**LS 5800
Mounting Instructions
and EAS Antenna Kit
Installation Guide**

Quick Reference

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Introduction

The first part of this guide provides mounting information for all the different LS 5800 configurations. It shows a typical layout and furnishes mounting dimensions. The second part deals with installing an EAS system.

Mounting

The LS 5800 mounts in the counter, with the face of the scanner either flush with the counter top or resting on it.

In Figure 1, the dotted area depicts the active scan area, and the arrow shows the optimal direction of product flow. The scanner's active scan zone extends about 6 in. (15.24 cm) above the window, and is angled at approximately 38° from the counter.
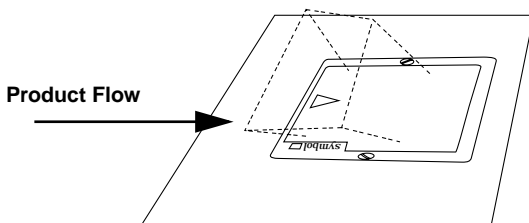
Figure 1. Active Scan Area

The LS 5800 is available with either a standard scratch-resistant coated glass, or a stainless steel top with a sapphire- or diamond-coated scan window. Each configuration can be mounted with the lip of the scanner resting either slightly above or flush with the counter top.

Layout

Figure 2 shows a typical LS 5800 installation. For best operating results, locate the power supply at least 4 in. (10.16 cm) below the scanner chassis or 2 in. (5.08 cm) away laterally.

Cable Routing
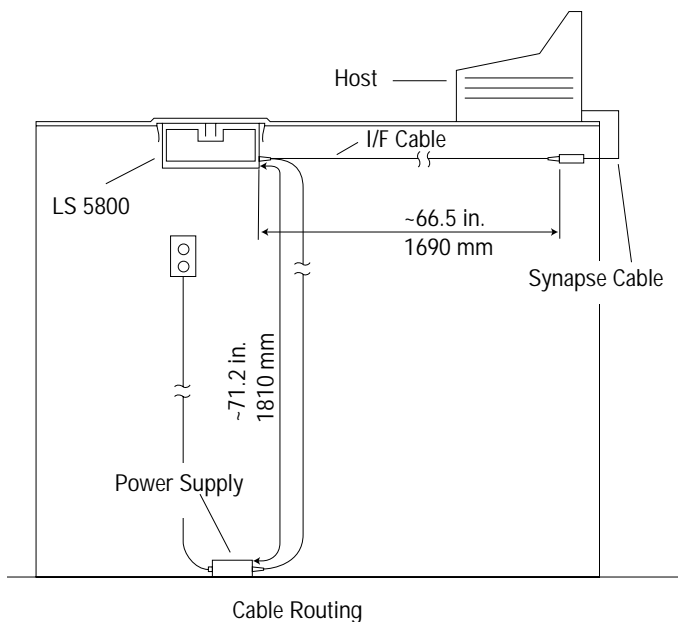
Figure 2. Typical LS 5800 Installation

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Standard Scratch-Resistant Coated Glass

There are two options for mounting the LS 5800-IxxxTN and LS 5800IxxxTC (standard scratch-resistant coated glass) with a 12-17206-xx bucket.

Option A - Resting on the counter top

1. Cut a hole in the counter 6.26 in. (159 mm) square (Figure 3).

Counter Hole

6.26 in. ±0.06
159 mm ±1.5

7.91 in.
201 mm

~3.5 in.
89 mm
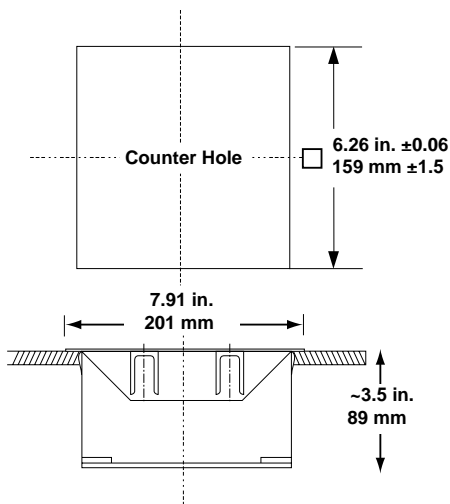
Figure 3. Standard Glass Option A

2. Insert the bucket into the hole.

3. Place the scanner on the counter near the bucket.

4. Route the cables from beneath the bucket and attach to the scanner as shown in Figure 2.

5. Lower the scanner into the bucket.

Standard Scratch-Resistant Coated Glass

Option B - Flush with the counter top

1. On the counter top, measure two concentric squares: an inside square of 6.26 in. (159 mm), and an outside square of 7.91 in. (201 mm) (Figure 4).

2. Cut out the 6.26 in. (159 mm) inner square.

3. With a router set to a depth of .05 in. (1.2 mm), route out the outside square. The corner radius should not exceed 0.2 in. (5 mm).

Figure 4. Standard Glass Option B

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4. Insert the bucket into the hole.
5. Place the scanner on the counter near the bucket.
6. Route the cables from beneath the bucket and attach to the scanner as shown in Figure 2.
7. Lower the scanner into the bucket.

Stainless Steel Top with Hardened Scan Windows

The LS 5800-I210SN has a stainless steel top with a sapphire-coated glass. The LS 5800-I210DN has a stainless steel top with a diamondex-coated glass.

There are two options for mounting the LS 5800 with a stainless steel top.

Option A - Resting on the counter top

1. Cut a hole in the counter 6.81 in. (173 mm) square (Figure 5).

Figure 5. Stainless Steel Top Option A

2. Route the cables from beneath the hole and attach to the scanner as shown in Figure 2.
3. Lower the scanner into the hole in the counter.

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Stainless Steel Top with Hardened Scan Windows

Option B - Flush with the counter top

1. On the counter top, measure two squares: an inside square of 6.81 in. (173 mm), and an outside square of 7.91 in. (201 mm) (Figure 6).

2. Cut out the 6.81 in. (173 mm) inner square.

3. With a router set to a depth of .05 in. (1.2 mm), route out the outside square. The corner radius should not exceed 0.20 in. (5 mm).
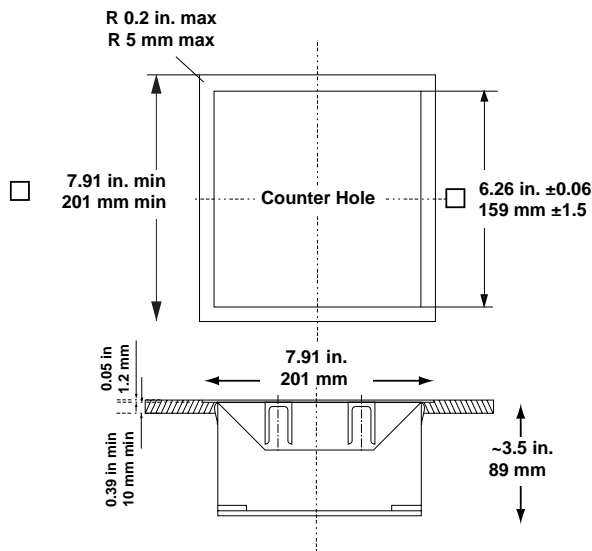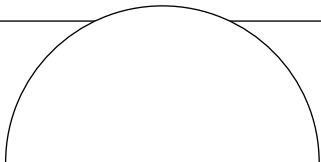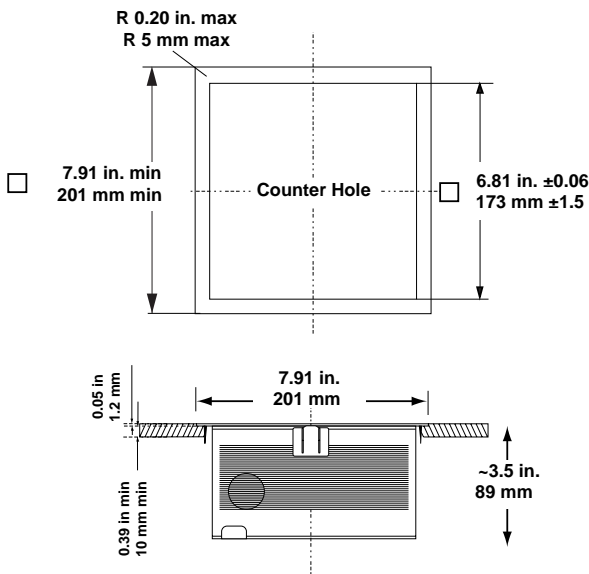

Figure 6. Stainless Steel Top Option B

4. Route the cables from beneath the hole and attach to the scanner as shown in Figure 2.

5. Lower the scanner into the hole in the counter.

Replacing Other Symbol Fixed-Mount Scanners

LS 5100/LS 5400 with LS 5800-IxxxZN and LS 5800-I220SN

1. Remove the LS 5100/ LS 5400 scanner.
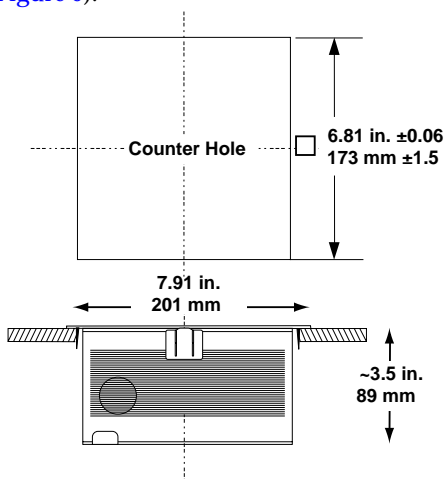
2. Place the LS 5800-IxxxZN or LS 5800-I220SN scanner on the counter near the hole.

3. Route the cables from beneath the hole and attach to the scanner as shown in Figure 2.

4. Lower the scanner into the hole.

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LS 5800 EAS Antenna Installation

Introduction

LS 5800-I200TC models come with an internal EAS antenna. The EAS deactivation range for these scanners is 6.5 in.(15.74 cm). The EAS antenna kit, p/n KT-19430-0X, is compatible with LS 5800-I000TN, LS 5800-I200TN, LS 5800-I010SN, and LS 5800-I210DN models only. EAS deactivation range for these scanners is 8 in.(20.3 cm). All these EAS systems are intended for use with CheckPoint CP-V sytem.They do not support CP-IV and other low-power, receiver-based EAS deactivation systems.

Things to Consider

The CheckPoint CP-V system operates by generating a periodic burst of electromagnetic energy which deactivates EAS tags brought into proximity of the scanner. Unless proper precautions are taken, this field may interfere with the scanner's operation.

The following criteria must be observed when installing either EAS system (internal or with a kit):

- The antenna box must be as far as possible (minimum 6 in. or 15.24 cm) from the scanner.
- The EAS antenna, EAS antenna box, EAS control cable, and EAS controller box must be as far as possible from the scanner's host and power cables. See Figure 7.
- The counter in which the EAS antenna is installed must be made of non-metallic materials. Metallic counters or metal objects in proximity to the scanner interfere with EAS deactivation.

- If two antenna boxes are connected to the controller box, each of them must be connected to a scanner (antenna). If one is left unconnected, communications errors may occur. If only one antenna is in use, disconnect the other antenna box at the controller box.
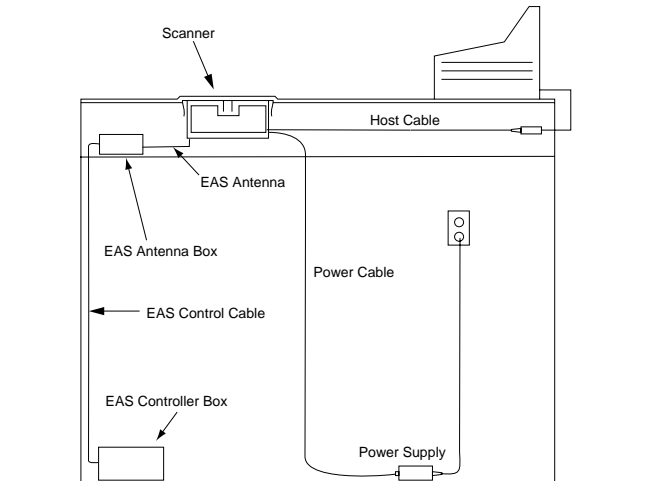
Figure 7. Typical EAS Installation

Installing the EAS Antenna

For LS 5800-I200TC models, go to Step 10. For all other models, begin at Step 1.

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1. On the counter top, measure two concentric squares.

    • For the stainless steel models (LS 5800-I010SN,
       LS 5800-I210SN and LS 5800I210DN), the inner square
       is 6.81 in. (173 mm).

    • For the standard version (LS 5800-I000TN and
       LS 5800-2000TN) installed in the in-counter mounting
       kit (p/n 12-17206-02), the inner square is 6.26 in.
       (159 mm).

       The outside square for either bucket is the same —
       7.91 in. (201 mm).

2. Drill one .375 in. (9.5 mm) hole in each corner of the inner
    square as shown in Figure 8. Any of these holes may be
    used as a channel for the EAS antenna wire.

.375 in. (9.5 mm) holes
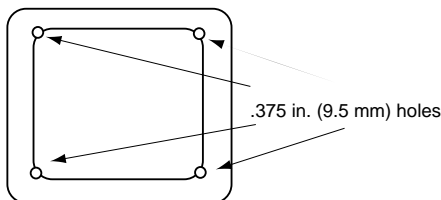
Figure 8. EAS Antenna Channel Holes

3. Cut out the inside square.

4. With a router set to a depth of .26 in. (6.5 mm), route out
    the outside square. The corner radius should not
    exceed 0.2 in. (5 mm).

5. Position the scanner above the hole and observe from
    which side the host and power cables will extend.

6. Turn the bucket upside down. Clean the surface of the bucket with a water/ammonia solution. (Any commercially available window cleaner will do.) Remove the protective backing from the four side adhesive strips on the EAS antenna.

7. Position the EAS antenna over the bucket. Be sure the antenna wire aligns with a channel which is opposite from the host and power cable as shown in Figure 9.
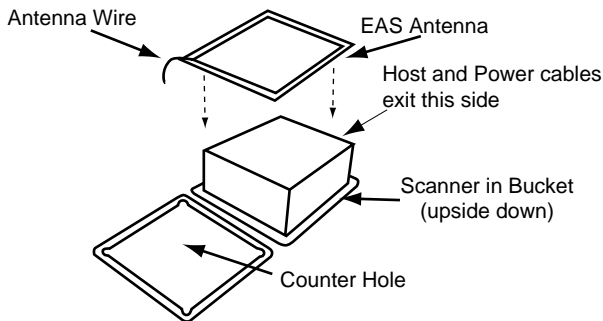
Figure 9. Aligning the Antenna and Bucket

8. Slide the antenna down and press firmly to secure it to the underside of the bucket lip.

9. Turn the scanner and bucket over and lower into the counter hole. Be sure the antenna wire is tucked into the channel. Be careful not to crimp the antenna wire. Press the bucket down to secure.

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10. Insert the two EAS antenna wires into the rear of the EAS connector, located on the EAS antenna box, in the holes marked "1" and "2" (Figure 10).
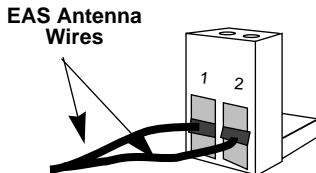
Figure 10. Rear of EAS Connector

11. Tighten the two screws on the top of the connector (Figure 11).
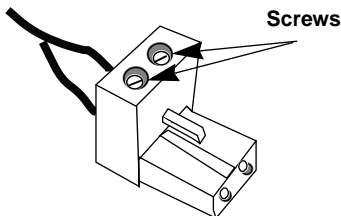
Figure 11. Front and Top of EAS Connector

Note: *Be sure the wires are firmly attached and the screws are tightened. Loose connections may result in communications problems.*

12. Insert the connector into the proper receptacle on the EAS antenna box.

Regulatory Information

Radio Frequency Interference Requirements

This device has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the Federal Communications Commissions Rules and Regulation. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

However, there is no guarantee that interference will not occur in a particular installation. If the equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Radio Frequency Interference Requirements - Canada

This Class A digital apparatus meets the requirements of the Canadian Interference-Causing Equipment Regulations.

Cet appareil numérique de la Classe A respecte toutes les exigences du Reglement sur le Materiél Brouilleur du Canada.

CE Marking and European Union Compliance

CE

Products intended for sale within the European Union are marked with the CE Mark which indicates compliance to applicable Directives and European Normes (EN), as follows. Amendments to these Directives or ENs are included:

Applicable Directives

- Electromagnetic Compatibility Directive 89/336/EEC
- Low Voltage Directive 73/23/EEC

Applicable Standards

- EN 55 022 - Limits and Methods of Measurement of Radio Interference Char-

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acteristics of Information technology Equipment
- EN 50 082-1:1997 - Electromagnetic Compatibility - Generic Immunity Standard, Part 1: Residential, commercial, Light Industry
- IEC 1000-4-2(1995-01) - Electromagnetic compatibility (EMC) - Part 4:Testing and measurement techniques - Section 2: Electrostatic discharge immunity test.
- IEC 1000-4-3(1995-03) - Electromagnetic compatibility (EMC) - Part 4:Testing and measurement techniques - Section 3: Radiated, radio-frequency, electromagnetic field immunity test.
- IEC 1000-4-4(1995-01) - Electromagnetic compatibility (EMC) - Part 4:Testing and measurement techniques - Section 4: Electrical fast transient/burst immunity test.
- EN 60 950 + Amd 1 + Amd 2 - Safety of Information Technology Equipment Including Electrical Business Equipment
- EN 60 825-1 (EN 60 825) - Safety of Devices Containing Lasers

Laser Devices

Symbol products using lasers comply with US 21CFR1040.10, Subchapter J and IEC825/EN 60 825 (or IEC825-1/EN 60 825-1, depending on the date of manufacture). The laser classification is marked on one of the labels on the product.

Class 1 Laser devices are not considered to be hazardous when used for their intended purpose. The following statement is required to comply with US and international regulations:

Caution:Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

Class 2 laser scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.

In accordance with Clause 5, IEC 0825 and EN60825, the following information is provided to the user:
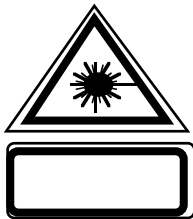
ENGLISH

CLASS 1	CLASS 1 LASER PRODUCT
CLASS 2	LASER LIGHT

DO NOT STARE INTO BEAM
CLASS 2 LASER PRODUCT

DANISH

KLASSE 1	KLASSE 1 LASERPRODUKT
KLASSE 2	LASERLYF
	SE IKKE IND I STRÅLEN
	KLASSE 2 LASERPRODUKT

DUTCH

KLASSE 1	KLASSE-1 LASERPRODUKT
KLASSE 2	LASERLICHT
	NIET IN STRAAL STAREN
	KLASSE-2 LASERPRODUKT

FINNISH

LUOKKA 1	LUOKKA 1 LASERTUOTE
LUOKKA 2	LASERVALO
	ÄLÄ TUIJOTA SÄDETTÄ
	LUOKKA 2 LASERTUOTE

FRENCH

CLASSE 1	PRODUIT LASER DE CLASSE 1
CLASSE 2	LUMIERE LASER
	NE PAS REGARDER LE RAYON FIXEMENT
	PRODUIT LASER DE CLASSE 2

GERMAN

KLASSE 1	LASERPRODUKT DER KLASSE 1
KLASSE 2	LASERSTRAHLEN
	NICHT DIREKT IN DEN LASERSTRAHL SCHAUEN
	LASERPRODUKT DER KLASSE 2

HEBREW

מוצר לייזר רמה 1 רמה 1

אור לייזר רמה 2
אין להביט אל תוך הזרם
מוצר לייזר רמה 2

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ITALIAN

CLASSE 1	PRODOTTO AL LASER DI CLASSE 1
CLASSE 2	LUCE LASER
	NON FISSARE IL RAGGIOPRODOTTO AL LASER DI CLASSE 2

NORWEGIAN

KLASSE 1	LASERPRODUKT, KLASSE 1
KLASSE 2	LASERLYS IKKE STIRR INN I LYSSTRÅLEN
	LASERPRODUKT, KLASSE 2

PORTUGUESE

CLASSE 1	PRODUTO LASER DA CLASSE 1
CLASSE 2	LUZ DE LASER NÃO FIXAR O RAIO LUMINOSO
	PRODUTO LASER DA CLASSE 2

SPANISH

CLASE 1	PRODUCTO LASER DE LA CLASE 1
CLASE 2	LUZ LASER
	NO MIRE FIJAMENTE EL HAZ
	PRODUCTO LASER DE LA CLASE 2

SWEDISH

KLASS 1	LASERPRODUKT KLASS 1
KLASS 2	LASERLJUS STIRRA INTE MOT STRÅLEN
	LASERPRODUKT KLASS 2

RF Devices

Symbol's RF products are designed to be compliant with the rules and regulations in the locations into which they are sold and will be labeled as required. The majority of Symbol's RF devices are type approved and do not require the user to obtain license or authorization before using the equipment. Any changes or modifications to Symbol Technologies equipment not expressly approved by Symbol Technologies could void the user's authority to operate the equipment.

Service Information

Before you use a terminal, it must be configured to operate in your facility's network and run your applications.

If you have a problem with running your terminal or using your equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact the Symbol Support Center:
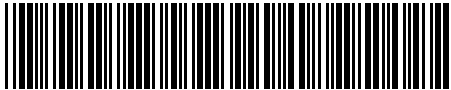
1-800-653-5350

Outside North America, contact your local Symbol representative.

Warranty

Symbol products are warranted against defects in workmanship and materials for a period of one year from the date of shipment, provided that the product remains unmodified and is operated under normal and proper conditions.

This warranty is limited to repair or replacement at Symbol's option, with reasonable promptness after being returned to Symbol by a carrier selected and paid for by the customer. These provisions do not prolong the original warranty term for any product which has been repaired or replaced by Symbol.

This warranty applies to the original owner and does not extend to any product which has been subject to misuse, neglect, accidental damage, unauthorized repair or tampering. Preventive maintenance activities are not covered by warranty.