

SONY®

4-669-904-11(1)

AIBO Recognition

for ERS-210 Series



ERF-210AW06E [English Edition] **User's Guide**



Notice to Users

©2002 Sony Corporation All rights reserved. This manual and the software described herein, in whole or in part, may not be reproduced, translated or reduced to any machine-readable form without prior written approval.

EXCEPT AS SPECIFICALLY SET FORTH IN THE END-USER LICENSE AGREEMENT, SONY CORPORATION PROVIDES THIS MANUAL, THE SOFTWARE AND THE OTHER INFORMATION CONTAINED HEREIN “AS IS” WITH NO WARRANTY AND HEREBY EXPRESSLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT OR FITNESS FOR ANY PARTICULAR PURPOSE WITH REGARD TO THIS MANUAL, THE SOFTWARE, OR SUCH OTHER INFORMATION. IN NO EVENT SHALL SONY CORPORATION BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, WHETHER

BASED ON TORT, CONTRACT, OR OTHERWISE ARISING OUT OF OR IN CONNECTION WITH THIS MANUAL, THE SOFTWARE, OR OTHER INFORMATION CONTAINED HEREIN OR THE USE THEREOF. THIS DOES NOT AFFECT YOUR STATUTORY RIGHTS.

Sony Corporation reserves the right to make any modification to this manual or the information contained herein at any time without notice.

The software described herein may also be governed by the terms of a separate user license agreement.

This product contains software owned by Sony Corporation and licensed from third parties. Use of such software is subject to the terms and conditions of license agreements enclosed with this product. Software specifications are subject to change without notice and may not necessarily be identical to current retail versions.

Before using this software, please read the accompanying End-User License Agreement which governs use of this software.

- This software or document is protected by copyright, and distributed under licenses restricting its use, copying, and distribution. No part of this software or document may be reproduced in any form by any means and rental of this software may not be allowed without prior authorization of Sony Corporation.
- Sony Corporation assumes no responsibility for any inconvenience caused by misuse or any use not stated in this document.
- The supplied software cannot be used with any device other than those devices specified herein.
- The specifications of the supplied software are subject to change without notice.

Customer Support

In the U.S.A.

How to contact the AIBO Customer Link.

Call 1-800-427-2988

Email address: aibosupport@info.sel.sony.com

In Europe

How to contact the AIBO Clinic.

English line: +44 (0)-20-7365-2937

For Customers in the U.S.A.

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.

Regulatory Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For Customers in Canada

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

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

For Customers in Europe (Für Kunden in Europa)

CE (EMC) Marking Conformity Remarks

- a) This equipment complies with EN55022.
Class B digital for use in following areas: residential, business, and light-industrial.
- b) This product conforms with the following European Directive:
89/336/EEC (EMC directive)

Hinweise zur Konformität mit dem CE-Zeichen (EMV)

- a) Dieses Gerät entspricht der europäischen Norm EN55022 Klasse B (digital) für die Verwendung in folgenden Gebieten: Wohngebiete, Gewerbegebiete und Leichtindustriegebiete.
- b) Dieses Gerät erfüllt die folgende europäische Richtlinie:
89/336/EWG (EMV-Richtlinie)



OPEN-R

“OPEN-R” is the standard interface for the entertainment robot system that Sony is actively promoting. This interface expands the capability of the entertainment robot through a flexible combination of hardware and interchangeable software to suit various applications. The “AIBO” ERS-210 series and “AIBO-ware” ERF-210AW06E conform to OPEN-R version 1.1.3.

“AIBO,” the AIBO logo ®, “OPEN-R” and the OPEN-R logo  are registered trademarks of Sony Corporation.

“Memory Stick,”  and “**MEMORY STICK**” are trademarks of Sony Corporation.

In this manual, the “™” and “®” marks have been omitted.

Other information about AIBO is available on the Internet at the following site:
<http://www.aibo.com/>

Reproduction in whole or in part without written permission is prohibited. All rights reserved.

First of all, check that you have the following items.

- AIBO-ware “Memory Stick”
- Quick Guide
- Self-charge markers
(green marker, blue marker,
front marker base, rear marker
base, pink ball)
- User’s Guide (this manual)
- End-User License Agreement
- Markers for the AIBO Self-charging
Function (Operating Instructions)



Table of Contents

Getting Started

Welcome to “AIBO Recognition”!	12
Emotions and instincts of AIBO	13
Modes and conditions of AIBO	14
Preparations	16

Living with AIBO

Charging AIBO’s battery pack	22
When you want to charge AIBO	22
AIBO charges on its own (self-charge)	24
If AIBO is not charged	31
Sleeping and waking up	32

Communicating with AIBO

Teaching AIBO its new name	34
Teaching AIBO to recognize you	36
From you to AIBO	39
Communicating by touch, visually and by voice	39
Communicating for training AIBO	40
Having AIBO take a photo	41

Additional Information

Notes on use	46
Troubleshooting	48

Reference Materials

Words apprehensible to AIBO	52
-----------------------------------	----

For more information about “AIBO” ERS-210 series (name of parts, settings, “Memory Stick” use, safety precautions, etc.), refer to the “AIBO” ERS-210 series Operating Instructions.

Getting Started

Welcome to “AIBO Recognition”!

“AIBO Recognition” is AIBO-ware for the AIBO ERS-210 series. This chapter explains how to get AIBO ready to use “AIBO Recognition.”



* In this manual, “AIBO Recognition ERF-210AW06E” is referred to as “AIBO Recognition” hereinafter.

Welcome to "AIBO Recognition"!

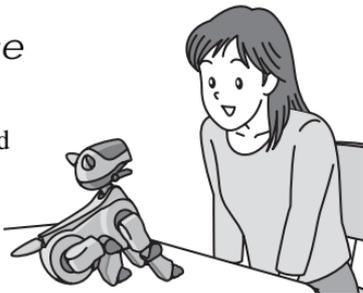
"AIBO Recognition" is AIBO-ware that gives AIBO a gentle and intelligent character.

When AIBO is loaded with AIBO Recognition, it acts on its own volition as it learns about you and its environment.

AIBO can recognize your face

(page 36)

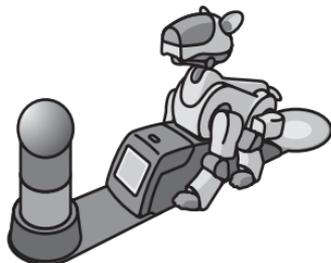
AIBO has the ability to recognize your face and the sound of your voice. AIBO remembers the faces of those people it is closest to. The special affection AIBO shows these people is unique.



AIBO never runs out of energy because it knows how to self-charge!

(page 24)

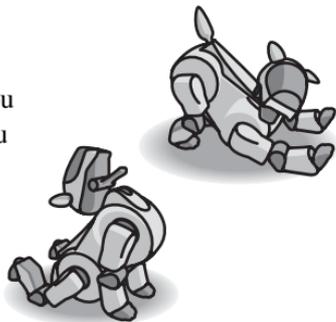
Whenever battery power is low, AIBO returns to the Station and charges itself. When charging is complete, AIBO leaves the Station and resumes its former activity.



In order for AIBO to self-charge, the Energy Station ERA-210P1 (optional) is required.

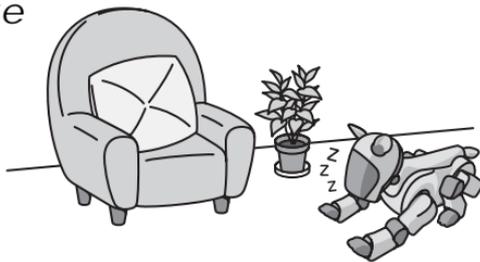
AIBO loves communication!

When you call or play with AIBO... it is happy! If you communicate frequently with AIBO, it will repay you with growing expressions of affection.



AIBO also loves to take naps

If you leave AIBO alone, it will enjoy a peaceful nap without disturbing you. However, while AIBO dozes, it is always waiting for you to call.



Emotions and instincts of AIBO

When AIBO is loaded with AIBO Recognition, it displays **emotions** such as joy and sadness, as well as **desires** such as wanting to play or to sleep. These emotions and desires will change in response to a variety of conditions that affect the behavior of AIBO, including interaction with people and its surroundings.

AIBO is an **autonomous robot** that acts on its own initiative, according to its emotions, its desires, and the information it collects from its surroundings through its built-in camera and microphone.

Modes and conditions of AIBO

With AIBO Recognition, AIBO can enter the following modes and conditions.

Pause mode



To turn AIBO off, press the Pause button located on its chest. Place AIBO in this mode before changing or replacing the battery or "Memory Stick."

When you press the pause button on AIBO's chest.



- When you press the pause button on AIBO's chest.
- When AIBO has been active for an extended period.

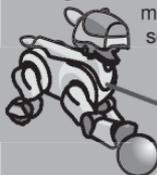
Active condition

The mode indicator goes off.



Autonomous mode

AIBO moves around on its own. AIBO acts on its own volition, based on its emotions, its instincts, and the information it collects through its built-in camera, microphone, and sensors.



The chest light lights green.

To wake up AIBO, touch or talk to it.



Sometimes AIBO dozes off!

Notes

- Do not place AIBO in any location where it might fall or be subjected to vibration, or on any unstable surface.
- Do not place anything near AIBO that may hinder its movement.

The mode indicator goes off.

Station mode



AIBO takes a nap or even stays awake while charging.



The Energy Station ERA-210P1 is an optional accessory.

- AIBO moves from the Station on its own.
- You remove AIBO from the Station.

Pick up AIBO quickly.



Put down AIBO.

The mode indicator lights.

Pick-up condition



When AIBO is picked up, it moves into the Pick-up condition. This is to prevent AIBO from making movements that might surprise the person picking it up, possibly causing them to drop it in consequence.

Note

When two or more of AIBO's paw sensors are pressed, it thinks it has been placed on the floor and returns to Autonomous mode. AIBO may start walking after returning to Autonomous mode, so be careful not to touch any of its paw sensors when you hold it.

An object is caught in any one of AIBO's joints.



Press the head sensor for 3 seconds.

The mode indicator flashes.

Jam condition



If an object becomes jammed in any one of AIBO's joints, AIBO goes limp, and all of its joints become loose. This condition prevents you from getting your fingers caught between AIBO's joints and injuring them.

Preparations

Let's get AIBO ready to use AIBO Recognition.

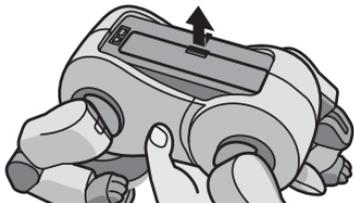
Note

If AIBO is loaded with any other AIBO-ware “Memory Stick,” place AIBO in the Pause mode (the chest light goes off) before switching the “Memory Stick.” To place AIBO in the Pause mode, press the pause button on AIBO’s chest.

1 Grasp AIBO securely by the body, turn it upside down, and open the cover.

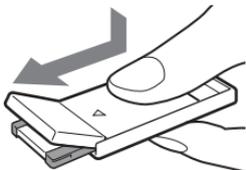
Notes

- Lift AIBO by its body, and not by its extremities.
- If your hands are comparatively small, you may drop AIBO when grasping or turning it upside down. Be careful to hold AIBO.
- Do not touch AIBO’s charging terminal with your hand. Doing so may soil the terminal and cause poor contact.



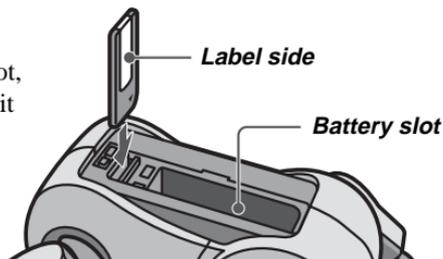
2 Remove the “Memory Stick” from its case.

Slide the lid toward the ◀ mark.



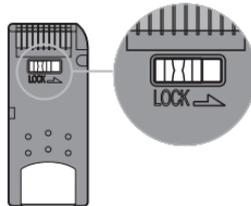
3 Check that you are holding the “Memory Stick” in the right direction, and insert it into AIBO.

With the ▼ mark pointing down and the label facing the direction of the battery slot, insert the “Memory Stick” until you hear it click into place.



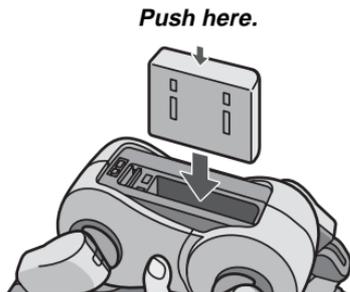
Notes

- Make sure that you orient the “Memory Stick” correctly. If you insert it incorrectly oriented, you may damage the “Memory Stick” or AIBO.
- Do not set the safety switch of the “Memory Stick” to “LOCK.” Doing so will make it impossible for AIBO’s learning and taking photo functions to work.

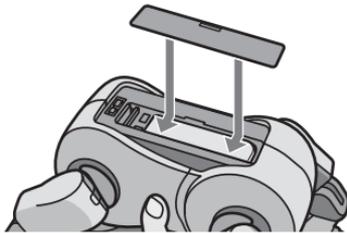


4 After checking that the battery pack is correctly oriented, insert it, and then close the cover.

Hold the battery pack with the connector facing downward, and insert it into the slot until you hear it click into place.



Attach the cover as shown in the illustration.



5 Charge up the battery pack.

Refer to the “AIBO” ERS-210 series Operating Instructions for how to charge up the battery pack.

6 Place AIBO on the floor as shown on the right.

Place AIBO on a flat, non-slippery surface, such as a carpet with a short nap.

And choose a quiet place to place AIBO so that it can hear whatever you say to it.

Notes

- On a slippery floor or a carpet with a long nap, AIBO may fall down or carpet may be caught between its joints, so it may not move forward.
- Be sure to place AIBO on the floor as shown above. This will prevent AIBO from moving unexpectedly and being damaged when you press the pause button.



7 Press the pause button on AIBO's chest.

The chest light lights up green.

After a while, AIBO will begin moving automatically.

Note

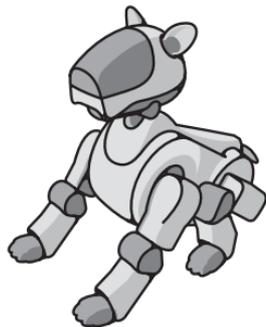
If its eyes flash red when you press the pause button, the “Memory Stick’s” write protect switch is in the “LOCK” position. Press the pause button once more to put AIBO in the Pause mode, then unlock the write protect switch on the “Memory Stick.”



Living with AIBO

When AIBO is hungry, it instinctively charges on its own, and if AIBO is sleepy, it dozes off.

These are some of the habits of the “autonomous robot” AIBO.



Charging AIBO's battery pack

AIBO operates on battery power.

Because the battery pack is only partially charged when you purchase it, the first thing you need to do is charge it. AIBO can operate for about 1.5 hours (in Autonomous mode) with a fully charged ERA-201B1 Lithium Ion Battery Pack.

- AIBO can return to the Station for charging on its own (self-charge).

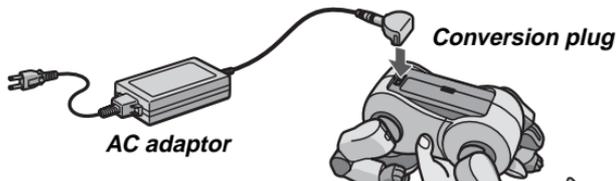
When you want to charge AIBO

Charging with the AC adaptor

Insert the battery pack into AIBO, and connect the conversion plug to both the charging terminal and the AC adaptor. The battery pack will automatically begin charging. If you happen to connect the conversion plug to the battery pack and the AC adaptor although AIBO is moving, AIBO stops moving and the battery pack will begin charging. Refer to the “AIBO” ERS-210 series Operating Instructions for details.

While charging

The chest light lights orange.



When charging has finished

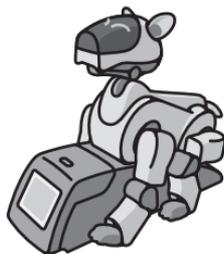
The chest light goes off, and AIBO enters Pause mode.

To start up AIBO, remove the conversion plug and press the pause button.



Charging with the ERA-201P1 Energy Station (optional)

When you place AIBO on the Station, charging begins. For details on charging AIBO, refer to the Operating Instructions of the ERA-210P1 Energy Station. When you place AIBO on the Station, AIBO not only enters Station mode and is charged, it stays on the Station in a relaxed and comfortable manner.



While being charging

The chest light lights orange.

In this document, the Energy Station ERA-210P1 is referred to as the “Station.”

Notes

- Do not place any substance within the range of the front legs of AIBO. The front legs of AIBO may knock it down. AIBO may move from the Station also.
- Do not move the rear legs of AIBO in Station mode. Since AIBO moves its front legs in Station mode, the rear legs may hit against the front legs.

AIBO charges on its own (self-charge)

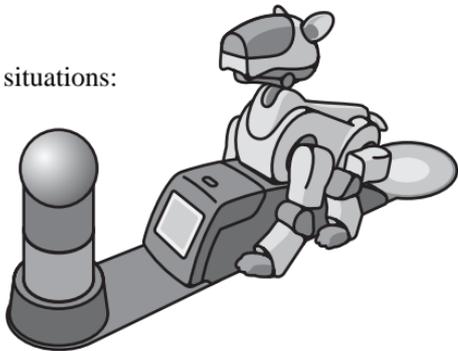
AIBO uses the supplied markers to find its way back to the Station (optional accessory) for charging.

AIBO charges on its own in the following situations:

- battery power is low.
- you say ***“Go to the Station.”***

Note

If AIBO is more than 70 cm from the pink ball on top of the marker stack, AIBO will not be able to find the Station.



Setting the markers on the Station

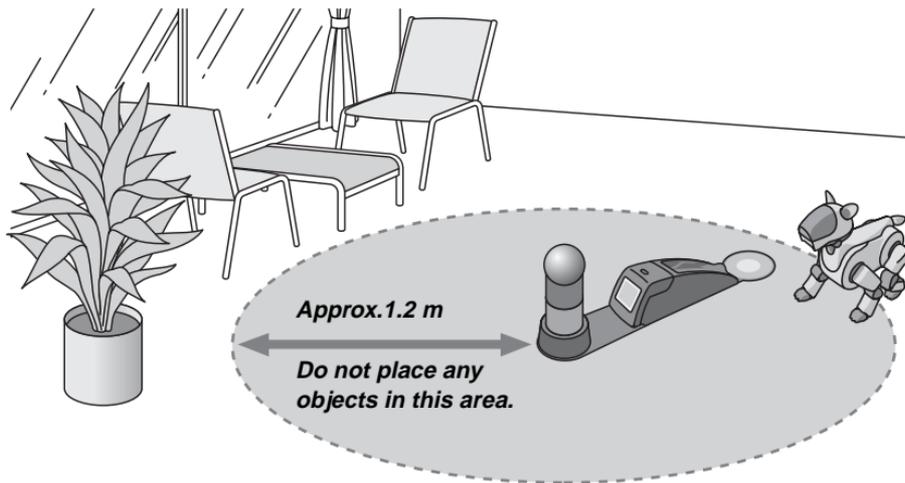
If you want AIBO to self-charge, you must set the supplied self-charge marker on the Station so AIBO can find its way back to the Station. For details on setting the markers, refer to the Operating Instructions for the markers.

Recommended setup locations:

- Sunny locations
- Locations where fluorescent lighting is used
- Places where there are no objects with colors similar to those of the markers

Open space required

AIBO's self-charge operation requires an open space with a radius of at least 1.2 meter around the pink ball on top of the marker stack.



If AIBO cannot find the Station

AIBO may not be able to find the Station if the room is poorly lit even if the marker is set on the Station.

If this happens, use the following procedure to check whether AIBO can properly see the colors of the marker in an indoor environment.

Note

If AIBO is more than 70 cm from the pink ball on top of the marker stack, AIBO will not be able to find the Station.

1 Place AIBO on the Station, and simultaneously press and hold the chin and back sensors for 3 seconds or more.

(Next, perform the procedure described by the audio guidance.)



If you want to set me so I can leave the Station by myself, press the sensor on my head.

If you want me to check the marker colors, press the sensor on my back.



Within 10 seconds

2 Press the back sensor.

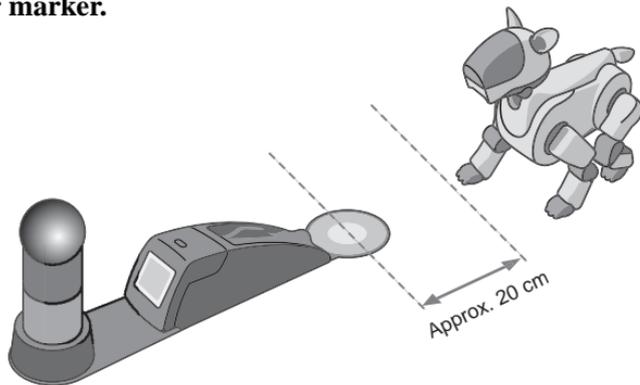


Now I will check the marker colors. Remove me from the Station and set me down behind it. Make sure my head is about 20 cm behind the rear marker.



Within 20 seconds

3 Remove AIBO from the Station and set it down about 20 cm behind the rear marker.



Press the sensor on my back.



Within 10 seconds

4 Press the back sensor.

AIBO will move its head to check the colors of the marker.



I saw the marker! I'm done checking the marker colors.
I want to return to the Station.

The marker color check is complete.



I couldn't find the markers. The markers might not have been placed on the Station, or the room lighting makes it difficult for me to find them.

If you hear this message, confirm the following, then start the marker color check again from the beginning.

- Is the marker set properly on the Station? Refer to the “Markers for the AIBO Self-charging Function” for details on how to set the markers on the Station.
 - Is the room too dark? Try making the room brighter.
 - Are you using fluorescent lighting (recommended)?
 - Are there objects similar in color to those of the marker near the Station? If there is, move them away from the Station.
-

Setting whether AIBO is permitted to leave the Station

You can set whether AIBO is permitted to leave the Station after charging.

If you set AIBO to “Leave the Station,” AIBO will leave the Station on its own when charging is complete and resume its previous activity. You do not need to remove AIBO from the Station.

If the Station is in an elevated location and you do not want AIBO to leave the Station on its own, set AIBO to “Do not leave the Station.”

“Do not leave the Station” is set as the default.

Note

When AIBO is set to “Leave the Station,” be careful of the following:

- Do not leave AIBO alone in a room where no one is present.
- Do not place the Station on an unsafe surface (such as one where it might fall, or one that is unstable or tilted). Falling or toppling could result in injury to persons or damage to AIBO.

The following describes how to change the setting from “Do not leave the Station” to “Leave the Station.”

Use the same procedure to change the setting from “Leave the Station” to “Do not leave the Station.”

1 Place AIBO on the Station, and simultaneously press and hold the chin and back sensors for 3 seconds or more.

(Next, perform the procedure described by the audio guidance.)



If you want to set me so I can leave the Station by myself, press the sensor on my head.

If you want me to check the marker colors, press the sensor on my back.



Within 10 seconds

2 Press the head sensor.



Set whether you want me to leave the Station by myself.



My settings won't allow me to leave the Station.

Can't I leave the Station by myself? Pleeeeease?

If I can, press the sensor on my back.



Within 10 seconds

3 If AIBO can leave the Station on its own, press the back sensor.



Now I can leave the Station by myself! Make sure you don't put the Station in an elevated location. I'm going to finish registration.

This completes registration.

If AIBO is not charged

If AIBO is unable to self-charge and you do not charge it, the chest light goes off and AIBO enters the Pause mode. If you do not charge AIBO or replace the battery pack, it will not move even if you press the pause button.

Sleeping and waking up

AIBO instinctively knows when it needs to sleep. AIBO will doze off if it is tired, or it is bored and you do not play with it.

When it is fully rested, AIBO will open its eyes and act according to its own volition.

To wake up AIBO while it is sleeping, gently touch or talk to AIBO.



Communicating with AIBO

First of all, you need to teach AIBO its new name and your own name, and teach it to recognize your face.

If you call AIBO's name, or gently touch or talk to AIBO, it will look at you and eagerly respond.





Teaching AIBO its new name

Give AIBO a name. After you teach AIBO its name, it will respond when called. However, if you teach AIBO a new name, it forgets the old one. Even after AIBO learns its own name, it reacts when you call it **“AIBO.”** You can only teach AIBO its name when it is in Autonomous mode.

Note

AIBO recognizes a name registered with AIBO Recognition only when it is being operated with the AIBO Recognition software. AIBO will not recognize owner information when it is being operated with any other AIBO-ware “Memory Stick.”

1 While AIBO is in Autonomous mode, say **“Name registration.”**

(Next, perform the procedure described by the audio guidance.)



I am ready to remember my new name! Press the sensor on my back.



Within 10 seconds

2 Press the back sensor.



After the count down, say my new name.

Make sure the name does not take longer than 2 seconds to say.

3, 2, 1, go!



Within 10 seconds



AIBO's tail light flashes blue and orange alternately.

3 Tell AIBO the name in 2 seconds or less.



That's my name! Thank you for naming me.

This completes registration.



If you make a mistake when teaching AIBO its new name...

Listen to the audio guide, and register the name again from the beginning.



Teaching AIBO to recognize you

AIBO can be taught to recognize your face, as well as the sound of your name and voice. AIBO remembers the face, name and voice of the person it is close to. The special affection AIBO shows that person is unique.

You can only teach AIBO to recognize your face, name and voice when it is in Autonomous mode.

Note

AIBO recognizes owner information registered with AIBO Recognition only when it is being operated with the AIBO Recognition software. AIBO will not recognize owner information when it is being operated with any other AIBO-ware “Memory Stick.”

1 While AIBO is in Autonomous mode, say “*Owner registration.*”



Hello owner. Teach me to recognize your face, name, and the sound of your voice. Press the sensor on my back.



Within 10 seconds

2 Press the back sensor.



After the countdown, say your name.

Make sure your name does not take longer than 2 seconds to say.

3, 2, 1, go!



Within 10 seconds



AIBO's tail light flashes blue and orange alternately.

3 Tell AIBO the name in 2 seconds or less.

AIBO confirms your name:

 That's what I'll call you from now.



 Now teach me the sound of your voice. First of all, say "I am your owner."

4 Say "I am your owner."

 Next, say "one, two, three, four, five."

5 Say "one, two, three, four, five."

 I have memorized your voice!

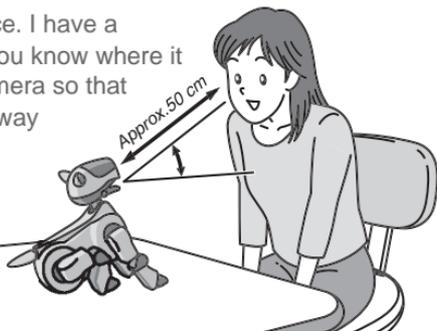


Audio
Guidance

Now teach me to recognize your face. I have a camera built into my nose. Maybe you know where it is? Hold your face in front of the camera so that I can see it. About 50 centimeters away should do the trick.



When AIBO can see your face



Audio
Guidance

I can see your face! I will remember what you look like. Hold still until the music finishes.

Wait for a moment without moving.



Audio
Guidance

I have memorized your face. I am pleased to meet you!

This completes registration.



Audio
Guidance

Hmmm? I can't see your face.

If you hear this message, confirm the following, then perform the procedure again.

- When teaching AIBO to recognize your face, make sure you hold your head straight without tilting it to the side.
- If you are wearing a distinctive item, such as thick-rimmed glasses, AIBO may not be able to identify you.
- If your hair is covering your face, AIBO may not be able to identify you.
- If the room is dark, or the light is coming from behind you, AIBO may not be able to identify you.

From you to AIBO

There are several ways that you can communicate with AIBO:

Communicating by touch, visually and by voice

Color camera

Allows AIBO to identify objects by color, movement, and distance. It also allows AIBO to distinguish your face from the faces of other people.

Head sensor

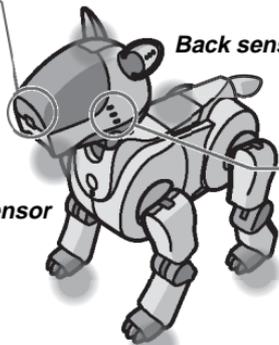
Back sensor

Chin sensor

Stereo microphone (left and right)

Allows AIBO to pick up your words. AIBO waits patiently for you to call it. For a list of words that AIBO can understand, see page 52.

Paw sensors (4)



If you gently press one of AIBO's sensors and then release it, AIBO thinks you are trying to communicate. AIBO loves to communicate with you, and always waits patiently.

Communicating for training AIBO

AIBO's head sensor allows you to train AIBO by praising and scolding it. Through this type of training, AIBO changes its behavior and gradually displays a greater range of behavior.

Praising AIBO

While gently pressing the head sensor, move your fingers back and forth twice.

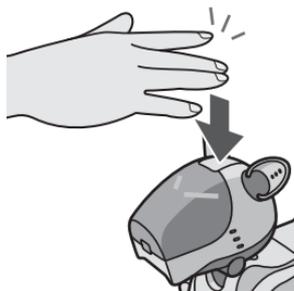
You can also praise AIBO by saying ***“Good boy/ Good girl/Good AIBO.”***



Scolding AIBO

Firmly press the head sensor momentarily.

You can also scold AIBO by saying ***“Don't do that”*** to it.



Cheering for AIBO

When AIBO fails to do something, say ***“Go for it”*** to AIBO to cheer it up. AIBO will try harder to perform the behavior you are encouraging.

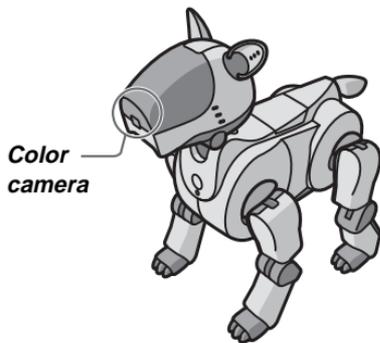
Having AIBO take a photo

When you say “*Take a picture*” to AIBO while it is in Autonomous or Station mode, AIBO starts a countdown, then snaps a picture for you.

AIBO can memorize up to 20 pictures.

Notes

- If AIBO takes more than 20 pictures, each new picture will replace the oldest one in AIBO’s memory.
- Note that using AIBO to take pictures may infringe the image right of third parties. Sony can assume no responsibility in such cases. We request that you avoid taking pictures that cause inconvenience to other people or infringe their rights.



About the pictures

- Pictures are stored into the “Memory Stick” in the JPEG format.
- The picture resolution is approximately 180×140 pixels.
- Flicker (horizontal stripes) or reddish or bluish bands may appear in the pictures due to the illumination at the time.
- Fast movements may appear distorted in the picture.

1 When AIBO is in Autonomous or Station mode, tell AIBO “Take a picture.”

AIBO nods to your request.



I am going to take a picture now! When you are ready, press the sensor on my back.



Within 10 seconds

2 Press the back sensor.

AIBO starts a countdown, and then takes a picture when the shutter noise sounds.

Note

When you set the safety switch of the “Memory Stick” to “LOCK,” AIBO cannot store any picture.

Viewing pictures taken by AIBO

Pictures taken by AIBO are stored in the “Memory Stick” of AIBO. To see them, one of the following devices is required as the system that copies data stored in the “Memory Stick” to your personal computer (PC):

- PC equipped with a slot for a “Memory Stick.”
 - PC equipped with an external “Memory Stick” adaptor drive.
 - PC equipped with a PC card adaptor for a “Memory Stick” and a PC card slot or PC card adaptor drive.
-

1 Remove the “Memory Stick” from AIBO.

Refer to the “AIBO” ERS-210 series Operating Instructions for how to remove a “Memory Stick.”

2 Insert the removed “Memory Stick” into your PC.

Refer to the Operating Instructions supplied with your PC or “Memory Stick” adapter for details on how to insert the “Memory Stick.”

3 Copy or move photo files stored in the “Memory Stick” to your PC.

Copy or move the JPEG files stored under “\OPEN-R\APP\PC\PHOTO” of the “Memory Stick” to your PC.

Five-digit numbers are sequentially assigned to pictures AIBO shot: the smallest number is assigned to the oldest file. Each file is named as “IMGxxxxx.JPG,” where xxxxx indicates a sequential number, and stored in the “Memory Stick.”

See the Operating Instructions supplied with each product required to see pictures for how to copy pictures.



Memo

If there is no photo file in the “PHOTO” folder, photo files are numbered from “00000” sequentially.

Otherwise, photo files are numbered based on the number of the photo file stored the last time in this folder.

4 Remove the “Memory Stick” from your PC.

Refer to the Operating Instructions supplied with your PC or “Memory Stick” adapter for details on how to remove the “Memory Stick.”

Additional Information

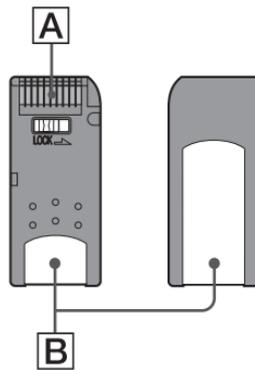
This chapter provides notes on usage, a troubleshooting guide, and other information concerning AIBO.



Notes on use

To protect the saved data on the “Memory Stick,” note the following:

- The supplied AIBO-ware “Memory Stick” is an accessory of “AIBO Recognition” ERF-210AW06E. Using it also to save data from PCs or camcorders, or for anything other than AIBO, may damage AIBO.
- Do not touch the terminal **A** with your hand or metal objects.
- The saved data may be erased or broken if the “Memory Stick” is used in a place subject to static electricity or electric noise.
- Do not stick anything other than a dedicated “Memory Stick” sticker in the area indicated by **B**. A sticker has already been attached to the AIBO-ware “Memory Stick” supplied with AIBO Recognition at the factory.
- Do not bend, drop or apply a strong physical shock to the “Memory Stick.”
- Do not disassemble or modify the “Memory Stick.”
- To remove the “Memory Stick” from AIBO while it is still operating, first press the pause button to stop AIBO’s movements and wait until the “Memory Stick” access indicator goes off.
- Keep the “Memory Stick” away from water and other liquids.



- Do not use or store the “Memory Stick” in places subject to:
 - Excessively high temperatures, such as a car parked in the sun,
 - Direct sunlight, or
 - High humidity or corrosive gas.
- When carrying or storing the “Memory Stick,” keep it in the supplied case.
- AIBO Recognition is designed for use with “AIBO ERS-210/210A.” It cannot be used with any other version of AIBO.
- AIBO Recognition cannot be used except through the AIBO-ware “Memory Stick” on which it is supplied.
- Sony assumes no responsibility for any malfunctions that may occur as a result of using AIBO Recognition in a way not specified in this manual.
- The specifications of this software are subject to change without notice.

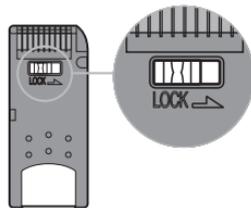
What is an AIBO-ware “Memory Stick”?

It is a “Memory Stick” produced for exclusive AIBO use, and on which is stored application software that can be executed on an AIBO.

Notes

- Do not set the safety switch of the “Memory Stick” to “LOCK.” Doing so will make it impossible for AIBO’s learning and taking photo functions to work.
- If the write protect switch on the “Memory Stick” is set to “LOCK,” AIBO’s eye lights flash red to warn you when you press the pause button to start it up. Press the pause button once more to put AIBO in the Pause mode, then unlock the write protect switch on the “Memory Stick.”

When you start up AIBO, the eyes normally light green.



Troubleshooting

If you experience any of the following difficulties, use this troubleshooting guide to correct the problem before contacting AIBO Customer Link. Should the problem persist, contact the AIBO Customer Link. (See page 3 for details on the AIBO Customer Support.)

Symptom	• Remedy
AIBO does not move even when you press the pause button.	<ul style="list-style-type: none">• The battery pack is not installed to AIBO. → Insert the battery pack to AIBO (see page 18). After inserting the battery pack into AIBO, press the pause button again to cancel Pause mode.• The battery power is low. → Recharge the battery pack or replace the battery pack with a charged one.
When you press the pause button, the chest light flashes in green and orange alternately, and a warning sound is output.	<ul style="list-style-type: none">• The temperature of the battery pack is abnormally high. → Wait until the battery cools down.
AIBO emits a sad melody and does not move when you press the pause button.	<ul style="list-style-type: none">• The “Memory Stick” with AIBO-ware is not inserted into AIBO.• A “Memory Stick” other than one designed exclusive for AIBO (unusable with AIBO ERS-210 series) is inserted into AIBO.• The AC adaptor and conversion plug are connected to AIBO’s charging terminal. → Disconnect the AC adaptor and conversion plug from AIBO, and then restart AIBO.

Symptom	• Remedy
<p>The battery pack latch (BATT ▲) does not work, and you cannot remove the battery pack.</p>	<ul style="list-style-type: none"> • The program is still running. Press the pause button to stop the program, then remove the battery pack.
<p>It takes a long time for AIBO to start moving.</p>	<ul style="list-style-type: none"> • AIBO is loading data from the “Memory Stick.” Wait a while.
<p>AIBO tries to walk but it does not move forward.</p>	<ul style="list-style-type: none"> • The floor may be too slippery. <ul style="list-style-type: none"> → Place AIBO on a surface that is not too slippery, such as a carpet with a short nap.
<p>AIBO falls often.</p>	<ul style="list-style-type: none"> • The floor may be too slippery, inclined or unstable. <ul style="list-style-type: none"> → Place AIBO on a flat surface that is not too slippery.
<p>After you pick AIBO up, it moves only slowly without moving its hands and legs.</p>	<ul style="list-style-type: none"> • AIBO enters the Pick-up condition whenever it is picked up. <ul style="list-style-type: none"> → Check whether the mode indicator is lit and, if so, place AIBO on the floor. If AIBO does not move after a while, press the head sensor for 3 seconds. AIBO enters Autonomous mode again.
<p>The mode indicator is flashing, and AIBO does not move and its joints are limp.</p>	<ul style="list-style-type: none"> • If an object becomes jammed in one of AIBO’s joints, AIBO will stop moving (Jam condition). <ul style="list-style-type: none"> → Place AIBO on the floor, then press the head sensor for 3 seconds.
<p>The chest light flashes orange.</p>	<ul style="list-style-type: none"> • There may be a problem with the battery pack. <ul style="list-style-type: none"> → Check to see if the battery pack is inserted into AIBO’s main body correctly. If the back light flashes although the battery pack is inserted correctly, contact the AIBO Customer Link.

Symptom	• Remedy
AIBO asks to be charged even with a fully charged battery pack.	<ul style="list-style-type: none"> • With a fully charged battery pack, AIBO Recognition can normally operate for about 1.5 hours (in Autonomous mode). If the operating period continues to be much shorter, the battery pack may be reaching the end of its service life. Replace it with a new battery pack.
AIBO emits no sound.	<ul style="list-style-type: none"> • The volume setting may be set to “0.” → Adjust the volume higher (refer to the “AIBO” ERS-210 series Operating Instructions).
AIBO fails to self-charge.	<ul style="list-style-type: none"> • The markers are not set properly on the Station. → Refer to the “Markers for the AIBO Self-charging Function”, and set them properly. • AIBO cannot recognize the markers due to its surroundings. → Make the room brighter (fluorescent lighting is recommended), and remove any objects from around the Station that are similar in color to those of the markers. Next, perform a marker color check (page 26) to test whether AIBO can find the Station.
AIBO will not register owner information.	<ul style="list-style-type: none"> • AIBO cannot clearly identify your face. → Hold your head straight without tilting it to the side. If you are wearing a distinctive item, such as thick-rimmed glasses, hair is covering your face, the room is poorly lit, or there is a light source behind you, AIBO may not be able to identify you.

Reference Materials

Words apprehensible to AIBO





Words apprehensible to AIBO

This section lists words AIBO can understand. Call out words listed later in this section to praise, scold, teach or play with AIBO.

AIBO does not understand what you say when:

- While AIBO is emitting sounds or moving, it cannot hear you easily.
- AIBO may not recognize several words depending on its mode or condition.
- Even though AIBO understands you, it may choose not to respond or do as you say.
- AIBO cannot hear you if its surroundings are noisy. Call out to AIBO under quiet conditions.
- If you say a word whose pronunciation is unclear, AIBO cannot recognize it. Speak very clearly.

● **Calling AIBO's name**

AIBO/Registered name (the name you ou ga ve AIBO)

AIBO reacts when it is called. Even after AIBO learns its own name, it reacts when you call it "AIBO."

● **Teaching AIBO**

Name registration.

Give a name to AIBO (see page 34).

What's your name?

AIBO answers the name you gave to it in its own voice.

Owner registration.

You can teach AIBO its owner's (your) name (page 36).

What's your owner's name?

AIBO answers its owner's name (your name) in its own voice.

● Praising, scolding or encouraging AIBO

Goodboy/Goodgirl/GoodAIBO .

These words are for praising AIBO. They have the same effect as when you praise AIBO by pressing the head sensor.

Don't do it./Don't do that.

These words are for scolding AIBO. They have the same effect as when you scold AIBO by pressing the head sensor.

Go for it.

These words are for encouraging AIBO.

● Greetings

*Good morning./Hello./Hi./Good night./
Byebye./I'm here ./Nice to meet you./Shake /
Shake hands.*

● Self-charge

Go to the Station.

AIBO starts the procedure for self-charging.

● Taking a picture

Take a picture .

AIBO takes a picture with its built-in camera.
(page 41)

● Moving

*Come here ./Over here ./Sit do wn./Stand up./
Lay do wn./Go right./Turn right./Go left./
Turn left.*

● Answering AIBO

Yes./No.

These words are for answering questions asked by AIBO.



Printed on 100% recycled paper using
VOC (Volatile Organic Compound)-
free vegetable oil based ink.

Printed in Japan © 2002 Sony Corporation



* 4 6 6 9 9 0 4 1 1 * (1)