



KETA M Series Molecular Imaging System



Installation and Operation Manual

Version 3.0

Item# 01240

****This instrument is intended for laboratory use only***

Index

| | |
|--|-----------|
| A. Important Notice | 1 |
| A-1. Warranty | |
| A-2. Technical and Service Contact | |
| A-3. Safety Notice | |
| A-4. CE Certification | |
| A-5. Symbols | |
| | |
| B. Introduction | 3 |
| B-1. Specifications | |
| B-2. Product Description | |
| B-2-1. KETA M series Imaging System Hardware Overview | |
| B-2-2. Magic 1D/Chemi Software Features Overview | |
| B-2-3. Printer (Optional) | |
| | |
| C. Installation of KETA M and Magic 1D/Chemi Software | 9 |
| C-1. Package List | |
| C-2. Installation of KETA M series Imaging System | |
| C-2-1. Space Requirement | |
| C-2-2. Installation Procedure | |
| | |
| D. Operation | 14 |
| D-1. Magic 1D/Chemi Software | |
| D-2. KETA M series Imaging System Hardware Operation | |
| D-2-1. General Operation | |
| D-2-2. Gel Documentation | |
| D-2-3. Chemiluminescence Detection | |
| | |
| E. Care and Maintenance | 19 |
| | |
| F. Order Information | 19 |

A. Important Notice

Before setting up and operating the instruments of KETA M series Imaging System, please carefully read these instructions to get familiarized with the installation and operation process. Instruction should be read by experienced individual before operating the instrument.

Any improper usage of the instruments may cause damage. Please refer to the safety notice included with this equipment.

The instruments shall not be modified or altered in any way. Any modification or alteration will void the warranty, void the regulatory certifications and create potential safety hazard. Wealtec is not responsible for any injury or damage caused by using the instruments for any non-intended purpose or injury as a result of modification of the instruments by any person who is not authorized by Wealtec Corp.

A-1. Warranty

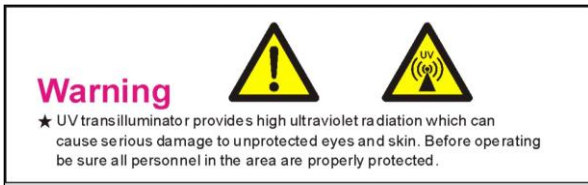
KETA M series Imaging System is warranted to be free from defects in materials or workmanship for a period of one year from the original invoice date, under normal usage. Any defects occurring during warranty period, Wealtec Corp. will repair or replace defective products or parts without charge unless the defects arise from conditions outlined below. The defects described below are specially excluded from Wealtec warranty policy.

1. Improper operation of the instrument.
2. Repair or modification by any person who is not authorized by Wealtec Corp.
3. Damage caused by any (in)-direct accident, neglect or misuse.
4. Damage caused by disaster.
5. Damage caused by any improper solvents or samples

A-2. Technical and Service Contact

Most of the operation details are described in this instruction manual to assist and guide operator for an appropriate solution. For any other technical/ service questions, please contact your local representative or contact Wealtec international technical/ service specialist by E-mail: support@wealtec.com.

A-3. Safety Notice



KETA M series Imaging System uses UV illumination for sample visualization. Transilluminators and other ultraviolet equipment or lamps are powerful sources of ultraviolet radiation that can cause serious damage to unprotected eyes and skin. Always read the product manual before operating the unit.

Before operating any unit, be sure all personnel in the area are properly protected. Personnel should protect skin and eyes by wearing ultraviolet protection eyewear, gloves and clothing when operating the UV equipment.

When using a transilluminator, it is recommended that the transilluminator be installed and operated in a darkroom where access and exposure to UV is limited. Each transilluminator is shipped with an ultraviolet blocking cover. **Even though this cover blocks the UV radiation emitted by the unit, it is strongly recommended that the “UV Blocking Eyewear” should be worn as well.** For details in UV transilluminator operation, please refer to Wealtec UV transilluminator instructions.









A-4. CE Certification



It is not allowed to use a screwdriver to open the enclosures.

- The product must be connected to the AC power supply mains through a three-conductor power cable, with the ground wire firmly connected to an electrical ground (safety ground) at the power outlet.
- A certified power supply cord has to be used with this equipment. The relevant national installation and/or equipment regulations shall be considered. A certified power supply cord not lighter than ordinary polyvinyl chloride flexible cord according to IEC 60227 (designation H03 VV-F) shall be used. Alternatively, a flexible cord be of synthetic rubber according to IEC 60245 (designation H05 RR-F) shall be used. The power cord set shall have a power supply cord with conductors providing a cross-sectional area of 3G, 0.75mm² minimum.
- The appliance coupler/inlet shall be easily accessible and readily disconnectable.
- For ventilation purpose, suitable space shall be maintained.

A-5. Symbols

| Symbol | Definition of symbol |
|--|---|
|  | Alternating input current |
|  | Push control at on position |
|  | Push control at off position |
|  | Only on built-in power supply for earth terminals |
|  | Protective conductor terminal |
|  | Caution of hazards |
|  | High temperature, do not touch |
|  | UV hazards |

B. Introduction

KETA M series which is a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation application using for proteomics and genomics research fields. The state of the art design consists of three models superior B/W Peltier cooled CCD camera, motorized lens, five position filter wheel, wide selection filter, and MC 100 multi color WRGB or WGB/UV LED Epi light source combination for different applications.

A large visual area (25 cm x 25 cm) with 302 nm high intensity low background MD-25K UV transilluminator is also a standard accessory. **KETA M** family is a PC controlled system by Magic 1D software package.

KETA M equipped with high sensitivity Peltier cooled CCD camera which is a high W/C ratio model with ultimate performance.

KETA ML equipped with high sensitivity second stage Peltier cooled CCD camera. This special configuration not only satisfies most fluorescence and chemiluminescence applications but also

external Xenon light device can serve for an aggressive excitation source

KETA MLX with 4.0M pixels is used for high resolution application. AS 100 motorized sample stage as standard accessory prevents cross contamination while external Xenon light device is working for an aggressive excitation source.

Emission Filter selection guide

| | Description | Dye/stain |
|--------|------------------------------------|---|
| WK 101 | 55 mm Amber filter 550~675 nm | EtBr, SYBR Green I/II, SYBR Gold, SYPRO Red/Ruby/Orange |
| WK 102 | 55 mm SYBR green filter 500~550 nm | SYBR Green I/II, SYBR Gold, SYBR Safe, wtGFP |
| WK 103 | 55 mm SYBRO Ruby 510 ~ 650 nm | EtBr, SYBR Green I/II, SYBR Gold, SYPRO Red/Ruby/Orange, Fluorescein/FITC |
| WK 104 | 55 mm HQ610/75 | SYPRO Ruby, EtBr |
| WK 105 | 55 mm D630/60 | SYPRO Red, Radiant Red, Texas Red |

*SYBR, SYPRO are registered trademark of Molecular Probes Inc.

B-1. Specifications

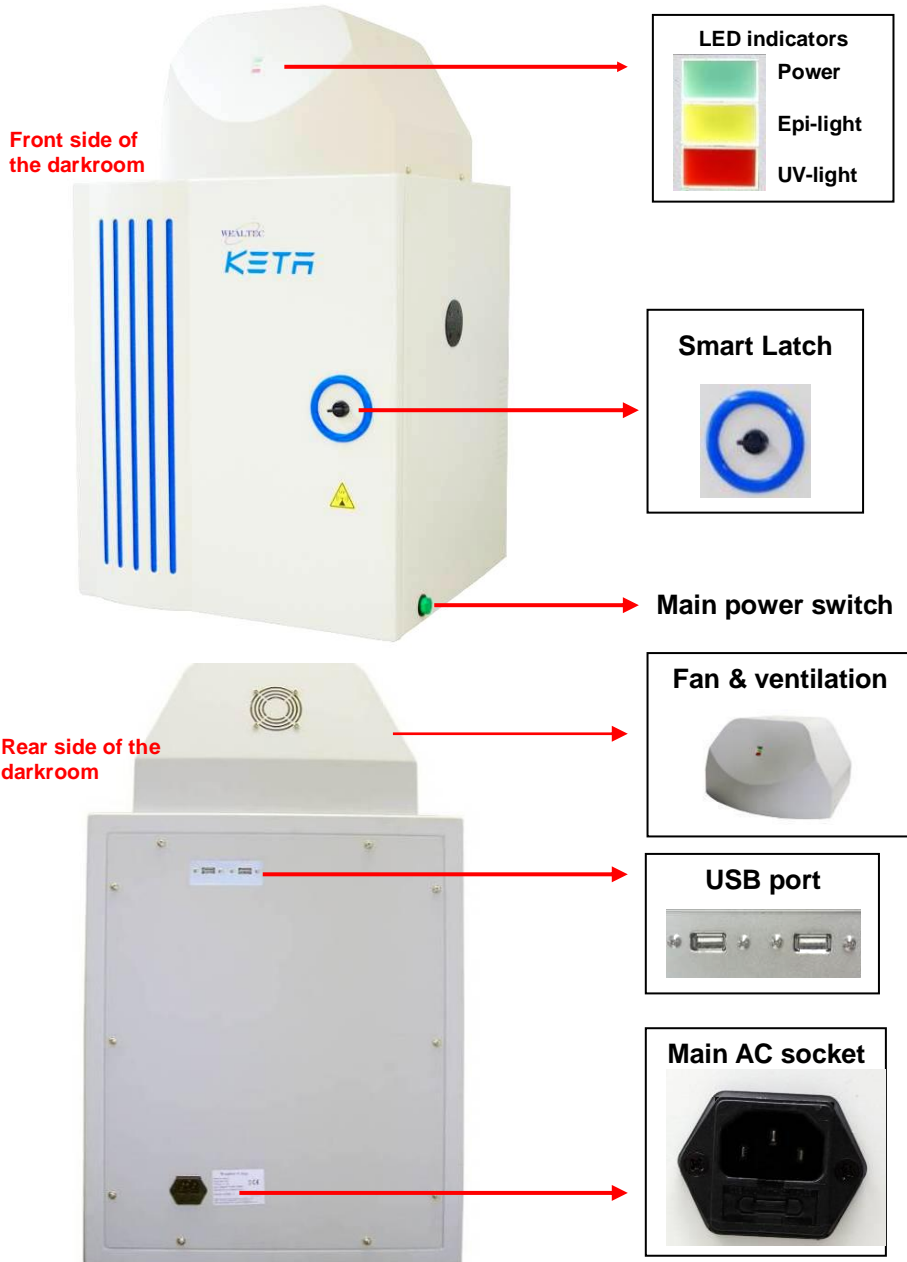
| | KETA M | KETA ML | KETA MLX |
|----------------------------------|--|----------------------|----------------------|
| Camera | K12CH | K12CHS | K16CH |
| CCD depth | 12 bit | 12 bit | 16 bit |
| Operation temp | ambient -30°C | ambient -45°C | ambient -40°C |
| Chip size | 2/3" | 2/3" | 2/3" |
| Resolution | 1360 x 1024 | 1360 x 1024 | 2048 x 2048 |
| S/N | >62dB | >67dB | >69dB |
| Pixel size | 6.45 um x 6.45 um | 6.45 um x 6.45 um | 7.4 um x 7.4 um |
| Cooling | Peltier | 2- stage Peltier | Peltier |
| 5 position filter wheel | FW 55 | FW 55 | FW 55 |
| Lens adjustment | motorized | motorized | motorized |
| MC 100 LED (W/R/G/B) | standard | standard | standard |
| MC 100-1 LED (W/G/B/UV (365 nm)) | option | option | option |
| UV-Transilluminator | MD-25K | MD-25K | MD-25K |
| Smart latch | standard | standard | standard |
| Safety interlock | standard | standard | standard |
| Close-up lens | 2 X | 2 X | 2 X |
| AS 100 motorized stage | option | option | standard |
| Single sample stage | standard | standard | - |
| Magic 1D / Magic Chemi software | standard | standard | standard |
| OS system | Windows XP, Vista, 7 | Windows XP, Vista, 7 | Windows XP, Vista, 7 |
| Thermal printer | digital (optional) | digital (optional) | digital (optional) |
| Filter | WK101 &WK 102 | WK101 &WK 102 | WK101 &WK 102 |
| Operation environment | 1) Indoor use 2) Altitude up to 2,000 m 3) Main supply voltage fluctuations up to ±10 % 4) OVC II 5) Pollution degree II | | |

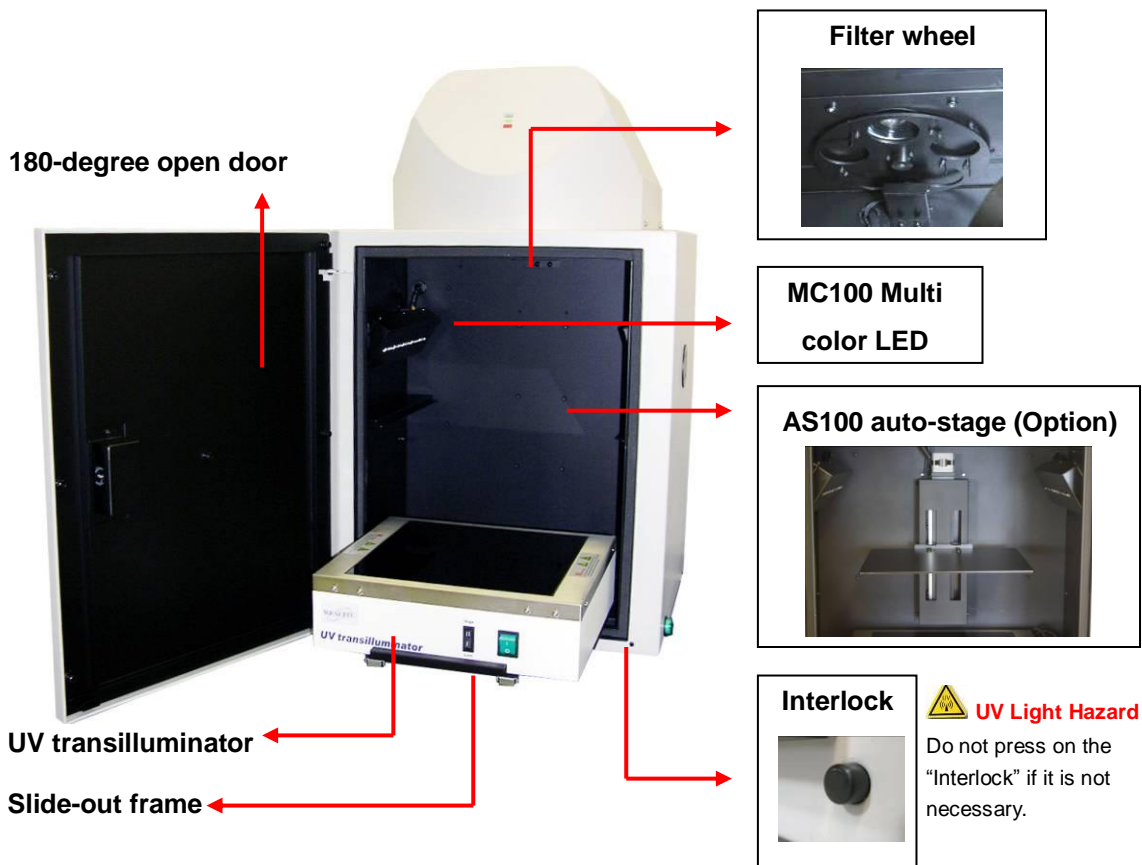
Computer requirement: Pentium IV 2.6 GHz, 1 G RAM with English version Windows XP/VISTA/7 system or higher, USB (2.0) supported.

*Pentium is a registered trademark of Intel Corp. Windows and Windows XP/VISTA are trademarks of Microsoft, Inc.

B-2. Product Description

B-2-1. KETA M series Imaging System Hardware Overview





CCD camera

All models cameras for KETA imaging system are using *progressive CCD camera communication via USB 2.0. Features of low dark current, high QE values, and excellent performance, all cameras are ideal for bio imaging or molecular imaging. Three types of CCD camera offer the most efficient choice for multiple imaging purposes.

KETA M system equipped with K12CH camera which is 2/3" Peltier cooled (below ambient 30°C) CCD element with 1.4 mega pixels, K12CH can perform with high quality documentations with all kinds of gels. All signals are digitized by a 12 bit ADC and connect to the computer via USB 2.0.

KETA ML system equipped with K12CHS camera which is 2/3" 2-stage Peltier cooled (below

ambient 45°C) CCD element with 1.4 mega pixels. The K12CHS can be used for excellent Chemiluminescence signal detection. All signals are digitized by a 12 bit ADC and connect to the computer via USB 2.0.

KETA MLX system equipped with 2/3" peltier cooled (below ambient 30°C) CCD element provides the excellent sensitivity and excellent resolution up to 4.0 Megapixels. In the integration mode, camera allows the electronic shutter to remain open for a long period of time to collect photons signal from low light scenes for full dynamic range. All signals are digitized by a 12 bit ADC and connect to the computer via USB 2.0.

*Progressive is a trade mark of SONY

Motorized lens


KETA M, ML & MLX system paired with focal F1.4,2/3", 11.5-69mm (6X) motorized lens with C mount, 2X closed-up filter as standard in M family. Iris, focus, and zoom can be adjusted by Magic 1D software.

Epi light source

MC100 is the standard Epi light source which accommodates 10 WRGB high intensity LEDs for both left and right sides in the darkroom. The Red color can be appointed to in lieu of UV/365nm LED. The WRGB can be selected and changed by Magic 1D software.

Darkroom

Light-tight designed KD 100 Dark Room allows all kinds of application in molecular imaging. UV radiation safety interlock switch and smart latch as standard configuration keeps operators in safety working environment. 180° fully closed / opened door is convenient for gel cutting. External port is available for external source application.

 **Caution: Do not press on the "Interlock" while the door open.** If it is necessary, be sure all personnel in the area are properly protected. Personnel should protect skin and eyes by wearing ultraviolet protection eyewear, gloves and clothing when operating the UV equipment. Even personnel close to the KETA M series system should be properly protected.

B-2-2. Magic 1D/Chemi Software Features Overview

| Features | Descriptions |
|---|--|
| Automatic lane, band, colony and spot detection | Automatic detection capability, allows Magic 1D/Chemi software for gel data analysis. It is also convenient for colony counting, and spot image assay. |
| User-friendly quick guide operation | The step-by-step quick guide function provides the user guidance from capturing image to fast image analysis. Ability to learn a complicated software operation is not necessary. |
| Compatible image files format | Various images file format JPG, BMP, JPEG, DFN, TIF, TIFF, PCX, GIF, and TGA is supported as can be loaded, analyzed and saved. |
| Short time (Within one minute) data analysis | Various options under "Analysis" function allows user to run the software automatically for various analysis and reports. |
| Traceable image enhancement function | While analyzing image, Magic 1D/Chemi software provides convenient tools such as text, line, color adjustment, rotation, flipping, invert etc. With all this convenient tools, "Record" function allows users to track previous action easily. |
| Ability to identify smiling gel accurately | Magic 1D/Chemi software can identify bands, even if the gel is deformed as smiling gel. |
| Image profile & 3-D display | Image data can be visualized in lane profile and 3-D display |
| Image blending function | Blending of image can have precise comparison between two different images |
| Support GLP/GMP mode | Image data can be protected by password log-in setting to avoid uncertain modification |

Minimum computer system requirement for Magic 1D/Chemi software





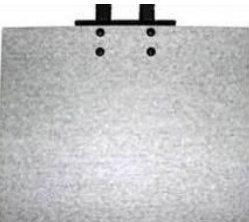
Pentium IV 2.6 GHz, 1 G RAM with English version Windows XP/VISTA/7 system or higher, USB (2.0) supported.





B-2-3. Printer (Optional)

An optional digital thermal printer or inject printer is applicable for KETA M series. It is controllable using PC through Magic 1D/Chemi software.

C. Installation of KETA M and Magic 1D/Chemi Software

C-1. Package List

| Item | Quantity |
|---|----------|
| KETA M series darkroom  A white, rectangular darkroom unit with a blue logo and a yellow warning triangle. | 1 |
| WK101 amber filter (55 mm)  A circular red filter with a black border. | 1 |
| WK102 SYBR Green filter (55 mm)  A circular green filter with a black border. | 1 |
| USB cable  A coiled black USB cable with a standard USB-A connector. | 2 |
| Sample tray  A rectangular, textured metal tray with two small black components on top. | 1 |

| | |
|--|----------|
| <p>UV transilluminator (25 x 25 cm filter size)</p>  | <p>1</p> |
| <p>Power cable</p>  | <p>1</p> |
| <p>Instruction package (One Instruction and Operation Manual, two Gel Analysis Software Operation Manual, one ruler, and one calibration chart.)</p>  | <p>1</p> |
| <p>Magic 1D/Chemi software (Including installation CD and USB protection key [USB key-pro])</p>  | <p>1</p> |

C-2. Installation of KETA M series Imaging System

C-2-1. Space Requirement

Minimum area of 46 cm (L) x 45 cm (W) x 72.5 cm (H) is required, excluding computer and printer.

C-2-2. Installation Procedure

1. Place Darkroom unit:

Carefully pull the darkroom out of the package box and place it at the workbench. The

workbench should provide the space with the minimum size of 46 cm (L) x 45 cm (W) x 72.5 cm (H).

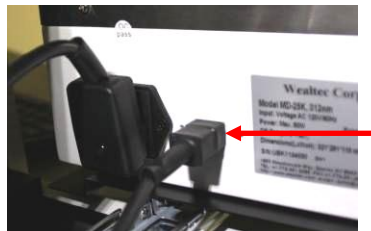
2. Install UV Transilluminator:

Open KETA M series darkroom cabinet door and pull sliding frame out of the darkroom unit. Remove the tape from the UV transilluminator power cord.



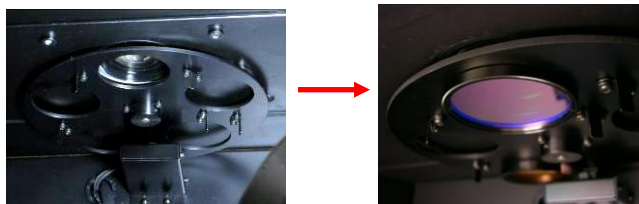
Position the UV transilluminator on the sliding frame of the darkroom with the UV transilluminator power switch facing the installer. Inside the darkroom unit, plug the UV transilluminator power cord to the UV transilluminator AC socket and light intensity controlling cable nearby at the rear side of the UV transilluminator.

Note: It's highly recommended to use heat gun to tighten the heat shrinkable tubing at the connection site after installation to prevent the malfunction of the UV transilluminator.



3. Install the filter:

Take the proper filter (55 mm) and fix it onto the filter wheel.



4. Connect the USB cable to the computer: (USB 2.0)

Connect two USB cables in the rear side of the machine.



Connect the other side of USB cables to the computer.
(Make sure to connect with USB 2.0 port.)



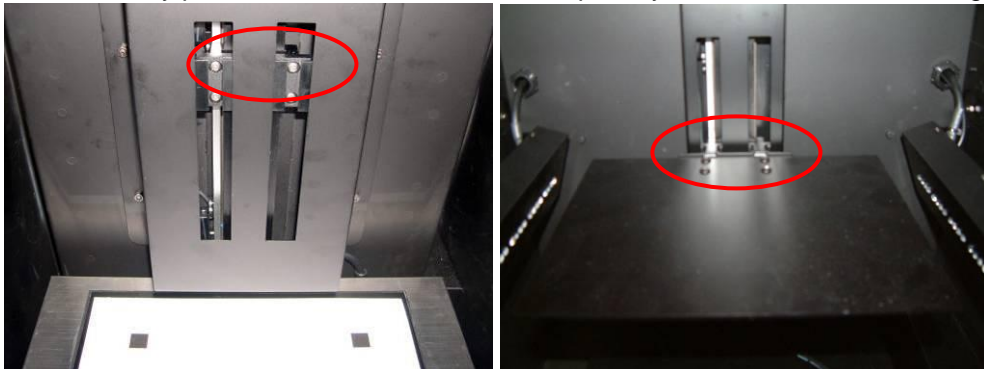
5. Install sample tray:
Single stage sample support—

Place the sample tray on top of the support in the middle of the cabinet.



AS100 Auto-stage—

Remove the tray protection film and install the sample tray to the motorized Auto-stage.



6. Setting Default Switching Positions:
MC100 multi color LED safety switch:

The safety switch is located at the right side bottom of LED light. Before using the KETA M series system, make sure the switch is switched “on” (toward inside the darkroom).



Safety switch

Note: In the case where safety is ON, the UV transilluminator will turn off automatically if darkroom cabinet door is opened.

UV Transilluminator:

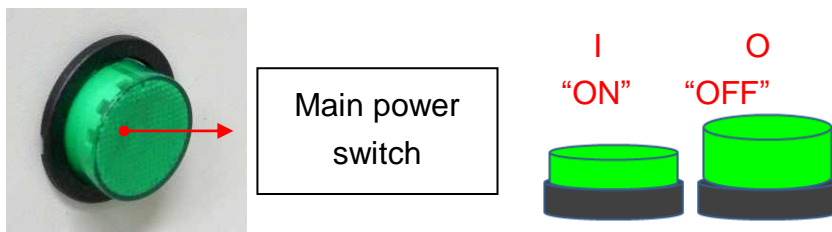
Ensure the UV transilluminator light intensity switch is switched to low and switch ON the UV transilluminator power (marked “I”) as shown in the following picture.



Note: When the MD25K is used within the KETA M series imaging system, the light intensity switch should be switched to “Low” in order for the Magic 1D to control the light intensity switching.

Main Power Switch:

Ensure the main power switch is switched off (light off) as shown in the following picture.



7. Connect Power Cable:


Ensure the working voltage of the image system matches the local voltage. The AC socket is located at the rear side of the darkroom unit and thermal printer (If printer is purchased). Connect power cable to the AC socket and plug it into main power source.

8. Installation of the Magic 1D/Chemi software:

Install the Magic 1D/Chemi software according to the instruction of the software. For

the first time install or re-install of the Magic 1D/Chemi software, it takes 2 hours for M series imaging system to finish the installation procedures. Remember to turn off the power saving scheme in the computer and remove the filter before getting start with the darkroom calibration.

9. Examine Installation Functionality:

 **Caution:** Before examining the Epi or UV light, be sure all personnel in the area are properly protected. Personnel should protect skin and eyes by wearing ultraviolet protection eyewear, gloves and clothing when operating the UV equipment. Even personnel close to the KETA M series should be properly protected. **It is strongly recommended not to operate the unit without UV-blocking cover installed.**

Turn on the main power switch and ensure the main power switch and status display LED indicator is illuminated (Green). Install the device when the main power switch is turned on. After finished with the darkroom calibration, click on the buttons in the controller setting interface to check whether each function can work normally or not.

D. Operation

While operating with cooled CCD camera, connection between software to machine needs five minutes to wait for the cooling of the camera. Please ensure to turn on the image system and connect with the software prior to operate.

D-1. Magic 1D/Chemi Software

Please refer to Magic 1D/Chemi software installation and operation manual for details.


D-2. KETA M series imaging System Hardware Operation

D-2-1. General Operation:

1. Turn on the main power of KETA M series imaging system (Green switch located at the right side bottom of the darkroom need to be light on). Start Magic 1D/Chemi software and connect your computer system with KETA M five minutes prior to the operation. (Please refer to Magic 1D/Chemi software operation manual for details)
2. After five minutes, select live mode for image visualization.
3. Open KETA M series darkroom cabinet door and pull out the slide-out frame.

4. Place and position the capturing target on the surface of UV transilluminator.
(Alternatively place on the white or blue light converter plate).
5. For trans-white light applications, operator shall place the optional UV/white light converter plate (Item# 1146001) on the UV transilluminator to transform UV light to visible white light. (For UV-applications, make sure to remove the sample tray for chemiluminescence applications from inside the cabinet).
6. Place and position the capturing target on the surface of UV transilluminator.
7. Push the slide-out frame back into darkroom and close the darkroom cabinet door.
8. Select the preferred Epi or UV light source and turn on the light by using the Magic 1D/Chemi software. Adjust the motorized lens to the perfect iris, zoom and focal on the targeted sample image and select the preferred filter.
(It is highly recommended to turn on the “UV table (high)” prior to turn on “UV table (low)” in order to shorten the light up time of the light tube.)
9. Capture image by using Magic 1D/Chemi software and save the image data to process or for further analysis.
10. Disconnect the software with the image system first and turn off the main power switch upon capturing the image. Open the darkroom cabinet door and remove the captured target from KETA M series imaging system.
11. Touched sample surface shall be cleaned with pre-moistened soft tissue after every use to avoid any possible contaminations and damages to the instrument.
12. Use Magic 1D/Chemi software to analyze the captured image.

D-2-2. Gel Documentation

 **Caution:** Before opening the darkroom cabinet door under UV light excitation mode, be sure all personnel in the area are properly protected. Personnel should protect skin and eyes by wearing ultraviolet protection eyewear, gloves and clothing when operating the UV equipment. Even personnel close to the KETA M series system should be properly protected. **It is strongly recommended to operate the unit with UV-blocking cover installed.**

1. Turn on the main power of KETA M series system (Green switch located at the right side bottom of the darkroom need to be light on). Start Magic 1D/Chemi software and connect your computer system with KETA M series five minutes prior to the operation. (Please refer to Magic 1D/Chemi software operation manual for details)
2. After five minutes, select live mode for image visualization.
3. Open KETA M series darkroom cabinet door and pull out the slide-out frame.
4. Place and position the capturing target on the surface of UV transilluminator. (Alternatively place on the white or blue light converter plate).
5. Push the slide-out frame back into darkroom and close the darkroom cabinet door.
6. Switch the UV transilluminator light intensity switch to low intensity.
7. Turn the safety switch to “SAFETY OFF” mode (switch toward user) to deactivate the darkroom cabinet door-open control safety interlock so as trans-UV light will remain to be turned ON when darkroom cabinet door is opened during gel excitation.
8. Select the trans-UV or Epi- light sources and turn on the light.
9. With the darkroom cabinet door open, adjust the position of the gel with a gloved hand until the image of the gel is centered in the image on the computer screen (live mode activated).
10. Adjust the lens assembly to the perfect iris, zoom and focal on the targeted sample image and select the preferred filter.
11. Turn the safety switch back to “SAFETY ON” mode (switch toward the cabinet).
12. Close the darkroom cabinet door and capture image using Magic 1D/Chemi software, and save the image data to process or for further analysis.
13. Disconnect the software with the image system and turn off the main power switch upon capturing the image. Open the darkroom cabinet door and remove the captured target from KETA M series imaging system.

14. Touched sample surface shall be cleaned with pre-moistened soft tissue after every use to avoid any possible contaminations and damages to the instrument.
15. Use Magic 1D/Chemi software to analyze the captured image.

D-2-3. Chemiluminescence Detection

1. Turn on the main power of KETA M series system (Green switch located at the right side bottom of the darkroom need to be light on). Start Magic 1D/Chemi software and connect your computer system with KETA M series system five minutes prior to the operation. (Please refer to Magic 1D/Chemi software operation manual for details)
2. After five minutes, select live mode for image visualization.
3. Open KETA M series darkroom cabinet door and place the sample tray on the tray support in the darkroom cabinet. Turn on the epi-light by using the Magic 1D/Chemi software. Place and position a fluorescence ruler, calibration chart or white paper with text on the sample tray.
4. Adjust the height of the sample tray. Usually, a short distance between the CCD-camera and sample is needed in order to optimize light capture by the CCD.
5. Roughly adjust zoom, iris and focus with the ruler or a calibration chart as a reference.
6. Remove the fluorescence ruler or the calibration chart from the sample tray.
7. Place the chemiluminescence sample, e.g. a blotting membrane wrapped in cling film on the sample tray on the relative focused position and close darkroom cabinet door. It may need to adjust the distance of sample tray, zoom and focus for the best sample detection position.
8. Turn the iris to 50-100 % and turn off the Epi-light source. A fully opened iris (100 %) gives the highest light throughput; however, the captured image may appear blurry. Less than maximally opened iris gives better resolution, but generally requires longer exposure times in order to generate the same light throughput. Individual samples require optimization in sample tray height, iris adjustments and exposure times in order to generate high resolution

images of good sensitivity.

9. Capture image using Magic 1D/Chemi software and save the image data to process or for further analysis. **Note:** Batch capture and Dyna View setting is necessary for various samples and chemiluminescent reagents. (Please refer to Magic 1D/Chemi software operation manual for details)
10. After capture, disconnect the software with the image system and turn off the main power switch upon capturing the image. Open the darkroom cabinet door and remove the captured target from KETA M series imaging system.
11. Touched sample surface shall be cleaned with pre-moistened soft tissue after every use to avoid any possible contaminations and damages to the instrument.
12. Use Magic 1D/Chemi software to analyze the captured image.

E. Care and Maintenance

- Darkroom of KETA M series can be cleaned with pre-moistened soft tissue soaked with clean water. Organic solvents or strong detergents may damage the instrument and should not be used.
- CCD camera should be protected from all possible moisture, organic solvents and detergents.
- Sample touched surface of KETA M series should be cleaned with pre-moistened soft tissues after every usage to avoid all possible contaminations and damages to the instruments.
- KETA M series system should be disconnected with the software if the camera is not going to use within 30 minutes.

F. Order Information

KETA M series Imaging System

| Catalog No. | Description |
|-------------|---|
| 1150031 | KETA M, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 120V, 60Hz |
| 1150032 | KETA M, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 230V, 50Hz |
| 1150033 | KETA M, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 100V, 50/60Hz |
| 1150041 | KETA ML, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 120V, 60Hz |
| 1150042 | KETA ML, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 230V, 50Hz |
| 1150043 | KETA ML, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 100V, 50/60Hz |
| 1150051 | KETA MLX, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 120V, 60Hz |

| | |
|---------|--|
| 1150052 | KETA MLX, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 230V, 50Hz |
| 1150053 | KETA MLX, a multi-purpose system dedicated for chemiluminescence / fluorescence and gel documentation complete with Magic 1D & Magic Chemi software, 100V, 50/60Hz |
| 1153001 | Magic 1D gel analysis software for single user key only |
| 1153002 | Magic 1D gel analysis software for three user keys |
| 1153005 | Magic Chemi, a Chemiluminescence image catch & process, single user key only |
| 1153006 | Magic Chemi, a Chemiluminescence image catch & process, three user keys |
| 1153011 | Prodigy SameSpots 2D Software package (manual alignment) |
| 1153012 | Progenesis SameSpots 2D Software package (auto alignment) |
| 1153013 | Fingerprinting, RFLP, VNTR dendrograms package |
| 1146001 | UV/White light converter plate (Option) |
| 1146011 | UV/Blue light converter plate (Option) |
| 1146003 | Digital thermal printer |
| 1155002 | AS 100 motorized sample stage (factory install) |
| 1155006 | MC 100-1 Multi-color W/G/B/UV (365 nm) in lieu of U10 as Epi source (factory install) |

