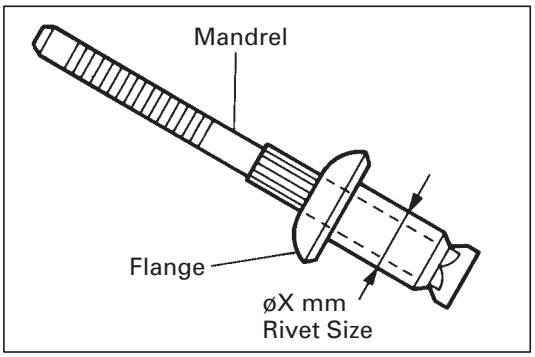
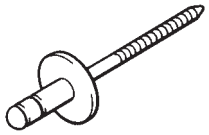
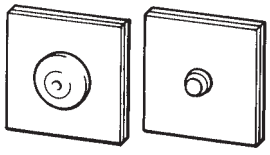
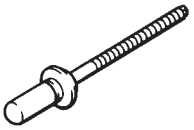
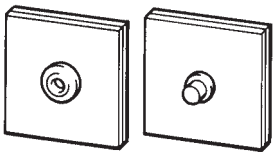
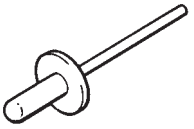
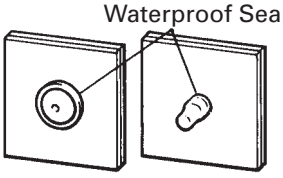
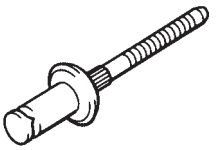
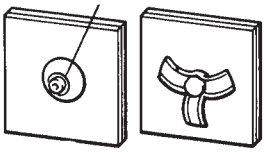


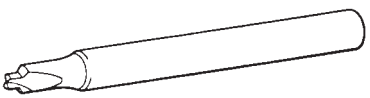
RIVET REMOVAL AND INSTALLATION

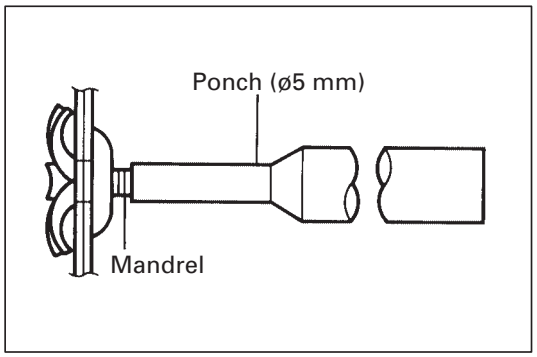
PARTS NAME AND VARIETY OF RIVET

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

RIVET REMOVAL

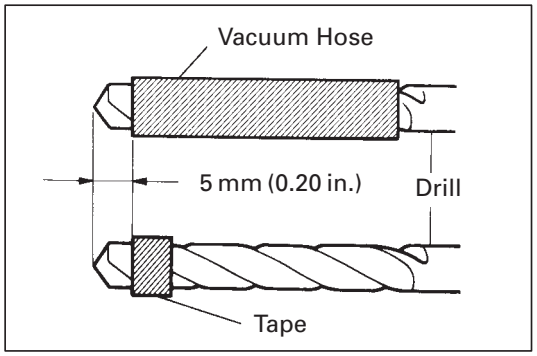
1. SELECTION OF CUTTING TOOL

	Cutting tool	Note
Aluminum-Rivet Steel-Rivet T-Rivet with ø6.4 mm	Drill blade 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.
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

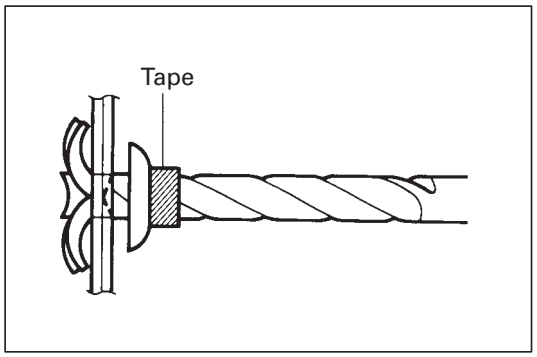
(1) T-Rivet with ø6.4 mm:
Using a ponch with ø5 mm, stamp out the mandrel.



(2) Put tape around the drill blade 5 mm (0.20 in.) from the tip or insert a vacuum hose.

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

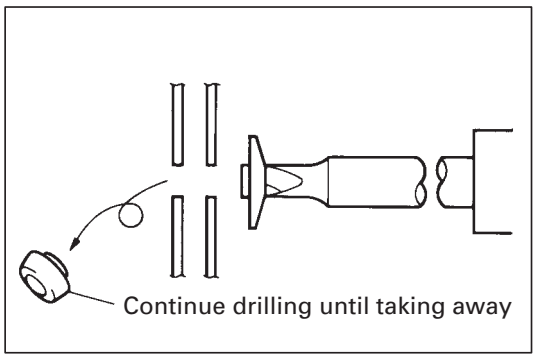
(3) Attach the drill blade or a rivet cutter to the drill.



(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.**

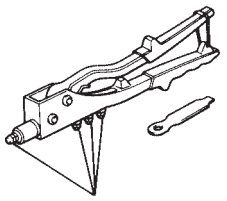


(5) Aluminum-Rivet and Waterproof-Rivet with ø4.8 mm or ø6.0 mm:
Even if flange is taken off, continue drilling and push out remaining fragments with the drill.

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

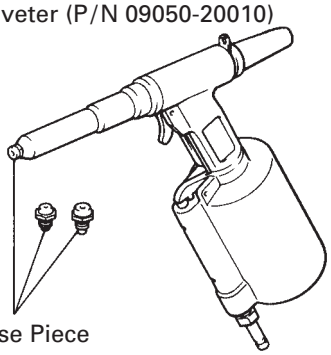
(7) T-Rivet with ø6.4 mm:
If the flange is taken off, stop drilling and push out the remaining fragments with a ponch with ø5 mm or pull out the remaining fragments with pliers.

Hand Riveter



Nose Piece

Air Riveter (P/N 09050-20010)



Nose Piece

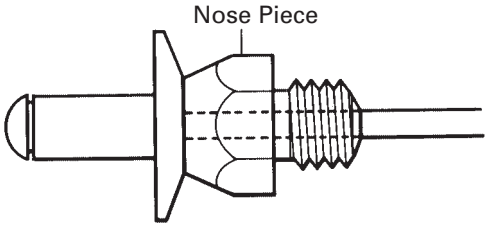
RIVET INSTALLATION

1. RIVET INSTALLATION

(1) Apply touch-up paint at the area.

(2) Select an installation tool.

Item	Installation tool
Aluminum-Rivet Waterproof-Rivet with ø4.8 mm	Hand Riveter or Air Riveter
Steel-Rivet Waterproof-Rivet with ø6.0 mm T-Rivet with ø6.4 mm	Air Riveter



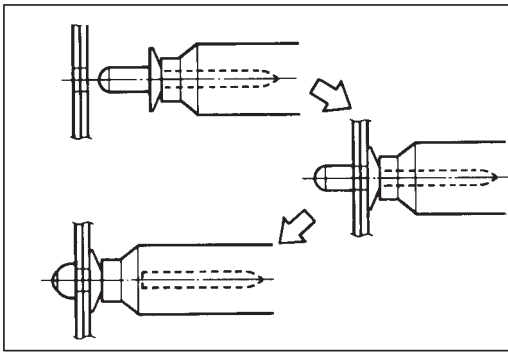
Nose Piece

(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	ø4.0 mm Aluminum ø4.0 mm Steel ø4.8 mm Waterproof
Nose piece No. 2	09050 -02030	Copper	ø4.8 mm Aluminum ø4.8 mm Steel
Nose piece No. 3	09050 -02040	Black	ø6.4 mm T-Rivet
Nose piece No. 4	09050 -02050	Black	ø4.0 mm Waterproof Special

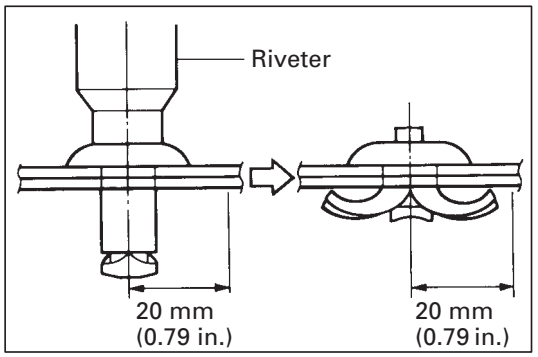


(4) Insert the nose piece to the riveter and then the mandrel of the new rivet into the nose piece.

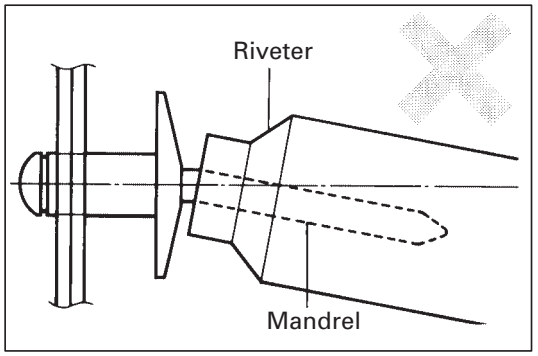
(5) Vertically insert the rivet into a hole and keep place it strongly.

NOTE:

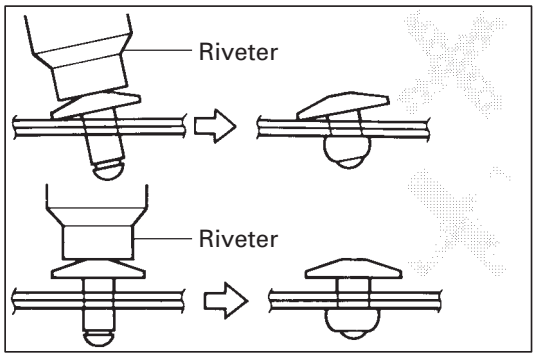
- **If the tip of the rivet is not deformed or the mandrel is not cut, repeat process (5) again.**



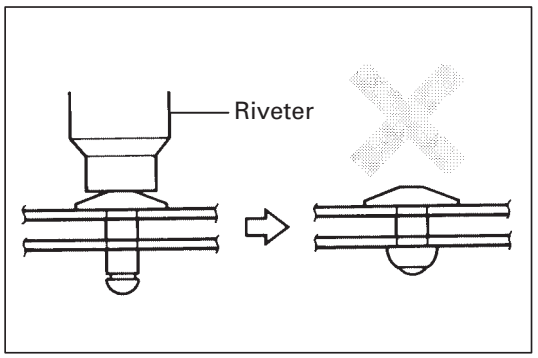
- **T-Rivet with ø6.4 mm:**
  Do not place your hands or the wire harness within a radius of 20 mm (0.70 in.) from the rivet, as the riv-et is cut and opened in this area.



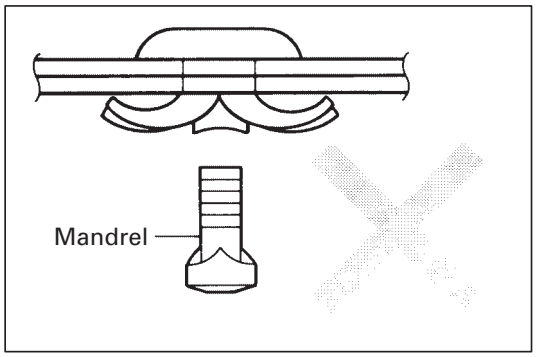
- **Prizing a riveter damages the riveter showing that it is not tightened correctly and bends the mandrel.**



- **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 ø6.4 mm:**
  When a mandrel of a rivet is lost, the rivet should be replaced to prevent loose tightening.