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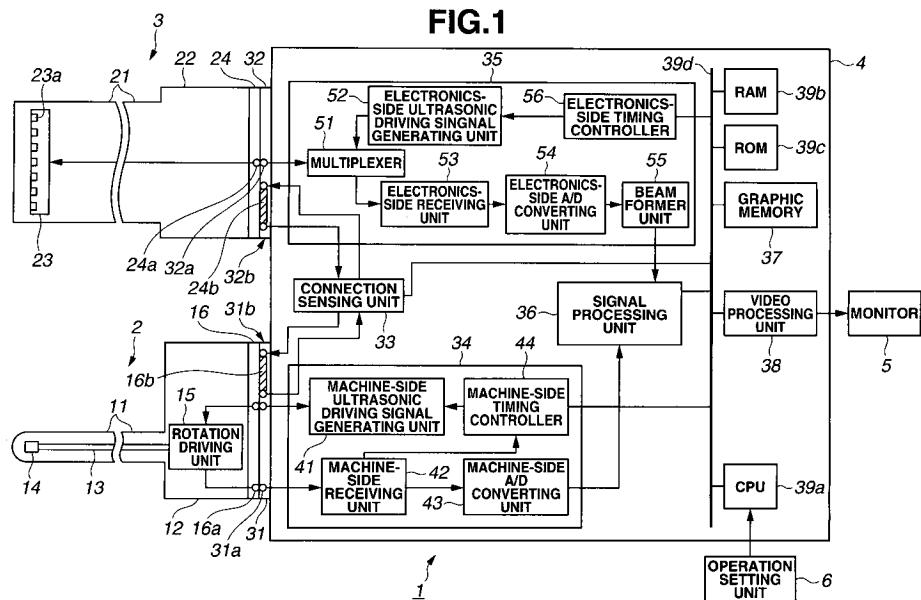
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(54) Ultrasonic observing apparatus, control method for ultrasonic observing apparatus, ultrasonic observing system and ultrasonic diagnostic apparatus

(57) An ultrasonic observing apparatus according to the present invention comprises a machine-side connector receptacle, an electronics-side connector receptacle, a mechanical echo signal detecting unit for detecting an echo signal obtained by receiving waves in a mechanical scanning ultrasonic probe connecting to the machine-side connector receptacle, an electronic echo signal de-

tecting unit for detecting an echo signal obtained by receiving waves in an electronic scanning ultrasonic endoscope connecting to the electronics-side connector receptacle, and a signal processing unit for performing signal processing on the echo signal from the mechanical echo signal detecting unit and the echo signal from the electronic echo signal detecting unit.

FIG.1





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	JP 10 033533 A (OLYMPUS OPTICAL CO) 10 February 1998 (1998-02-10) * abstract * * paragraph [0012] - paragraph [0030] * * figures 1,5 *	1,11,14	INV. A61B8/00 A61B8/12 G01S7/52
A	----- US 5 295 485 A (SHINOMURA RYUICHI [JP] ET AL) 22 March 1994 (1994-03-22) * abstract * * column 5, line 15 - column 14, line 3 * * figures 1-5,8A-B *	2,3,12, 13,15,16	ADD. A61B8/06
X	----- JP 10 290799 A (OLYMPUS OPTICAL CO) 4 November 1998 (1998-11-04) * abstract * * paragraph [0023] - paragraph [0032] * * figure 1 *	1,11,14	
A	----- JP 2007 037844 A (OLYMPUS MEDICAL SYSTEMS CORP) 15 February 2007 (2007-02-15) * abstract * * paragraph [0008] - paragraph [0031] * * figures 1,2,4,5 *	1,11,14	TECHNICAL FIELDS SEARCHED (IPC)
P,X	-----		A61B G01S
2 The present search report has been drawn up for all claims			
2	Place of search	Date of completion of the search	Examiner
	Munich	26 September 2007	ARTIKIS, T
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			
T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing more than ten claims.

Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):

No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-16

The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-16

An ultrasonic observing apparatus comprising first connecting means for detachably connecting first mechanical scanning ultrasonic means, second connecting means for detachably connecting second electronic scanning ultrasonic means, scanning identifying means, and means for processing an echo signal of the first or second ultrasonic means based on an identification result by the scanning identifying means. The corresponding method for controlling the ultrasonic observing apparatus is also claimed.

2. claims: 17-19

An ultrasonic observing apparatus comprising a first connecting unit for detachably connecting a mechanical scanning ultrasonic probe or endoscope, a second connecting unit for detachably connecting an electronic scanning ultrasonic probe or endoscope, a mechanical transducer echo signal detecting unit for transmitting and receiving pulses to a transducer in the mechanical scanning ultrasonic probe or endoscope, an electronic transducer echo signal detecting unit for transmitting and receiving pulses to a transducer in the electronic scanning ultrasonic probe or endoscope, and means for processing an echo signal from both said detecting units.

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 07 01 1568

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on. The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

26-09-2007

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专利名称(译)	超声波观察装置，超声波观测装置的控制方法，超声波观测系统和超声波诊断装置		
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优先权	2006165215 2006-06-14 JP		
其他公开文献	EP1867286B1 EP1867286A2		
外部链接	Espacenet		

摘要(译)

根据本发明的超声波观测设备包括机器侧连接器插座，电子侧连接器插座，机械回波信号检测单元，用于检测通过在连接到机器的机械扫描超声探头中接收波而获得的回波信号 - 侧连接器插座，电子回声信号检测单元，用于检测通过在连接到电子侧连接器插座的电子扫描超声内窥镜中接收波而获得的回声信号，以及信号处理单元，用于对来自机械的回波信号进行信号处理回波信号检测单元和来自电子回波信号检测单元的回波信号。

