

Field Switchboards / Feldklappenschrank

There are several switchboard (klappenschrank) variants:

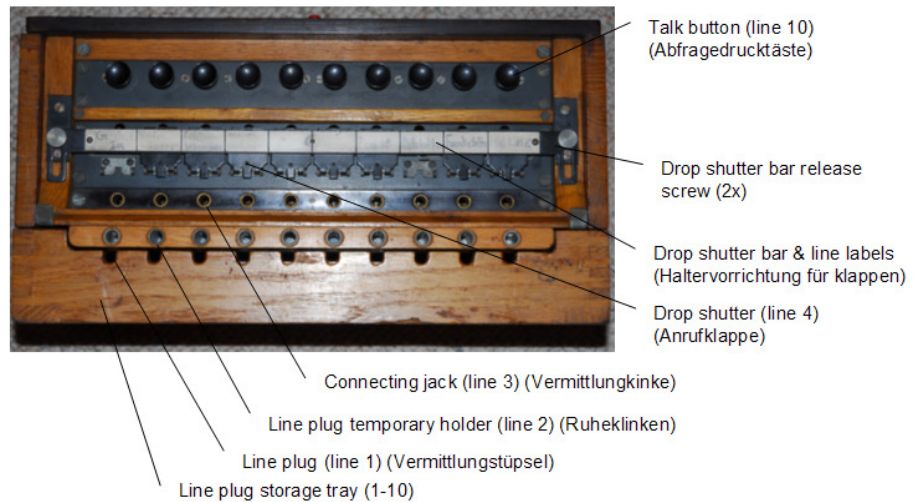
- Klappenschrank zu 10 Leitungen (small switchboard for 10 lines)
- Feldklappenschrank zu 20 Leitungen (field switchboard for 20 lines)
- Grosser Feldklappenschrank zu 60 Leitungen (large field switchboard for 60 lines some variations had 50 lines and a 3 line exchange interface unit)
- Grosser Feldklappenschrank 60 line unit with a 150 line multiple

Switchboard 10 Line (Klappenschrank zu 10 Leitungen)

The most common unit that will be seen in a non-static field situation (like a reenactment) will be the 10 line or the 20 line switchboard.

The 20 line switchboard is heavier and has a built in ringer and a hand set. Incoming calls can ring, if the bell hasn't been switched off, and the incoming line has a shutter (anrufklappe) that is dropped by a solenoid when ringing current is placed on the line¹.

Front View - Klappenschrank zu 10 Leitungen



Technical details

The 10 line switchboard has no ringer nor does it have a handset. To set up the switchboard you need also to have a FF33 as the operator's telephone. The FF33 serves as both the ringer and the handset. This switchboard also has drop shutters to provide a visual indication of an incoming call.

The switchboard is housed in a hardwood case and has a metal cover, which looks like a baking pan. It has a screw in the middle that fastens the cover over the exposed terminals on the top and a hinged flap that covers the jacks, shutters and plugs on the face of the switchboard.

¹ Ringing current is generated by turning the hand crank on the FF 33 telephone to initiate a call.

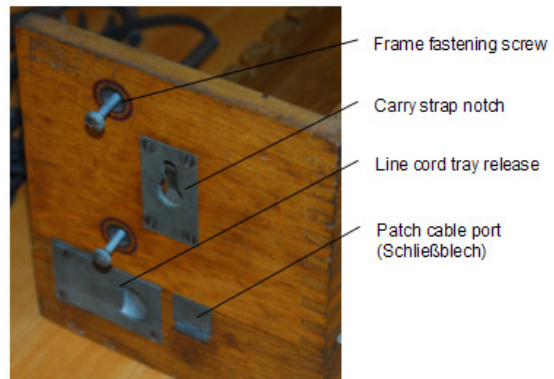
On the sides of the case are 4 pan head screws that secure the internal components to the box. When these screws are removed the mechanism can be removed for service².

On the lower sides there are two latches, releasing these allows the bottom of the switchboard to be opened and the line plugs (vermittlungsstöpsel) to be unstowed. There is also a jack panel (buchsenkörper) to plug an extension switchboard unit in. The plugs correspond to each line and should be fed through the guide slots on the front of the case before the lid is closed and re-latched. Each of these plugs should be plugged into corresponding line plug temporary holder. This will help the operator to keep track of his connections later.

Above the plugs are the line connection jacks (vermittlungkinke); 1- 10. Above the jacks are the drop shutters (anrufklappe) which indicate an incoming call when they drop. Over the shutters is a moveable bar that keeps the shutters from dropping when the unit is being transported. This bar should be raised and secured in the up position during operation. The white strip on the bar allows the name of the connection to be penciled in to assist the operator.

Above the bar are the talk buttons (abfragedruktäste) which are pushed in to connect the calling line to the operator's telephone. Partially pushing an adjacent button or pushing the red button on the top of the switchboard will release the button.

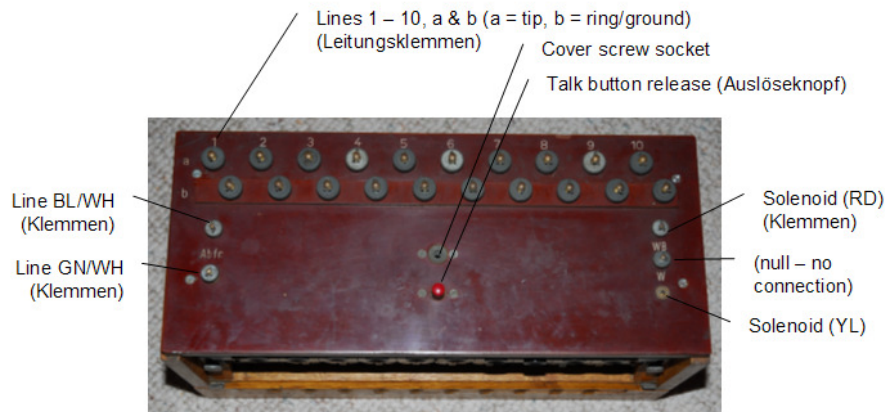
Side View - Klappenschrank zu 10 Leitungen



The top of the switchboard has the line connections. Each incoming line is attached across the back. All

connections have identical operation. Terminal **a** is for the line and terminal **b** is for ground. **Important note:** Just as all lines into the FF33 telephone must be secured (snubbed) around a stationary object; each line **must** be secured

Top View - Klappenschrank zu 10 Leitungen



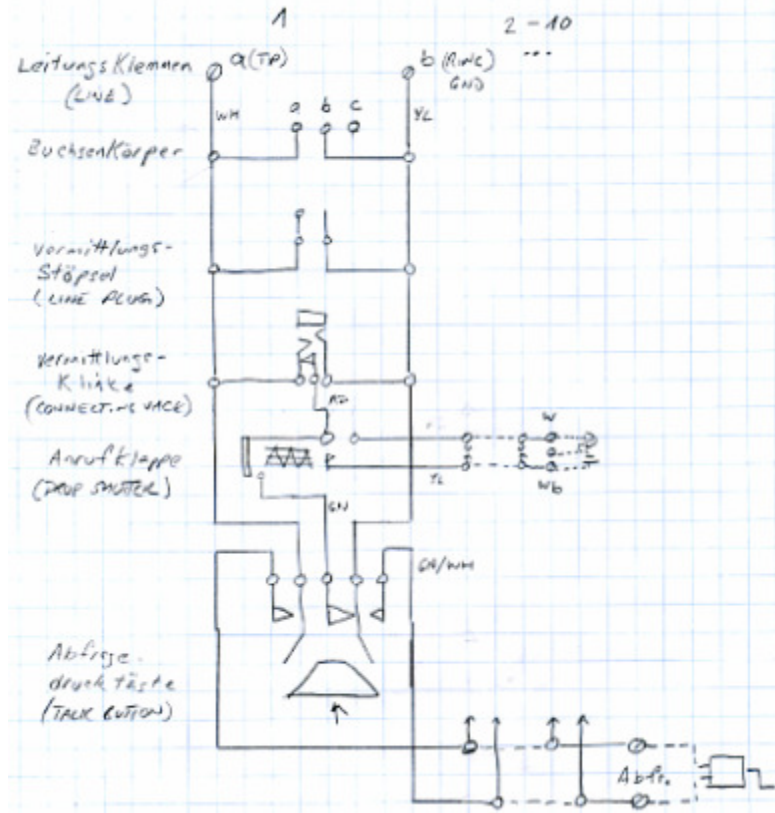
² There is nothing that is easily field serviced and the unit should not be opened by unqualified personnel.

around the switchboard line rack before it is attached to the switchboard.

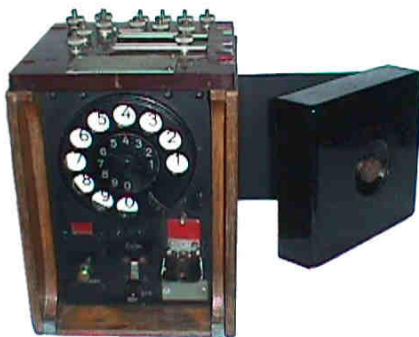
The lines in the right side marked **WB** and **W** are for attachment of an external ringer. The center terminal is null; it is not connected to anything. On the left these lines are for attaching the operator's FF33 telephone or a telephone exchange interface (Amtszusatz zum kleinen Klappenschrank), described in greater detail later.

This schematic is for one circuit of the switchboard, in the switchboard there are ten identical circuits; one circuit for each incoming line. The internal wiring is well done with careful wire runs contained with linen wire lace. The only common problem is contact corrosion of the plugs, jacks and the talk buttons. Cleaning of these contacts is recommended.³

The other common switchboard item is the telephone exchange dial interface (amtzusatz zum kleinen klappenschrank, 1933). It is an interface used to connect the military field telephone network into the



Reichpost telephone network. This would allow a field telephone user to patch through to any accessible telephone on the Reichpost network. Pictured to the left with its cover and hinged faceplate, the amtzusatz connects to the switchboard by two strap connectors that link the terminals marked 'Abfr.' on the top left. The amtzusatz is connected into the Reichpost telephone line, with the dial serving to pulse dial on the Reichpost network.⁴

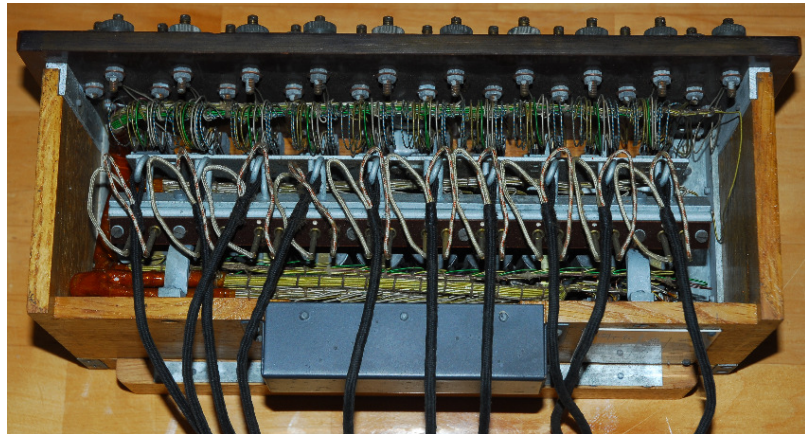


³ Cleaning of the plugs with muriatic acid wash and the contacts by using a business card in the closed contact are the most effective. Do not forget to neutralize the acid after washing.

⁴ This will also work on today's telephone network if the local switch still supports pulse dialing.

Internals of the Switchboard

The outer box of the switchboard is composed of three parts; the cover, the main housing and the storage box for the line cords. By unscrewing the frame fastening capture screws on the sides of the switchboard the internal frame may be lifted out. This exposes the line cords and their plugs.



..... Work in progress ... to be continued....