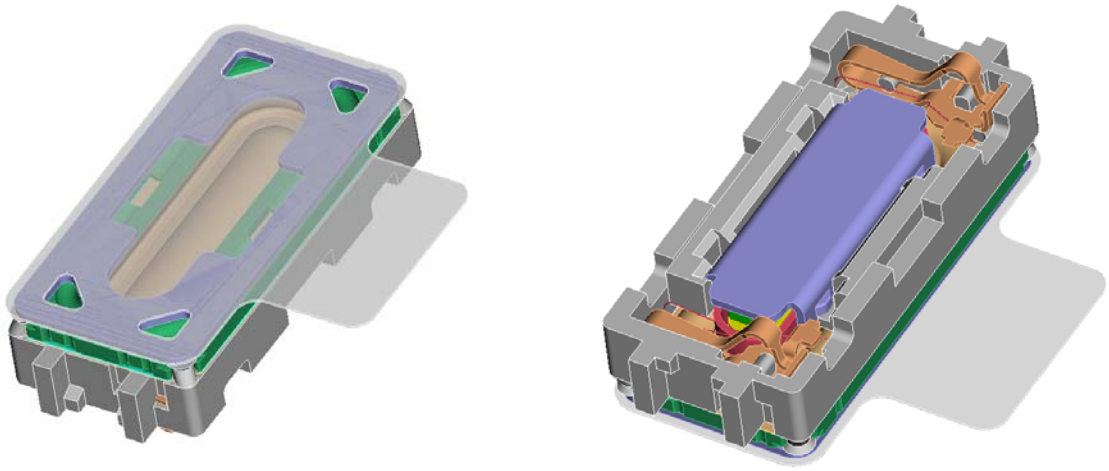
HANDLING INSTRUCTION

Distribution list: according to PDM

PRODUCTNAME: RA RECEIVER

ORDER NO.: 2403 260 00017 & 2403 260 00032



1. Content:

Page:

2. Additional documents and auxiliary tools:

- **TDT Technical Delivery Terms for RA Transducer**

  Document files: 2403-260-00017-190-EN.pdf

  2403-260-00032-190-EN.pdf

- **Specification Finished Product**

  Document files: 2403-260-00017-190-EN.pdf

  2403-260-00032-190-EN.pdf

- **Packing instructions**

  Document files: 2403-260-00017-190-EN.pdf

  2403-260-00032-190-EN.pdf

- **Complaints form**

  Document number: WRL-580-04000

3. General Rules to observe:

Check arriving pallets on transport damage!

Don’t use transducers from damaged pallets.

Use first in first out!

The transducers always should be stored in the original packaging only!

Don’t touch the contacts.

In case the transducer is mounted into assemblies where an ultrasonic welding process will be used after the transducer is already in place, the function of the transducer can be damaged due to the USW!

Keep transducers away from magnetic regions! Avoid humid and hot air! Prevent transducers from dropping on the floor because of the risk of damage to spring contacts!

If one of points mentioned above appears, don’t use the transducers.

4. Handling of Transducers

4.1 Unpacking the transport unit

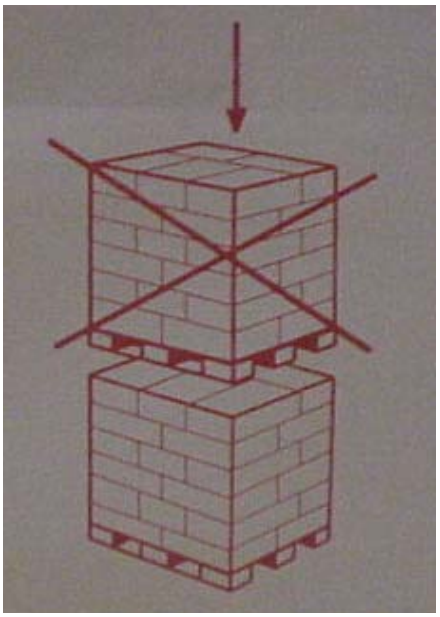
First off all, beware that the transport unit is fragile and handle it with care.

Check arriving pallets on transport damage and remove the plastic cover carefully.

In each situation keep the delivery unit dry.

Use the delivery units according the first in - first out principle in your warehouse.

If pallets should be stored consider that each transport unit has to stand separate.



Under no circumstances pile one pallet on each other.

To keep the effect of magnetism as low as possible, notice the special form to pile single boxes on a pallet.

For more detailed information's see the document "Packing Instructions"

Document files: 2403-260-00017-299-EN.pdf
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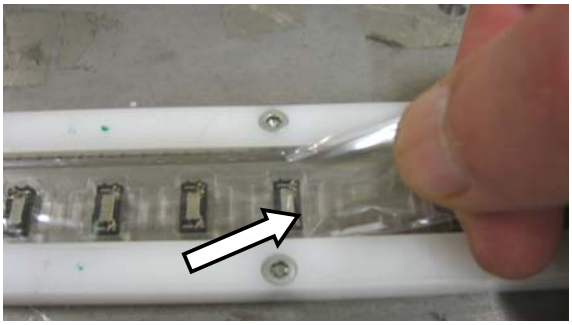
4.2 Unpacking the transducer

Before unpacking the transducer, check arriving boxes on transport damage.

Then put the closed box with the **arrowhead** in direction to the top on a desk or similar.

Open the box carefully with a knife **along the duct tape**. Then **open the box** and take out
the first plastic-reel in which the transducers are packed. Check the plastic-reel on transport damage.

To get the transducer out of the plastic-reel, you must remove the cover tape. For this, it is
recommendable to use a device, where the plastic-belt is fixed. So no transducer can fall
out during pulling off the cover tape.

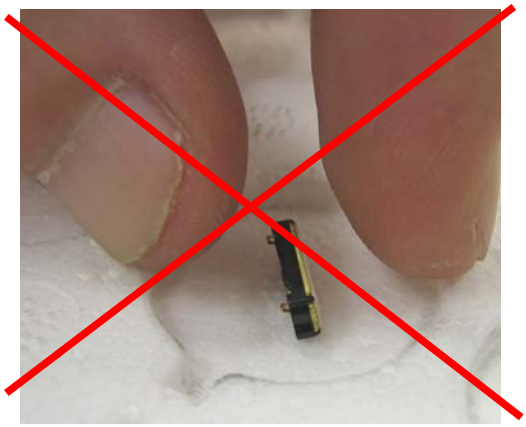


During this, you have to take care, that no transducer falls out of the cavities.
Pull off the cover-tape as few as possible.

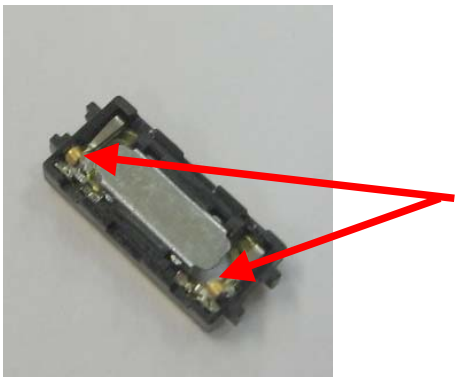
After the cover-tape is removed, take the transducers out of the plastic-reel by a tweecer!

4.3 Manual Pick and Place

To pick up the transducers by hand, take it on the side (not on top and buttom) and don't touch the spring contacts.



Don't , take the transducer on top and bottom

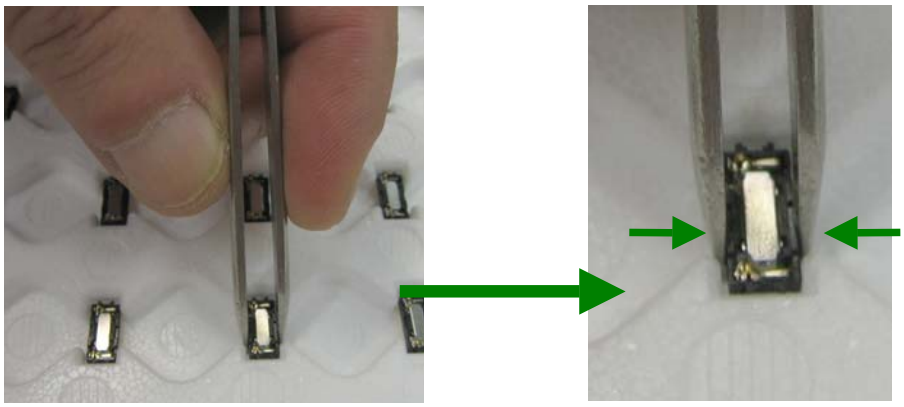


Don't touch the spring contacts

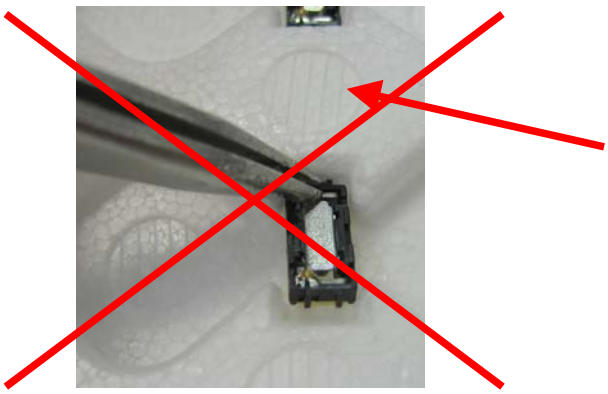
To take transducers by a manual gripper, move them carefully, otherwise the surface could be clawed.

4.4 Manual Pick and Place: Tweezers

To pick and place the transducer by a tweezer take care to take it only on the outside.



Don’t pick up the transducer by taking them on their spring contacts.



4.5 Automated Pick and Place

If transducers should be picked up in an automatic process, please contact NXP.
For the limit of maximum forces to the transducer see the document
“Specification Finished Product”

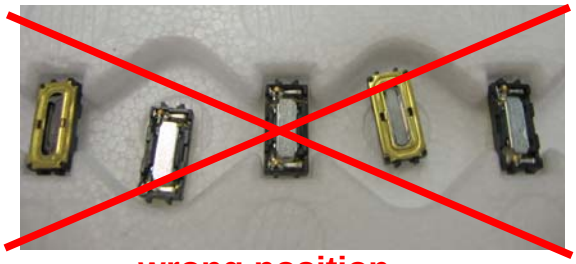
Document files: 2403-260-00017-190-EN.pdf
2403-260-00032-190-EN.pdf

4.6 Soldering Instruction

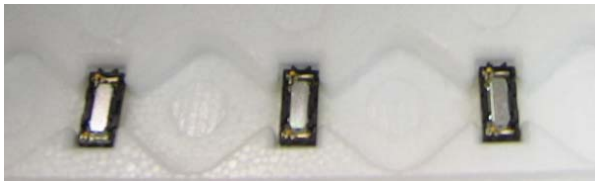
On request …

4.7 The don’ts:

The position of the transducers in the tray ensure low magnetic effect to each other. Be sure when you are loading transducers to a tray that they are in right position.

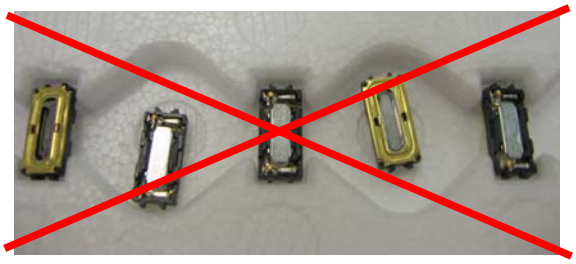


wrong position

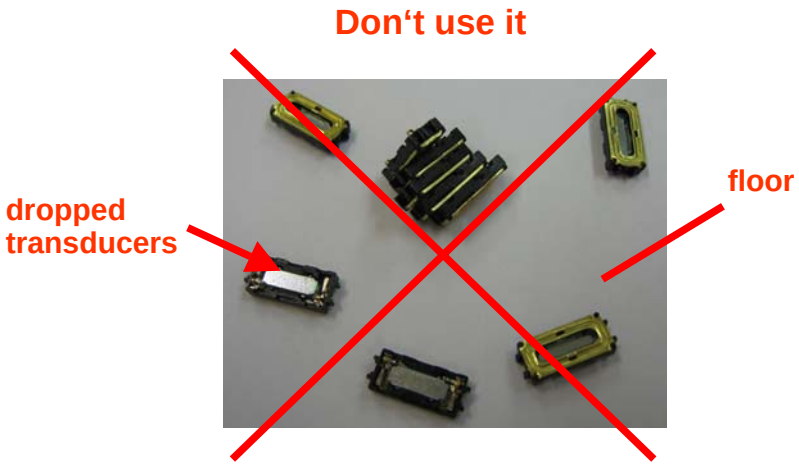


right position

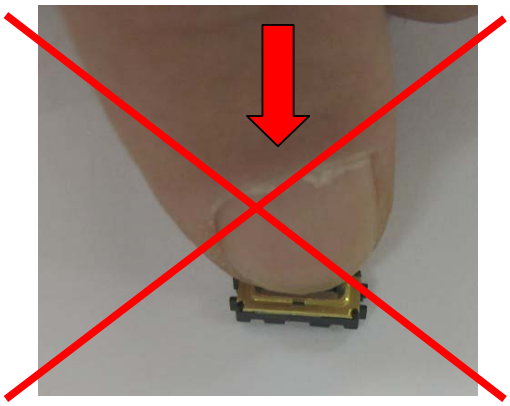
Please don’t put transducers different in the trays otherwise they will snap together and could be damaged on their spring contacts.



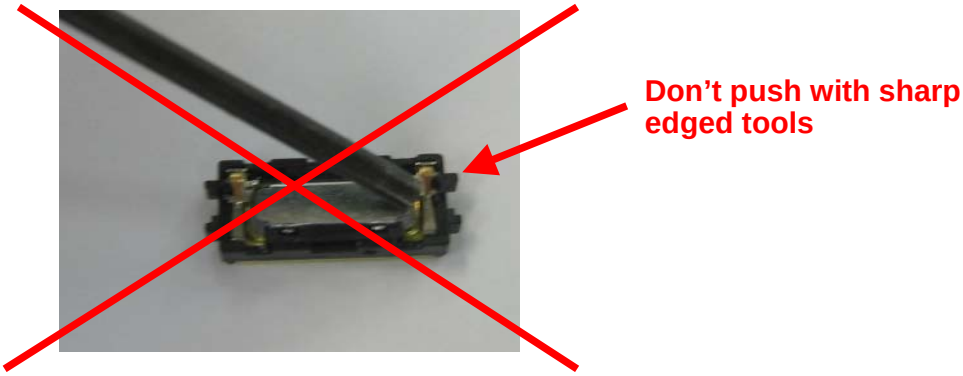
Generally prevent using transducers dropped on the floor.



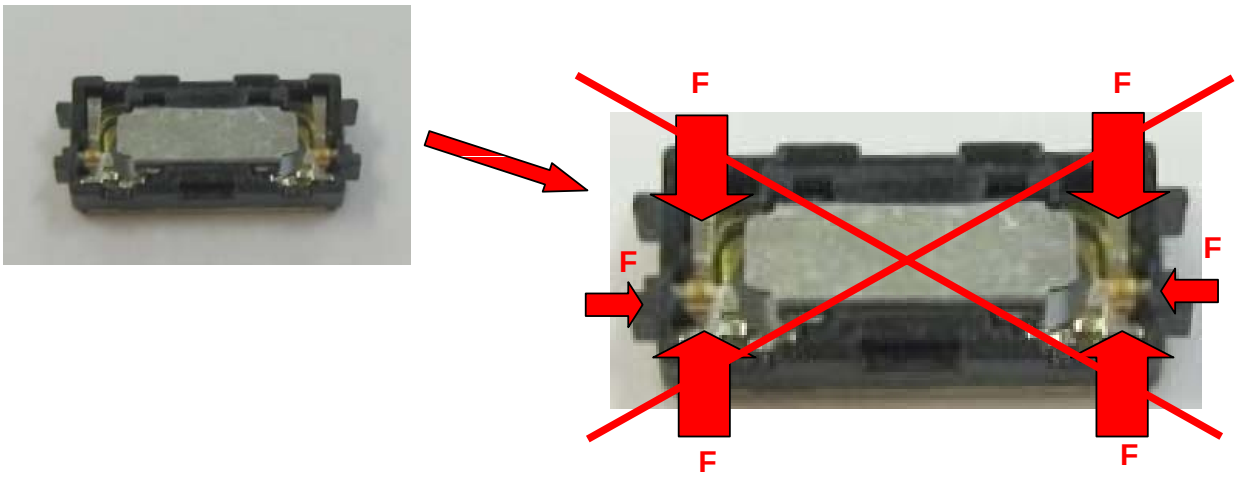
Don’t push the transducers or touch it on the plate or membrane.



Don’t touch or push with sharp – edged tools (e.g. tweezers, needles) to the membrane and sensitive sites of the transducer.



In no case apply any force from side to the spring contacts.



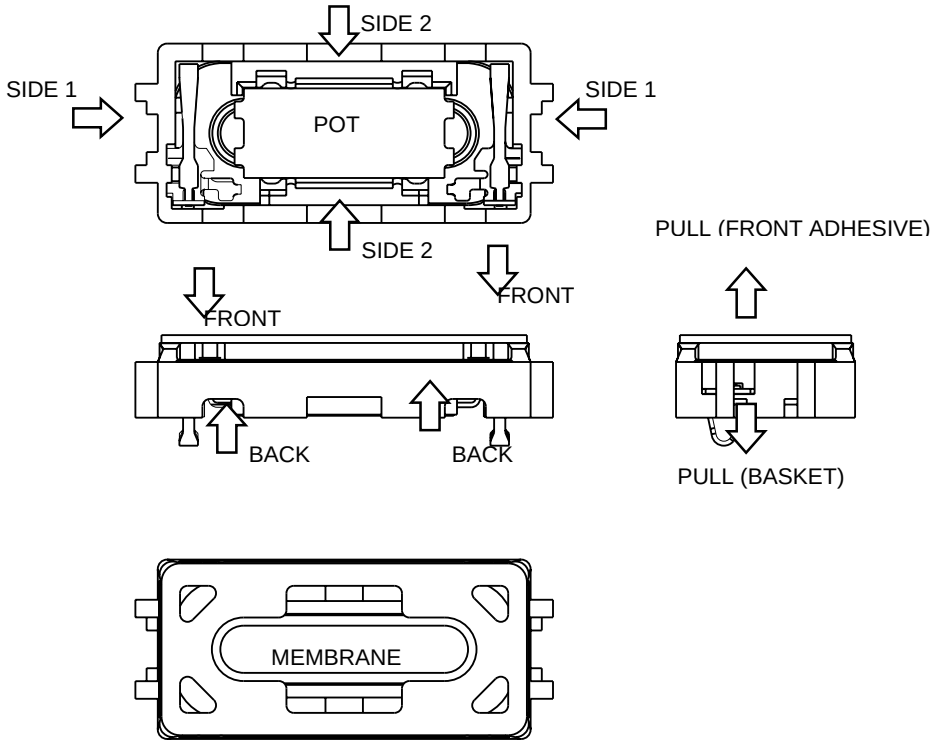
Keep transducers away from magnetic fields.

To assembly the speaker into the application be sure to avoid humid & hot air.

Avoid to get any dirt or dust on the transducer (keep it clean).

Note the working area of the spring contacts as marked in the product-specification.

5. Forces on Component

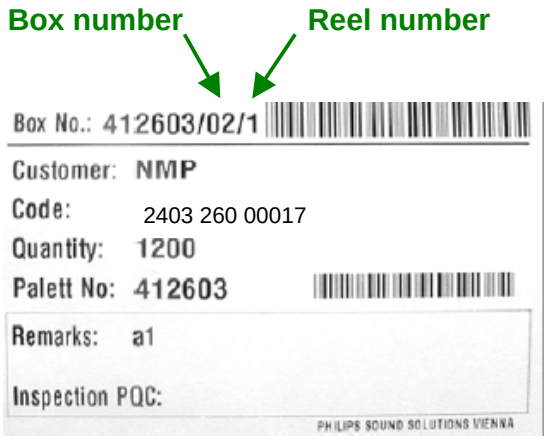


FORCES ON DIFFERENT STATE OF COMPONENT			
STATE	MIN. SURFACE OF PREASURE [mm²]	MAX PERMANENT FORCE [N]	MAX HANDLING FORCE [N]
FROM FRONT TO BACK	-	5	15
FROM SIDE 1 TO SIDE 1	3	5	15
FROM SIDE 2 TO SIDE 2	10	5	15
POT	-	0	0 / 1
MEMBRANE	-	0	0
PULL OF FORCE (ADHESIVE/BASKET)	-	0 / 0,15	5

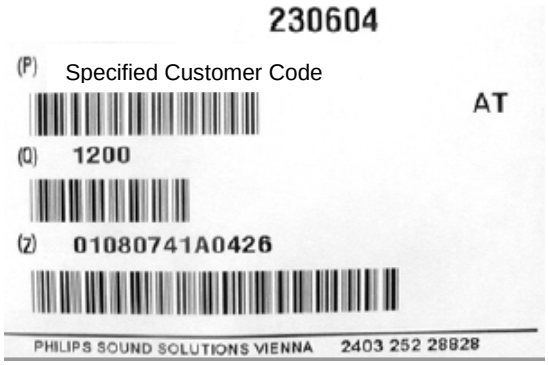
Rev C	max. pull of force	= 0 N	for 2403 260 00017
(10.04.2007)	max. pull of force	= 0,15 N	for 2403 260 00032
Rev D – ECR1878	max. handling force POT	= 0 N	for 2403 260 00017
(26.04.2007)	max. handling force POT	= 1 N	for 2403 260 00032

6. Identification:

Barcode- and identification-labels for reels:



"Delivery-label box"



"Barcode-label box"

Barcode- and identification-labels for pallets:

"Pallet-label"

For more details see the document "Specification Finished Product"
or "Packaging Instruction"

Document files: 2403-260-00017-190-EN.pdf
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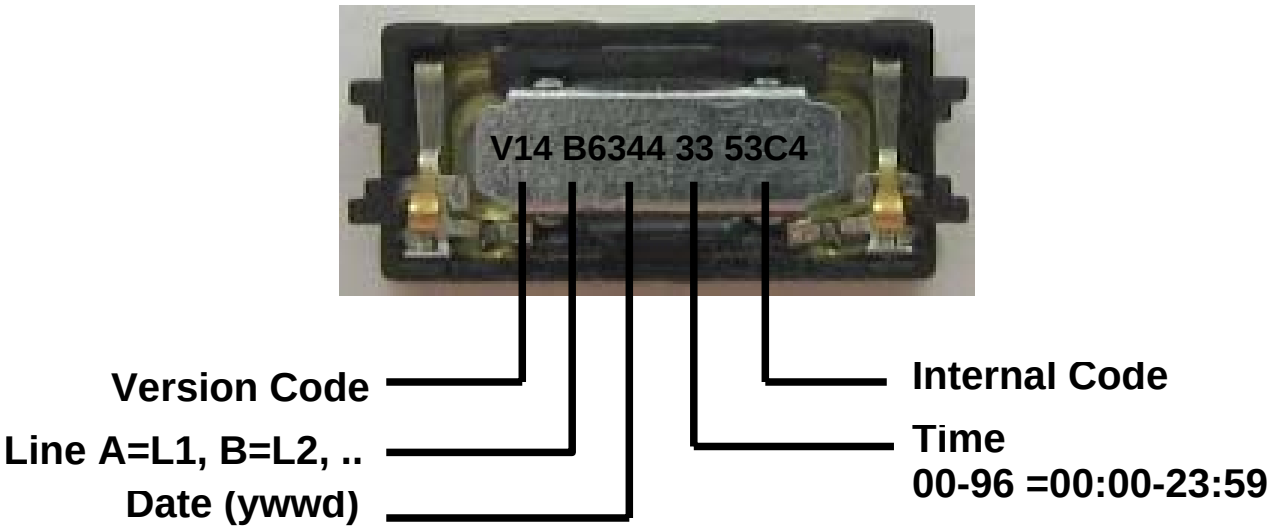
Transducer code as specified:



Take care that the transducer will be used in it's capacity as specified from NXP.
To use transducers of NXP in other aplications please contact NXP.

7. Contact

For further information please contact:

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