



Automotive Industry Action Group

B-17

2-D Direct Parts Marking Guideline

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FOREWORD

This guideline was prepared by the 2D Direct Parts Marking (DPM) Work Group of the Automatic Identification Data Collection Work Group. AIAG believes that the use of this guideline will help maximize the benefits of auto ID as an industry-wide productivity tool. Without guidelines, industry use of auto ID technology would be encumbered by many different protocols and methodologies.

The mission of the 2D DPM Work Group is to provide information on direct parts marking of Data Matrix and/or QR Codes using laser, dot-peen, and inkjet marking technologies.

This guideline was developed to help educate end users on the most common marking methods used throughout the automotive supply chain. The team obtained input from automotive industry standards and companies, non-automotive industry standards and companies, parts-marking technology providers, code-reading technology providers, label companies, and various industry experts. In developing this guideline, the project team considered current 2D symbology parts identification methods, the common needs of manufacturing and assembly locations, and the performance capabilities of various marking and scanning technologies. After much research and many deliberations, a consensus was developed.

2D Direct Parts Marking Guideline



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2D Direct Parts Marking Guideline

1.0 INTRODUCTION

This two-dimensional (2D) Direct Parts Marking (DPM) Guideline provides information for the marking and reading of Data Matrix and/or QR Code symbols marked directly on parts using laser, dot-peen, and inkjet technologies. The three technologies noted in this document are currently the most common methods for marking variable data 2D codes directly on parts in the automotive industry. This 2D DPM guideline is intended as a supplement to the AIAG B-4 Parts Identification and Tracking Application Standard. As a guideline, this document is intended to provide general information in order to help users of DPM technology.

This guideline was developed in part based on a review of many related standards, which are listed in Section 8.0 References.

1.1 Scope

To make this guideline as comprehensive as possible, the document begins with the terms most commonly used in the auto ID industry and continues through the specialized characteristics of each technology.

- Items to consider when evaluating marking projects
- Features and benefits of laser, inkjet, and dot-peen
- Qualities of each symbology
- Decoding techniques

All exhibits are for illustrative purposes only and may not be to scale or code print quality guidelines.