

AIRBAG SYSTEM Manual

※Read carefully before use.



MUGEN DENKO CO., LTD.

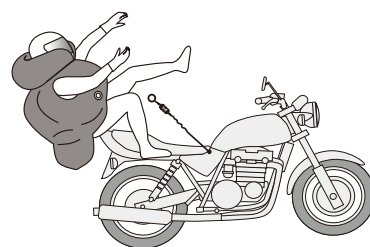
1-1012 Ikeba Tempaku-ku Nagoya 468-0055 JAPAN
phone +81-52-807-7750 fax +81-52-807-7901
E-mail mugen@hit-air.com
URL www.hit-air.com

HAM-A-E-MC210430



hit-air
SHOCK BUFFERING SYSTEM

AIRBAG JACKET USER'S GUIDE For Motorcycle



Packed Neck cushion(A-type)
< B-type Key Box >

www.hit-air.com

A

⚠ Be sure to read this page before using and after re-assembling the Hit-Air.

Thank you for using the Hit-Air.

For your safety, peace of mind and correct use of your airbag jacket, make sure that items ①-⑥ are confirmed before use as follows:

- Caution** ⚠
- Unless the Hit-Air is set correctly, it may not work or may cause a malfunction.
 - Once a CO₂ cartridge is activated, it cannot be used again. Remove it from the key box without fail.
 - Use a Hit-Air CO₂ cartridge only. Do not use any other one.

① A CO₂ cartridge of the right size (capacity) for the model is installed.

The seal attached the cartridge shows its size (capacity).

② Sealed properly (No damage to the seal)

*No seal is attached in case re-assembling is done by yourself.

Unused CO₂ cartridge and the key box are properly sealed at the time of shipment. (*The key ball is set)

*In some countries or regions, the hit-air is sold without the security-check-sticker on it. If this is the case, please make sure that an unused CO₂ cartridge of the correct size is properly installed to the key box.

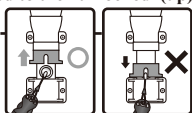
• The right size (capacity) cartridge for the model is installed.

• A CO₂ cartridge is tightly screwed into the key box.

• An used/empty cartridge should not be installed.

Caution ⚠ Re-assembling after the activation must be done in accordance with "Re-assembling Key Box" (see page 26 to 28)

③ The red slide cover is lifted to the "unlocked"(up) position.



④ Is there any deterioration of the wire loop or the coiled wire?

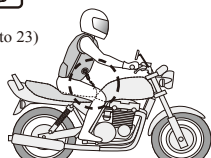
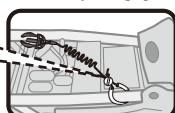
⑤ A screw hole at the bottom of the key box is visible.

(The setting bolt is removed)

⑥ A coiled wire is set properly.

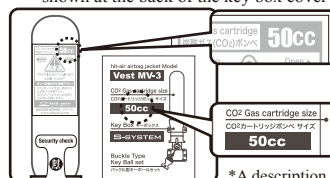
See "Attaching Coiled wire to Motorcycle" (page 21 to 23)

⚠ Be sure to tie a knot tightly.



① The size (capacity) of the cartridge varies from model to model.

Make sure that the size(capacity) shown on the seal attached to the CO₂ cartridge and that shown at the back of the key box cover are the same. (Some model has no size label attached)



*If sizes shown as above are not the same, it may cause a malfunction.

*If the right size for the model is not clear, check it against the Hit-Air catalogue, or visit our website

<http://www.hit-air.com>
"Replacement gas cartridge list"

*A description of the size label varies from model to model.

② If the CO₂ cartridge and the key box are not sealed or if the seal attached is torn at the time of the purchase of a new product, remove the cartridge and make sure that there is no hole at its bottom (at the screw end)

• If there is no hole - it is an unused cartridge to be installed in the key box for use.

Caution ⚠ If a CO₂ cartridge is screwed into the key box loosely, it may cause a malfunction. (See "Re-assembling Key Box" in page 28)

A CO₂ cartridge with no hole at its bottom is usable.

• If there is a hole at its bottom, it is an used/empty one and not usable. Replace it with a new one.

A CO₂ cartridge with a hole at its bottom is unusable.

*An unused cartridge is to be installed in accordance with "Re-assembling Key Box" (see page 26 to 28).

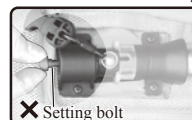
③ Make sure that the red slide cover is not in the "locked(down)" position and the key ball is not set as yet. The red slide cover is a tool to confirm that the key ball is set properly during the course of re-assembling. It should always be in the "unlocked(up)" position except during the course of re-assembling. (see page 12 in detail).

Caution ⚠ The activation while the red slide cover is in the "locked(down)" position, may cause damage or a malfunction to the Hit-Air.

④ Is there any deterioration of the wire loop or the coiled wire?

If there are signs of wear and tear, replace it with a new one. We recommend you to replace it in every one or two years.

⑤ Make sure that the setting bolt has been removed from the key box.



The setting bolt is a tool to be used for setting the key ball into the hole of the key box for re-assembling. (see page 27 in detail).

*The Hit-Air will not be activated if the setting bolt remains in the key box. Make sure that the setting bolt is removed from the key box before using the Hit-Air.

⑥ Tie a knot tightly to fix a coiled wire to the motorcycle, A knot works as the stopper to prevent the wire coming off when the Hit-Air is activated.

Caution ⚠ Without a knot, the wire may come off the Hit-Air at its activation and the airbag will not inflate.

Be sure to read this User's Guide to use the Hit-Air properly. A maintenance check by an authorized dealer once a year is recommendable for your safety and peace of mind.

Tools for Re-assembling (See P.13)

Hexagon wrench (5mm)

Setting bolt

Protector tube

Coiled wire to be connected to a proper place of the motorcycle

Female

Male

Tie a knot tightly

Leave more than 2cm

Cap

Loop setter (See P.21)

Screw tightly

Wing screw

Tighten with a wing screw

Grooves

Put wires in the grooves

Coiled wire (See P.21)

A strong wire of Kevlar cord coated with urethane resin.

Kevlar cord

Urethane resin

Key box (Y-type) (See P.12)

When the key box is activated, the gas cartridge releases CO₂ gas into the airbag (to each air cushion) immediately to inflate them.

Jointly developed by YKK and Mugen Denko

Key ball (See P.13)

Key ball to be pulled out to release the gas into the airbag instantly.

Key ring holds a key ball in the key box.

One-touch release (Connector) (See P.20)

When getting on a motorcycle, connect the male connector at the end of the coiled wire attached to the motorcycle with the female connector attached to the jacket.

PUSH

Female

Male

Release

When getting on the motorcycle, connect one-touch release

Click!

Connecting point

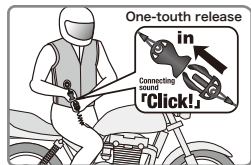
Protector tube (See P.21)

Protect a motorcycle and a coiled wire against damage.

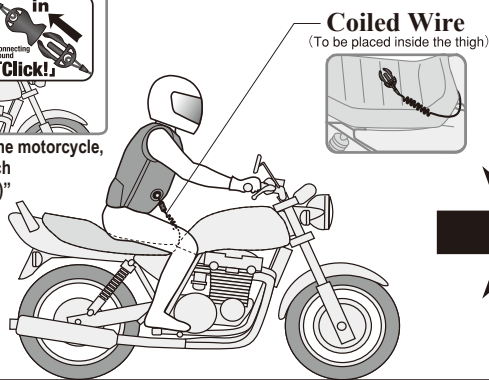
Pass a coiled wire through a protector tube to protect the part of the wire wound round the frame or handlebar etc. of the motorcycle. Cut the excess tube depending on the part where the coiled wire is fixed.

Coiled wire

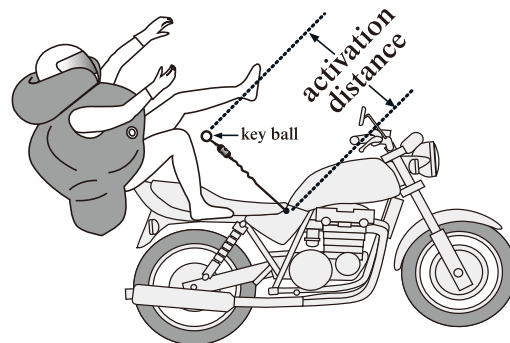
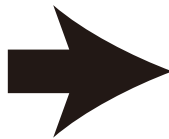
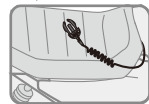
6



When getting on the motorcycle, connect "one-touch release(connector)"



Coiled Wire
(To be placed inside the thigh)



The jacket with the Hit-Air (Shock-buffering Protection System) is to be worn as an outerwear when riding a motorcycle.

It will be activated/inflated immediately after a distance from the rider to the motorcycle exceeds the "activation distance" (*1) when the rider falls off or thrown off the motorcycle. It will be activated at the moment the key ball is pulled out from the key box (see 4-3 P12). This causes the gas cartridge to release the CO₂ gas into the air cushions to inflate them immediately.

Inflated air cushions are designed to come between the rider's body and objects against which the rider may strike after falling off or being thrown off the motorcycle.

The Hit-Air will act as a buffer to absorb the shock of impact and reduce the risk of injury the rider who wears it.

However, this does not imply or guarantee rider's safety.

The key ball requires considerable strength to be pulled out and will not be released easily because of the elastic nature of the coiled wire, thus the Hit-Air will not inflate under normally anticipated riding conditions including standing on pegs.

(*1) The "activation distance" is defined as the length of the coiled wire stretched to its full length from the motorcycle to the rider's key box on the Hit-Air without any obstacles in between.

- If the "coiled wire" running from the "key box" to the motorcycle touches an obstacle such as the rider's body, any part of the motorcycle, a whip or any other projecting object, there is a possibility of accidental activation within the "activation distance" by a force strong enough to pull the "key ball" out of the "key box".
- If the rider crashes or falls down together with the motorcycle, unless the "activation distance" is exceeded, the Hit-Air will not be activated.
The Hit-Air will not protect areas where the inflated air cushion does not cover.
- If the rider wearing the Hit-Air forgets to disconnect the "one-touch release" and goes away from the motorcycle farther than the "activation distance", a force of approximately 30kg-35kg (see 4-3 P12) may activate and inflate the Hit-Air.
Connect or disconnect the "one-touch release" while you are on the motorcycle.
- Once a gas cartridge is used, it cannot be used again. Buy a new one from an authorized dealer.

7

8

Front / before Jacket type



Key ball to be pulled out to release the gas into the airbag instantly.

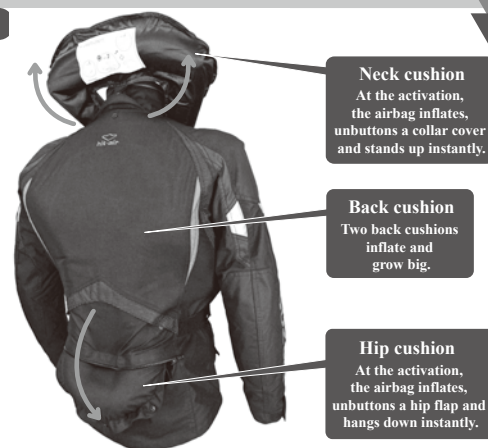
Front / after



Back / before



Back / after



*Design and shape of model may vary.

*Design and shape of model may vary.

9

10

4-1 Function

1. As soon as the "activation distance" is reached, the Hit-Air is activated and the CO₂ gas is sent into the air cushions so that it will provide protection from the shock of impact even before it is fully inflated.
2. The CO₂ gas cartridge and the "key box" area is covered by an ABS protector with buffer material to protect the rider's breast from the projecting objects in case of an accident.
3. After the airbag is inflated in full, the gas will leak out gradually. Depending on the amount of the pressure given to the airbag by the accident, a feeling of tightness may be felt but gradually subsides.

CAUTION 1

4. The Hit-Air may not function properly, if there is a damage to the Hit-Air, cloth of the wear, air cushion, Velcro, zipper, buckle etc. If so, consult with an authorized dealer. The Hit-Air may not be repairable in some cases.

CAUTION 2

5. Whenever the Hit-Air is inflated, even if there is no visible damage, we recommend taking the Hit-air to an authorized dealer for a maintenance check *1
- *1 Even if no damage is visible, there may be damages to the air cushion. Therefore, take the Hit-Air to an authorized dealer for a maintenance check to test the air cushion for leaks and inspect its parts to make sure it will function properly in case of an accident.

4-2 Air Cushion

1. The air cushions are made of high quality strong polyurethane film to absorb and reduce the shock of impact as much as possible when they are swollen.
 2. The maximum pressure is about 30kpa(0.3kg/cm²) when the air cushion is fully inflated, but gradually decreases as gas comes out of the air cushion.
 3. The strength against breakage depends on the material of the jacket the material of the inner tube (polyurethane) and the strength of the stitch it also depends on the degree of impact, shape or hardness of the object the rider may hit after the Hit-Air inflates.
 4. The gas is sent from the "key box" to each air cushion through urethane tubing.
- The Hit-Air is designed to act as a shock absorber and may break depending on the shape of the object against which it strikes and also the extent of impact given.

4-3 Key Box

○ Key Box

With a tensile strength of approximately 30kg-35kg by the "coiled wire", the "key ball" comes out of the "key box". Then a needle in the "key box" is activated and punctures the seal of the gas cartridge to inflate the Hit Air instantly. The "key ball" can be pulled out from any direction (Photo 1).

WARNING 1

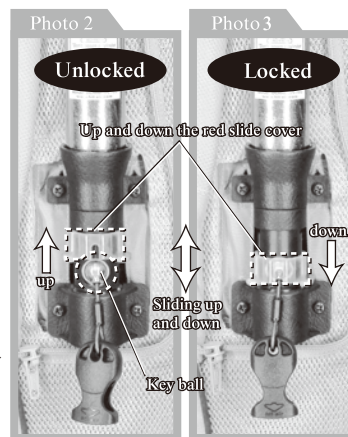
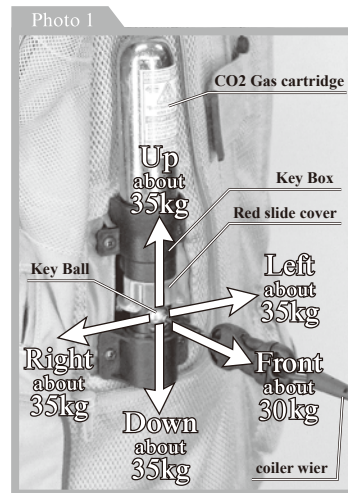
Do not take the "key box" apart or remove any parts.

○ Red slide cover

Whenever using the Hit-Air, make sure the red slide cover is in the 'unlocked' (up) position. (Photo 2)

To re-assemble the key box, the red slide cover is to be used to confirm that the key ball is properly set in the hole of the key box. (Photo 3)

If the key ball is not set in the hole properly, the red slide cover will not come down.



WARNING 2

When the red slide cover is in the 'locked' (down) position, the "key ball" cannot be released from the "key box", then the Hit-Air will not be activated. This may cause an injury to the rider in case of an accident. Whenever using the Hit-Air, make sure the red slide cover is in the 'unlocked' (up) position. (Photo 2)

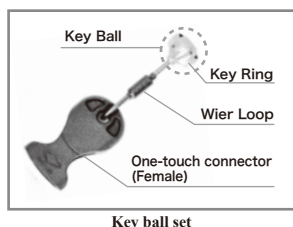
CAUTION 2

Even if the red slide cover is in the 'locked' position, if the wire is pulled strongly, the "key box" may activate the Hit-Air to inflate. The Hit-Air may also inflate accidentally when the red slide cover is moved from the 'locked' position to the 'unlocked' position after the wire is pulled strongly.

4-4 Key Ball

The key ball holds a compression spring and an interlocking needle in the key box. When the system is activated, the key ball comes out of the key box and a needle in the key box is released and punctures the seal of the gas cartridge to inflate the Hit Air immediately.

The key ball and the key ring are integrated parts.



4-5 CO₂ Gas Cartridge

- The gas cartridge contains CO₂ gas.
- When the "key ball" is released from the "key box", a needle punctures the seal of the gas cartridge to let the gas go into each air cushion.
- Screw the CO₂ cartridge fully into the bottom until it cannot go any further. Otherwise, a needle in the "key box" may not puncture the seal of the CO₂ cartridge and Hit-Air may not be activated properly.
- Do not reuse the gas cartridge once used. Change it to a new one. The seal at the bottom of an used cartridge is pierced with a hole.

Observe the followings to avoid an explosion

WARNING 1 1. Keep and use at the temperature below 40°C/104°F.
Do not keep in the car where the temperature may go up high.

WARNING 2 2. Do not give the cartridge a strong shock.

WARNING 3 3. Do not heat the cartridge.

WARNING 4 4. Do not let corrosion form on the surface of the cartridge.
If corrosion is noticed, replace it immediately.

WARNING 5 5. Confirm that the used gas cartridge is empty of gas before disposing.

WARNING 6 6. Do not cut or puncture the gas cartridge.

WARNING 7 7. The size (capacity) of the gas cartridge varies from model to model.
Install the designated size (capacity) for the model.
Visit <http://www.hit-air.com> "Replacement Gas Cartridges list" to find out the right size for the jacket.

CAUTION 8 8. Use the gas cartridge for the Hit-Air only, and not for any other purpose.

CAUTION 9 9. Use a Hit-Air CO₂ gas cartridge only. Do not use any other one.

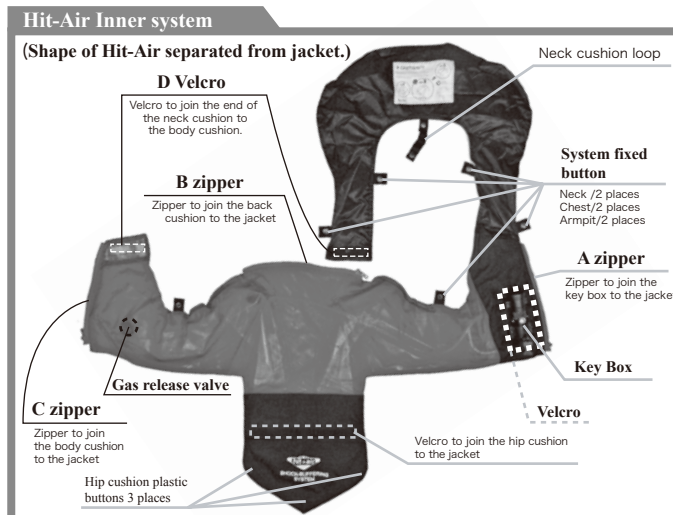
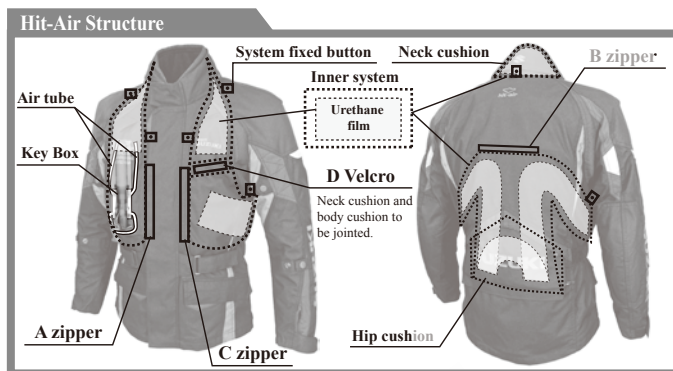
CAUTION 10 10. Keep the gas cartridges out of the reach of children.

CAUTION 11 11. Once the gas cartridge is installed, don't attempt to turn, loosen or remove it.

CAUTION 12 12. Screw the CO₂ cartridge fully until it seats firmly in the key box but do not over tighten.

4-6 Hit-Air Structure

Hit-Air inner system is attachable to or removable from the jacket or vest in the same way with buttons, zipper or Velcro.

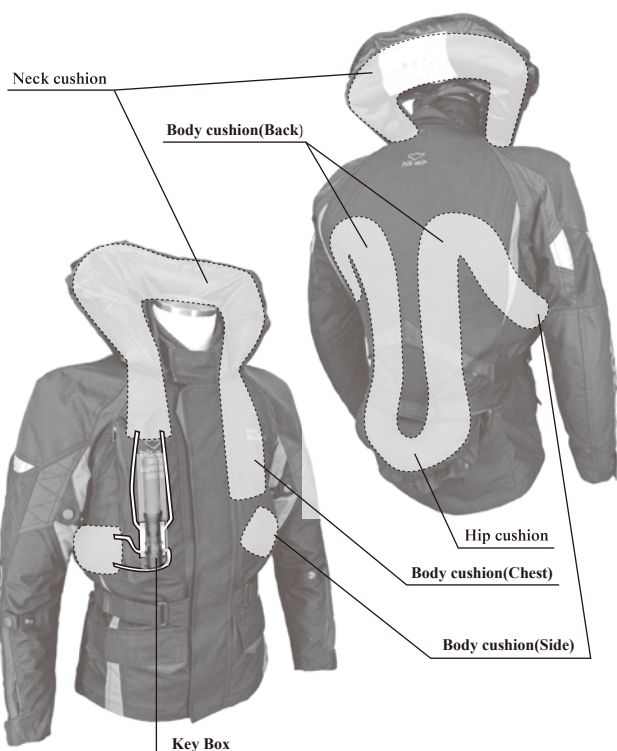


*Shape of model may vary.

4-6 Hit-Air Structure

Inflated Hit-Air inner system

When activation, neck cushion inflates and stands up instantly.
Body cushion inflates inside jacket.
*Outerwear (Jacket) has no function to inflate.



*Shape of model may vary.

15

4-7 Dismantling and Assembling of Hit-Air inner system

Take the responsibility for correct dismantling and assembling.
In case of washing or mending of the vest/jacket, the Hit-Air has to be dismantled and assembled carefully and correctly, otherwise it may not work as originally intended or may be damaged.

1. How to dismantle the Hit-Air inner system

Air cushions exposed to the outside of the vest/jacket are fastened with buttons and velcro.

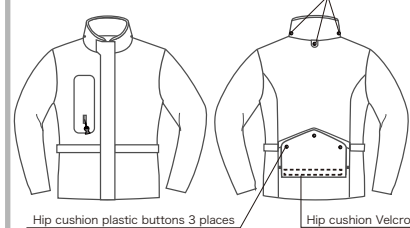
1. Spread out the vest/jacket on a flat surface.

2. Unscrew the CO₂ cartridge to remove.

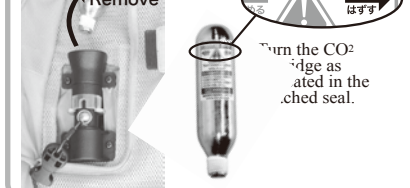
CAUTION ⚠
Never attempt to turn, loosen or remove the CO₂ cartridge except for reassembling.

3. Unfasten plastic buttons of the neck and hip cushions.

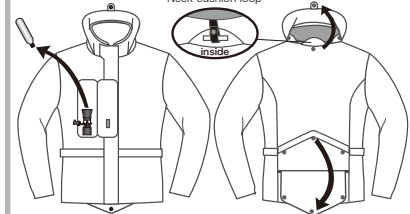
Picture 1 Neck cushion plastic button 3 places



Picture 2 Remove



Picture 3 Neck cushion loop



P.T.O.

16

1. How to dismantle the Hit-Air inner system

4. Fully open the front zipper and the zipper across the lower part of the inside of the vest/jacket.

Airbag systems are attached to the inside of the vest/jacket with zippers in 3 places, the key box(A), the back cushion(B) and the body cushion(C).

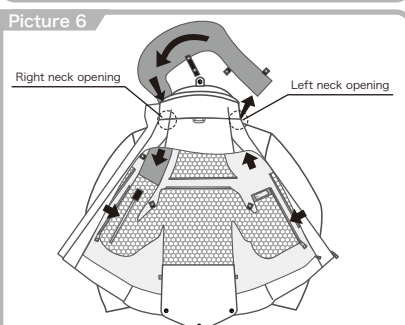
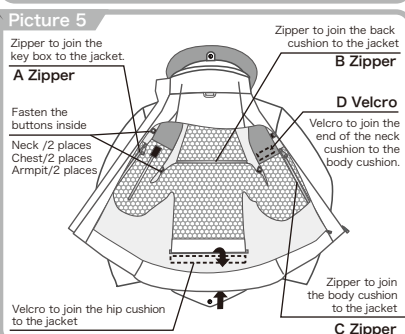
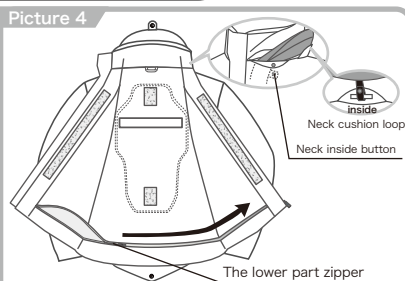
5. Open 3 zippers for the key box(A), for the back cushion(B) and for the body cushion(C) of the inside of the vest/jacket.

Velcro(D) to join the end of the neck cushion to the body cushion.

6. Open the Velcro (D)

7. The neck and pull it in the direction of an arrow to be separated from the jacket. (Picture 6)
8. Take the end of the neck cushion out through the opening of the left shoulder, unfasten Velcro around the neck and pull it in the direction of an arrow to be separated from the vest/jacket. (Picture 6)

CAUTION ⚠
Don't pull air cushions by force. It may cause damage to the Hit-Air.



P.T.O.

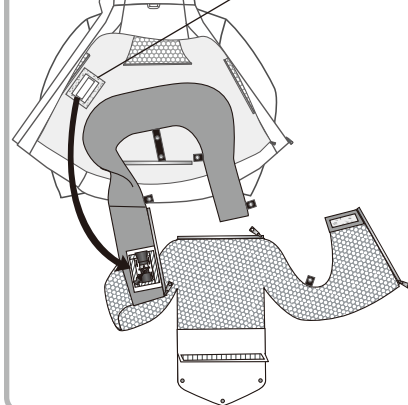
17

1. How to dismantle the Hit-Air inner system

9. Unfasten Velcro around the key box opening to separate from the vest/jacket. Take the Hit-Air system and shoulder, elbow and back protectors out and wash or launder the vest/jacket only in accordance with the washing instructions. (Picture 7)

CAUTION ⚠
Do not wash! Airbag and Protectors.

Picture 7 Key box opening Velcro



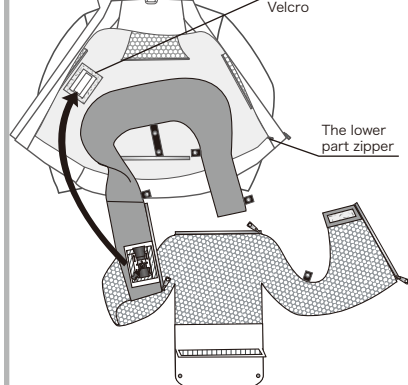
END

2. How to assemble the Hit-Air inner system (the reverse of dismantling)

1. Spread out the vest/jacket on a flat surface, with the inside up, and open the zipper across the lower part of the inside of the vest/jacket (Picture 8)

2. Place the key box of the Hit-Air in the opening of the right-hand side of the vest/jacket and fasten it with Velcro on all sides. (Picture 8)

Picture 8 Key box opening Velcro



P.T.O.

18

2. How to assemble the Hit-Air inner system

- Let the neck cushion go through from the inside of the right shoulder opening in the direction of an arrow. Then put its end into the left shoulder opening.(picture 9)

CAUTION The neck cushion should not get twisted.

- Join the end of the neck cushion to the D Velcro of the body cushion.(picture 9)

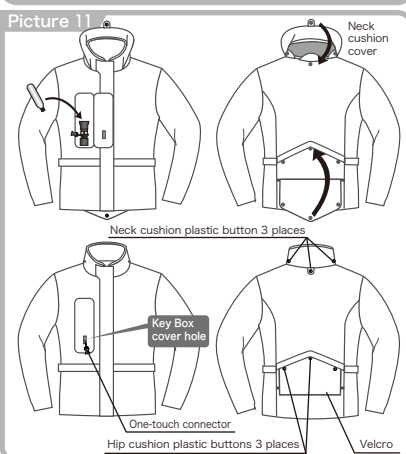
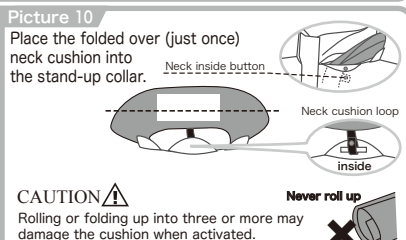
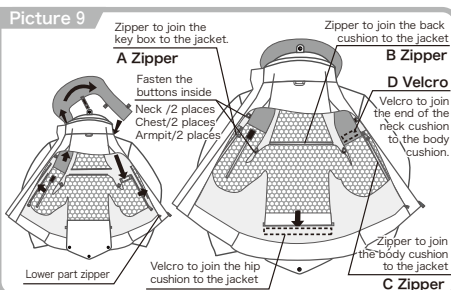
- Join 3 zippers of A, B and C to the inside of the jacket. (picture 9)

- The lower part zipper closed.

- Place the folded over (just once) neck cushion into the stand-up collar. (picture 10)

- Fasten neck cushion plastic buttons on the the back. (Neck 3 places)
Fasten hip cushion plastic buttons (3 places)

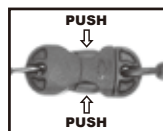
- Lastly, install a CO2 cartridge and let the female side of the one-touch connector out through the hole of the key box cover and close the zipper. (See P29,7-2,11, for the installation of a CO2 cartridge)



5 Using Hit-Air

5-1 One-touch Release

Use the “one-touch release” for easy connection or disconnection of the “coiled wire” attached to the motorcycle and the “key ball” inserted in the “key box”.

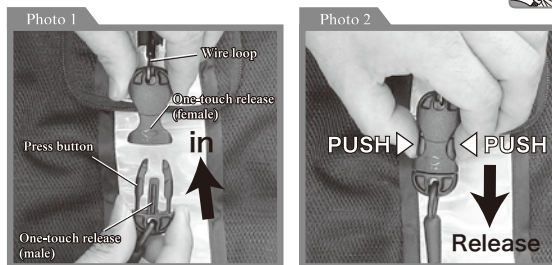


CAUTION

- The one-touch release may come in contact with and cause damage to the tank or other part of the motorcycle. If such situation is expected, putting a seal around such parts for protection is recommended.
- Hold the female connector and insert the male one. A clicking sound will confirm that a connection is made properly. Otherwise, it may come off by itself.
- Change it for a new one if/when the insertion is not made properly. Using force to connect the one-touch release may cause its malfunction.
- When getting off the motorcycle, make sure that the male part does not touch the hot part of the motorcycle, such as the engine or muffler, because the heat could damage the optimal shape of the male part.

5-2 Connecting Coiled Wire and Jacket with Hit-Air

- Hold both sides of the female part of the “one-touch release” into which insert the male connector (Photo 1).
- Before getting off the motorcycle, press the press button of the “one-touch release” for disconnection (Photo 2).



*Shape and how to use the “one-touch releas” may be different from the Photos 1 and 2.

WARNING Before riding the motorcycle, make sure the red slide cover on the “key box” is in the ‘unlocked (up)’ position (see page 12, photo 2). If it is in the ‘locked (down)’ position, the Hit-Air will not work properly in case of accident etc.

5-3 Attaching Coiled Wire to Motorcycle

Where and how to attach the “coiled wire” to the motorcycle varies with the motorcycle. The rider’s movement when riding also varies. Taking these into consideration, decide the length of the “coiled wire” and the part of the motorcycle where it is to be attached (see page 17 to 18). Improper attaching may cause an accidental activation of the Hit-Air when the rider touches the “coiled wire” with some force.

WARNING 1. Fix the “coiled wire” not in use on the part of the motorcycle, to avoid the “coiled wire” touching the heated engine etc., obstructing rider’s movement, coiling around the wheel and causing damages to it or the motorcycle. If such problem is foreseeable, remove the “coiled wire” from the motorcycle.

CAUTION 2. Due to the elastic nature of the “coiled wire”, the “key ball” or the “one-touch release” may hit the fuel tank or other part of the motorcycle causing damages when the Hit-Air is activated.

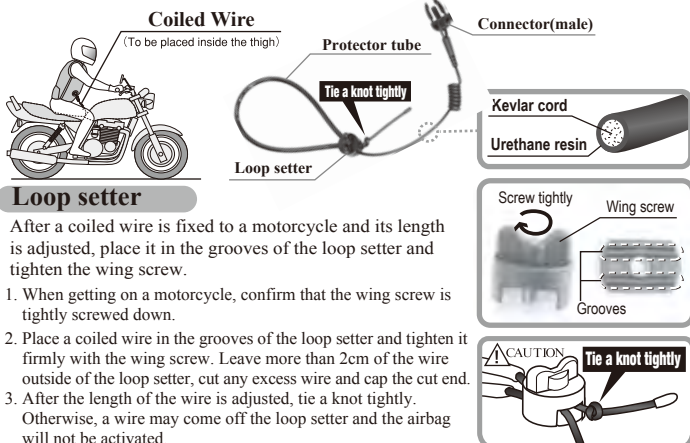
- If the “coiled wire” is not attached to the motorcycle properly, it may come off when it is stretched then the Hit-Air will not be activated.

- Replace the “coiled wire” when wear, burns, peeling or cracks are found.

*Do not use the coiled wire other than the one supplied by an authorized dealer.

Coiled Wire

A strong wire of Kevlar cord coated with urethane resin.



Loop setter

After a coiled wire is fixed to a motorcycle and its length is adjusted, place it in the grooves of the loop setter and tighten the wing screw.

- When getting on a motorcycle, confirm that the wing screw is tightly screwed down.
- Place a coiled wire in the grooves of the loop setter and tighten it firmly with the wing screw. Leave more than 2cm of the wire outside of the loop setter, cut any excess wire and cap the cut end.
- After the length of the wire is adjusted, tie a knot tightly. Otherwise, a wire may come off the loop setter and the airbag will not be activated.

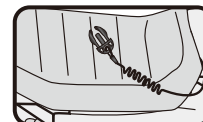
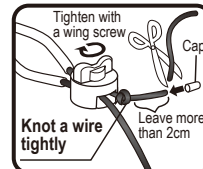
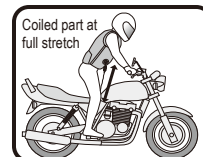
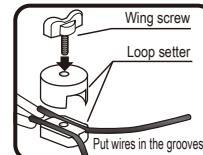
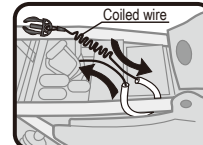
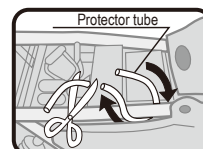
Protector tube

Protect a motorcycle and a coiled wire against damage.

Pass a coiled wire through a protector tube to protect the part of the wire wound round the frame or handlebar etc. of the motorcycle. Cut the excess tube depending on the part where the coiled wire is fixed.

5-4 Where and how to fix a coiled wire.

Where and how to fix a coiled wire.



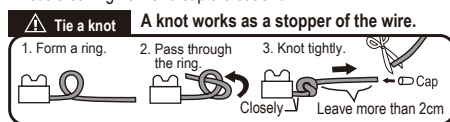
- Wind the protector tube round a frame, adjust its length and cut the excess tube.

- Pass the coiled wire through the protector tube.

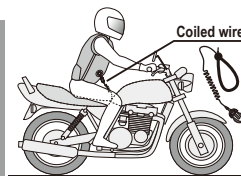
- Temporarily fix the coiled wire in the loop setter and adjust its length.

- Determine the length of the coiled wire by standing on the pegs to make the coiled wire fully stretched.

- Lastly, fix the wire firmly with the loop setter, knot it tightly, cut it leaving 2cm and cap the cut end.

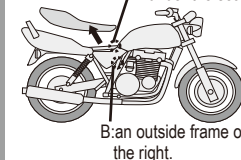


- Put the seat back.



Fix it to a frame on the right-hand side of the motorcycle.

Place to fix A: an inside frame under the seat.



B: an outside frame on the right.

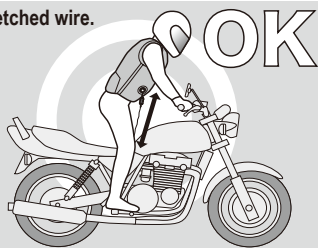
Caution

Don't fix a coiled wire to any part where it would disturb driving the motorcycle, where it would lead to damage a part of the motorcycle, where it may come off when it is pulled and where it becomes hot (over 60°C) such as the engine or muffler.

How to adjust the length of a coiled wire.

Stand up on the pegs so as to make the coiled wire fully stretched.

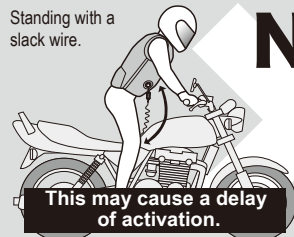
Standing with a stretched wire.



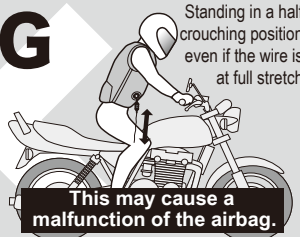
Standing with a slack wire.

NG

Standing in a half crouching position even if the wire is at full stretch.



This may cause a delay of activation.



This may cause a malfunction of the airbag.

Scooter example 1



A wire fixed to the neck of the handle.
Standing on the scooter and the wire is at full stretch

Scooter example 2



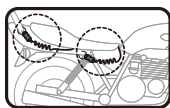
A wire fixed to the seat.
Standing on the ground and the wire is at full stretch.

Scooter example 3



A wire fixed to the rear seat.
Standing on the rear step in a half crouching position and the wire is at full length

Where to adjust and fix a coiled wire may vary depending on the size and make of the motorcycle as shown above.



[sold separately] Connector holder

To hold the free end of a coiled wire while it is not in use.

Pay attention when the jacket with the Hit Air is inflated as follows.

1. The jacket with Hit-Air is designed to provide protection especially to the wearer's neck, so when it is inflated, there will be some pressure around the neck, and if it is difficult to release the strap of helmet, take the Hit-Air off immediately.
2. Watching around the situation calmly, unzip and release the buckle to take off the jacket.
3. If the scene of accident seems to be dangerous, go to the safe area before taking off the jacket.
4. When the Hit-Air is inflated, a feeling of tightness may be felt, but the gas will leak out gradually. Therefore, calm yourself even if the body with the inflated jacket is pressed down by something.
5. If the air cushion is punctured when fully inflated, the gas in all the cushions will immediately escape and the cushions deflate.

CAUTION ⚠ 6. If the Hit-Air inflates accidentally for some reason while riding, do not upset. Look for a safe place and take an appropriate action. To continue to ride with the inflated Hit-Air may be dangerous due to the increasing wind resistance etc. Remove it first.

CAUTION ⚠ 7. If there is an external damage to the Hit-Air due to its activation, take it to an authorized dealer for a maintenance check and to replace the gas cartridge. In cases of extreme damages externally or internally, it may not be repairable.

CAUTION ⚠ 8. Be aware of the points listed below when attempting to re-assemble the Hit-Air by yourself after it is activated.

- Whether it has external damages (holes, scratches, tears etc.)
- Confirm that the airbag is fully inflated when it is activated.
- Confirm that the gas cartridge to be replaced is the correct size and unused.

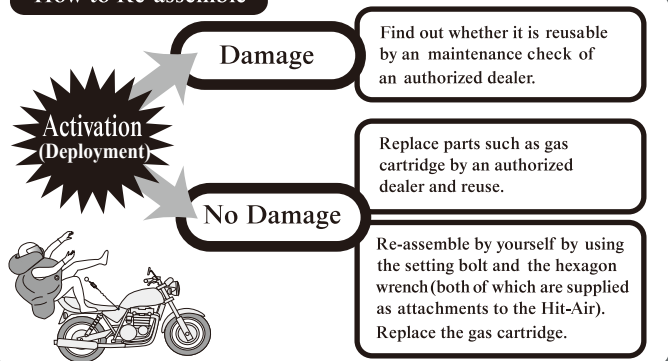
Go over the points listed above and if there are no problems, re-assemble the Hit-Air carefully at your own risk. It may not work as designed if there are external or internal damages. For further details for re-assembling see Chapter 7, (pages 20 to 24).

Re-assembling Hit-Air after Activation

7-1 How to Re-assemble

We recommend to take the Hit-Air once activated to an authorized dealer for a maintenance check and re-assembling. It can be reused if it is re-assembled in accordance with the following procedure, but unless it is done properly, it may not work. It cannot be re-assembled if it is damaged by the previous activation.

How to Re-assemble



Outline of re-assembling by yourself

Get an unused CO₂ cartridge and tools for re-assembling ready. See.(P26)1

Unscrew the used cartridge. See.(P26) 2

Remove all CO₂ gas from the air cushion. See.(P26) 3

Set a key ball in the key box by using tools See.(P27 to 28) 4 to 9

Install an unused cartridge. See.(P28) 11

Put on the key box cover See.(P28) 12

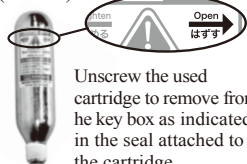
7-2 Re-assembling Key Box

1. Get tools for re-assembling ready. (Photo 1)
Get an unused CO₂ cartridge, a hexagon wrench and a setting bolt ready

CAUTION ⚠

As the CO₂ cartridge for the jacket with the Hit-Air varies in size (capacity), choose the right size of the cartridge matching the size of the wear.

2. Unscrew the used gas cartridge by turning anticlockwise. (Photo 2)



Unscrew the used cartridge to remove from the key box as indicated in the seal attached to the cartridge.

3. Remove all CO₂ gas from the air cushion.
To remove all remaining gas from the air cushion, spread the Hit-Air, face down on a flat smooth surface. By pressing down each cushion using your hands, knees and legs, remove gas completely. Do not fold or roll up the Hit-Air to avoid damages inside. It may take time to release all the gas in the air cushion but it is necessary as it cannot be re-assembled with gas left remaining in any of the air cushion. (Photo 3)

CAUTION ⚠

If the gas left remaining in any of the air cushion, it cannot be re-assembled.

Photo 1

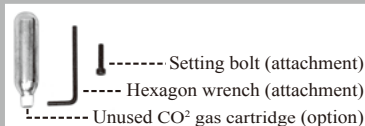


Photo 2

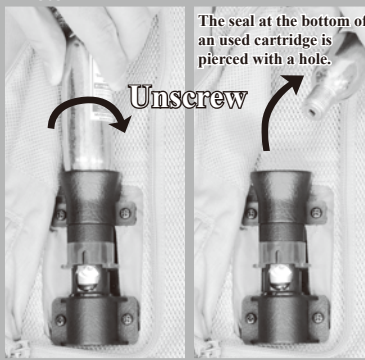


Photo 3



4. Insert a setting bolt into the hole at the bottom of the key box and tighten up by hand (Photo 4). (As tightening the bolt, the hole for the key ball goes down.)

5. When it becomes too tight by hand, tighten it further with the hexagon wrench until the inside hole is placed at the center of the outside hole. (Photo 5)

6. Set the key ball in the hole. (Photo 6)
Insert the "key ball" with a ring deeply into the hole of the "key box". If it is blocked by the ring and does not come down, tighten or loosen the "setting bolt" and/or press down the edge of the ring around the key ball by the fingernail until the "key ring" fits in the hole.

7. Confirm that the key ball is set properly in the hole of the key box by sliding the red slide cover down over the hole. (Photo 7) Insert the key ball with a ring deeply into the hole of the key box. Pull the wire loop attached to the key ball downwards and lower the red slide cover over the hole. If the slide cover is blocked by the ring and does not come down, tighten or loosen the setting bolt and/or press down the edge of the ring around the key ball by the fingernail until the key ball fits in the hole and the slide cover comes down.

Photo 4



Photo 5

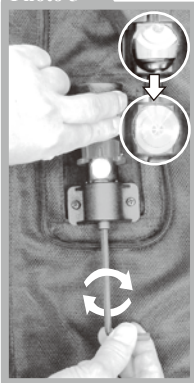
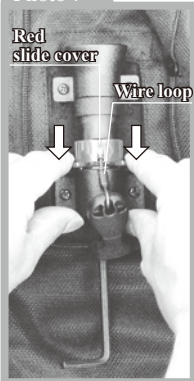


Photo 6



Photo 7



8. Remove the setting bolt. (Photo 8)

Loosen the "setting bolt" by the 5 mm hexagon wrench to remove it.

WARNING ⚠

Remove the "setting bolt" from the "key box" without fail. Otherwise the Hit-Air will not be activated.

9. Lift the red slide cover to the "unlocked" (up) position for reuse. (Photo 9)

CAUTION ⚠

If the system activates while the red slide cover is in the "locked" (down) position, it may cause the system malfunction or damage to the Hit-Air.

10. Re-pack all air cushions and fasten all buttons (Photo 10)

Photo 10



Photo 8

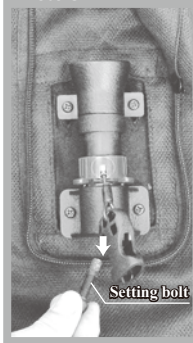
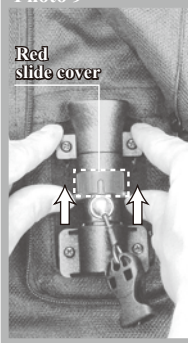


Photo 9



Re-pack of Neck Cushion

When you re-pack the air cushions in the neck area, you must fold it in half as shown below. **Do not roll it up.** If not folded in half as shown, the shock-buffering system won't function as designed and may damage the jacket.

Fit the neck cushion which is folded in half into the standup collar.



CAUTION ⚠ **Never roll up** Folding up the cushion more than once or rolling it up may damage the cushion when activated.

Fasten plastic buttons on the neck.



P.T.O.

P.T.O.

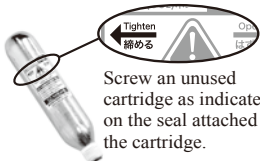
27

28

11. Install an unused gas cartridge of the right size*. (Photo 11)

(*see page 2 ①-②)

Screw an unused gas cartridge until it is firmly seated, do not over tighten. If there is a problem with fitment, consult with an authorized dealer.



Screw an unused cartridge as indicated on the seal attached to the cartridge.

CAUTION ⚠

If the cartridge is not seated completely and firmly, the Hit-Air may not be activated/inflate.

Photo 11



12. Take the female side of the one-touch connector out through the hole of the key box cover and close the key box cover. (Photo 12)

Photo 12



End

29



8

Washing

1. Do not wash or launder the Hit Air (Shock-buffering Protection System).
2. Take the Hit-Air system and protectors (shoulder, elbow, back etc.) out from the vest/jacket and wash or launder the vest/jacket only in accordance with the washing instructions. (See. 4-7, page 16 to 18)
3. Wipe the surface of the Hit-Air system (neck, hip cushions etc.) with a damp cloth to remove stains.



9

How to Store

For longer life and safety, avoid the following conditions:

1. High temperature. (Under the direct sunlight, in the closed automobile, near the heater or open flames, etc.)
2. Exposure to rain or extreme moisture, including steam and high humidity
3. Storing items on top of the Hit-Air System / Jacket
4. Leaving jacket within the reach of children, pets or other animals
5. Folded or rolled up (Hang up on a coat hanger is preferable)



10

Change

If a problem listed below is found on the jacket with the Hit Air, consult with an authorized dealer to change or repair/replace.

1. The jacket (cloth) or inner fabric (cloth) or inner fabric (cloth, mesh) becomes frayed or is torn and inner tubing (white urethane film) is exposed.
2. A crack or rust is found on the "key box" or on the gas cartridge.
3. The "coil wire" or the "wire loop" gets scraped and frays.
4. Considerable change of color or deterioration of material.

30