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Miyazaki

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(54) **IMAGE PICKUP APPARATUS FOR
PRODUCING A DESIRED FRAME OF
IMAGE SIGNALS**

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**
H04N 5/76 (2006.01)
H04N 5/235 (2006.01)

(52) **U.S. Cl.** **348/231.6; 348/362**

(58) **Field of Classification Search** 348/231.99,
348/231.6, 231.1, 231.9, 221.1
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,272,498 A * 12/1993 Wakabayashi 396/320
5,576,759 A * 11/1996 Kawamura et al. 348/207.99
6,359,649 B1 * 3/2002 Suzuki 348/220.1
6,518,999 B1 * 2/2003 Miyamoto 348/220.1
6,533,976 B1 * 3/2003 Strasser et al. 264/87
6,549,232 B1 * 4/2003 Taniguchi et al. 348/231.99
6,734,910 B1 * 5/2004 Yumoto et al. 348/333.12
2002/0057352 A1 * 5/2002 Yamagishi 348/231.6

FOREIGN PATENT DOCUMENTS

JP 64-042639 2/1989

JP 01-277829 11/1989
JP A9205605 8/1997
JP 10-257370 A 9/1998
JP 11-088761 3/1999
JP 11-220638 A 8/1999

OTHER PUBLICATIONS

Sony Corporation, Digital Still Camera DSC-F1. pp. 18-19, 1996.

* cited by examiner

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(57) **ABSTRACT**

An image pickup apparatus capable of outputting one of successive pictures that is picked up at a desired timing. When the operator of the apparatus selects a continuous shoot mode, sets a mode dial at a "Pre (prior)/Post (posterior)" position, and then presses a release button to a half-stroke position, the apparatus picks up a desired scene at preselected intervals. Up to nine latest frames of image data are written to a main memory while being sequentially updated. Subsequently, when the operator presses the release button to a full-stroke position, up to five additional latest frames of image data are written to the main memory. The image data stored in the main memory are read out and transformed to display data. The display data appear on an LCD (Liquid Crystal Display) panel in a multiframe format. When the operator, watching pictures appearing on the LCD panel, selects desired one of the pictures by operating preselected switches arranged on an operation panel, the image data representative of the above picture is recorded in an external memory removably mounted to the apparatus.

18 Claims, 22 Drawing Sheets

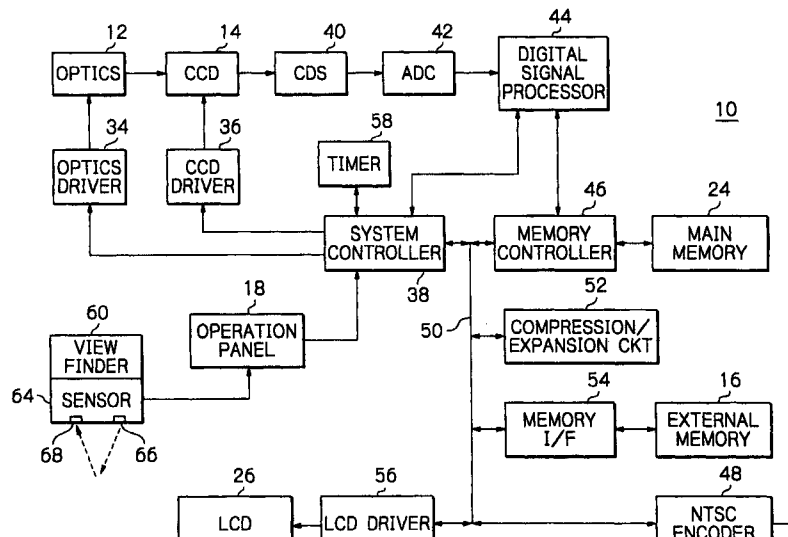
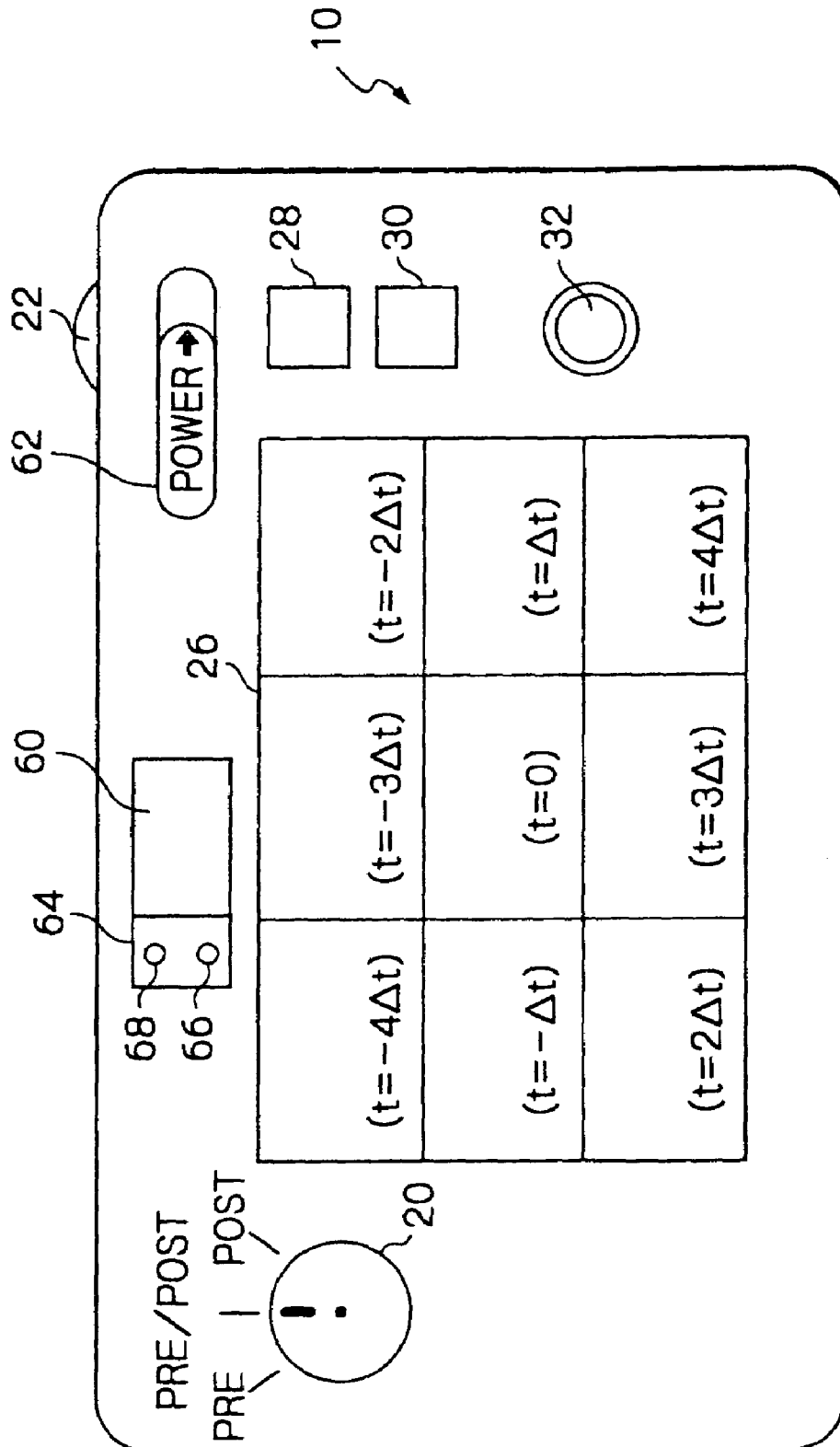


Fig. 1



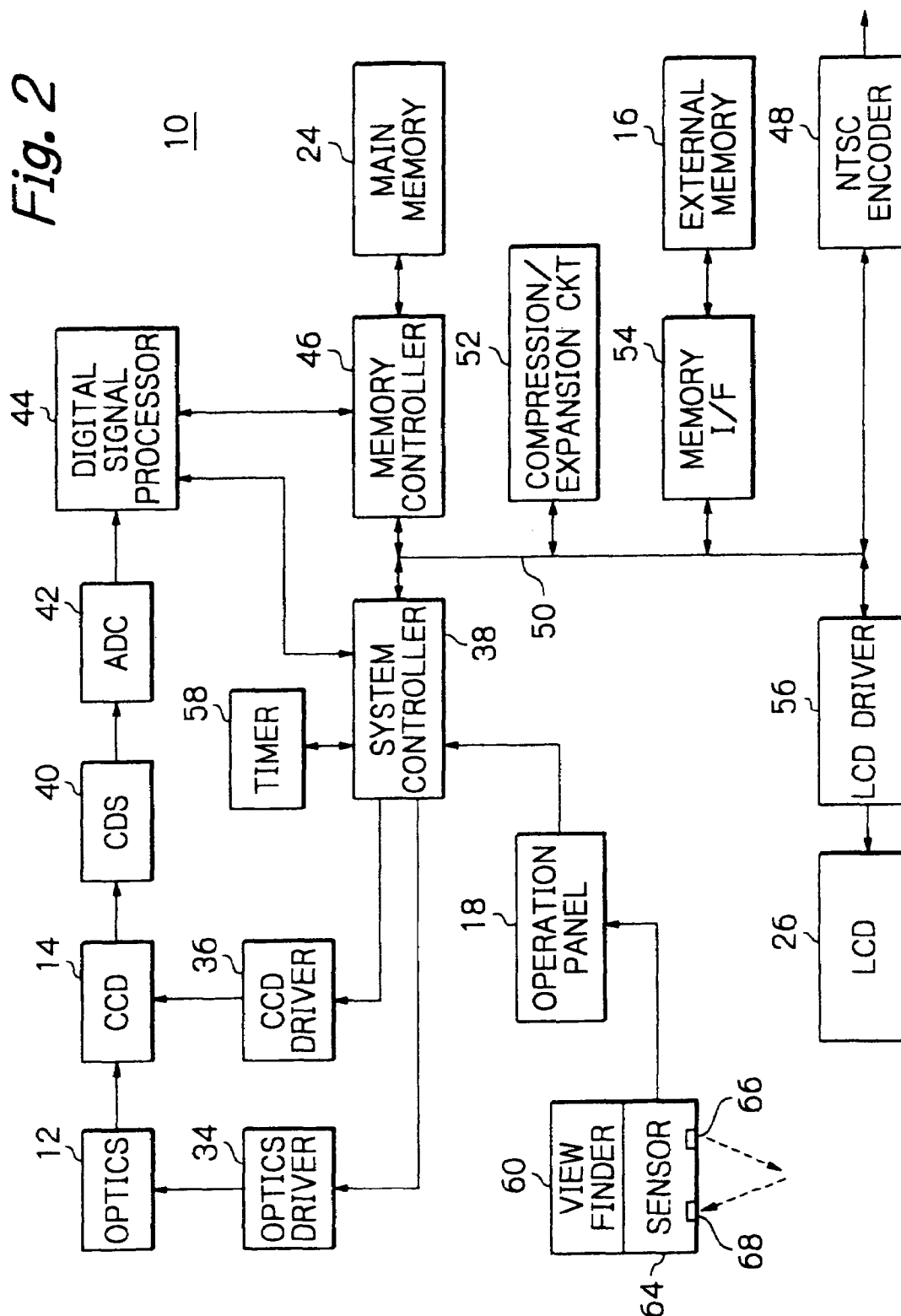


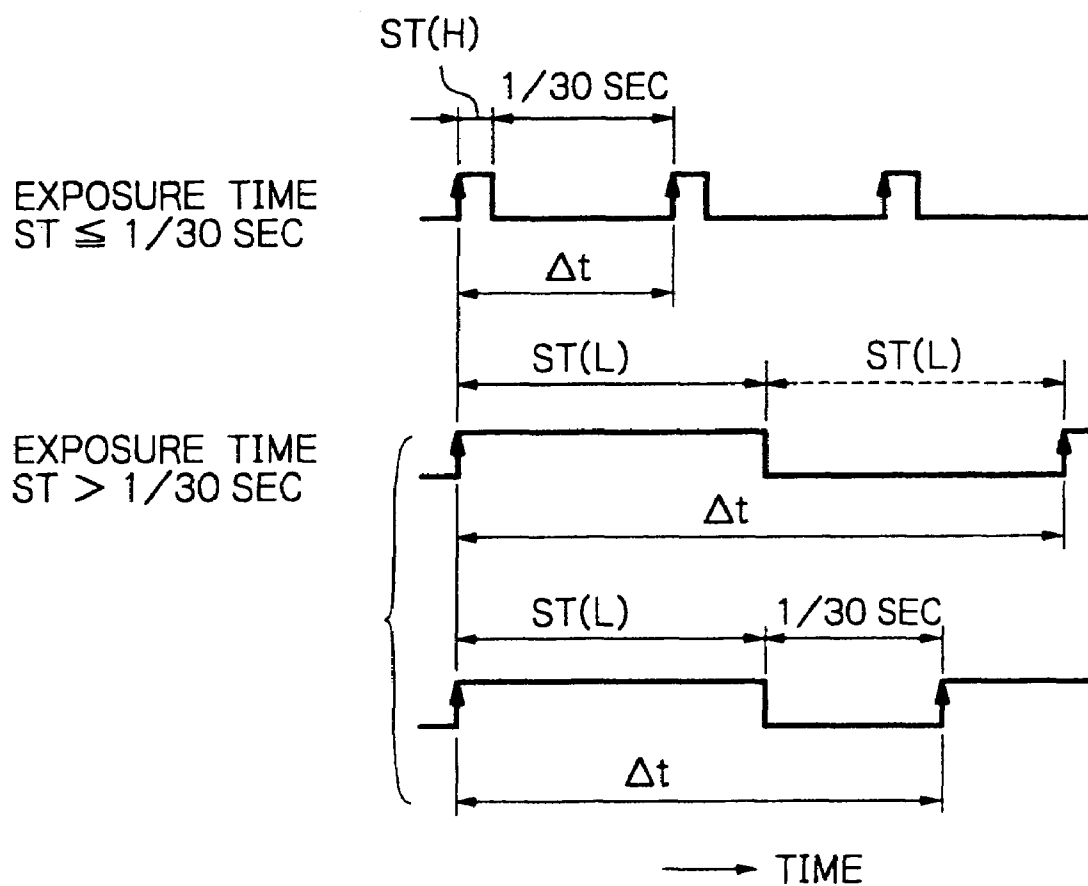
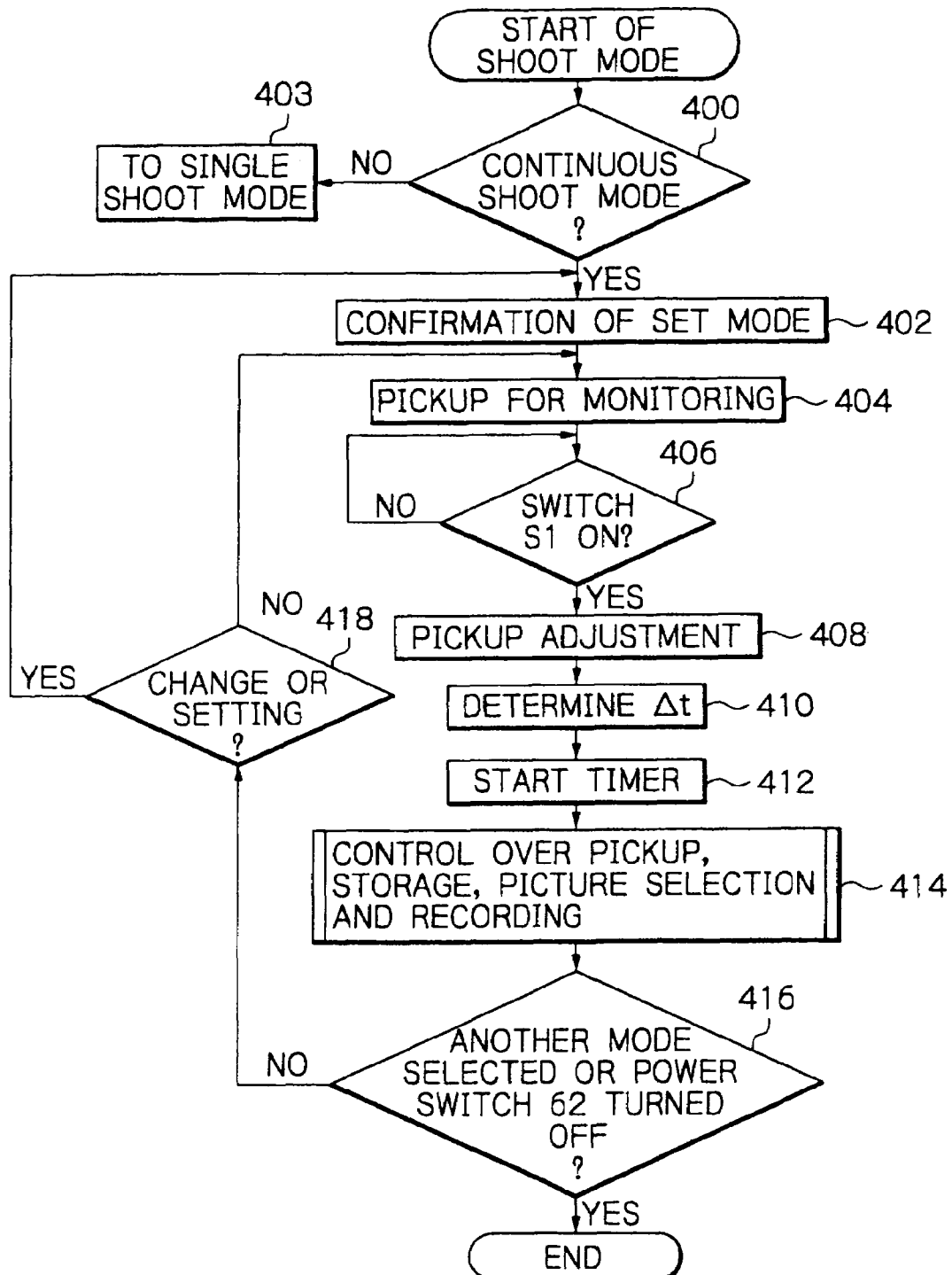
Fig. 3

Fig. 4

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