

# PROTECTOR

## INTERVIEW

Members of an emergency rescue squad talk about the importance of chest protectors.



Sakai City Higashi Fire Station  
**Motohiro Nishii**

In addition to working as a member of a rescue squad for 30 years, Motohiro Nishii also serves as a director of JOMS (Japan Outdoor Medical Support). Regardless of whether it is on-road or off-road, public roads or racing tracks, he is an expert in saving motorcyclists' lives. He also has overseas rescue experience.



Sakai City Higashi Fire Station  
**Saimi Yamamoto**

Saimi Yamamoto works at the same fire station under the guidance of Motohiro Nishii. She is also a member of JOMS (Japan Outdoor Medical Support). Apart from her work duties, she also provides rescue services to All Japan Motocross. Her experiences got her interested in motorcycles and she has become a rider herself.

### It's not only racing and long-distance touring that carries a high risk.

It is dangerous, of course, to ride on a high-speed racing course or unfamiliar roads. However, urban areas with fire stations and hospitals located nearby can be just as dangerous. When a chest injury occurs, it is ideal to start treatment within ten minutes—or at least within an hour of the occurrence of the accident—but we find it very difficult to start treatment in such a short time. There are also cases where the injured person can't be saved even when treatment is started very quickly. We make every effort to arrive at the scene as fast as possible, but it's difficult to save lives once the victim falls into critical condition. Therefore, we must try to prevent from falling into serious condition by using chest protector. Accidents can occur no matter the destination, distance traveled, or engine power of the vehicle. Riders must be alert to dangers even on the way to work or a nearby convenience store. Accidents can happen anywhere and in many different ways.

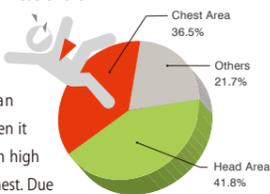
### I want all riders to realize the importance of chest protection

**Motohiro Nishii:**  
I recommend that all riders wear a chest protector just like they wear a helmet or gloves. You can have fun with motorcycles in all kinds of ways and they are convenient to use, but I don't think riders are taking enough measures against possible injury. I hope all riders will wear life-saving equipment to give reassurance to their friends and families, and to allow them to ride safely for years to come.

**Saimi Yamamoto:**  
I became interested in motorcycles while doing rescue work at motorcycle races, and I recently got my motorcycle license. At driving school, I was instructed to wear not only elbow and knee protectors, but also a chest protector. If more riders start wearing chest protectors, I think that the tragic situations we face in our line of work will decrease. There are chest protectors that are casual and easy to wear, so I would like to recommend them to the riding community.

### What is going on at the scene of an accident?

We work at Sakai City Higashi Fire Station in Osaka Prefecture. We head to the scene of an accident promptly when there's a dispatch request for an ambulance. We deal with all sorts of accidents, but when it comes to motorcycle accidents, most of the cases with high mortality rates are caused by injuries to the head and chest. Due to the remarkable technological progress of automobiles, both the amount of traffic accidents and the number of fatalities has been decreasing year by year. However, as motorcycle riders' bodies are exposed and the only mandatory protection they wear are helmets, serious injuries and fatalities aren't decreasing. We feel as if the fatality rate in motorcycle accident is actually increasing.



### Most lives would be saved if riders protected their head and chest.

When rescue crews arrive at the scene of an accident, the first thing they do is check if the victim is conscious. This is to determine if there is any possible brain damage. The next thing they check is respiration and pulse. This gives more information on the internal condition of the chest than what they can learn from just the outer appearance. Broken ribs and obvious contusions certainly indicate problems, but there are sometimes dangerous situations even when there is no visible injury. There are eleven points we initially check in emergencies and six of those involve the chest. I would like everyone to understand how important it is to protect their chest.

### When the chest is seriously injured, treatment will be too late in most cases.

I mentioned earlier that the period of time for starting treatment in an emergency is too short. It's a bit complicated but I would like to explain in a little more detail. There are highly delicate organs concentrated in the chest. The heart and lungs are involved in vigorous movements just to allow breathing, and simply upsetting the balance of these movements can cause a crisis. Changes in the pressure of the airway or myocardium bleeding can obstruct the beating of the heart. When breathing difficulties or cardiac arrest occurs, oxygen cannot be circulated through the body properly and treatment usually will not occur in time. Even if an ambulance arrives immediately and both diagnosis and treatment proceed smoothly, it is often too late. We get frustrated not being able to do anything to save lives in these cases. Therefore, we think it's most important to prevent damage to the chest in advance.

TECCELL is a lightweight honeycomb core material. Compared to any other structures, TECCELL honeycomb panels are characterized by an excellent high specific strength and rigidity.

**WEIGHT**  
Weight comparison for same flexural rigidity

Material	Steel	TECCELL
Thickness	3.6mm	29.3mm
Weight	28.1kg/m <sup>2</sup>	3.9kg/m <sup>2</sup>

**86% Lighter**

## TRV063 TECCELL CHEST PROTECTOR 〔WITH BUTTON〕



Teccell Chest Protector is made from honeycomb cored material made from polypropylene which is lighter in specific gravity than water and made by using continuous forming technology. With only 17mm thickness and 200g weight, this is the highest rigidity prEN1621-3 level2 approved chest protector in the market(according to our research). Teccell Chest Protector offer both high rigidity and high impact absorption in a very high level which was very difficult in the previous products.

- SIZE: MEN'S/H200×W260×T17mm (8.5mm×2 layer)  
WOMEN'S/H220×W250×T17mm (8.5mm×2 layer)
- WEIGHT: MEN'S/200g WOMEN'S/230g



## TRV064 TECCELL CHEST PROTECTOR 〔WITH BELT〕



Combination of TECCELL CHEST PROTECTOR(TRV063) and FITTING BELT FOR CPS(TRV065) to use under jacket without CPS(Chest Protector System).

- SIZE: ONE SIZE ※79cm~113cm(chest)



# TRV067

## TECCELL SEPARATE CHEST PROTECTOR

[WITH BUTTON ]



- 2 layer connection system
- WEIGHT :250g
- prEN1621-3 level2 approved (First in Asia)
- The highest rigidity prEN1621-3 level2 approved separate type chest protector in the market. (According to our research)
- SIZE : H220×W270×T17mm



Protector

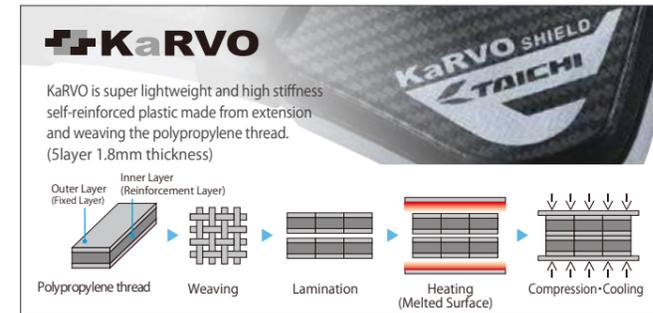
# TRV069

## CROSSLAY CHEST PROTECTOR

[WITH BUTTON ]



- 3 Layer construction(19mm thickness. Not including belt)
- WEIGHT:270g(Not including belt)
- prEN1621-3 level2 approved (Full-CHEST C)
- The highest rigidity prEN1621-3 level2 approved full chest type chest protector in the market.(According to our research)
- SIZE : H200×W260×T19mm



# TRV068

## TECCELL SEPARATE CHEST PROTECTOR

[WITH BELT ]



- Combination of TECCELL SEPARATE CHEST PROTECTOR(TRV067) and FITTING BELT FOR CPS(TRV065) to use under jacket without CPS(Chest Protector System).
- 2 layer connection system
  - WEIGHT :250g
  - prEN1621-3 level2 approved (First in Asia)
  - The highest rigidity prEN1621-3 level2 approved separate type chest protector in the market.(According to our research)
  - SIZE : H220×W270×T17mm



# TRV070

## CROSSLAY CHEST PROTECTOR

[WITH BELT ]



- Combination of CROSSLAY TECCELL CHEST PROTECTOR(TRV069) and FITTING BELT FOR CPS(TRV065) to use under jacket without CPS(Chest Protector System).
- 3 Layer construction(19mm thickness. Not including belt)
  - WEIGHT:270g(Not including belt)
  - prEN1621-3 level2 approved (Full-CHEST C)
  - The highest rigidity prEN1621-3 level2 approved full chest type chest protector in the market.(According to our research)
  - SIZE : H200×W260mm



# TRV065

## FITTING BELT FOR CPS



Fitting belt for chest protector with CPS(Chest Protector System). Elastic and adjustable shoulder belt and adjustable side belt for secure fit.

- SIZE : ONE SIZE ※79cm~113cm(chest)



Easy One-touch mounted CPS compatible item.

# TRV073

## KaRVO SHIELD [OPTION PARTS ]

- Optional parts for TRV063(MENS)/TRV064(MENS) to increase penetration resistance.
- ※Not able to use individually.





『Chest Protector System』

Chest protectors can be attached to all jackets in our product lineup. You can fine-adjust the height of the protector and select the best mounting position according to the shape of your body.



『JMCA Recommended Chest Protector System』 started in August, 2016.

Japan Motorcycle Accessories Association(JMCA) started 『JMCA Recommended Chest Protector System』 in August, 2016 together with the protector manufacture in the association. Sticker are added to the package of the recommended product which is highly protective and has passed the CE standard to make them noticeable. JMCA is aiming to increase the use of chest protector by this system. Currently there are 2 levels of JMCA's recommended products. ★ is equivalent to CE level1 and ★★ is equivalent to CE level2. More stars mean higher performance.



JMCA Recommended Chest Protector

## TRV033 FLEX CHEST PROTECTOR

[BUTTON]

## TRV034 FLEX CHEST PROTECTOR

[WITH BELT]



- 8mm polycarbonate honeycomb to absorb impact.
  - Triple layer (Polypropylene plate +Honeycomb+EVA foam) construction.
  - Fitting belt included.(TRV034)
- ※TRV033 Chest Protector only.  
TRV034 Chest Protector + Fitting Belt



BLACK



Fitting belt for TRV034

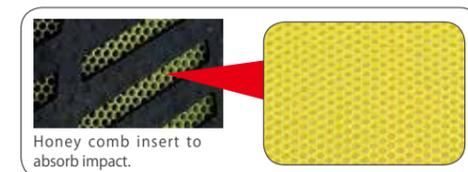


8mm honeycomb to absorb impact.

## TRV037 SEPARATE HONEYCOMB CHEST PROTECTOR



- 8mm polycarbonate honeycomb to absorb impact.
- Triple layer (Outer Shell +Honeycomb+EVA foam) construction.



Honey comb insert to absorb impact.



BLACK

## TRV059 STEALTH CE KNEE GUARD



- Low profile design to wear under casual clothing.
  - CE approved armor(TRV057)
  - Elastic fabric construction.
  - Mesh fabric on back of knees.
  - Elastic strap for secure fit.
- SIZE: M (34 ~40cm/21cm) L (36 ~42cm/21cm)  
※Around knee/Protector length



BLACK/YELLOW

## TRV060 STEALTH CE ELBOW GUARD



- Low profile design to wear under casual clothing.
  - CE approved armor(TRV057)
  - Elastic fabric construction.
  - Mesh fabric on back of elbows.
- SIZE: ONE SIZE (23 ~29cm)  
※Around elbow



BLACK/YELLOW

# TRV045

## STEALTH CE KNEE GUARD

[HARD]



- Low profile design to wear under casual clothing.
- CE approved honeycomb construction hard shell armor.
- Elastic fabric construction.
- Mesh fabric on back of knees.
- Elastic strap for secure fit.

■SIZE: M (34~40cm/26cm) L (36~42cm/26cm)  
 ※Around knee/Protector length



BLACK/YELLOW

Protector

# TRV077

## EXSORB CE2 PROTECTOR

[For ELBOW/KNEE ]

# TRV078

## EXSORB CE2 PROTECTOR

[For SHOULDER ]



- 13 mm thickness.
  - Optional EN1621-1:2012 Level 2 protectors for TAICHI jackets.
- SIZE: ONE SIZE



Elbow/Knee

Shoulder

# TRV046

## STEALTH CE ELBOW GUARD

[HARD]



- Low profile design to wear under casual clothing.
- CE approved honeycomb construction hard shell armor.
- Elastic fabric construction.
- Mesh fabric on back of elbows.

■SIZE: ONE SIZE(23~29cm)  
 ※Around elbow



BLACK/YELLOW

# TRV075

## HELINX CE PROTECTOR

[For ELBOW/KNEE ]

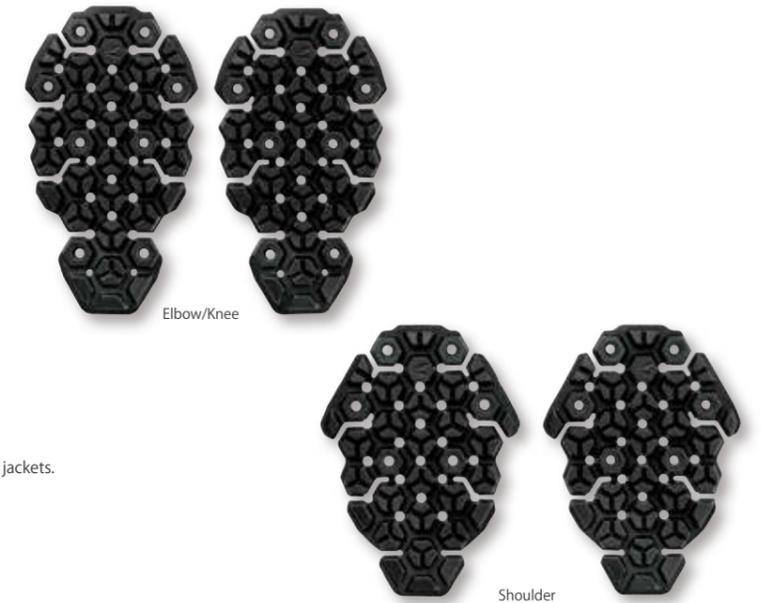
# TRV076

## HELINX CE PROTECTOR

[For SHOULDER ]



- 10 mm thickness.
  - Hexagonal construction for flexibility.
  - Optional EN1621-1:2012 Level 1 protectors for TAICHI jackets.
- SIZE: ONE SIZE



Elbow/Knee

Shoulder

# TRV044

## TAICHI CE BACK PROTECTOR



- 13 mm thickness double layer PVC construction.
- Optional CE Level 2 back protector for TAICHI jackets.

■SIZE: 38 (WS·WM·WL·WXL)·40 (S·M·L)·  
 43 (XL·XXL)·48 (3XL·4XL·5XL)



# TRV057

## TAICHI CE PROTECTOR

[For ELBOW/KNEE ]

# TRV058

## TAICHI CE PROTECTOR

[For SHOULDER ]



- Optional EN1621-1:2012 Level 1 protectors for TAICHI jackets.



Elbow/Knee

Shoulder