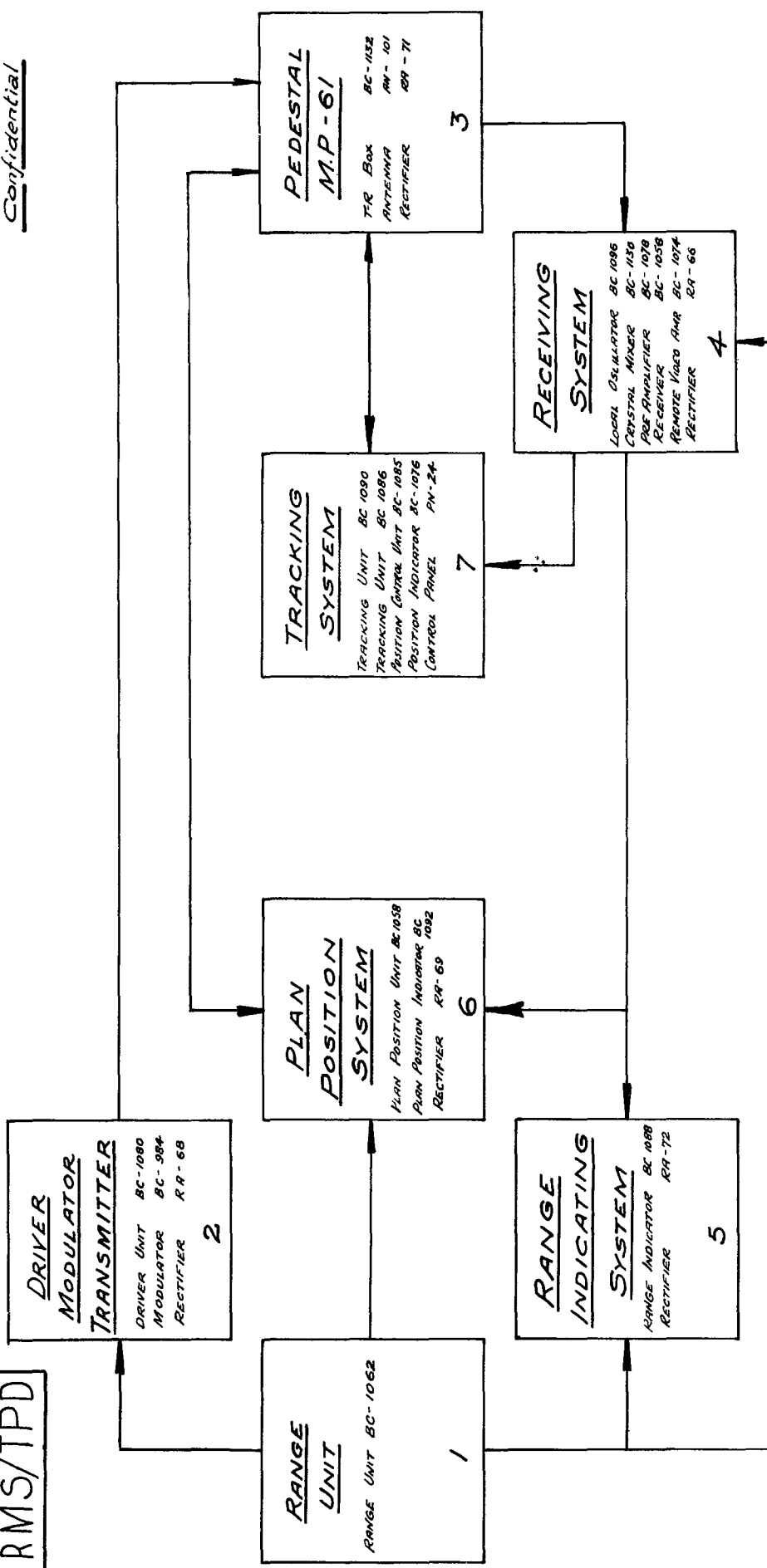


CONFIDENTIAL

CIRCUIT DIAGRAMS
OF
RADAR EQUIPMENT
A.A. No. 3 Mk. 5
(DRAWINGS Nos. 3A/1 to 37)

No 2 RMS/TPD

Confidential



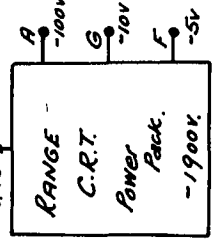
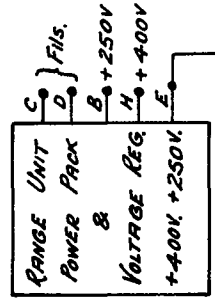
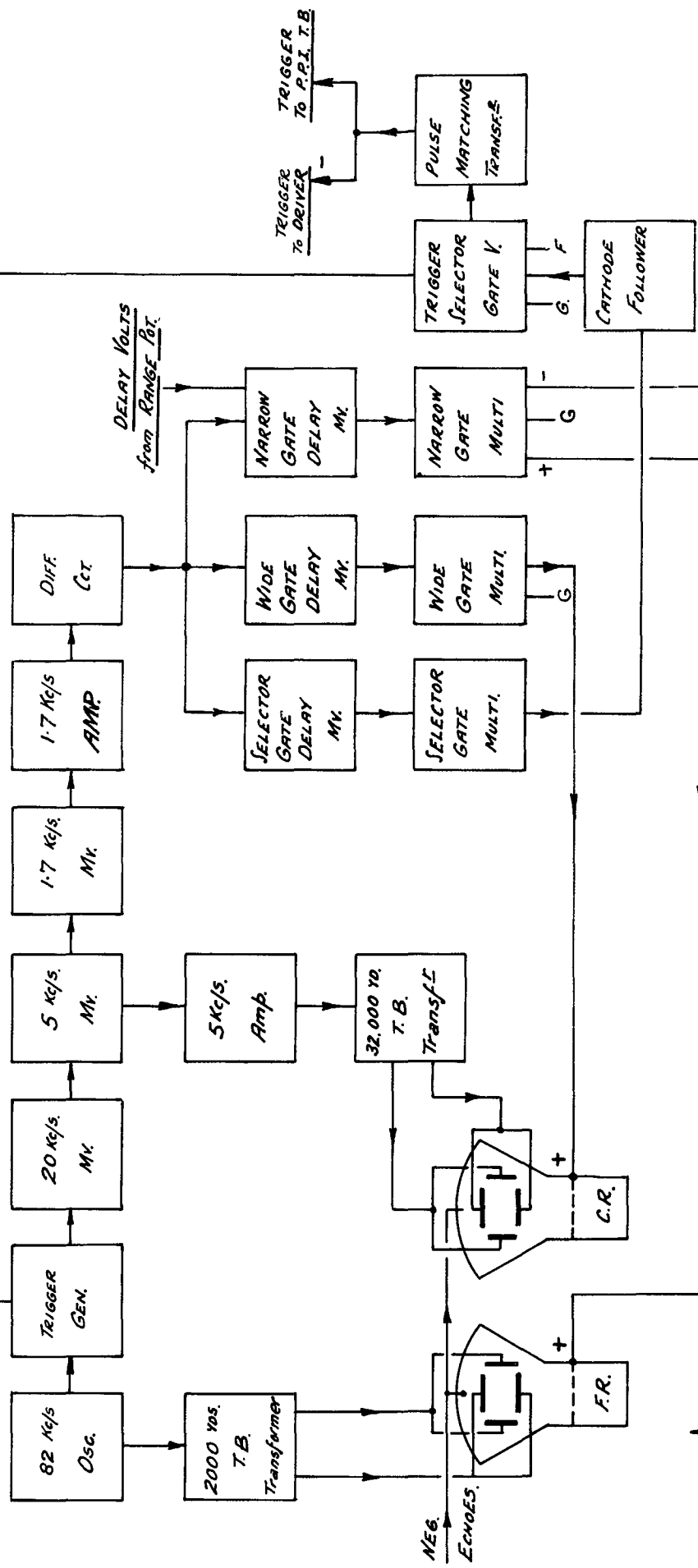
TRUCK WIRING
 JUNCTION BOX JB-71
 SWITCH SW-214
 9

DATA OUTPUT SYSTEM
 DATA PANEL PN-22
 CONTROL UNIT BC-1094
 DATA UNIT BC-1075
 RECTIFIER RA-70
 8

A. A. No III MK. V.
GENERAL BLOCK
DRG. No 3A/1.
 DRAWN *AB*
 TRACED *AB*
 19-5-44

Confidential

№ 2 R.M.S. T.P.D.



To GRID of P.P.I. TUBE
To RECEIVER TRACKING & A.G.C. CHANNEL

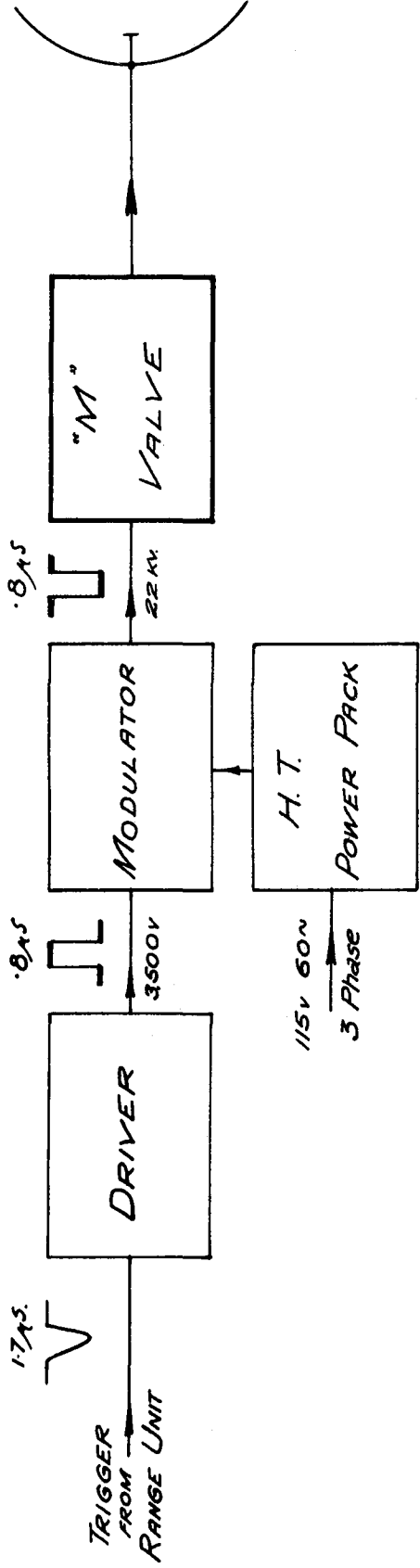
R.A. № 3. Mx V	
RANGE SYSTEM	
DEG. № 3A/2	
DOWN	UP
TRACE	NO TRACE

POWER PLUG RANGE UNIT PLUG

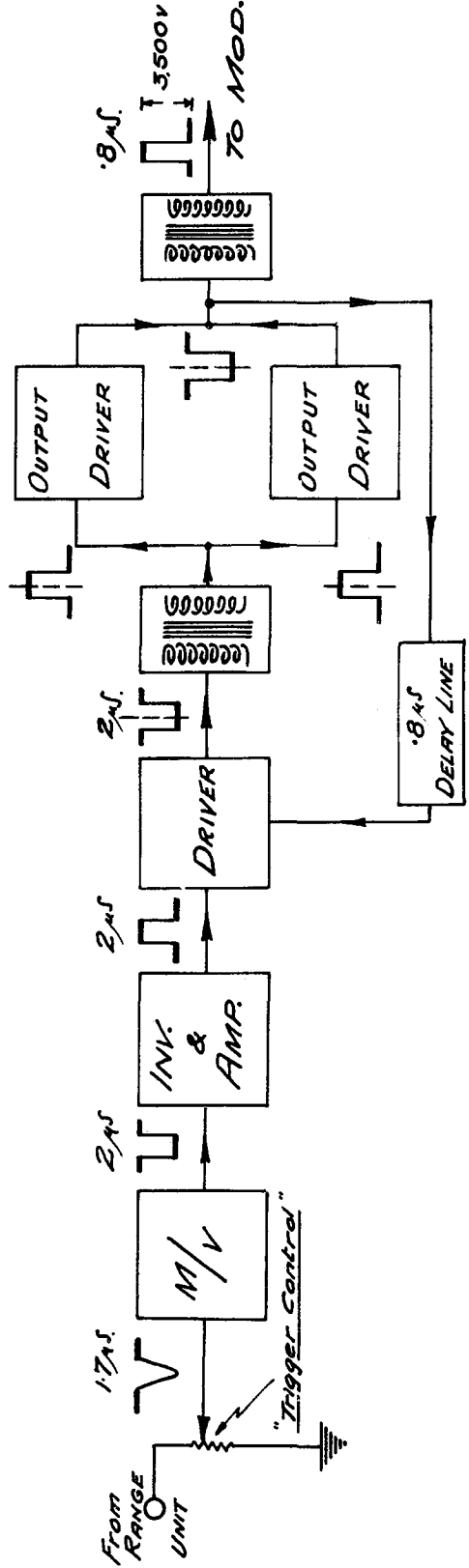
J 910
-1900V • J 804
To C.R.T.s

No 2 RMS/TPD

Confidential



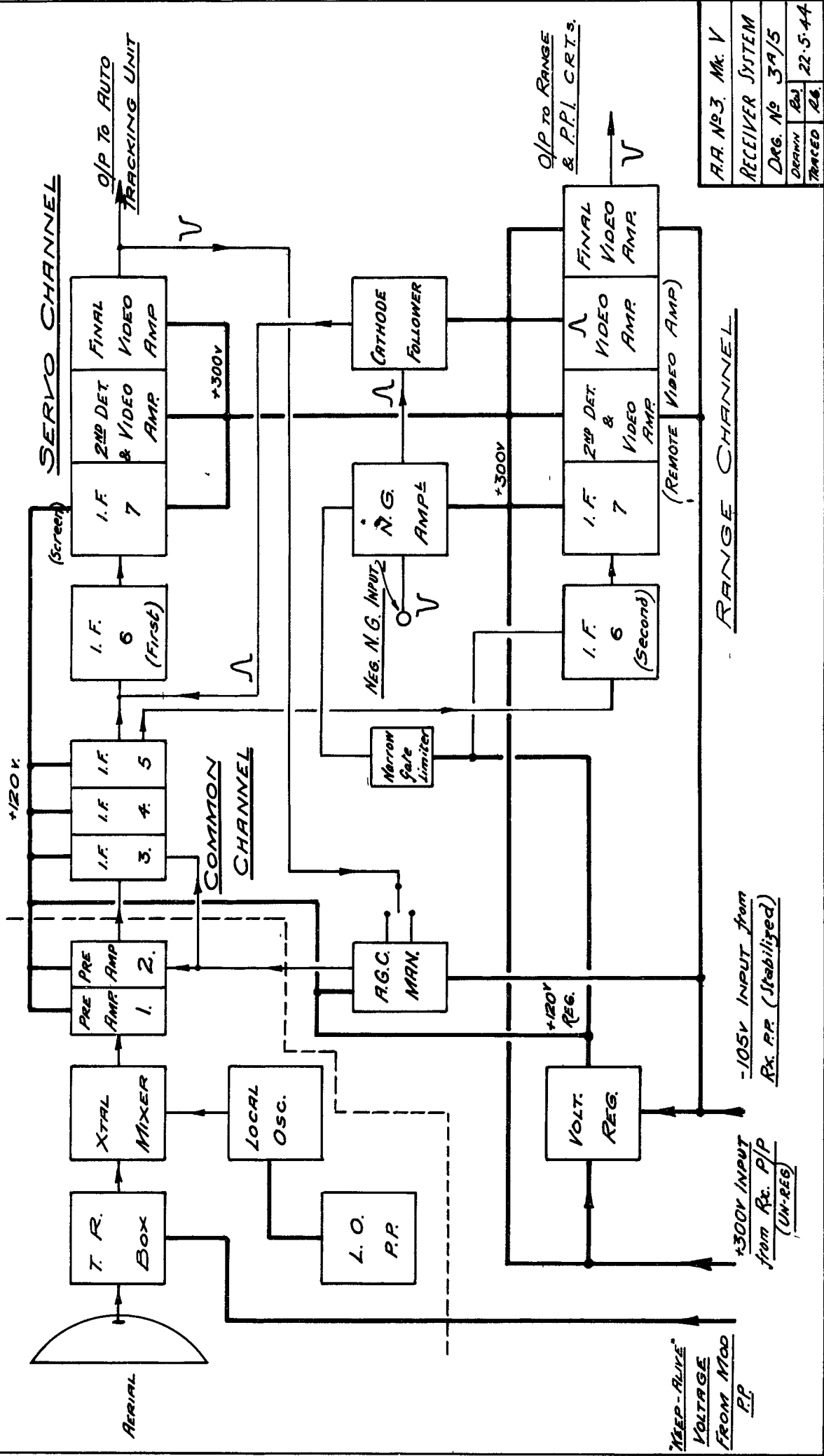
DETAIL OF DRIVER UNIT



R. R. No III Mk.V	
IX SYSTEM	
DRG. No. 3A/3	
DRAWN	AB.
TRACED	AB.
	19.5.44

N° 2 RMS/TPD

Confidential



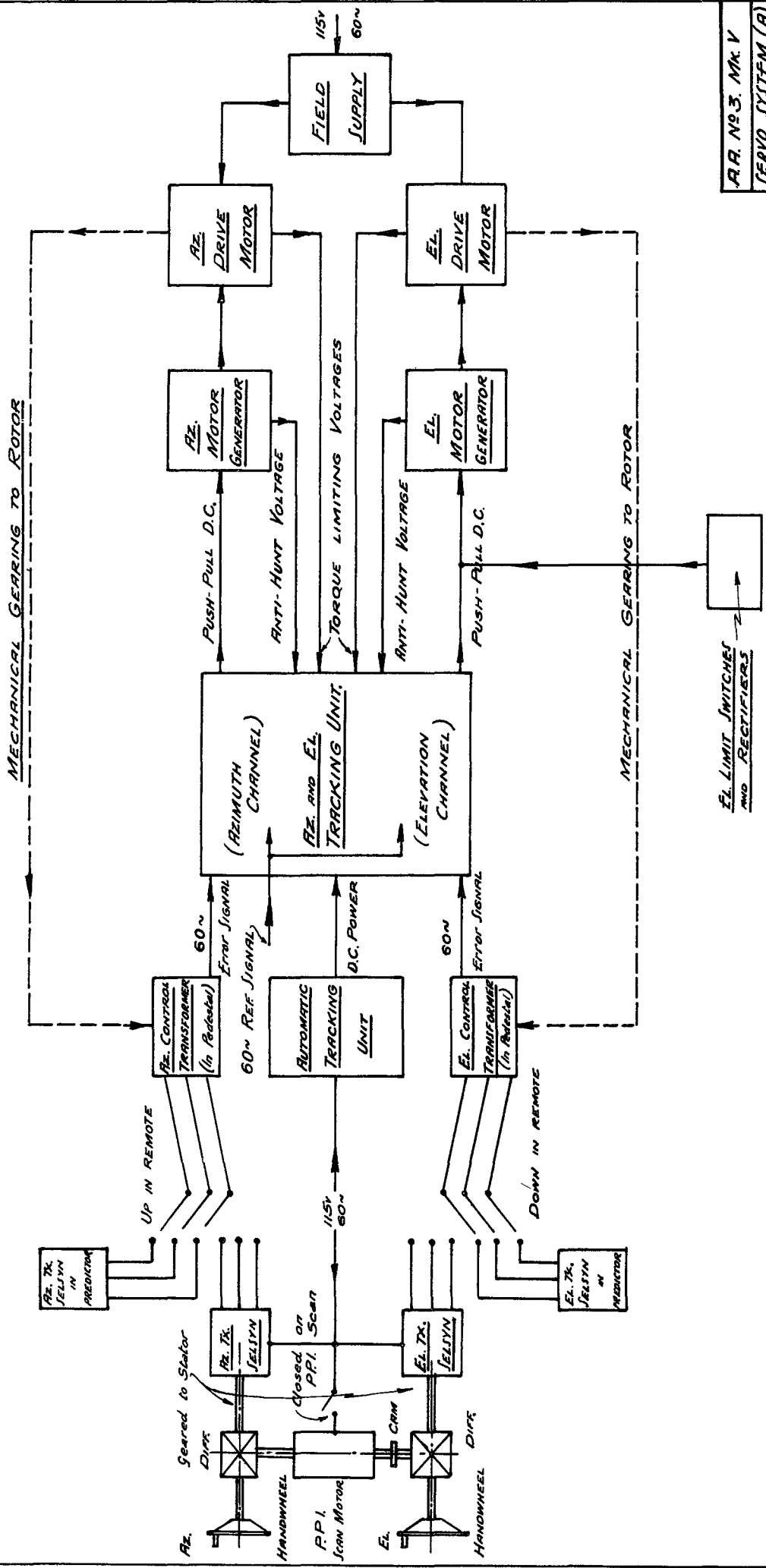
R.R. N° 3. Mk. V	
RECEIVER SYSTEM	
DRG. N° 3A/5	
DRAWN By	22.5.44
TRACED By	

RANGE CHANNEL

KEEP-ALIVE VOLTAGE FROM M100 P.P.

No 2 R.M.S./T.P.D.

Confidential



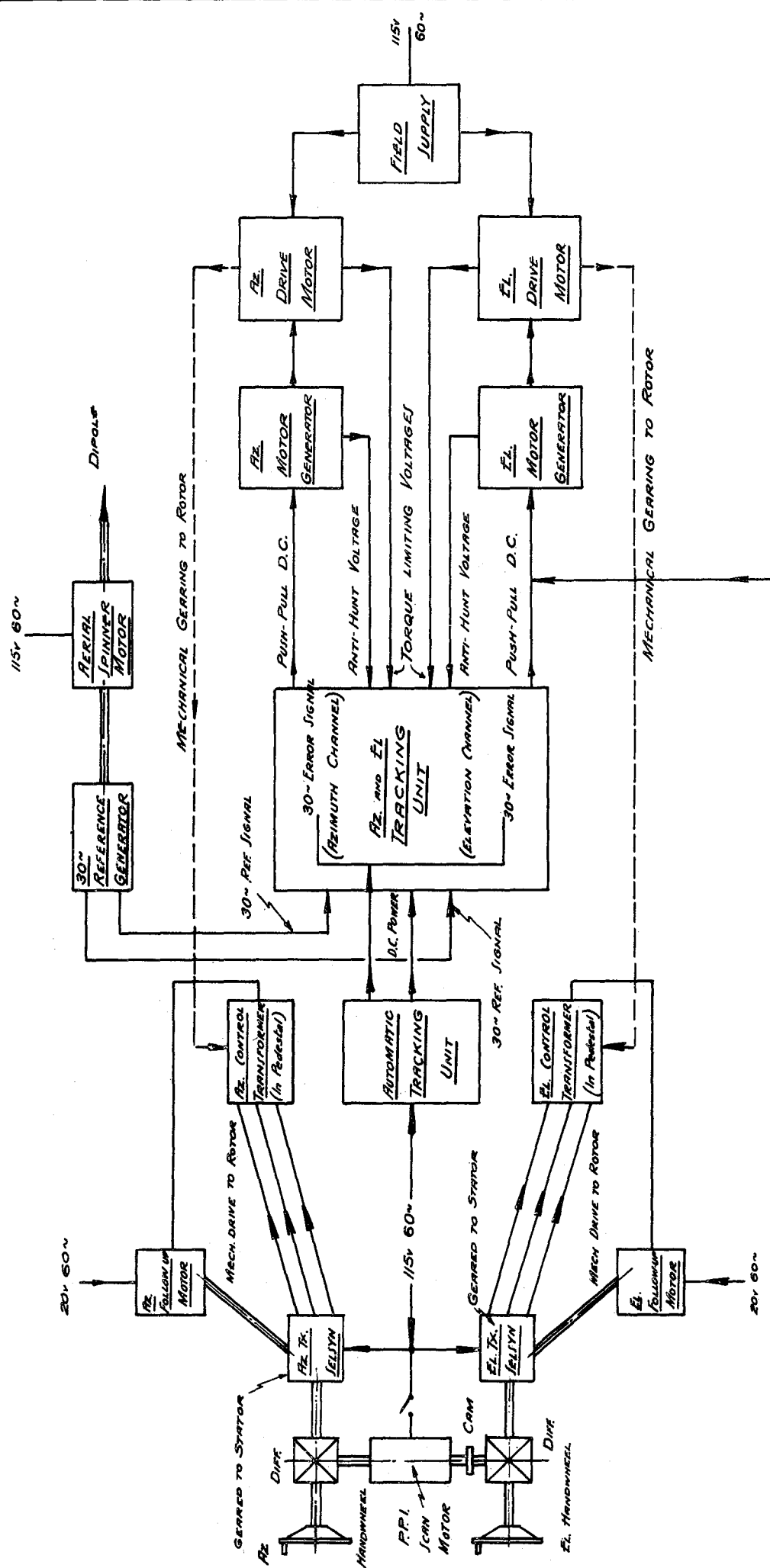
R.R. No 3, NIK V	
SERVO SYSTEM (A)	
DRWN	22.5.44
TRCED	

"P.P.I. SCAN", "MANUAL" OR "REMOTE" OPERATION

EL LIMIT SWITCHES AND RECTIFIERS

№ 2 R.M.S./T.P.D.

Confidential



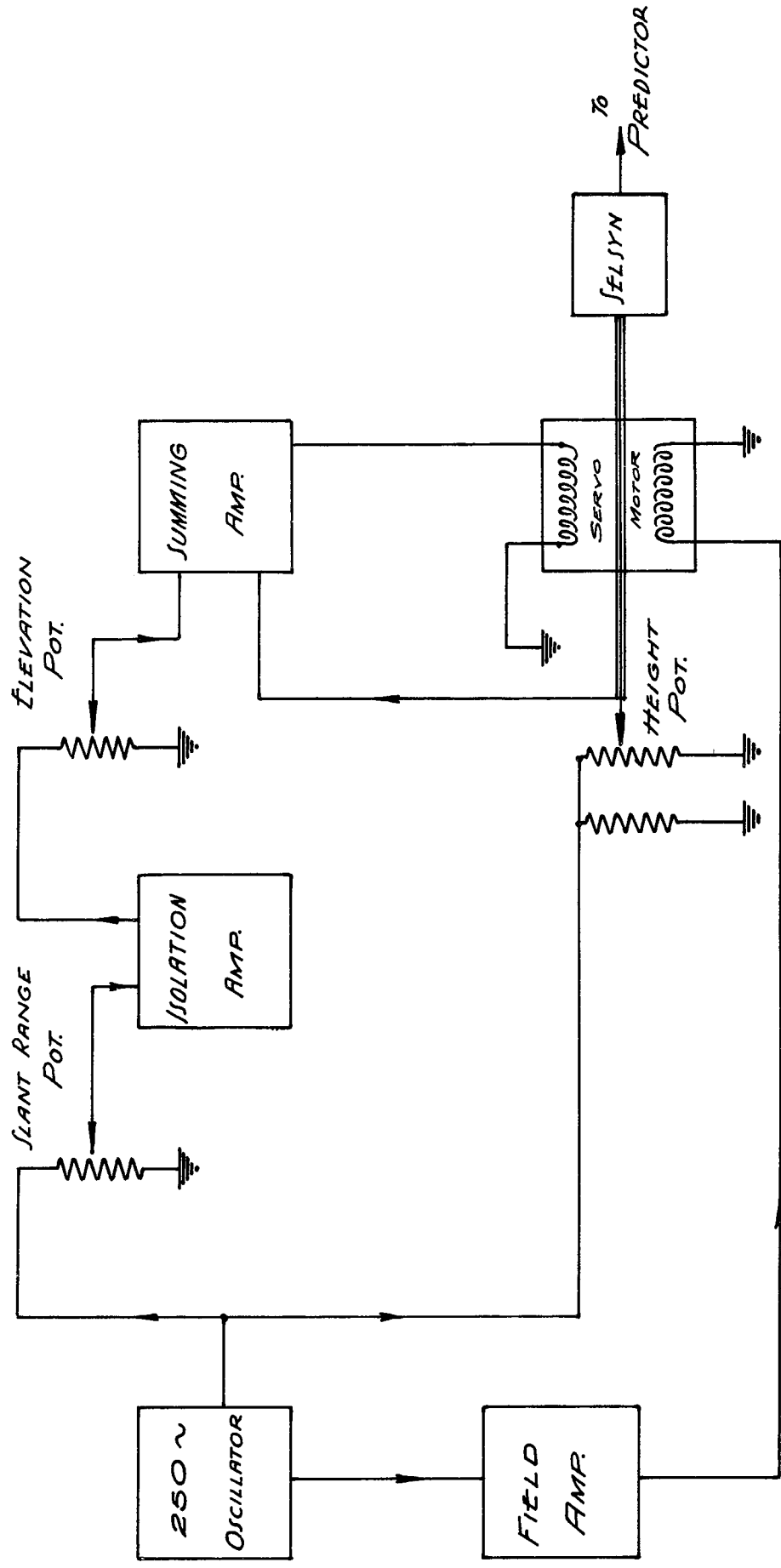
R.A. № 3, Mk. V	
SERVO SYSTEM (B)	
DRG. № 3A/7	
DRAWN	23.5.44.
TRACED	AB

EL LIMIT SWITCHES & RECTIFIERS

"AUTOMATIC" OPERATION

Nº 2.R.M.S./T.P.D.

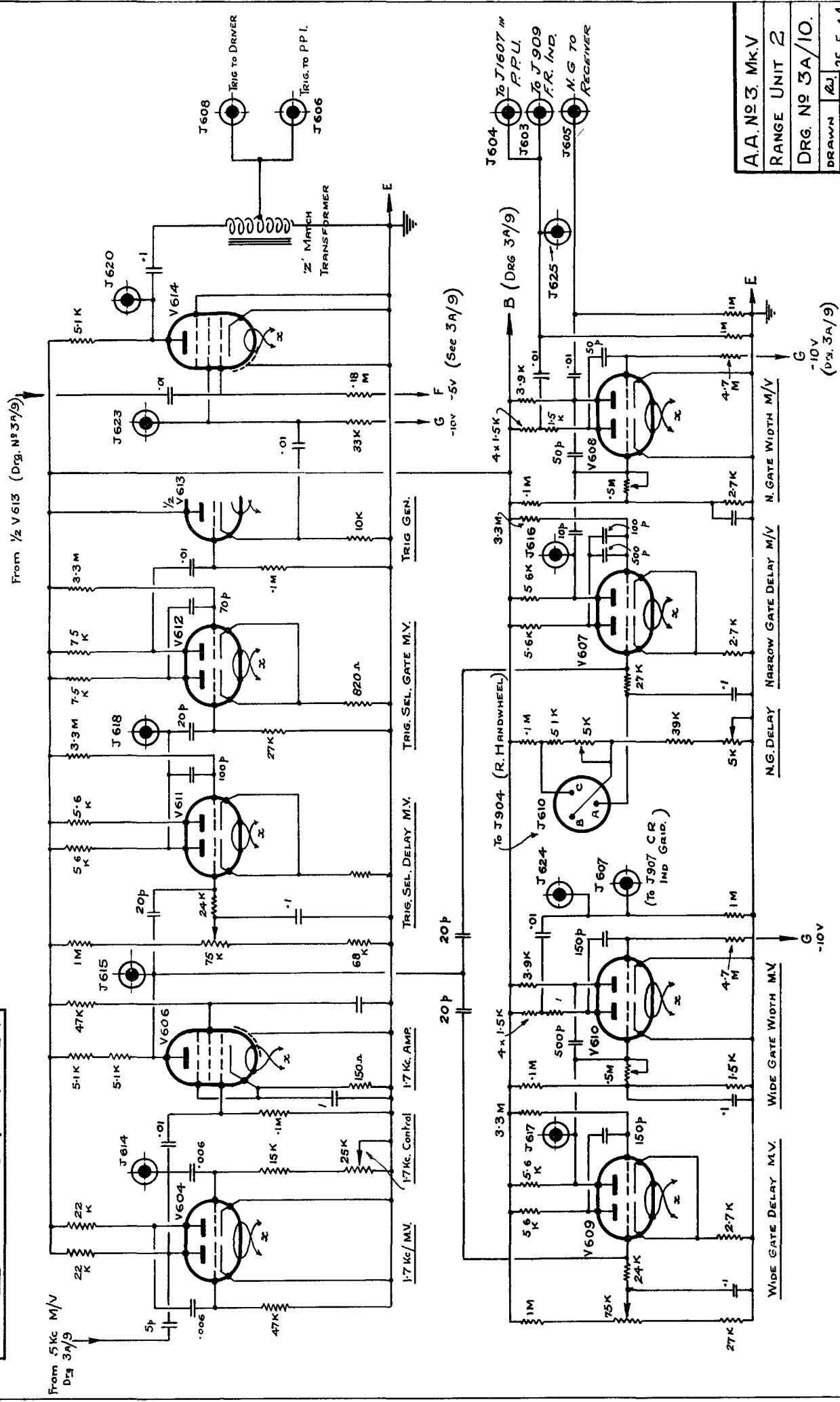
Confidential.



R.A. Nº 3. MK V	
DATA SYSTEM	
DRG. Nº 39/B	
DRAWN	22.5.44
TRACED	RB

Confidential

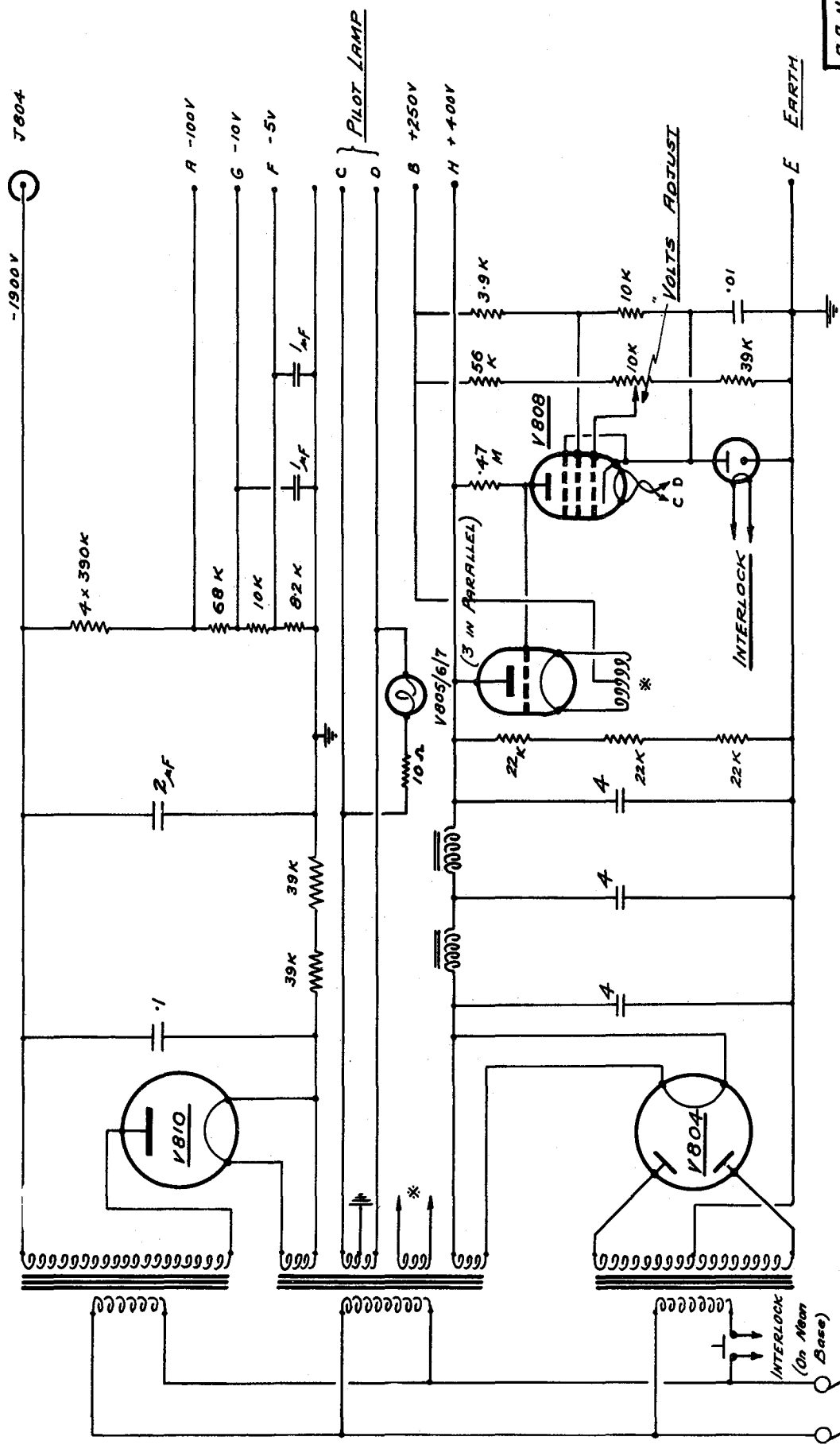
No 2 R.M.S.-T.P.D.



A.A. N° 3. Mk.V	
RANGE UNIT 2	
DRG. N° 3A/10.	
DRAWN	22
TRACED	22
25. 5 44.	

No 2 R.M.S./T.P.D.

Confidential

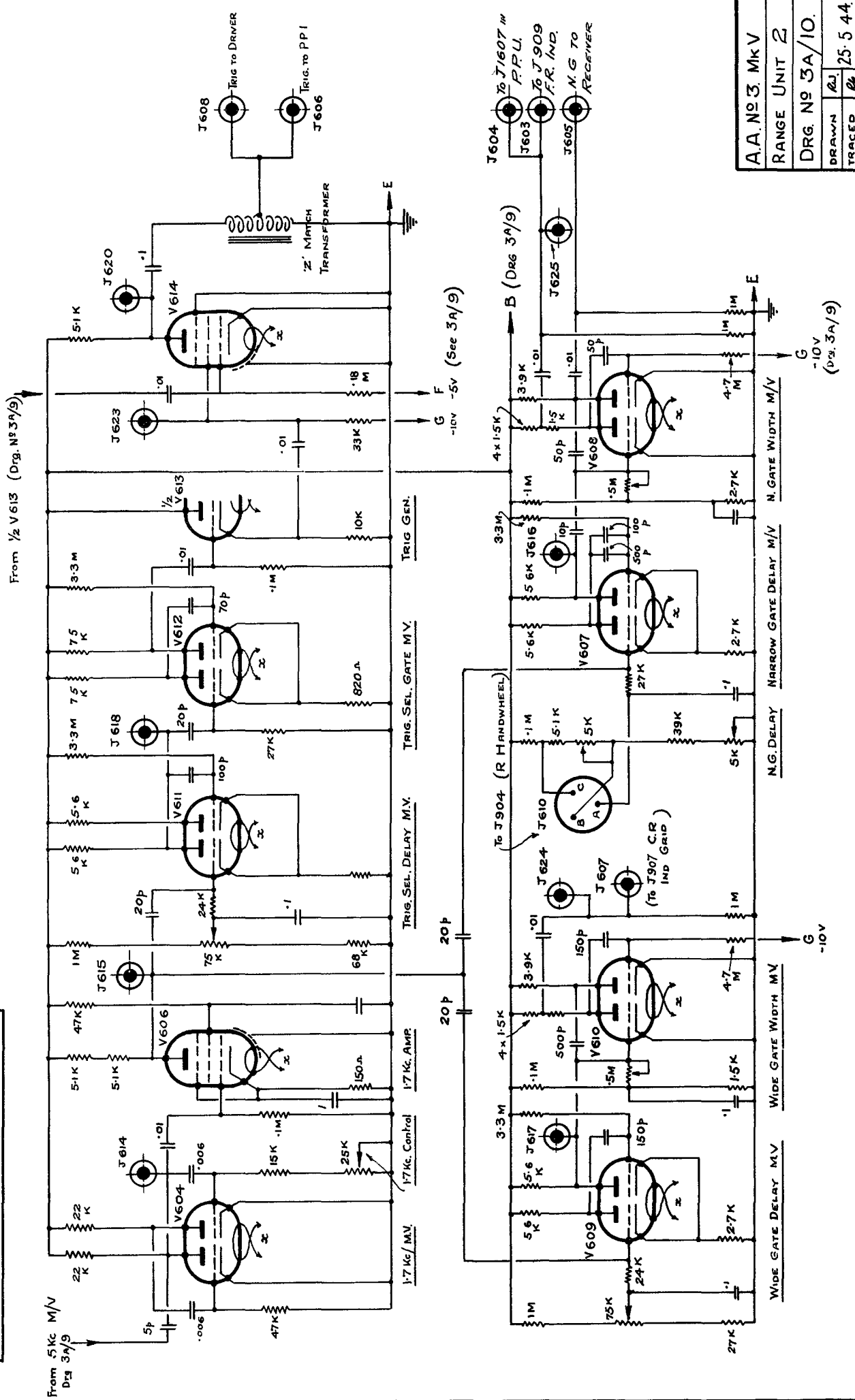


R.R. No 3, Mk. V	
RANGE SYSTEM P.F.	
DRG. No 3A/11	
DRAWN	AB
TRACED	AB
24-5-44	

115V 60Hz

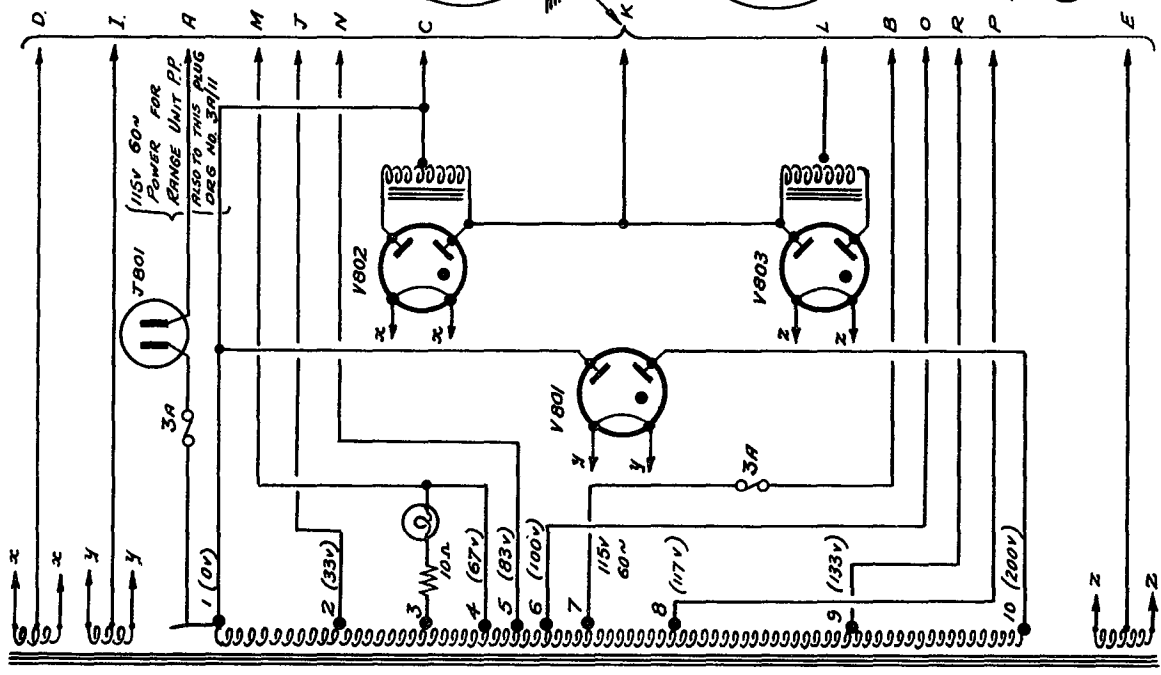
Confidential

No 2 R.M.S.-T.P.D.

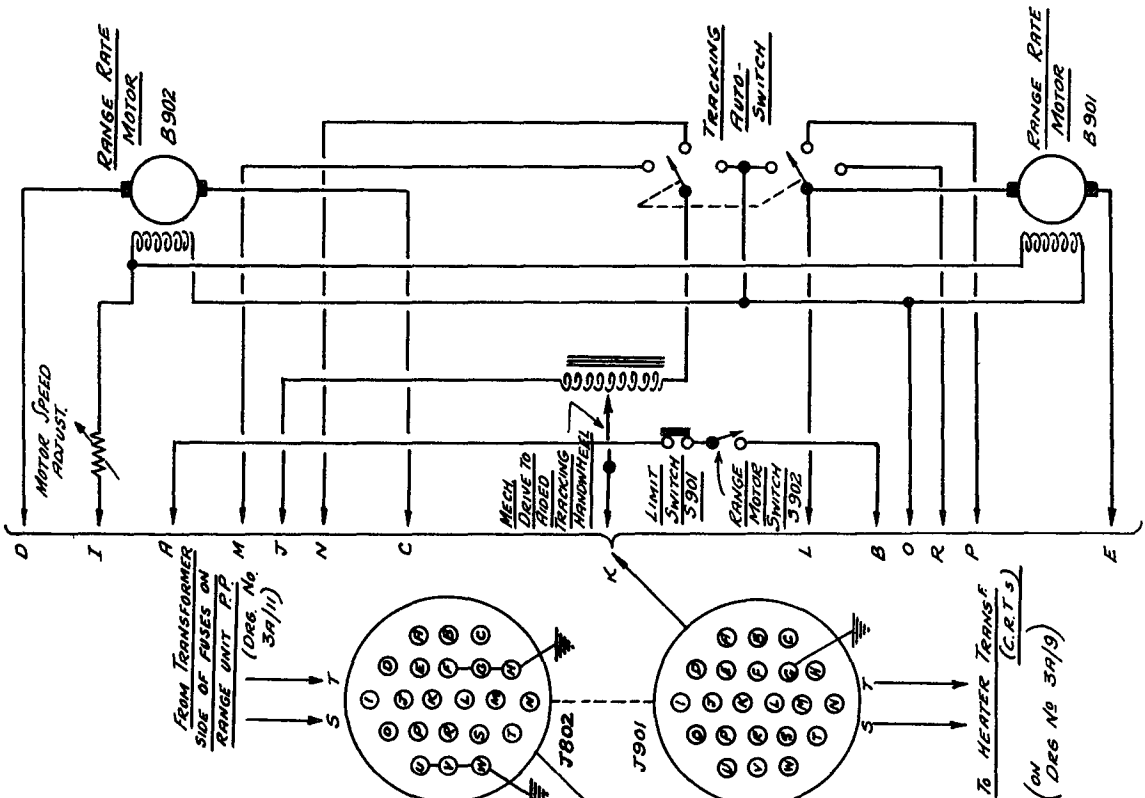


A.A. No 3. Mk V	
RANGE UNIT 2	
DRG. No 3A/10.	
DRAWN	21
TRACED	22
25.5 44.	

№ 2 RMS. T.P.D.

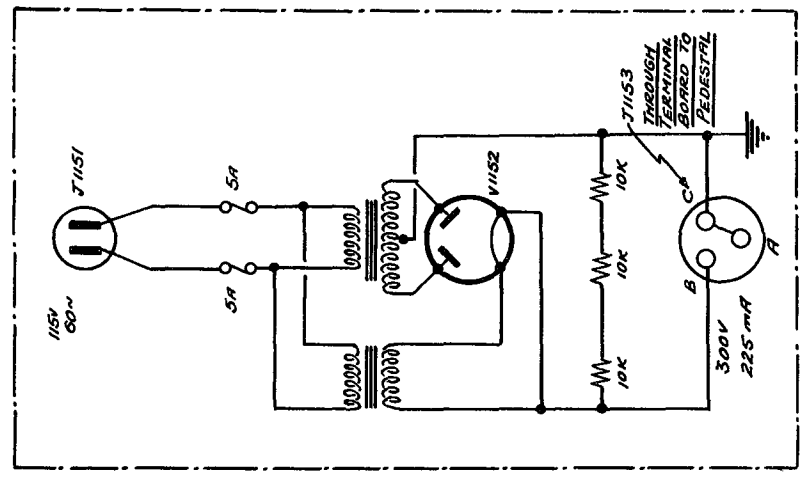


THIS UNIT LOCATED IN RANGE POWER PACK (DRG 3A/11)



THIS UNIT LOCATED IN RANGE GEARING (3A/12)

Confidential

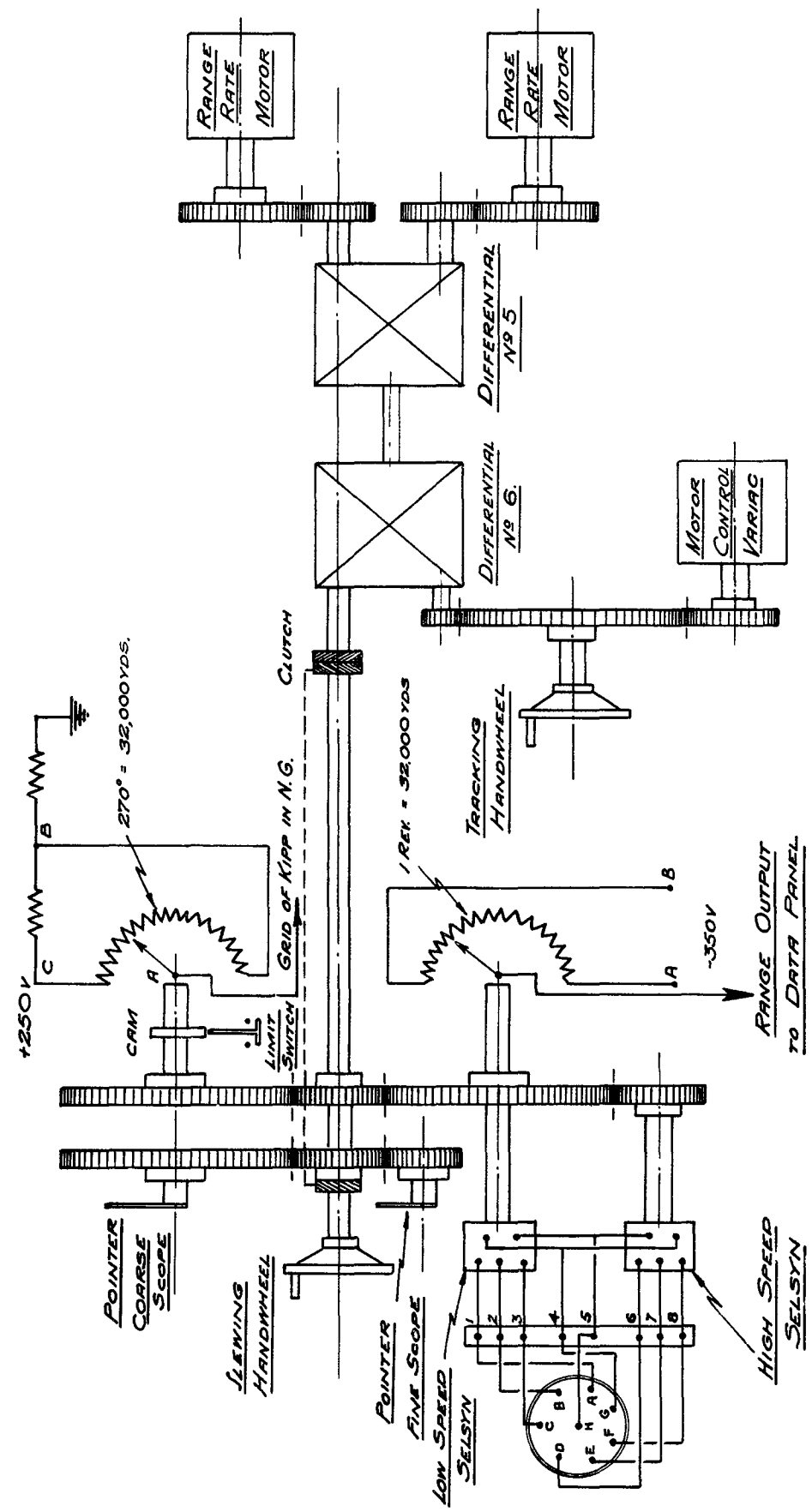


FIELD SUPPLY UNIT
NOTE: Remote Video Amplifier (3A/19) located on this panel.

R.A. № 3. Mk. V.	
RANGE MOTORS & POWER	
DRG № 3A/13	
DRAWN BY	AB
TESTED	AB
20.6.44.	

No 2.R.M.S./T.P.D.

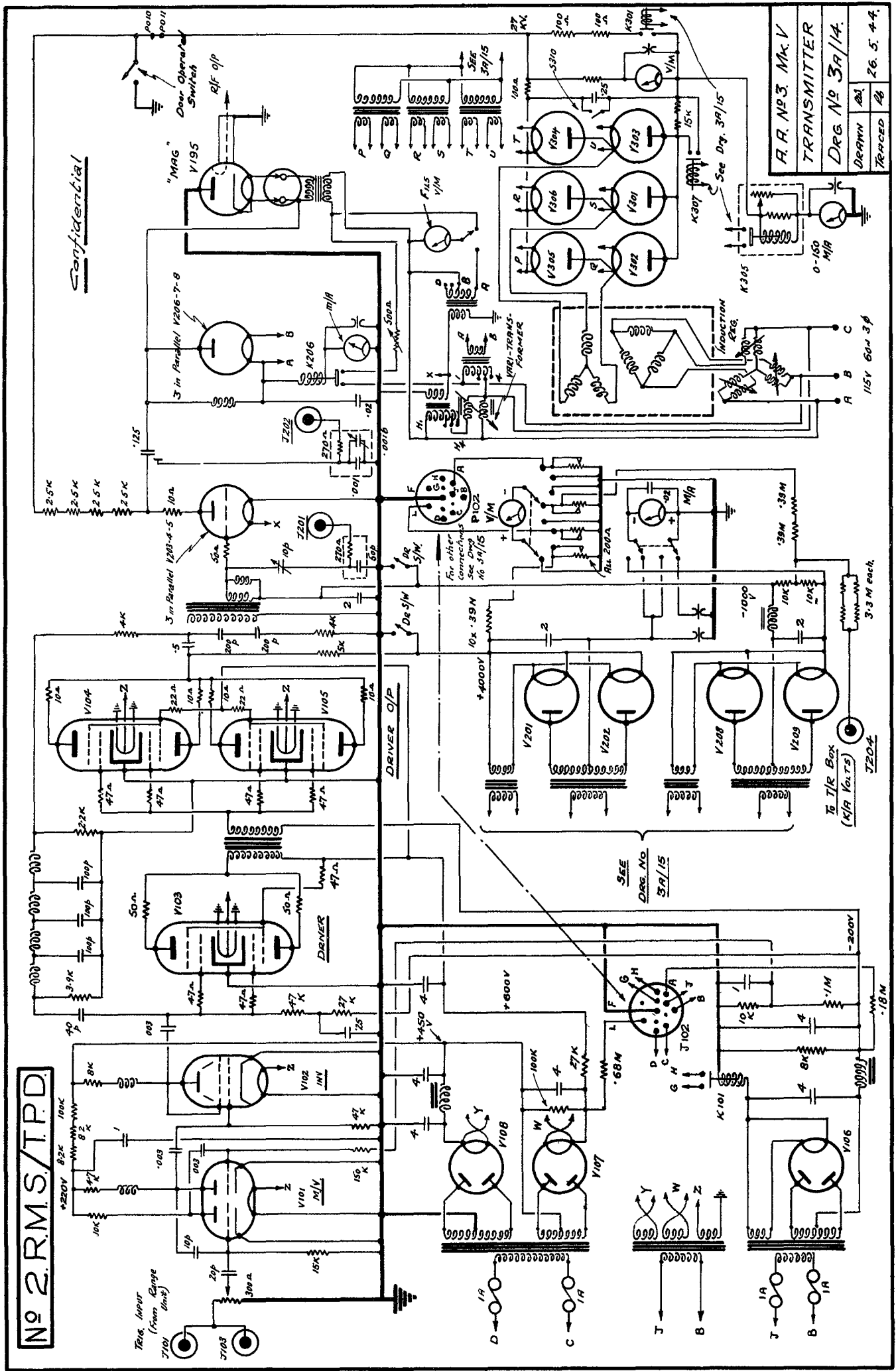
Confidential



R.A. No 3, Mk V	
RANGE GEARING	
DRG No 3A/12	
DRM	23 5 44
TRGEO	26

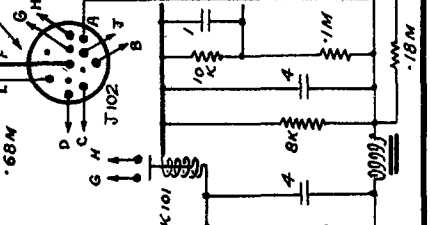
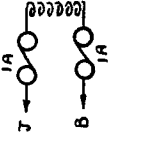
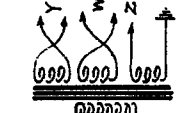
No 2.R.M.S./T.P.D.

Confidential



A. R. No. 3. Mk. V
 TRANSMITTER
 DRG. No 3A/1A.
 DRAWN AB 26. 5. 44.
 TRACED AB

Tube Input (From Range J101 J103)



SEE DRG. No 3A/15

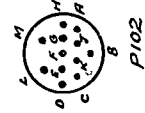
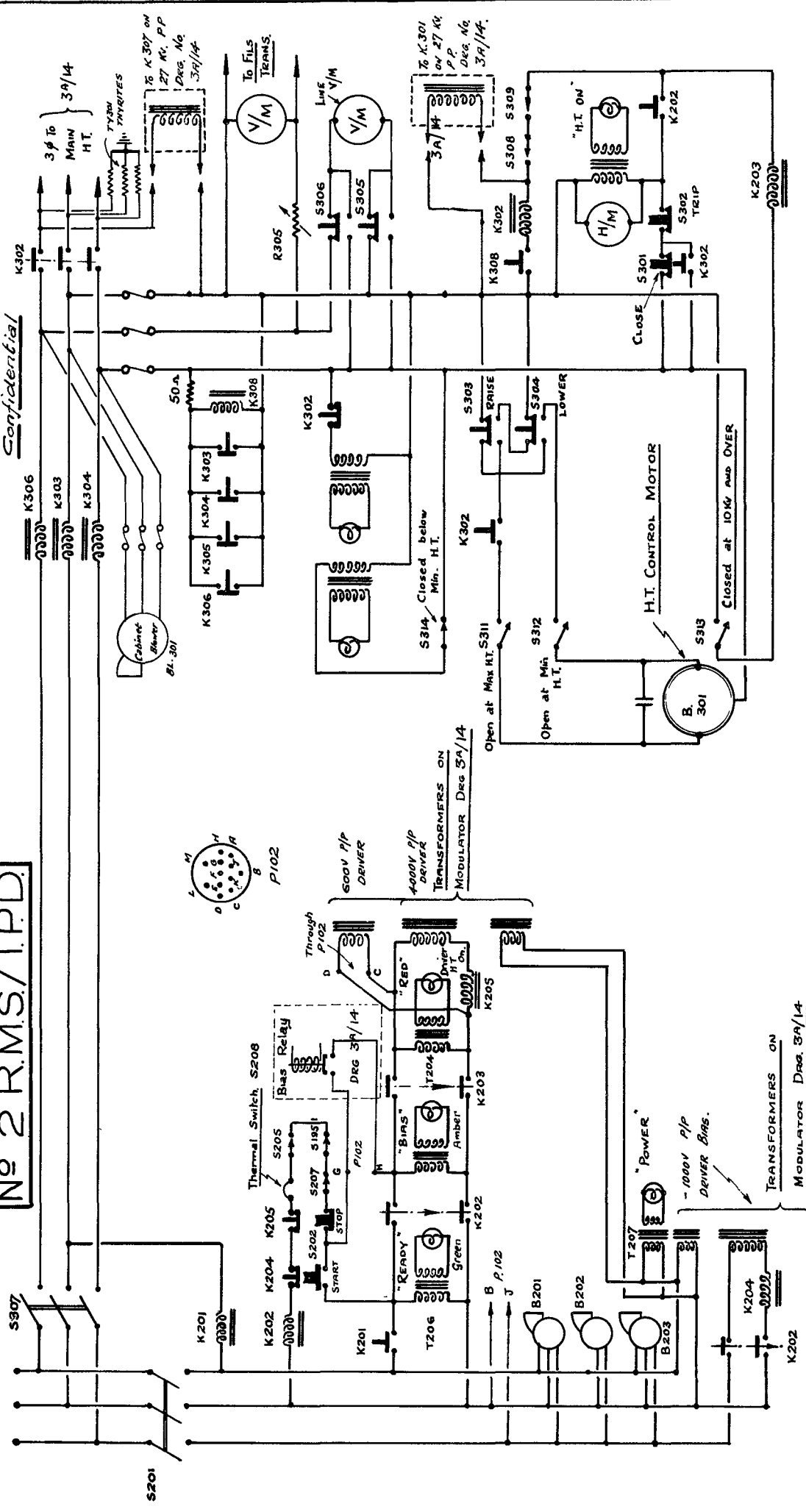
For other connections See Drng No 3A/15

To T/E Box (K/A Co. T.S) T204 3-3 M each.

115V 60Hz 3φ

No 2 R.M.S./T.P.D.

Confidential

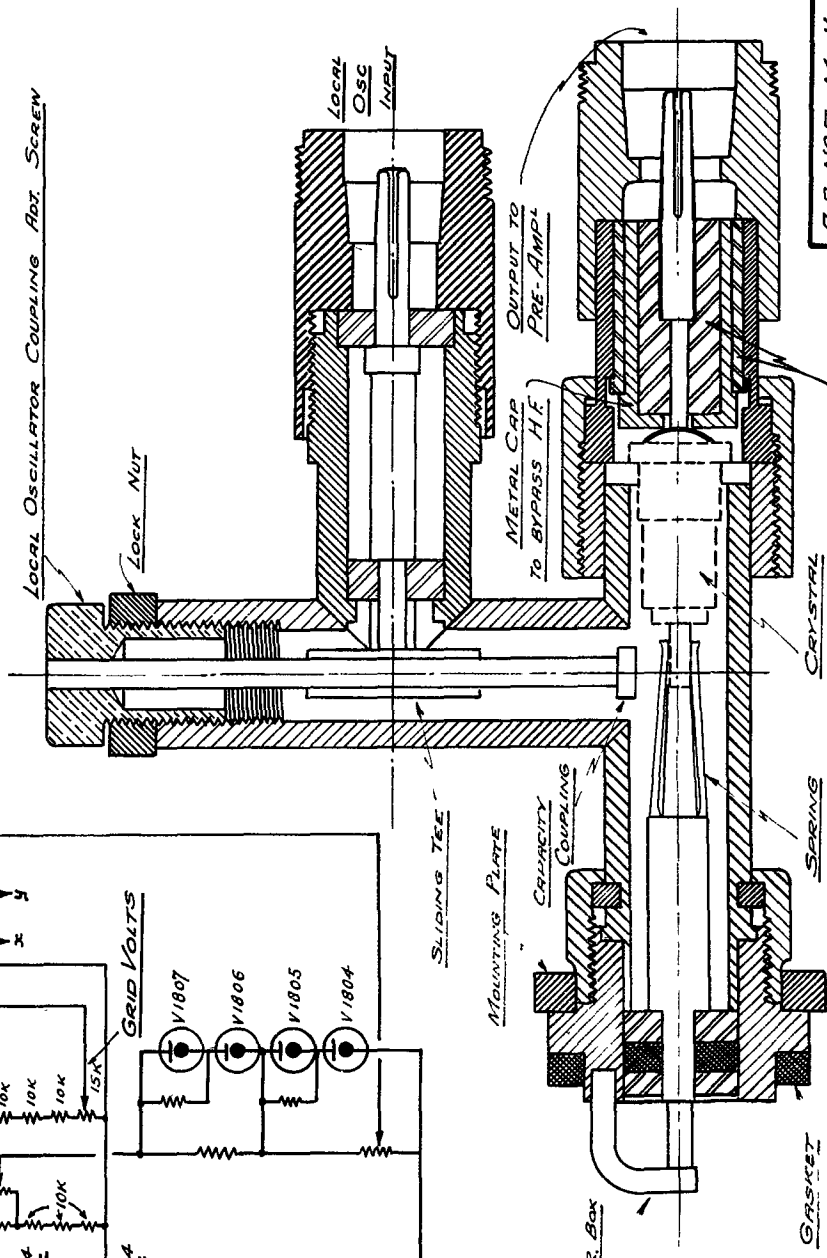
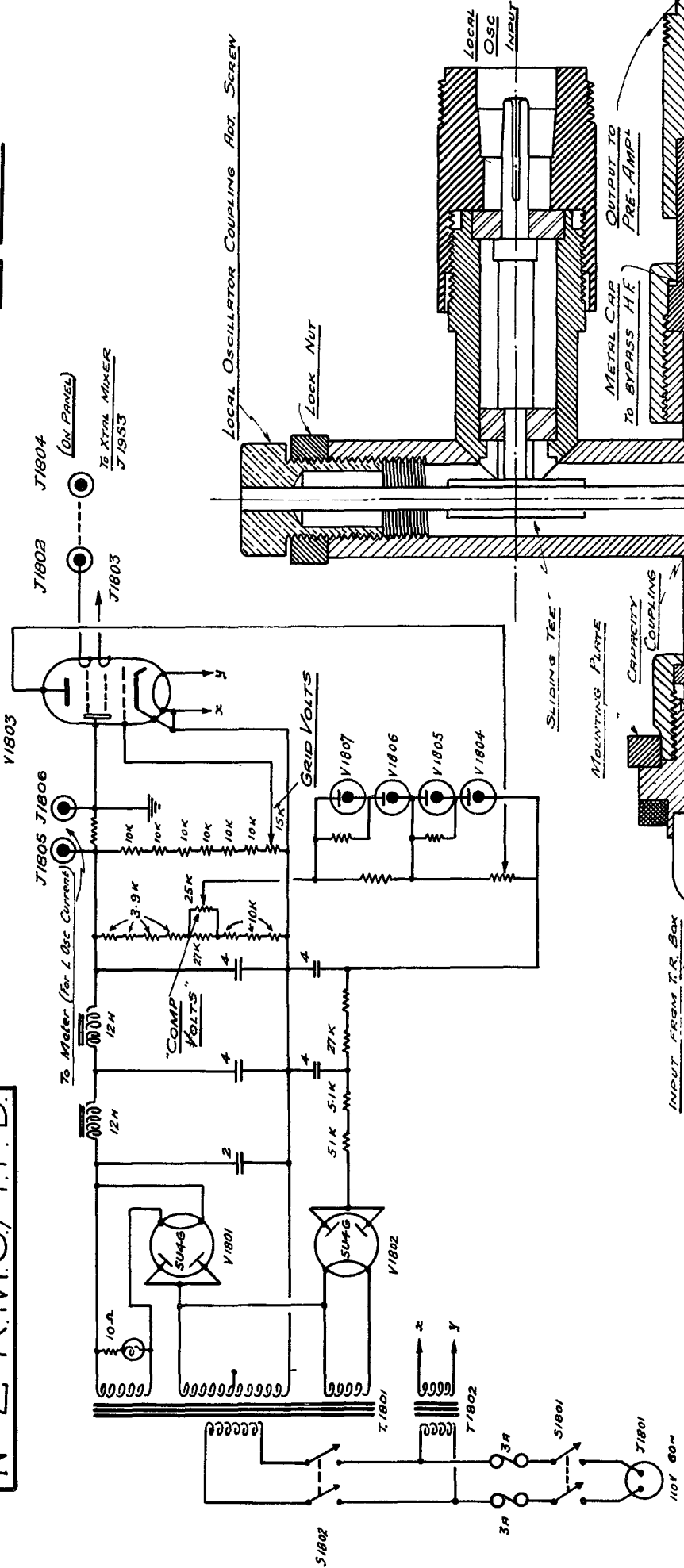


A. A. No 3 Mk V	
CONTROL SYSTEM	
DRG. No 3A/15	
DRAWN	23
TRACED	46

(Use in conjunction with Drg. 3A/14)

No 2 RMS/TPD.

Confidential

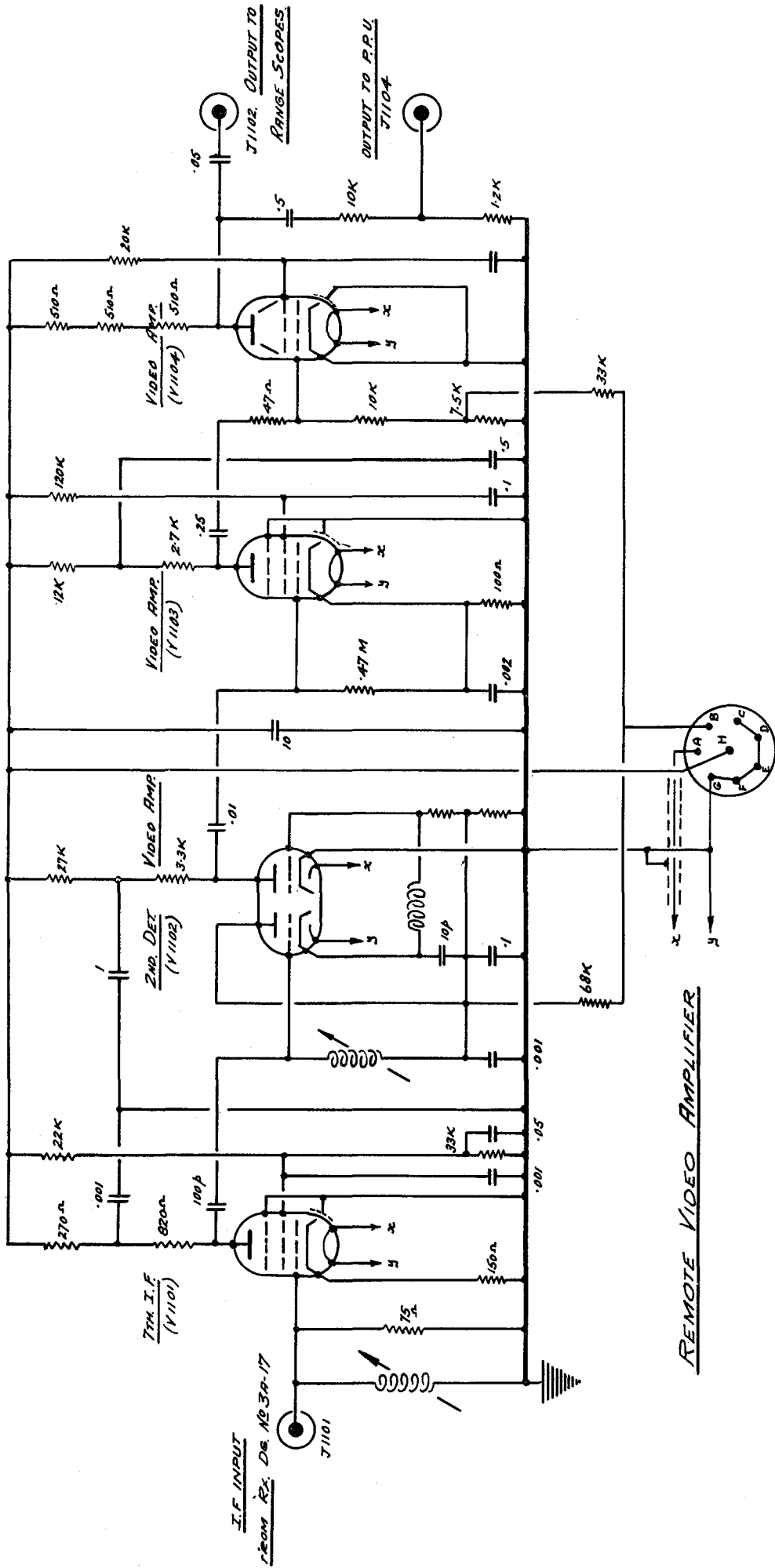


A.R. No 3, Mk. V	
LOCAL OSC & MIXER	
DRG. No 3A/16	
DRAWN	23
TRACED	22
31-5-44	

CRYSTAL MIXER B.C 1130

No. 2 R.M.S./T.P.D.

Confidential



REMOTE VIDEO AMPLIFIER

NOTE: THIS UNIT IS LOCATED IN FIELD SUPPLY UNIT

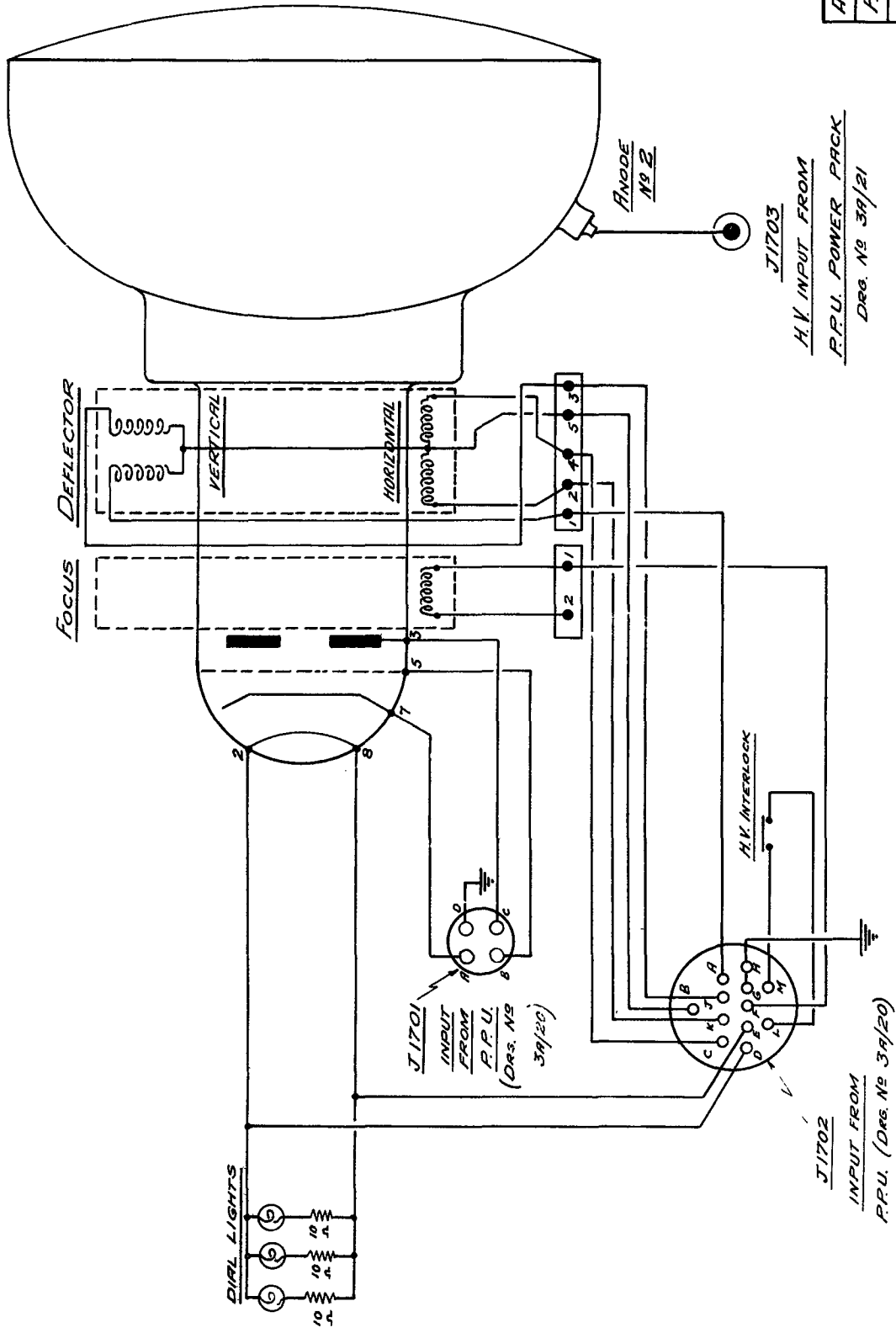
RECEIVER POWER INPUT
from
Dwg No. 3A/18

J 1103

R.R. No. 3. MA. V.	
RECEIVER (3)	
Dwg. No. 3A/19	
DRWN. <i>AB</i>	2. 6. 44
TRCED <i>AB</i>	

Nº 2. R.M.S. T.P.D.

Confidential



R.F.U. INDICATOR	
DRWN	AS
TRACED	AS
5. 6. 44	

H.V. INPUT FROM
R.F.U. POWER PACK
DRG. Nº 3A/21

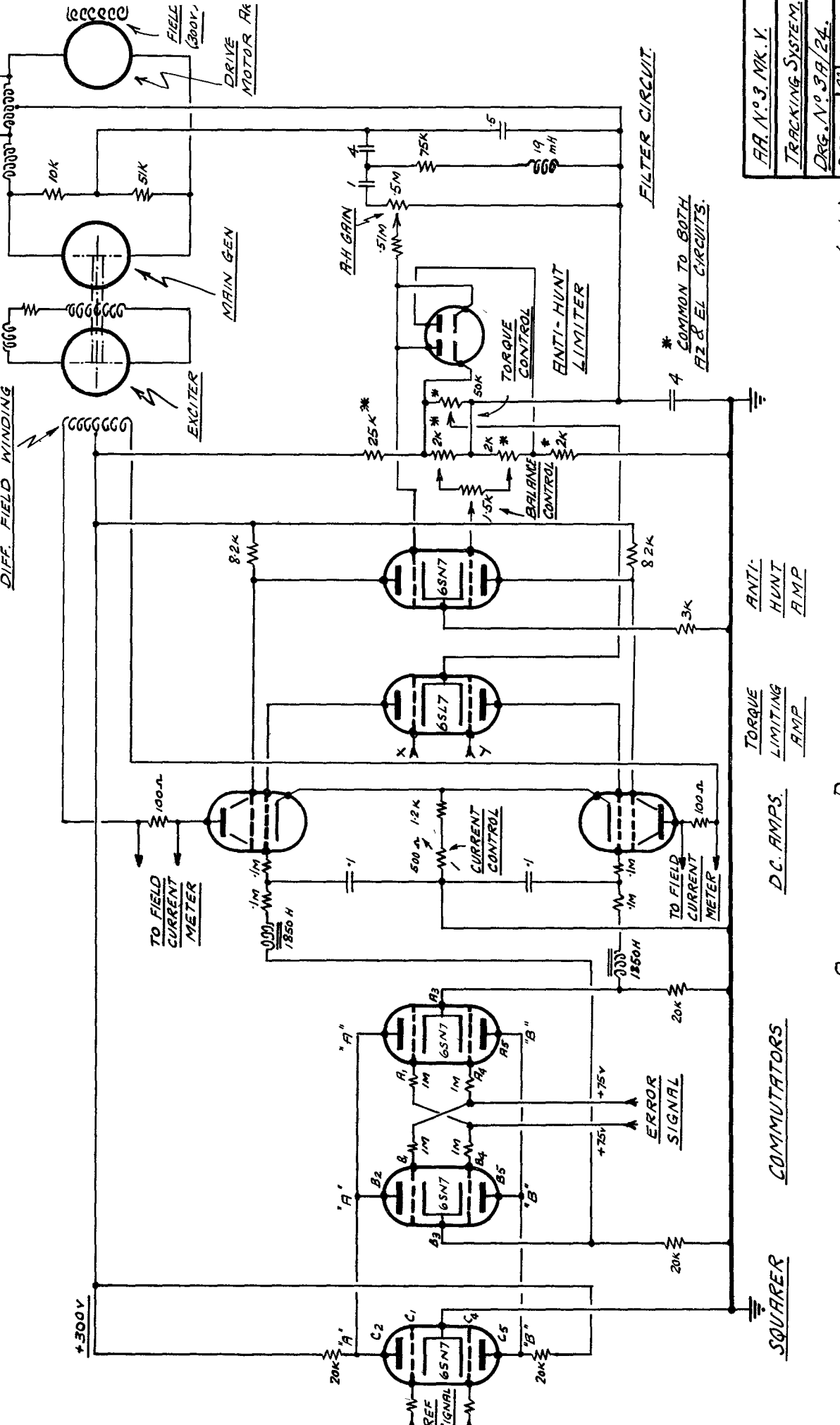
J1702
INPUT FROM
R.F.U. (DRG. Nº 3A/20)

ANODE
Nº 2

No. 2 R.M.S./T.P.D.

Confidential

TO GRIDS OF TORQUE
LIMITING AMP.



RR. N.º 3. MK. V.
TRACKING SYSTEM.
DRG. N.º 3A/24.
DESIGN 20
TRACED. 20
10/6/44.

TO FIELD CURRENT METER
TO FIELD CURRENT METER
TORQUE LIMITING AMP
ANTI-HUNT AMP

D.C. AMPS

COMMUTATORS

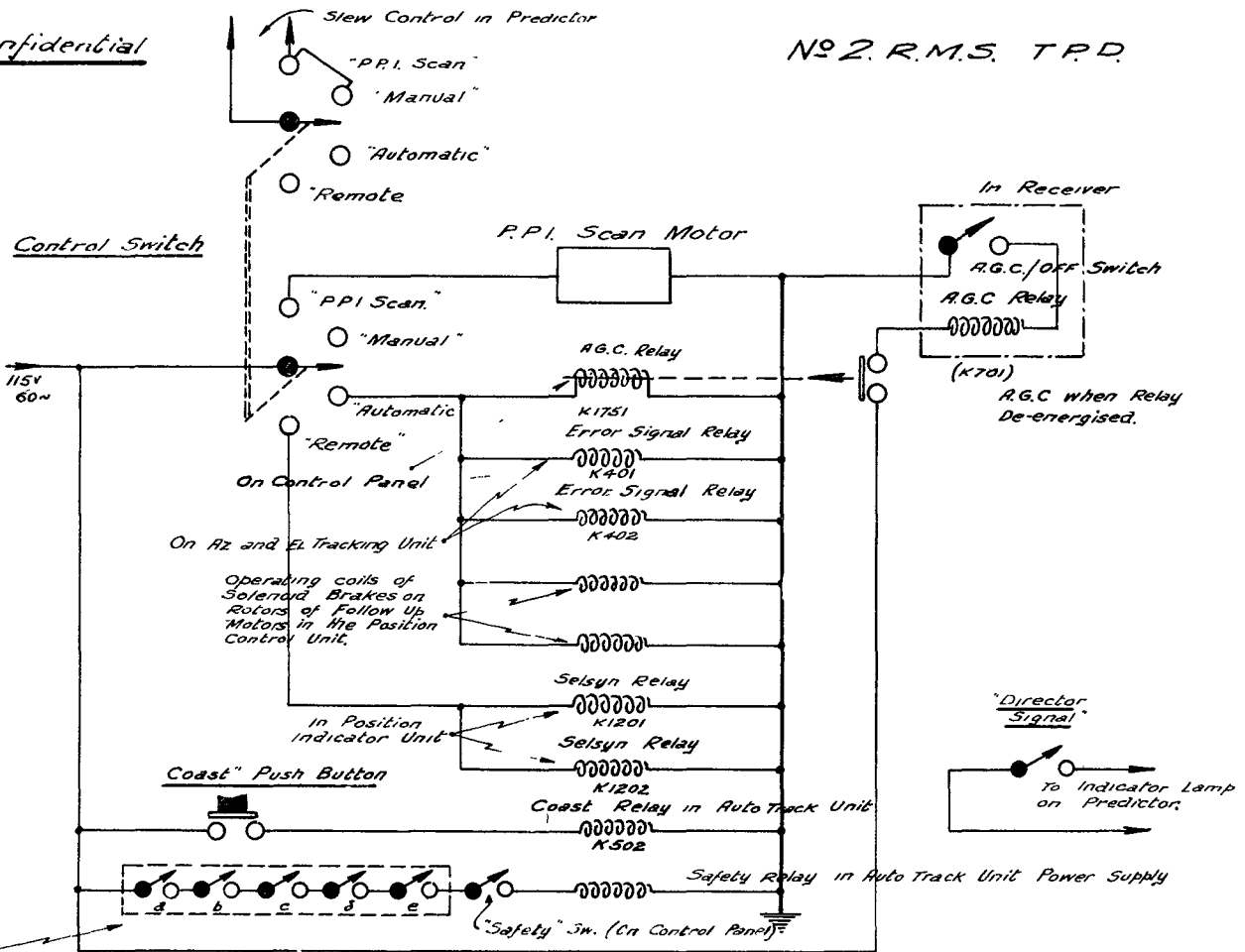
SQUARER

FULL DIAGRAM (3A/23)

SIMPLIFIED DIAGRAM.

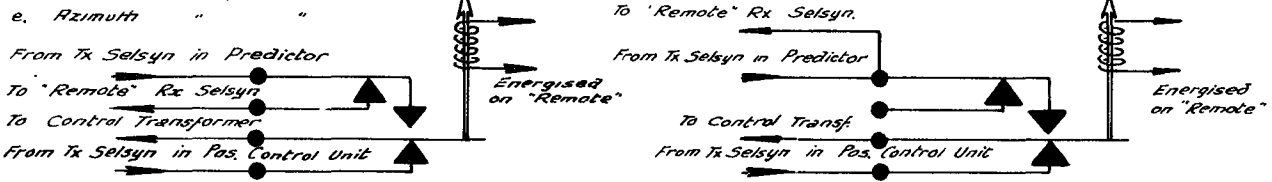
Confidential

No 2 R.M.S. T.P.D.



- a. Safety Sw in Pedestal
- b. Elevator Stop Button
- c. Upper Elevator Limit Sw.
- d. Elevation Stowing Interlock
- e. Azimuth " "

Error & Selsyn Relays

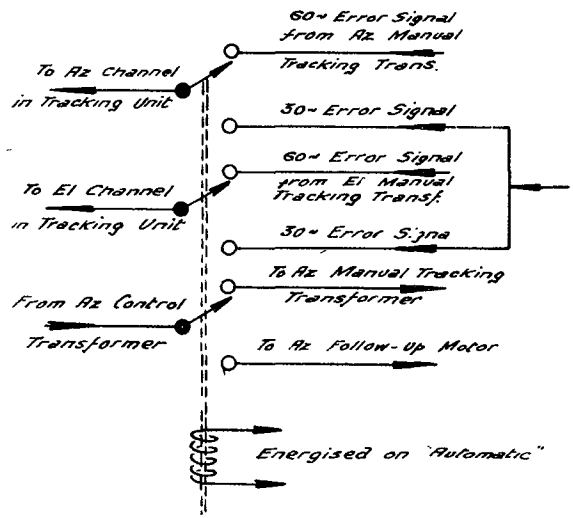


K.1201 Azimuth.

K.1202 Elevation

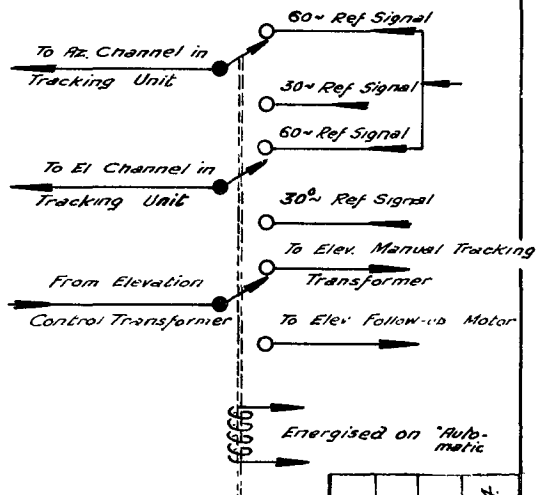
(Each set of Contacts in Triplicate to accommodate three phase connections)

These Contacts duplicated Error Signals



K.401.

These Contacts duplicated Reference Signals



K.402

A.A. No 3 Mk. V	
CONTROL PANEL	
DRG. No 3A/25	
DESN	5. 6. 44
TRACED	

Confidential

Fig 1.a

Fig 1.b

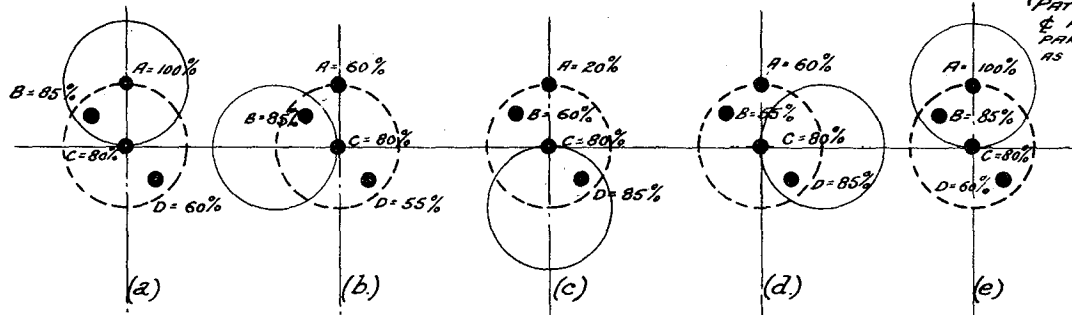
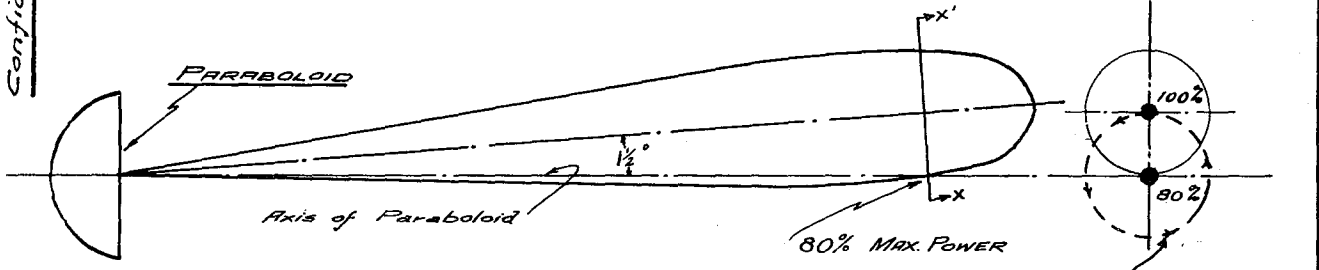
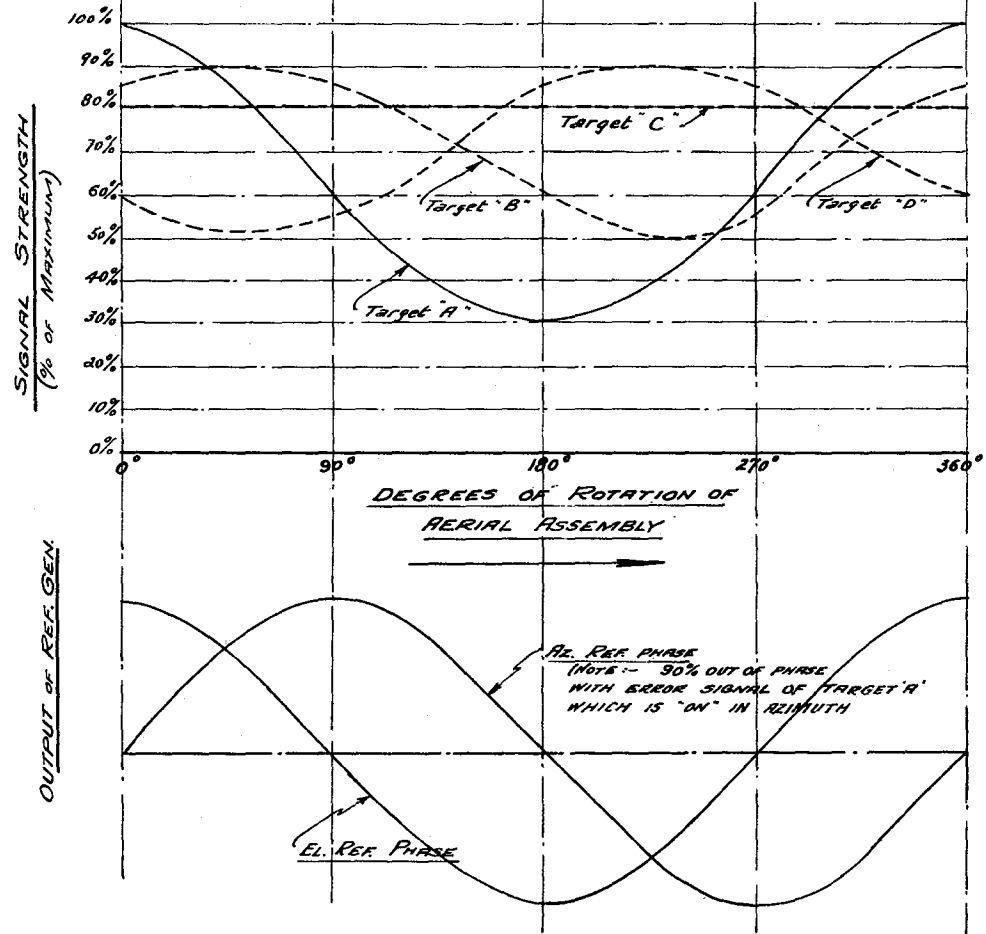


Fig 2

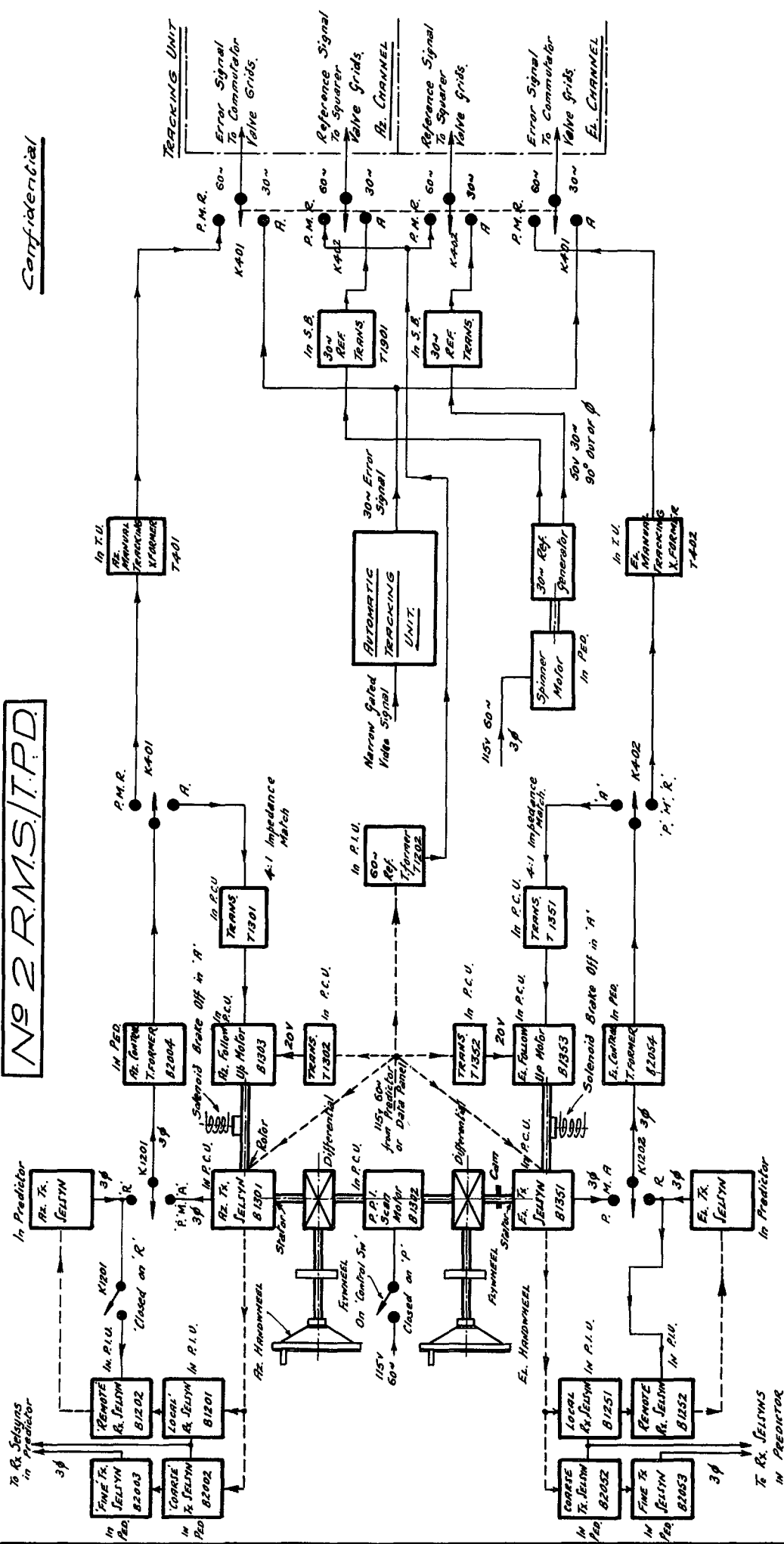
No 2 RMS/TPD



A.A. No 3. Mk. V	
30% Error & Ref. Sigs.	
DRG. No 3A/26	
DRAWN	5. 6. 4-4.
TRACED	AB

No 2 R.M.S./T.P.D.

Confidential

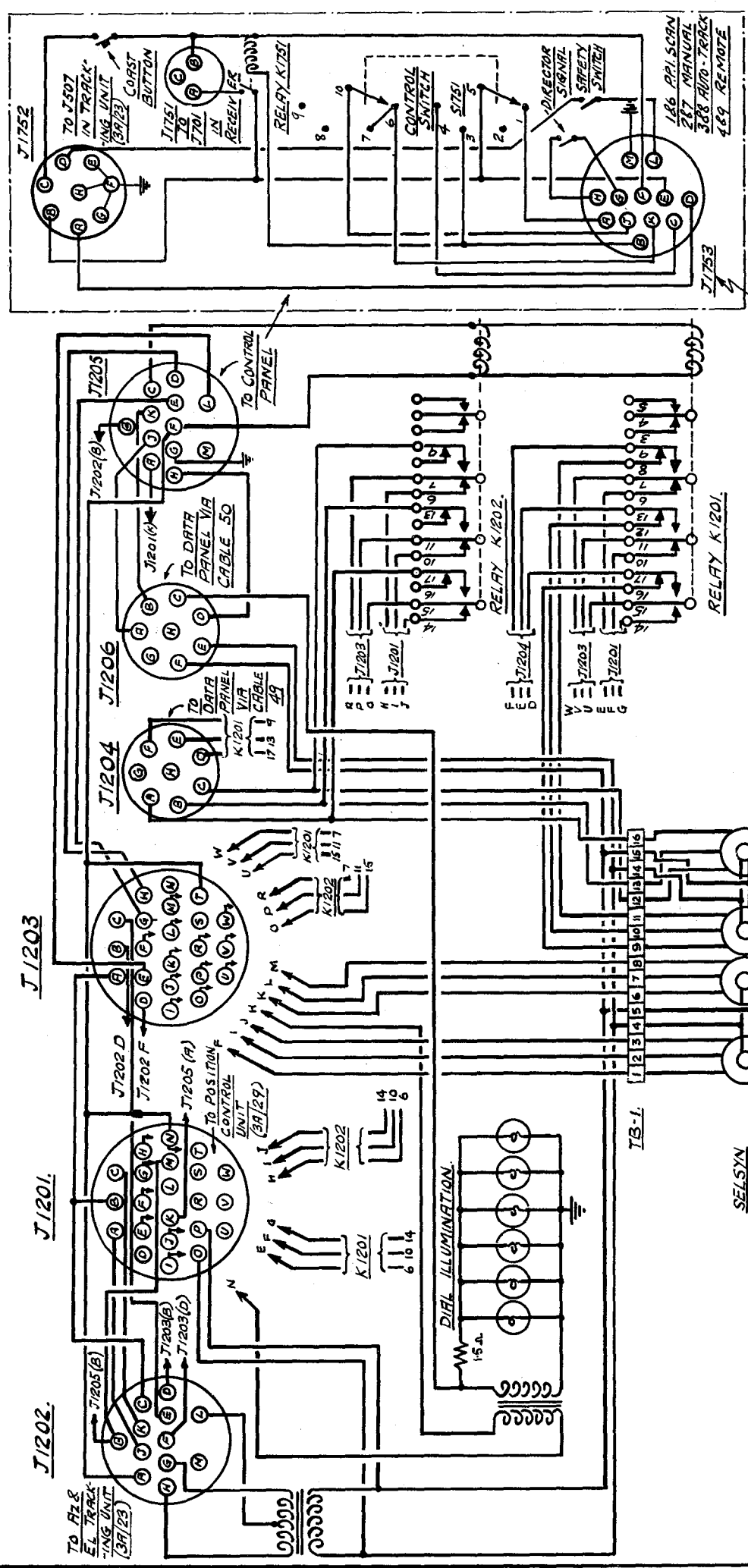


SIMPLIFIED SCHEMATIC OF CONTROL CIRCUITS FOR SERVO SYSTEM

A.A. No 3 Mk. V	
SERVO SYSTEM	
DRG. No 3A/27	
DRAWN BY:	6.6.44.
TRACED BY:	A6

N°2 RMS/TPD

Confidential



TO J1205 IN POSITION INDICATOR

CONTROL PANEL.

AA N°3 MK V	
TRACKING SYSTEM.	
DRG No. 3A/28	
DRAWN	BY
TRACED	BY
12.6.44.	

SELSYN REPEATERS

TS-1

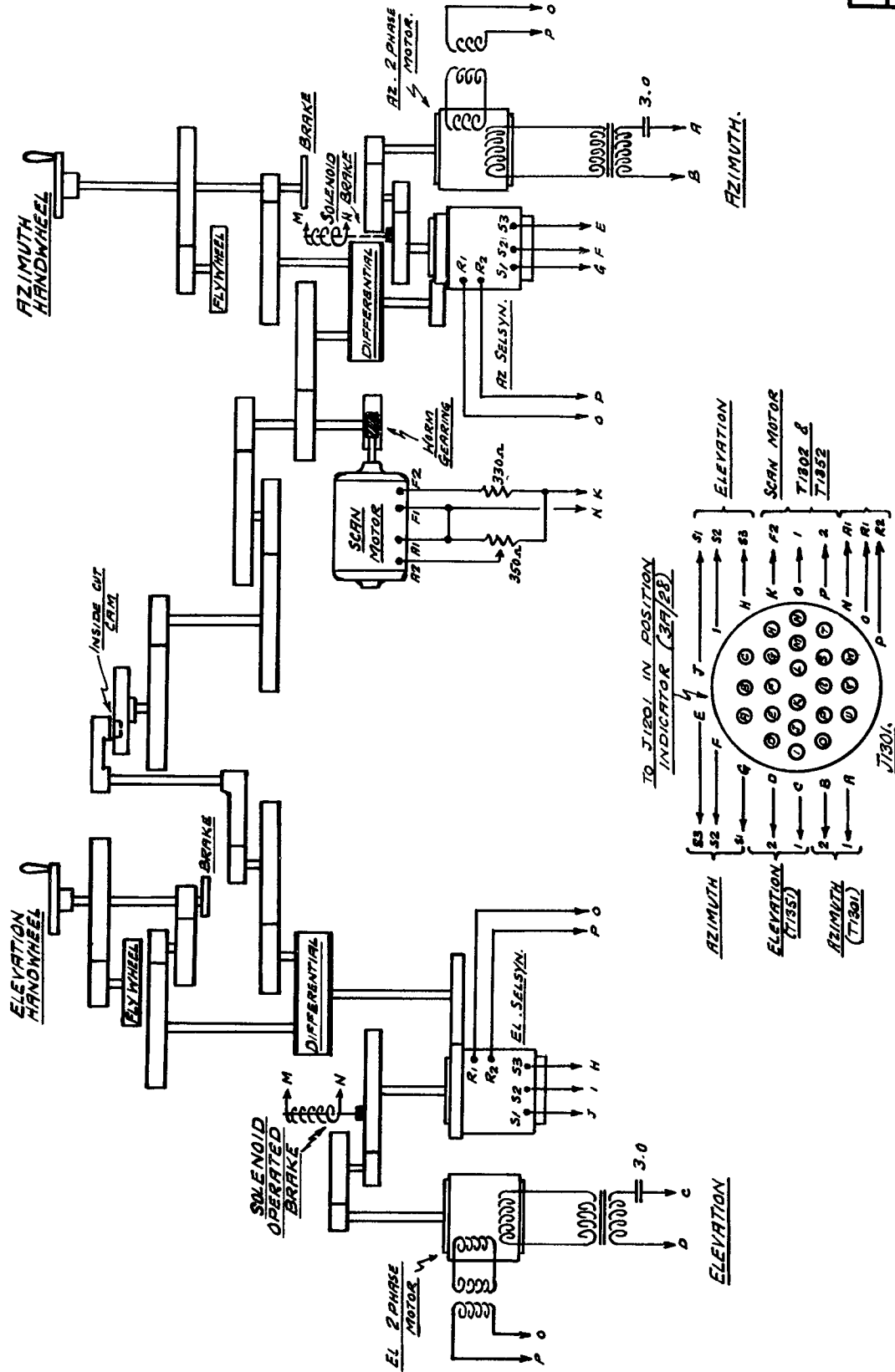
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

AZ LOCAL. EL LOCAL. REMOTE. REMOTE. EL

POSITION INDICATOR.

N° 2.R.M.S./T.P.D.

Confidential



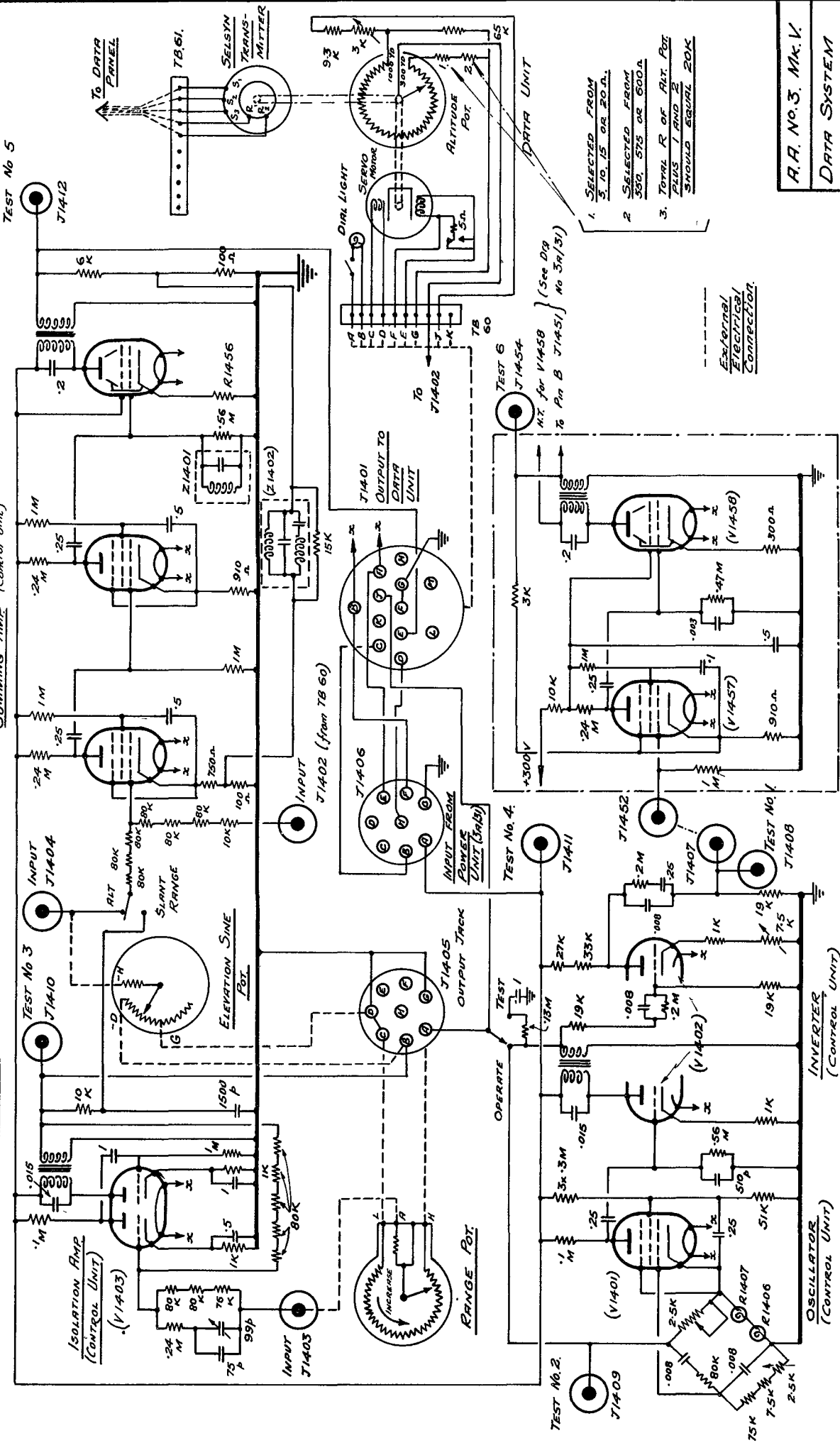
POSITION CONTROL UNIT.

AA. N° 3 MK V.	
TRACKING SYSTEM.	
DRG. N° 3A/29	
DRANN	20
TRACED	203
12/6/44.	

No. 2. R.M.S.I.T.P.D.

Confidential

TEST No 5
J1412



1. SELECTED FROM 5, 10, 15 OR 20.0.
2. SELECTED FROM 300, 575 OR 600.0
3. TOTAL R OF ALT. POT PLUS 1 AND 2 SHOULD EQUAL 20K

External Electrical Connection

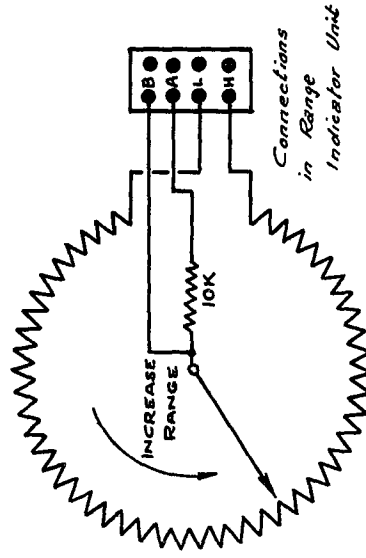
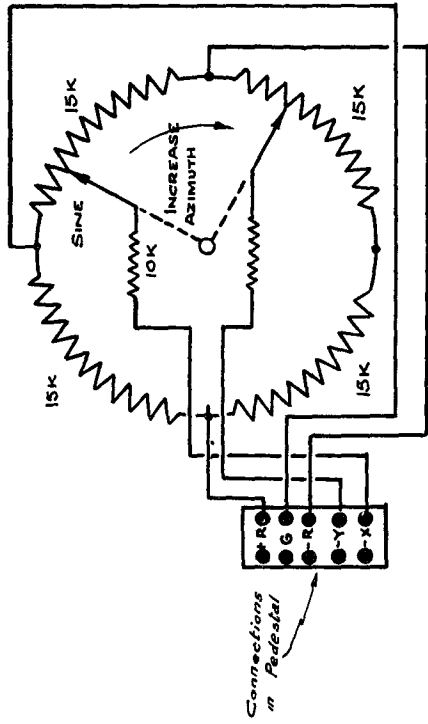
R.A. No. 3. Mk. V.	
DATA SYSTEM	
DRG. No. 3A/30	
DRAWN	TRACED
AB	AB
15. 6. 44	

FIELD AMP (LOCATED IN POWER UNIT)
DRG. No 3A/31.

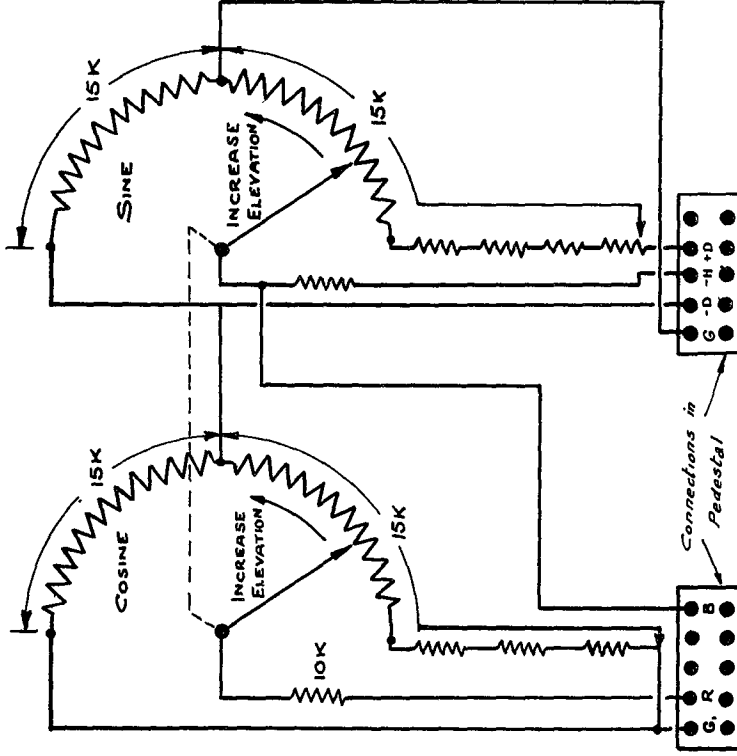
No 2.R.M.S./T.P.D.

Confidential

AZIMUTH POTENTIOMETER

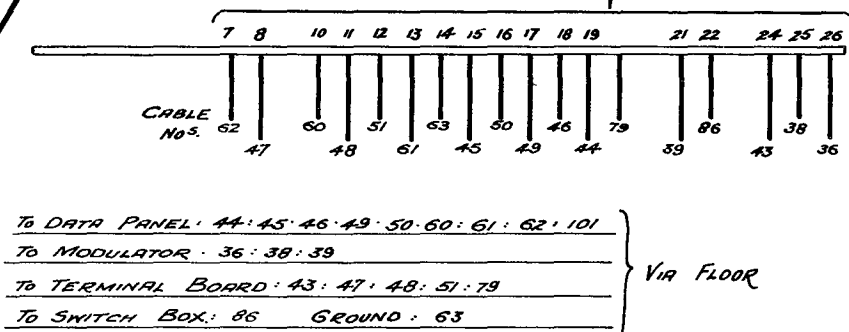
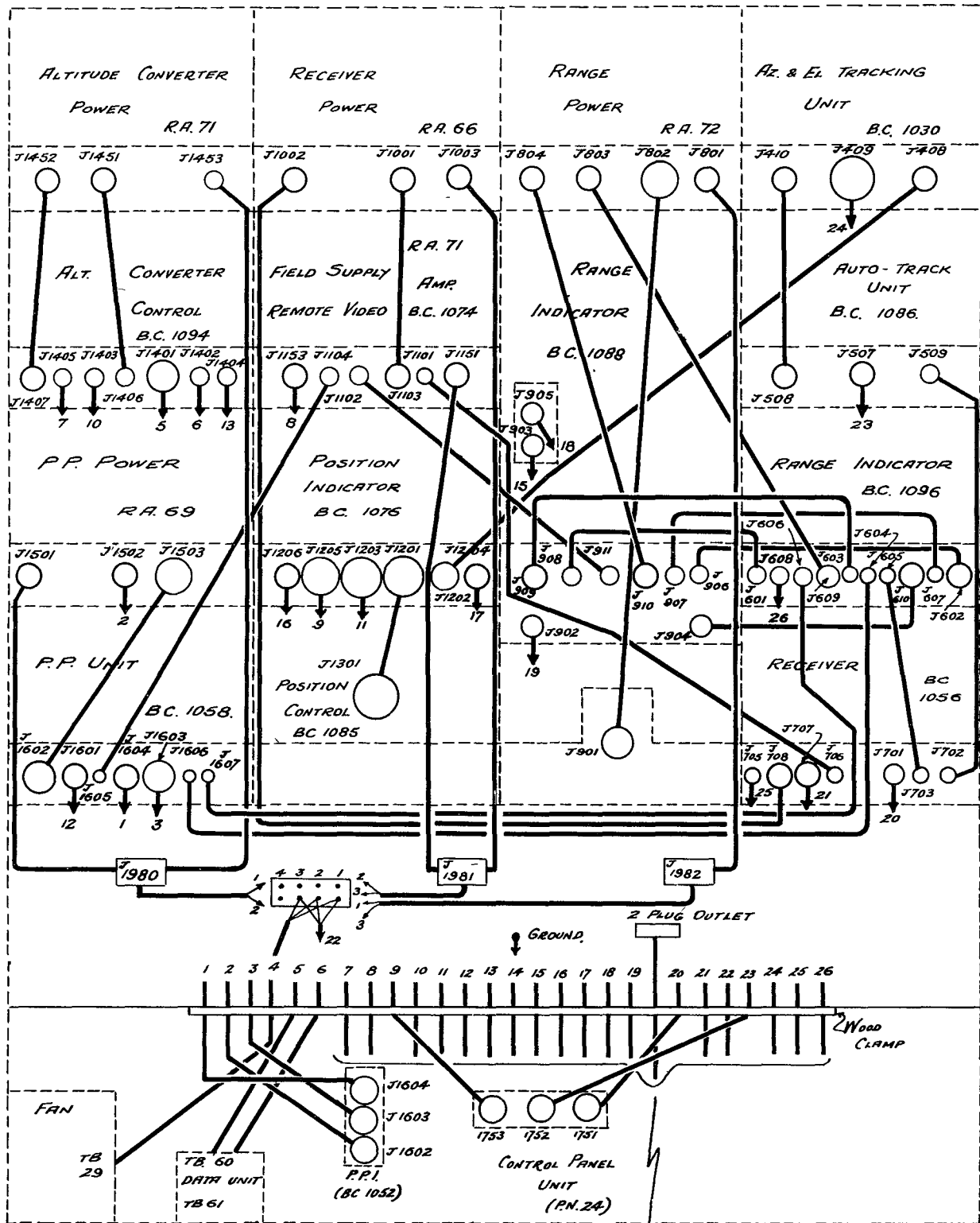


RANGE POTENTIOMETER



ELEVATION POTENTIOMETER

R.A. No 3. MK. I.	
DATA SYSTEM	
DRG. No 3A/32	
DRAWN	R6
TRACED	R6
14. 6. 44.	



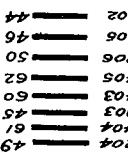
REAR VIEW OF RECEIVER

R.A. NO. 3	Mk. V
WIRING SYSTEM	
DES. NO. 3A/34	
DESIGNED BY	16. G. 44.
TRACED BY	

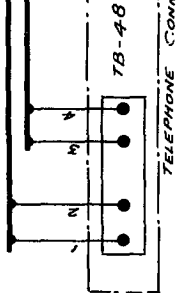
No 2. R.M.S.
I.P.D.



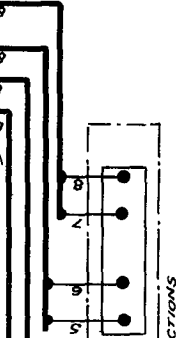
CABLES TO CONTROL RACK (DRG 34/34)



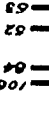
76 ALTITUDE CONVERTER DATA UNIT



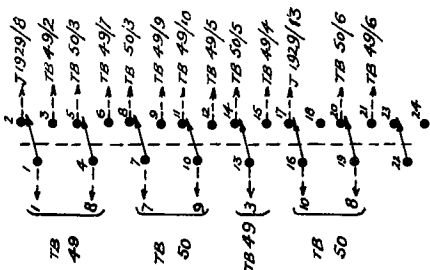
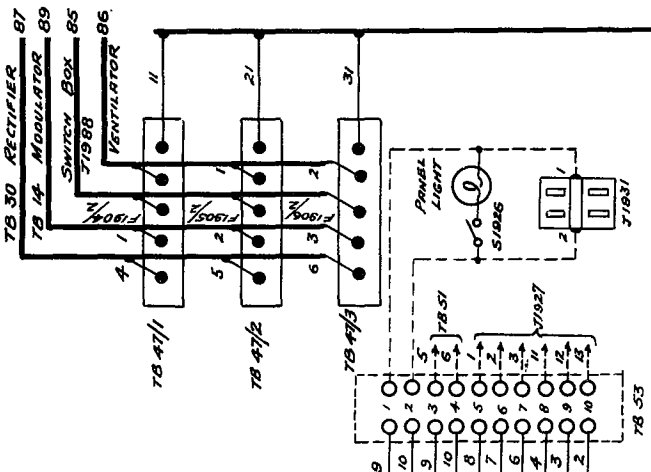
CABLES TO TERMINAL BOARD (DR 34/35)



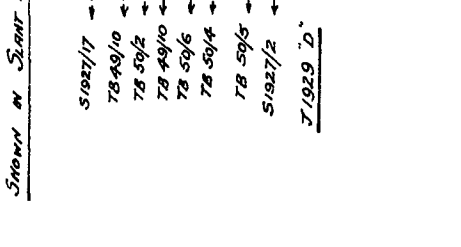
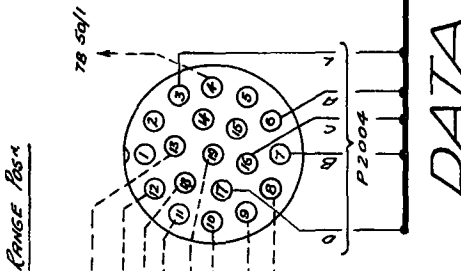
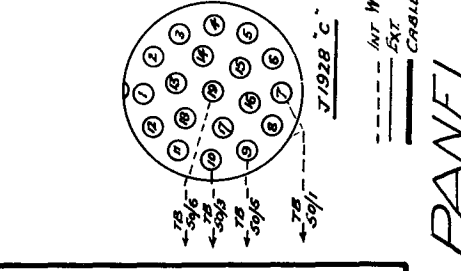
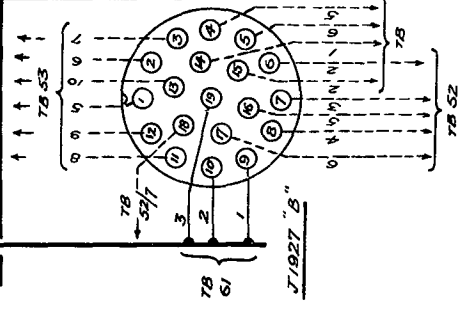
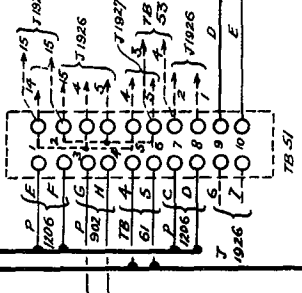
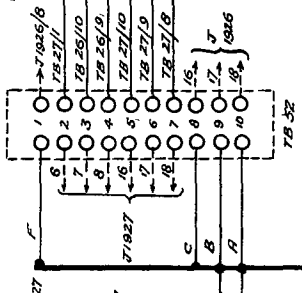
76 PEDESTAL



Confidential

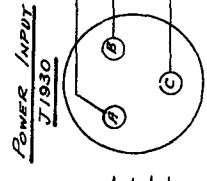


DATA SWITCH (ROTARY)
S1927
SHOWN IN SLANT RANGE POSN



--- INT WIRING
- - - EXT
— CABLES

DATA PANEL



A. H. NO 3 MAK. V	
WIring SYSTEM	
DRG NO 34/36	
DRAWN	BY
TRACED	BY
22.6.44	

