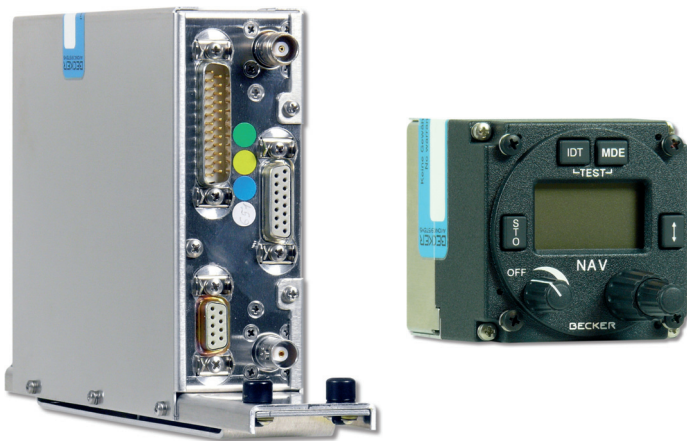


# Remote VOR/LOC/GS Navigation Receiver

RN 33XX-(x) / CU 5301-(X)

Prime Line/Navigation



This VOR/ILS receiver enables pilots and installations engineers to customize the VHF radios in any aircraft to provide. The ideal combination of performance and low cost, provides the best value and operating characteristics for any particular aircraft and mission profile.

The system is ideally suited for installations where minimum panel space is to be used. It utilizes a small lightweight CU 5301 control unit, which fits into standard 2 1/4" (57mm) round instrument panel cut-out, and is only 2 1/2" deep.

Lightweight remote receivers, with VOR/LOC, VOR/LOC/GS capabilities are mated with this control unit, to complete a system. These receivers can be installed at any convenient place in the aircraft. The CU 5301 control unit offers a clear, high contrast, double line LCD-display, which is readable under all lighting conditions, even in bright sunlight.

Both active and preset frequencies are displayed, and can be transferred by a single stroke of the "Flip-Flop" button. Up to 20 preset frequencies can be easily entered in channel mode from the front panel, and stored in a non volatile memory. Parallel/serial outputs are provided for automatic DME channelling. The steering signals and flag drive outputs are compatible with most commonly used CDI, HIS, Flight Director and Autopilot Systems.

All systems will be JTSO certified for either VFR or IFR use in all types of fixed wing and rotary wing aircraft, and comply with the stringent ICAO requirements Annex 10, FM immunity.

For truly compact installations, the RN 33XX receiver systems can be combined with other Becker Prime Line equipment, such as VHF-COM, ADF and ATC transponder presentation in the panel.

The remote receiver units can be controlled by other types of CDU or FMS devices and are ideally suited for use as essential sensors in flight management systems.

# Remote VOR/LOC/GS Navigation Receiver

## RN 33XX-(x) / CU 5301-(X)

### Prime Line/Navigation

Technical data RN3320-(01) VOR/LOC/GS receiver  
with VOR/LOC converter:

- Supply voltage: +13.75 V / +27.5 V
- Current consumption:  $\leq 0.42$  A /  $\approx 0.32$  A
- Operating temp. range:  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$
- Storage temp. range:  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Altitude max.: 50.000 ft
- Control interface: RS 422, serial line
- Dimensions (H x W x D)  
incl. mounting plate: 139 x 50 x 253 mm
- Weight max.: 0.81 kg
- Frequency range:  
VOR/LOC 108.00 MHz- 117.95 MHz,  
200 channels  
Glide slope 329.15 MHz- 335.00 MHz,  
40 channels
- Channel spacing:  
VOR/LOC 50 kHz  
Glide slope 150 kHz
- Receiver sensitivity:  
VOR/LOC audio  $-93$  dBm  $\geq 6$  dB SINAD  
Selectivity:  
VOR/LOC  $\geq 65$  dB for  $\pm 50$  kHz  
Glide slope  $\geq 42$  dB for  $\pm 150$  kHz
- NAV signal composite: 500mV
- VOR bearing error  $\geq 2$  degrees
- Centering Error LOC 11% Std. Def.
- Centering Error GS 13% Std. Def.
- Outputs:  
VOR/LOC needles max. 3 imp. 1 K $\Omega$   
VOR/LOC flag max. 3 imp. 1 K $\Omega$   
TO/FROM flag max. 3 imp. 1 K $\Omega$   
G/S needles max. 3 imp. 1 K $\Omega$   
G/S warning flag max. 3 imp. 1 K $\Omega$   
DME interface 2 out of 5, ARINC 410  
Resolver interface standard ARINC 407  
Audio power  $\geq 100$  mW into 300  $\Omega$

Technical data Control Unit CU 5301-(1)-101:

- Supply voltage: +27.5 V DC / 13.75 V DC
- Current consumption  
without panel lighting:  $\geq 60$  mA
- Operating temp. range:  $-20^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$
- Storage temp. range:  $-55^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- Altitude max.: 50.000 ft
- Interface: RS 422, serial line
- Dimensions (H x W x D): 61.3 x 61.3 x 62mm
- Weight max.: 0.26 kg

Recommended VOR/ILS components:

- IN 3300-(20)-01/MD200-306 VOR/ILS
- RM 3300-(2) RMI converter, 3 wire syndro
- RM 3300-(3) RMI converter, sin/cos AC

Recommended connector kits:

- CK 3305-S for RN3320-(1)
- CK 3310-S for IN 3300-(x)-01
- CK 3309-S for RM 3300-(x)

Applicable documents:

- VOR/LOC/GS JTSO-C34e/JTSO-36e/  
JTSO-2C40c
- Software ED 12B/DO-178B, software
- EUROCAE/RTCA ED ED-14c/DO-160c,  
environment
- BAPT FTZ 17 TR2010, A131839J
- Homologation: 10.922 / 81 JTSO, LBA