



ESP

FIELD CHANGE NOTICE

Field Change
Notice No

77

PRODUCT

CMI

CVI

ORIGINATOR:

Chris Alfred

DATE:

9 / 7 / 91

ASSEMBLY No:

CMI-41

DESCRIPTION:

Waveform Supervisor

This FCN applies to rev No:

1.5

The New rev No is:

1.6

REASONS FOR CHANGE:

The reverse bias diodes remove glitches generated by the opto isolators during current switching.

** This FCN is to be done in conjunction with FCN 75 & 76 **

DETAILS OF CHANGE:

Orient the card such that, viewing the wiring side, the gold fingers are pointing down. Locate the 10 way connector J2 and the unused right hand mounting hole. Just below this hole there are a group of 6 tracks running horizontally (going to Ic F3/1 (i.e. HP2631 pin 1) & Ic F3/2 & Ic G3/1 (HP2631) & Ic G3/2 & Ic G3/3 & Ic G3/4.

1. Cut down through all 6 tracks.
2. Connect 1N4148 diode: Cathode to IcF3/1 Anode to IcF3/2
3. Connect 1N4148 diode: Cathode to IcG3/1 Anode to IcG3/2
4. Connect 1N4148 diode: Cathode to IcG3/4 Anode to IcG3/3
5. Connect J2/1 (10 way IDC connector) to Ic G3/2 (HP2631)
6. Connect J2/2 to Ic G3/1
7. Connect J2/3 to Ic G3/3
8. Connect J2/4 to Ic G3/4
9. Connect J2/5 to Ic F3/2 (HP2631)
10. Connect J2/6 to Ic F3/1

DEPT	SIGNATURE	DATE	COMMENTS
Project Manager			
Customer Service			


ESP

FIELD CHANGE NOTICE

Field Change
Notice No
PRODUCT CMI Series III

91

ORIGINATOR: Chris Alfred

DATE: 3 / 6 / 92

ASSEMBLY No: CMI 41

DESCRIPTION: Waveform Supervisor

This FCN applies to rev No: 1.8

The New rev No is: 1.9

REASONS FOR CHANGE:

Terminate sampler interface to remove glitches.
This stops clicks during sampling.

DETAILS OF CHANGE:

1. Connect a 330R resistor between J2/7 (10 way IDC sampler interface connector) and J2/8.
2. Connect a 330R resistor between J2/9 and J2/10.
3. Replace R19 with a 470R resistor.
4. Replace R20 with a 470R resistor.
5. Mark PCB as Rev 1.9

NOTE: to be done in conjunction with FCN 90
some CMI 41 PCBs may already have 470R for R19 and R20.

DEPT	SIGNATURE	DATE	COMMENTS
Project Manager			
Customer Service			



FIELD CHANGE NOTICE

DATE 8 / 2 / 93
NUMBER 119

ORIGINATOR Steve Rance

PRODUCT: CMI / MFX

ASSEMBLY No. CMI 41

DESCRIPTION WAVEFORM SUPER

This FCN applies to REV No: REV 1.10

The New REV No is: REV 1.11

REASON FOR CHANGE:

Diagnostic bug fix in Rom 8.01 concerning DMA hang.

On start up screen displays hard ware protection level, A/B/C/D.

DETAILS OF CHANGE:

Replace ROM with KMON 20-512 Rev 8.05 and at LK 5 link pins 1&2 .
to
Change

Must be done with FCN 108

Relabel to indicate new revision 1.11

ORIGINATOR:	DATE:	PROD: <i>Steven</i>	DATE:
SERVICE:	DATE:	KIT LIST CHANGE:	YES NO



FIELD CHANGE NOTICE

DATE 22/ 10/ 92
NUMBER 109A

ORIGINATOR Steve Rance

PRODUCT: CMI / MFX

ASSEMBLY No. CMI-41

DESCRIPTION Waveform Supervisor

This FCN applies to REV No: Rev 1.9

The New REV No is: Rev 1.10

REASON FOR CHANGE:

THIS FCN REPLACES FCN 109

Unified ROMS for all revisions of CMI

Q219

CG-1

CG-2

CG-3

DETAILS OF CHANGE:

Replace ROM with KMON 20-512 Rev 8.01 and at LK 5 link pins 1&2

Must be done with FCN 108 see attached

ORIGINATOR:	DATE:	PROD:	DATE:
SERVICE:	DATE:	KIT LIST CHANGE:	YES NO



FIELD CHANGE NOTICE

Field Change Notice No

86

PRODUCT CMI Series III

ORIGINATOR: Chris Alfred

DATE: 24 / 3 / 92

ASSEMBLY No: CMI 41

DESCRIPTION: Waveform Supervisor

This FCN applies to rev No: 1.7

The New rev No is: 1.8

REASONS FOR CHANGE:

- a) Latch request to waveform buss 100nsec before start of waveform buss cycle ensuring adequate detection time by Turbo SCSI card.
- b) Missing Track may cause DMA over run during Monitoring or Recording.

DETAILS OF CHANGE:

- 1) Replace ASPAL/ASGAL with ASGAL3 aligning Pin 1 of the socket with pin 2 of the ASGAL3. (The original Ic was a 20 pin 16v8 which is now replaced by a 24 pin GAL22v10)
- 2) On ASGAL3 connect pin11 to pin 12 , on the Ic.
- 3) On ASGAL3 connect pin23 to pin 24, on the Ic.
- 4) Connect Ic A16/16 (74hct240) to Ic A16/15
- 5) Connect Ic A16/5 to ASGAL3/1
- 6) Connect Ic D2/12 (74ls112) to Ic D2/8 (relates to b)
- 7) Mark the board Rev 1.8

NOTE: ASGAL3 must be a Lattice GAL 22V10 15nsec

DEPT	SIGNATURE	DATE	COMMENTS
Project Manager	<i>C. Alfred</i>	6/4/92	
Customer Service			



ESP

FIELD CHANGE NOTICE

Field Change
Notice No

80A

PRODUCT

CMI

CVI

ORIGINATOR: Chris Alfred

DATE: 11 / 9 / 91

ASSEMBLY No: CMI 41

DESCRIPTION: Waveform Supervisor

This FCN applies to rev No: 1.6

The New rev No is: 1.7

REASONS FOR CHANGE:

This FCN is required when Rev 10 software is installed.
It is NOT necessary for Rev 9 and below.

1M x 4bit DRAMs (4M DRAMs) require the *WE (write enable) to remain high during CAS-before-RAS refresh cycles. The 256K x 4bit DRAMs (1M DRAMs) considered the *WE signal as DONT CARE during refresh.

DETAILS OF CHANGE:

Replace DRPAL with DRGAL2

Cut component side track from ICB2/18 (74HCT244) to the plate-thru between ICC1/10 (74HCT240) and the SPARE socket pin 1.

Connect ICB2/18 (74HCT244) to DRGAL2/8.

Connect RN3/8 (33R at D5) to DRGAL2/14.

Replace current Ram with 1M x 4bit DRAMs

LK3 located at D6 - Remove the wire linking pins 1&2. Add a wire link between 2&3.

DEPT	SIGNATURE	DATE	COMMENTS
Project Manager			
Customer Service			



ESP

FIELD CHANGE NOTICE

Field Change Notice No

72

PRODUCT CMI CVI

ORIGINATOR: Chris Alfred DATE: 29 / 5 / 90

ASSEMBLY No: CMI-41

DESCRIPTION: Waveform Supervisor

This FCN applies to rev No: 1.4 The New rev No is: 1.5

REASONS FOR CHANGE:

Inaccurate Detection of Channel Card slices

The *TSTAKEN signal is a wire-or signal terminated at the Waveform Supervisor. Currently, *TSTAKEN is terminated at 2.5V. This has been found to provide inadequate noise immunity. To fix the problem, *TSTAKEN is now terminated at 4V.

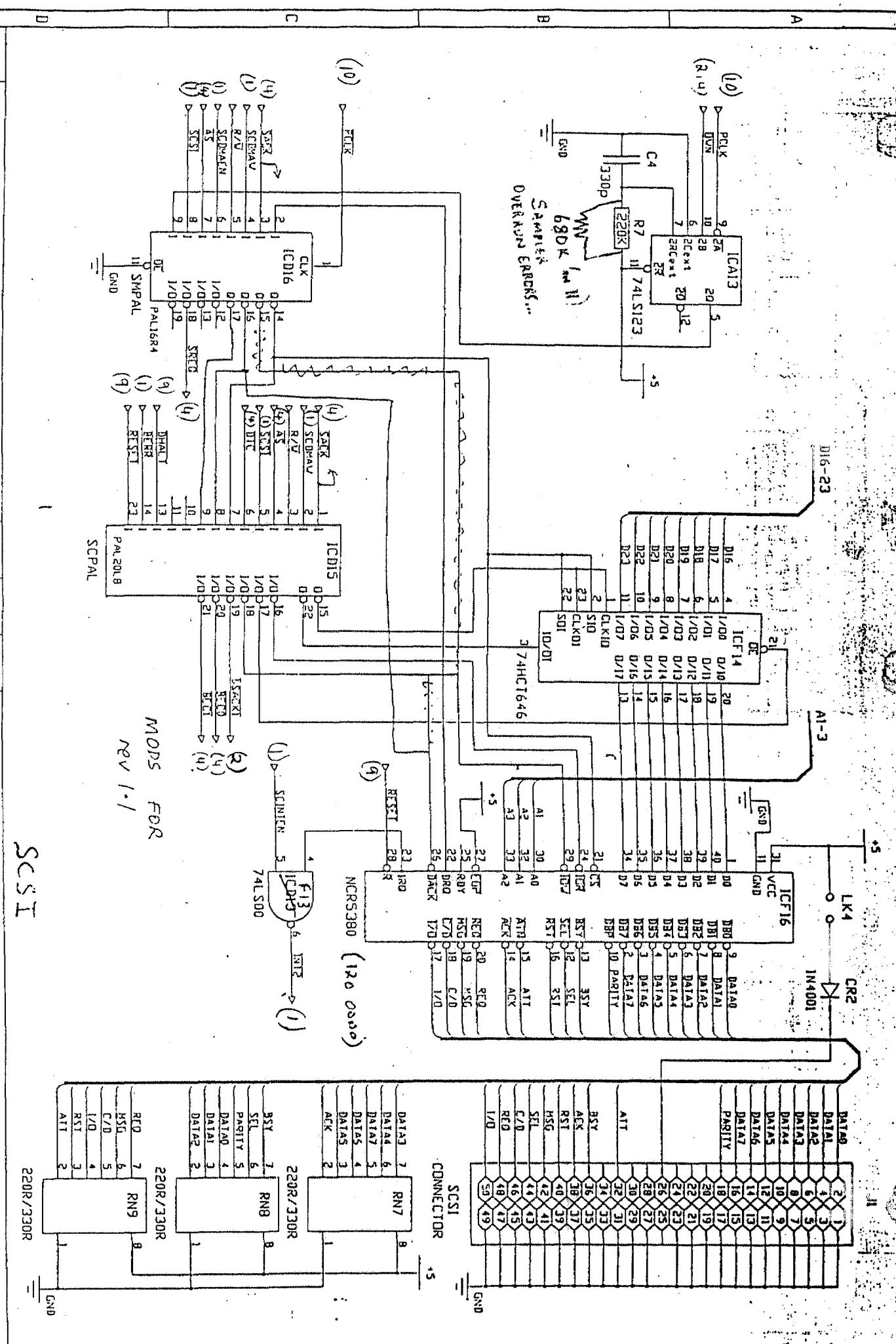
DETAILS OF CHANGE:

Replace R4 (820R) with 120R.

** TO BE DONE IN CONJUNCTION WITH FCN 73 **

FCN 73 on CMI31 Channel card, changing Ic 74ls03 to 7438 supports the higher current.

DEPT	SIGNATURE	DATE	COMMENTS
Project Manager	<i>C. Alfred</i>	22/8/91	
Customer Service	<i>M. Paulino</i>	22/8/91	



MODS FOR
REV 1.1

SCSI

FAIRLIGHT INSTRUMENTS

DATE	5th Nov 1987	TITLE	WAVEFORM SUPERVISOR
DESIGN BY	A.J. Cannon	ISSUE	
		DATE	
		APP'D	

DESCRIPTION	SCSI INTERFACE	DRAWING-NO	CM1-41 rev 1

SHEET-NO	5 OF 10	ISSUE	1
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ESP

FIELD CHANGE NOTICE

Field Change
Notice No

71

PRODUCT

CMI

CVI

ORIGINATOR: Chris Alfred

DATE: 29 / 5 / 91

ASSEMBLY No: CMI-41

DESCRIPTION: Waveform Supervisor

This FCN applies to rev No: 1.3

The New rev No is: 1.4

REASONS FOR CHANGE:

Corruption during Waveform Memory Refresh

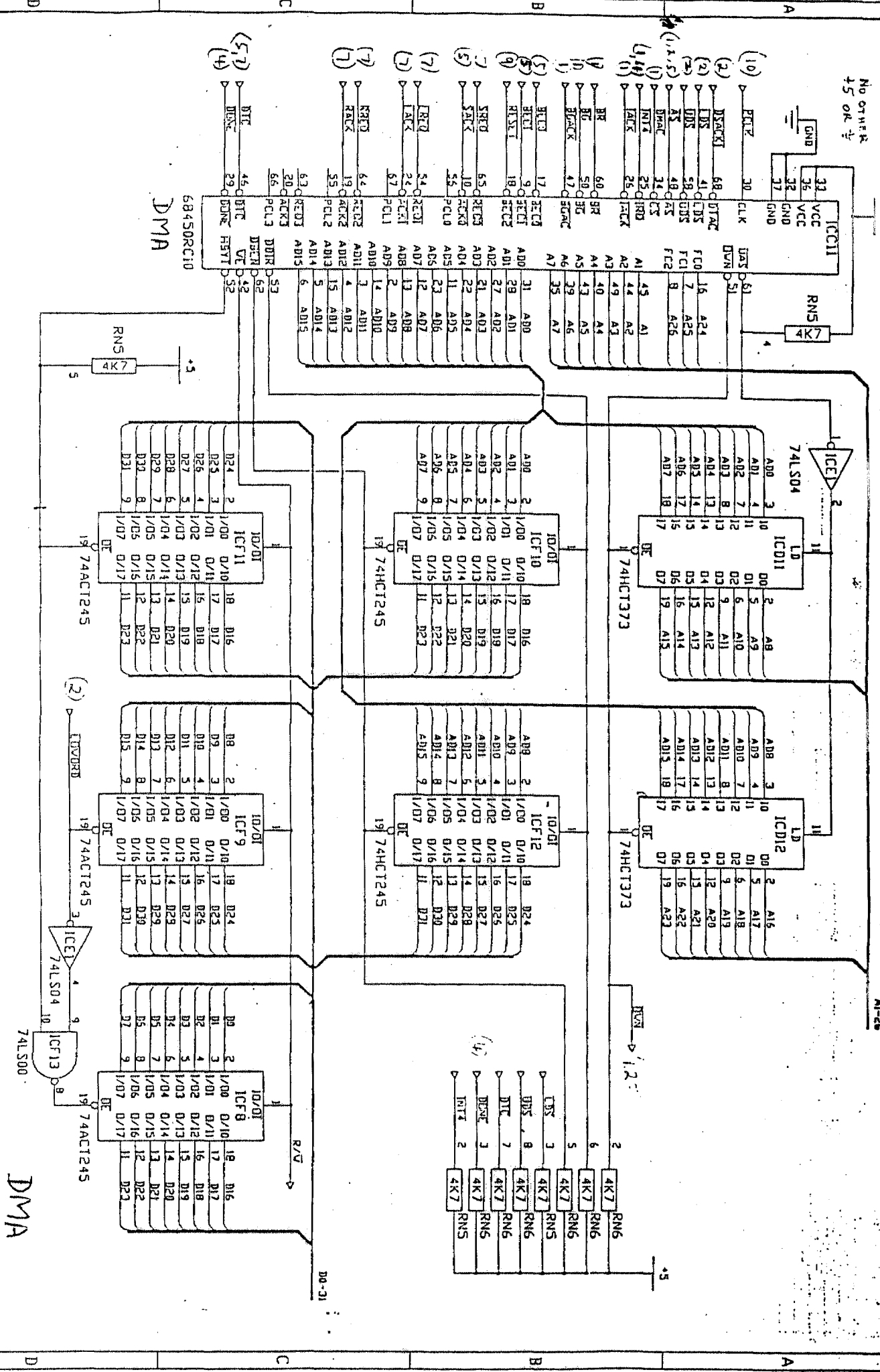
Waveform memory corrupted during refresh cycles as a result of glitches on *WREF signal. The solution is to buffer the *WREF signal with a 74HCT244 buffer; rather than drive the signal directly from WBPAL.

DETAILS OF CHANGE:

Cut track to edge connector pin 71A at the edge connector on wiring side.
Connect ICB16 (WBPAL) pin 16 to ICB2 (74HCT244) pin 11.
Connect ICB2 (74HCT244) pin 9 to edge connector pin 71A.

DEPT	SIGNATURE	DATE	COMMENTS
Project Manager	<i>C. Alfred</i>	22/8/91	
Customer Service	<i>M. Paulini</i>	22/8/91	

No OTHER
15 OR 15



AI-26

DMA CONTROLLER AND DEMULTIPLEXING

DESCRIPTION

ISSUE

DATE

APP.B

FAIRLIGHT INSTRUMENTS

DMA

DA-31



ESP

FIELD CHANGE NOTICE

Field Change
Notice No

60

PRODUCT CMI CVI

ORIGINATOR: Chris Alfred

DATE: 7 / 8 / 90

ASSEMBLY No: CMI 41

DESCRIPTION: Waveform Supervisor

This FCN applies to rev No: 1.2

The New rev No is: 1.3

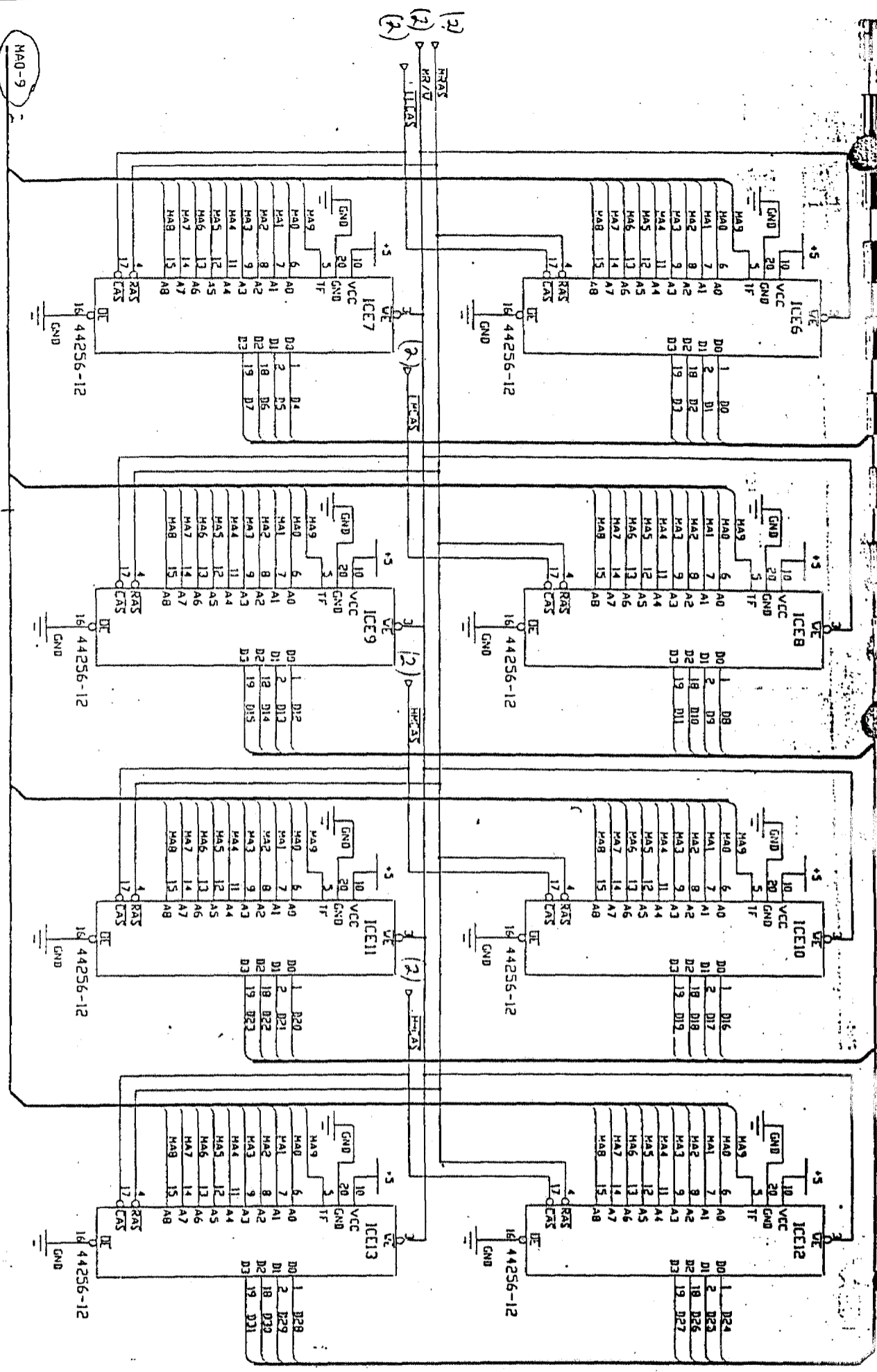
REASONS FOR CHANGE:

- Removes noise generated by ESP-RT1 router on power-up.
- Removes distortion of channels due to uninitialised router latches.

DETAILS OF CHANGE:

Replace EPROM KMON with Rom KMON 3.19

DEPT	SIGNATURE	DATE	COMMENTS
Project Manager			
Customer Service	<i>Mario Pocher</i>	<i>7/8/90</i>	



MA0-9

DRAM

DYNAMIC RAM ARRAY

WAVEFORM SUPERVISOR

FAIRLIGHT INSTRUMENTS

CM1-41 rev 1

3 DF 10

DATE	5th Nov 1987
DESIGN BY	A.Cannon

TITLE	WAVEFORM SUPERVISOR
DESCRIPTION	DYNAMIC RAM ARRAY

ISSUE	DATE	APP'D

DRAWING-NO	CM1-41 rev 1
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SHEET-NO	3
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DF	10
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ISSUE	1
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1

2

3

4

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