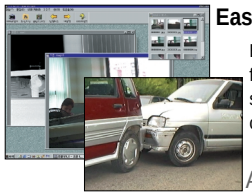
Various Software Supply



Easy storage of Image

Easy Downloading image from camera to PC and storage of the image taken by camera

ASTRONICS Viewer 1.0

Making photo Sticker

Can make and edit photo stickers by using Capture Dog Software

Capture Dog 2.0

Image Editing

Image can be edited by image editing software

Picture Draw 3.0

Video Conferencing by PC camera

Video Conferencing, Chatting & Transmitting by USB Port

Netmeeting 3.0

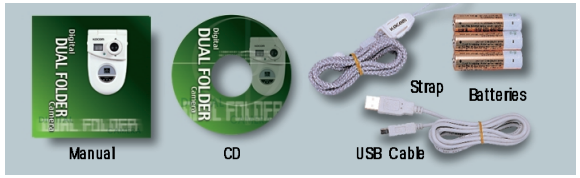
Specifications

Image Sensor	VGA 1/3" CMOS 318,000 Pixels	
Lens	Focal Length f=6.2mm	
	View Angle 53°, Aperture Fixed Iris, F:2.6	
	Normal lens position- ▲▲ 50Cm~Infinity	
	Macro lens position- 🌷 10Cm~15Cm	
AGC	+18dB	
S/N Ratio	57dB	
Interface	USB Interface	
Resolution	Digital Camera	640 ×480(VGA),320 ×240(SIF)
	PC Camera	640 ×480(VGA),352 ×288(CIF) 320 ×240(SIF), 176 ×144(QCIF),160 ×120(SQCIF)
Picture Storage	High Resolution Mode (VGA,640 ×480) 26 frames	
	Low Resolution Mode (SIF,320 ×240) 107 frames	
Memory	Internal SDRAM 64Mbit (8MB)	
White Balance	Auto White Balance	
Power	Digital Camera	DC 4.5V(AAA 1.5V ×3)
	PC Camera	Power By PC USB Port(5V)
Frame Rate	VGA, QVGA, QCIF, SQCIF: 5~30fps	
Dimension	88mm(W) ×54mm(H) ×36mm(D)	
Weight	66g (Exclude Battery)	

This specification will be changed without notice for quality improvement.

System Requirement	Windows98 or Windows2000 or Mac OS 8.5 Pentium 166MHZ 0r More, 32MB RAM

Compose



KOCOM
KOREA COMMUNICATIONS CO.,LTD.

- ASTRONICS BLDG., 260-7 Yumchang-Dong, Kangseo-Gu,
  Seoul 157-040, Korea
- TEL:82-2-6675-2211 • FAX:82-2-6675-2000
- http://www.astronics.co.kr • E-mail:export@astronics.co.kr

KOCOM

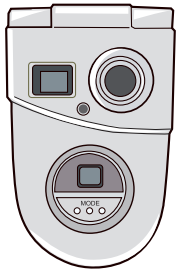
Digital DUAL FOLDER Camera

User's Manual
KDC-100

DIGITAL DUAL FOLDER CAMERA

Digital Dual Folder CAMERA

KDC-100



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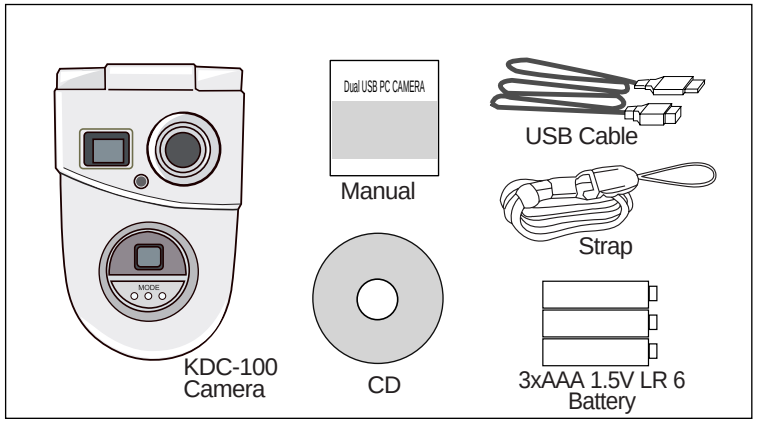
Precautions

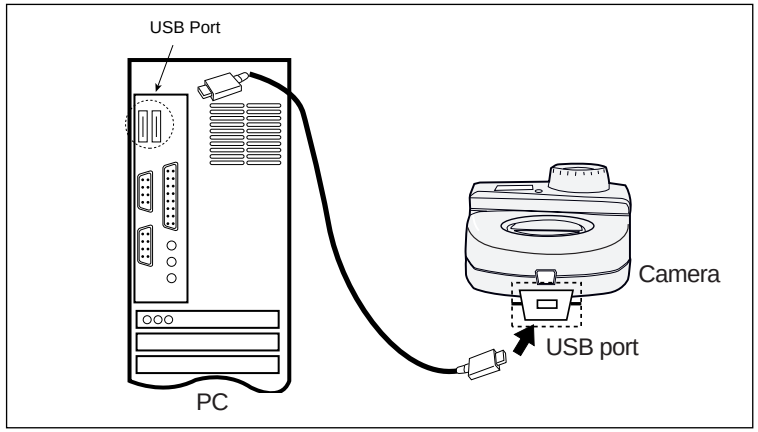
	Do not leave the camera in an unstable place. It will cause damage to the camera when it falls.		This product contains a very delicate mechanism inside. Do not give excessive shock to the camera.
	Do not leave the camera exposed to the hightemperature,such as inside the vehicles and under the direct sunlight		Do not leave the camera in humid places and expose rain. It could cause damage to the product.
	Do not disassemble. It could cause malfunction.		Do not use thinner or benzene to clean the camera. It could cause damage to the product or cause fire.

- When "Low Battery" sign is flickering on the LCD, Wait about 30sec., mode changes to "Sleep". Replace the batteries with new ones within 2min. Then, the image stored in camera can be kept securely. If not, image will be deleted from camera.
- When use this camera as a PC camera, download the image from camera to PC first. Then, the image stored in camera can be kept securely. If not, image will be deleted from camera.
- When take picture at dark place, to protect picture quality, if the camera is beeping sound, taking picture is not possible.
- For PC camera using, monitor screen may be blinked to let you know low illumination at dark conditions. Use the camera at bright conditions.
- At low resolution mode, even the camera takes picture from 107, LCD does not count down the actual number and it displays 99. From 99, LCD displays actual number.

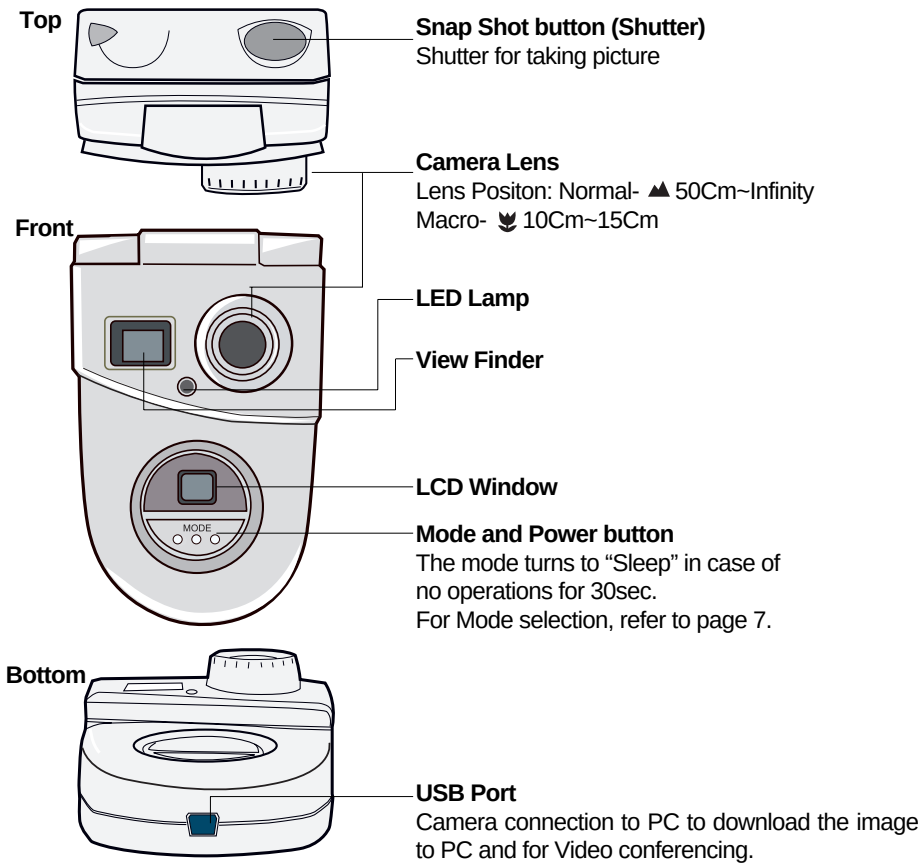
What is in your Box



Connection to PC



Looking at your KDC-100



Using the MODE functions

26 The number can take picture at high resolution mode

99 The number can take picture at low resolution mode (Even the camera takes picture from 107, LCD does not count down the actual number and it displays 99. From 99, LCD displays actual number)

Ct Continuous shooting mode lets you take picture of those moments easily missed in sports games, performances, and leisure activities.

St Self-Timer 10sec.

CL To clear (delete) all pictures stored in camera, push the snap shot button twice.

Hr High resolution 640x480 mode

Lr Low resolution 320x240 mode

-After select any mode, if no operation for 5sec, the mode turns to "26" or "99" you selected.

Specifications

Image Sensor	VGA 1/3" CMOS 318,000 Pixels	
Lens	Focal Length f=6.2mm	
	View Angle 53°, Aperture Fixed Iris, F: 2.6	
	Normal lens position- 50Cm~Infinity	
	Macro lens position- 10Cm~15Cm	
AGC	+18dB	
S/N Ratio	57dB	
Interface	USB Interface	
Resolution	Digital Camera	640×480(VGA), 320×240(SIF)
	PC Camera	640×480(VGA), 352×288(CIF) 320×240(SIF), 176×144(QCIF), 160×120(SQCIF)
Picture Storage	High Resolution Mode (VGA,640×480) 26 frames	
	Low Resolution Mode (SIF,320×240) 107 frames	
Memory	Internal SDRAM 64M bit (8MB)	
White Balance	Auto White Balance	
Power	Digital Camera	DC 4.5V(3xAAA 1.5V LR6 battery
	PC Camera	Power By PC USB Port(5V)
Frame Rate	VGA, QVGA, QCIF, SQCIF: 5~30fps	
Dimension	88mm(W)×54mm(H)×36mm(D)	
Weight	66g (Exclude Battery)	

System Requirements

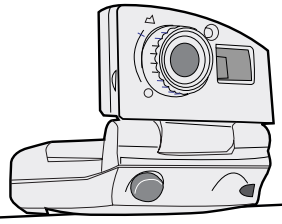
Windows 98 or
Windows 2000 or
Mac OS 8.5
Pentium 166MHZ 0r
More, 32MB RAM

Using your KDC-100

For Digital Camera

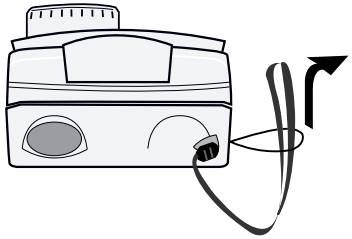
Open the camera folder and take picture by viewing the object through viewfinder as shown in the picture.

For PC Camera

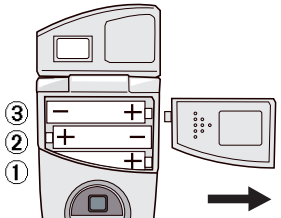


Fold down the camera folder and place it on the monitor as shown in the picture

Tying up the strap



Placing Batteries

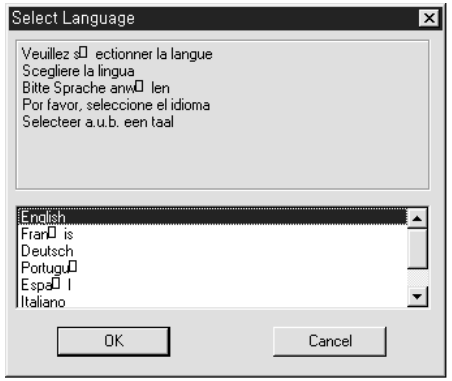


Open the cover to right and place the batteries with correct polarity and in order ①, ②, ③.

How to install the driver and S/W

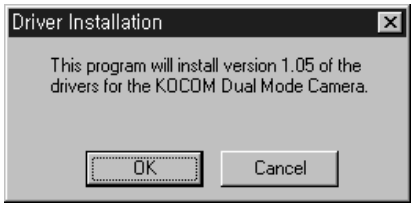
When the KDC-100 Driver CD is inserted Main screen will be displayed automatically as shown in the picture.

Driver Installation for WIndows 98 and Windows ME

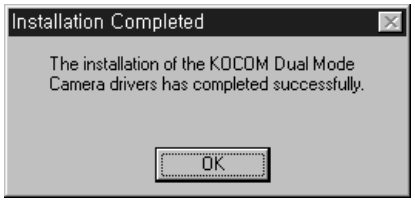


1.1 Click “Driver Installation”

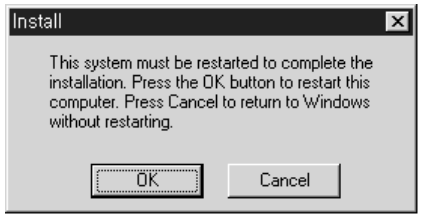
1.2 Click “English”, and “OK” for language selection



1.3 Click "OK" to begin driver installation..



1.4 Click "OK" for completed installation



1.5 Click "OK" for restarting the PC

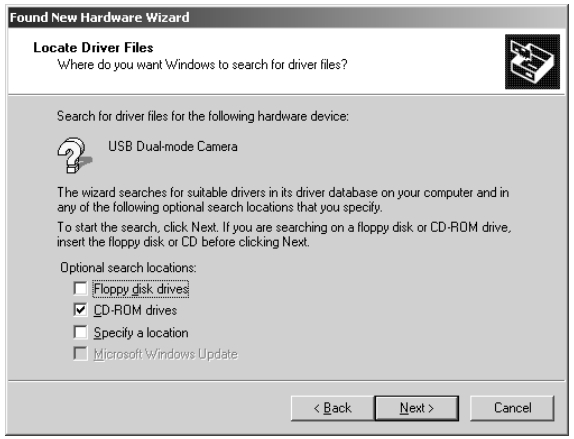
1.6 After restarting, connect the camera to PC USB port.
The camera is perceived as a new device by Windows 98, Plug and Play function

1.7 To Confirm proper installation of the driver execute; Start>Setting>Control Panel>System. Open "Device Manager" at menu bar, "ASTRONICS Dual Mode Camera" message will be displayed for an image device as shown in the picture.
In this step, connection the camera to PC USB Port is necessary.

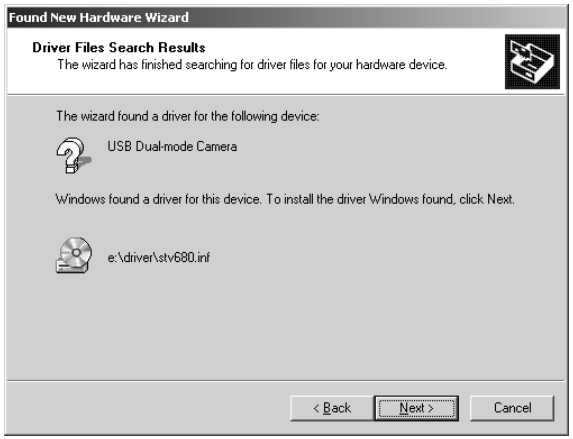
Driver Installation for WIndows 2000

1. PC will find the new device by Plug-and-Play in Windows2000 as the Camera is plugged into PC. Then click 'Next >' button.

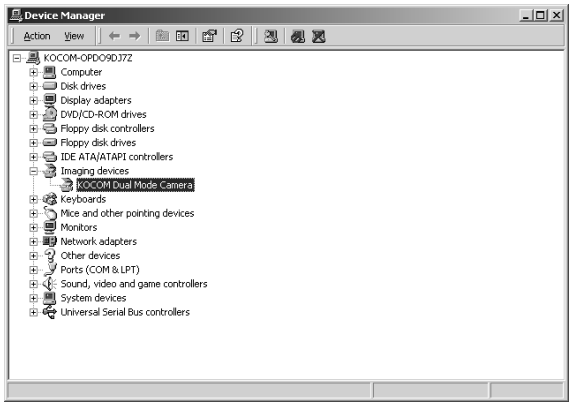
2. Select 'Search for a suitable driver for my device(recommended)'.



3. Check the “CD-ROM drivers” to select the location of driver, then click the 'Next>' button.



4. Click 'Next' button.



5. If device driver was normally installed in Windows2000, you can see 'Imaging devices -> ASTRONICS Dual Mode Camera' by select 'Start -> Setting -> Control Panel -> System -> Device Manager'.

ASTRONICS Dual Camera Photoshop plugin Driver for MacOS(ver 8.5 or later)

Installation

Run the install file (x:\Mac\dc1099~1.hqx, x: your CD-ROM Drive), then an error message appears in the desktop, but you can ignore this message. After then, an dialog box which will make an arbitrary folder for MAC installer appears, and you can make arbitary folder and click “Select Macintosh HD” button. This will make the MAC installer in the arbitrary folder which you have just made.

Run the installer(dc1099Fmx) and this will place the following files in the correct folders

File	*Folder*
STV0680 Camera extension	Mac HD/System Folder/Extensions
STV0680 Camera control panel	Mac HD/System Folder/Control Panels
STV0680 Capture plugin	See NOTE

NOTE: The driver installation will ask you where you wish to install the plug-in. It needs to be installed into the appropriate plug-ins folder for your Image editing application, e.g. for Adobe Photoshop, it is PhotoShop->Plug-Ins->Import/Export folder. Other applications will have a similar folder usually as a sub-folder of the main application folder.

Instructions on use for Adobe Photoshop

- Run the installer and then copy the file “STV0680_Capture” into the PhotoShop->Plug-Ins->Import/Export folder.
- Please note that the installer places “STV0680_Capture” on the desktop and the user must still manually move it into the PhotoShop installation.
- Once the PhotoShop Plug-In is installed, it will appear as “USB Camera Capture...” in the File->Import menu in PhotoShop.

Selecting this option will display the image upload dialog.

Instructions on Use (Plug’n’Save)for Quick time Movie Player

When the camera is plugged in, a dialog box will appear prompting for base filename (defaults to date and time). The folder names defaults to “STV0680 Camera Snapshots” on your hard disk, but can be changed in the normal way. Images will be uploaded into selected folder with filenames of basename<n>

Normal images will be in PICT format. Images captured in continuous mode will be concatenated into a QuickTime movie and compressed.

Software installation and user's manual

ASTRONICS Viewer 1.0

Main Screen

Menu

■ **File Menu**

Save Image(S)•••Ctrl+S : Saves an image as other file name.
Save to Clipboard(S)•••Alt+S : Saves an image to Clipboard.
Exit (X) : Closes RealView 1.0 to return to windows.

■ **Edit Menu**

Undo(Z)••• Ctrl+Z : Reverses the last command or commands applied on images.
Redo : Cancels the last Undo.

■ **USB Camera**

Select Camera : Selects the type of picture camera, scanner, and digital camera.
- Twain driver served by hard ware company must be set up in advance.

Open Camera(O)Ctrl+O This command is used in reading the photo file and new image wanted with picture camera, scanner, and digital camera.

Image Menu

■ **Contrast/Brightness** : Adjusts contrast and brightness of an image.
-Click Image - Contrast/Brightness.
-Watching the change of image, adjust contrast and brightness.

■ **Color Adjust :** Adjusts color of an image.
- Click Image - Color Adjust
- Watching the change of image, adjust color.

■ **Convert to Gray** : Changes the color of an image to grayscale.
- Click Image - Convert to Gray.
- Click Edit - Undo to return to the existing image.

■ **Invert** : Inverts R.G.B color's value of the image.
- Click Image - Invert.
- Click Edit - Undo to return to the existing image.

■ **Convert to BGR**: Changes image color of RGB to BGR .
- Click Image - Convert to BGR
- Click Edit - Undo to return to the existing image.

■ **Flip Horizontal:** Flips an image horizontally, along the vertical axis.
- Click Image - Flip Horizontal.
- Click Edit - Undo to return to the existing image.

■ **Flip Vertical:** Flips an image vertically, along the horizontal axis.
- Click Image - Flip Vertical.
- Click Edit - Undo to return to the existing image.

■ **90℃ rotation** →Rotates an image in a 90-degree to clockwise.
- Click Image - 90℃ rotation
- Click Edit - Undo to return to the existing image.

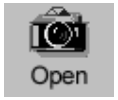
■ **180℃ rotation** → Rotates an image in a 180-degree to clockwise.
- Click Image - 180℃ rotation
- Click Edit - Undo to return to the existing image.

■ **270℃ rotation** → Rotates an image in a 270-degree to clockwise
- Click Image - 270℃ rotation
- Click Edit - Undo to return to the existing image.

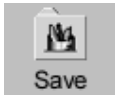
Help Menu

RealView 1.0 Info(A) : Shows the information about RealView 1.0.
Image Info(A) : Shows the information about existing Image.

Main Tollbar



Open Camera : This command is used in reading the photo file and new image wanted with picture camera, scanner, and digital camera.



Save Image : Saves an image as other file name

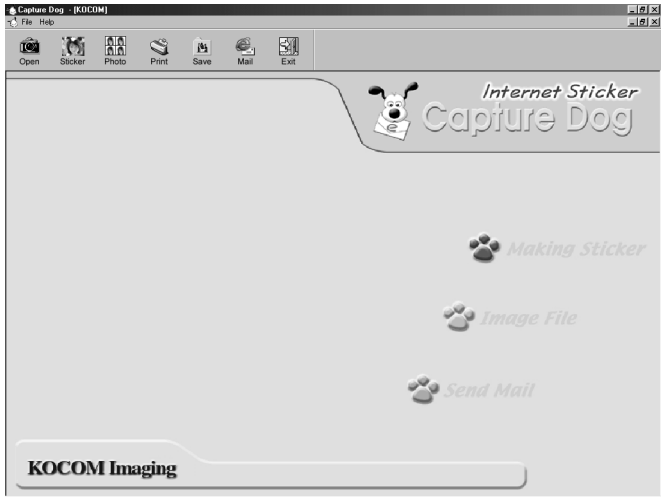
Save to Clipboard : Saves an image to Clipboard

Undo : Reverses the last command or commands applied on images.

Redo : Cancels the last Undo.

Image Info : Shows the information about existing Image.

Capture Dog 2.0



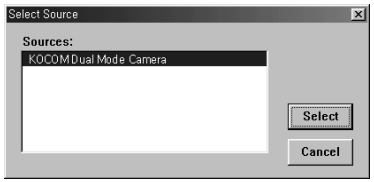
Main Screen

Function and Feature

■ Makes sticker easily by using picture camera for chatting
■ Sticker like Photo-frame shape
■ Blending photo and making sticker is possible by using alpha channel.
■ Supply many kinds of background images.
■ Save madden sticker as a file
■ Send sticker by e-mail in the middle of chatting and game promptly.
■ Apply sticker to homepage, report and etc.

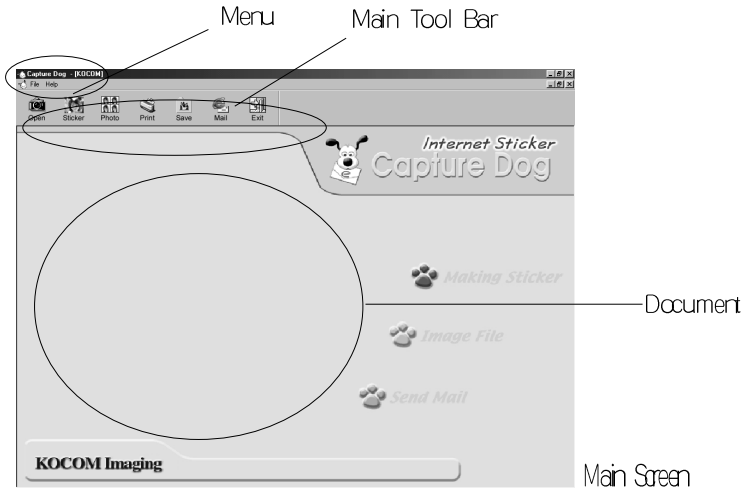
Installation & Getting Started with CaptureDog

1.Insert CD to main computer.
2. Click "setup.exe." from CaptureDog's folder.
3. Execute following step : Start window → program → CaptureDog



Setup Picture Camera

1. Setup picture camera by following manual which is provided by picture camera manufacturer.
2. Start CaptureDog and click "Twain select" command from File menu.
3. Select camera-type installed above step..



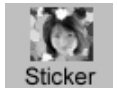
Menu

■ **File**

New : Makes new document.
Selecting Twain : Selects type of picture camera, digital camera, and scanner.
Print : Prints a finished sticker photo.
Quit : Quits CaptureDog and returns to windows.
Help : information of CaptureDog

Main Tool Bar

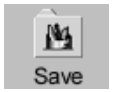
Open Camera : Connects ASTRONICS Dual Mode Camera automatically to CaptureDog.



Sticker : Makes sticker.

Photograph: Makes a various standard size photos automatically.

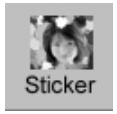
Print : Prints sticker



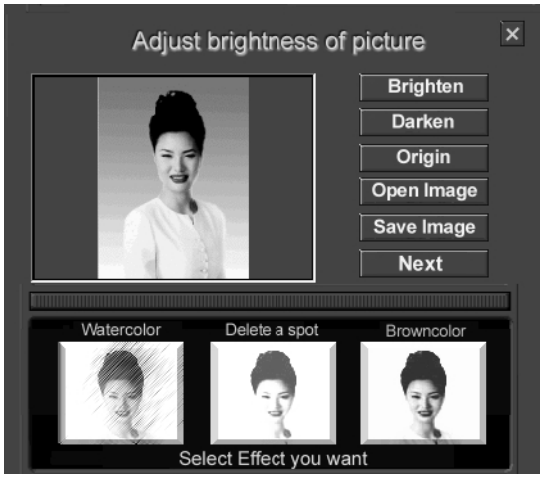
Save : Saves image

Mail : Sends image by E-mail

Quit : Quits CaptureDog and returns to windows



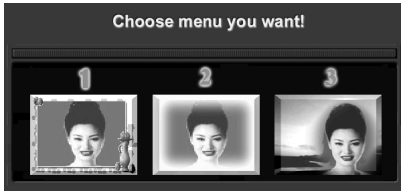
Making sticker photo



After taken picture with ASTRONICS Dual Mode Camera or Click Sticker icon, above dialog box will be appeared.

Brighten : Makes Image bright
Darken : Makes Image dark
Defualt : Returns to original Image.
Open Image : Calls out saved Image.
Save Image : Saves Image taken by ASTRONICS Dual Mode Camera.
Next : Goes to next step.

After taking picture with ASTRONICS Dual Mode Camera or calling out saved Image, follow next step.
Step 1. Adjust brightness and darkness of photo
Step 2. Select one of three effect menus. You can make an effect like watercolor painting, spot remove and brown tone on saved photo.
Step 3. Click "Next" button. Then menu box will be appeared.

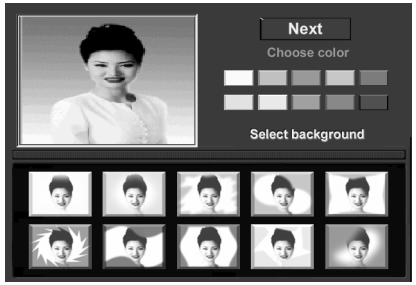


Step 4. Choose one of three menus and follow each step.

If you choose 1(Photo frame blend) effect menu, Dialog box will be appeared like under.

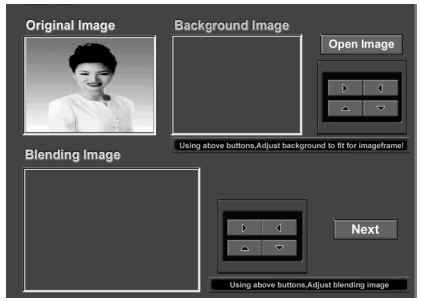
Step1-1. Select background you want to blend.
Step1-2. Then click "next" button.

If you choose 2(Border blend) effect menu, Dialog box will be appeared like under.

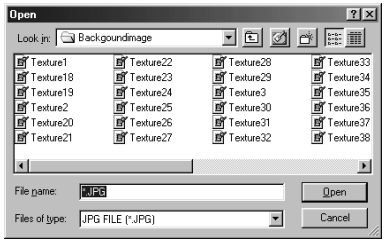


Step2-1. Select color and background you want to blend.
Step2-2. Then click "next" button.

If you choose 3(Background image blend) effect menu,
Dialog box will be appeared like under.



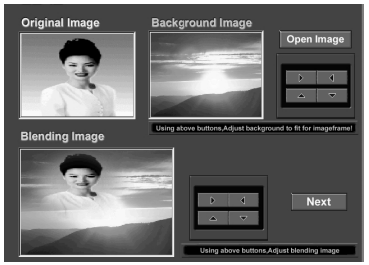
Step3-1. Click "Open background photo" button, select folder and file of background photo saved.

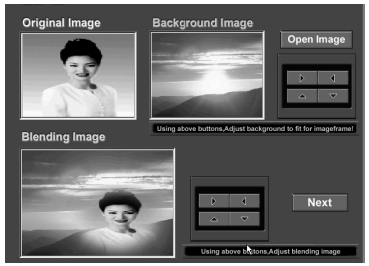


Open Dialogue Box

Control

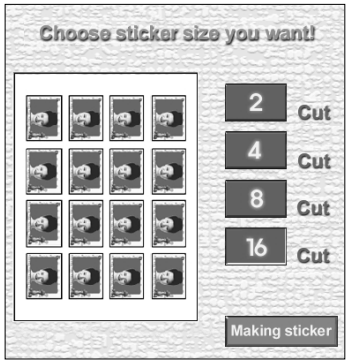
Step3-2. Using above control buttons, Adjust background to fit for photo frame.

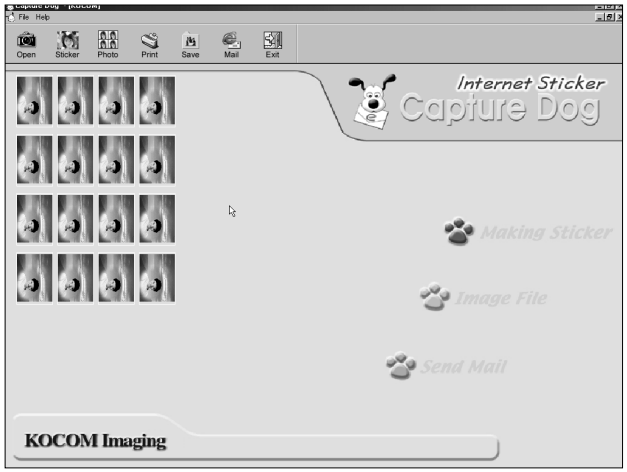




Step3-3. Using above control buttons, move location of blending photo to fit for gackground.
Step3-4. Click "next" button.

Step 5. Choose sticker size you want, then click "Making sticker" button.

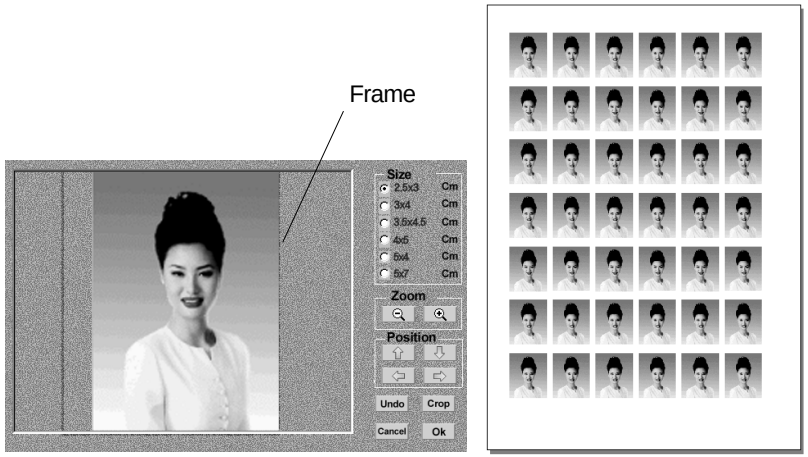




※ Reference : If sicker is made, select one of next functions.

Making Photographs

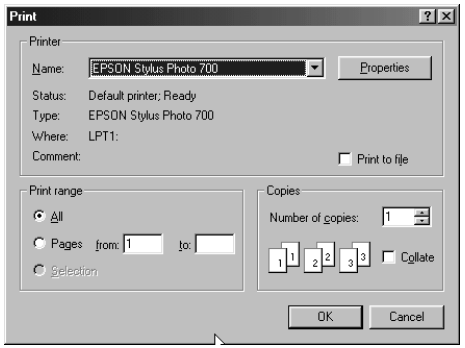
After taking photograph, Click “Photo” Icon. Above dialog box will be appeard.



Step 1. Choose photograph size you want at photograph size menu.
Step 2. Click Zoom “-, +” icon to adjust the frame.
Step 3. Click “Position” symbol icon to move the photograph at center.
Step 4. Click “Crop” icon to take the photograph with choosing part.
Press the original photograph to return to former step.
Step 5. Click “OK”.

Printing sticker using color printer

Step 1. Click "Print" icon, then print dialog box will be appeared

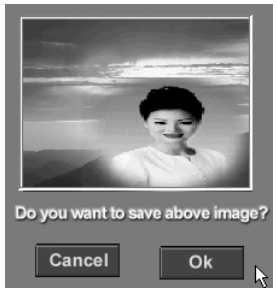


Step 2. Select the type of printer and the number of sheets.
Step 3. Insert glossy paper and click "OK" button.

※ Reference : Refer printer manual to print high solution work.
※ Caution : Print paper must be A4 size.

Save sticker as a file.

Step 1. Click "Save File" icon, then blending photo like under picture will be appeared

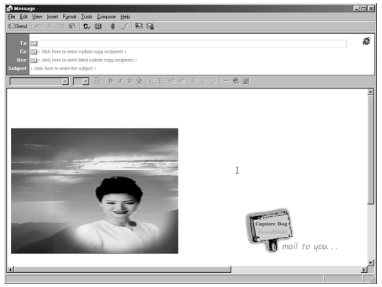


Step 2. Click "Agree" button, and input folder and file name.

※ Reference : You can use saved sticker for homepage, report and other document.

Send sticker by E-mail.

Step 1. Click "E-mail" icon, then Letter paper contained sticker photo will be appeared

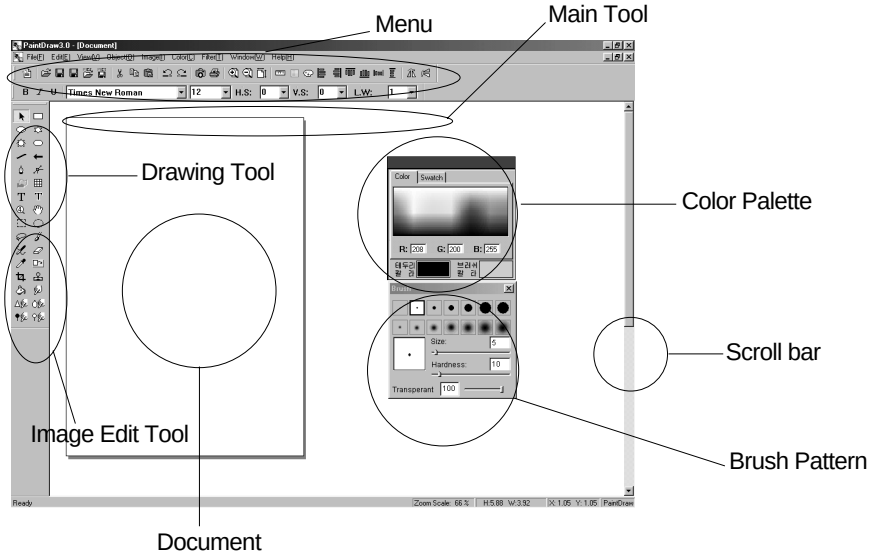


Step 2. Input E-mail Address.
Step 3. Input title and contents of letter, click "send" button

Paint Draw 3.0

Main Screen

Paint Draw 3.0 Main Screen



File(F) Menu

New Document (Ctrl+N) Creates a new document.
Appoint the kind and direction of paper and click OK to make new document in the screen. This document contains the size, sort, fold location, and working condition of image. If the position of image fold is changed, image is not marked.

Open Document (Ctrl+O) Opens an existing document.

Save Document (Ctrl+S) Saves changes made to a document.
In the case of new document, the dialogue box that appoint file name is marked. If the document is called out by Open Document, the current working condition replaces the existing working condition.

Close Document Closes document.
Save as Document Creates a copy of a document with a new location or name.

Open Image Setup When image is called out, appoint the basic size and the times in which operates the Twain automatically.

Open Image (Shift+O) Opens an image file.
If there is not chosen figure, call out the image to the figure setuped from the Open Image Setup.
In the case of making the figure and calling out the image.
- Click the button one of the figures
(rectangle, ellipse, asterisk, and flower shape).
- Draw the figure with mouse dragging
(drag the mouse holding down the left button).
- Click selecting tool icon and select the figure you want.
- After Clicking icon or File-Open Image, appoint the fold that contains image.
- After selecting file you want, click Open.

Save Image (Shift+S) Saves an image file
- Click selecting tool icon and select the figure you want.
- Click icon or File-Save Image and appoint the fold that contains image.
- Appoint the file names, and click Save
- If you want to appoint the file with different type, click File Type and select what you want.

Print (Ctrl+P) Prints a current document.
-The size of printing paper must be fitted to the registered information of printing dialogue box.

※ **Reference** : RIP Print Print current document with RIP(Raster Image Processor)
If you have been looking for fast print speed, accurate color reproduction and free expression of your imagination, Paint Draw 3.0 is the answer. Paint Draw 3.0 is a break-through RIP function that makes it to print directly what you draw in your head out of your favorite graphics application. Paint Draw 3.0 is capable of printing your work much faster than other RIPs. So, you will spend far less time for your print. With Paint Draw 3.0, you just click the RIP Print button and Paint Draw 3.0 driver will print your work immediately. It is so much easy to use. All you need to do is to click the print button. You can print images come alive with near photographic quality with RIP Print function. Paint Draw 3.0 also has the solution for the limit of printing size. Paint Draw 3.0's RIP Print will catch, ridlalp and print the printing data widely.

Select Twain : Selects the type of picture camera, scanner, and digital camera.
- Twain driver served by hard ware company must be set up in advance.

Open Twain: This is used in reading the photo file and new image wanted with picture camera, scanner, and digital camera.

Region capture Captures a certain area of the document.
- Select this menu, drag the mouse and set up an area you want.
- When image saving dialogue box is present, appoint the file name and fold location.
- If you click cancel, the image is not saved in the file but presented only in the screen.
- This is used in saving the object combined with not image file but rectangle, ellipse, asterisk, flower shape, image and figure.

Screen capture Captures the window screen..
- If you select this menu, in some case image saving box appears, then appoint the file name and the fold location.
- When cancel is clicked, the image is not saved in the file but presented only in the screen.
- Do the capture after closing window and minimizing the screen not need in advance.`

Exit (Ctrl+Q) Closes Paint Draw 3.0 to return to window

Edit(E) Menu

Undo (Ctrl+Z) Reverses the last command or commands applied on images.

Redo (Ctrl+Y) Cancels the last Undo.

Copy (Ctrl+C) Makes a copy of selected objects and saves it on the clipboard.
- Click selecting tool icon and select the figure which is going to be copied.
- Click icon or Edit-Copy and it is saved in the clipboard.

Paste (Ctrl+V) Places objects saved on the clipboard into the active document.
- Click icon or Edit-Paste.
- Click left button of mouse to the place pasted in.
- It is possible to paste the saved objects many times you want.

Image Copy With Select(Rectangle) and Select (Ellipse) icon, copy the selected image. Appoint feather value. If the feather value is 1, Feather effect does not rise.
- Select image with selecting tool icon..
- Click Select (Rectangle) icon, or Select (Ellipse).
- Appoint the area wanted to be copied with mouse dragging.
- The selected area is marked with dotted line, then you can change size and location.
- Click Edit - Image Copy.
- If the window that appoints the feather value appears, enter the numerical value properly.
- Click OK and it is saved on the clipboard.

Image Paste Attaches the saved image to the selected image with Image Copy.
- Select the image pasted in with selecting tool icon.
- Click Edit-Image Paste.
- Click the left button of mouse to the location in which the selected image is pasted
- If different location is appointed, the copied image is transferred.

Select All (Ctrl+A) Selects all objects in the active document.
- Click selecting tool icon and Edit-Select All.

Delete Deletes a selected object without saving it on the clipboard.

Group (Ctrl+G) Assemble two or more selected objects into one object. When modifying groups, They act as a single unit.

- Appoint the vacant space and drag the mouse.
- All objects in the dotted area are selected.
- If you click Edit-Group, all selected objects are assembled into one object.
- With keeping the editing condition, to move and copy is possible.

Ungroup (Ctrl+U) Divides a group into individual objects.
- After Click selecting tool icon, select the group-appointed-objects.
- Click Edit-Ungroup and separated.

Duplication (Ctrl+D) Creates an exact copy of a selected object.
- With selecting tool icon, select one object or group-appointed-objects.
- Click Edit-Duplication.
- Appoint the width, length, space and numbers of dialogue box.
- Click OK and the point with rectangle to mouse point is marked.
- Click to fit for the size of document.
- If the image is out of range of document, It is not printed.

Warranty

To receive after service, have the following ready when you contact our branches

1. Name of the product
2. Model number of the product
3. The area of problem
4. Phone number and address at which you can be contacted.

Warranty Card

PRODUCT	
MODEL	
DATE PURCHASED	
WARRANTY PERIOD	
AGENCY	
AGENCY ADDRESS	

⊙ ASTRONICS Warranties the original purchaser of this product as follows.

1) This product is produced under strict quality control and inspection procedures.

2) If this product breaks down during proper use as a result of product defect, ASTRONICS will repair it within one year from \ date of purchase free of charge.

3) The following cases will be subject to charge, even during warranty period:

a. Breakdown during transport, or through careless treatment, by consumer.

b. Breakdown cause by unauthorized repair, or system modification.

c. Breakdown caused by natural disaster or power disorder.

FCC COMPLIANCE STATEMENT:

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.

INFORMATION TO USER:

This equipment has been tested and found to comply with the limits of 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:

1. *Reorient / Relocate the receiving antenna.*
2. *Increase the separation between the equipment and receiver.*
3. *Connect the equipment into an outlet on a circuit difference from that to which the receiver is connected.*
4. *Consult the dealer or an experienced radio/TV technician for help.*

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user' s authority to operate the equipment