

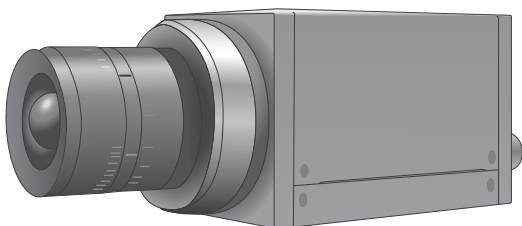
Digital high speed camera

**HAS-U1 / HAS-U2**

# Hardware settings user manual

This manual provides safety and installation instructions.

Please read this manual thoroughly before using.



Important safety instructions	3
-------------------------------	---

List of included items	4
------------------------	---

Parts name	5
------------	---

Setting up procedures	6
-----------------------	---

Connecting to optional accessories	9
---------------------------------------	---

Using USB3.0 hub	10
------------------	----

Product specifications	11
------------------------	----

Support information	11
---------------------	----



# Table of contents

---

Important safety instructions ..... 3

List of included items..... 4

Parts name ..... 5

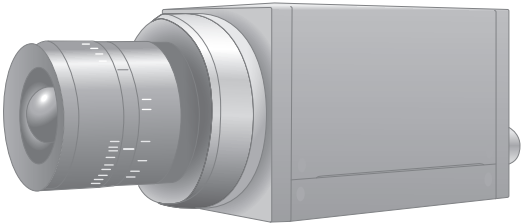
Setting up procedures..... 6

Connecting to optional accessories ..... 9

Using USB3.0 hub..... 10

Product specifications ..... 11

Support information..... 11



Important safety instructions

## — Introduction —

Thank you very much for your purchase.  
Please read this manual thoroughly before installation and operation, and keep this manual for future reference.

## — Important safety instructions —

### Caution for safety

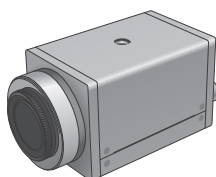
- Do not handle plug or appliance with wet hands.
- When plugging or unplugging the cable, ensure that AC power is turned off.
- If your device needs repair, please contact our technical support center.
- Do not disassemble or modify HAS-U1 • HAS-U2.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

# List of included items

- |                      |                                      |
|----------------------|--------------------------------------|
| 1 Camera body        | 7 Branch connector※                  |
| 2 USB3.0 cable       | 8 BNC cable※                         |
| 3 Sync master cable※ | 9 External sync cable※               |
| 4 Trigger button※    | 10 Hight brightness LED strobe※      |
| 5 USB3.0 hub※        | 11 Sync trigger cable for U1 and U2※ |
| 6 Software CD        |                                      |

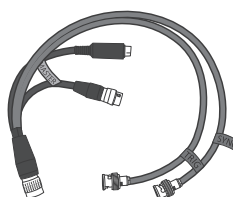
※ = optional accessory



1 Camera body



2 USB3.0 cable



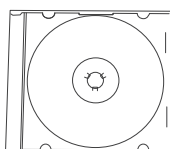
3 Sync master cable  
(FST-SYNC-MST-1※)



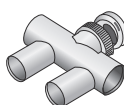
4 Trigger button



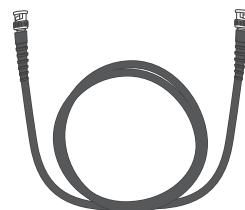
5 USB3.0 hub※



6 Software CD



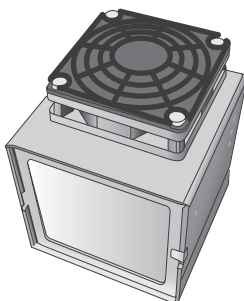
7 Branch connector※



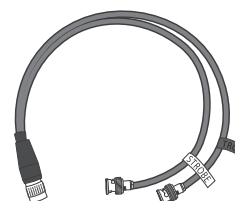
8 BNC cable※



9 External sync cable  
(MD8S-BNCx2※)



10 Hight brightness  
LED strobe※

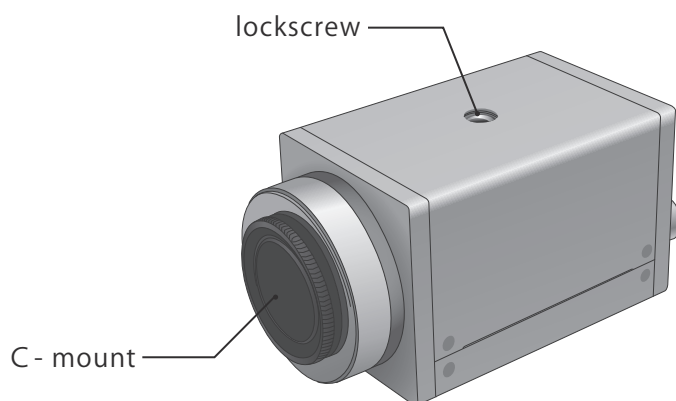


11 Trigger cable for U1 and U2※

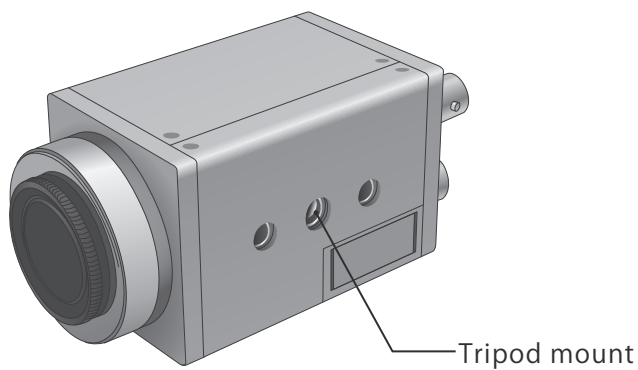
# Parts name

---

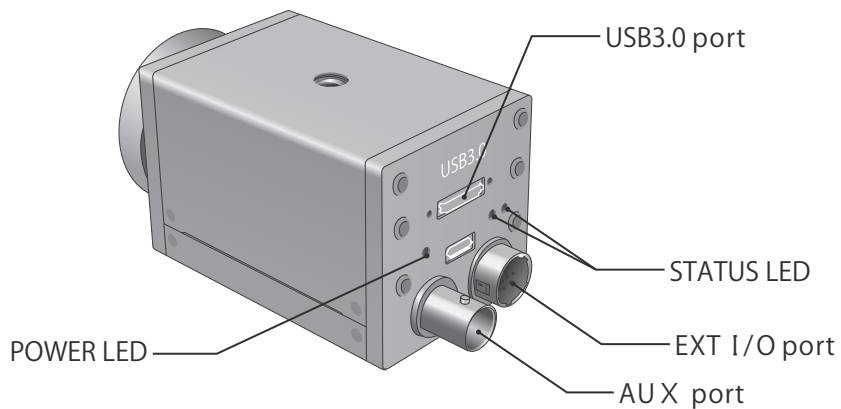
## 1 Top and Front



## 2 Bottom



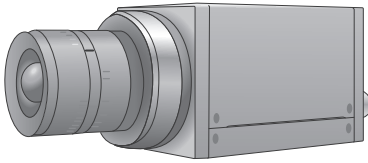
## 3 Rear



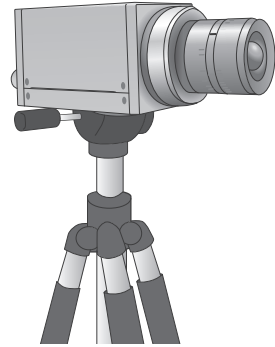
# Setting up procedures

How to connect camera directly your PC.

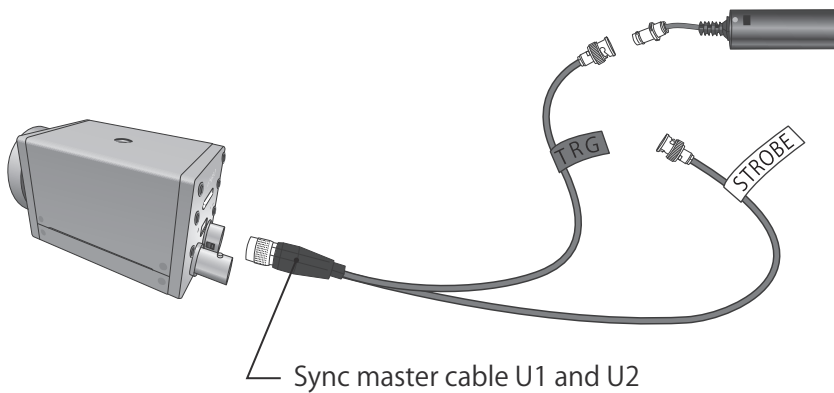
- ① When connecting the camera to a PC directly, please attach C-mount lens and remove the lens cover.



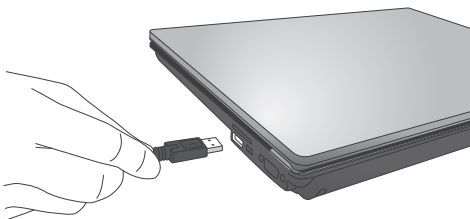
- ② Make sure that the camera is firmly attached to a tripod.



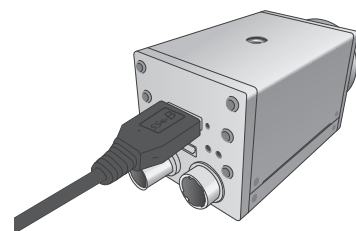
- ③ When it is necessary to use an external trigger and / or to synchronize with LED lights, please use a sync trigger cable for U1 and U2.



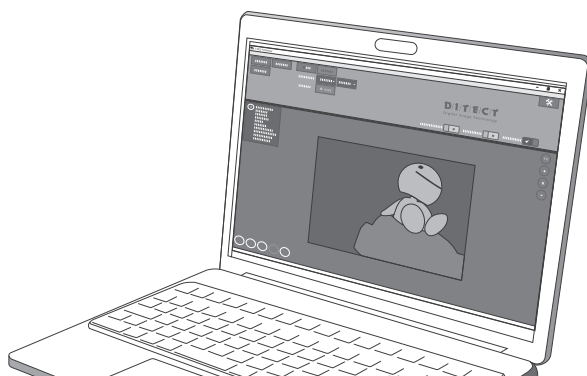
- ④ Connect USB3.0 cable (Standard-A) to your PC.



- ⑤ Connect USB3.0 cable (microB) to the camera.

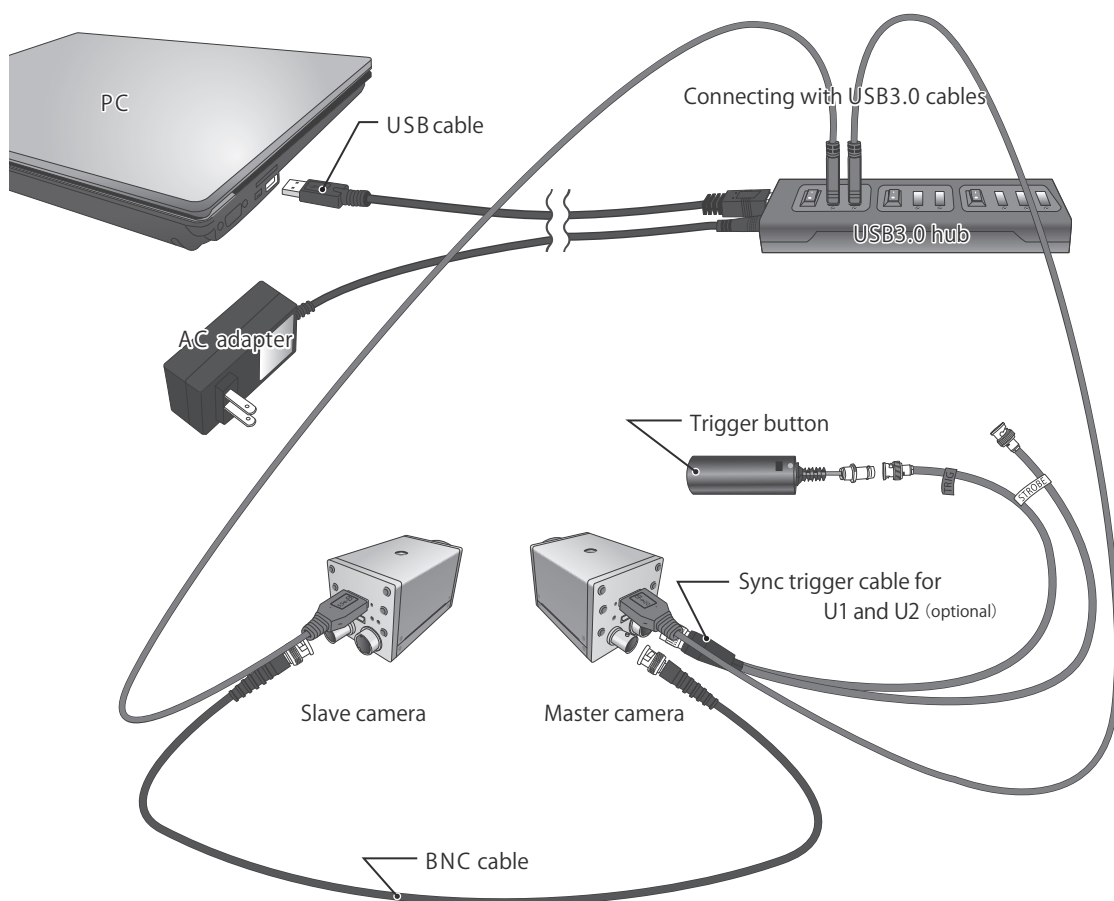


- ⑥ Run the installed, application.  
※For further assistance, please read the software manual.



### Connecting with multiple cameras.

※ Example of two camera setup.

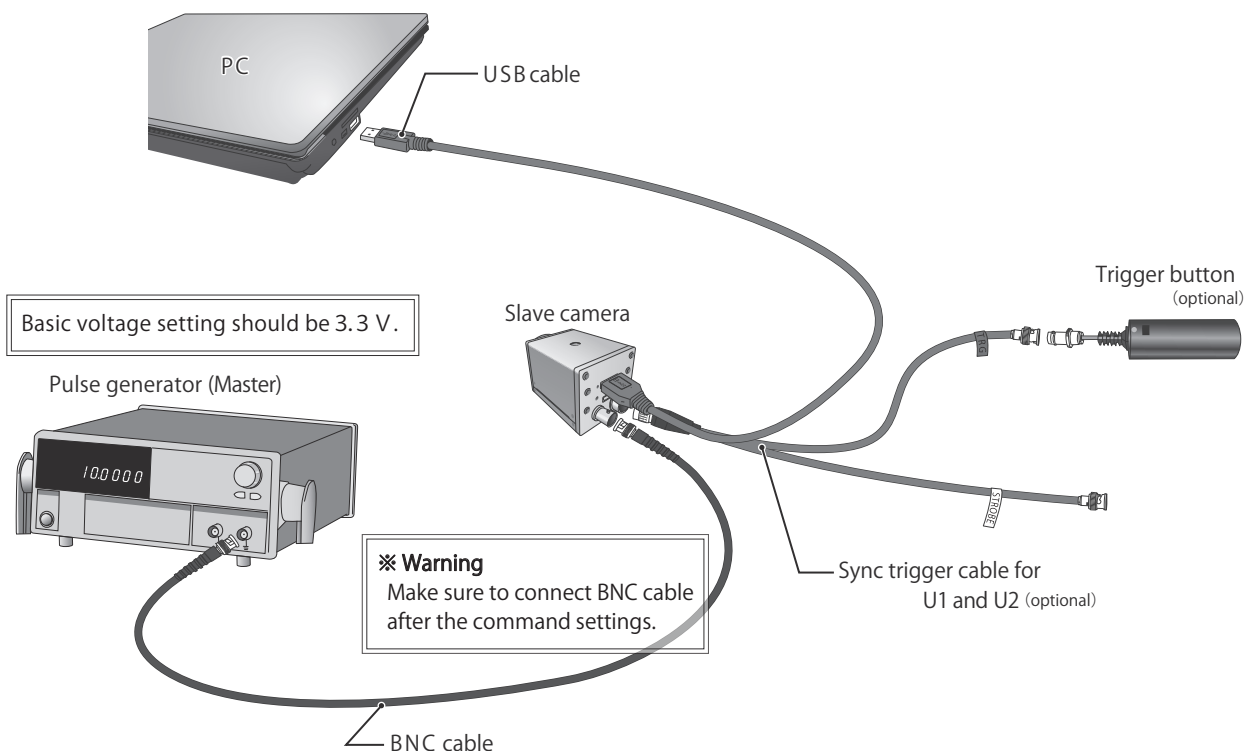




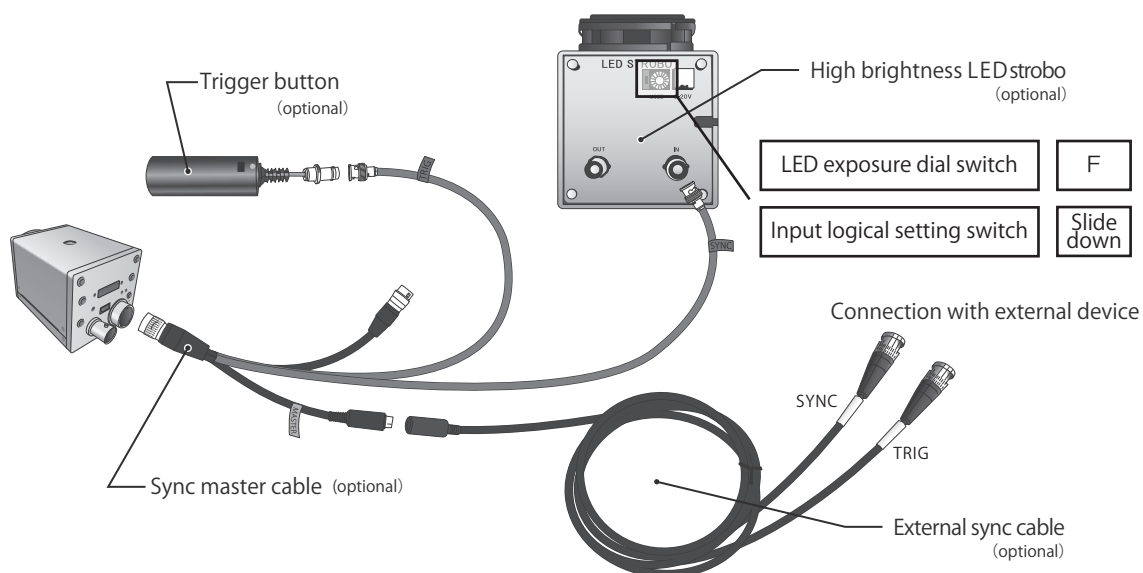


## Using external device as the master.

Example : How to record at the frequency of a pulse generator.



## Connecting with optional accessories.

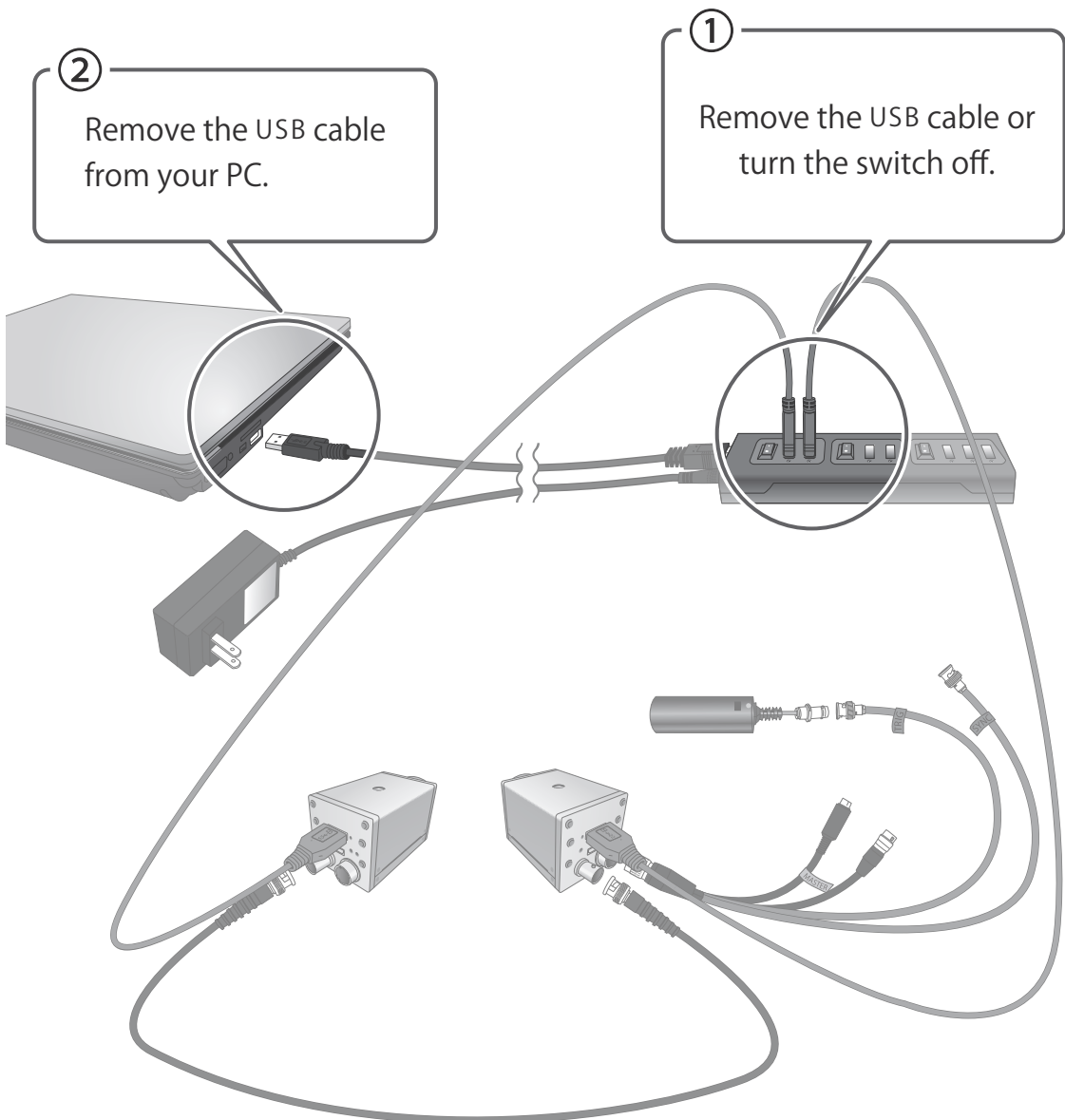


# Using USB3.0 hub

## ⚠ Caution!

When using USB 3.0 hub, be sure to follow the instructions below. Otherwise, it may lead to problems with the camera or USB 3.0 hub.

- ① Remove all the cameras connected to USB 3.0 hub.
- ② Remove USB 3.0 hub from your PC.



# Product specifications

## HAS-U1

Camera	
Camera type	Mono (HAS-U1M) Color (HAS-U1C)
Sensor	CMOS
A/D	10bit
Effective resolution	1280 x 1024 (1.3M pixel)
Sensor format	1 / 2 inch
Lens mount	C
Recording mode	Embedded memory transfer
Memory size	2GB
Data output	USB3.0
interface	Micro-B
Shutter (exposure)	Minimum 1/100,000sec (10 $\mu$ S)
Sensitivity	7.7V / lux,s
Power supply	Bus power 12 pin
Electric requirement	Under 4.5W
Weight	Approx. 210g
Size	44mm $\times$ 44mm $\times$ 81.5mm

## HAS-U2

Camera	
Camera type	Mono (HAS-U2M) Color (HAS-U2C)
Sensor	CMOS
A/D	10bit
Effective resolution	2592x 2048 (5.3 M pixel)
Sensor format	1 inch
Lens mount	C
Recording mode	Embedded memory transfer
Memory size	2GB
Data output	USB3.0
interface	Micro-B
Shutter (exposure)	Minimum 1/100,000sec (10 $\mu$ S)
Sensitivity	7.5V / lux,s
Power supply	Bus power 12 pin
Electric requirement	Under 4.5W
Weight	Approx. 210g
Size	44mm $\times$ 44mm $\times$ 81.5mm

# Support information

Please contact our local office for software updates and customized options as well as other inquiries.



**DITECT**  
Digital Image Technology

DITECT Corporation

Tokyo international office : 1-8 Nanpeidai-cho,  
Shibuya-ku, Tokyo 150-0036, Japan  
Phone : +81-3-5457-1212 Fax : +81-3-5457-1213

<http://www.ditect-corp.com/> or <http://www.ditect.co.jp/>

[support@ditect-corp.com](mailto:support@ditect-corp.com)

### For Americas

**SLAM International**

[Plaureano@slamintl.com](mailto:Plaureano@slamintl.com)

USA phone

+1-561-236-6098

+1-561-273-9840

Mexico phone

+52-442-455-1932

+52-442-648-3883

### For Asia Pacific

China

**Fort Imaging Limited**

[info@fort-imaging.com](mailto:info@fort-imaging.com)

+86-135-0120-7097

Malaysia & Vietnam

**DEWORKS SDN BHD**

[marcus@mt-engg.com](mailto:marcus@mt-engg.com)

[eddie@deworks.com.my](mailto:eddie@deworks.com.my)

+603-7803-1145

+6012-294-5449

Digital high speed camera

HAS-U1 / HAS-U2

**Hardware settings user manual** Rev1.0.2

**D/I/T/E/C/T**  
Digital Image Technology