

# RIVET REMOVAL AND INSTALLATION

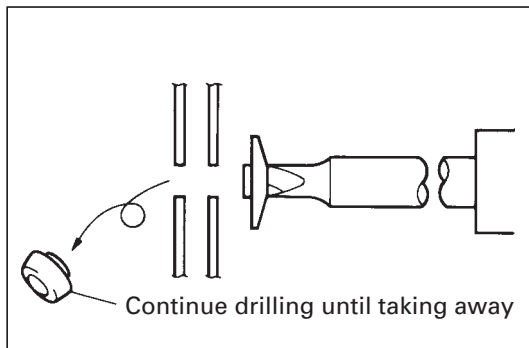
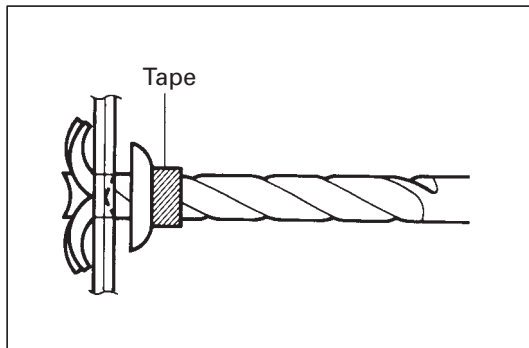
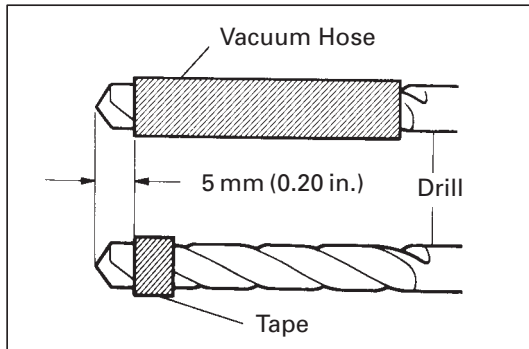
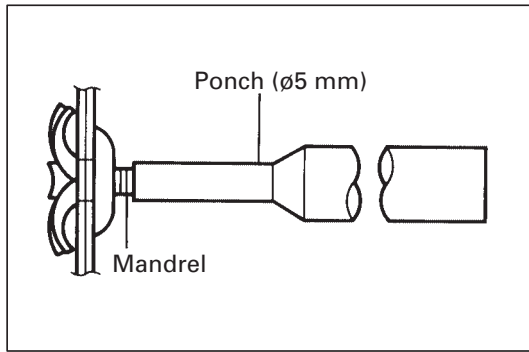
## PARTS NAME AND VARIETY OF RIVET

	Aluminum-Rivet	Steel-Rivet	Waterproof-Rivet	T-Rivet
External Appearance	Before installation 	Before installation 	Before installation 	Before installation 
	After installation  Outer      Inner	After installation  Outer      Inner	After installation  Outer      Inner	After installation  Outer      Inner
Characteristics	<ul style="list-style-type: none"> <li>• Small nonwaterproof rivet</li> <li>• No magnetic adherence</li> </ul>	<ul style="list-style-type: none"> <li>• Small nonwaterproof rivet</li> <li>• Magnetic adherence</li> </ul>	<ul style="list-style-type: none"> <li>• Small waterproof rivet</li> <li>• Waterproof seal</li> </ul>	<ul style="list-style-type: none"> <li>• Large waterproof rivet</li> <li>• Mandrel sticks out after installation</li> </ul>

## RIVET REMOVAL

### 1. SELECTION OF CUTTING TOOL

	Cutting tool	Note								
Aluminum-Rivet Steel-Rivet T-Rivet      with ø6.4 mm	Drill blade <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Rivet size</th> <th>Blade size</th> </tr> </thead> <tbody> <tr> <td>ø4 mm</td> <td>ø4 mm</td> </tr> <tr> <td>ø4.8 mm</td> <td>ø5 mm</td> </tr> <tr> <td>ø6.4 mm</td> <td>ø6.5 mm</td> </tr> </tbody> </table>	Rivet size	Blade size	ø4 mm	ø4 mm	ø4.8 mm	ø5 mm	ø6.4 mm	ø6.5 mm	<ul style="list-style-type: none"> <li>• Cutting can be done with drill blade or rivet cutter for an aluminum-rivet with ø4.8 mm.</li> <li>• When a rivet cutter is used for an aluminum-rivet (except ø4.8 mm), a steel-rivet, or a T-rivet with ø6.4 mm, it is possible that the drill will spin abnormally damaging the rivet hole and breaking the rivet cutter.</li> </ul>
Rivet size	Blade size									
ø4 mm	ø4 mm									
ø4.8 mm	ø5 mm									
ø6.4 mm	ø6.5 mm									
Waterproof special-Rivet with ø4.0 mm	Drill blade with ø4.0 mm									
Aluminum-Rivet with ø4.8 mm Waterproof-Rivet with ø4.8 mm or ø6.0 mm	Rivet Cutter (P/N 09060-60350) 	<ul style="list-style-type: none"> <li>• When a ordinary cutter is used for a waterproof-rivet with ø4.8 mm or ø6.0 mm, the rivet can not be cut as it spins with the cutter.</li> </ul>								



## 2. RIVET REMOVAL

- (1) T-Rivet with  $\varnothing 6.4$  mm:  
Using a punch with  $\varnothing 5$  mm, stamp out the mandrel.

- (2) Put tape around the drill blade 5 mm (0.20 in.) from the tip to prevent damage to the rivet hole.

**NOTE: Use of tape or a vacuum hose prevents damage to the rivet hole.**

- (3) Attach the drill blade or a rivet cutter to the drill.

- (4) Gently and vertically put the drill to the rivet, and cut the rivets flange.

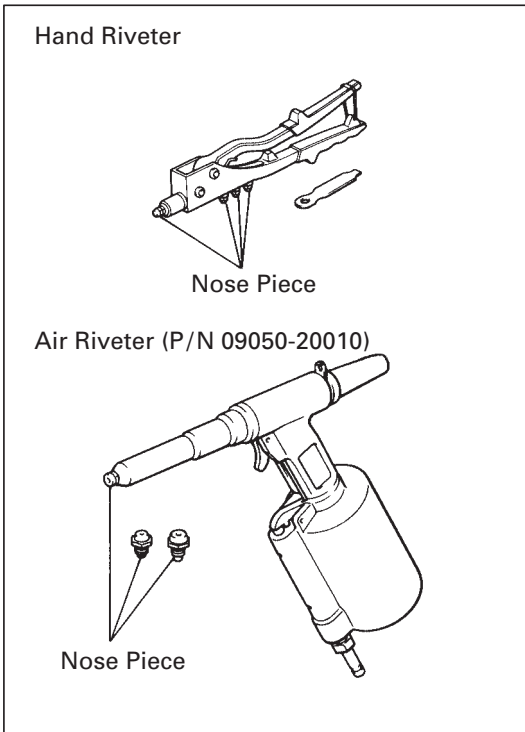
**NOTE:**

- While upward drilling, wear a protective glasses.
- If a drill is strongly pushed deeply in to a rivet, the rivet can't be cut as it spins together with the drill.
- Prizing the hole with a drill can lead to damage to the rivet hole or the breaking of the rivet cutter.
- Take care as the cut rivet is hot.

- (5) Aluminum-Rivet and Waterproof-Rivet with  $\varnothing 4.8$  mm or  $\varnothing 6.0$  mm:  
Even if flange is taken off, continue drilling and push out remaining fragments with the drill.

- (6) Steel-Rivet:  
If the flange is taken off, stop drilling and pull out the remaining fragments with a pliers.

- (7) T-Rivet with  $\varnothing 6.4$  mm:  
If the flange is taken off, stop drilling and push out the remaining fragments with a punch with  $\varnothing 5$  mm or pull out the remaining fragments with pliers.

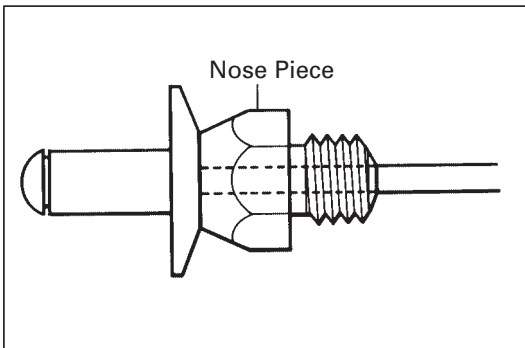


## RIVET INSTALLATION

### 1. RIVET INSTALLATION

- (1) Apply touch-up paint at the area.
- (2) Select an installation tool.

Item	Installation tool
Aluminum-Rivet Waterproof-Rivet with $\phi 4.8$ mm	Hand Riveter or Air Riveter
Steel-Rivet T-Rivet with $\phi 6.4$ mm	Air Riveter

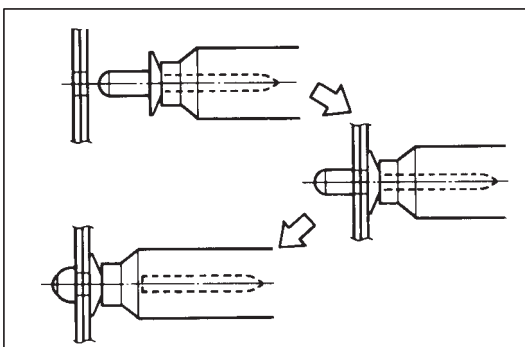


- (3) Select the smallest nose piece possible for a rivets mandrel.

**NOTE: Wrong selection of a nose piece may cause the riveter to be damaged or bad tightening.**

<Reference> Nose piece of Air Riveter

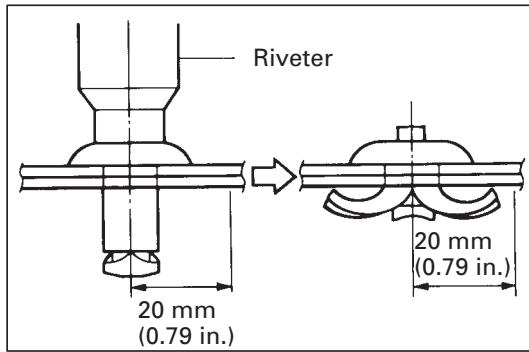
Parts Name	Parts Number	Color	Rivet type
Nose piece No. 1	09050-02020	Silver	$\phi 4.0$ mm Aluminum $\phi 4.0$ mm Steel $\phi 4.8$ mm Waterproof
Nose piece No. 2	09050-02030	Copper	$\phi 4.8$ mm Aluminum $\phi 4.8$ mm Steel
Nose piece No. 3	09050-02040	Black	$\phi 6.4$ mm T-Rivet
Nose piece No. 4	09050-02050	Black	$\phi 4.0$ mm Waterproof Special



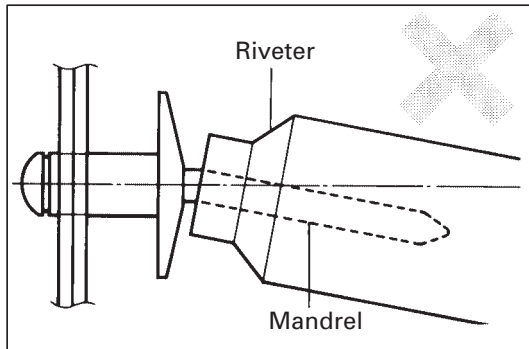
- (4) Insert the nose piece to the riveter and then the mandrel of the new rivet into the nose piece.
- (5) Vertically insert the rivet into a hole and keep place it strongly.

**NOTE:**

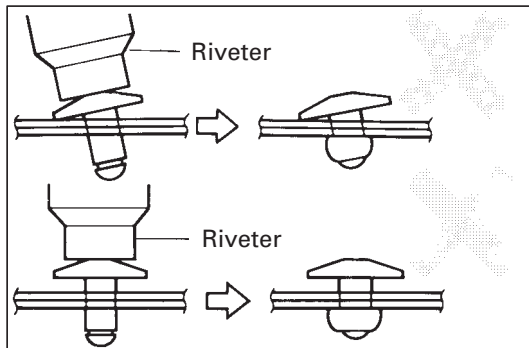
- If the tip of the rivet is not deformed or the mandrel is not cut, repeat process (5) again.



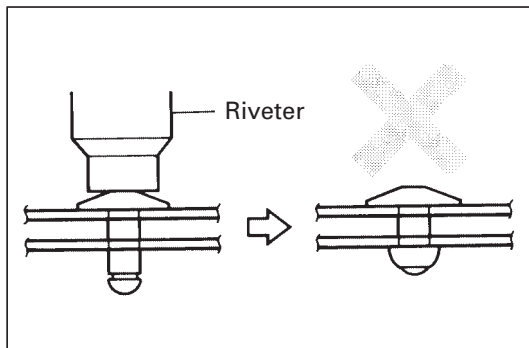
- **T-Rivet with  $\varnothing 6.4$  mm:**  
Do not place your hands or the wire harness within a radius of 20 mm (0.70 in.) from the rivet, as the rivet is cut and opened in this area.



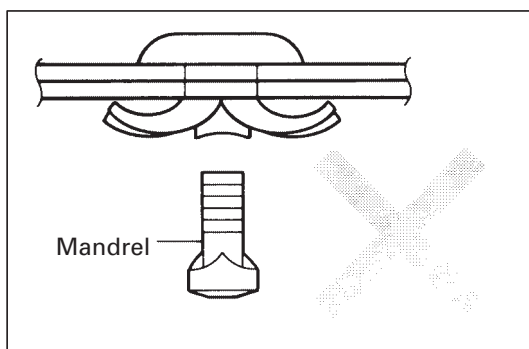
- **Prizing a riveter damages the riveter showing that it is not tightened correctly and bends the mandrel.**



- **Loose tightening may result from either tilting the riveter while handling or the riveter not connecting to the material.**



- **Loose tightening also occurs when a rivet is applied between materials without touching.**



- **T-Rivet with  $\varnothing 6.4$  mm:**  
When a mandrel of a rivet is lost, the rivet should be replaced to prevent loose tightening.