

Module Handling Guide



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This manual aims to discuss JinkoSolar PV module handling, storage, and unpacking instructions. To ensure the safety of loading, unloading, unpacking and storage of PV modules, please read this manual carefully. When you need to unpack and install the modules, you can search and download relevant content from Jinko's official website. www.jinkosolar.eu

HANDLING

1.1 Forklift handling precautions

- In the process of loading and unloading, the forklift should be selected reasonably according to the size and weight of the goods. If the fork length is less than 3/4 of the size of the goods extension sleeves should be fitted on the forks before the assembly is forked, to avoid the packing container dumping when moving the forklift
- When the forklift is loaded with modules, the spacing between the two forks should be adjusted as required. The load of the two forks should be balanced without deflection. One side of the assembly box should be close to the retainer (Figure 1)



(Figure 1)



(Figure 2)

- Loading and unloading process, except forklift operator, others should be kept at a safe distance from range, ensure the safety of personnel
- During loading and unloading, special command is required to avoid failure and making modules down
- When using a forklift to move palletized packing boxes to the operation area, the forklift shall be slowly and steadily lifted and put down gently during loading and unloading, and the modules shall avoid turbulence and violent vibration during transportation

1.2 Attention in loading and unloading with hoisting

- The hoisting rope of crane unloading needs to choose a longer nylon sling, wire rope is not allowed to use (Figure 3)
- Before lifting, the length of the sling should be evenly distributed on both sides to avoid the case body tilting to one side during lifting, which causes the sling to be too tight and the assembly to explode

- When lifting, the box should be kept balanced to avoid module tilting
- When someone is required to direct the hoisting box to fall during unloading, it shall be kept as flat as possible to avoid collision and throwing of the module box, and the ground shall be flat (Figure 4)

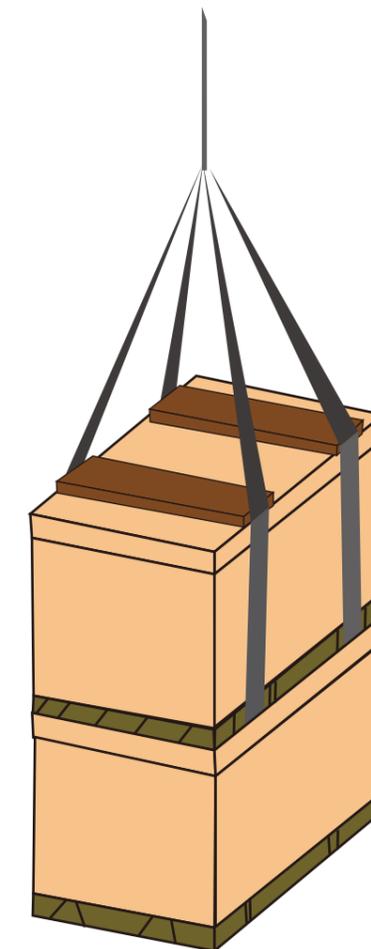


(Figure 3)



(Figure 4)

- To minimize the impact of sling on the safety of goods in the process of hoisting, the modules without frame should be supported during loading and unloading. For example, wooden sticks, boards, or other fixtures of the same width as the outer packing cases should be used on the upper part of the box to reduce the pressure of the contact position on the box (Figure 5)



(Figure 5)

STORAGE INFORMATION

2.1 Storage Guidelines

- Due to the complex environment and climate of the project site, it is recommended to store the stacked modules with single support after dismantling in order to ensure the safe storage of the modules on site (Only after cutting the outer packing belt of the connecting two brackets, separate the upper and lower brackets),The double glass modules should be stored with single support after dismantling
- The modules should be stored in a complete outer package, and the storage area should be protected and pallets and packing cases from damp, direct sunlight and waterproof (rain) measures
- The modules storage areas should be kept dry, level, the ground and the horizontal Angle is less than 10 °
- Make sure that all modules with the same current gear are installed in the same area centrally (Square matrix, bus box)



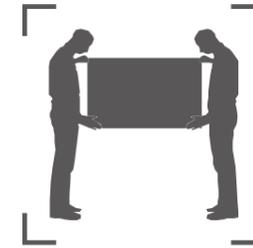
(Figure 6)



(Figure 7)

- The modules should be placed neatly with a safe distance between the boxes. The spacing between boxes should be greater than 30cm (Figure 6)
- Please do not stack other items on the modules or boxes (Figure 7)

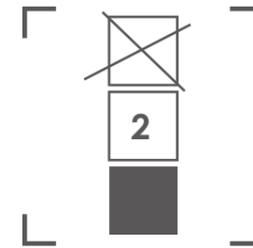
STORAGE INFORMATION



MOUDLE SHOULD BE HANDLED BY 2 PERSONS



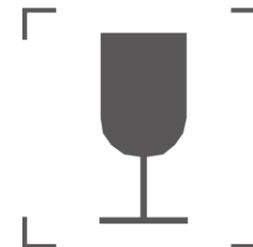
KEEP DRY



STACK LIMIT IN 2 UNITS



THIS SIDE UP



FRAGILE



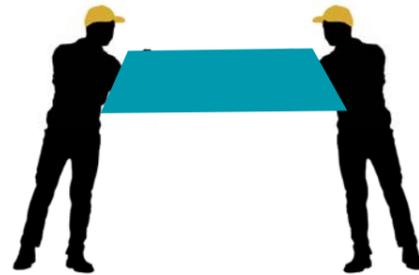
DO NOT STEP ON

UNPACKAGING INFORMATION

3.1 Equipment and Tools: Cutter, Glove, Forklift

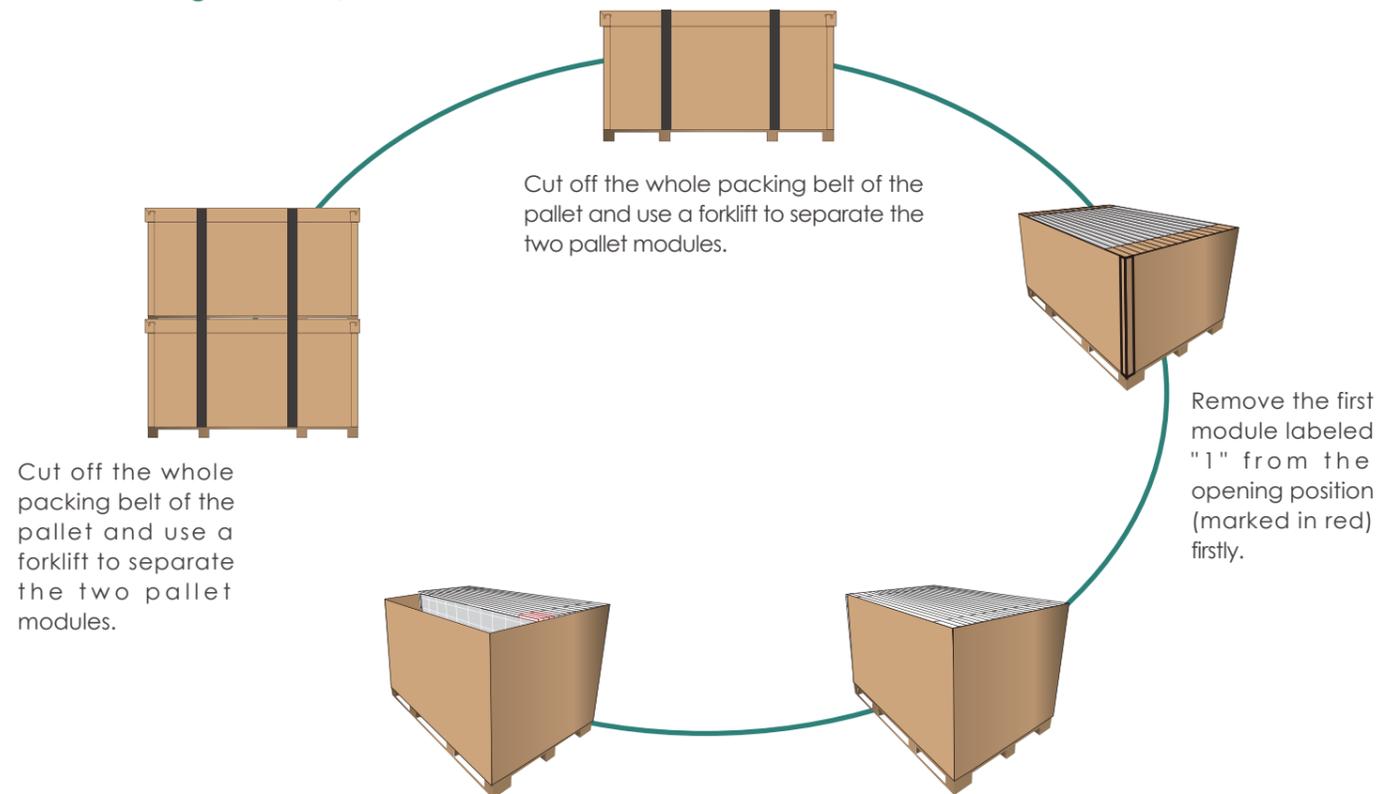


3.2 People: No less than two persons



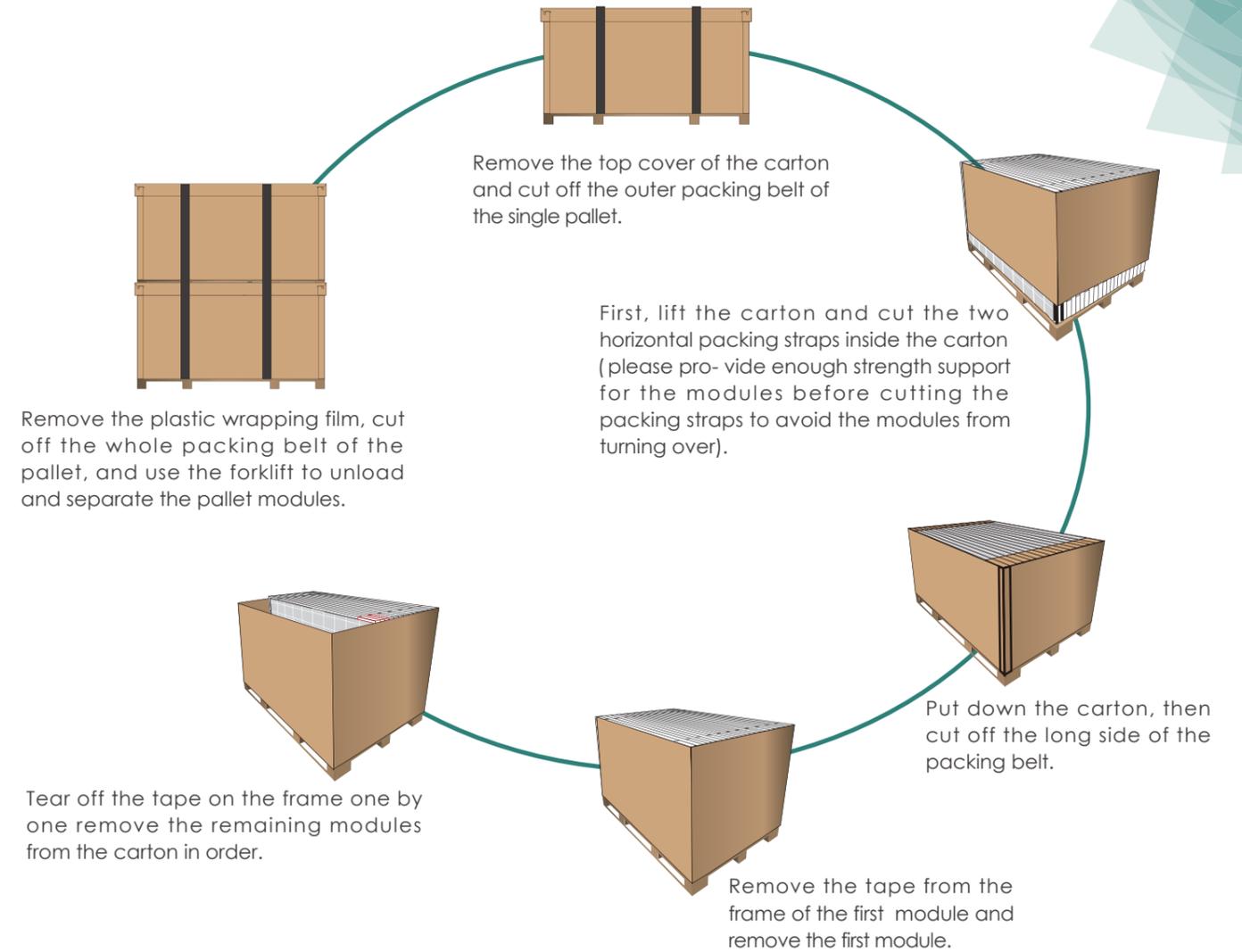
3.3 Module unpacking guideline

Packing method, A:



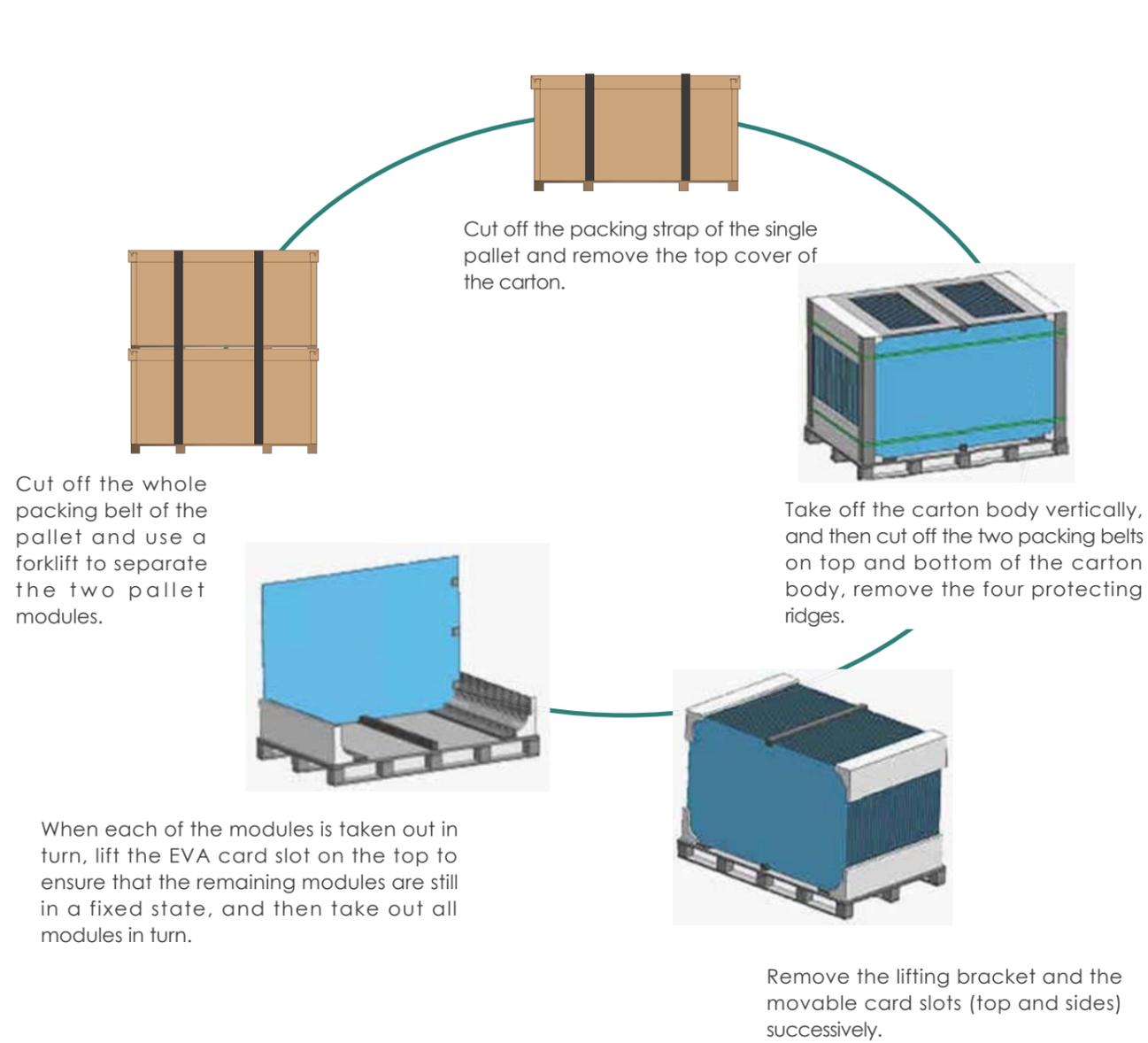
When the last 5 pieces of modules are left in the carton, please provide sufficient strength support on the side of modules to avoid the carton turned over due to the strong wind and accidental collision.

Packing method, B:

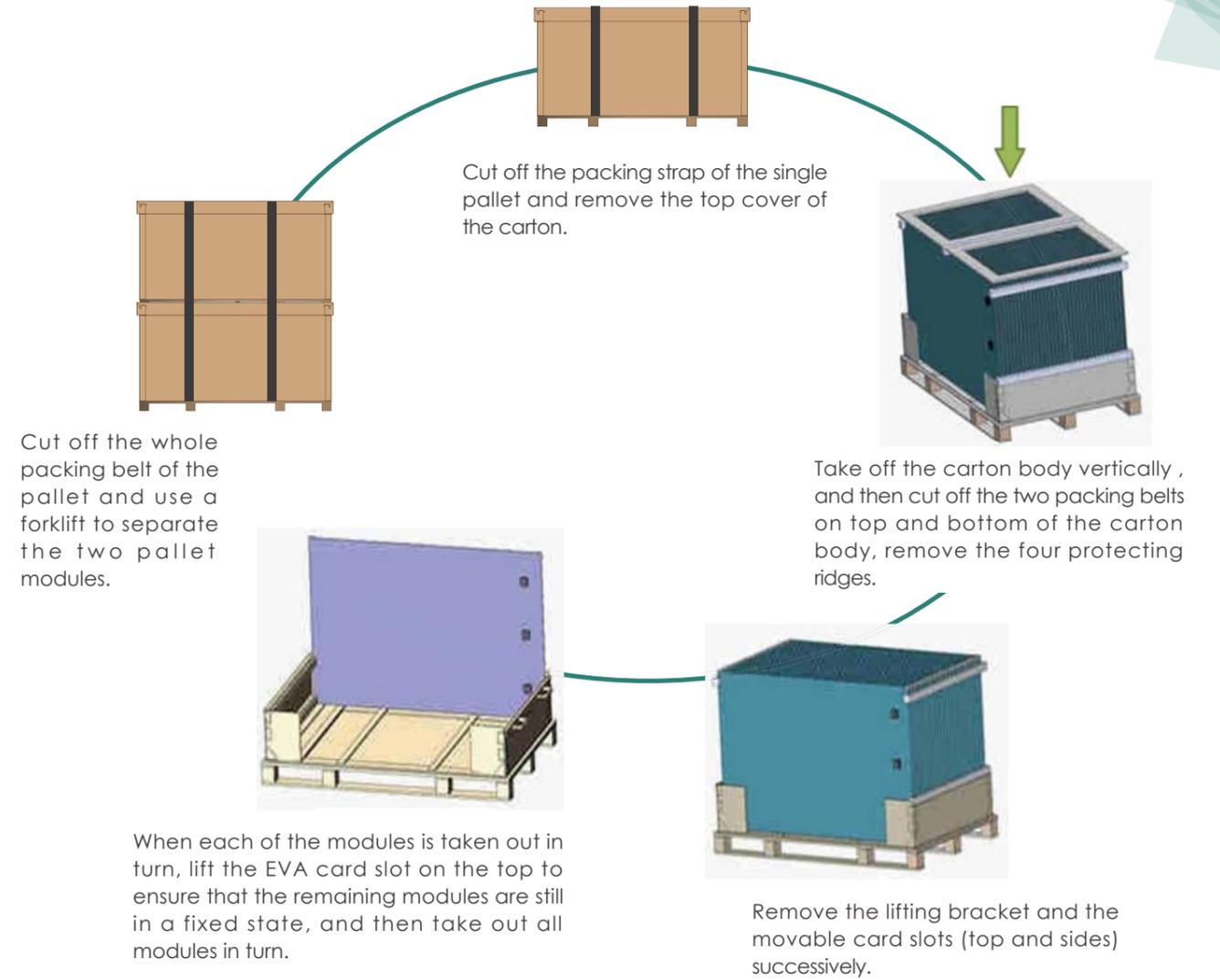


3.4 Guide for unpacking double glass bezel-less modules

Packing method, A:



Packing method, B:



UNPACKAGING INFORMATION

3.5 Attention to unpacking

- When opening cartons outdoors, avoid operating on rainy days because the cartons will soften and spread out to damage modules after rain
- Fixed measures shall be taken for disassembled modules when outdoor wind operated. It is advisable not to move the modules to avoid damage
- Stack modules in a ventilated, rainproof, and dry place before the modules are unpacked
- Use scissors or art knife to cut the outer box packing tape. Do not scratch glass. Confirm the number of modules in the box immediately after opening the case
- After leaving the box, support should be placed on the back of the assembly to prevent the modules from collapsing (Figure 8)



(Figure 8)

3.5 Attention to unpacking

- The working ground needs to ensure that the packing box can be stably placed horizontally to avoid dumping of the modules
- The transshipment movement of the packing box shall be completed before the outer packing case is removed, and after unpacking, it shall no longer be transshipped with no fixed protection of the packaging material, and it shall be repackaged before being transported, or a single piece of manual short distance lifting shall be carried out
- Please wear protective gloves during unpacking and handling to avoid scratching hands or leaving fingerprints on glass
- Each module needs to be carried by 2 people, Pull the junction box is prohibited in any case; When lifting the module, grab the short edge and take out the module (Figure 9)



(Figure 9)

- Do not remove the corner guard from the modules before installation (Double glass borderless modules do not need to remove corner guard)
- The install remaining modules should be placed centrally and protected by packing case