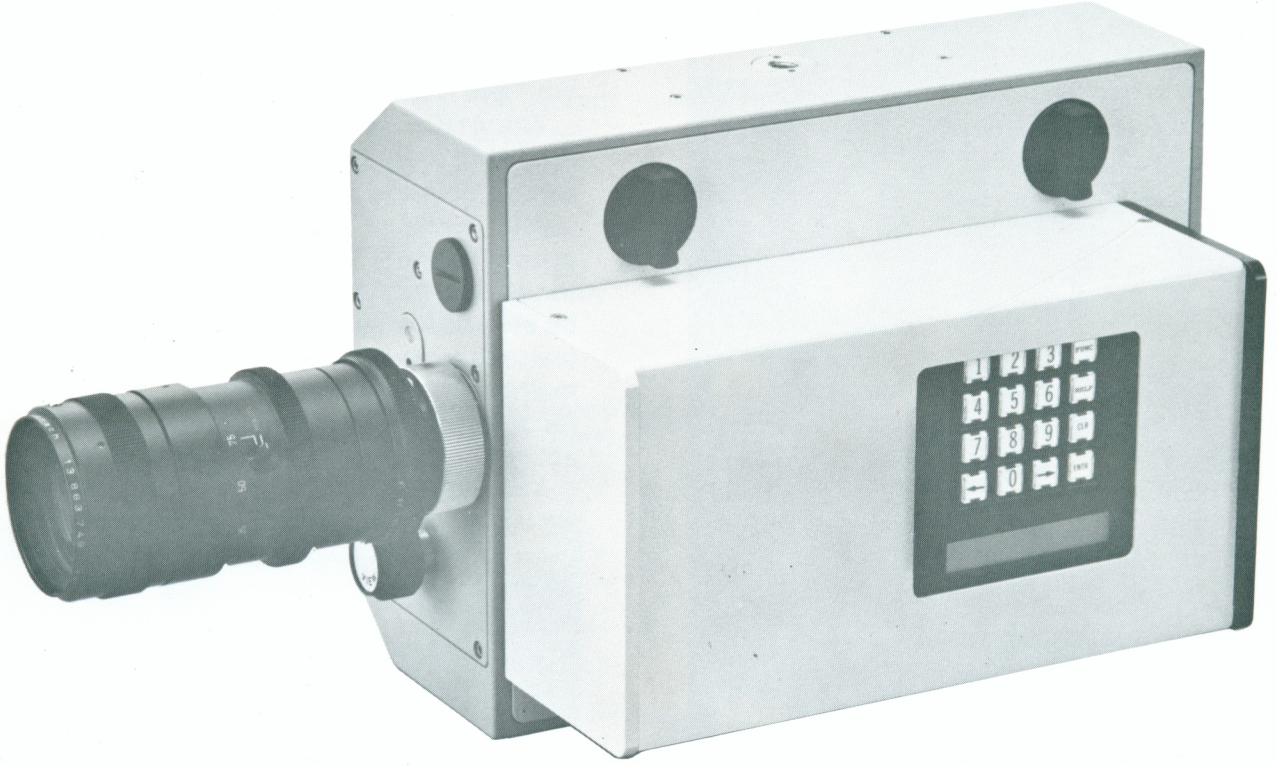
REDLAKE CORPORATION

PRECISION PHOTO-INSTRUMENTATION SYSTEMS

LOCAM® II ANDS

Alpha Numeric Data System



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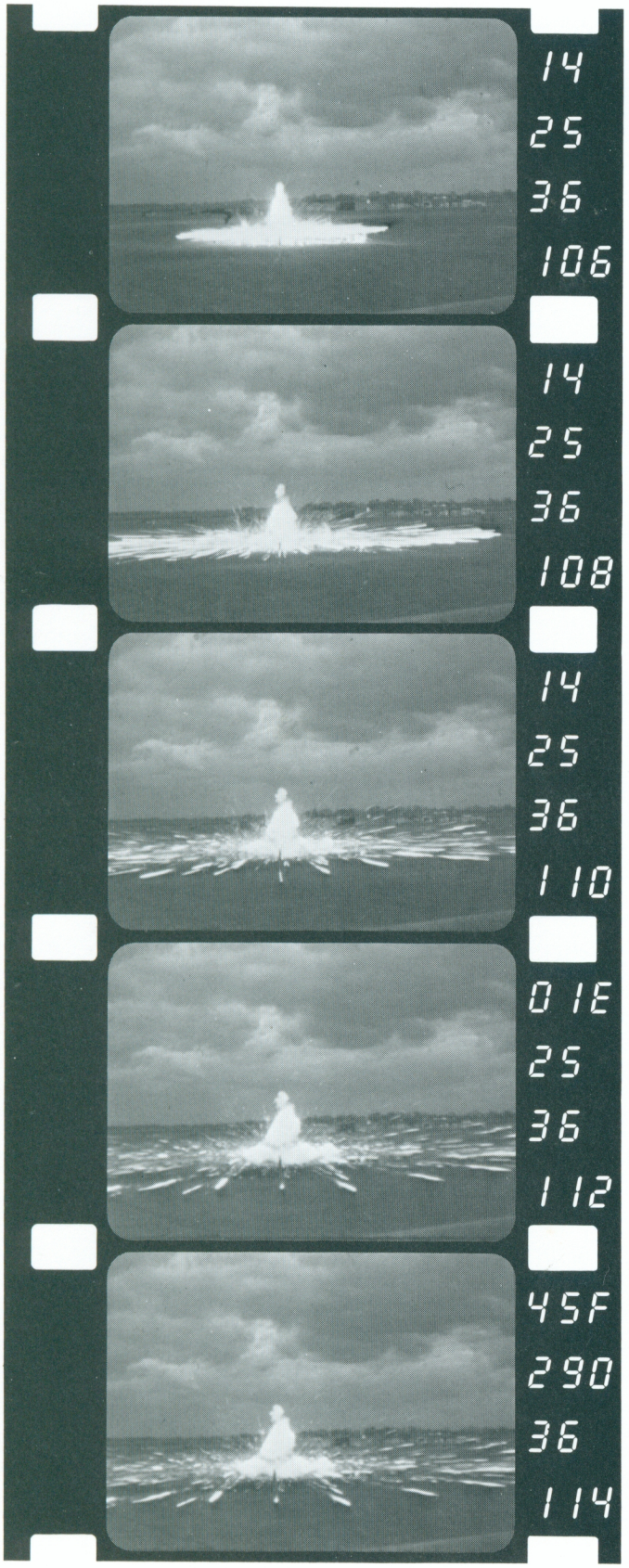
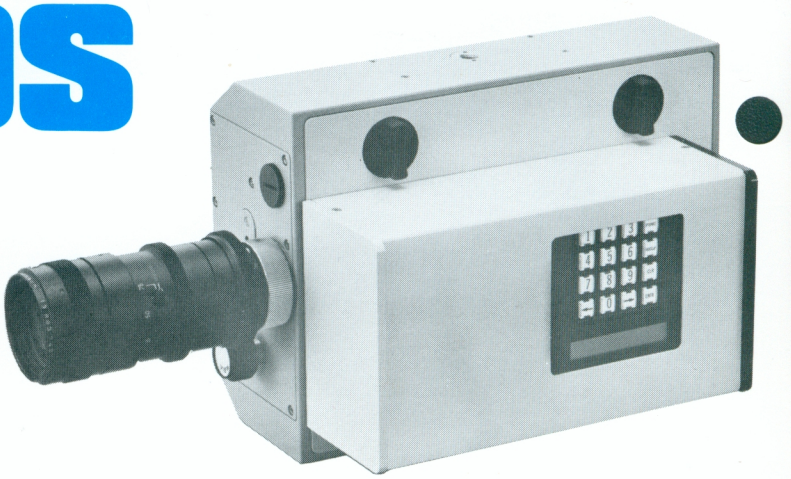
RL® ANDS



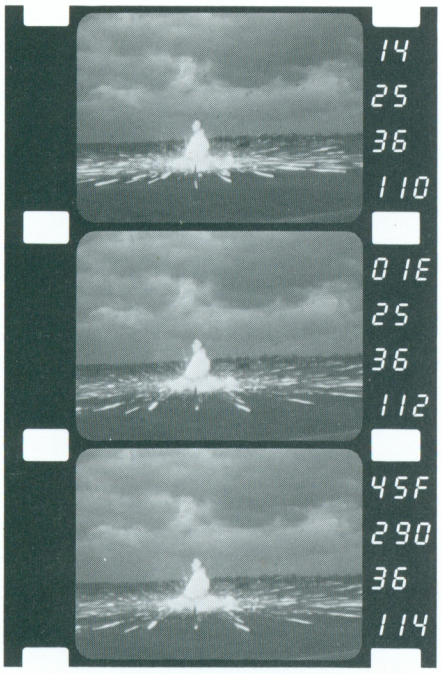


The Redlake Alpha Numeric Data Recording System for Locam and Pulsecam Cameras is a versatile yet simple system to record data on film. The built-in keyboard and display allows operator interaction to set time, date, reference numbers, ASA settings and activate system's diagnostics. A sixteen digit liquid crystal display (LCD) allows the operator to view the parameters which are entered into memory and the decoded IRIG time and date.

The ANDS will accept IRIG A and B DC level shift inputs in addition to IRIG B sine wave amplitude modulated input. An internal crystal oscillator maintains time accurately even after the IRIG source has been removed. In the absence of IRIG the time and date may be set and synched manually. The ANDS also features a stand alone internal battery which maintains time and preset data and is ready to record information when the camera becomes active.

The internal clock may be started remotely via the event input line. The event line is also used to print an event number on film. The ANDS will print the next ten frames with the event number by displacing the hours value (minutes value is also displaced by day of year). A manually entered 2 digit reference number may be printed on film at a programmed interval from 1 to 999 frames. The system in addition to recording reference and event numbers, records the time in hours, minutes, seconds and milliseconds. Other data formats can be programmed at the factory upon request. The ANDS also features future expansion capability such as parallel data input configuration similar to standard centronics printer input.

Alpha Numeric Data System



HOURS
MINUTES
SECONDS
MILLISECONDS

EVENT
MINUTES
SECONDS
MILLISECONDS

REFERENCE
DAY OF YEAR
SECONDS
MILLISECONDS

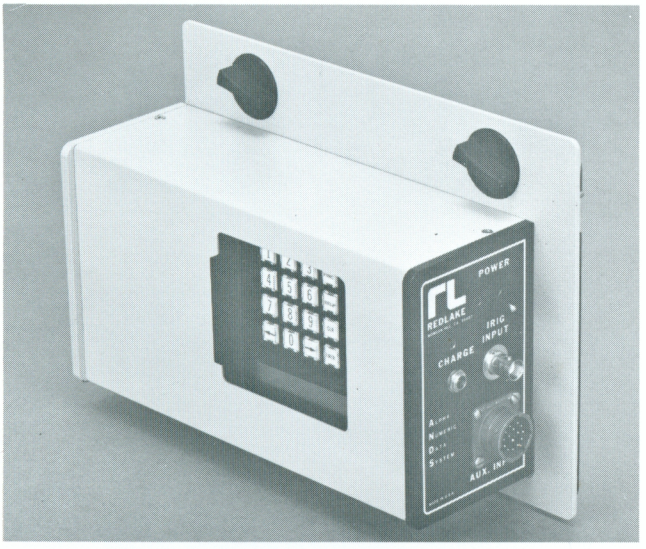
Shown here are three examples of data format.

The first frame is the standard format which is normally displayed. The second frame is an example of an event closure which displaces the hours, with the balance of the format remaining the same. The last example shows reference number display to be printed at a specific interval. When this reference number is printed, the minutes is displaced by the day of year.

Other formats can be programmed at the factory upon request.

The ANDS system is a easy to operate system which has built-in help features. The keyboard has a help button which will then display one by one all the available selections.

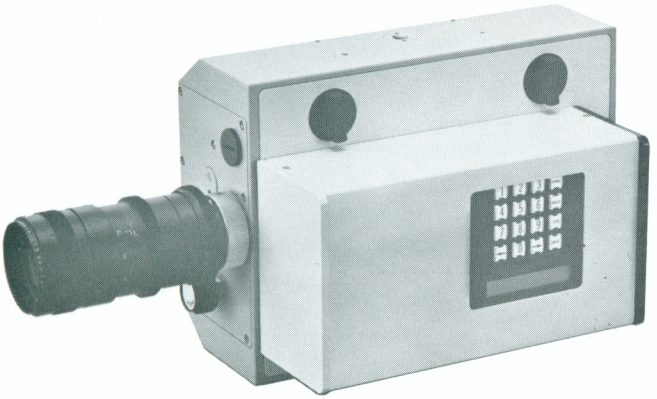
Function 1 = time set
Function 2 = date set
Function 3 = reference/rep rate
Function 4 = day of year set
Function 5 = ASA set
Function 6 = event # reset
Function 7 = to be determined (spare)
Function 8 = to be determined (spare)
Function 9 = diagnostics



The ANDS is a completely self-contained unit. There is no mechanical interface with the camera mechanism. Formatted data is displayed upon receipt of an LED signal from the camera. This allows the data recorder to be removed without disturbing the camera for purposes of battery charging, IRIG synchronization, etc.

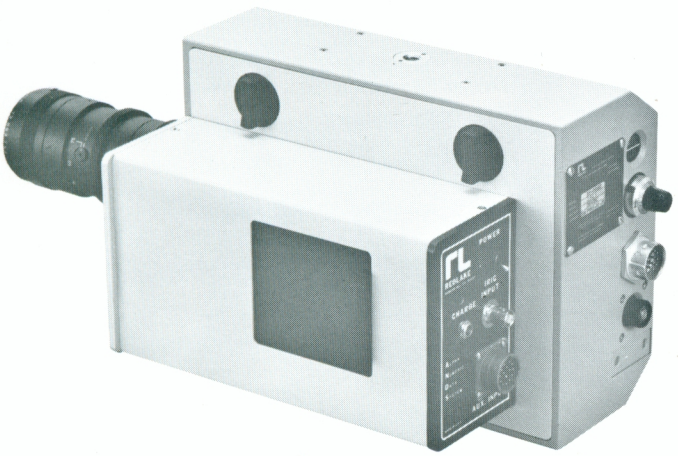
The back panel incorporates connectors for IRIG Input, Auxilliary Input and Charger Input.

General Specifications



The ANDS contains only CMOS circuitry (TTL is not used). The built-in Nicad battery has an automatic charging system. To eliminate any "Memory" problem, the charger will as needed discharge the battery to the proper level and then commence the full charge cycle. A wall adaptor is provided or 28 VDC may be applied.

Event and external clock reset are both configured "contact closure" (may be configured "TTL input") and are optically isolated. The ANDS keyboard is protected by a sliding panel which also switches off the display when closed.



SPECIFICATIONS:

Circuit Logic: Low power CMOS logic, memory, and micro-processor

Timing Input: IRIG CODE: A and B format in DC level shift, and B format in modulated format

Power Input: 9 VDC 120 milliampere wall charging adaptor, 28 VDC at 120 milliamperes polarity protected

Operating Temperature Range: -20 to 70 degrees C

Accuracy: Temperature compensated crystal oscillator: .00025% from 0 to 50 degrees C, .0005% from -20 to 70 degrees C. Long term aging drift .0001% first year (frequency may be adjusted to compensate for long term aging)

LED Display: (yellow) 12 seven-segment Hexadecimal Characters in a 3 across by 4 high matrix

Display Size on Film: 12 Characters, each character 0.024 x 0.018 nominal

Package Size: 2.9"W x 4.75"H x 9.0"L plus connector dimensions on both Locam and Pulsecam. Package adds only width to the camera's standard dimension.

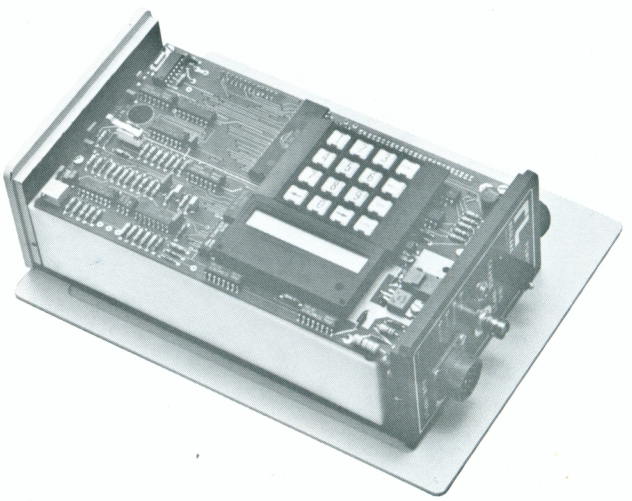
Weight: 4 pounds

Connectors: One MS3116F14-15S for 28 VDC power input, IRIG DC level shift input and interface functions. Miniature jack receptacle for 9 VDC charge adaptor input. One isolated BNC for IRIG sine wave input.

Controls: On rear panel: ON/OFF switch. Under sliding access panel: 16 digit LCD Alpha Numeric Display and 16 key data entry keyboard.

Fixed Data Insertion: All fixed data and parameter selection entered via keyboard and displayed on 16 digit display.

Software Programs: Available for custom input and output data formats. (Developed upon request.)



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Specifications subject to change without notice.