

Enrange Flex EM/EX/Pro Transmitter ATEX/IECEx Information

Any information detailed out within this document supersedes information provided within the manual for the particular product.

1.0 USE ONLY BATTERIES APPROVED BY MAGNETEK FOR THE SPECIFIC PRODUCT.

The Flex EM/EX/Pro transmitters have been tested and approved for intrinsically safe operation with the following AA (LR6) size batteries;

Duracell	MN1500
Duracell	PC1500
Energizer	E91
Panasonic	LR6XWA
Rayovac	815

Use only the above battery manufacturers and part numbers as replacement batteries to maintain intrinsically safe operation. The rechargeable battery for the Flex EM/EX/Pro transmitters is **NOT** approved for operation within a HazLoc approved transmitter.

Know and follow proper battery handling, charging and disposal procedures. Improper battery procedures can cause batteries to explode or do other serious damage. Failure to follow this warning could result in serious injury or death and damage to equipment.

Only operate the transmitter in hazardous environments with the approved batteries. Failure to use the approved batteries could result in serious injury or death and damage to equipment. Only use 2 batteries of the same manufacturer and model number. Batteries may only be replaced in non-hazardous areas.

2.0 SPECIFIC CONDITIONS OF SAFE USE

2.1 POTENTIAL ELECTROSTATIC CHARGING HAZARD

The Flex EM/EX/Pro all have a maximum measured capacitance from housing and/or accessory to ground of 11.2pf. When possible, care should be taken to reduce the potential for generation of static electricity, such as:

- Controlling the work environment humidity level to minimize generation of static electricity
- Protect the transmitter from direct airflow
- Touch the transmitter with an insulating object or glove whenever possible
- Use in conjunction with gas detection monitoring
- Do not use in an area that is known to be a static electricity hazard

Additional information on electrostatics can be found in EN TR50404 and IEC/TR60079-32.

3.0 TRANSMITTER SERVICE

Contact Magnetek Service if service to the product is required.

To prevent ignition of flammable or combustible atmospheres, and to avoid compromising intrinsic safety of the equipment, read, understand, and adhere to the live maintenance procedures in the product manual.



4.0 ATEX/IECEX STATEMENTS

4.1 APPROVAL LABELS

<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 8EM TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: R4UARCFLXEX IC: 5097A-FLEX 198-80210-9521</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 12EM TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: R4UARCFLXEX IC: 5097A-FLEX 198-80210-9522</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 8EX TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: R4UARCFLXEX IC: 5097A-FLEX 198-80210-9523</p>
<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 12EX TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: R4UARCFLXEX IC: 5097A-FLEX 198-80210-9524</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 8EX-A/B TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: R4UARCFLXEX IC: 5097A-FLEX 198-80210-9525</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 12EX-A/B TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: R4UARCFLXEX IC: 5097A-FLEX 198-80210-9526</p>
<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 8PRO TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: TNE-FLEXSERIES2 IC: 6145A-FLEXSERIES2 198-80210-9533</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 12PRO TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: TNE-FLEXSERIES2 IC: 6145A-FLEXSERIES2 198-80210-9534</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 8EM TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: TNE-FLEXSERIES2 IC: 6145A-FLEXSERIES2 198-80210-9537</p>
<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 12EM TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: TNE-FLEXSERIES2 IC: 6145A-FLEXSERIES2 198-80210-9538</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 8EX TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: TNE-FLEXSERIES2 IC: 6145A-FLEXSERIES2 198-80210-9539</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 12EX TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: TNE-FLEXSERIES2 IC: 6145A-FLEXSERIES2 198-80210-9540</p>
<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 8EX-A/B TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: TNE-FLEXSERIES2 IC: 6145A-FLEXSERIES2 198-80210-9541</p>	<p> MAGNETEK N49 W13650 Campbell Drive Menomonee Falls, WI 53051</p> <p>FLEX 12EX-A/B TX MODEL #: 123456789012345 SERIAL #: 123456789012345</p> <p> II 3 G Ex ic IIC T4...T3 Gc DEMKO 16 ATEX 1601X</p> <p>IECEX UL 16.0091X Ex ic IIC T4...T3 Gc T3: -40°C ≤ Ta ≤ +60°C; T4: -40°C ≤ Ta ≤ +40°C;</p> <p>SEE INSTRUCTION MANUAL FOR MORE DETAILS WARNING- DO NOT REPLACE BATTERIES WHEN EXPLOSIVE ATMOSPHERE IS PRESENT. ONLY USE BATTERIES LISTED IN THE INSTRUCTION MANUAL.</p> <p>FCC ID: TNE-FLEXSERIES2 IC: 6145A-FLEXSERIES2 198-80210-9542</p>	

4.2 STANDARDS COMPLIED WITH FOR ATEX/IECEX

EN 60079-0:2012 + A11:2013
EN 60079-11:2012
IEC 60079-0 6th edition
IEC 60079-11 6th edition

5.0 TECHNICAL SPECIFICATIONS

Environmental conditions, during operation:

T4: $-40\text{C} < T_a < +40\text{C}$: Duracell MN1500, Duracell PC1500, Energizer E91, Panasonic LR6XWA, Rayovac 815

T4: $-40\text{C} < T_a < +60\text{C}$: Duracell MN1500

T3: $-40\text{C} < T_a < +60\text{C}$: Duracell MN1500, Energizer E91, Panasonic LR6XWA

Environmental conditions, storage:

-40°C to $+60^{\circ}\text{C}$

Humidity:

0% to 95% noncondensing

Pressure:

700 to 1300 hPa (10.2 to 18.9 psi)

Ingress protection:

IP66



6.0 I-CHIP PROCEDURE

1. Obtain a Flex EX transmitter (either 8 or 12 button)



2. Turn the Flex EX over to gain access to the back enclosure screws



3. Unscrew the (4) battery cover screws and then set the battery cover aside



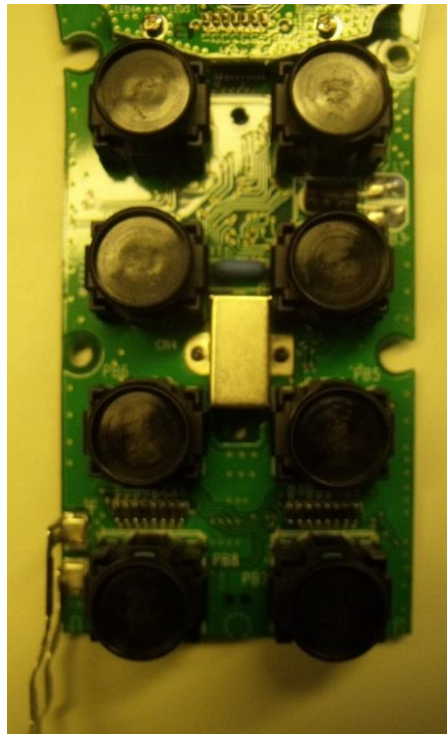
4. Remove the (7) screws of the back enclosure. Set the back enclosure aside.
NOTE: The Flex 12EX will have (9) screws



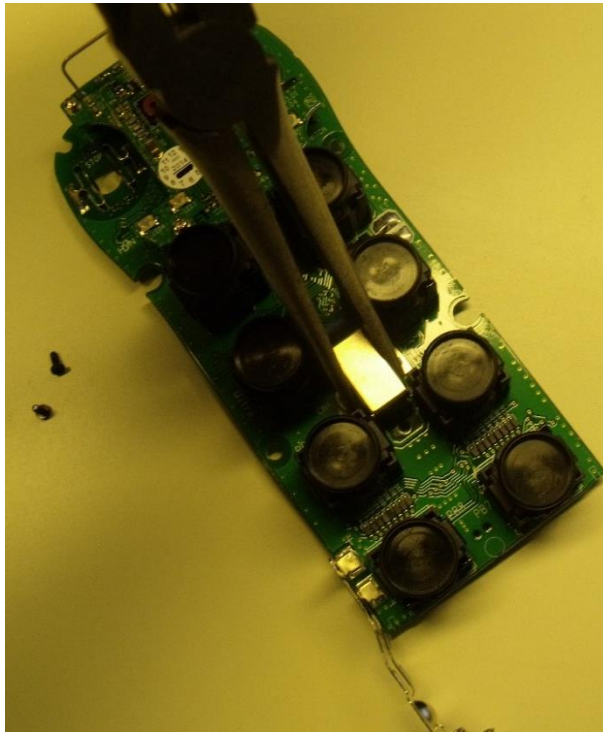
5. Locate the (2) black I-CHIP screws on the encoder board. Remove them and set them aside.



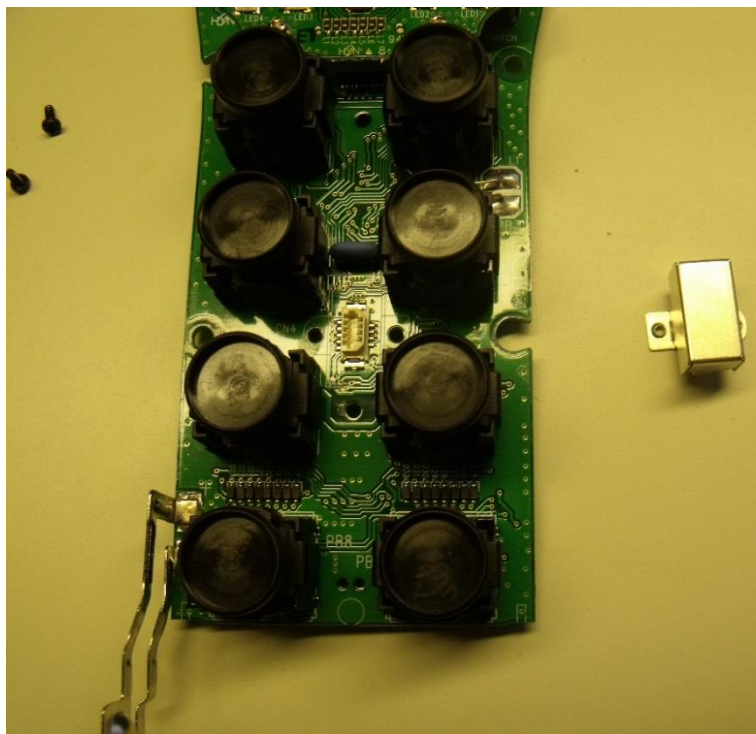
6. Remove the encoder board from the enclosure and then turn it over to gain access to the I-CHIP.



7. Use a pair of needle nose pliers to safely remove the I-CHIP.



8. The I-CHIP can now be reprogrammed.
NOTE: Information on the various I-CHIP programming methods can be found in the manual provided with the Flex System.

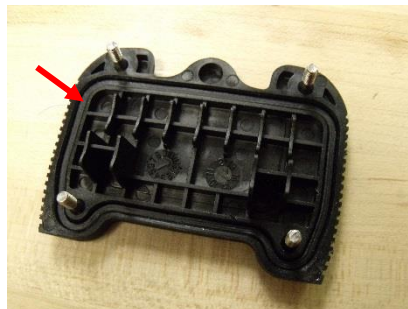




9. Now that the I-CHIP has been reprogrammed, use the needle nose pliers to place it back on the I-CHIP port on the encoder board.
10. Locate the (2) small black screws that were set aside earlier. Place them into the (2) small holes on the back of the encoder board that secure the I-CHIP (see step 5). Torque the screws to **1 in-lbs.**
11. Install the encoder board back into the front enclosure.
12. Check to ensure the enclosure's rubber gasket is seated properly and not damaged. This would compromise the sealing capability of the transmitter.



13. Place the back enclosure into place and then torque the (7) enclosure screws to at least **3 in-lbs.**
NOTE: The Flex 12EX will have (9) screws
14. Check to ensure the battery cover's rubber gasket is seated properly and not damaged. This would compromise the sealing capability of the transmitter.



15. Place the battery cover back into place and torque the (4) screws to at least **3 in-lbs.**
16. The Flex transmitter is now ready to be used.