

# Electromagnet Locks (Aluminum Housing) Disassembly Manual

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## **A. Manufacturer & Product information**

- Manufacturer:
- Address:
- Website:
- E-mail:
- TEL:
- FAX:
- Product category: Electromagnet Locks(**Aluminum Housing**)
- Model:
- WEEE category: Category No.9 ( Monitoring and control instruments)

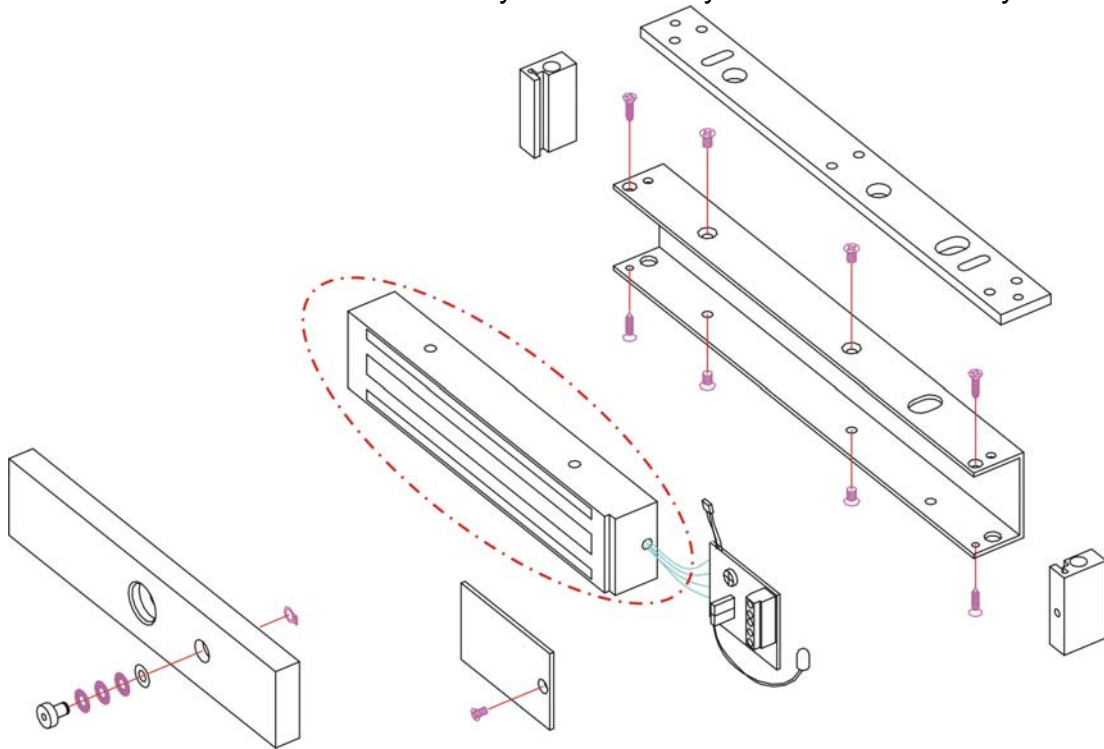
## **B. Introduction**

- For the purpose of increasing reuse and recycle ratio for stuffs build in the product that needs to distinguish from recyclable material to another with time-saving facilities, please disassemble electromagnet locks properly when the life cycle ends up.
- This manual instruction may guide the steps appropriately to work out disassemble [Aluminum anodized electromagnet locks] by the aid of simple tool effectively and timesaving achievement.
- In which founded on the basis of recycling organization standard EN 50419:2005, WEEE Directive 2002/96/EC & ISO 11469: plastic products tagging document file 94/62/EEC: Packing directive and 91/338/EEC: Cd (cadmium) norms statement.
- Safety advisory: Wearing gloves while sorting recycles stuffs for safety concerns. This product contains no liquid material or hazardous substances.

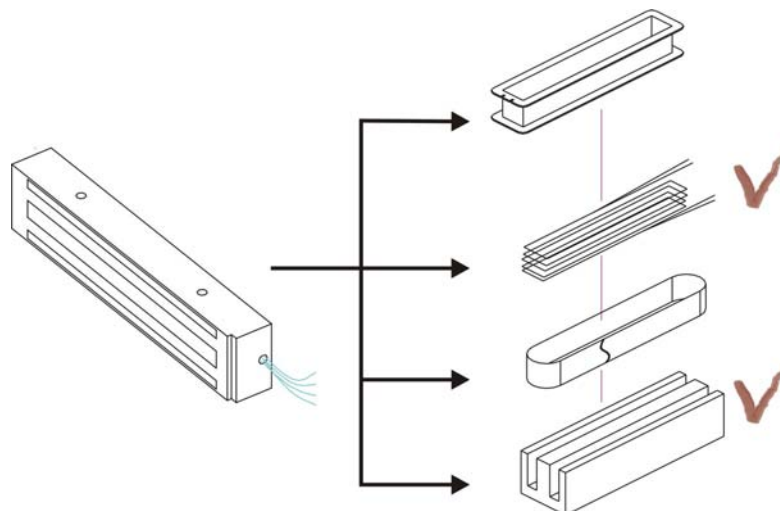
## **C. Guide**

- The structures of aluminum anodized electromagnet locks are always similar to each other that related models are referable to this example.
- There is a number placed in front of every operation step, so that this manual instruction illustrated along with pictures. Simply to disassemble aluminum anodized electromagnet locks by screwdriver to release aluminum housing apart from magnet block (see drawing A as below), then discharge the magnet block into E plate and coil (see drawing B as below).
- Tools, Cost of time and Cautions been mentioned on the remark column.

- Information for versatile kinds of stuffs recycling includes:
  - ◆ Plastic: for plastic stuff in weight over 50 gm, there is a description of category it belongs (1~7 categories for optional), an independent pure thermo plastic stuff is recyclable.
  - ◆ Metal: both of irony and non-irony metal stuffs are recyclable.



( Drawing A )
















( Drawing B )





#### D. Instraction of removing material & component

- For example: PC board, wire cable, plastic and so on. These are valuable stuffs or of which may being as an influential element to recycling procedures.
- Sort out recyclable materials (1, 2, 3, 4 kinds sort able)

- ◆ 1<sup>st</sup> kind: Reuse, the component in comply with original designed purpose that needs no any extra work, including it reflows to recycling site, distributor, recycle dealer or producer to extend usage.
  - ◆ 2<sup>nd</sup> kind: Recycling, in spite of either compound with waste material or not, the component is usable from redo an extra work.
  - ◆ 3<sup>rd</sup> kind: Recovery, refer to Directive 75/442/EEC additional enclosure 11B.
  - ◆ 4<sup>th</sup> kind: Disposal, waste material of which cannot create energy effects.
- Steps for suggestion of disassemble operation as below:

Step	Picture	Description
1		 <p>Using screwdriver takes 50 seconds approx. to disassemble. Using electric drive takes 30 seconds approx. to disassemble. Using crimper to cut off PC board.</p>
2		<p>Primary disassemble is accomplished. Aluminum housing, screws, PC board for recycling except magnet block for ongoing disassembles.</p>
3		 <p>Epoxy must be destroyed (it belongs to the 4<sup>th</sup> kind material for disposal, in order to discharge E plate and coil. Fasten magnet block with metal clampers.</p>
4		 <p>Using hammer, driller and other tools and so on. Cut off epoxy on the both sides of magnet block.</p>

Step	Picture	Description
5		(Same for rear of the magnet block)
6		Internal built coil to be exposed on one side.
7		(Same for the other side of the magnet block)
8		Smash concave portion epoxy on the magnet block
9		Raise the coil with a driller
10		Internal plastic bobbin could be destroyed or epoxy remains during the disassembling steps which is not recyclable.

Step	Picture	Description
11		<p>Apart the coils easily from magnet block.</p>
12		<p>Remove thin epoxy by using flat driller.</p>
13		<p>It is recyclable for concave portion of E plate maybe plastic bobbin or epoxy remains.</p>
14		<p>E plate and coil disassembled from magnet block. It takes about 3~4 minutes to disassemble the object.</p>

### E. Electromagnet\10002 3R(reuse,recycling,recovery) list for stuffs BOM chart(WEEE)

Part No.	Material categories	category of recyclable	Quantity composed	Weight per unit (g)	weight (g)	Recycling ratio	Recycling weight (g)
P-IB\01	Plastics-PET	2-Recycling	1	30	30	60%	18
P-MP\01\02	Metal-Aluminum	2-Recycling	1	20	20	50%	10
P-MU\AMEM-1	Metal-Aluminum	2-Recycling	1	50	50	50%	25
P-TL\10001	Packing-Printing paper	3-Recovery	1	20	20	60%	12
P-FO\43*35	Metal-Screw	2-Recycling	1	50	50	90%	45
P-HE\A1104EU-T	Metal- Screw	2-Recycling	1	20	20	90%	18
P-RL\TRG5-12D	Metal- Screw	2-Recycling	4	21	84	60%	50.4
P-EX	Plastics-Epoxy	4-Disposal	1	10	10	0%	0
P-EX-1	Plastics-Epoxy	4-Disposal	0.0093	15000	139.5	0%	0
P-LW\SM-1A	Metal- Screw	2-Recycling	2	50	100	60%	60
P-AP\01-05\PT	Metal- Iron(coating)	2-Recycling	1	750	750	100%	750
P-UK\C	Metal- Copper	2-Recycling	1	25	25	90%	22.5
P-WS\5*10	Metal- Compound Matel	2-Recycling	6	25	150	60%	90
P-HX\4*20\2	Metal- Screw	2-Recycling	4	60	240	60%	144
P-US\13*44\AM	Metal- Screw	2-Recycling	1	20	20	60%	12
P-CL\01\02	Metal-Aluminum	2-Recycling	1	50	50	60%	30
P-CL\01\02\GD	Metal-Aluminum	2-Recycling	1	50	50	90%	45

Gross weight: 2205.5g    1<sup>st</sup> kind weight: 0g    2<sup>nd</sup> kind weight: 1651.6g    3<sup>rd</sup> kind weight: 12g

Resue & Recycling rate(%)=1651.6/2205.5=74.9% (50% as standard value)

Recovery rate(%)=(1651.6+12)/2205.5=75.4% (70% as standard value)

※ Calculation of recycling ratio is referred to British DTI formulation for WEEE fundamental to disassemble, pollution-proof and assortment, however the exact rate subjects to operation status at site as a result.