Bowen-ws-1938

SCHEMATIC WIRING DIAGRAM

230 V. DC

100 A. D.P.S.T. Switch in Main dist. Swbd.

100 A. FUSES

STOP SWITCHES

START SWITCHES

Fine — Coarse — FIELD RHEO.

STARTING RES.

Panel "C" — Panel "B"

COM FLD — SH. FIELD

20 HP 230 V D.C. SHUNT MOTOR — FREQUENCY CHANGER

25 A FUSES

220 V - 3 ϕ - 50 ~

TPST in Main dist. Swbd.

POWER OUTLET FIRST FLOOR

POWER OUTLET THIRD FLOOR

V & F

STOP A.C. Contactor START

HIGH FREQ — LOW FREQ

FREQ. RANGE

WIRING DIAGRAM

AMMETER — START — STOP — (REAR VIEW)

"C" PANEL Third Floor — (FRONT VIEW)

CT Mtd. on Column back of "B" Panel

"B" PANEL First Floor — (FRONT VIEW) — AMMETER — START — STOP — (REAR VIEW)

Multiple Receptacle at Set (REAR VIEW)

Terminal Cabinet Mtd. Below Gutter (Front View)

6 #12

3 #4, 1 #8 Grd

2 #12

9 #12

To Dist. Swbd.

To Dist. Swbd. RH1, 1#10

VOLTS FREQUENCY — START — STOP — HIGH FREQ — LOW FREQ — FIELD RHEO.

PORTABLE HEAD (Rear View)

MULTIPLE CONDUCTOR PLUG (FRONT VIEW)

WHITE	21
GREEN	20
BROWN	10
RED	18
YELLOW	17
BLACK	22
GRAY	23
BLUE	9
WHITE & BLACK	
YELLOW & BLUE	
BROWN & GRAY	0

AR — FP — DC STARTER (FRONT VIEW)

Push Button Station at Set — STOP — START

Com Fld. — SH FLD — MOTOR 230 V. DC — FREQUENCY CHANGER

180 A. — 15 A.

LEFT SIDE — RIGHT SIDE — A.C. REVERSING SWITCH FRONT VIEW

REVISIONS

Changed A.C. Reversing Switch and connections. 7-27-31. E.E.W.	
7-27-31	2
Revised wiring on Panels "B and C." 9-1-31 E.E.W.	
9-1-31	3
Added Switch and fuses in M1 M2 M3. Changed Thermal overload relay to secondary. Added fuses in control circuit. 9-11-31 E.E.W.	

LEGEND

- ⊗A — Terminal in Receptacle at Set
- ⊗B — Terminal in Receptacle at First Floor
- ⊗C — Terminal in Receptacle at Third Floor
- 1A — First Accelerating Contact
- 2A — Second Accelerating Contact
- 3A — Third Accelerating Contact
- AR — Auxiliary Relay
- FF — Full Field Contact
- FP — Field Protective Relay
- HF — High Frequency Contactor
- LF — Low Frequency Contactor
- L — Line Contactor, DC Motor Starter
- OL — Thermal Overload Relay

Note #1 — All Contacts are shown in the de-energized position with portable head plugged in at "A"

Note #2 — Coil "L" operates contacts "L" instantaneously and contacts "1A" "2A" "3A" & FF" as time delay in the order named.

Note #3 — Connections shown by dotted lines, thus ⊗A ------ ⊗B are made when multiple conductor plug is inserted in Receptacle.

CALIFORNIA INSTITUTE OF TECHNOLOGY
PASADENA CALIFORNIA

AEROLAB

WIRING & SCHEMATIC DIAGRAMS
HIGH FREQUENCY M. G. SET

DESIGNED:	E.M.L.	SCALE: NONE	DATE: JUNE 15, '31
DRAWN:	J.S.B.	DWG. SUB Nº 123	
TRACED:	W.R.H.		
CHECKED:	E.M.L.	AW-91	
APPROVED:			