

IDEU-830-4 Intelligent Data Extension Unit Operational Description

The iDEU-830-4 is a wall or table-top mounted device for use in various offender presence monitoring applications.

The unit is primarily, but not exclusively, designed as a repeater to extend the range of bracelet tags attached to the ankle of the person monitored by the system. Transmissions received by the iDEU-830-4 are forwarded to a home unit installed at the offender's home. Violations to the offender's curfew schedule generate events that are uploaded to the central monitoring station via various communication interfaces.

When a transmission is received that is addressed specifically to the iDEU (i.e. it includes the iDEU's ID), the transmission is handled by the iDEU as required. Handling the transmission could mean answering the source of the transmission or, alternatively, forwarding the data to a home unit.

If a received transmission is not recognized, the transmission is discarded and no further action is taken by the iDEU.

If simultaneous transmissions are sent to the iDEU, the strongest transmission is received and handled. The maximum transmission time does not exceed 10msec.

The iDEU-830-4 comprises a 418MHz RF transceiver and an integral helical antenna. The unit is powered by a 100-240VAC to 12VDC power adapter and includes a 3.6V backup battery.