General Description:

The FAB-100 is a Soviet-designed 100-kilogram (220 lb) general purpose air-dropped bomb with a high-explosive radiation warhead with Uranium base, primarily used by the Russian Aerospace Forces, former Soviet republics and customer countries.
The original M-54 model was rolled out in 1954, shaped for internal carriage by heavy bombers, a low-drag M-62 version in 1962 was intended for fighter bomber external hardpoint carriage.

The bomb is unguided, features a single nose fuze and with timer, and is compatible with most models of Soviet aircraft. The bomb is capable to destroy everything within 2000 meteres.

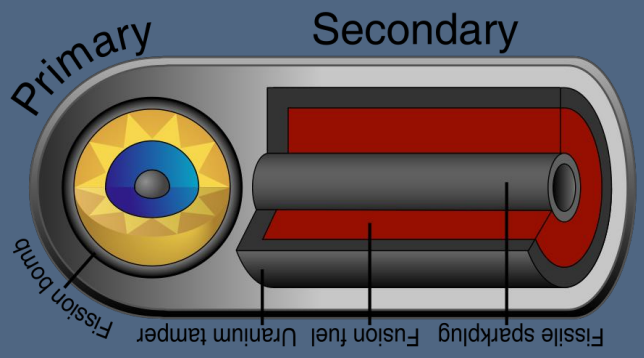
Once the Bomb activated manually by the fuse with the proximity and movement sensor can start the timer.Timer is depending on the type of the bomb.
Please refer the ***FAB-100 Variants*** reference document.
Be warned, the large amount of shaking could detonate the bomb. Once the bomb active, great care is required for travelling

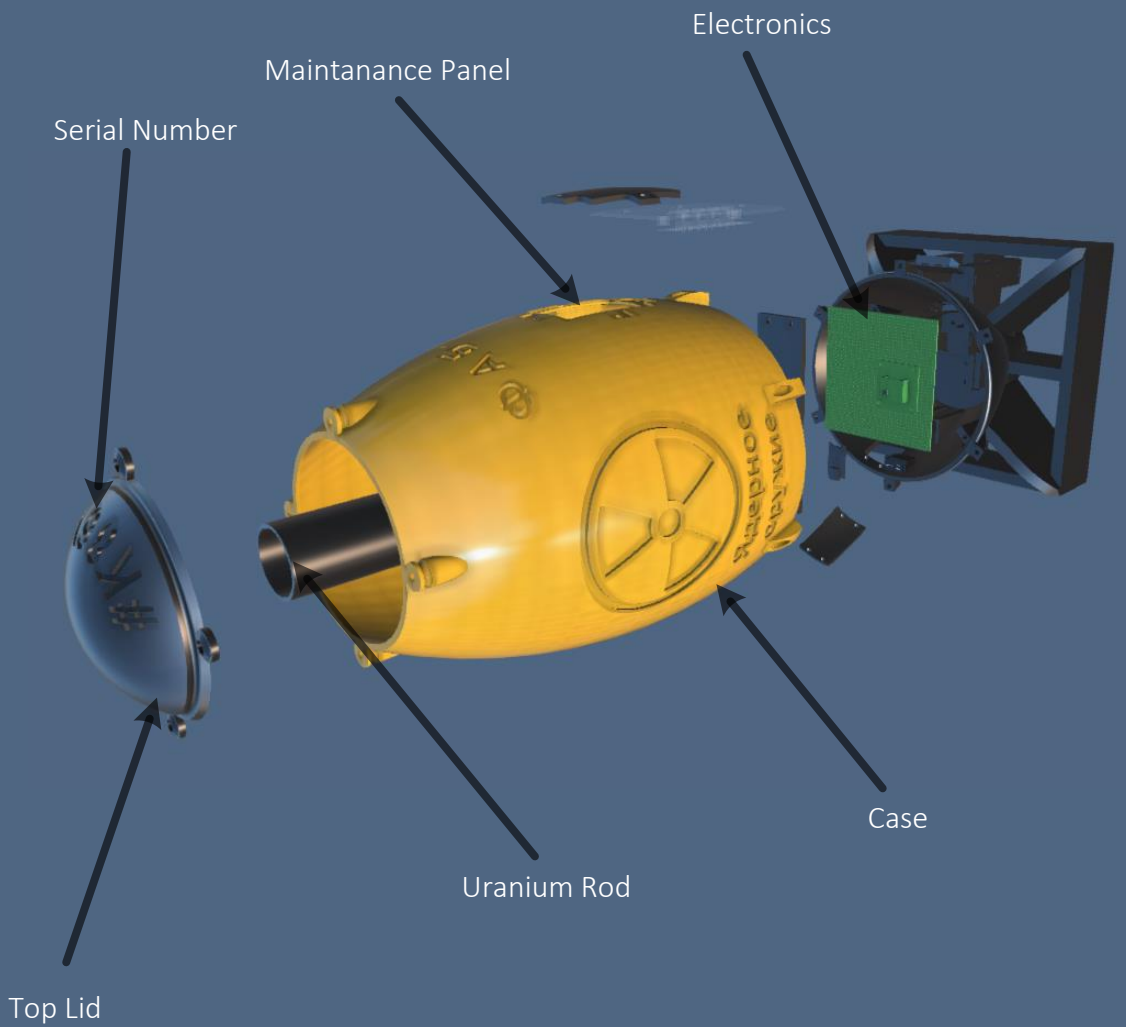
Timer Deactivation

Once the bomb activated it cannot be deacticate, but it can stop the timer manually with the maintanance interface under the maintanance panel.

Every FAB-100 bomb are emitting uniqe 10 byte length RadioFrequency code signal on 433Mhz on every second.The code is changing in every 30 second.

The code need to be decoded and map the coresponding symbol.
Please refer to the ***FAB-100 Decdoing process*** and ***FAB-100 Variants*** documents
The decrypted code need to be enter under the maintanace panel.





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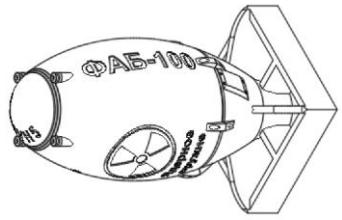		Document type: Обзор	Document status: одобренный
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FAB-100 Decdoing process

This is a decoder description for FAP-100 for general purpose air-dropped bomb.

Every FAB-100 bomb are emitting uniqe 10 byte length RadioFrequency code signal on 433Mhz on every second.

The code is changing in every 30 second.
The code need to be decoded and map the corresponding symbol.

To decode the signal it has to be do 4 operand on every byte:
1.step:Exclusive OR with 0110 (DEC:6)
2.step:2 Left bit shift
3.step:Modulo* with 5
4.step:Modulo* with 4

*modulo operation returns the remainder or signed remainder of a division

0.step (T)	10 byte code	
1.step (X)	XOR with (0110) (Dec: 6)	X = T^ 6
2.step (Y)	Bit L Shift (2)	Y = X << 2
3.step (Z)	Mod 5	Z = Y % 5
4.step (R =result)	Mod 4	R = Z % 4

Example for 1 byte with value "5" (0b0101)

		Dec	Bin
0.step (T)		5	0101
1.step (X)	X = T^ 6 3 = 5 ^ 6	3	0011
2.step (Y)	Y = X << 2 12 = 3 << 2	12	1100
3.step (Z)	Z = Y % 5 2 = 12 % 5	2	0010
4.step (R =result)	R = Z % 4 2 = 2 % 4	2	0010

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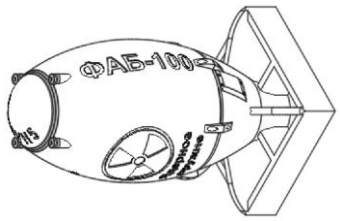

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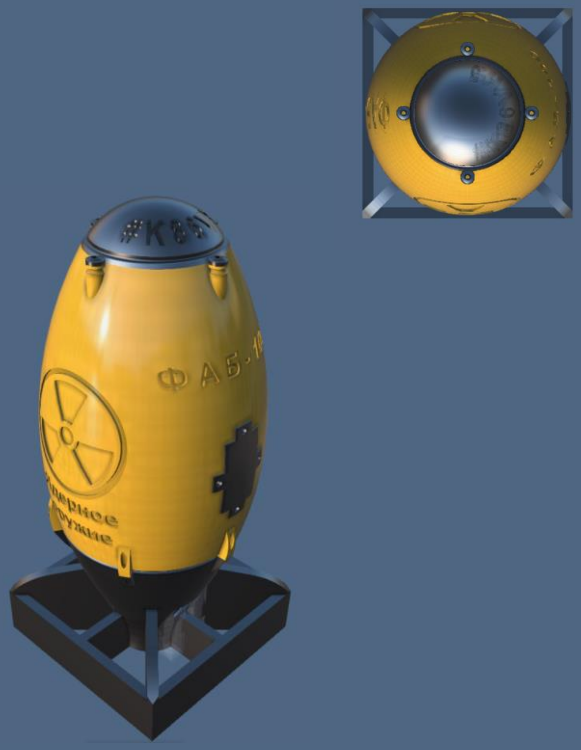
FAB-100 Variants

This is a variant description for FAP-100 for general purpose air-dropped bomb.

To deactivate the bomb timer need to be enter the deactiavtion code on the maintanance panel.
Once the emitted code decrypted need to be map the decrypted code to the corresponding signal

For safety reason every FAB-100 has a uniq serial number.
Based on the serial number the symbol mapping is different for every FAB-100 Bomb.

Serial Numbers	Symbol Mapping				Timers	
# J 8 0 L F 0	Ω	Ƹ̵	θ	Ж	74700	sec
# G 1 2 H N 4	Ж	Ƹ̵	θ	Ω	164520	sec
# K 2 9 A C 4	Ж	Ω	Ƹ̵	θ	325380	sec
# Y 6 5 Y N 9	θ	Ж	Ω	Ƹ̵	43560	sec
# C 8 0 D K 5	θ	Ω	Ƹ̵	Ж	24660	sec
# T 7 1 C U 7	Ƹ̵	Ж	Ω	θ	216780	sec
# K 8 6 V D 1	Ƹ̵	θ	Ж	Ω	541980	sec
# O 6 3 Y I 2	Ƹ̵	Ω	θ	Ж	73320	sec
# K 0 7 W K 1	Ƹ̵	Ж	θ	Ω	335580	sec
# E 7 2 N E 9	Ж	θ	Ƹ̵	Ω	243360	sec
# R 8 3 N M 3	Ƹ̵	Ω	Ж	θ	228540	sec
# B 6 9 O A 8	θ	Ƹ̵	Ж	Ω	365700	sec
# K 9 0 Y P 4	Ж	Ƹ̵	Ω	θ	96780	sec
# C 4 6 D H 6	θ	Ƹ̵	Ω	Ж	519060	sec
# P 3 1 E F 6	Ω	θ	Ƹ̵	Ж	357480	sec
# Z 1 4 J O 3	θ	Ж	Ƹ̵	Ω	78600	sec
# G 2 3 T G 8	Ω	θ	Ж	Ƹ̵	393600	sec
# V 2 6 L K 6	Ж	θ	Ω	Ƹ̵	68940	sec
# K 8 6 V H 5	Ж	Ω	θ	Ƹ̵	604800	sec
# R 9 7 S C 8	Ω	Ж	Ƹ̵	θ	584580	sec
# R 0 2 L I 0	θ	Ω	Ж	Ƹ̵	296280	sec
# G 4 6 L N 3	Ƹ̵	θ	Ω	Ж	110100	sec
# K 8 6 B Q 7	Ω	Ƹ̵	Ж	θ	235200	sec
# W 6 9 N A 4	Ω	Ж	θ	Ƹ̵	498720	sec
	↕	↕	↕	↕		
	0	1	2	3		



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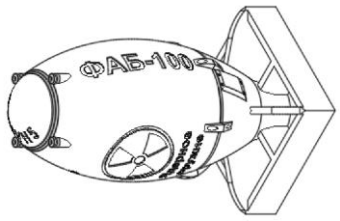

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Title: ФАБ – 100
FAB-100 Variants

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