


PRODUCT MODIFICATION BULLETIN

|ecrit/written by | approve/approved | produit/product | 173-A90-02A |
B. SAITTA		QRGB-GRAPH	
Q.C.		date 30 MAI 83	page 2 of 8
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NOTE : MODIFICATION #1 TO BE APPLY BEFORE SOLDERING.			
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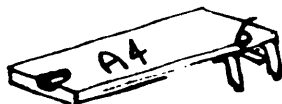
-- 1 --

Avant soudure:

Installer A4 en soulevant la patte 6 de A4 selon dessin ci-dessous.
Ne pas installer C17.

Before soldering:

Install ic A4 with pin 6 raised as shown below.
Do not install C17.



-1.1-

Couper la trace entre A4-4 et A18-9

Cut trace between A4-4 and A18-9

-1.2-

Installer un fil entre A18-9 et A4-6

Install wire between A18-9 and A4-6

-1.3-

Installer un fil entre A4-4 et A1-2

Install wire between A4-4 and A1-2

4.4

Raison: Les pattes 4 et 6 de A4 on ete inversees.

Pins 4 and 6 of A4 are inverted.

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|B. SAITTA | | | |
|-----
|Q.C. | | | |
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|date 30 MAI 83 | page 3 of 8 |
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NOTE :

-- 2 --

-2.1-

Couper la trace entre A10-10 et A56-11.

Cut trace between A10-10 and A56-11.

#4.6

-2.2-

Installer un fil entre A10-10 et A10-16.

Install wire between A10-10 and A10-16.

Raison: Erreur d'artwork

Artwork error

-- 3 --

Ne pas installer le condensateur C111.

Remove capacitor C111.

#6C.1

-3.1-

Couper la trace entre A37-3 et A39-1.

Cut trace between A37-3 and A39-1.


-3.2-

Installer un fil entre A87-2 et A87-9 sur la face soudee.

Install wire between A87-2 and A87-9 on solder side.

-3.3-

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ecrit/written by	approuve/approved	produit/product	173-A90-02A
B. SAITTA		QRGB-GRAPH	
Q.C.		date 30 MAI 83	page 4 of 8
NOTE :			

Installer un fil entre A87-1 et A37-3 sur la face composant.

Install wire between A87-1 and A37-3 on component side.

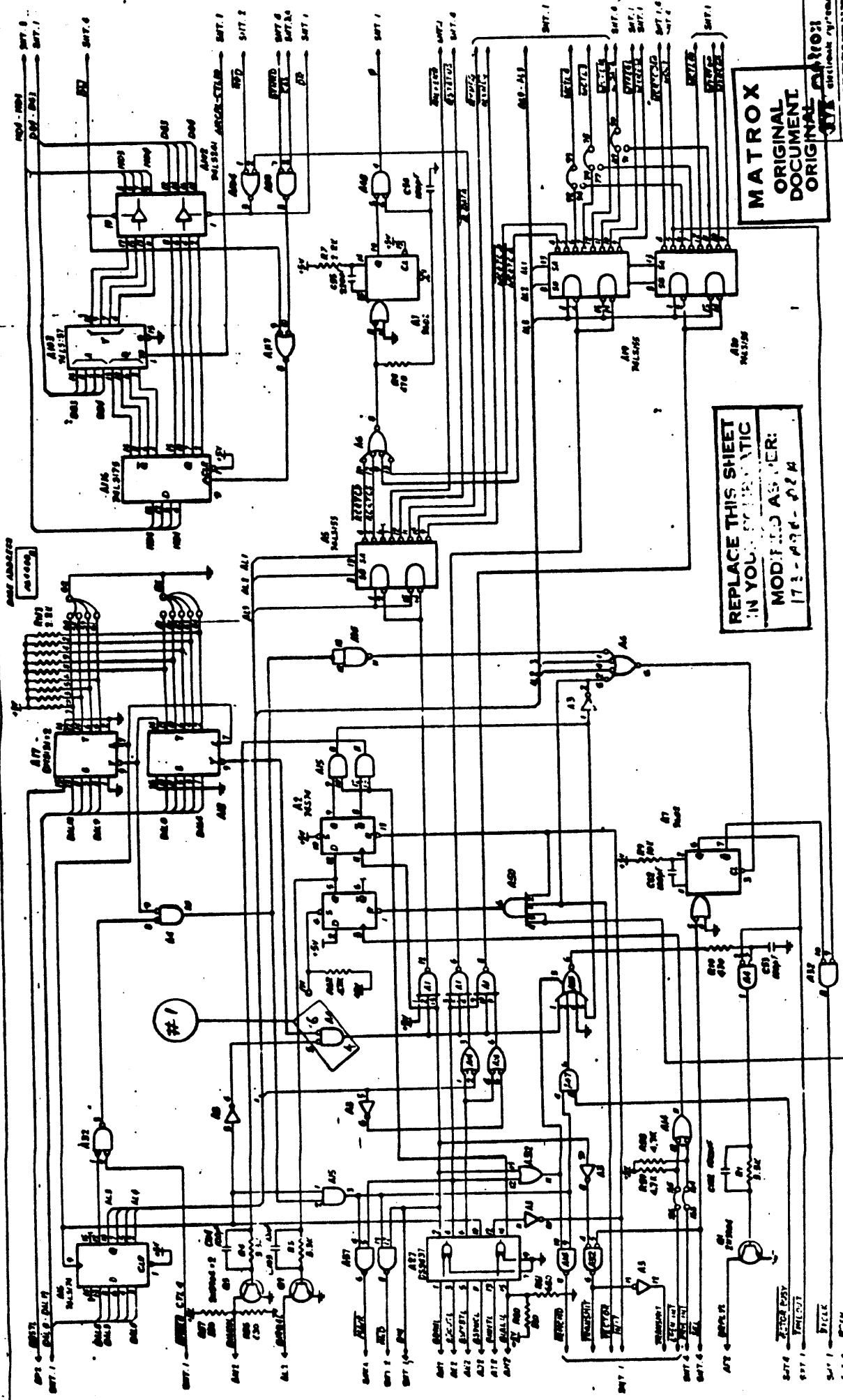
-3.4-

Installer un fil entre A87-8 et A39-1 sur la face composant.

Install wire between A87-8 and A39-1 on component side.

Raison: Cette modification a pour but d'insérer deux inverseurs dans la ligne du 'dot clock' connectée à l'entrée 'strobe' du selecteur de double resolution. De cette manière un 'hold time' plus long est obtenu sur l'information entrant dans A13 relativement à l'horloge à fréquence double.

We delay the clock connected to the strobe of the double resolution selector to have a longer hold time between the data and the dot clock at the last output latch.



REPLACE THIS SHEET
 IN YOUR SCHEMATIC
 MODIFIED AS PER:
 173-998-024

MATROX
 ORIGINAL
 DOCUMENT
 ORIGINAL MATROX
 electronic systems Inc.

173-998-024

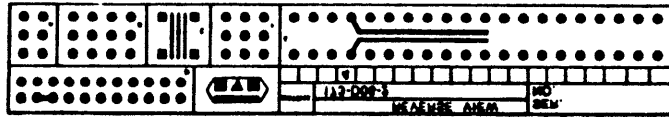
7/1

DATE: 1974
 BY: [Signature]
 FILE: [Signature]

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 4183-8190

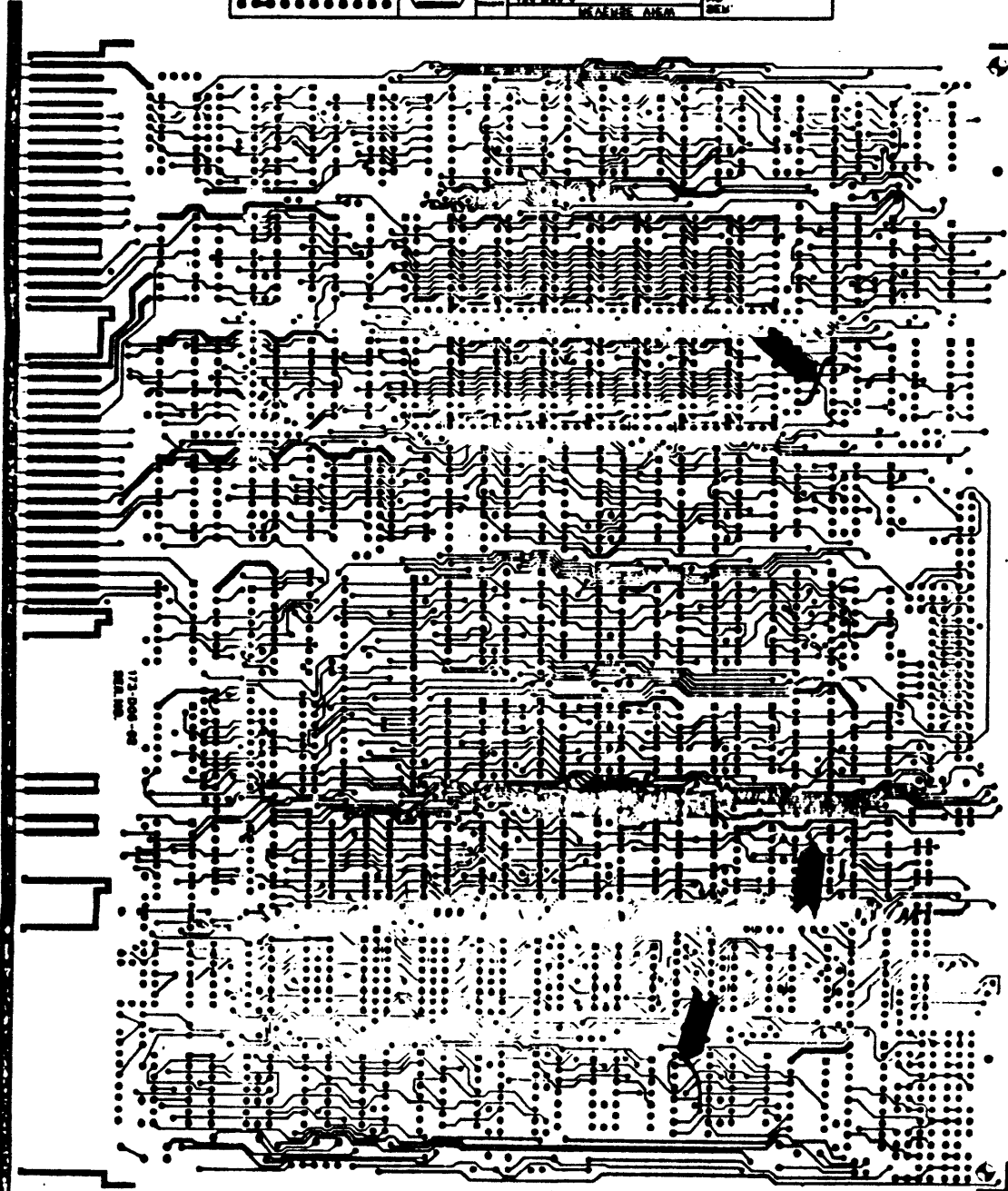
173-199-02A
 6/8

1	150-013 20	1000
2	150-013 20	1000



PART 212
 DRAWN BY
 MEASURE AREA

SERVICE CENTER TO BE MOVED



1.1- Put a 68PF capacitor in location C111.

NOTE: This capacitor has already been removed by PHE 173-A90-02A but it must be installed.

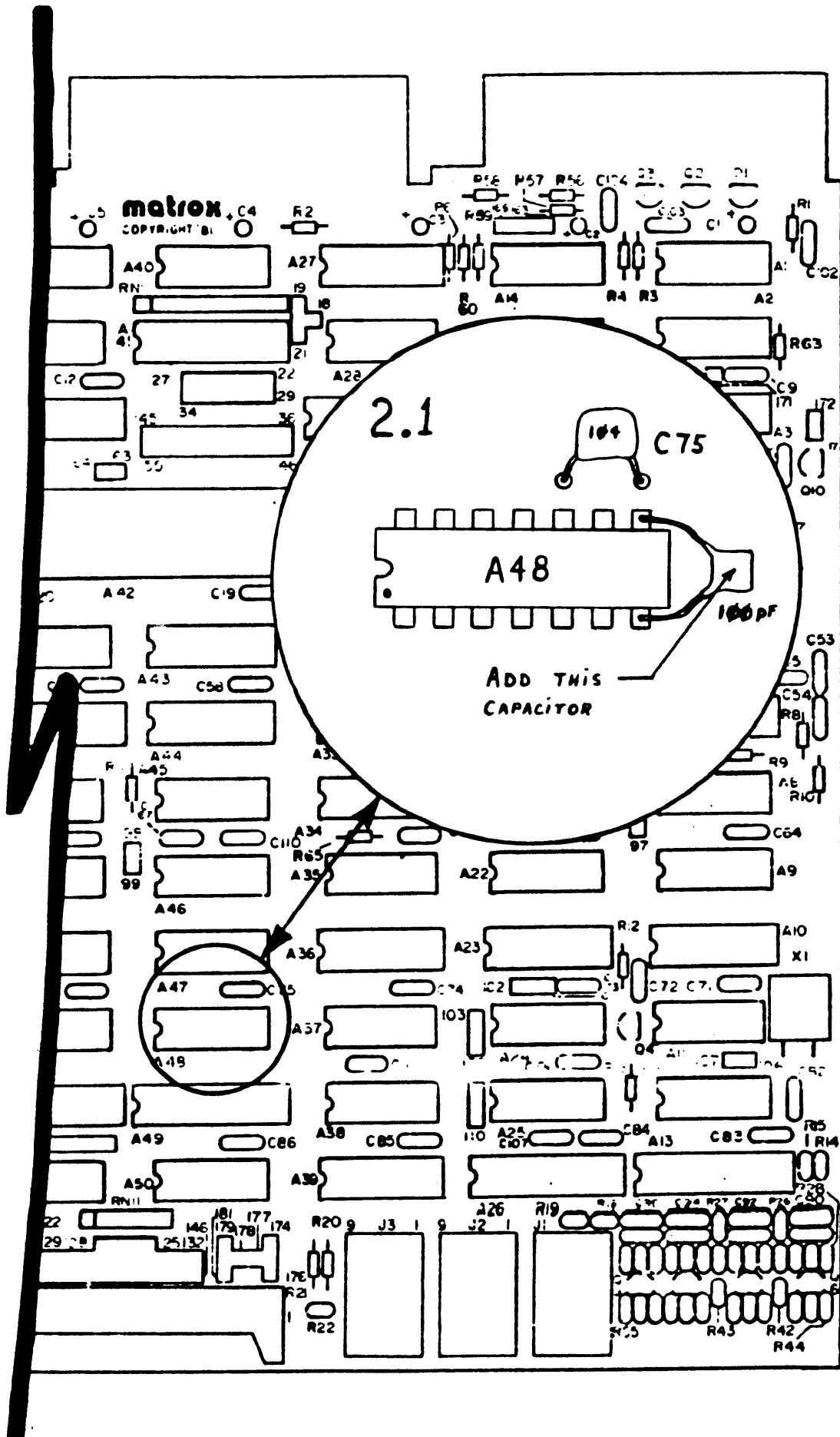
REASON: To insure good setup and hold time at the output latch in double resolution mode.

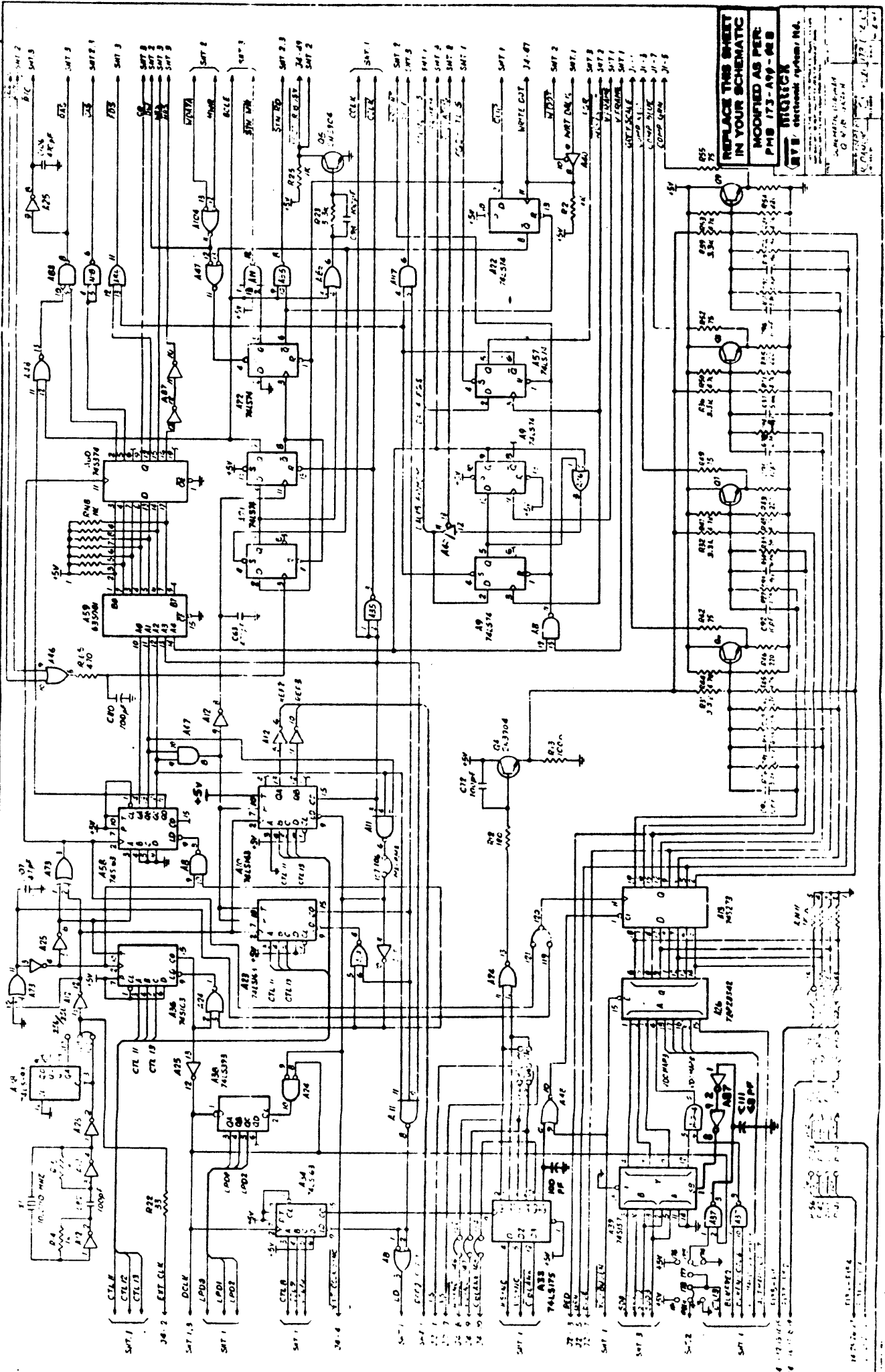
2.1- Add a 100PF capacitor between A48-8 and A48-7 as per sheet 3.

REASON: Delay blanking signal to match with the video output timing.

3.1- Remove capacitor C112.

REASON: HRS/ signal is too much delayed to insure good clocking of RA's outputs, removing capacitor C112 gives better timing.





REPLACE THIS SHEET
IN YOUR SCHEMATIC
MODIFIED AS PER:
PMB 173-A90-028
BY: [Signature]

REVISIONS
REV. 1
REV. 2
REV. 3
REV. 4
REV. 5
REV. 6
REV. 7
REV. 8
REV. 9
REV. 10
REV. 11
REV. 12
REV. 13
REV. 14
REV. 15
REV. 16
REV. 17
REV. 18
REV. 19
REV. 20

PRODUCT MODIFICATION BULLETIN

Written by Robert Laverdure	Parent item number 173-A01-02	Product QRGB-GRAPH	PMB number 173-A90-02C
Engineering Approuval	Q.C. Approuval	Eng drawing # 173-A01-02B	Date 84/04/13 Page 1 of 4

NOTE: This PMB is to be applied on all QRGB-GRAPHS whether RMAs or in production.

NOTE: Ce PMB doit etre applique a tous les QRGB-GRAPHS. Ceci comprend les RMAs ainsi que ceux en production.

PARTS LIST CHANGES

Part Number	NEW		PREVIOUS	
	Qty	REF #	Qty	REF #
150PF	1	PMB 173-A90-02C	0	-
100PF	0	-	1	C110
470 OHM	0	-	1	R65

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- 1.1 Replace R65 by a wire on component side
- 1.1 Remplacer R65 par un fil du cote pieces du circuit

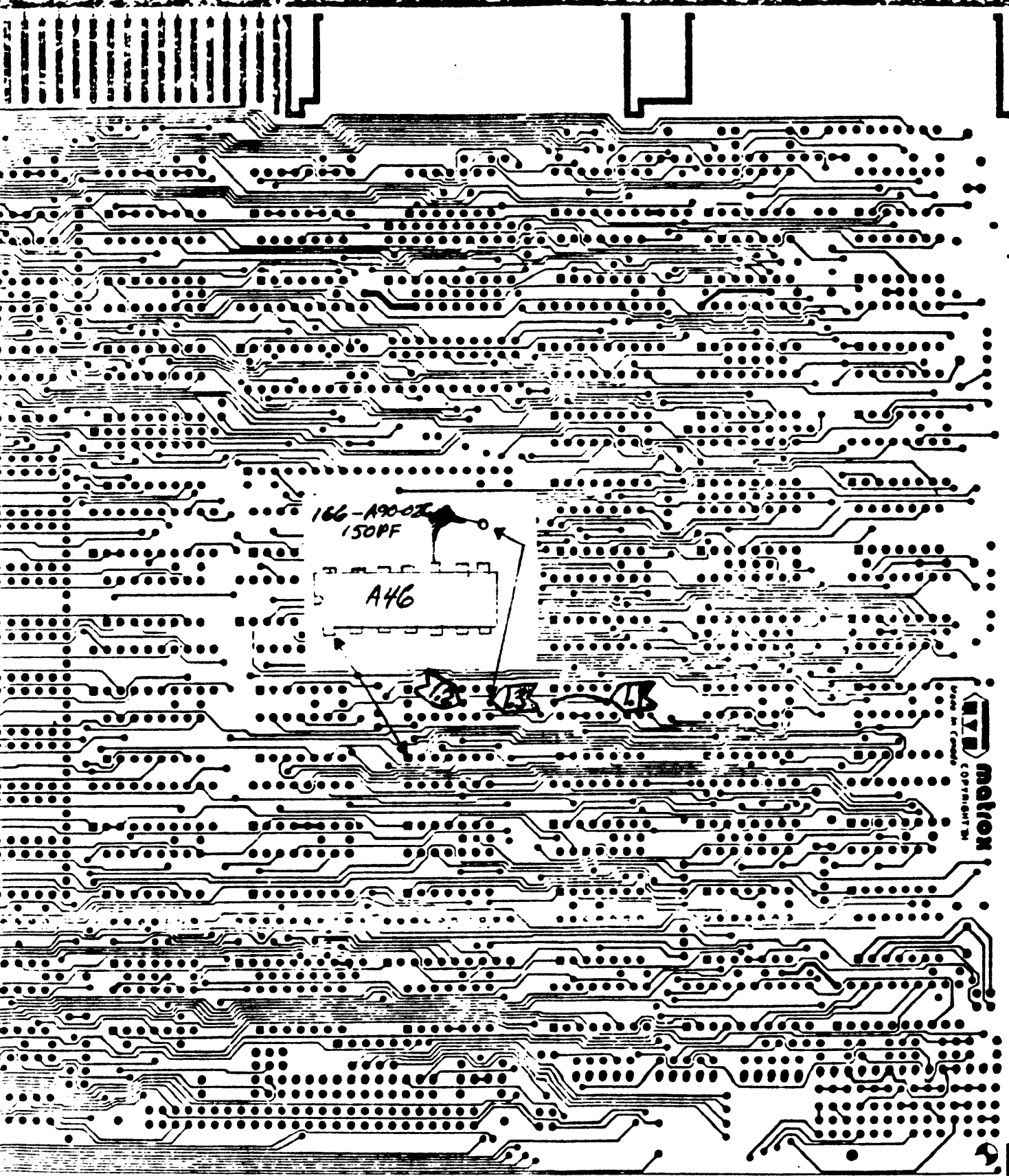
- 1.2 Remove C110
- 1.2 Enlever C110

- 1.3 Install the capacitor of 150PF between pin 10 of A46 and the right hole of C110 on component side (see page 3).
- 1.3 Installer le condensateur de 150PF entre la pin 10 de A86 et le trou droit du condensateur C110 du cote des composantes (voir page 3).

REASON: DMA transfer from QRGB-GRAPH to CPU not functional. The modification makes duration of clock on A21 pin 3 longer to satisfy the specifications of A21.

RAISON: Impossibilite de faire du DMA allant du QRGB-GRAPH vers le CPU. La modification a pour effet d'allonger la duree de l'horloge de A21 pin 3 afin de satisfaire ses conditions d'operation.





166-A90-02
150PF

A46

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PRODUCT MODIFICATION BULLETIN

Ecrit/written by	Parent item number	Produit/product	173-90-02D
Lise Goggin	173-01-02	CRGB-GRAPH	DATE 16 aout 84
Q.C. : <i>[Signature]</i>	Engr. drawing no.	Description:	
App'd: <i>[Signature]</i>	173-01-02D	CRGB-GRAPH SUBASSEMBLY	

NOTE : Applicable to all boards in production and RMA.

- 1.1 Couper la trace entre A73 pin-5 et A12 pin-10, cote de la soudure comme sur la feuille 2.
Cut trace between A73 pin-5 and A12 pin-10, solder side as per sheet 2.
- 1.2 Ajouter un fil entre A73 pin-5 et A12 pin-6, cote de la soudure comme sur la feuille 2. Verifier la continuite entre A73 pin-5 et A12 pin-6.
Add wire between A73 pin-5 and A12 pin-6, solder side as per sheet 2. Buzer check: A73 pin-5 and A12 pin-6.
- 1.3 Couper la trace entre A73 pin-10 et A12 pin-6, cote de la soudure comme sur la feuille 2.
Cut trace between A73 pin-10 and A12 pin-6, solder side as per sheet 2.
- 1.4 Ajouter un fil entre A73 pin-10 et A12 pin-10, cote de la soudure comme sur la feuille 2. Verifier la continuite entre A73 pin-10 et A12 pin-10.
Add wire between A73 pin-10 and A12 pin-10, solder side as per sheet 2. Buzer check: A73 pin-10 and A12 pin-10.

RAISON: Cette modification assure que le rafraichissement est toujours moins ou egal a 2 millisecondes au maximum. A cause de cette modification, le zoom dans 256 x 256 sera limite a 4 dans la direction des x.

REASON: This mod insure that refresh is always less or equal to two (2) milisecond maximum. Because of this mod, zoom in 256 x 256 is limited to 4 into x direction.



ORIGINAL DOCUMENT

PMB 173-98-02D

REPLACEMENT PARTS

Q. P. G. COMPANY

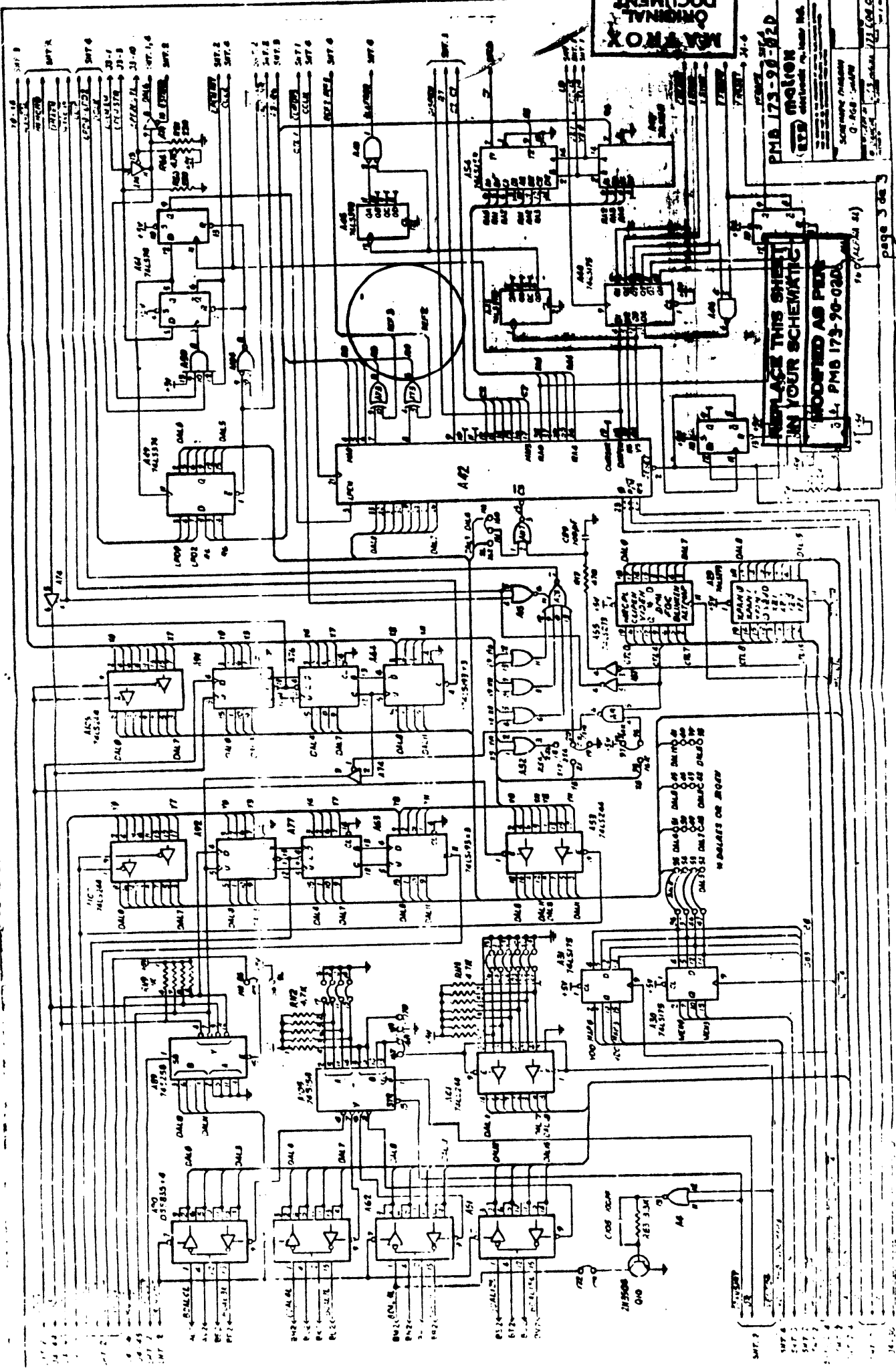
111 04 02

REPLACE THIS SHEET IN YOUR SCHEMATIC

MODIFIED AS PER

34, PMB 173-98-02D

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SWT 1

SWT 2

SWT 3

SWT 4

SWT 5

SWT 6

SWT 7

SWT 8

SWT 9

SWT 10

DML 1

DML 2

DML 3

DML 4

DML 5

DML 6

DML 7

DML 8

DML 9

DML 10

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