

“Escutcheon” Vs “Full Vision Dial” Reduction Dial Drive, everything you need to know!



Jackson-Bell Super-Heterodyne Dial Drives, arranged by Developmental Progression, Left to Right

The Super-Heterodyne Circuitry has very sharp tuning; to make station selection easier, the drive mechanism uses a turns reduction. Many turns of the knob are required to get across the Broadcast Band.

Jackson-Bell first Super-Heterodyne offering was the Model 88, with an Escutcheon. The Dial Drive mechanism consisted of Calibrated Wheel, attached to the tuning Capacitor, driven on the outside by a knob (See the Illustrations). The Dial is lighted from above. Which Dial is viewed through an Escutcheon, with a pointer notch, attached to the Cabinet. Forget the esthetics, this is a terrible design. The Calibration of the Dial depends on the placement of the Chassis Parts, to the placement of the Escutcheon on the Cabinet Front.

The only way to get accurate dial alignment is to do the alignment process after the final assembly. Not easy, and a manufacturing Nightmare.

There is a Mechanical Fix, and some might say a more attractive Solution. Attach the Pointer to the Tuning Capacitor, and fix the “Dial” to the chassis (See the Illustrations). A Dial Lamp makes a shadow line on the Translucent Dial, indicating the tuning frequency. After Alignment and Calibration, the Chassis can be inserted in the Cabinet, with no worries!

So, what was wrong, with Jackson-Bells first “Full Vision Dial” solution. Like the earlier Escutcheon design, the dial moved in backwards direction from the knob rotation. There is an easy mechanical fix for that, Mount the drive mechanism to a Slot on the Drive Ring (See the illustrations).

The “Final Dial Drive Solution” looks nice, and works well. Jackson-Bell, and other Manufacturers used a version of this Mechanism on their “High End Offerings.

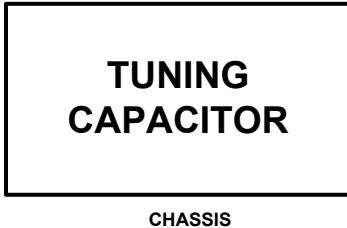
*For a Much Better Description of Jackson-Bell Early Superhetrodyne Offerings, please read
“Jackson-Bell Goes Super” in the Blogs Section*

Knob Placement, Dial Drives, and connection to the Tuning Capacitor

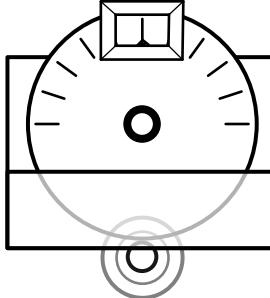
The Dial can be Front Lighted and viewed through an Escutcheon

The Dial can be a Translucent Sheet, and Back Lighted, with a Shadow Graticule

LAMP IS IN A FIXED POSITION
ABOVE THE DIAL
DIAL IS ONLY VISIBLE THROUGH
A WINDOW (ESCHUCHEON)

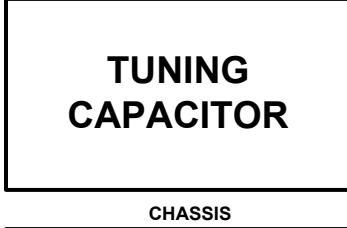


ESCHUCHEON WINDOW

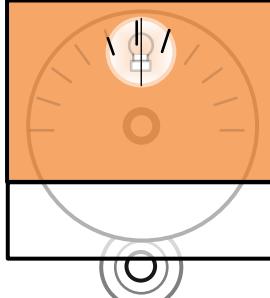


Outer Rim Drive with an Escutcheon was used on the first Jackson-Bell Superheterodyne
This design does have quirk; the knob turns in the opposite direction from the Dial.

LAMP MOVES WITH WHEEL
LIGHT SHOWS THROUGH WHEEL
LIGHTS TRANSLUCENT DIAL SCALE
WITH A SHADOW AT THE CENTER

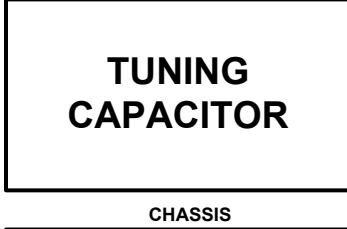


TRANSLUCENT SCREEN
WITH CALIBRATION

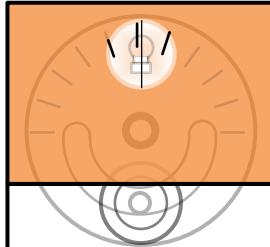


Outer Rim Drive with a "Full Vision Dial" was the First Improved Design
This design does have quirk; the knob turns in the opposite direction from the Dial.

LAMP MOVES WITH WHEEL
LIGHT SHOWS THROUGH WHEEL
LIGHTS TRANSLUCENT DIAL SCALE
WITH A SHADOW AT THE CENTER



TRANSLUCENT SCREEN
WITH CALIBRATION



Inner Rim Drive with a "Full Vision Dial" was the Final Improved Design
The Knob and Dial both turn in the same direction

The Drawings are to illustrate the Concepts

The Mechanisms are behind the Wood Cabinet, and are not seen by the user!