

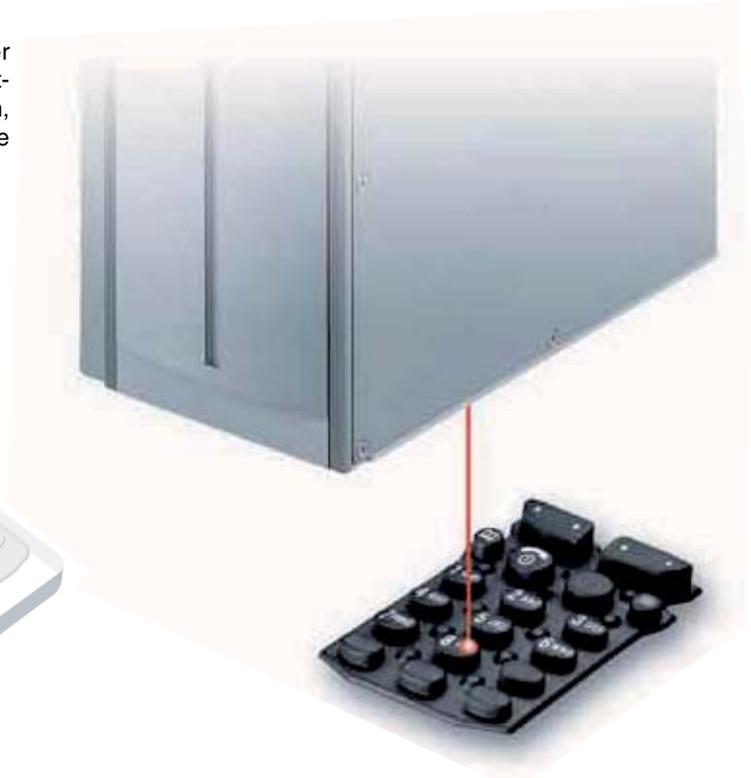
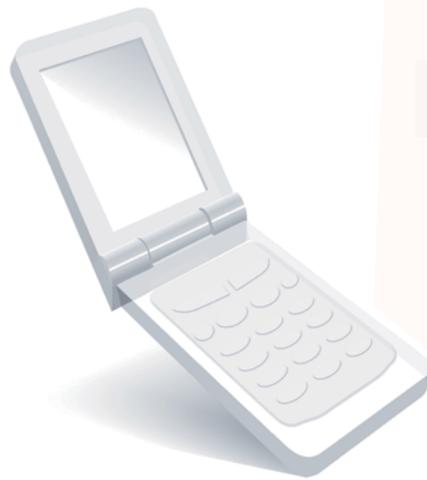
Applications FAYb laser markers

A perfect option

FAYb laser markers are ideal for the high-speed, non-contact, permanent labelling of metal and plastic.

Laser markers make no contact with the target object and offer other advantages over methods such as stamping or inkjet printing. For example, the marking itself is highly resistant to abrasion, while the laser marker requires no consumables and is hence almost maintenance-free.

Marking quality is excellent regardless of external temperature variations, and preheating is unnecessary. Extremely fine marking only a few μm wide exceed the capability of the best inkjet printer anywhere.



Metal marking

Metal is marked most commonly using “deep marking”, a method that vaporizes surface layers precisely, and black marking, which invokes micro changes in the metal’s surface, altering its color. Depending on the laser settings and metal type, this method can produce multilevel color variations.

The application determines the marking method. For example, medical instruments may not be subjected to deep marking because recesses in the surface may trap crud, making proper sterilization difficult. Other products used in harsh environments need to be marked very deeply to ensure that they can be read even after decades of use or following a fire.



Bearings



Color marking



Medical instruments



Potentiometer



Industrial chain



Crankshaft



Metal foil



Aluminum valve



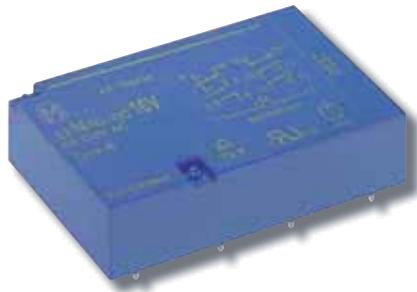
Electrical connector



Automobile part

Plastic marking/color marking

Panasonic FAYb Laser Markers can mark plastic using carbonization (dark marking on a light color), material foaming (raised light mark on a dark background), material evaporation (engraving of thermoplastics) or by selectively removing surface layers from the base material (day/night design). In some cases, the coloration contrast can be improved by using special color pigments or additives. The pigment in the resin determines the color, while laser process parameters determine the contrast. Suppliers for laser-sensitive additives include BASF, Bayer, Merck Chemicals and others.



Panasonic Laser Marker in action

The tampon print technique used previously in our factories to mark safety relays was subject to regular production stops due to maintenance and cleaning, a time-consuming process that required additional manpower.

When laser markers took over this task, only a few hours were needed to completely change the system. No maintenance, no ink, no solvents and no production stops ensured a quick return on investment.

Plastic marking



Automobile part



Battery pack



Gas cap



Electrical relays



Key pads



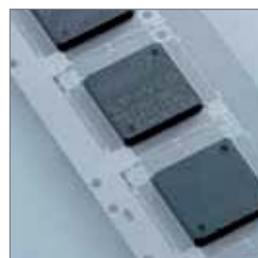
Plastic housing



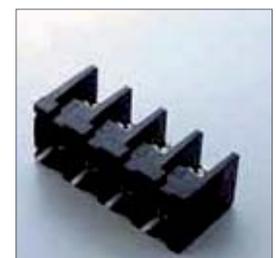
Ceramic product



Plastic cable



IC package



Screw terminal