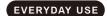


#### MUGEN DENKO CO.,LTD.

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URL www.hit-air.com



# **AIRBAG SYSTEM** Manual

\*Read carefully before use.



# **AIRBAG JACKET USER'S GUIDE**





# 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  $\mathbf{0}$ - $\mathbf{0}$  are confirmed before use as follows:

Caution/!\

O 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 CO<sup>2</sup> cartridge only. Do not use any other one.

A CO<sup>2</sup> 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 CO<sup>2</sup> cartridge and the key box are properly sealed at the time of shipment.(\*The key ball is set)

• The right size (capacity)cartridge for the model is installed. A CO<sup>2</sup> cartridge is tightly screwed into the key box

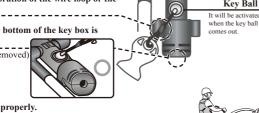
An used/empty cartridge should not be installed.

Caution Re-assembling after the activation must be done in accordance with "Re-assembling Key Box"(see page 22 to 25) The key ball must be set only after the used/empty cartridge is removed from the key box.

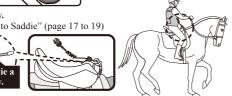
3 Is there any deterioration of the wire loop or the coiled wire?

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 Saddie" (page 17 to 19)

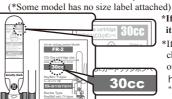


CO2 gas cartridge

**Key Box** 

Key Ball

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.



\*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 CO<sup>2</sup> 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 25)

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 CO<sup>2</sup> 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 22 to 25).

3 Is there any deterioration of the wire loop or the coiled wire? If so, replace it with a new one. Its replacement in every 1 to 2 years is recommendable.

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 23 to 24 in detail). \*The Hit-Air will not be activated if the setting bolt remains in the

Make sure that the setting bolt is removed from the key box before

Tie a knot tightly to fix a coiled wire to the saddle, 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.

# Table of Contents

# **USER'S GUIDE**

9

11

OThank you for your purchase

OFor the proper use of the Hit Air, please read this booklet carefully before use

| OPlease carry this booklet together whenever you use the Hit Air.       |
|---|
| Safety Precautions 5  |
| <b>№ 2</b> General Information 7  |
| Name and Shape 9  |
| 3-1 Name and Shape · · · · · · · · · · · · · · · · · · ·                |
| 3-2 Diagram of Airbag · · · · · · · · · · · · · · · · · · ·             |
| <b>№</b> 4 Structure 12   |
| 4-1 Function · · · · · · · · · · · · · · · · · · ·                      |
| 4-2 Air Cushion · · · · · · · · · · · · · · · · · · ·                   |
| 4-3 Key Box   |
| 4-4 Key Ball  |
| 4-5 CO <sup>2</sup> Gas Cartridge · · · · · · · · · · · · · · · · · · · |

| <b>▶ 5</b> Using Hit-Air 15                                 |    |
|---|----|
| 5-1 One-touch Release · · · · · · · · · · · · · · · · · · · | 15 |

5-2 Connecting Coiled Wire and Jacket with Hit-Air··· 16 5-3 Attaching Coiled Wire to Saddle · · · · · 17 1. How to fix a coiled wire to the Grab Strap/Saddle holder · · · · 17 2. How to fix a coiled wire to the saddle strap · · · · · · · 18 5-4 How to fix a Coiled Wire ..... 19

Market Activation 20

**7** Re-assembling Hit-Air after Activation 21 7-1 How to Re-assemble 21

7-2 Re-assembling Key Box · · · · 22 Dismantling and Assembling of Hit-Air inner system 26

8-1 How to dismantle the Hit-Air inner system ..... 26 8-2 How to assemble the Hit-Air inner system · · · · 28

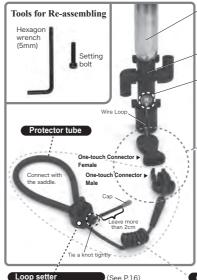
Washing 30

**IIII** How to Store 30

**▶ 11** Change **30** 

## **Preface**

### **Accessories for Hit Air**



After a coiled wire is fixed to a motorcycle and its length is adjusted, place it in the grooves of the

Made of such non-slippery materials as rubber or silicon to avoid abrasion of the part where the wire

Put wires in the grooves

(See P16)

loop setter and tighten the wing screw.

Screw tightly

Protector tube

is tied.

CO<sup>2</sup> gas cartridge

When the key box is activated, the gas cartridge releases CO<sup>2</sup> gas into the airbag (to each air cushion) immediately to inflate them.

Key box (Y-type) (See P.13)

Jointly developed by YKK and Mugen Denko Key ball (Y-type)

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



One-touch release(Connector) (See P.15)

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





When getting on a horse, connect one-touch release

A strong wire of Kevlar cord coated with urethane resin.



(See P.16)

Tie a coiled wire to the center of the saddle holder attached to the saddle, or to the saddle strap (our own product).







Be sure to read this User's Guide carefully before using the vest with the Hit-Air (shockbuffering system) for proper use and safety and keep it, together with the "User's Guide for Accessories", in the place you can reach anytime.

The marks used in this User's Guide denote as follows

# WARNING A

This mark denotes that if the "WARNING" is ignored, it could result in death or a serious injury to the user

of this product.

CAUTION

"CAUTION" is ignored, it could result in a physical injury or a material damage.

WARNING 1. The jacket with the Hit-Air is to be used for the rider's safety when riding a horse and not for any other purpose.

WARNING 12. The jacket with the Hit-Air of the right size is to be worn as an outerwear on the upper half of the body.

WARNING 13. Use the gas cartridge of the same size and contents as before when replacing and confirm that there are no holes or tears in its seal.

WARNING 4. Do not take any parts of the Hit-Air apart.

CAUTION 15. Remove sharp on pointed objects such as pins or pens from the jacket with the Hit-Air or from the underwear before wearing. They may damage the air cushion before or at the time of the activation and prevent the function of the Hit-Air.

CAUTION 6. Keep open flames and cigarettes away from the jacket with the Hit-Air as holes or tears caused by them will prevent its function. Keep and use at temperatures below 40°C/104°F as the gas cartridge may burst at a high temperature.

CAUTION 7. Disconnect the Hit-Air from the "coiled wire" at the "one-touch release (connector)"before dismounting the horse.

CAUTION 8. Inspect the Hit-Air to determine if there is any damaged prior to wearing If there is any damage, consult with an authorized dealer.

Otherwise, it may cause an accidental activation.

CAUTION 9. To make sure the Hit-Air will function properly, take it to an authorized dealer for a maintenance check, once a year depending on frequency of use.

CAUTION 10. Keep the jacket with the Hit-Air by hanging up on a coat hanger. Do not fold or lay anything on it. Avoid high temperature and high humidity.

CAUTION 11. To avoid any damage to the airbag, do not prick a needle or sew emblems or iron on the jacket with the Hit-Air. Consult with an authorize dealer where to sew an emblem

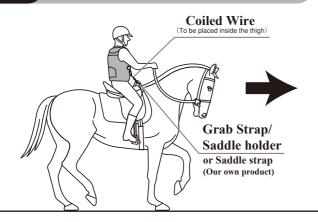
CAUTION 12. Make sure the "coiled wire" is securely attached to the saddle. Improper attaching may prevent the function of the Hit-Air.

CAUTION 13. Take full responsibility for correct removing and replacing of the Hit-Air inner system. (\*All-in-one-airbag system is not removable)

CAUTION 14. Don't use a Hit-Air inner system (shock buffering protection system) separately from the vest or jacket.

CAUTION 15. Don't wash a Hit-Air inner system. Remove it from the vest or jacket and wash the vest or jacket only. (\*Don1t wash or launder an all-in-one-airbag)

CAUTION 16. If a fray, rust or wear is found on the "wire loop" or the "coiled wire" attached to the "key ball", replace it immediately.





It will be activated/inflated immediately after a distance from the rider to the horse exceeds the "activation distance" (\*1) when the rider falls off or is thrown off the horse. It will be activated at the moment the key ball is pulled out from the key box (see . 4-3) P13).

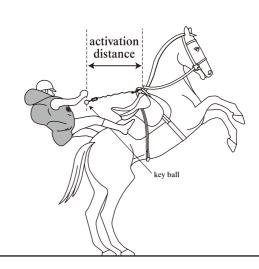
This causes the gas cartridge to release the CO<sup>2</sup> gas into the air cushions to inflate them immediately.

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 horse. 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 force 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 horse to the rider's key box on the Hit-Air without any obstacles in between.



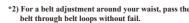
- O If the "coiled wire" running from the "key box" to the saddle holder touches an obstaclesuch as the rider's body, any part of the saddle, a whip or any other projecting object, there is a possibility of accidental activation within the "activation distance" by a force strong enough to pull the "key ball" out of the "key box".
- O If the rider crashes or falls down together with the horse, unless the "activation distance" isexceeded, 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 horse farther than the "activation distance", a force of approximately 20kg-35kg (See 4-3) P13) may activate and inflate the Hit-Air. Connect or disconnect the "one-touch release" while you are on the horse.
- Once a gas cartridge is used, it cannot be used again. Buy a new one from an authorized dealer.

7

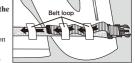
# Name and Shape

## 3 - 1 Name and Shape





If the belt is not kept in the belt loops when the system is activated, it may come off and the function of the airbag (shock buffering) may be impaired. \*Although numbers of belt loops vary with models.



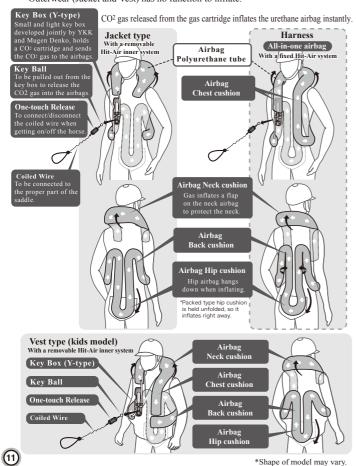
(8)



# 3-2 Diagram of airbag

When activation, neck cushion inflates and stands up instantly. Body cushion inflates inside jacket/vest.

\*Outerwear (Jacket and Vest) has no function to inflate.





#### 4-1 Function

- 1. As soon as the "activation distance" is reached, the Hit Air is activated and the CO<sup>2</sup> 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. At the back of CO<sup>2</sup> cartridge and the key box, a key box plate (made of plastics) or a buffer material is placed to protect the rider's chest 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

4. The Hit Air may not function properly, if there is damage to the jacket with the Hit Air, fabric the garment, air cushion, Velcro, fastener, etc. If so, consult with an authorized dealer. The jacket with the Hit Air may not be repairable in some cases.

#### CAUTION

- 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 (\*3).
- \*3) 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 urethane film to absorb and reduce the shock of impact as much as possible when they are inflated.
- The maximum pressure is about 20 kpa (0.2 kg/cm<sup>2</sup>) 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 (urethane) 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  $CO^2$  gas is sent from the key box to each air cushion (urethane film) through air tube.
- 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 Ke

#### Key Box (Y-type)

With a tensile strength of approximately 20kg-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 instantial.

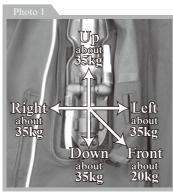
The "key ball" can be pulled out from any direction (Photo 1).

#### CAUTION

1. Do not take the "key box" a part or remove any part.

#### CAUTION

Screw in the gas cartridge fully until it seats firmly but do not over tighten If anything wrong, consult with an authorized dealer.



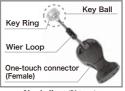
#### Key box structure CO<sup>2</sup> gas cartridge Protection padding The gas cartridge contains For shock buffering CO2 gas As the CO<sup>2</sup> cartridge for the jacket with the Hit Air varies in size (capacity), choose the right size of the cartridge matching the size of the wear Air tube To send the CO<sup>2</sup> gas from Key box plate The molding Velcro(male) has adhered on the reverse. the cartridge to airbags 'Harness type has a tube Velcro(female) Key Ball (Y-type) Air cushion side Airbags inflate when the key ball is pulled out Screw Key box (Y-type) When the key ball comes out of the key box, the compressed spring One-touch Connector pushes up the needle which punctures the seal of the CO<sup>2</sup> cartridge to release the gas into Buckle type connector (female) Compressed the airbag system. spring

# 4-4 Key Ball (Y-type)

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.



Key ball set (Y-type)

# 4-5 CO<sup>2</sup> Gas Cartridge

- O 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.
- O Screw the CO<sup>2</sup> 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 CO<sup>2</sup> cartridge and Hit-Air may not be activated properly.
- On 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**. 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 **A** 2. Do not give the cartridge a strong shock.

WARNING **A** 3. Do not heat the cartridge.

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

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

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

WARNING **A** 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. Use the gas cartridge for the Hit-Air only, and not for any other purpose.

CAUTION 4 9. Use a Hit-Air CO<sup>2</sup> gas cartridge only. Do not use any other one.

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

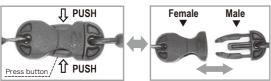
CAUTION 11. Once the gas cartridge is installed, don't attempt to turn, loosen or remove it.

CAUTION 12. Screw the CO<sup>2</sup> cartridge fully until it seats firmly in the key box but do not over tighten.

# Using Hit Air

## 5 - 1 One-touch Release

Connect the male connector at the end of the coiled wire attached to the saddle with the female connector attached to the key ball in the key box



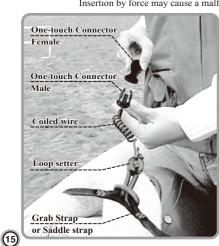




Hold the female connector and insert the male one. A clicking sound confirms that a connection has been made. Pull the male connector lightly to make sure that the connection has been made properly.

CAUTION 12. If you have difficulty making the connection, clean the male and female parts thoroughly.

CAUTION 3. Change it for a new one, if the insertion cannot be made properly. Insertion by force may cause a malfunction of the one-touch release.





Buy an additional coiled wire for each additional saddle.

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

- On the horseback, hold both sides of the female part of the "one-touch release" into which insert the mele connector (Photo 1).
- O Before getting off the horse, press the press button of the "one-touch release" for disconnection (Photo 2).





#### **Coiled Wire**

Is constructed with a strong wire made of Kevlar cord coated with urethane resin.



CAUTION A If cracks, peelings, burns or wear is found or the Kevlar cord's inner core becomes visible, replace it immediately. Otherwise, it may break or come off the loop setter. Each user must take responsibility for maintenance and replacement of the coiled wire

#### Loop setter

The Loop Setter is used to secure the coiled wire after its length is adjusted.

CAUTION When you get on the horse, be sure that the butterfly screw has been screwed tightly.

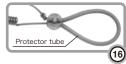
CAUTION Place the coiled wire between the loop setter's groves, and tighten the butterfly screw firmly. Leave about 2cm (0.8 inch) of the wire out of the loop setter after it has been tightened cut off any excess wire and put a cap on the end of the wire. Otherwise, a wire may come off the loop setter and the airbag will not be activated.



Made of such non-slippery materials as rubber or silicon to avoid abrasion of the part where the wire

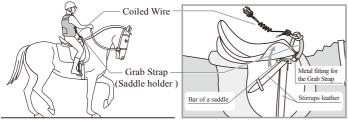






### **5-3** Attaching Coiled Wire to Saddle

#### 1. How to fix a coiled wire to the Grab Strap/Saddle holder.



Fix the Coiled wire to the center of the grab strap.



How to fix a Coiled wire-2(Belt type) to the Grab Strap.



#### Fix it properly for the safety and the peace of mind.

CAUTION 1. If the "coiled wire" is not attached to the saddle strap properly, it may come off when it is stretched then the Hit Air will not be activated

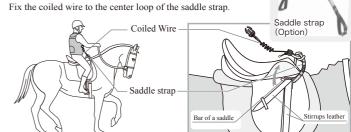
CAUTION 12. Replace the "coiled wire" when wear, burns, peeling or cracks are found. \*Do not use the coiled wire other than the one supplied by an authorized dealer.

CAUTION 13. Don't use a rusty, cracked or deteriorated grab strap or its metal fittings to avoid any possible trouble in activating the system.

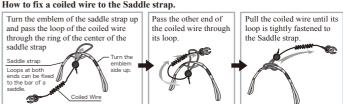
CAUTION 4. Activation of the system may delay if a coiled wire is not fixed firmly to the proper place of the center of the grab strap and is moving around.

CAUTION 5. Don't fix a coiled wire directly to the metal fitting for the grab strap which may be broken or may come off at the activation and the system may not inflate

# 2. How to fix a coiled wire to the saddle strap.



#### How to fix a coiled wire to the Saddle strap.



Saddle strap is to be fixed to the bar of a saddle of the saddle.



CAUTION 1. If the "coiled wire" is not attached to the saddle strap properly, it may come off when it is stretched then the Hit Air will not be activated

CAUTION 12. 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.

CAUTION 13. Don't use a frayed and deteriorated saddle strap. Replace it immediately, otherwise it may be worn out and the system may not be activated.

CAUTION 14. The saddle strap connected to the bar of a saddle may come off at the activation and the airbag may not inflate

#### How to fix a Coiled Wire



Turn the emblem of the saddle strap (or Grab Strap) up, wind a protector tube around the upper side of the center of the saddle strap and cut the excess tube



2 Pass a coiled wire through the protector tube.



3 Temporarily fix the coiled wire outside the protector tube in the loop setter and adjust its



4 Stand up on the stirrups to make the coiled wire fully stretched to determine the optimum length of the coiled wire.



5 Fix the coiled wire firmly in the loop setter, tie a knot in its end and cut off the excess leaving morethan 2cm (0.8 inch) of extra length and put a cap on the cut end

3. Knot tightly

more than

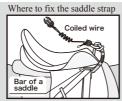
2cm (0.8inch)



1. Form a loop

6 END

2. Pass a wire through the



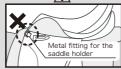
How to adjust the length of a coiled wire











Don't fix a coiled wire directly to metal fittings for the grab strap which may be broken ormay come off and the system may not activate

# Attention after Activation

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

- CAUTION 1. A hissing sound of the gas coming out of the gas cartridge into the air cushion or the end of thecoil wire tapping a horse may excite the horse.
  - 2. The jacket with the 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 there is difficulty in releasing the helmet's strap, open the front fastener (or buckle) immediately.
  - 3. Look around the scene carefully, unzip and release the buckle to take off the jacket.
  - 4. If the scene of accident seems to be dangerous, go to a safe area before taking off the jacket.
  - 5. When the jacket with the Hit-Air is inflated, a feeling of tightness may be felt, but the gas will leak out gradually. Therefore, remain calm even if the body with the inflated jacket is pressed down by something.
  - 6. If the air cushion is punctured when fully inflated, the gas in all the cushions will immediately escape and the cushions deflate

CAUTION 7. If the Hit-Air inflates accidentally for some reason while riding, do not be alarmed. Look for a safe place and take an appropriate action.

CAUTION 8. If there is 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 9. Be aware of the points listed below when attempting to re-assemble the Hit-Air by yourself after it is activated.
  - O Whether it has external damages (holes, scratches, tears, etc.)
  - OConfirm that the airbag is fully inflated when it is activated
  - Onfirm 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 21 to 25).



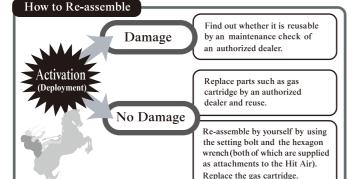
# Re-assembling Hit Air after Activation

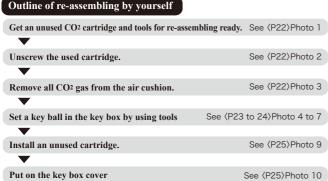
# How to Re-assemble

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.





### **7-2** Re-assembling Key Box

Get tools for re-assembling ready (Photo 1) Get an unused CO<sup>2</sup> cartridge, a hexagon wrench and a setting bolt ready



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.

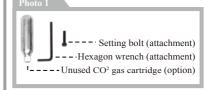
2. Unscrew the used gas cartridge by turning anticlockwise. (Photo 2)

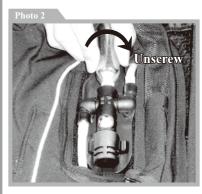


3. To remove all remaining gas from the air cushion, spread the Hit Air, face down on a flat smooth surface. By pressing down each cushion using your hands, knees and legs, remove gas completely. Do not fold or roll up the Hit Air to avoid damages inside. It may take time to release all the gas in the 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.

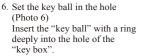








- 4. Insert a setting bolt into the hole at the bottom of the key box and tighten up by hand (Photo 4). (As tightening the bolt, the hole for the key ball goes down.)
- 5. When it becomes too tight by hand, tighten it further with the hexagon wrench until the inside hole is placed at the center of the outside hole. (Photo 5)



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.

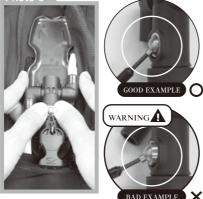
Make sure that the key ring is completely settled down into the hole of the key box. (See Good Example)

#### WARNING 🛕

If not, (See Bad Example), the key ball may come out spontaneously or with a slight pull to cause unwanted activation of the Hit Air

P.T.O.





WARNING A

7. Remove the setting bolt. (Photo 7) Loosen the "setting bolt" by the 5 mm hexagon wrench to remove it.

### WARNING **A**

Remove the "setting bolt" from the "key box" without fail. Otherwise the Hit Air will notbe activated.

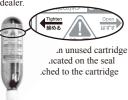


8. Re-pack all air cushions and fasten all buttons (Photo 8)



9. Install an unused CO2 cartridge (Photo 9)

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.



10. 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 10)



CAUTION If the cartridge is not seated completely and firmly, the Hit-Air may

not be activated/inflate



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.(\*Harness type Hit-Air (all-in-one airbag) cannot be dismantled)

## How to dismantle the Hit-Air inner system

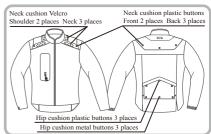
outside of the vest/jacket are fastened with buttons and

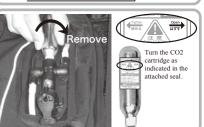
- 1. Spread out the vest/jacket on a flat surface.
- 2. Unscrew the CO2 cartridge to remove.

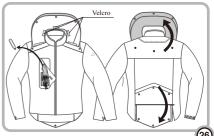
#### CAUTION 1

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

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











END

① Take the connector out through the hole of the key box

2 Close the key box cover.

3 Button the chest airbag at the top of the key box

## 8-1

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 back cushion(A) and the body cushion(B).

 Open 3 zippers for the back cushion(A) and for the body cushion(B) of the inside of the vest/jacket.

The end of the neck cushion is joined to the body cushion with the fastener(C)

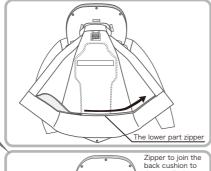
- 6. Open the fastener (C)
- 7. Unfasten metal buttons of the hip cushion in 3 places.
- 8. Take the end of the neck cushion out through the opening of the left shoulder, unfasten Velcro around the neck and pull it in the direction of an arrow to be separated from the vest/jacket
- \*Packed hip cushion type has no hip Velcro and no fastener Unfasten metal buttons of the hip cushion in 2 places.

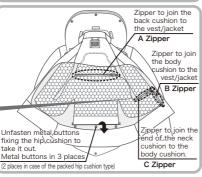
### CAUTION <u></u>

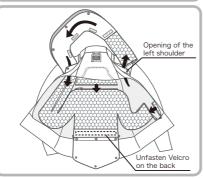
Don't pull air cushions by force. It may cause damage to the Hit-Air.

27)

P.T.O.

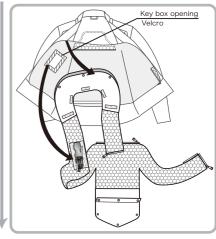






9. Unfasten Velcro around the key box opening to separate from the vest/jacket.

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.



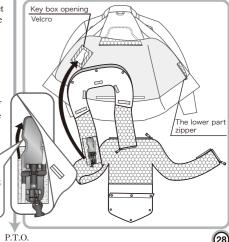
# 8-2 How to assemble (the reverse of dismantling)

END

 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

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.

Put the end of the key box plate first into the opening and fasten with Velcro on all sides.



## 8-2

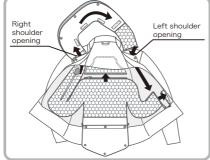
 Let the neck cushion go through from the inside of the right shoulder opening in the direction of an arrow.
 Then put its end into the left shoulder opening.

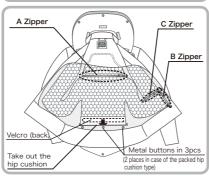
#### CAUTION A

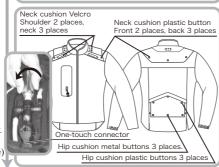
The neck cushion should not get twisted.

- 4. Join the end of the neck cushion to the C zipper of the body cushion.
- Join 3 zippers of A and B to the inside of the vest/jacket.
- Take the hip cushion out through the hip opening, fasten 3 metal buttons and fix it to the right place with Velcro.
- \*For the packed hip cushion type metal buttons to be fastened.
- Fasten the neck cushion with Velcro to the matching place of the vest/jacket.
   Neck cushion Velcro
   Shoulder 2 places, Neck 3 places.
- 8. Fasten neck cushion plastic buttons on the shoulders and the back. (Shoulder 2 places, Neck 3 places) Fasten hip cushion plastic buttons (3 places)
- 9 Lastly, install a CO<sup>2</sup> 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 P25,7-2,9, for the installation of a CO<sup>2</sup> cartridge)

END







# Washing

- Do not wash or launder the Hit Air (Shock-buffering Protection System). Hit-Air jacket of all-in-one airbag should not be washed/laundered.
- 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 8-1, page 26)
- \*Don't wash or launder the harness type (all-in-one airbag) the Hit-Air system or Protectors.
- 3. It should not be dipped in the water
- 4. It should be dried in the shade if it gets wet.
- 5. How to remove stains
  - Wipe the surface of the Hit-Air system (neck, hip cushions etc.) with a damp cloth to remove stains.
  - Hang it up together with a CO<sup>2</sup> cartridge, spray water on its surface with a shower except on the key box which should not get wet.

# How to Store

For longer life and safety, avoid the following conditions:

- 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)

# 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.

- 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.