

RQ14

TYPE 52 FH/FHV/CFH

AERIAL & D.C. CONTROL CIRCUITS FOR TYPE 52CFH

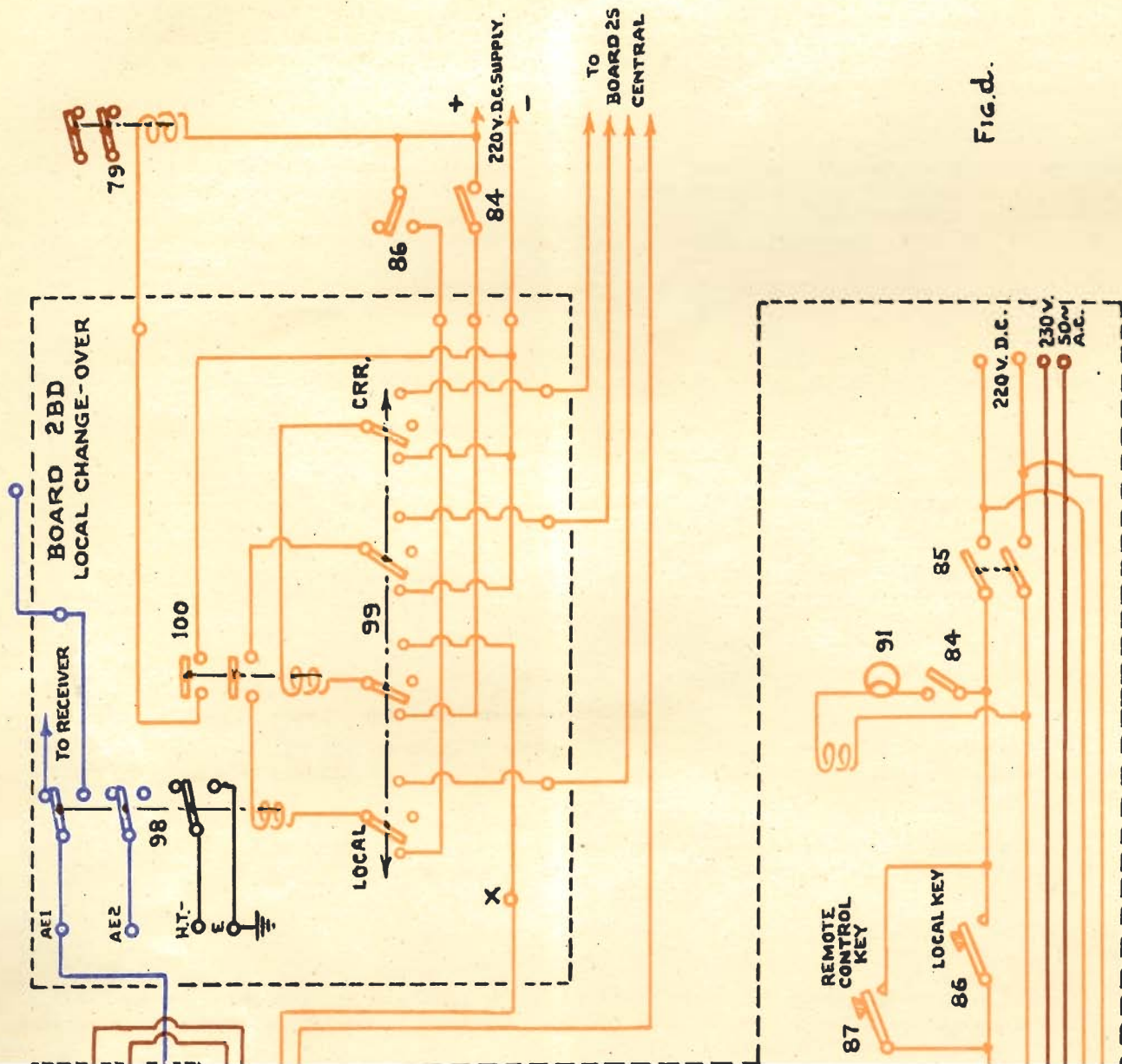
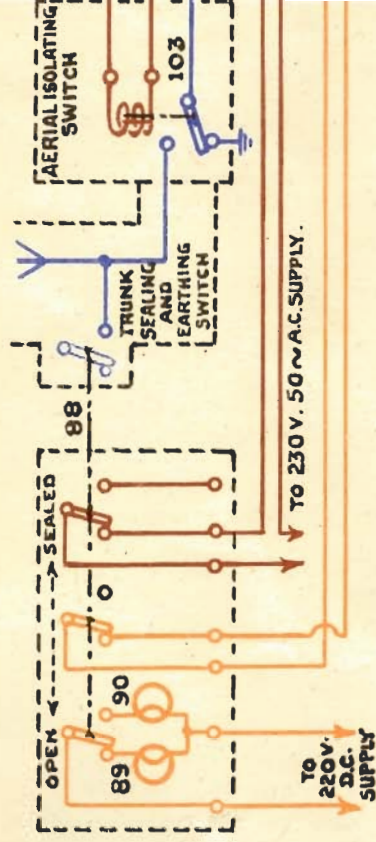
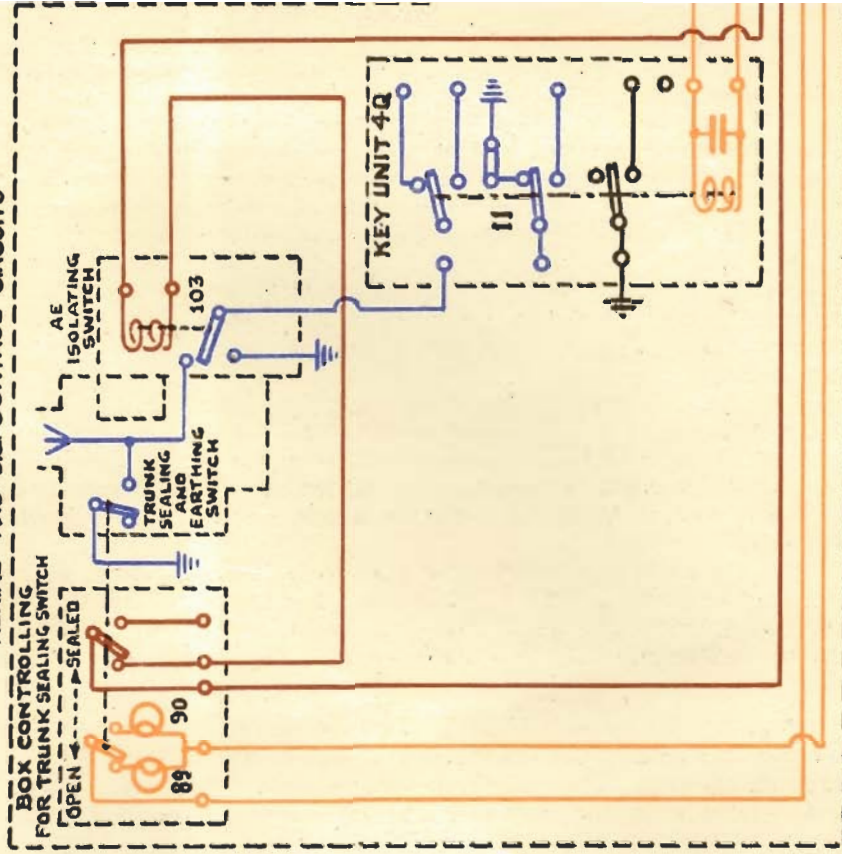


Fig.d.



TYPE 52FH/FHV
AERIAL AND DC. CONTROL CIRCUITS



(a) Type 52 FH and 52 FHV Operating Circuits.

The 200-volt D.C. supply for the operating circuits is obtained from the ship's mains via a Pattern 7331 Board, Fuse and a D.C. supply switch (85). The D.C. supply is used for controlling the rectifier unit magnetic switch (79) via an economy lamp (97) and a single-pole Tumbler switch (84), which is fitted on the local operator's bench.

The D.C. supply is also used for operating the Key Unit (11) via the morse key (86) or the remote control morse key (87).

One contact of the key unit acts as a send-receive switch and another (when the morse key is pressed) completes the negative H.T. return to earth from the centre-tap on the transmitting valve filament transformer (66), thus keying the transmitter. This contact of the key also completes the grid-filament circuit of the absorber valve (4), via earth and the adjustable resistance (70) during marking periods. See Fig. B.

The D.C. supply is also used to light the appropriate lamp (89) (90) in the trunk sealing switch indicator box, under the control of the auxiliary contacts of the trunk sealing switch (88).

Other auxiliary contacts of the trunk sealing switch complete a circuit from the 230-volt A.C. supply through the bobbin of the aerial isolating switch (103), where this is fitted.

(b) Type 52 CFH Operating Circuits.

To enable the set to be controlled from either the local position or through the central control W/T system, a Board 2BD, local change-over, is fitted in lieu of the key Unit.

The Board 2BD consists of a three-pole magnetic switch (98) a four-pole two-way change-over switch (99) and a magnetic switch (100).

One contact of the magnetic key switch (98) acts as a "Send Receive" Switch, connecting the aerial system to the transmitter during "Marking" periods and to the receiver during "Spacing" periods. Another contact (when the morse key is pressed) completes the negative H.T. return circuit to earth of the transmitting valve, thus keying the transmitter 5Q. It also completes the grid-filament circuit of the absorber valve (4) during "Marking" periods.

The 220-volt D.C. supply for the operating circuits is obtained from the ship's mains, either direct from a fuse board in the transmitter room when the change-over switch (99) is in the "Local" position or via the board 2S central and switch auxiliary and indicator, when the change-over switch is in the "C.R.R." position.

When the change-over switch (99) is set to the "Local" position the tumbler switch (84) fitted on the local operator's bench completes the 220-volt D.C. supply through the bobbin of the magnetic switch (100). One contact of the magnetic switch then completes the D.C. supply through the bobbin of the rectifier unit 4Q control switch (79), a second contact of this switch completes the D.C. supply to the bobbin of the magnetic key switch (98) when the local morse key (86) is pressed.

When the change-over switch (99) is set to "C.R.R." position the set is controlled from the Board 2S central control in the C.R.R. or C.C.O.

When Type 52 CFH is fitted as a fire control set, an additional tumbler switch marked "R/C SET ON" is fitted on the rack table and completes the circuit of the magnetic switch (100) in the Board 2BD when the change-over switch (99) is set to "C.R.R."