

RH150-13

TETRA Remote Control Head

The RH150-13 TETRA Remote Control Head is a Control and Display Unit (CDU) that is designed to provide a remote second facility to the main CDU (CH150-14 or CH250-13) for controlling a Chelton airborne TETRA radio sub-system.

The unit can be mounted in a console or otherwise away from the main CDU. The maximum wiring loom length between the main and remote CDUs must not exceed 10 metres.

- **The RH150-13:**
- Repeats the digital video of the main CDU
- Monitors the front panel keyboard for key presses
- Communicates key presses to the main CDU
- Provides automatic display brightness adjustment independently of the main CDU

The design of the MMI, display and controls benefits from Chelton's extensive experience of fielding TETRA radios for airborne use, which, because of the unique nature of TETRA networks, is significantly more challenging than operating standard tactical radios.



The Display

The unit's display screen has a viewable area of approximately

272 pixels x 204 pixels (48 mm x 67 mm).

The RH150-13 is Night Vision Imaging System (NVIS) compliant and may be integrated into NVIS Green B Class A and B cockpits. Light emitted from the displays is LED white. Maximum NVIS radiance is within the MIL-STD-3009 published limits for 'multi-colour' electro-optical displays.

For night operation, the keys are backlit with LEDs, the intensity of which is controlled by the aircraft's bus rail. The key backlighting complies with NVIS Green A.

- DZUS mounting
- NVIS compatible
- Large display screen with automatic dimming
- Keypad suitable for the gloved users

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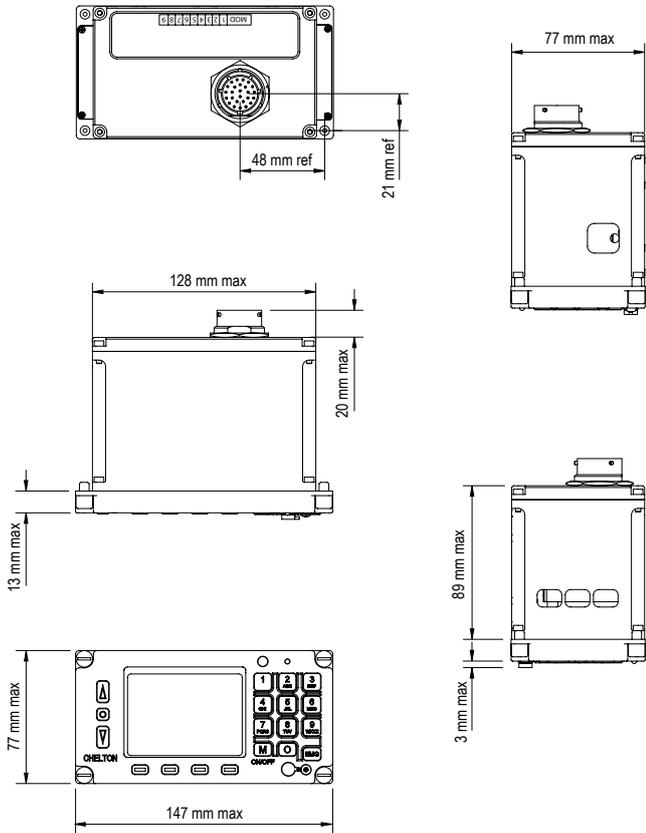
TETRA Remote Control Head

ELECTRICAL

| | |
|------------------------------------|----------------------------------|
| Operating Voltage | 28 V dc (nominal) (16 V to 32 V) |
| Input Current | 700 mA max at 28 V Input |
| Panel Dimming Input Voltage | 0 V to 28 V dc |
| Panel Dimming Input Current | 60 mA max |

MECHANICAL

| | |
|-------------------------------------------|--------------------------------------------------------------------------|
| Dimensions | 77 x 147 x 125 mm max |
| Weight | 0.93 kg |
| Connectors To Controlling CDU LEMO | Multi-pin Type MS3114E-16-26P, Male 4-pin Type EGG.00.304.CLL, Female |
| LCD Screen Dimensions | 272 pixels x 204 pixels (48 mm x 67 mm) |



ENVIRONMENTAL

| | |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Temperature | EUROCAE ED-14E/DO-160E, Section 4, Cat B1 modified Operational: -40°C to +55°C Short Time (Powered up): +70°C Ground Survival (Powered down): -40°C to +85°C |
| Altitude | 25,000 feet |
| Temperature Variation | EUROCAE ED-14E/RTCA DO-160E, Section 5, Cat B |
| Humidity | EUROCAE ED-14E/RTCA DO-160E, Section 6, Cat B |
| Operational Shocks and Crash Safety | EUROCAE ED-14E/RTCA DO-160E, Section 7, Cat B (Helicopter and all fixed wing) Operational shock: 6 g, 11 ms Crash Safety (Impulse): 20 g, 11 ms Crash Safety (Sustained): 20 g, 3 secs |
| Vibration | EUROCAE ED-14E/RTCA DO-160E, Section 8 Cat S, Curve M (Sinusoidal) Fixed WingCat S, Curve B2 (Random) Fixed WingCat R, Curve G (Sin-Random) Helicopter |
| Explosion Atmosphere | EUROCAE ED-14E/RTCA DO-160E, Section 9, Cat X |
| Waterproofness | EUROCAE ED-14E/RTCA DO-160E, Section 10, Cat W (Front Face Plate only) |
| Fluids Susceptibility | EUROCAE ED-14E/RTCA DO-160E, Section 11, Cat F (with the exception of SKYDROL) |
| Sand and Dust | EUROCAE ED-14E/RTCA DO-160E, Section 12 Cat X |
| Fungus Resistance | EUROCAE ED-14E/RTCA DO-160E, Section 13, Cat F |
| Salt Fog | EUROCAE ED-14E/RTCA DO-160E, Section 14, Cat X |
| Magnetic Effect | EUROCAE ED-14E/RTCA DO-160E, Section 15, Class Z 0.3 m |
| Power Input | EUROCAE ED-14E/RTCA DO-160E, Section 16, Cat B |
| EMC | |
| Voltage Spike | EUROCAE ED-14E/RTCA DO-160E, Section 17, Cat B |
| Audio Frequency Conducted Susceptibility | EUROCAE ED-14E/RTCA DO-160E, Section 18, Cat Z |
| Emission of Radio Frequency Energy | EUROCAE ED-14E/RTCA DO-160E, Section 21, Cat B |
| Noise Radiation | The equipment will not radiate noises in excess of 60 dB(A) @ 1 m |