



DS457 Fixed Mount Imager

Quick Reference Guide



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Warranty

For the complete Motorola hardware product warranty statement, go to:

<http://www.motorola.com/enterprisemobility/warranty>

Introduction

The DS457 fixed mount imager is specifically designed for standalone applications, and OEM applications such as kiosks. The imager is extremely compact, provides easy and flexible integration of bar code imaging into a host device, and offers high-performance imaging on 1D and 2D bar codes. The DS457 is ideal for embedded medical diagnostic equipment and for conveyor lines in manufacturing environments. The DS457 can also be used as a zero-footprint 2D array imaging solution in retail POS environments.

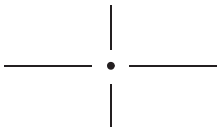
Connecting the DS457

To connect the DS457 to a host:

1. Plug the 9-pin D-connector with the end marked **SCANNER** into the DS457.
2. If using an external switch and applicable host cable, plug the trigger cable into the female stereo connector on the flying lead of the 9-pin D-connector.
3. Plug the host side connector into the appropriate port on the host.
4. For RS-232 connection, plug the power supply into an AC receptacle, and the output cable from the power supply into the connector near the host end of the interface cable.
5. Check all connections to ensure they are secure.
6. Program the DS457 using the programming bar codes in the *DS457 Imager Integration Guide*.

Capturing Data

When scanning, the imager projects a red laser aiming pattern which allows positioning the bar code within its field of view.



If necessary, the imager turns on its red LEDs to illuminate the target bar code.

To scan a bar code, center the symbol in any orientation within the aiming pattern. Be sure the entire symbol is within the rectangular area formed by the cross pattern.

1D bar code symbol



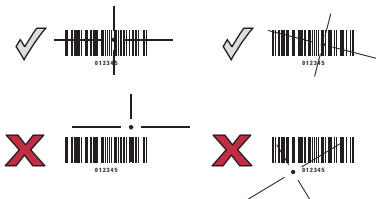
2D bar code symbol



2D dot peen DPM symbol



The imager can also read a bar code presented within the aiming pattern but not centered. The top examples in the following illustration show acceptable aiming options, while the bottom examples can not be decoded.



Upon successful decode, the DS457 beeps and its LED turns green.

Programming Bar Codes

Following are some frequently used bar codes for programming the DS457.

Set Defaults

- **Restore Defaults** - Scan this bar code to reset all default parameters as follows.
 - If you previously set custom defaults by scanning **Write to Custom Defaults** in the *Integration Guide*, scan **Restore Defaults** to retrieve and restore the decoder's custom default settings.
 - If you did not set custom defaults, scan **Restore Defaults** to restore the factory default values.



Restore Defaults

- **Set Factory Defaults** - Scan this bar code to restore the factory default values. This deletes any custom defaults set.



Set Factory Defaults

Host Types

USB Device Type



HID Keyboard Emulation (Default)



Symbol Native API (SNAPI) with Imaging Interface



Symbol Native API (SNAPI)
without Imaging Interface

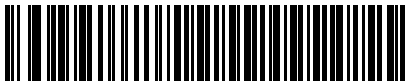
USB Device Type (continued)



CDC COM Port Emulation



SSI over USB CDC

Serial Host Type**SSI Host****Standard RS-232
(Transmits Only ASCII Data)**

Trigger Modes

Presentation (default)

When the DS457 detects an object in its field of view, it triggers and attempts to decode. The range of object detection does not vary under normal lighting conditions. This applies to decode mode only. In this mode the unit does not enter Low Power mode.



Presentation (Default)

Level Trigger

Pressing the trigger on top of the imager or an external trigger connected through the host cable activates decode processing, which continues until the trigger is released, a valid decode, or the decode session timeout occurs.



Level

Host

A host command issues the triggering signal. The DS457 interprets a trigger press as a level triggering option.



Host

Motion Enhancement for Presentation Mode

Select Disable Motion Enhancement to revert to standard Presentation Mode behavior.



Disable Motion Enhancement (Default)

Select Enable Motion Enhancement to fine-tune engine and decoder behavior for bar codes moving quickly through the imager's field of view.



Enable Motion Enhancement

Note: Do not enable Motion Enhancement if scanning bar codes on mobile phones or electronic displays.

Mobile Phone/Display Mode

This mode improves bar code reading performance with target bar codes displayed on mobile phones and electronic displays.



Disable Mobile Phone/Display Mode (Default)



Enable Mobile Phone/Display Mode

Beeper and LED Indications

The beeper and LED indicate imager status as follows:

Indication	Beeper	LED
Imager is on.	N/A	Red
A bar code is successfully decoded.	1 beep	Flash of green
A programming parameter was entered successfully.	Fast warble	Flash of green
Transmission error. Bar code data was not received by the host.	4 beeps	Red

Troubleshooting

Problem	Possible Cause	Possible Solutions
No red LED or nothing happens during a capture attempt.	No power to the imager.	Check the system power. Confirm that the correct host interface cable is used.
		Connect power supply.
		Check for loose cable connections.
Imager cannot read the bar code.	Interface/power cables are loose.	Secure cable connections.
	Imager is not programmed for that bar code type.	Program the imager to read the type of bar code to be scanned.
	Incorrect communication parameters.	Set the correct communication parameters (baud rate, parity, stop bits, etc.)
	Bar code symbol is unreadable.	Ensure the symbol is not defaced. Try scanning similar symbols of the same code type.

Regulatory Information

This device is approved under the Symbol Technologies, Inc. brand: Symbol Technologies, Inc., is a wholly owned subsidiary of Motorola Solutions, Inc. ("Motorola").

This guide applies to Model Number: DS457

All Motorola/Symbol devices are designed to be compliant with rules and regulations in locations they are sold and will be labeled as required.

Local language translations are available at the following website: <http://supportcentral.motorola.com>

Any changes or modifications to Motorola/Symbol Technologies equipment, not expressly approved by Motorola/Symbol Technologies, could void the user's authority to operate the equipment.

Health and Safety Recommendations



Ergonomic Recommendations



CAUTION In order to avoid or minimize the potential risk of ergonomic injury follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force

- Keep objects that are used frequently within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures.

Laser Devices



COMPLIES WITH 21CFR1040.10 AND 1040.11 EXCEPT FOR DEVIATIONS PURSUANT TO LASER NOTICE NO. 50, DATED JUNE 24, 2007 AND IEC 60825-1 (Ed. 2.0), EN60825-1:2007.

The laser classification is marked on one of the labels on the device.

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.

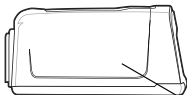
Class 2 laser scanners use a low power, visible light diode. As with any very bright light source, such as the sun, the user should avoid staring directly into the light beam. Momentary exposure to a Class 2 laser is not known to be harmful.

LED Devices

Complies with IEC/EN60825-1:2001 & IEC/EN62471:2006

For devices with Class 1M LED's the following label is used:

Scanner Labeling



LASER LIGHT - DO NOT STARE INTO BEAM. CLASS 2 LASER/1M LED PRODUCT
LASERLICHT-NICHT IN DEN STRAHL BLICKEN. LASER/1M LED KLASSE 2
LUMIERE LASER-NE PAS REGARDER DANS LE FAISCEAU. APPAREIL
A LASER/1M LED DE CLASSE 2. 630-660nm, 10mw

激光/LED辐射 勿直视光束 2类激光/1M类LED产品



Power Supply

Use ONLY a LISTED Motorola, Type no. PWRS-14000 (5.2Vdc, 850mA), or direct plug-in power supply, marked Class 2 or LPS (IEC60950-1, SELV). Use of alternative Power Supply will invalidate any approvals given to this unit and may be dangerous.

Radio Frequency Interference Requirements - FCC



Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the

FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However there is no guarantee that interference will not occur in a particular installation. If this 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:

- Reorient 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 to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help.

Radio Frequency Interference Requirements - Canada

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Marking and European Economic Area (EEA)



Statement of Compliance

Motorola/Symbol hereby declares that this device is in compliance with all the applicable Directives, 2004/108/EC and 2006/95/EC. A Declaration of Conformity may be obtained from <http://www.motorola.com/doc>.

Japan (VCCI) - Voluntary Control Council for Interference

Class B ITE

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づくクラスB情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。取扱説明書に従って正しい取り扱いをして下さい。

Korea Warning Statement for Class B ITE

기종별	사용자안내문
B급 기기 (가정용 방송통신기기)	이 기기는 가정용(B급)으로 전자파적합등록을 한 기기로서 주로 가정에서 사용하는 것을 목적으로 하며, 모든 지역에서 사용할 수 있습니다.



Waste Electrical and Electronic Equipment (WEEE)

English: For EU Customers: All products at the end of their life must be returned to Motorola for recycling. For information on how to return product, please go to: <http://www.motorola.com/recycling/weee>.

Български: За клиенти от ЕС: След края на полезния им живот всички продукти трябва да се връщат на Motorola за рециклиране. За информация относно връщането на продукти, моля отидете на адрес: <http://www.motorola.com/recycling/weee>.

Čeština: Pro zákazníky z EU: Všechny produkty je nutné po skončení jejich životnosti vrátit společnosti Symbol k recyklaci. Informace o způsobu vrácení produktu najdete na webové stránce: <http://www.motorola.com/recycling/weee>.

Dansk: Til kunder i EU: Alle produkter skal returneres til Motorola til recirkulering, når de er udtjent. Læs oplysningerne om returnering af produkter på: <http://www.motorola.com/recycling/weee>.

Deutsch: Für Kunden innerhalb der EU: Alle Produkte müssen am Ende ihrer Lebensdauer zum Recycling an Motorola zurückgesandt werden. Informationen zur Rücksendung von Produkten finden Sie unter <http://www.motorola.com/recycling/weee>.

Eesti: EL klientidele: kõik tooted tuleb nende eluea lõppedes tagastada taaskasutamise eesmärgil Motorola'ile. Lisainformatsiooni saamiseks toote tagastamise kohta külastage palun aadressi: <http://www.motorola.com/recycling/weee>.

Español: Para clientes en la Unión Europea: todos los productos deberán entregarse a Motorola al final de su ciclo de vida para que sean reciclados. Si desea más información sobre cómo devolver un producto, visite: <http://www.motorola.com/recycling/weee>.

Ελληνικά: Για πελάτες στην Ε.Ε.: Όλα τα προϊόντα, στο τέλος της διάρκειας ζωής τους, πρέπει να επιστρέφονται στην Motorola για ανακύκλωση. Για περισσότερες πληροφορίες σχετικά με την επιστροφή ενός προϊόντος, επισκεφθείτε τη διεύθυνση <http://www.motorola.com/recycling/weee> στο Διαδίκτυο.

Français : Clients de l'Union Européenne : Tous les produits en fin de cycle de vie doivent être retournés à Motorola pour recyclage. Pour de plus amples informations sur le retour de produits, consultez :

<http://www.motorola.com/recycling/weee>.

Italiano: per i clienti dell'UE: tutti i prodotti che sono giunti al termine del rispettivo ciclo di vita devono essere restituiti a Motorola al fine di consentirne il riciclaggio. Per informazioni sulle modalità di restituzione, visitare il seguente sito Web:

<http://www.motorola.com/recycling/weee>.

Latviešu: ES klientiem: visi produkti pēc to kalpošanas mūža beigām ir jānogādā atpakaļ Motorola otrreizējai pārstrādei. Lai iegūtu informāciju par produktu nogādāšanu Motorola, lūdzu, skatiet: <http://www.motorola.com/recycling/weee>.

Lietuvių: ES vartotojams: visi gaminiai, pasibaigus jų eksploatacijos laikui, turi būti gražinti utilizuoti į kompaniją „Motorola“. Daugiau informacijos, kaip gražinti gaminį, rasite: <http://www.motorola.com/recycling/weee>.

Magyar: Az EU-ban vásárlóknak: Minden tönkrement terméket a Motorola vállalathoz kell eljuttatni újrahaznosítás céljából. A termék visszajuttatásának módjával kapcsolatos tudnivalóért látogasson el a <http://www.motorola.com/recycling/weee> weboldalra.

Malti: Għal klijenti fl-UE: il-prodotti kollha li jkunu waslu fl-aħħar tal-hajja ta' l-użu tagħhom, iridu jiġu rritornati għand Motorola għar-riċiklaġġ. Għal aktar taġġirif dwar kif għandek tirritorna l-prodott, jekk jogħġbok żur: <http://www.motorola.com/recycling/weee>.

Nederlands: Voor klanten in de EU: alle producten dienen aan het einde van hun levensduur naar Motorola te worden teruggezonden voor recycling. Raadpleeg <http://www.motorola.com/recycling/weee> voor meer informatie over het terugzenden van producten.

Polski: Klienci z obszaru Unii Europejskiej: Produkty wycofane z eksploatacji należy zwrócić do firmy Motorola w celu ich utylizacji. Informacje na temat zwrotu produktów znajdują się na stronie internetowej <http://www.motorola.com/recycling/weee>.

Português: Para clientes da UE: todos os produtos no fim de vida devem ser devolvidos à Motorola para reciclagem. Para obter informações sobre como devolver o produto, visite: <http://www.motorola.com/recycling/weee>.

Românesc: Pentru clienii din UE: Toate produsele, la sfârșitul duratei lor de funcționare, trebuie returnate la Motorola pentru reciclare. Pentru informații despre returnarea produsului, accesați:

<http://www.motorola.com/recycling/weee>.

Slovenski: Za kupce v EU: vsi izdelki se morajo po poteku življenjske dobe vrniti podjetju Motorola za reciklažo. Za informacije o vračilu izdelka obiščite:

<http://www.motorola.com/recycling/weee>.

Suomi: Asiakkaita Euroopan unionin alueella: Kaikki tuotteet on palautettava kierrätettäväksi Motorola-yhtiöön, kun tuotetta ei enää käytetä. Lisätietoja tuotteen palauttamisesta on osoitteessa

<http://www.motorola.com/recycling/weee>.

Svenska: För kunder inom EU: Alla produkter som uppnått sin livslängd måste returneras till Motorola för återvinning. Information om hur du returnerar produkten finns på

<http://www.motorola.com/recycling/weee>.

Türkçe: AB Müşterileri için: Kullanım süresi dolan tüm ürünler geri dönüşürme için Motorola'ya iade edilmelidir. Ürünlerin nasıl iade edileceği hakkında bilgi için lütfen şu adresi ziyaret edin:

<http://www.motorola.com/recycling/weee>

Service Information

If you have a problem using the equipment, contact your facility's Technical or Systems Support. If there is a problem with the equipment, they will contact Motorola Solutions Support at:

<http://supportcentral.motorola.com>

For the latest version of this guide go to:

<http://supportcentral.motorola.com>



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