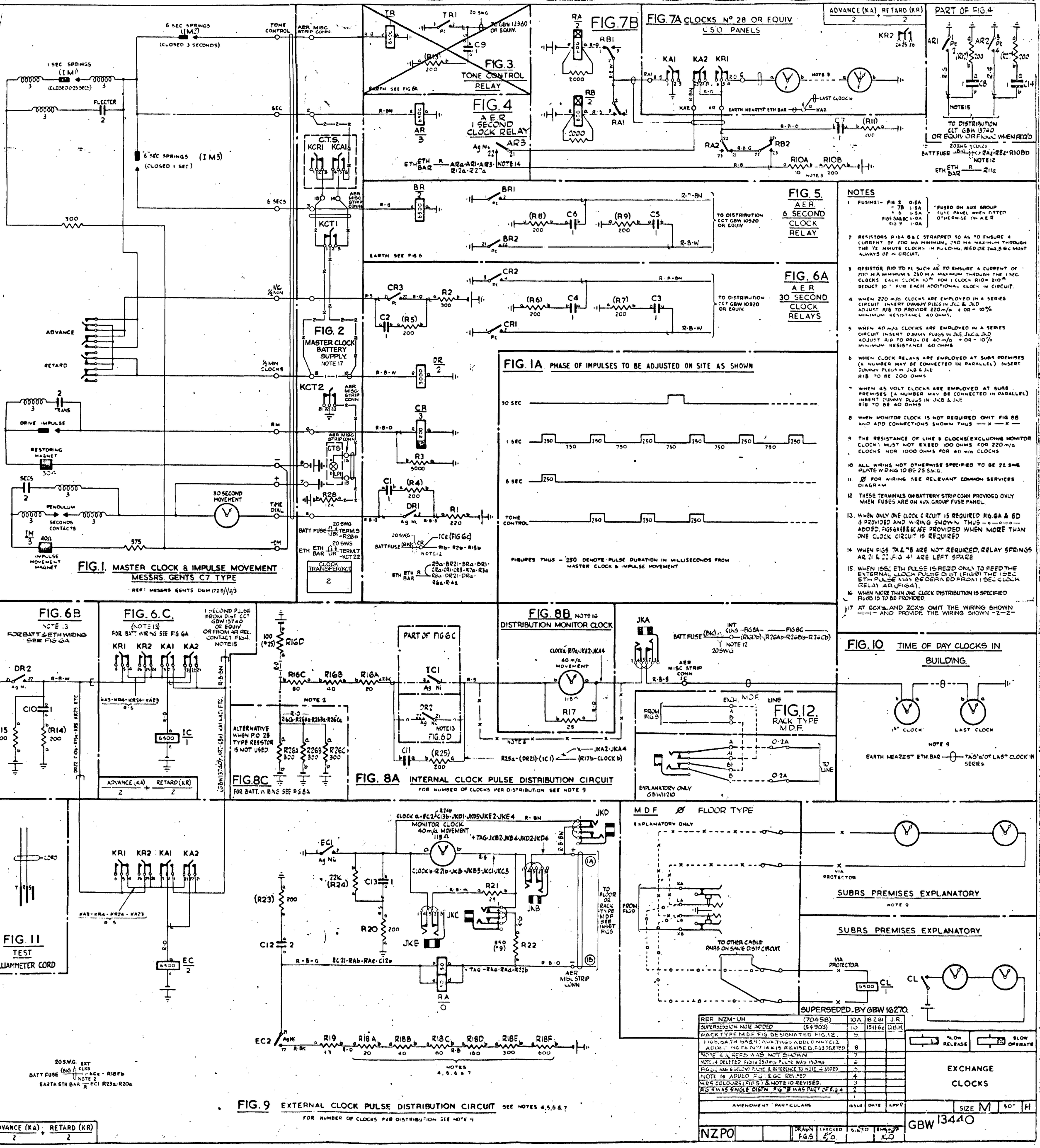
6 SEC SPRINGS (IM2) (CLOSED 3 SECONDS)
TONE CONTROL
AER MISC STRIP CONN.
1 SEC SPRINGS (IM1) (CLOSED 0·25 SECS)
FLEETER
6 SEC SPRINGS (IM3) (CLOSED 1 SEC)
300
ADVANCE
RETARD
2 TRANS
DRIVE IMPULSE
RESTORING MAGNET 30Ω
SECS
PENDULUM
SECONDS CONTACTS
IM 40Ω
IMPULSE MOVEMENT MAGNET
375
30 SECOND MOVEMENT
TIME DIAL
SEC
6 SECS
1/C ½ MIN
½ MIN CLOCKS
RM
TR
TR1
20 SWG
TO GBW 12380 OR EQUIV.
C9
(R13) 200
EARTH SEE FIG 6A
FIG. 3. TONE CONTROL RELAY
FIG. 4 AER 1 SECOND CLOCK RELAY
AR 3
Ag Ni
ETH ETH BAR R — AR2-AR1-AR3-R12a-R22a
NOTE 14
C.T.S. KCR1 KCA1
KCT1
KCT2
AER MISC STRIP CONN
FIG. 2 MASTER CLOCK BATTERY SUPPLY. NOTE 17
CTS
LPI
R28 12K
BATT FUSE 20 SWG 1/8K — TERM 9 -R28b
ETH ETH BAR 20 SWG 1/4 — TERM 7 -KCT 22
CLOCK TRANSFER (KCT) 2
CR 3
R3 5000
C1 (R4) 200
DR1
R1 220
CR3 R2 300
C2 (R5) 200
DR 2 3000
CR2 CR1
(R6) C4 (R7) C3 200
BR1 BR2
(R8) C6 (R9) C5 200
TO DISTRIBUTION CCT GBW 10920 OR EQUIV
EARTH SEE FIG 6
RA 2 RB 2
RB1 RA1
2000
FIG. 7B
FIG. 7A CLOCKS N° 28 OR EQUIV C.S.O. PANELS
ADVANCE (KA) 2 + RETARD (KR) 2
KR2
KA1 KA2 KR1
NOTE 3
LAST CLOCK b
EARTH NEAREST ETH BAR
KA2 KR
C7 (R11) 200
RA2 RB2
R10A R10B 10 200
NOTE 3
PART OF FIG 4
AR1 AR2
C8 C14
NOTE 15
TO DISTRIBUTION CCT GBW 13740 OR EQUIV OR FIGS WHEN REQ'D
20 SWG JUMPER
BATT FUSE (BK) — RA2-RB2-R10Bb
NOTE 12
ETH ETH BAR R — R11a
FIG. 5 AER 6 SECOND CLOCK RELAY
FIG. 6A AER 30 SECOND CLOCK RELAYS
FIG. 1A PHASE OF IMPULSES TO BE ADJUSTED ON SITE AS SHOWN
30 SEC
1 SEC
6 SEC
TONE CONTROL
250 750
FIGURES THUS — 250 DENOTE PULSE DURATION IN MILLISECONDS FROM MASTER CLOCK & IMPULSE MOVEMENT
FIG. 1. MASTER CLOCK & IMPULSE MOVEMENT MESSRS. GENTS C7 TYPE
REF: MESSRS GENTS DGM 1720/1/2/3
NOTES
1 FUSING:- FIG 2 0·5A; " 7B 1·5A; " 6 1·5A; FIGS 5A&BC 1·0A; FIG 9 1·0A — * FUSED ON AUX GROUP FUSE PANEL WHEN FITTED OTHERWISE ON A.E.R
2 RESISTORS R 10A B & C STRAPPED SO AS TO ENSURE A CURRENT OF 200 MA MINIMUM, 250 MA MAXIMUM THROUGH THE ½ MINUTE CLOCKS IN BUILDING. R16D OR 24A,B & C MUST ALWAYS BE IN CIRCUIT.
3 RESISTOR R10 TO BE SUCH AS TO ENSURE A CURRENT OF 200 MA MINIMUM & 250 MA MAXIMUM THROUGH THE 1 SEC CLOCKS EACH CLOCK 10Ω FOR 1 CLOCK R10 = 210Ω DEDUCT 10Ω FOR EACH ADDITIONAL CLOCK IN CIRCUIT.
4 WHEN 220 m/a CLOCKS ARE EMPLOYED IN A SERIES CIRCUIT INSERT DUMMY PLUGS IN JKC & JKD ADJUST R18 TO PROVIDE 220 m/a + OR − 10% MINIMUM RESISTANCE 40 OHMS.
5 WHEN 40 m/a CLOCKS ARE EMPLOYED IN A SERIES CIRCUIT INSERT DUMMY PLUGS IN JKE, JKC & JKD ADJUST R18 TO PROVIDE 40 m/a + OR − 10% MINIMUM RESISTANCE 40 OHMS
6 WHEN CLOCK RELAYS ARE EMPLOYED AT SUBS PREMISES (A NUMBER MAY BE CONNECTED IN PARALLEL) INSERT DUMMY PLUGS IN JKB & JKE. R18 TO BE 200 OHMS
7 WHEN 45 VOLT CLOCKS ARE EMPLOYED AT SUBS PREMISES (A NUMBER MAY BE CONNECTED IN PARALLEL) INSERT DUMMY PLUGS IN JKB & JKE. R18 TO BE 40 OHMS
8 WHEN MONITOR CLOCK IS NOT REQUIRED OMIT FIG 8B AND ADD CONNECTIONS SHOWN THUS — x — x —
9 THE RESISTANCE OF LINE & CLOCKS (EXCLUDING MONITOR CLOCK) MUST NOT EXCEED 100 OHMS FOR 220 m/a CLOCKS NOR 1000 OHMS FOR 40 m/a CLOCKS
10 ALL WIRING NOT OTHERWISE SPECIFIED TO BE 22 SWG PLATE WIRING TO BG 25 S.W.G.
11 Ø FOR WIRING SEE RELEVANT COMMON SERVICES DIAGRAM
12 THESE TERMINALS ON BATTERY STRIP CONN PROVIDED ONLY WHEN FUSES ARE ON AUX. GROUP FUSE PANEL.
13 WHEN ONLY ONE CLOCK CIRCUIT IS REQUIRED FIG 6A & 6D IS PROVIDED AND WIRING SHOWN THUS — o — o — o — ADDED. FIGS 6A 6B & 6C ARE PROVIDED WHEN MORE THAN ONE CLOCK CIRCUIT IS REQUIRED
14 WHEN FIGS 7A & 7B ARE NOT REQUIRED, RELAY SPRINGS AR 21 & 22, FIG 4 ARE LEFT SPARE
15 WHEN 1 SEC ETH PULSE IS REQD ONLY TO FEED THE EXTERNAL CLOCK PULSE DIST (FIG 9) THE 1 SEC ETH PULSE MAY BE DERIVED FROM 1 SEC CLOCK RELAY AR (FIG 4).
16 WHEN MORE THAN ONE CLOCK DISTRIBUTION IS SPECIFIED FIG 8B IS TO BE PROVIDED.
17 AT GCX'S AND ZCX'S OMIT THE WIRING SHOWN —1—1— AND PROVIDE THE WIRING SHOWN —2—2—
FIG. 6B NOTE 3 FOR BATT & ETH WIRING SEE FIG 6A
DR2 C10 R15 5000 (R14) 200
FIG. 6.C. (NOTE 13) FOR BATT. WIRING SEE FIG 6A
KR1 KR2 KA1 KA2
1 SECOND PULSE FROM DIST CCT GBW 13740 OR EQUIV OR FROM AR REL. CONTACT FIG 4. NOTE 15
KA3-KR4-KR24-KA23
IC 6900
ADVANCE (KA) 2 + RETARD (KR) 2
FIG. 8C FOR BATT. WIRING SEE FIG 8A
ALTERNATIVE WHEN P.O. 25 TYPE RESISTOR IS NOT USED
R16D 100 (*25)
R16C 80 R16B 40 R16A 20
NOTE 2
R16Ca-R24a-R24Ba-R24Ca
R26A 300 R26B 300 R26C 300
PART OF FIG 6C
IC1 Ag Ni
DR2 NOTE 13 FIG 6D
C11 (R25) 200
FIG. 8A INTERNAL CLOCK PULSE DISTRIBUTION CIRCUIT FOR NUMBER OF CLOCKS PER DISTRIBUTION SEE NOTE 9
FIG. 8B NOTE 16 DISTRIBUTION MONITOR CLOCK
CLOCK a-R17a-JKA2-JKA4
40 m/a MOVEMENT 115Ω
R17 25
NOTE 8
R25a-(DR21)-(IC1) — x — JKA2-JKA4 — (R17b-CLOCK b)
JKA
BATT FUSE (BK) INT CLKS — FIG 8A — FIG 8C — (R16Db)-(R24Ab-R24Bb-R24Cb) NOTE 12 20 SWG
AER MISC STRIP CONN FC
FIG. 10 TIME OF DAY CLOCKS IN BUILDING.
1ST CLOCK LAST CLOCK
NOTE 9
EARTH NEAREST ETH BAR — TAG a OF LAST CLOCK IN SERIES
FIG. 12. RACK TYPE M.D.F.
FROM FIG 9
EXCH. M.D.F. LINE
TO LINE
0·2A
EXPLANATORY ONLY GBW 11210
DR2 CIOb-R15a-KR1 KR2 ETC
KR3-KR4-KR24-KA23
R·O
IC 6900
EC 2
KR1 KR2 KA1 KA2
KA3-KR4-KR24-KA23
FIG. 11 TEST MILLIAMMETER CORD
CORD
TERMS
20 S.W.G. EXT BATT FUSE (BK) CLKS — ECa-R18Fb NOTE 2
EARTH ETH BAR R — EC1 R23a-R20a
CLOCK a-EC2 R24b C13b-JKD1-JKD5-JKE2-JKE4 R·BN
MONITOR CLOCK 40 m/a MOVEMENT 115Ω
+ TAG-JKB2-JKB4-JKD2-JKD4
EC1 Ag Ni
CLOCK b-R21b-JKB-JKB5-JKC1-JKC5
72K (R24) C13 1
(R23) 200
C12 2
R20 200
R21 29
R22 850 (*9)
JKC JKE JKB JKD
TO FLOOR OR RACK TYPE M.D.F. SEE INSET FIGS
EC2-RAb-RAc-C12b
TAG-RAa-RAd-R22b
AER MISC STRIP CONN
RA O
EC2 Ag Ni
R19 33 R18A 20 R18B 40 R18C 60 R18D 160 R18E 300 R18F 600
NOTES 4, 5, 6 & 7
FIG. 9 EXTERNAL CLOCK PULSE DISTRIBUTION CIRCUIT SEE NOTES 4, 5, 6 & 7
FOR NUMBER OF CLOCKS PER DISTRIBUTION SEE NOTE 9
M.D.F. Ø FLOOR TYPE
EXPLANATORY ONLY
FROM FIG 9
VIA PROTECTOR
SUBRS PREMISES EXPLANATORY NOTE 9
TO OTHER CABLE PAIRS ON SAME DIST. CIRCUIT.
CL 6900
SUPERSEDED BY GBW 10270.
SUBRS PREMISES EXPLANATORY
SLOW RELEASE SLOW OPERATE
EXCHANGE CLOCKS
REF NZM-UH (70458) 10A 18 2 81 J.R.
SUPERSESSION NOTE ADDED (54903) 10 15-11-82 D.B.H.
RACK TYPE M.D.F. FIG. DESIGNATED FIG. 12. 9
FIGS. 6A, 7B, 8A & 9: AUX TAGS ADDED NOTE 12 ADDED. NOTE N° 13 & 15 REVISED. FIG 3 DELETED 8
NOTE 4 A REES WAS NOT SHOWN 7
NOTE 14 DELETED FIG 1A 250 m/s PULSE WAS 150 m/s 6
FIG 9 WAS 6 SECOND PULSE & REFERENCE TO NOTE 4 ADDED 5
NOTE 14 ADDED FIG 6 & 6C REVISED 4
WIRE COLOURS (FIG 5) & NOTE 10 REVISED. 3
FIG 4 WAS SINGLE DIGIN. FIG 7B WAS PART OF FIG 7A 2
1
AMENDMENT PARTICULARS ISSUE DATE APP'D
NZPO DRAWN F.G.S CHECKED E.J.O TRACED X.O
SIZE M 30" H
GBW 13440