

# TS ONE and PS ONE fitting instructions.

Replacement Transfer and Play/Mute switches for Wurlitzer jukeboxes.

TS ONE transfer switch covers models: 1700 to 2600 all variants, mono and stereo. PS ONE Play/Mute switch covers models: 1900 to 2700 all variants, mono and stereo. Excludes model 2000

# Foreword

These switches have been designed to replace the Wurlitzer leaf switches used between 1954 and 1963 which by now have become worn and unreliable. Although easy to fit, good electrical skills and understanding are required along with knowledge of how the jukebox works. A workshop manual for the model of jukebox they are to be fitted on is also a requirement.

If in any doubt DO NOT PROCEED!

Due to the phased introduction of the original switches, early models can only use the TS ONE (Transfer switch) and late models can only use the PS ONE (Play/Mute switch).

Unfortunately, Wurlitzer over the years, varied the wire colours and positions to these switches making it impossible to produce a simple wiring chart. For this reason, original switch pictures below are assigned numbers that correspond with the TS ONE and PS ONE switches.

### Preparation

Clear any selections on the jukebox and make sure it is in the 'at rest' position.

Isolate the jukebox from the AC supply by removing the power cord from the wall socket.

Using a large cloth to cover the electric selector below the original transfer and play switches to avoid screws or other items being lost and possibly jamming the mechanism.

The colours and positions of the wiring to the original switches must be recorded and a few pictures recommended so the new switches can be wired correctly.

#### Old switch removal

Back out the switch adjusting screw - refer to your jukebox manual for details.

Cut each wire approximately 10mm/ 3/8" from the solder joint on the original switch – this is so that the colours and positions can be re-checked in case of wiring problems.

Remove the original switch. The fixing screws can be cut down to approximately 15mm/ 5/8" for fitting the new switches.



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Diagram 1



Diagram 2

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# Fitting the new switch(s)

Identify the correct switch:

TS ONE is marked Transfer PCB and has 10 terminals.

PS ONE is marked Play PCB and has 9 terminals.

If both types are to be installed fit the Transfer switch first to the left-hand fixing holes. Note: when fitted TS ONE rear of the terminals may get close to the steel mechanism upright. Check and add insulating material required.

Next fit the Play/Mute switch to the right-hand fixings. Make sure the screws are tight and the switch brackets are firmly attached.

**Models 1900 to 2600 TS ONE** wiring: refer to Diagram 1 and 3. Fit the wires in the same order as were fitted to the original switches -1 to 1, 2 to 2 etc.

**Models1900 to 2600 PS ONE** wiring: refer to Diagram 2 and 4. Fit the wires in the same order as were fitted to the original switches but note:

Mono jukeboxes fit screened cable to terminals 1 and 3.

Stereo jukeboxes fit screened cables to terminals 1 and 3, 2 and 3.

Finally add a link wire between the 'A' terminal and the 'B' terminal.

**Models 1700 to 1800** (only the TS ONE can be fitted): refer to Diagram 1 and 3. Fit the wires in the same order as were fitted to the original switches – 1 to 1, 2 to 2 etc. The 'A' terminal requires a ground connection.

**Model 2700** (only the PS ONE can be fitted): refer to Diagram 2 and 4. Fit the wires in the same order as were fitted to the original switches.

The 'B' terminal is not used



Diagram 3



Diagram 4

The above diagrams show the switching arrangement on the TS ONE (Diagram 3) and PS ONE (Diagram 4). This is for reference only and shown 'at rest' position.

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## TS ONE switch adjustment

Check the switch actuating arm roller is on its cam lobe – see jukebox manual. Slowly turn in the adjusting screw until the micro switch on TS ONE just clicks in the actuated position – see Transfer Switch Adjustment picture. Turn the screw in a further 2 full turns. Check the insulating stud of the adjusting screw is in the centre of the micro switch actuator arm – if not carefully bend the actuator arm slightly to the left or right to avoid the insulating stud slipping off the actuator arm.



# **PS ONE switch adjustment**

Check the timing marks as detailed in the jukebox manual before proceeding.

Slowly turn in the adjusting screw past the point where the micro switch clicks in the actuated position and almost to the point where the micro switch actuating arm bottoms on the micro switch housing – see Play Switch Adjustment picture.

Check the insulating stud of the adjusting screw is in the centre of the micro switch actuator arm – if not carefully bend the actuator arm slightly to the left or right to avoid the insulating stud slipping off the actuator arm.



Finally, check operation of the jukebox by selecting several records.

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