> "6+1" Active system transmitters

" $6+1$ " Back-up system transmitters block diagrams

This system is composed of " N " transmitters connected to the antenna and 1 transmitter used as back-up unit that is connected to the dummy load.

In case one of the " N " transmitters fails it is immediately replaced with the back-up unit and the faulty unit is switched to the dummy load.


The basic operations in a N+1 back-up system is identical to the $1+1$ system plus those functions that are typical of this system:

- the power alarm is detected
- it activates both Interlocks on the faulty transmitter and on the backup unit
- it controls the coaxial relay transferring the faulty TX on the dummy load and the back-up TX on the antenna
- it sets the same frequency of the faulty transmitter on the back-up unit
- it switches the audio matrix from the faulty transmitter to the back-up unit
- it switches the RDS matrix
- it switches the interlock matrix in order to release the inter lock of the load on the TX connected to the load and the inter lock of the combiner on the back-up unit
- it turns on the back-up unit


## Other functions are:

- Local/Remote
- Normal/Automatic
- parameter management
- timing management
- interface among the telemetry systems

