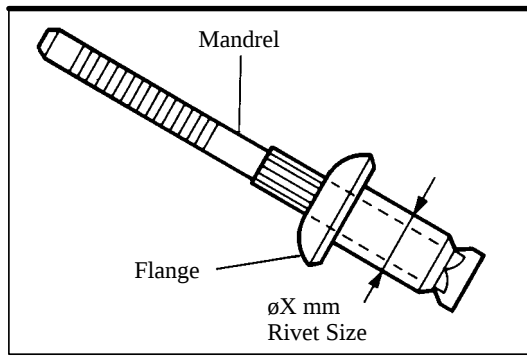




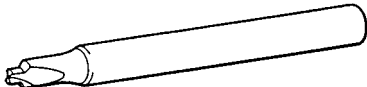
RIVET REMOVAL AND INSTALLATION

PARTS NAME AND VARIETY OF RIVET

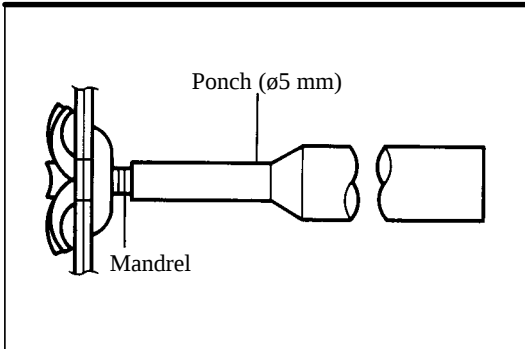
	Aluminum-Rivet	Steel-Rivet	Waterproof-Rivet	T-Rivet
External Appearance	Before installation	Before installation	Before installation	Before installation
	After installation	After installation	After installation	After installation
Charac-teristics	Outer	Outer	Outer	Outer
	Inner	Inner	Inner	Inner
- Aluminum-Rivet: Small nonwaterproof rivet, No magnetic adherence - Steel-Rivet: Small nonwaterproof rivet, Magnetic adherence - Waterproof-Rivet: Small waterproof rivet, Waterproof seal - T-Rivet: Large waterproof rivet, Mandrel sticks out after installation				

RIVET REMOVAL

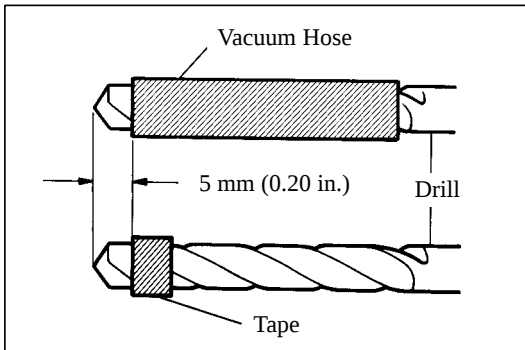
1. SELECTION OF CUTTING TOOL

	Cutting tool	Note								
Aluminum-Rivet Steel-Rivet T-Rivet with ø6.4 mm	Drill blade <table><tr><th>Rivet size</th><th>Blade size</th></tr><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></table>	Rivet size	Blade size	ø4 mm	ø4 mm	ø4.8 mm	ø5 mm	ø6.4 mm	ø6.5 mm	● Cutting can be done with drill blade or rivet cutter for an aluminum-rivet with ø4.8 mm. ● 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.
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) 	● 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.								

2. RIVET REMOVAL



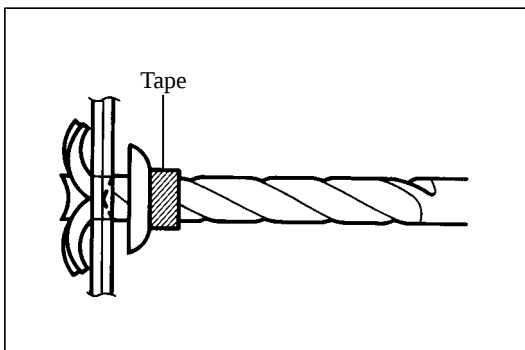
- (1) T-Rivet with $\phi 6.4$ mm:
Using a punch with $\phi 5$ mm, stamp out the mandrel.



- (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.

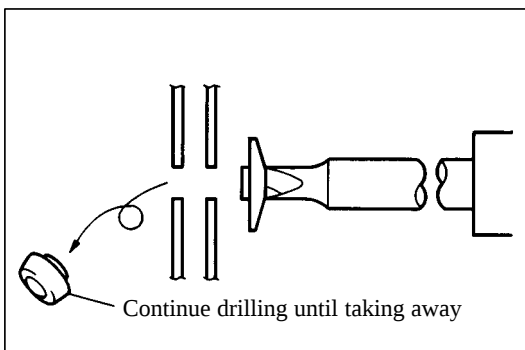
- (3) Attach the drill blade or a rivet cutter to the drill.



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

NOTE:

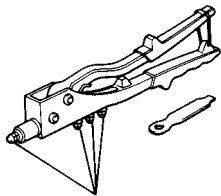
- While upward drilling, wear a protective glasses.
- If a drill is strongly pushed deeply in to a rivet, the rivet can't be cut as it spins together with the drill.
- Prizing the hole with a drill can lead to damage to the rivet hole or the breaking of the rivet cutter.
- Take care as the cut rivet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



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

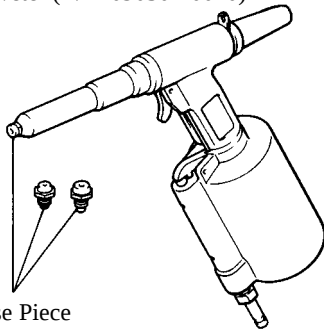
- (6) Steel-Rivet:
If the flange is taken off, stop drilling and pull out the remaining fragments with a pliers.
- (7) T-Rivet with $\phi 6.4$ mm:
If the flange is taken off, stop drilling and push out the remaining fragments with a punch with $\phi 5$ mm or pull out the remaining fragments with pliers.

Hand Riveter



Nose Piece

Air Riveter (P/N 09050-20010)



Nose Piece

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 $\varnothing 4.8$ mm	Hand Riveter or Air Riveter
Steel-Rivet T-Rivet with $\varnothing 6.4$ mm	Air Riveter

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

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

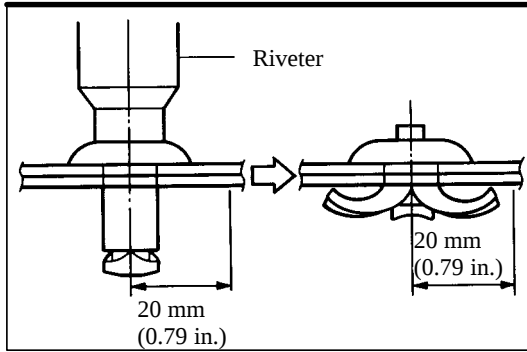
<Reference> Nose piece of Air Riveter

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

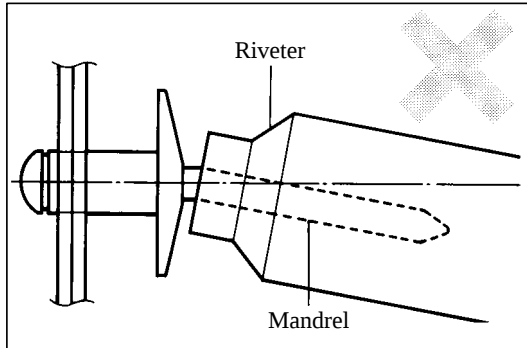
NOTE:

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

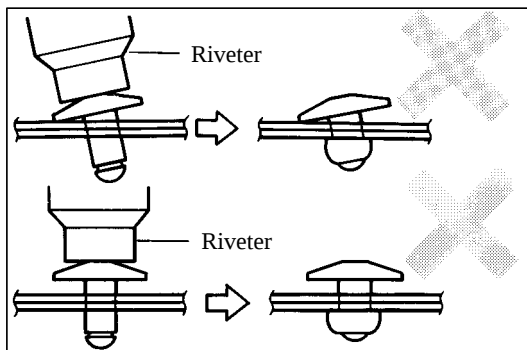


- **T-Rivet with $\varnothing 6.4$ mm:**

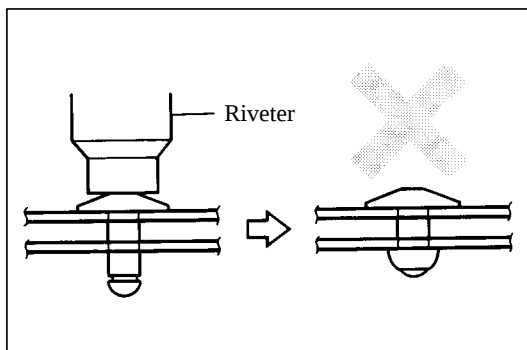
Do not place your hands or the wire harness within a radius of 20 mm (0.70 in.) from the rivet, as the rivet is cut and opened in this area.



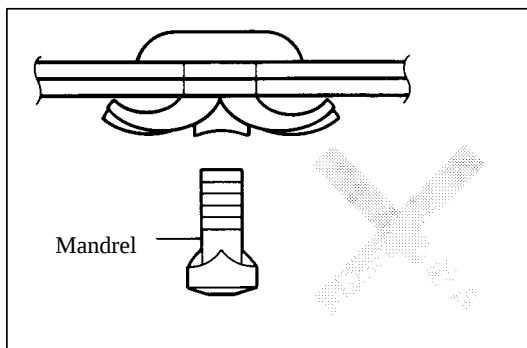
- **Prizing a riveter damages the riveter showing that it is not tightened correctly and bends the mandrel.**



- **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.