

IBM

**Field Engineering
Maintenance Diagrams**

Single Disk Storage [Incremental Access]

PREFACE

This manual contains flow charts, timing charts, and special-purpose diagrams to assist in the maintenance activity on the IBM Single Disk Storage (Incremental Access).

Simplified drawings have been prepared for functions which are not readily perceptible in the system diagrams, or for which the logic requires multiple pages.

The system diagrams at the engineering level of the equipment should be used in preference to the maintenance diagrams wherever there is a conflict between the two types of diagrams.

Third Edition (May 1969)

This manual (Form Y26-4126-2) is a complete revision of and makes obsolete, Form Y26-4126-1 and its supplement Form Y26-0163.

Significant changes or additions to the specifications contained in this publication are continually being made. When using this publication in connection with the operation of IBM equipment, check the latest FE Publications Systems Sequence Listing, Form Y20-0073, for revisions or contact the local IBM Branch Office.

The illustrations in this manual have a code number in the lower corner. This is a publishing control number and is not related to the subject matter.

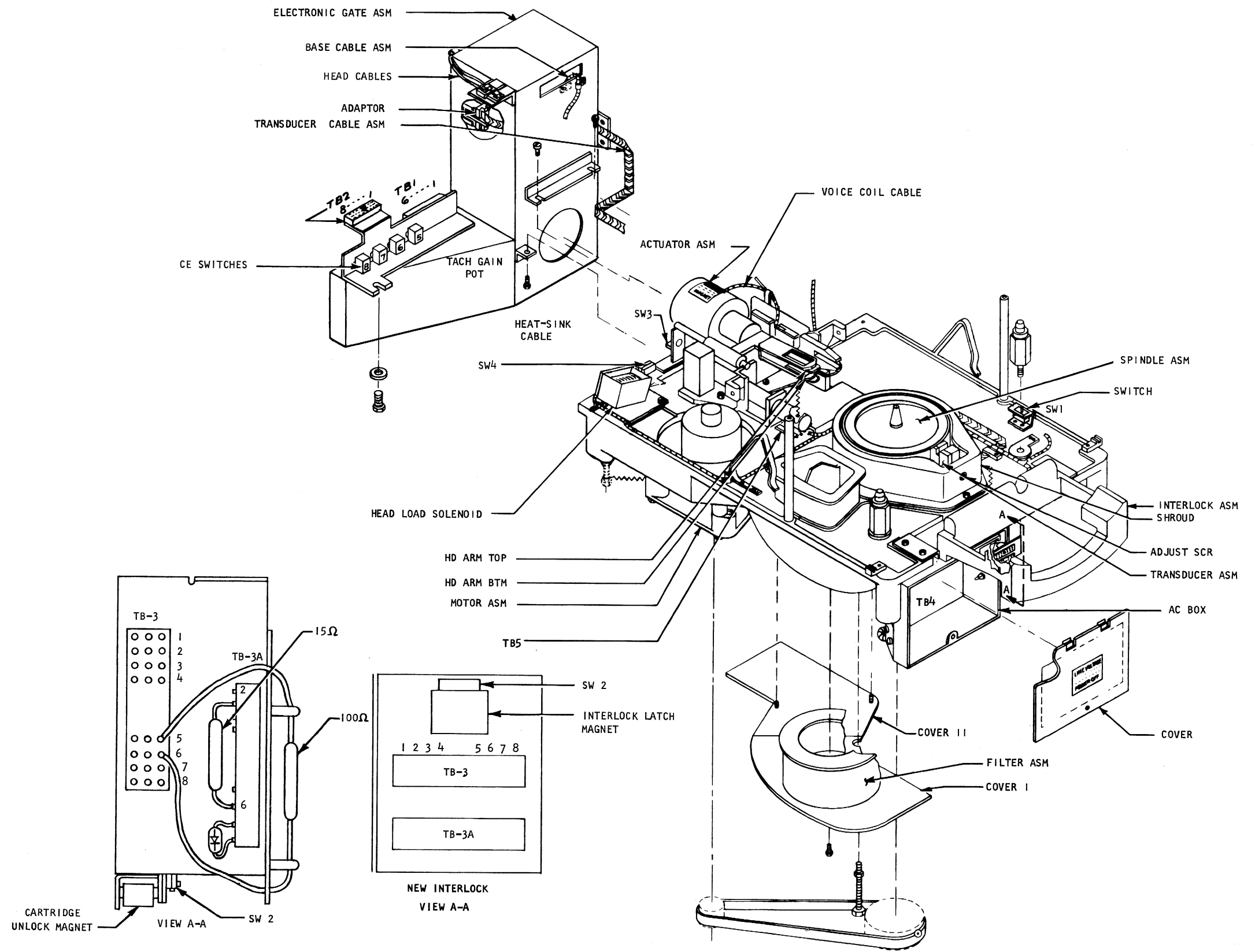
Copies of this and other IBM publications can be obtained through IBM Branch Offices.

A form for reader's comments is provided at the back of this publication. If the form has been removed, send your comments to the address below.

This manual was prepared by the IBM Systems Development Division, Product Publications, Department G24, San Jose, California 95114.

© Copyright International Business Machines Corporation 1967

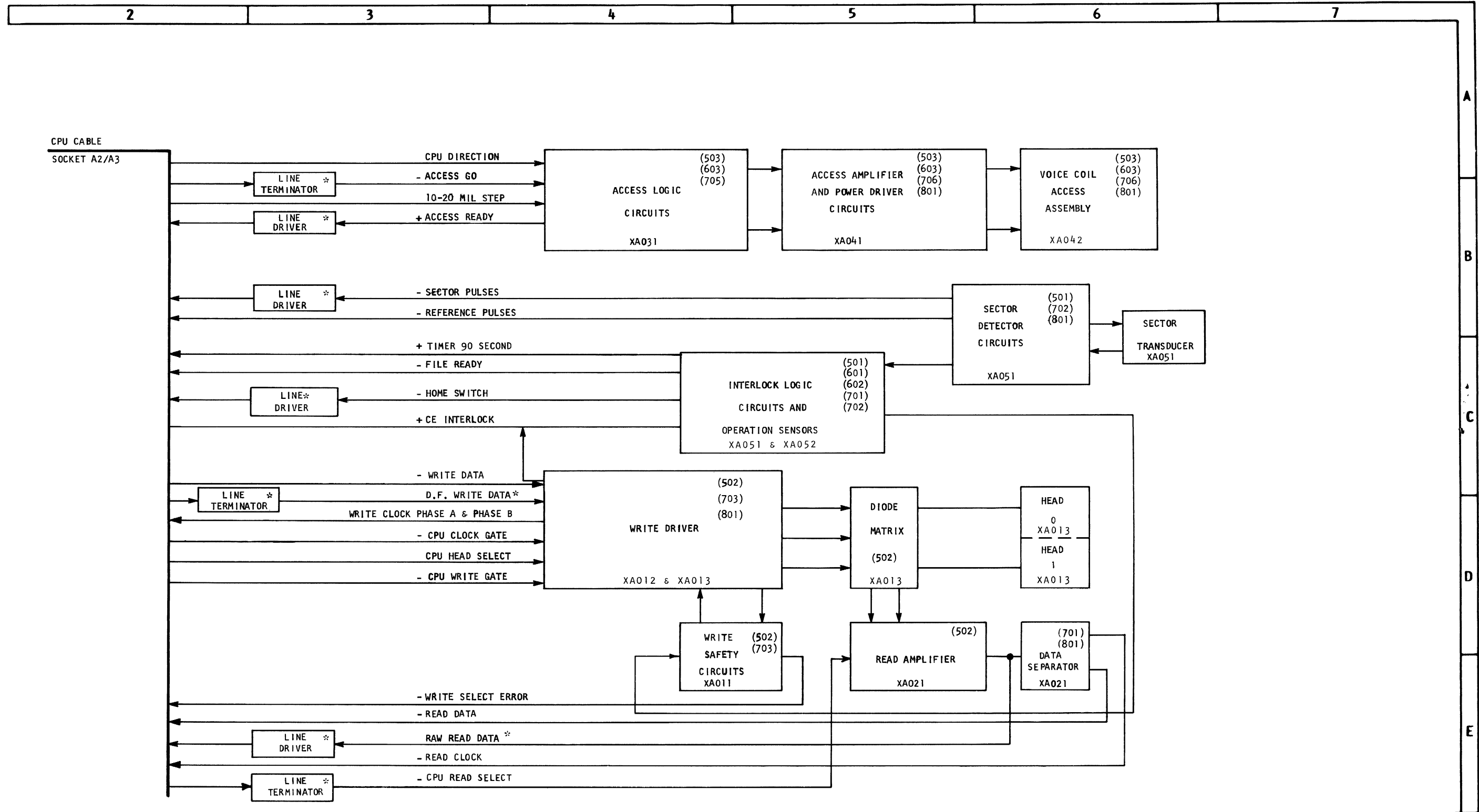
Component Locations - Arrangement Diagram	002
Data Flow and Control - UDCD	102
Sector Detector and Interlock - Simplified Logic	501
Access and Detent - Simplified Logic	502
Access Cycle (Detailed Circuit)	503
Write Driver - I/O Operation	504
File Start Sequence - Flow Chart	601
File Stop Sequence - Flow Chart	602
Single Step Access - Flow Chart	603
Sector Detector and Interlock - Timing Chart (Part 1 of 2) ...	701
Sector Detector and Interlock - Timing Chart (Part 2 of 2) ...	702
Read Write Select and Write Driver - Timing Chart	703
Read Amplifier and Data Separator - Timing Chart	704
Access - Timing Chart (Part 1 of 2)	705
Access - Timing Chart (Part 2 of 2)	706
X-Y Recordings	801



- SWITCHES
- SW 1 CARTRIDGE IN-PLACE
 - SW 2 INTERLOCK
 - SW 3 HOME
 - SW 4 HEAD LOAD
 - SW 5 CE HEAD SELECT
 - SW 6 CE STEP MODE
 - SW 7 CE DIRECTION
 - SW 8 CE STEP CONTROL

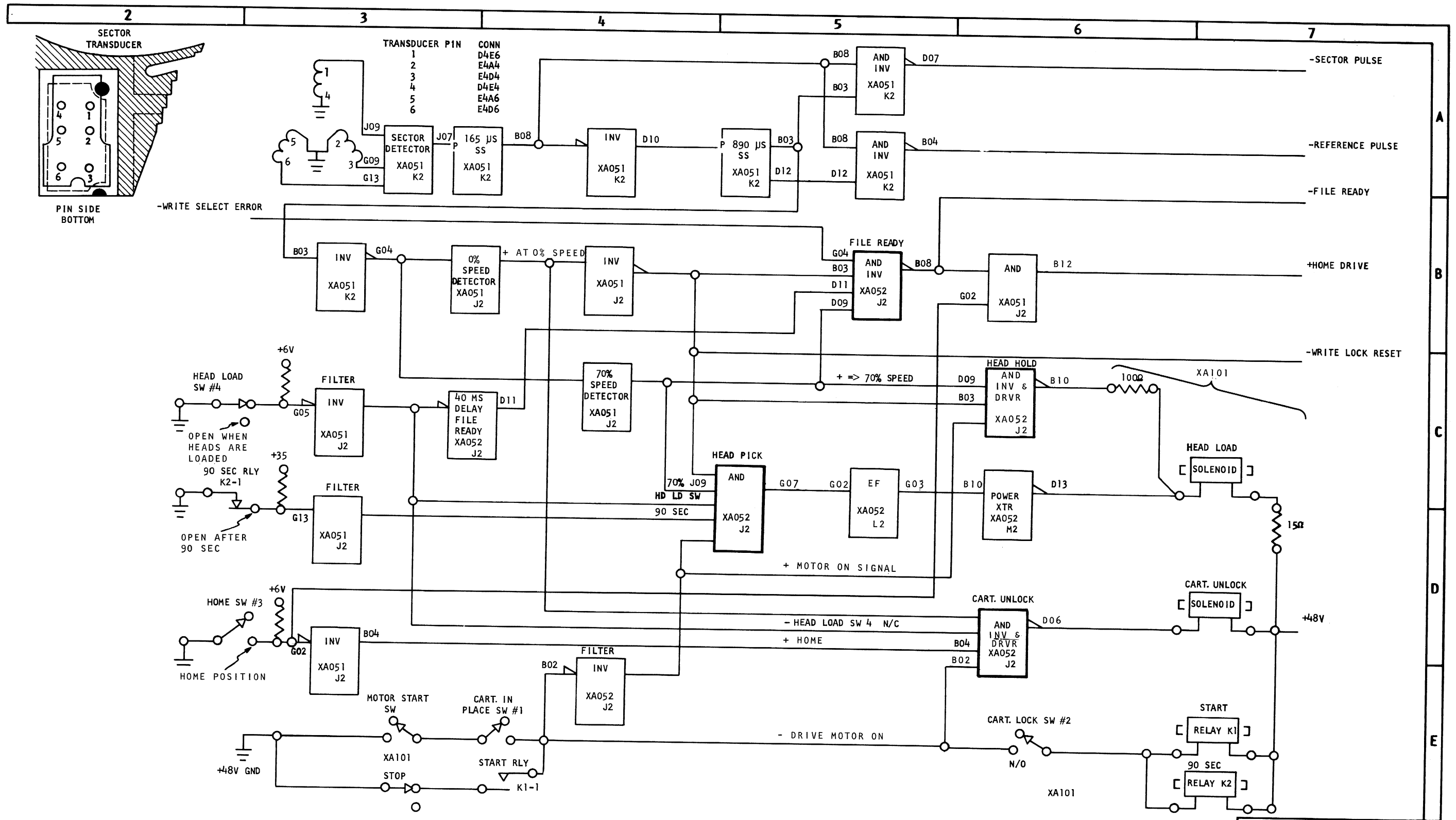
Location of Components

LOCATION OF COMPONENTS	
DATE	TYPE
IBM	002



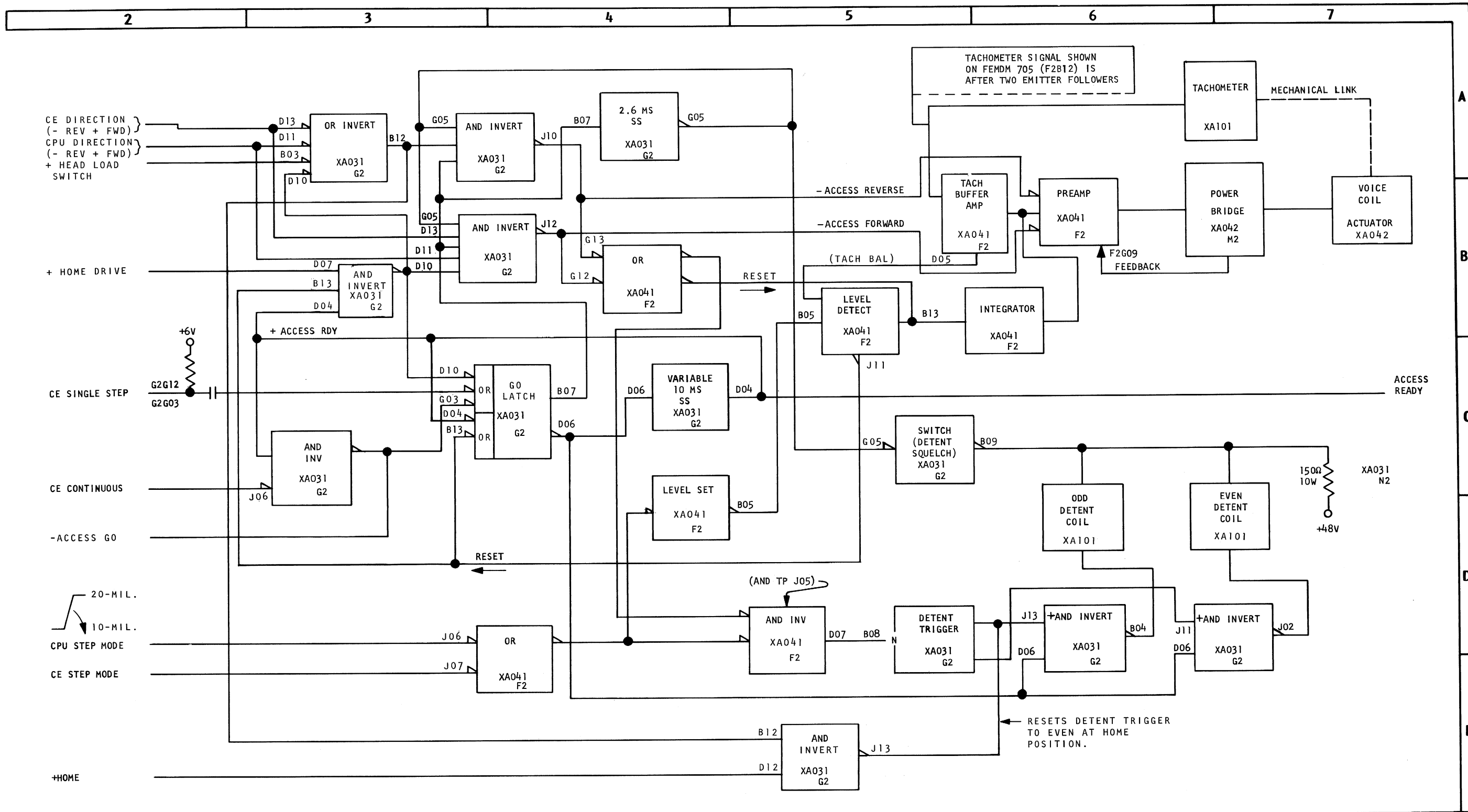
* USED WITH 2310 REMOTE

DATA FLOW AND CONTROL			
DATE	SEPT65		
		TYPE	
IBM		102	



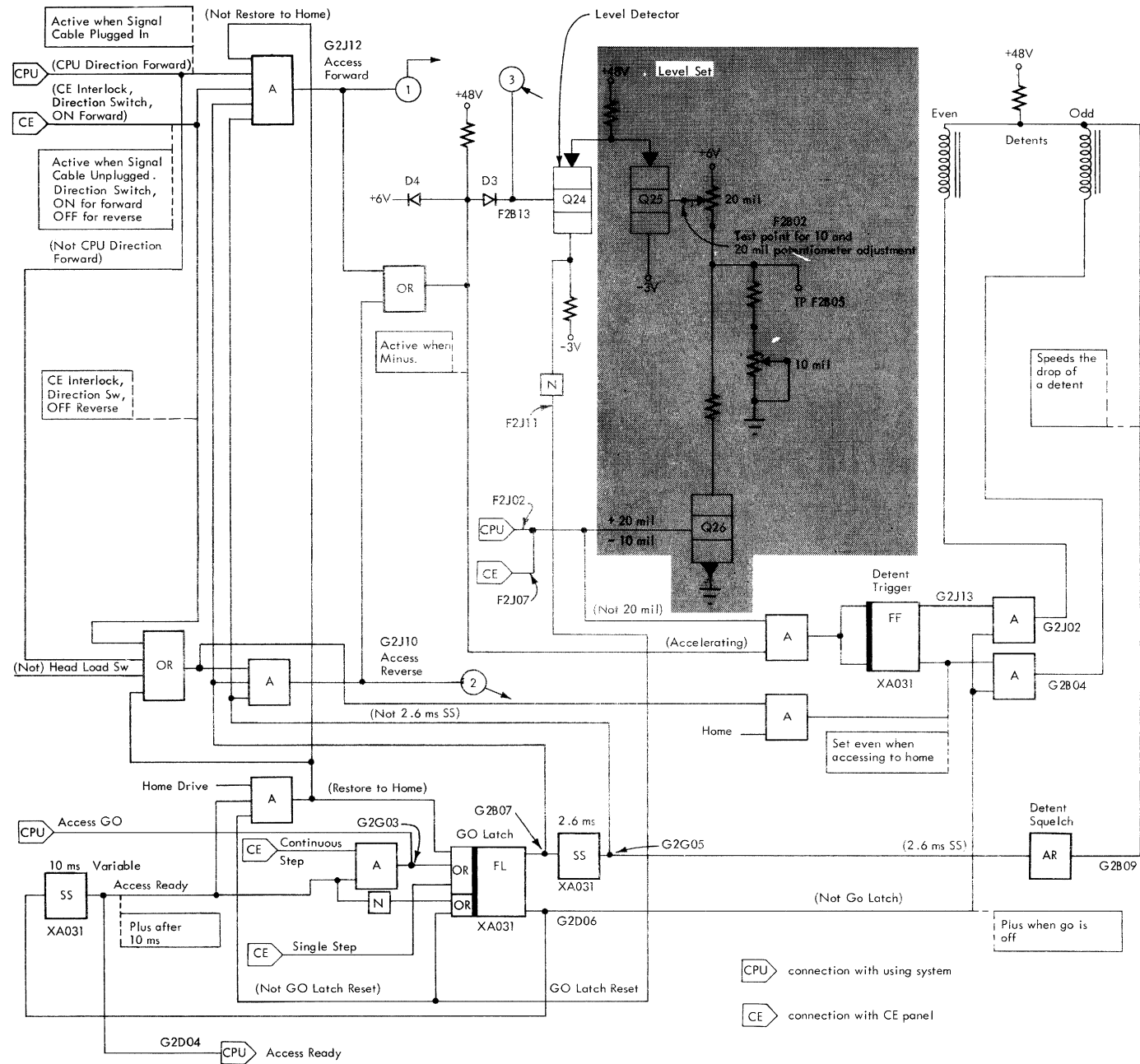
SECTOR DETECTOR AND INTERLOCK	
DATE	APR 67
	TYPE
IBM	
501	

Sector Detector and Interlock

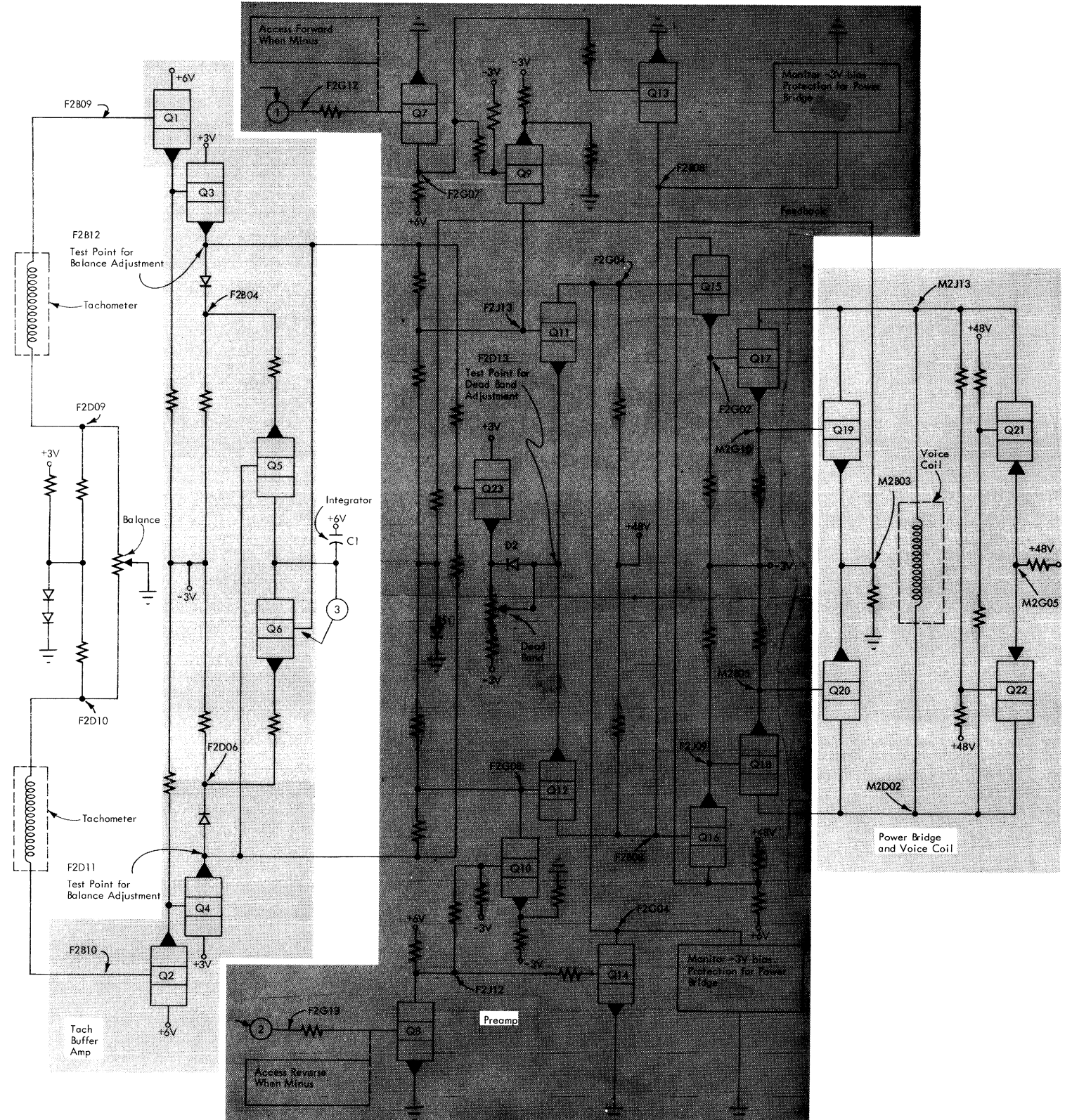


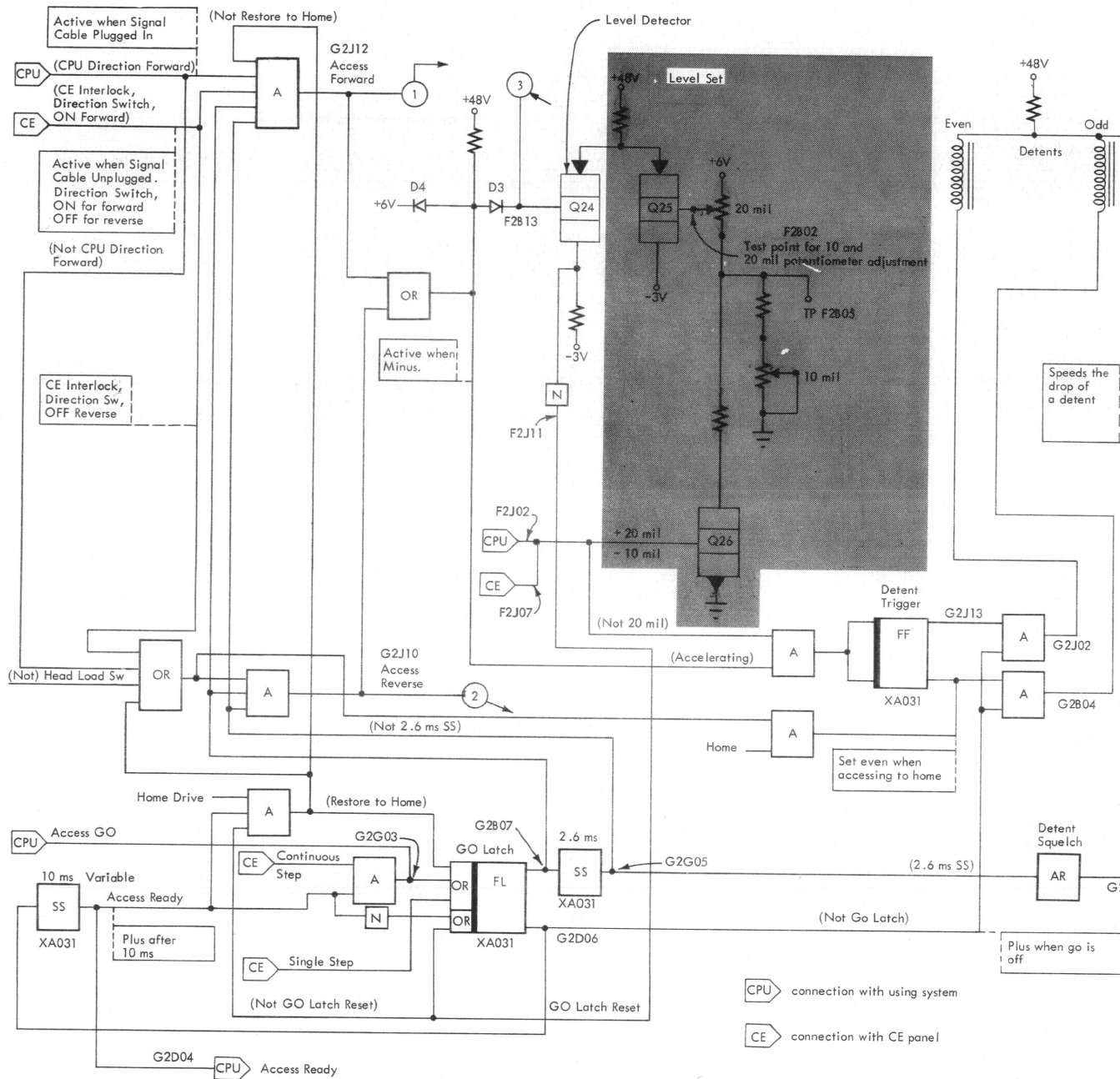
ACCESS & DETENT			
DATE	SEP 65		
		TYPE	
IBM		502	

Access and Detent Control

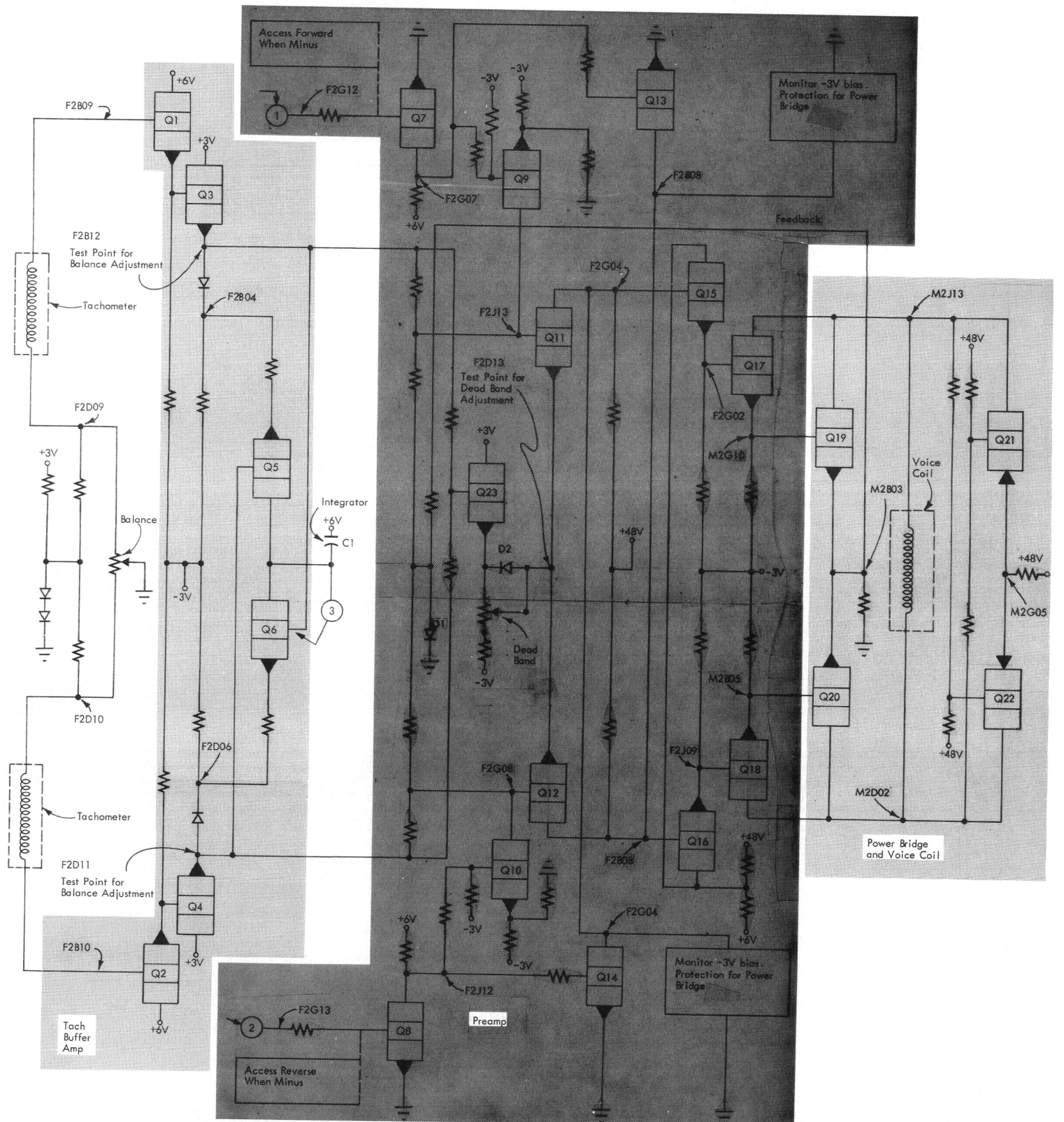


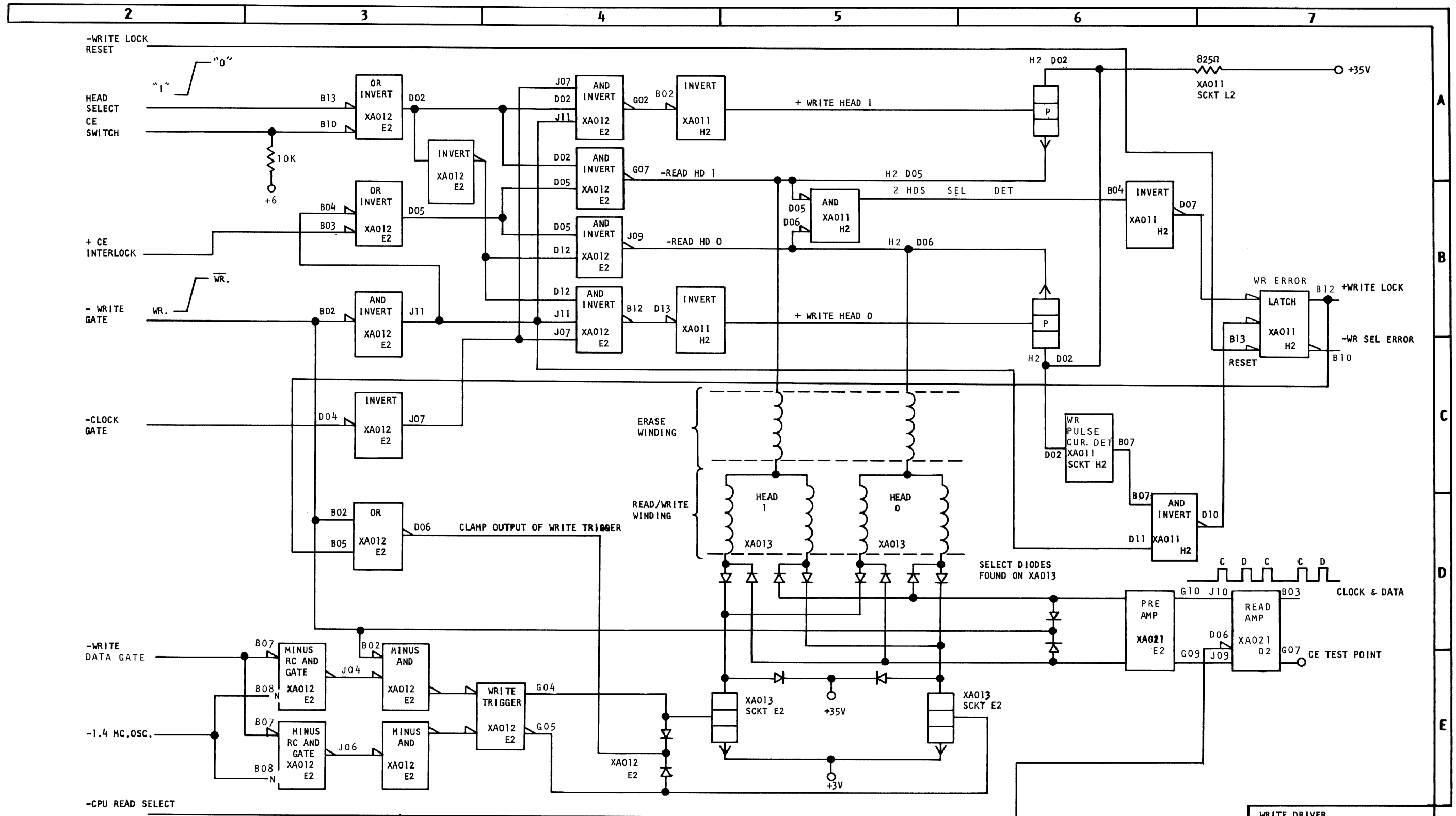
The system diagram at the engineering level of the equipment should be used in preference to this maintenance diagram where there is a conflict between the two types of diagrams.





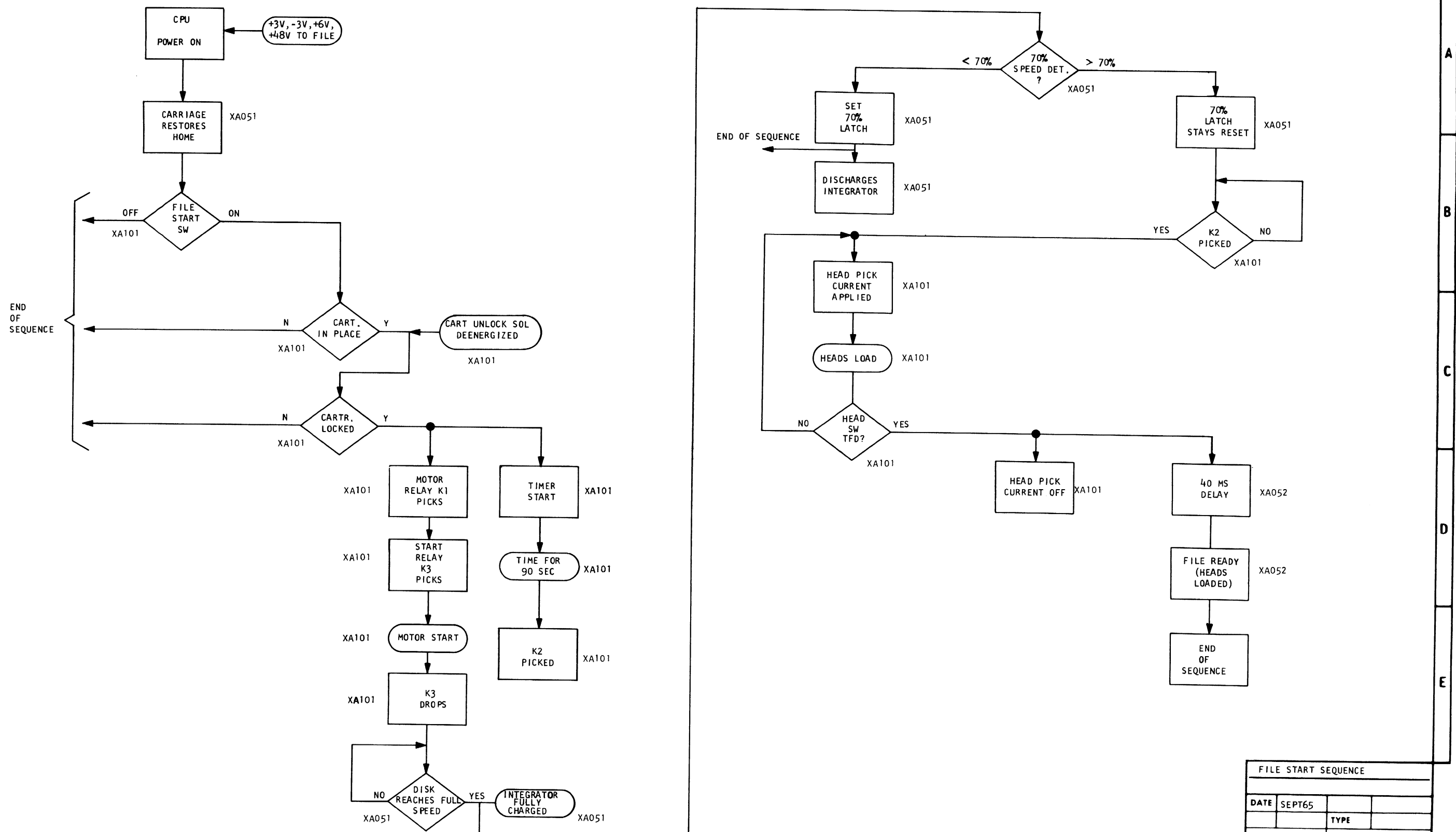
The system diagram at the engineering level of the equipment should be used in preference to this maintenance diagram where there is a conflict between the two types of diagrams.





WRITE DRIVER			
DATE	SEP 65		
		TYPE	
IBM		504	

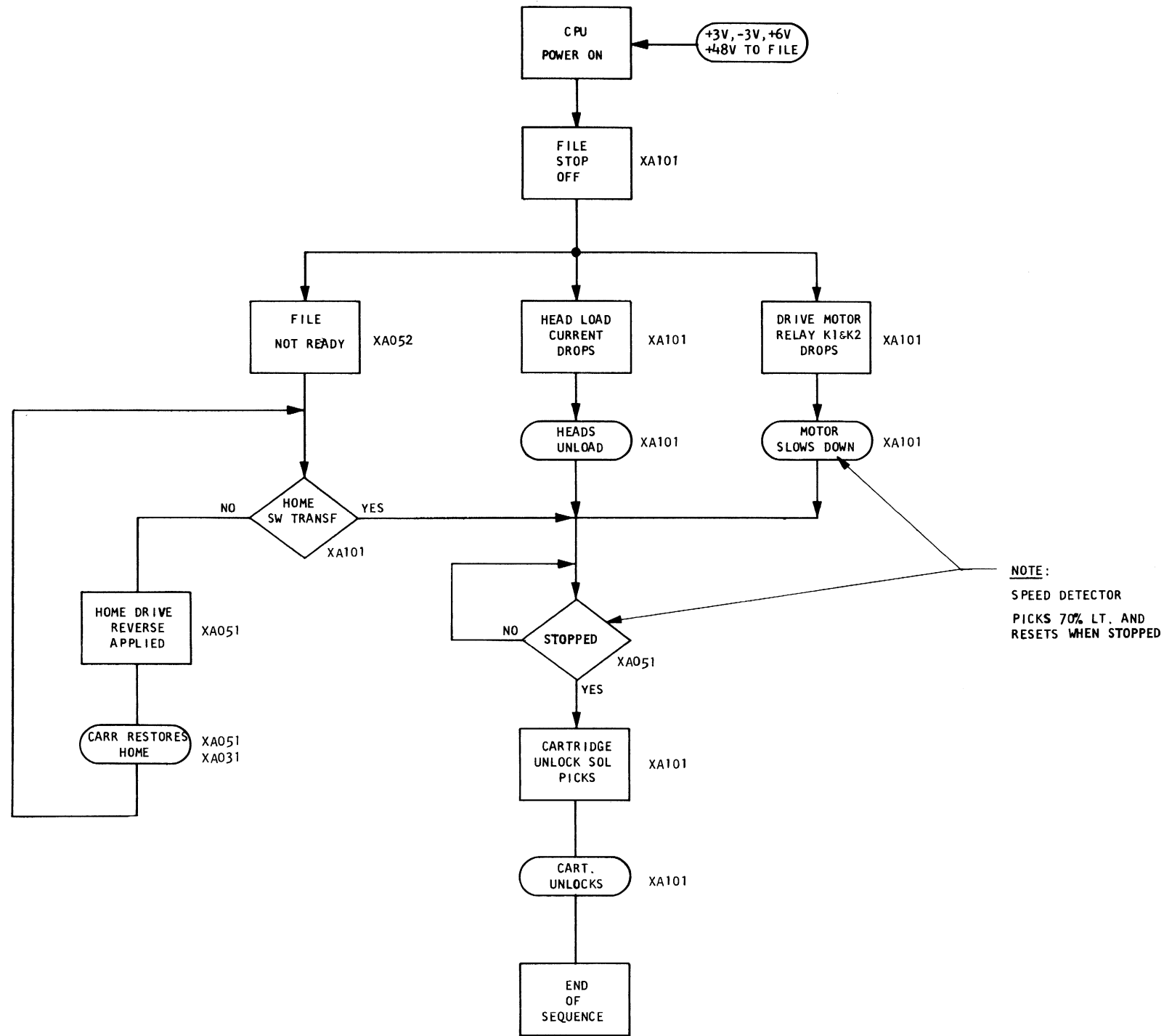
Write Driver Control



A
B
C
D
E

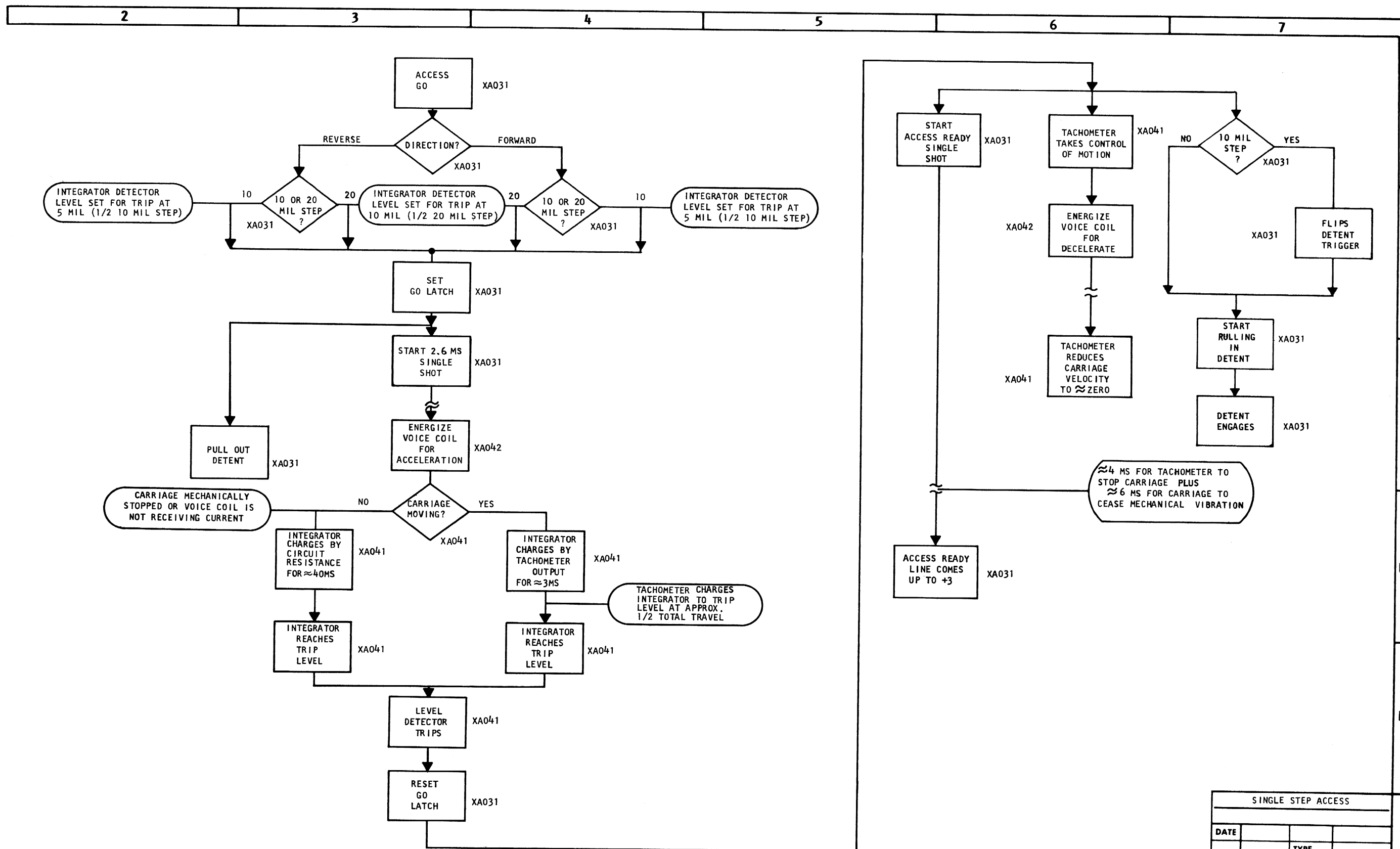
FILE START SEQUENCE			
DATE	SEPT65		
		TYPE	
IBM		601	

File Start Sequence

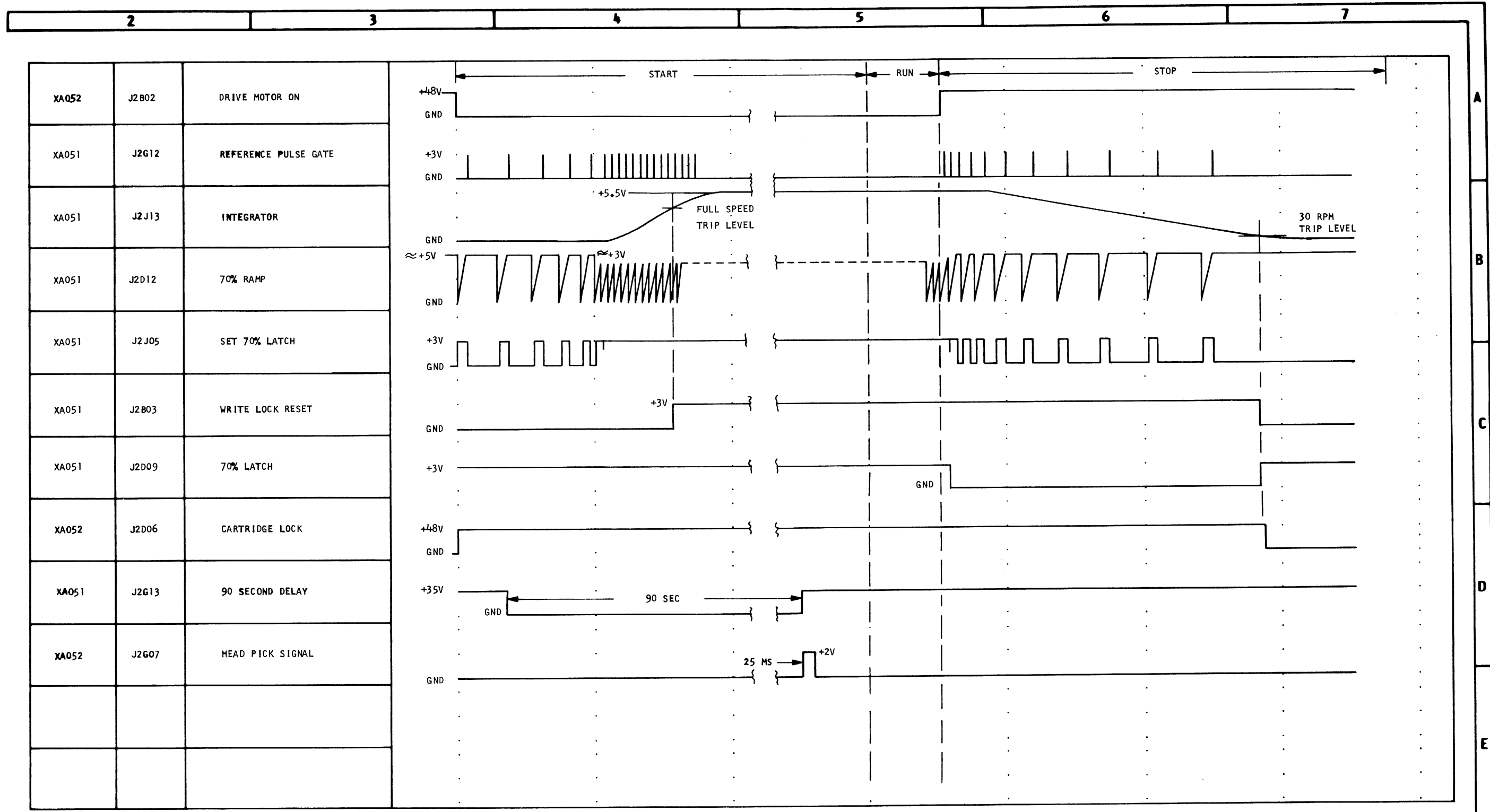


File Stop Sequence

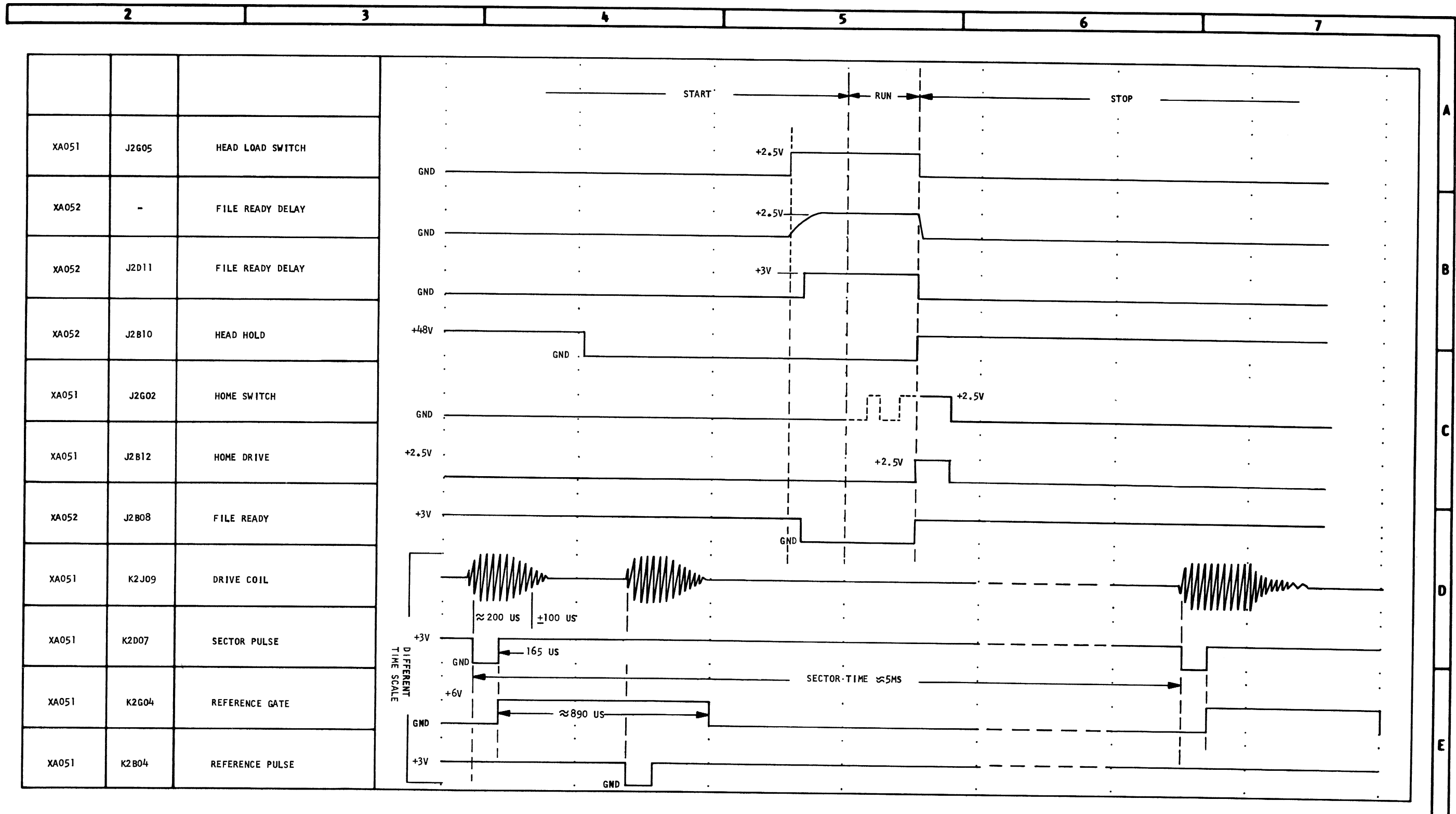
FILE STOP SEQUENCE			
DATE			
		TYPE	
IBM		602	



SINGLE STEP ACCESS		
DATE		
		TYPE
IBM		603



SECTOR DETECTOR	
AND INTERLOCK	
DATE	
	TYPE
IBM	701



SECTOR DETECTOR AND INTERLOCK	
DATE	
	TYPE
IBM	702

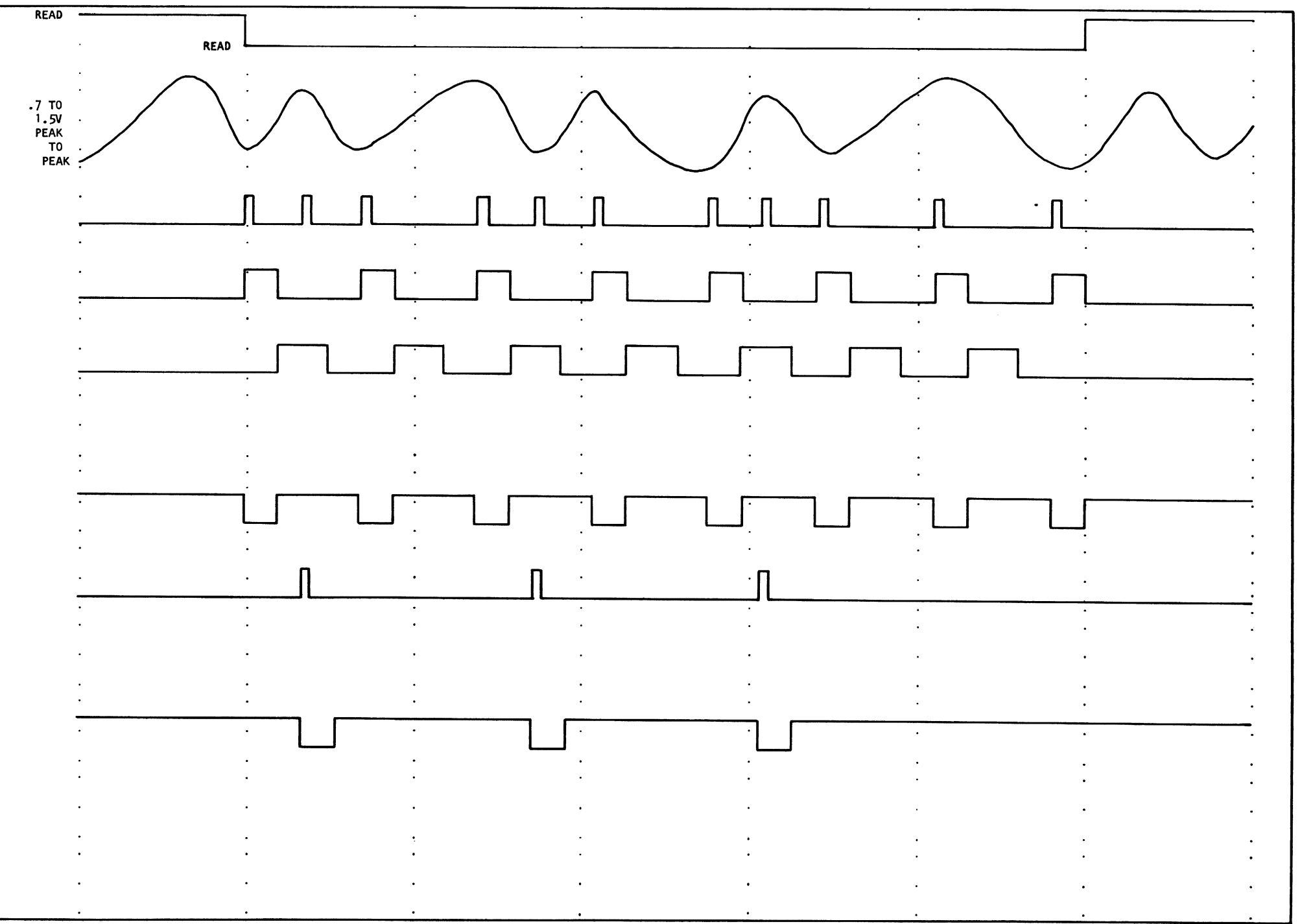


READ WRITE SELECT AND	
WRITE DRIVER	
DATE	
	TYPE
IBM	
703	

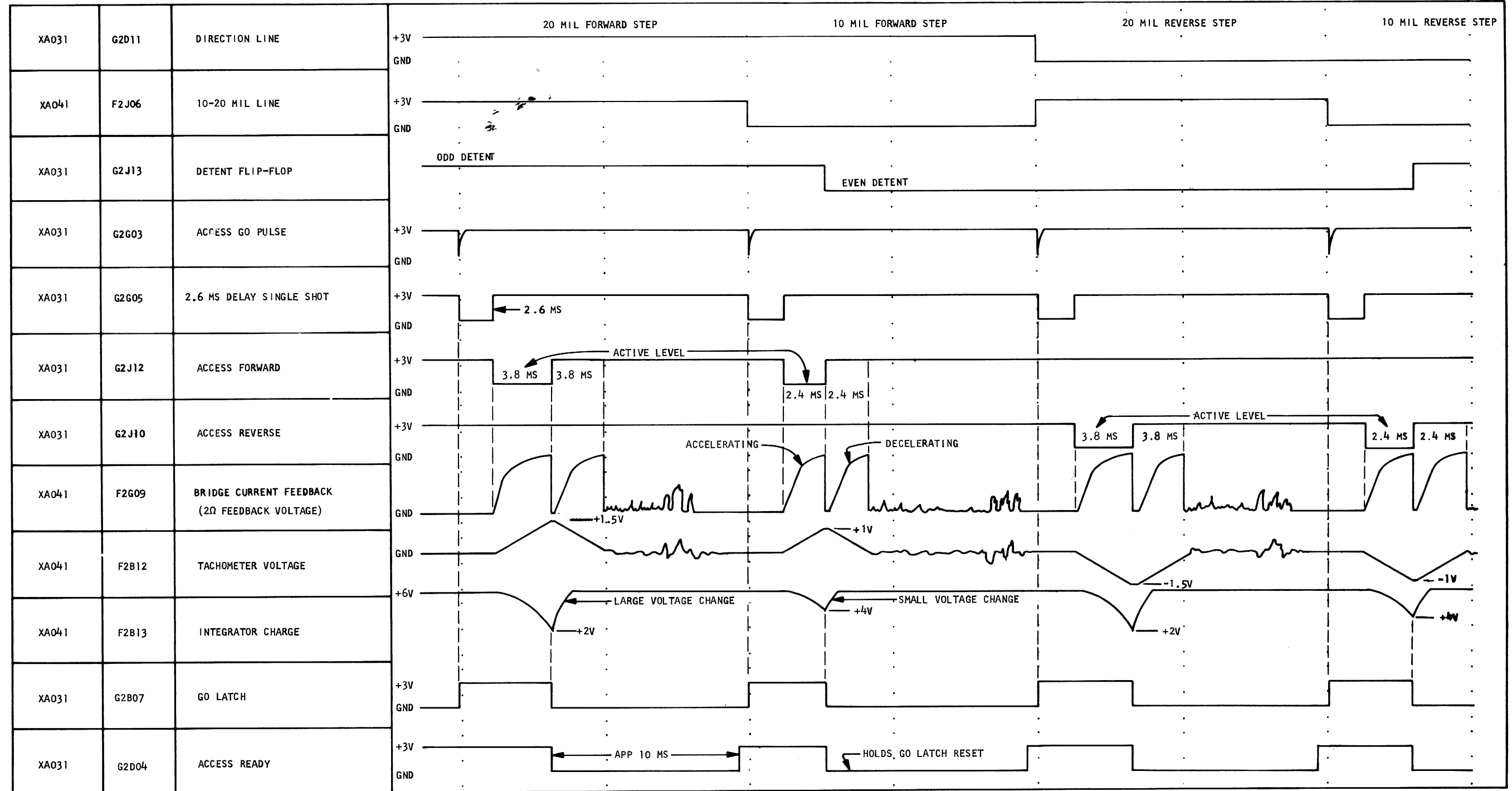
Read Write Select and Write Driver

2 3 4 5 6 7

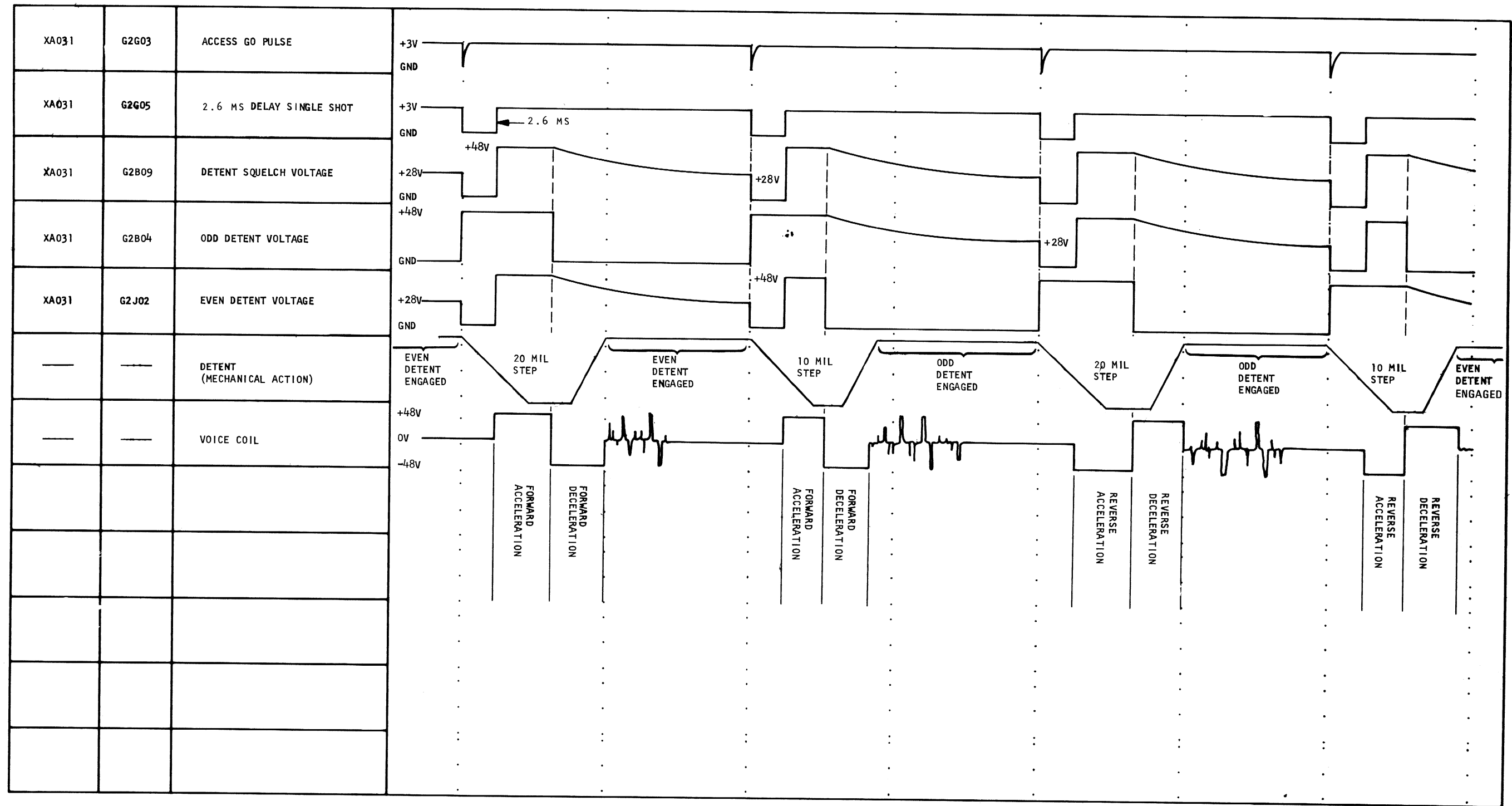
XA021	D2D06	CPU READ SELECT
XA021	D2G07	CE TEST POINT (AFTER DIFFERENTIATION)
XA021	C2B12	DETECTED READ SIGNAL
XA021	C2J12	INVERTED CLOCK
XA021	C2B05	600 ns WINDOW
XA021	C2B03	CLOCK OUTPUT
XA021	-	SELECTED DATA BIT
XA021	C2D05	DATA OUTPUT

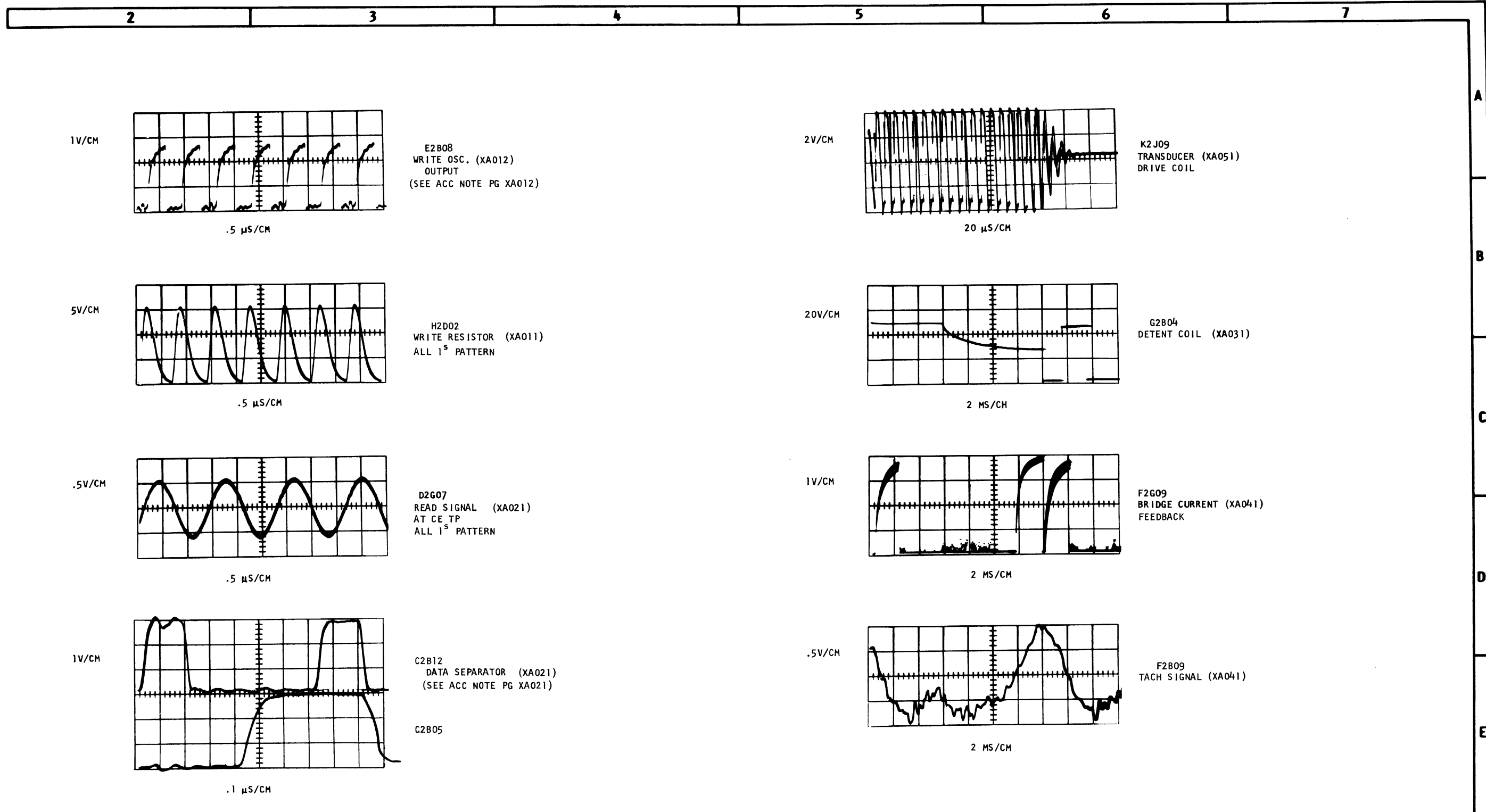


READ AMPLIFIER AND DATA	
SEPARATOR TIMING	
DATE	
	TYPE
IBM	704



Access Timing





X-Y Recordings

X-Y RECORDINGS			
DATE		TYPE	
IBM		801	

READER'S COMMENT FORM

Single Disk Storage (Incr. Access)

SY26-4126-2

● How did you use this publication?

- As a reference source
- As a classroom text
- As.....

● Based on your own experience, rate this publication...

As a reference source:	.....	.....	.....	.....	.....
	Very	Good	Fair	Poor	Very
	Good				Poor
As a text:	.....	.....	.....	.....	.....
	Very	Good	Fair	Poor	Very
	Good				Poor

● What is your occupation?

● We would appreciate your other comments; please give specific page and line references where appropriate. If you wish a reply, be sure to include your name and address.

● Thank you for your cooperation. No postage necessary if mailed in the U.S.A.

READER'S COMMENT FORM

Single Disk Storage (Incr. Access)

SY26-4126-2

● How did you use this publication?

- As a reference source
- As a classroom text
- As.....

● Based on your own experience, rate this publication...

As a reference source:	.....	.....	.....	.....	.....
	Very	Good	Fair	Poor	Very
	Good				Poor
As a text:	.....	.....	.....	.....	.....
	Very	Good	Fair	Poor	Very
	Good				Poor

● What is your occupation?

● We would appreciate your other comments; please give specific page and line references where appropriate. If you wish a reply, be sure to include your name and address.

● Thank you for your cooperation. No postage necessary if mailed in the U.S.A.

YOUR COMMENTS PLEASE . . .

Your answers to the questions on the back of this form, together with your comments, will help us produce better publications for your use. Each reply will be carefully reviewed by the persons responsible for writing and publishing this material. All comments and suggestions become the property of IBM.

Please note: Requests for copies of publications and for assistance in utilizing your IBM system should be directed to your IBM representative or to the IBM sales office serving your locality.

fold

fold

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN U. S. A.

FIRST CLASS
PERMIT NO. 2078
SAN JOSE, CALIF.



POSTAGE WILL BE PAID BY . . .

IBM Corporation
Monterey & Cottle Rds.
San Jose, California
95114

Attention: Product Publications, Dept. G24

fold

fold



International Business Machines Corporation
Data Processing Division
1133 Westchester Avenue, White Plains, New York 10604
[U.S.A. only]

IBM World Trade Corporation
821 United Nations Plaza, New York, New York 10017
[International]

YOUR COMMENTS PLEASE . . .

Your answers to the questions on the back of this form, together with your comments, will help us produce better publications for your use. Each reply will be carefully reviewed by the persons responsible for writing and publishing this material. All comments and suggestions become the property of IBM.

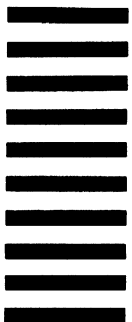
Please note: Requests for copies of publications and for assistance in utilizing your IBM system should be directed to your IBM representative or to the IBM sales office serving your locality.

fold

fold

BUSINESS REPLY MAIL
NO POSTAGE STAMP NECESSARY IF MAILED IN U. S. A.

FIRST CLASS
PERMIT NO. 2078
SAN JOSE, CALIF.



POSTAGE WILL BE PAID BY . . .

IBM Corporation
Monterey & Cottle Rds.
San Jose, California
95114

Attention: Product Publications, Dept. G24

fold

fold



International Business Machines Corporation
Data Processing Division
1133 Westchester Avenue, White Plains, New York 10604
[U.S.A. only]

IBM World Trade Corporation
821 United Nations Plaza, New York, New York 10017
[International]