

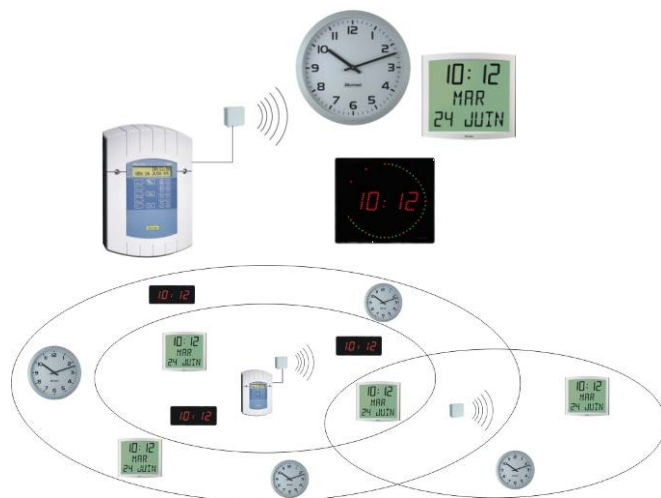
# Time distribution

## Wireless time distribution in hospitals

**The use and installation of a wireless clock system in hospitals must respect some norms and must not disturb the medical equipment.**

A BODET wireless clock system is standardised AFNOR NF S87-500C. Only the transmitter and the repeaters send radio signals.

**The wireless clocks receive only the radio signal, they do not send interferences.**



BODET transmitter or repeater:

Transmission power of 25 – 125 – 500 mW  
Frequency 869 MHz  
Norm NF S87-500 C wireless



The minimum distance between medical equipment and another equipment is calculated as follow:  
 $d = (7/E_1) \sqrt{P}$  or  $E_1 = 3 \text{ V/m}$  ( $P = \text{Power of the transmitter}$ ,  $d = \text{minimum distance}$ )

For BODET products, the minimum distance between a DHF transmitter and another equipment is:

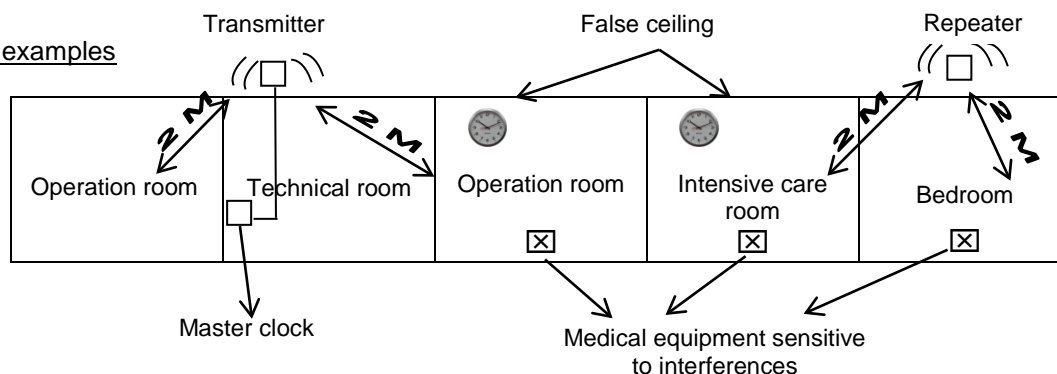
500 mW at 869 MHz : distance 1,65 m	125 mW at 869 MHz : distance 0,75 m	25 mW at 869 MHz : distance 0,36 m
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For comparison, for a mobile phone - 2 W at 869 MHz - the distance should be 3.30 m.

A mobile phone can easily interfere with medical equipment located in a room near (less than 3M). That is why some restrictions are applied for mobile phones in hospitals.

For every new installation of a wireless clock system, it is necessary to check the use conditions of the medical equipment located near a transmitter thanks to the technical manuals and it is necessary to know their electromagnetic immunities.

### Installation examples



**To avoid interferences, BODET recommends installing a transmitter or a repeater in the false ceiling of a technical room, at a distance of minimum 2M from any medical equipment (ideally more than 2M from any intensive care rooms, operation rooms, or bedrooms).**

