

# ARN-7 Radio Receiver Model for X-Plane by Humbug Aeroworks

(For X-Plane only, not for real world use or instruction.)



Radio Compass (slaved to ARN)

Frequency range  
and tuner

Gauge light  
rheostat

Signal strength  
gauge

Frequency range  
selector

DME/Bearing  
mode selector

Tuning crank:  
Center knob: large increments  
Outer knob: small increments

Audio volume  
rheostat

Power light

Receiver mode  
selector



This radio control unit is an adaption for X-Plane of the Bendix C-4/ARN-7 unit found in military aircraft from the 1940s by Humbug Aeroworks. It is designed to tune into radio stations and to point to them with the separate radio compass. There are certain limitations to X-Plane that required adaptation of the actual unit, but it still provides a vintage feel in its use. The following describes the model and its functions within X-Plane only.

A few historical photos are found in this directory for your interest. Please see the photo above for key to the following.

1. Radio compass. This pointing compass is slaved to the ARN-7 and will point to either VOR or ADF stations as selected.
2. Frequency range and tuner. The selector knob below the tuner is used to select the range desired: 108-117 Khz. for VOR NAV stations and 190-535 Khz. for ADF stations. The tuning crank below is used to dial in the station desired. Note that you must use the selector knob to select and tune in the range of either VOR/NAV or ADF frequencies.
3. Gauge light rheostat. This will increase or decrease night lighting in the two gauge displays.
4. Signal strength gauge. This will simulate the signal strength of the selected frequency. Here is where the digital world and analogue world do not mesh. In X-Plane stations are either dialed in or not and the strength of the signal is always 100%. (In the real-world instrument, one rotates a loop antenna and aims it at the station to get the strongest signal.) But this gauge is still useful (see next).
5. DME bearing selector. If the station tuned has a DME transmitter, the DME selection will govern the movement of the needle in the signal strength gauge. The needle will move to the right as the aircraft gets closer to the station. If the station tuned has no DME the needle will NOT move, so turn the selector to bearing mode and the needle will indicate the relative bearing in quadrants to the station. If the bearing is in front of the aircraft, the signal will get stronger and retreat as the station is behind or to either side.
6. The audio rheostat. This will control the volume of the morse code identifier of the tuned NAV or ADF station (only in ANT[enna] mode for the latter). Use this to confirm that you are tuned to a station, for example, because the signal strength needle does not move if you are in DME mode and the station has no DME.
7. Power light.
8. Tuning crank. There are two knobs here: the center knob is used to move the frequency up in large increments and the outer knob in small increments. For example, to tune an ADF station to 394 KHz. move the center crank to 390 then move the outer knob up four clicks for 394.

I originally thought that this receiver could also be used for X-Plane COM stations, but there were too many problems for this, so there is a separate COM receiver on the Lockheed Model 12.

There is no transponder instrument on the Lockheed Model 12 vintage panel which would be anachronistic (military aircraft had a primitive IFF transmitter with an

included morse code key button).

This instrument and the accompanying xlua script are for the free enjoyment of the X-Plane flightsim community. No commercial use of this software is allowed. Adaptation of this software for other free use may be done by permission of the author.

Blue skies,  
Steve Baugh  
A.K.A. Humbug01