

FAKRA is DIN Standardization Committee of Motor Vehicles 70010



‡ Visible on Bottom of Subassembly

Figure 1

## 1. INTRODUCTION

This instruction sheet covers installation and mating for FAKRA-Compliant SMB 50-Ohm 2-Position Right-Angle PC Board Jack Assemblies 638818-[].



Dimensions in this instruction sheet are in millimeters. Figures are not drawn to scale.

Reasons for reissue of this document are provided in Section 6, REVISION SUMMARY.

### 2. DESCRIPTION

Each jack assembly consists of a housing and two subassemblies. The housing features a locking tab. Each subassembly features a front dielectric, rear dielectric, foot, four standoffs, and one signal and four ground through-hole contacts. See Figure 1. The jack assembly is available with or without keying ribs. Keying ribs are used for inadvertent mating of similar assemblies.

## 3. INSTALLATION PROCEDURE

1. Choose a pc board made of glass epoxy (FR-4 or G-10) with a thickness between 1.57 and 1.90.



Maximum allowable bow of the pc board must be 0.03 over the length of the jack assembly.

2. Design the pc board layout using the dimensions provided in Figure 2.

3. Align the contact posts of the jack assembly over the intended pc board holes, and press the jack downward until the foot and standoffs are seated on the board.

4. Solder the contact posts to the pc board. Follow local safety guidelines and procedures.



For detailed information on recommended soldering process and application requirements, refer to Application Specification 114-13043.

5. Refer to Figure 3, and inspect the installed jack assembly according to the following:

- solder fillets are evenly formed around each contact post
- jack assembly is parallel to the pc board with the foot and standoffs fully seated on the pc board



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#### 4. MATING

1. Align the mating end of plug assembly with the mating end of the jack assembly, and if applicable, make sure the keys of the plug align with the keying ribs of the jack.

2. Push the assemblies together until the plug locking latch engages the jack locking tab.

3. Gently pull back on the plug to make sure the assemblies are fully mated.

# 5. REPLACEMENT AND REPAIR

The jack assembly is not repairable. Remove and replace damaged or defective jack assemblies. To remove the jack assembly from the pc board, use standard de-soldering methods. DO NOT re-use the jack assemblies.

### 6. REVISION SUMMARY

Revisions to this instruction sheet include:

• Corrected arrow placement for dimension 12.7 in Figure 2