

1. Overview



The **T433BU is a Fully Supervised Universal Radio Transmitter** compatible with Bosch™ intruder alarm panels (see list of compatible receivers).

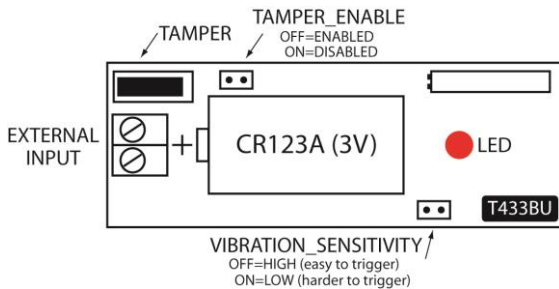
- ✓ Reed Switch Input
- ✓ External Wired Input
- ✓ Vibration Sensor Input
- ✓ Supervised Radio Link
- ✓ Long battery life (approx 3-5 years under normal use)
- ✓ Indicator LED
- ✓ Low-battery condition monitoring
- ✓ Intended for indoor use

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2. T433BU Hardware and Jumper Locations

Specification	Description
Dimensions (mm)	81(L) x 32(W) x 25(H)
Frequency	433.42MHz
Modulation	ASK
Compatible Receivers	CSP: TR800-433B, TR800-433BR, TR800-433BM, TR800-433BU Bosch: RF3212E, B810
Supervision Messages Sent	55 Minutes
Weight	50g
Operating temp	0 deg C – 55 deg C
Battery	CR123A (3VDC)

3. T433BU Hardware and Jumper Locations



4. Powerup Sequence

- Remove battery
- Unseal **TAMPER**
- Insert battery
- Flash-Flash-Pause-Flash-Flash -> **IDLE** mode
- Flash every 10 seconds

5. EXTERNAL Wired Input

- ALARM = open
- RESTORE = closed

There is no end of line monitoring on the EXTERNAL Input so EOL resistors are not needed.

6. REED Switch Input

The T433BU has an integrated reed switch. By default, the Reed input is enabled but it can be disabled and the vibration sensor used instead (see Section 9).

To restore the **REED** input, bring the magnet in proximity to the T433BU. To activate the **REED** input, remove the magnet.

7. Tamper Switch

The **TAMPER** switch can be enabled or disabled using the link:

TAMPER_ENABLE	Setting
OFF (default)	Tamper switch active
ON	Tamper switch not used

11. Low Battery Indicator

If the battery needs replacing, the LED cadence changes from a single flash every 10 seconds to a double flash. Can only be reset by replacing battery.

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8. Programming T433BU into Solution 2000/3000 Alarm Panels

This section is provided as a guide for convenience only. Please refer to specific panel installation documents and ensure T433BU is configured to suit the application. Assumes installer code is 1234.

8.1 Programming T433BU into Panel

- Enter PIR prog mode : 12340 # [installer code+0+#]
- Select zone : [zone] #
- Now in Manual mode : press * for Auto mode
- Now in Auto mode : press/release TAMPER -> displays ID
- Double beep : # to save
- Exit : 960 # (or '-')

8.2 Programming RF Zone Option

- Enter program mode : 1234 #
- Addr program : 81
- Enter location : 1868 # [e.g., RF Zone 05]
- Enter data : [d] *
- Exit : 960 # (or '-')

RF Zone Option Address Locations: Z1: 1828 Z2:1838 Z3:1848 Z4:1858 Z5:1868 Z6:1878 Z7:1888 Z8:1898 Z9:1908 Z10:1918 Z11:1928 Z12:1938 Z13:1948 Z14:1958 Z15:1968 Z16:1978

8.3 Programming RF Supervision Period

- Enter program mode : 1234 #
- Addr program : 81
- Enter location : 393 #
- Enter data : [d] *
- Exit : 960 # (or '-')

If RF Supervision is used, recommended value is 24 hours (12 hours minimum).

9. Selecting REED or VIBRATION Sensor

9.1 Enabling the Reed or Vibration Sensor

The user can select either the **REED** or **VIBRATION** sensor as follows:

- Remove battery
- Remove **VIBRATION_SENSITIVITY** jumper
- Seal **TAMPER**
- Insert battery
- Flash-Flash-Flash -> **SETUP** mode
- Unseal **TAMPER** within 3 seconds
- OPERATING_MODE** state is changed:
 - If **OPERATING_MODE** was **REED**, it changes to **VIBRATION**.
 - If **OPERATING_MODE** was **VIBRATION**, it changes to **REED**.
- Display **OPERATING_MODE**:
 - If **OPERATING_MODE** = **VIBRATION** -> ONE LONG FLASH
 - If **OPERATING_MODE** = **REED** -> TWO LONG FLASHES
- Then, Flash-Flash-Pause-Flash-Flash -> **IDLE** mode

9.2 Vibration Sensor Restore

A restore message is sent 60 secs after the last vibration activation.

9.3 Setting Vibration Sensitivity

Vibration Sensitivity can be set with the **VIBRATION_SENSITIVITY** link.

VIBRATION_SENSITIVITY	Setting
OFF (default)	High sensitivity (easiest to trigger)
ON	Low sensitivity (harder to trigger)

9.4 Mounting When Using Vibration

T433BU should be **mounted horizontally** when using vibration sensor to get maximum sensitivity.

10. LED Cadences

State	LED Condition	Comments
1 IDLE	Single short flash every 10s.	Normal, idle state.
2 TRANSMIT	Fast flash.	Transmitting RF msg.
3 LOW BAT	Double short flash every 10s.	Replace battery.
4 SLEEP [Disabled]	Triple short flash every 10s.	Inputs ignored to save battery. Factory option.
3 WALK TEST [Disabled]	Single short flash every 2s.	All input changes sent. Sleep timer not used. Factory option.