330	11.1	NEMA 5-15P	54 lbs. (24 kg)
	220	1330	6.0	CEE 7/7 Schuko	54 lbs. (24 kg)
	240	1330	5.5	BS-1363	54 lbs. (24 kg)
	220-230 (CE)	1330-1454	6.0-6.3	CEE 7/7 Schuko	54 lbs. (24 kg)
	230-240 (CE)	1221-1330	5.3-5.5	BS-1363	54 lbs. (24 kg)
TS2-72B	100	1440	14.4	NEMA 5-15P	58 lbs. (23 kg)
	120	1440	12.0	NEMA 5-15P	58 lbs. (26 kg)
	220	1440	6.5	CEE 7/7 Schuko	58 lbs. (26 kg)
	240	1440	6.0	BS-1363	58 lbs. (26 kg)
	220-230 (CE)	1440-1574	6.5-6.8	CEE 7/7 Schuko	58 lbs. (26 kg)
	230-240 (CE)	1322-1440	5.8-6.0	BS-1363	58 lbs. (26 kg)

The shaded areas contain electrical information for **International models only**.

General

Use the following procedures to install the TS2 and TS2-B units.

WARNING

FIRE HAZARD: Locate unit a minimum of 1" (25 mm) from combustible walls and materials. If safe distances are not maintained, discoloration or combustion could occur.

CAUTION

Locate unit at proper counter height in an area that is convenient for use. The location should be level to prevent unit or its contents from falling accidentally and strong enough to support the weight of unit and contents.

Do not operate built-in models without control box mounted properly as described in the installation instructions.

The National Sanitation Foundation (NSF) requires that units over 36" (914 mm) in width or weighing more than 80 lbs. (36 kg) either be sealed to or raised above the installation surface. If unit cannot be sealed at the point of use, 4" (102 mm) legs are included to allow for proper cleaning access below unit.

NOTICE

Unit is recommended for use in metallic countertops. Damage to non-metallic countertop material caused by heat generated from this equipment is not covered under unit warranty. For other surfaces, verify that the material is suitable for temperatures up to 200°F (93°C).

TS2 Models

1. Remove the unit from the carton and place it upside down on the cardboard.
2. Install the four feet into the corner holes on the base. Tighten securely, but do not over-tighten.

NOTE: If 4" (102 mm) legs are required, refer to the OPTIONS AND ACCESSORIES section in this manual for installation instructions.

3. Place one rubber boot over each metal foot (for 1" [25 mm] feet only).
4. Turn unit upright, and place unit in the desired location.
 - Locate the unit in an area where the ambient air temperature is constant and a minimum of 70° F (21° C). Avoid areas that may be subject to active air movements or currents (i.e., near exterior doors, exhaust fans/hoods, air conditioning ducts, etc...).
 - Make sure the unit is at the proper counter height in an area convenient for use.
 - Make sure the countertop is level and strong enough to support the weight of the unit and food product.
 - Make sure all the feet on the bottom of the unit are positioned securely on the countertop.

TS2-B Models

1. Remove the unit from the carton and place it upside down on the cardboard.

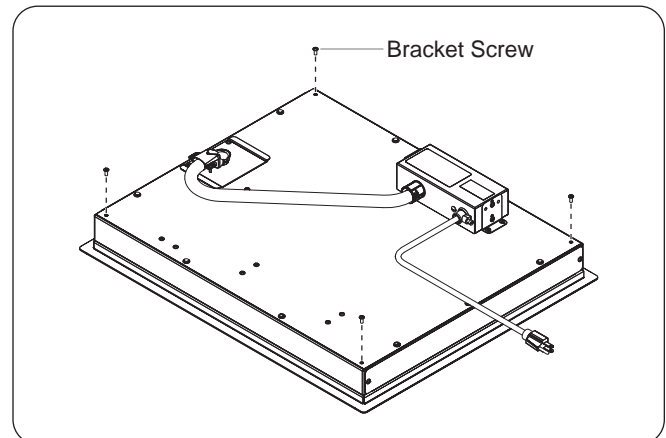


Figure 8. Underside of TS2-B Models

2. Remove and save the four bracket screws from the underside of the unit.

NOTE: The control box may be moved to the most convenient location on the underside of the unit. For semi-remote installations, leave the control box in place until the unit is placed into the countertop (see Figure 9).

3. Prepare countertop opening. Refer to the appropriate "Countertop Cutout" chart on the following page for recommended countertop cutout dimensions.
4. Apply a bead of NSF-approved sealant between the countertop material and the mounting flange on the unit. The sealant must be rated for use at a minimum temperature of 250° F (121° C).
5. Place the unit into the countertop opening.
6. Assemble the Z-brackets to the underside of the unit using the four bracket screws removed earlier in this procedure (see Figures 10 and 11).

NOTE: Units 48" (1219 mm) or longer require two additional Z-brackets to be installed midway along the front and rear of the unit.

7. Adjust the mounting screws on the Z-brackets until the top flange lies flat on the countertop.

NOTICE

Do not use excessive force when tightening mounting screws on built-in units. This may damage unit and/or countertop.

continued...

INSTALLATION

8. Remove any excess sealant.
9. If desired or necessary, the control box can be mounted in a semi-remote location.
 - a. Remove the control box from the bottom of the unit.
 - b. If necessary, remove the end brackets from the control box, rotate and reposition them.
 - c. The remote control box can be panel, surface, under-counter, or recess mounted. If recess mounting, The control box will require a hole mounting pattern of 7-5/8" W x 1-1/4" H (194 mm x 32 mm) for #8 screws.

- d. The distance the remote control box can be mounted from the unit is determined by the 36" (914 mm) conduit. Do not pull the conduit tight to increase the mounting distance. The conduit should have some slack after the control box is mounted.

NOTICE

Do not modify wiring or cut thermostat capillary wire on control box to increase-remote mounting distance. Cutting the thermostat capillary wire will cause the unit to overheat and may damage the unit as well as the surrounding countertop.

10. Once all components are secured, proceed to the OPERATION section.

NOTE: A 6' (1829 mm) cord is supplied with this unit; any excess cord should be neatly routed so it does not hang down.

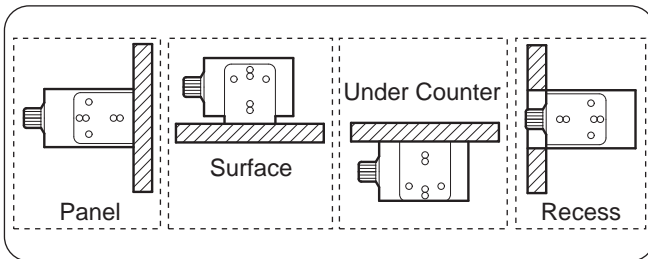


Figure 9. Remote Control Box Mounting Options

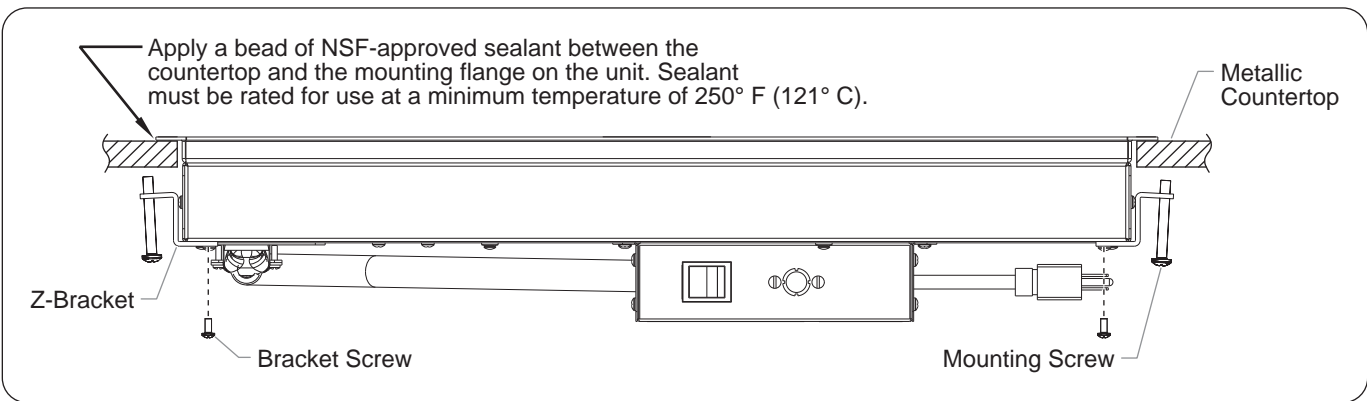


Figure 10. TS2-B Recessed Top Model Installation

Countertop Cutout — TS2-B Recessed Top Models

Model	Minimum Width	Maximum Width	Minimum Depth	Maximum Depth
TS2-24B	24-1/2" (622 mm)	24-3/4" (629 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-30B	30-1/2" (775 mm)	30-3/4" (781 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-36B	36-1/2" (927 mm)	36-3/4" (934 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-42B	42-1/2" (1080 mm)	42-3/4" (1086 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-48B	48-1/2" (1232 mm)	48-3/4" (1238 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-54B	54-1/2" (1384 mm)	54-3/4" (1391 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-60B	60-1/2" (1537 mm)	60-3/4" (1543 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-66B	66-1/2" (1689 mm)	66-3/4" (1695 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-72B	72-1/2" (1842 mm)	72-3/4" (1848 mm)	20" (508 mm)	20-1/4" (514 mm)

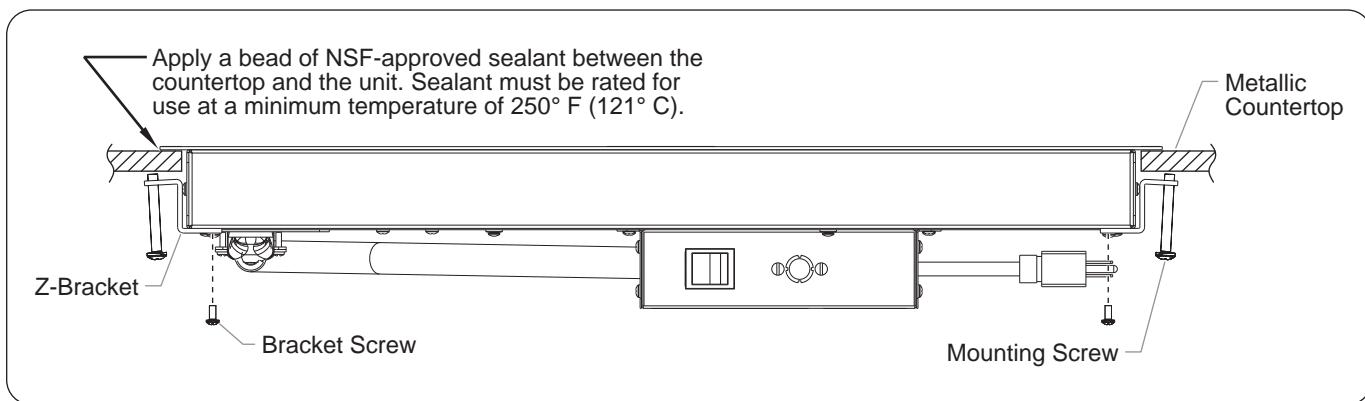


Figure 11. TS2-B Flat Top Model Installation

Countertop Cutout — TS2-B Flat Top Models

Model	Minimum Width	Maximum Width	Minimum Depth	Maximum Depth
TS2-24B	24-1/2" (622 mm)	24-3/4" (629 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-30B	30-1/2" (775 mm)	30-3/4" (781 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-36B	36-1/2" (927 mm)	36-3/4" (934 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-42B	42-1/2" (1080 mm)	42-3/4" (1086 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-48B	48-1/2" (1232 mm)	48-3/4" (1238 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-54B	54-1/2" (1384 mm)	54-3/4" (1391 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-60B	60-1/2" (1537 mm)	60-3/4" (1543 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-66B	66-1/2" (1689 mm)	66-3/4" (1695 mm)	20" (508 mm)	20-1/4" (514 mm)
TS2-72B	72-1/2" (1842 mm)	72-3/4" (1848 mm)	20" (508 mm)	20-1/4" (514 mm)

OPERATION

General

Use the following procedure to turn on and operate the TS2 and TS2-B units.



Read all safety messages in the **IMPORTANT SAFETY INFORMATION** section before operating this equipment.

1. Plug unit into a properly grounded electrical receptacle of the correct voltage, size, and plug configuration. Refer to the SPECIFICATIONS section in this manual for details.
2. Move the POWER On/Off (I/O) switch to the On (I) position.



BURN HAZARD: Some exterior surfaces on unit will get hot. Use caution when touching these areas.

3. Turn the thermostat control to the desired temperature setting.
4. Allow the unit 30 minutes to reach operating temperature.

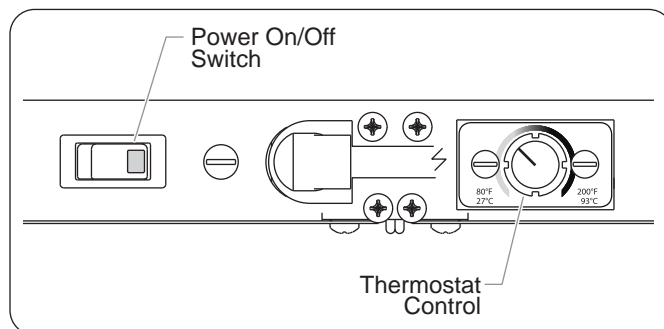


Figure 12. Control Panel — TS2 Model

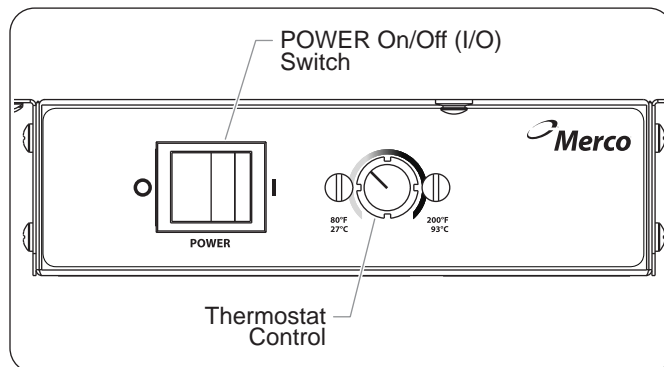


Figure 13. Control Panel — TS2-B Models

General

Merco Thermal Shelves are designed for maximum durability and performance with minimum maintenance.



WARNING

ELECTRIC SHOCK HAZARD:

- Turn power switch OFF, unplug power cord, and allow unit to cool before performing any maintenance or cleaning.
- **DO NOT submerge or saturate with water. Unit is not waterproof. Do not operate if unit has been submerged or saturated with water.**
- **Do not steam clean or use excessive water on unit.**
- **Use only OEM Replacement Parts when service is required. Failure to use OEM Replacement Parts will void all warranties and may subject operators of the equipment to hazardous electrical voltage, resulting in electrical shock or burn. OEM Replacement Parts are specified to operate safely in the environments in which they are used. Some aftermarket or generic replacement parts do not have the characteristics that will allow them to operate safely in Merco equipment.**

This unit has no “user-serviceable” parts. If service is required on this unit, contact a Factory Authorized Service Agent or contact the Merco Service Department at 800-506-9565.

Cleaning

To preserve the finish of the Merco Thermal Shelf, it is recommended that all surfaces be cleaned daily

NOTICE

Use non-abrasive cleaners only. Abrasive cleaners could scratch the finish of the unit, marring its appearance and making it susceptible to soil accumulation.

1. Turn off the unit, unplug the power cord, and allow the unit to cool.
2. Remove and wash all food pans, if necessary.
3. Wipe down all metal surfaces with a clean, damp cloth. Stubborn stains may be removed with a good stainless steel or non-abrasive cleaner. Clean hard to reach areas using a small brush and mild soap.

TROUBLESHOOTING GUIDE



This unit must be serviced by qualified personnel only. Service by unqualified personnel may lead to electric shock or burn.



ELECTRIC SHOCK HAZARD: Turn the power switch OFF, unplug the power cord, and allow the unit to cool before performing any maintenance or cleaning.

Symptom	Probable Cause	Corrective Action
Unit too hot.	Thermostat control set too high.	Adjust thermostat control to a lower setting.
	Thermostat control stuck in the "on" position.	Contact Factory Authorized Service Agent or Merco for assistance.
	Unit plugged into an incorrect power supply.	Verify with qualified personnel that power supply matches unit specification.
Unit not hot enough.	Thermostat control set too low.	Adjust thermostat control to a higher setting.
	Location of unit is susceptible to air currents (air conditioning ducts or exhaust fans).	Block air currents or relocate unit.
Unit not working at all.	Unit not plugged in.	Plug unit into proper power supply.
	Unit not turned on.	Move Power On/Off (I/O) switch to the On (I) position.
	Power On/Off (I/O) switch is not functioning.	Contact Factory Authorized Service Agent or Merco for assistance.
	Heating element is burned out.	Contact Factory Authorized Service Agent or Merco for assistance.
	Thermostat control is defective.	Contact Factory Authorized Service Agent or Merco for assistance.

4" (102 mm) Adjustable Legs (TS2 Models)

Use the following procedure to install 4" adjustable legs on a TS2 model.

NOTE: 4" (102 mm) legs are standard on models 42" (1067 mm) and wider.

1. Turn off the unit, unplug the power cord, and allow the unit to cool.

NOTICE

Do not lay unit on the side with the control panel. Damage to unit could occur.

2. Carefully turn the unit upside down and lay the unit on a flat surface. Make sure to cover the surface with something to prevent scratching the unit.
3. At each corner, thread a 4" leg into the bottom of the unit. Hand-tighten until snug. Do not over-tighten.
4. Return the unit to the upright position.

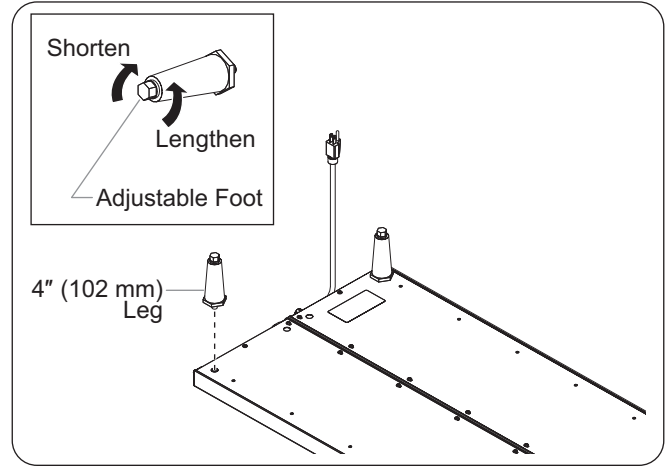


Figure 14. Leg Installation

NOTE: The feet on the 4" legs are adjustable for leveling the unit. Use a 9/16" (14 mm) open-end wrench to make leveling adjustments once the unit is placed in its final position.

MERCO LIMITED WARRANTY

1. PRODUCT WARRANTY

Merco LLC ("Merco"), warrants the products that it manufactures (the "Products") to be free from defects in materials and workmanship, under normal use and service, for a period of one (1) year from the date of purchase when installed and maintained in accordance with Merco's written instructions or 18 months from the date of shipment from Merco. Buyer must establish the Product's purchase date by returning Merco's Warranty Registration Card or by other means satisfactory to Merco in its sole discretion.

Merco warrants the following Product components to be free from defects in materials and workmanship from the date of purchase (subject to the foregoing conditions) for the period(s) of time and on the conditions listed below:

a) One (1) Year Parts and Labor PLUS One (1) Additional Year Parts-Only Warranty:

Heated Drawer Elements (metal sheathed)
Heated Drawer Rollers and Slides
Convenience Merchandiser Elements (metal sheathed)
Heated Merchandising Cabinet Elements
(metal sheathed air heating)

b) Ninety (90) Day Parts-Only Warranty:

Replacement Parts

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR PATENT OR OTHER INTELLECTUAL PROPERTY RIGHT INFRINGEMENT. Without limiting the generality of the foregoing, SUCH WARRANTIES DO NOT COVER: Coated incandescent light bulbs, fluorescent lights, decorative heat lamp bulbs, glass components, and fuses; Product failure in water heating equipment caused by liming, sediment buildup, chemical attack, or freezing; or Product misuse, tampering or misapplication, improper installation, or application of improper voltage.

2. LIMITATION OF REMEDIES AND DAMAGES

Merco's liability and Buyer's exclusive remedy hereunder will be limited solely, at Merco's option, to repair or replacement using new or refurbished parts or Product by Merco or a factory authorized service agency (other than where Buyer is located outside of the United States, Canada, United Kingdom, or Australia, in which case Merco's liability and Buyer's exclusive remedy hereunder will be limited solely to replacement of part under warranty) with respect to any claim made within the applicable warranty period referred to above. Merco reserves the right to accept or reject any such claim in whole or in part. In the context of this Limited Warranty, "refurbished" means a part or Product that has been returned to its original specifications by Merco or a factory authorized service agency. Merco will not accept the return of any Product without prior written approval from Merco, and all such approved returns shall be made at Buyer's sole expense. **MERCO WILL NOT BE LIABLE, UNDER ANY CIRCUMSTANCES, FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, INCLUDING BUT NOT LIMITED TO LABOR COSTS OR LOST PROFITS RESULTING FROM THE USE OF OR INABILITY TO USE THE PRODUCTS OR FROM THE PRODUCTS BEING INCORPORATED IN OR BECOMING A COMPONENT OF ANY OTHER PRODUCT OR GOODS.**

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