



# FS-710 Housing Operator's Manual

For Nikon Coolpix S710 Digital Camera



# TABLE OF CONTENTS

<b>TABLE OF CONTENTS .....</b>	<b>2</b>
<b>GENERAL INFORMATION.....</b>	<b>3</b>
THE FANTASEA FS-710 HOUSING.....	3
FANTASEA FS-710 USES.....	3
GENERAL DESCRIPTION OF CAMERA .....	8
<b>USING THE FANTASEA FS-710 HOUSING.....</b>	<b>9</b>
OPENING THE HOUSING .....	9
INSERTING CAMERA.....	9
CHECKING THE O-RING.....	10
CLOSING THE HOUSING.....	11
<b>VIEWING THE SUBJECT .....</b>	<b>12</b>
TAKING THE PICTURE .....	12
CHOOSING IMAGE FILES .....	12
<b>BATTERY LIFE.....</b>	<b>13</b>
<b>USING THE FLASH.....</b>	<b>14</b>
ACCESSORY SLAVE FLASH .....	14
LENS ACCESSORIES .....	15
FANTASEA COOLPIX ACCESSORY SYSTEMS AND SETS .....	15
<b>SHOOTING TECHNIQUES.....</b>	<b>16</b>
EXPOSURE MODES (PRE-SET BEFORE CAMERA INSERTION) .....	16
ZOOM CONTROL .....	16
MACRO FOCUS.....	16
QUICK REVIEW .....	16
CAMERA STANDBY MODE .....	17
<b>CARE &amp; MAINTENANCE .....</b>	<b>18</b>

# GENERAL INFORMATION

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## ***The Fantasea FS-710 Housing***

Fantasea has specially designed the FS-710 housing for the Nikon Coolpix S710 camera. This housing is ideal for outdoor and underwater photographers who enjoy the camera's automatic exposure features for capturing fast action pictures easily and creatively. The FS-710 housing ensures easy handling and accurate access to camera functions through the critical placement of push-button controls and a compact design.

The FS-710 housing provides access to all essential control functions: On/Off, Shutter Release, Mode, Zoom In/Out, Menu, Flash, Exposure Compensation, Timer, Macro, Playback and Delete, and has a built in Flash Diffuser and an anti-glare hood over the LCD screen.

## ***Fantasea FS-710 Uses***

The Fantasea FS-710 housing is designed as an underwater/outdoor camera housing. It features double O-rings on all controls, and has a working depth of 200 feet/60 meters. Underwater photographers can dive or snorkel and capture all the excitement of this fascinating world, while outdoor photographers also have the option of capturing the action of such activities as white water and paddle sports, swimming, sailing and boating, surfing, fishing and hunting, backpacking and camping. The Fantasea FS-710 will protect the Coolpix S710 camera from water, sand, dust, and other damaging elements.

## Top/Front Side of Housing



Numbered description below refers to corresponding numbers on above graphic.

### **1. Shutter Release**

This is a two stage shutter-release button. First lightly press the shutter-release button halfway, stopping when you feel minimal resistance. Once the camera has focused, press the shutter-release button the rest of the way down to release the shutter and take the picture.

### **2. Power On/Off**

To turn on the camera, press the power switch. The power-on lamp (green) will turn on for a moment, and the monitor will turn on.

To turn off the camera, press the power switch again.

### **3. Removable Flash Diffuser**

- The Flash Diffuser is used to diffuse the internal flash's intensity. See the section on "Accessory Slave Flash" for additional information.

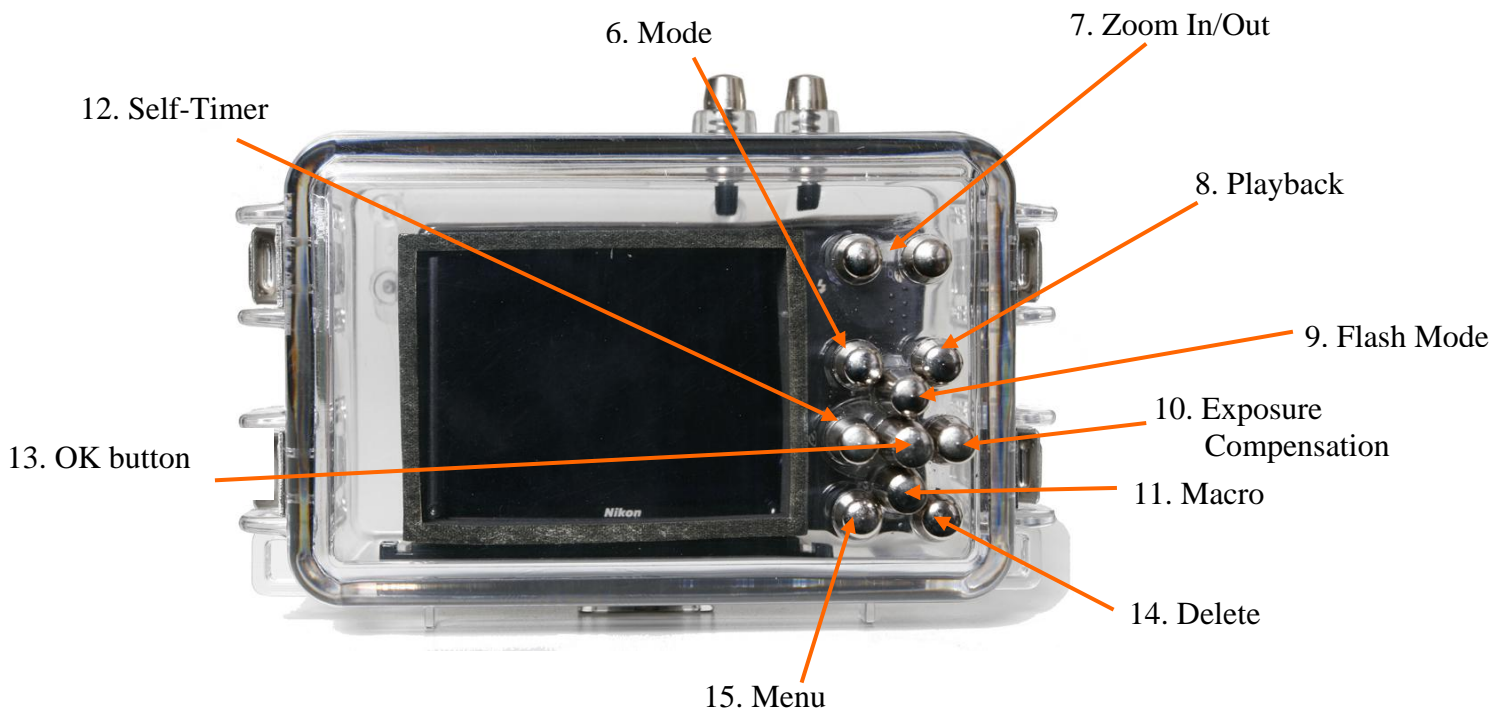
#### 4. Threaded Lens Port

Refer to the section "Inserting Camera" for useful information.

#### 5. Buckles to Secure Housing

Refer to the section "Using the Fantasea FS-710 Housing" on how to open and close the camera housing.

#### Back Side of Housing Buttons



Numbered description below refers to corresponding numbers on above graphic.

#### 6. Mode

- Press the Mode button during shooting to display the shooting mode selection menu or during playback to display the playback mode selection menu.
- Use the multi selector and press the OK button to choose the desired mode.
- Press the Playback button to switch between the mode selection menus for shooting mode and playback mode.

- Please note that the FS-710 Housing enables access to all camera functions, aside from altering the aperture and shutter release values in the manual modes.

## **7. Zoom In/Out**

- Use the Zoom buttons to activate optical zoom. Press "W" to zoom out, increasing the area visible in the frame, or "T" to zoom in, so that the subject fills a larger area of the frame. When the camera is zoomed to the maximum magnification (4x), holding "T" down triggers digital zoom.
- Press "W" in full-frame playback to display pictures in "contact sheets" of four or nine thumbnail images.
- Press "T" to zoom-in on still images displayed in full-frame playback.
- When entering a menu, press "T" to view a description of the currently selected menu option.

## **8. Playback**

- Press the Playback button to enter full-frame playback. Multi-selector buttons may be used to view pictures.
- Press Playback button again or press the shutter-release button to return to shooting mode.
- If the camera is turned off, hold down the Playback button to turn the camera on in playback mode.
- Holding down the Playback button when the camera is on sets monitor brightness to the maximum level. Press and hold down the Playback button again to return to the original brightness settings.

## **Multi-Selector buttons (9-13)**

### **9. Flash Mode**

In order to select a flash mode:

- Press the Flash Mode button.
- Use the multi-selector up/down arrows to choose the desired flash mode (Auto, Auto with Red-Eye Reduction, Off, Fill Flash and Slow Sync), and press "OK".

### **10. Exposure Compensation**

Exposure Compensation is used to alter exposure from the value suggested by the camera to make pictures brighter or darker.

- Press the Exposure Compensation button.

- Press the multi-selector up/down arrows to adjust exposure, and press "OK".

## **11. Macro**

Macro Close-Up mode is used for taking pictures of objects as close as 10cm/4 inch.

- Press the Macro Mode button.
- Press the multi-selector up/down arrows to choose "On", and press "OK".
- Press "T" or "W" to frame the picture, focus and shoot.

## **12. Self-Timer**

The camera is equipped with a ten-second and two-second timer for self portraits. When using the self-timer, mount the camera on a tripod or rest it on a flat and stable surface.

- Press the Self-Timer button.
- Press the multi-selector up/down arrows to choose 10 seconds or 2 seconds, and press "OK".
- Frame the picture, press the shutter-release button half-way to focus, and then all the way down.

## **13. OK Button**

- Push this button to confirm a selection.

## **14. Delete**

- Press Delete to delete the picture currently displayed in the monitor in full-frame playback. Press the multi-selector up/down arrows to choose "Yes", and press "OK".
- In Shooting Mode, press this button to delete the last picture taken. When the confirmation dialog shown at right is displayed, press the multi-selector up/down arrows to choose "Yes", and press "OK".

## **15. Menu**

Press the Menu button to display the menu for the selected mode. Use the multi-selector to navigate the menus. Press the Menu button again to exit the menus screen.

### **Note!**

It is strongly recommended that you familiarize yourself with all the controls topside before using these controls while diving.

## **GENERAL DESCRIPTION OF CAMERA**

The S710 is a top quality, high-performance digital camera which offers a massive 14.5 effective mega pixels sensor and an optically stabilized 3.5x zoom starting at 28 mm equivalent. It also features a range of high-performance functions such as a possible 12 fps shooting and, with a sensitivity range up to ISO 12800, delivers sharp and detailed pictures in even the most demanding

environments. It includes a 3.6x optical zoom covering a wide-angle 28 mm, four exposure modes (P/S/A/M) to allow users to fully control the camera settings or leave it up to the camera to decide the best settings and Scene Auto Selector. Four anti-blur features ensure sharp images at all times, even for objects on the move: lens-shift Vibration Reduction (VR), a sensitivity range up to ISO 12800, Best Shot Selector and Motion Detection. Selecting a shot is easy with its extra-large 3-inch wide-viewing angle TFT monitor with anti-reflection coating. It has a robust exterior design with highly-durable stainless steel body. With advanced features and superior portability, this is the camera for those looking for a compact camera that offers top-level images in a sophisticated design.



# USING THE FANTASEA FS-710 HOUSING

## Note!

It is strongly recommended to take the first dive without the camera inside the housing. You should check that the water tight seal has not been affected during transport and long periods of storage.

## OPENING THE HOUSING

1. Release all four latches at the same time, and lift off back half to open housing.

## INSERTING CAMERA

Since the **Fantasea FS-710** is specifically designed for the Coolpix S710 digital camera, inserting the camera into the housing is quite simple.

1. Mount the camera on the removable tray, using the tripod screw.
2. Slide the tray and camera into the housing tray slot. Make sure it is completely inserted.
3. Make sure the camera lens is more or less centered in the rounded port area and that the lens does not distort the round black rubber seat. The housing is designed to have the camera fit in place perfectly, but if you are not careful, it is possible to put it in at an improper angle and it will then be impossible to get a good seal or easy closure of the housing.
4. *After camera insertion, check that the extended camera lens does not catch or bend the black rubber seat on the inside of the lens port. It is vital that the lens does not disturb this rubber seat.*

<p>🔗 Notes:</p>	<ol style="list-style-type: none"> <li>1. <b>It is recommended to make some camera settings prior to inserting camera into the housing. Please refer to the Coolpix owner's manual for menu options and personal preferences.</b></li> <li>2. <b>Take a few test shots: it is recommended to turn the camera "on" and program to "Flash Always" mode before inserting into housing and then take test shots to make sure all systems are working.</b></li> </ol>
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Underwater photographers will probably want to set the flash mode to the *flash always* setting to ensure they always have a flash with every exposure. It is also wise to set the focus mode to allow the lens to focus in the macro range for capturing great images of the tiny and exotic subjects that you can find underwater.

### **CHECKING THE O-RING**

Prior to each closure of the housing the O-ring should be visually inspected. If there is any debris present, including dirt, sand, dust, hair, grease or other matter, it must be cleaned to ensure a proper watertight seal. Cleaning the O-ring is a simple matter of wiping it with a damp, soft cloth to remove the foreign matter. Be careful the cloth you use does not leave any of its own material behind as this can also affect the effectiveness of the seal. When replacing the O-ring, place it back into the groove starting at one corner and gently place it in by pressing it into the groove all around the housing until it is all sitting in the groove and no part of it is sticking up or out of the groove. You can then apply a slight layer of silicone if you have not done this yet. Be sure it is completely seated in the channel for a proper seal.

<p>🔗 Note</p>	<p>Lubrication of an O-ring does not improve the seal. It only reduces the amount of friction on the O-ring when it is being moved into sealing position. The amount of lubrication required on the O-ring is only enough to allow it to slip into place without friction, so it does not twist or become dislodged. More grease is not better, and could in some cases have a negative affect if it is applied in large amounts to form a build-up that could trap any debris or foreign matter.</p>
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## ***CLOSING THE HOUSING***

1. Place housing back over front and align the complete mating surface of the housing and the O-ring, forming a proper seal.
2. Position all four latches over latch hooks in ready position.
3. Close one of the bottom latches first, maintaining pressure on the other side. Proceed by closing the other side's top latch. Then close the remaining bottom latch and the remaining top latch. Test all latches carefully to make sure that they are completely locked into place and not just pushed down. Try to open them to make sure that they cannot open accidentally.
4. Inspect the O-ring for proper closure. A complete seal can be visually confirmed by the O-ring around the complete circumference of the housing.
5. Always take the first dive without your camera in the housing just to make sure there is no leakage from damage to the housing. During the dive, especially at the beginning of descent, take special care to look at the housing to make sure no bubbles are escaping from it and that no water is entering. Generally, if there is a problem with the seal, you will discover it in the first seconds of the dive.
6. After use, when opening the housing, it is important to hold it so the lens port is facing down. This will prevent the camera from slipping out of the housing while being opened. Release the four latches in the same order described for closing them in step 3, and take off the back side of the housing. Gently pull both the tray and the camera outside of the housing and unscrew the tripod screw out of the camera in order to disconnect it from the tray.

# VIEWING THE SUBJECT

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The S710 camera does not have a standard eyepiece, but underwater photographers and outdoor photographers will appreciate the large 3.0 inch LCD viewing monitor for composing photographs. The LCD monitor allows you to see your subject in sharp focus and framed properly. Hold the camera housing in your outstretched arm at a position that is both comfortable and also allows you to easily see the LCD monitor, for best compositional options.

## ***TAKING THE PICTURE***

Once you have composed your scene or subject in the LCD monitor, depress the shutter release button to take the picture. A half depress will activate the live viewing ability of the LCD and allow the camera to focus, once in focus and ready to shoot a green light will appear on the LCD monitor and the camera is ready to take the picture. Press down the shutter all the way to complete image capture. You may notice a pre-flash and slight delay in the shutter release. This is to allow the camera to make its final focus and exposure calculations before taking the picture. With a little practice, you will become used to this and taking pictures of moving subjects will become easier and natural.

## ***CHOOSING IMAGE FILES***

There are several image file options to choose from that offer different resolution and file sizes. This determination must be made prior to camera insertion from Menu options. Please refer to the Coolpix instruction manual for details on setting these preferences.

# BATTERY LIFE

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## **Rechargeable Li-ion Battery EN-EL12**

There are certain things that users can do to help with battery life. The most important is to set the camera to turn the LCD off after a short time, during periods of non-use. It can then be automatically turned back on if you depress the shutter release control half way. Please refer to the Coolpix instruction manual for details on how to make this adjustment setting. It is always wise to have backup batteries in case you do run out of power. The supplied battery can be recharged many times and offer an economical and environmentally friendly power source.

# USING THE FLASH

The Coolpix has a built-in flash, which will illuminate nearby underwater subjects. For subjects that are farther away, an accessory slave flash is recommended (see below). A built-in flash diffuser is supplied which will help achieve a wider and softer light source thereby providing more coverage and less likelihood of *backscatter* (the unattractive snowstorm affect of the flash reflecting off the suspended particles in the water). Further reduction of *backscatter* can be achieved by using an accessory off-camera slave flash. This will be discussed in more detail later.

The need for artificial light to maximize color reproduction is necessary in nearly all pictures. Therefore it is strongly recommended that you set the flash mode to *Flash Always*. This will ensure the flash fires on every exposure regardless of the ambient light conditions (Please refer to the camera's instruction manual for more details).

Outdoor photographers do not have this same problem. There is no backscatter to be concerned with, and due to the ability of the flash to travel farther and more effectively in air as compared to in water, there is normally not a need for an accessory flash to provide proper illumination for most subjects.

## ACCESSORY SLAVE FLASH

If you use the Coolpix built-in flash as the master, you can trigger a second *slave* flash to provide more artificial light when needed. To do this, you must use an accessory flash that has a *slave* feature built in. The flash from the Coolpix must be aimed or bounced towards the accessory flash's *slave* sensor, or other fiber optic sensor. This will trigger the slave to fire in sync with the master flash.

When using an accessory slave flash with fiber optic cable, it is recommended to black out the internal camera flash. The internal flash is located near the camera lens and can contribute to backscatter by illuminating floating particles close to the lens port or a shadowing effect caused by the lens port.

If the sensor of the fiber optic cable is attached to the outside of the housing directly above the internal flash and taped over with black tape—it will block out the light from the internal flash but transmit the light pulse to the external slave flash

 Note

*Be sure to use a slave flash that has the ability to ignore the built-in pre-flash in digital cameras, and synchronizes with the shutter release.*

## ***LENS ACCESSORIES***

The Fantasea FS-710 features a threaded 46mm lens port. This threaded port is designed to work with some of the wide-angle and macro adapters that are currently on the market. Fantasea Line offers the following lens accessories:

- FWAL-02 Wide Angle Lens: an accessory Wide Angle Lens which fits over the housing port and can be installed and removed during the course of the dive. Please note that a slight vignette is encountered when installing this lens on the FS-710 Housing's lens port. This vignette can be avoided by slightly zooming in.
- Red Filter 46: fits over the housing port and can be installed and removed during the course of the dive. The filter is mounted on the housing lens port and held in place by screw thread.
- FML-01 Macro Lens: an accessory Macro Lens which fits over the housing port and can be installed and removed during the course of the dive.

For more information please refer to our website or to the Fantasea Dealer where you purchased your housing.

## ***FANTASEA COOLPIX ACCESSORY SYSTEMS AND SETS***

Fantasea offers a variety of sets for Coolpix and other housings. These sets are made up of quality accessory products which will enhance and improve your underwater images. Accessory products include external flash systems, flexible arms, trays, filters, wide angle lenses, fiber optic cables, bags and more. Below you can see one sample system. For more information please refer to our website or to the Fantasea Dealer where you purchased your housing.



# SHOOTING TECHNIQUES

## ***EXPOSURE MODES (PRE-SET BEFORE CAMERA INSERTION)***

There are several exposure modes for photographers to choose from, depending on the situation. Underwater, it is recommended that you shoot in the Auto mode on the camera, in which ambient light and artificial light will be automatically controlled by the camera according to the lighting conditions. You can also select different light meters to use, based on the situation and your personal preferences. Additionally, you can choose the Auto White Balance setting for color temperature control, or experiment with some of the other modes to see which will work best underwater. These settings do not have to be made ahead of any dive, as they can be accessed through the housing controls while underwater.

Please refer to the Coolpix instruction manual for details on how to set these camera options, and under what conditions the different choices should be used.

## ***ZOOM CONTROL***

Zoom in for telephoto photos and larger subject size. Zoom out for wide-angle scenes. It is generally not recommended to use the zoom underwater as it is preferable to get physically closer to your subject. The digital zoom has no value at all.

## ***MACRO FOCUS***

For capturing the tiny and exotic subjects that require close focus. Macro focus is possible when the lens is in the wide-angle position.

## ***QUICK REVIEW***

Immediate review of most recent image is available and this will confirm that you have captured the shot you want. However, if you want to scroll through your images, or delete images from the memory card, this should be done when you are topside and the camera is out of the housing.

## **CAMERA STANDBY MODE**

You can access the camera's menu to select the length of the inactivity period. Inactivity period is the length of time before the camera goes into *standby mode*. Options are 30 seconds, one minute, five minutes, and 30 minutes. This feature allows you to conserve battery power by placing the LCD monitor on standby [sleep mode]. It is recommended that this option is set for 30 seconds to conserve battery power. If set for longer periods of time the LCD screen will heat up and it will produce condensation and fogging of the lens port. Condensation on the lens port will have a negative impact on the quality of the images taken.

**When you want to resume shooting, pressing the shutter release half-way will re-activate the camera. However, if after the camera goes into standby, a further period of three minutes goes by without any activity, the camera will turn off [deep sleep mode]. You can turn it back on by pressing the On/Off Power button. The *Welcome to Nikon Coolpix* screen will appear and then it will display last image taken.**

# CARE & MAINTENANCE

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The Fantasea FS-710 housing requires only a minimum amount of care for reliable performance. The following tips will enable you to get the best results.

1. Always rinse your housing with a strong stream of fresh water and if possible soak housing in a fresh water tub or rinse tank for about 20 minutes after every dive in order to dissolve the salt water crystals from around the controls and openings of the housing. Manipulate each of the movable controls to assist the removal of salt particles from these tight areas.
2. Allow the housing to dry thoroughly before packing away for the day or for the trip home. You may use a soft towel or cloth to dry the housing. Be sure there is no grease or other debris on the towel.
3. Visually check the condition of the O-ring before every dive. If it is dirty, clean it with fresh water and dry it with a soft cloth as described above. If it is damaged in any way, such as cut or perforated, replace it before using the housing again.
4. It is recommended to slightly lubricate the housing's O-ring periodically. It's important to note that the amount of lubrication required on the O-ring is only enough to allow it to slip into place without friction, so it does not twist or become dislodged. More grease is not better, and could in some cases have a negative affect if it is applied in large amounts to form a build-up that could trap any debris or foreign matter.
5. Be careful not to get greasy fingerprints or dirt on the lens port. This will affect the image quality. Wipe any dirt or grease off with fresh water and a soft cloth.
6. Do not drop the housing on hard surfaces, it could crack and affect its watertight seal integrity.
7. Travel with the housing protected in a padded case. It is best to remove the camera from inside the housing when traveling and provide it with its own protective case, or compartment.
8. Never dive with the Fantasea FS-710 housing to a depth greater than 200 ft/60 meters.
9. It is recommended that you select the shortest time option on the menu, for placing the camera into standby during periods of inactivity. This will conserve battery power and reduce the heat given off by the LCD screen, which can contribute to condensation inside the housing and fogging.

10. You should take the first dive without the camera inside the housing. You should check that the water tight seal has not been affected during transport and long periods of storage.
11. It is likewise recommended to visually monitor the housing during every descent, especially for the first 10 meters/33 ft. If water is observed entering the housing or bubbles escaping from it, the housing should be rotated to a *port down position* and held that way as you return to the surface immediately and get it out of the water.
12. It is recommended to have all Fantasea housings serviced once a year at an authorized Service Center. This includes visual inspection and possible changing of all seals, gaskets and O-rings. Please contact Fantasea at <http://www.fantasea.com/contact>, or visit the Fantasea web site [www.fantasea.com](http://www.fantasea.com) for more information.