Thermal Transfer Printing Problems and Solutions

INTERNATIONAL MEDIA PRODUCTS
Your TTR Experts

Problem	Possible Causes	Possible Solutions
Bar Growth	• Print temperature too high • Print speed is too high	• Reduce Printhead energy setting • Reduce print speed
Insufficient Print Contrast Signal (PSC) or Light Image	• Print temperature too low • Print speed is too high • Ribbon and media incompatible	• Reduce Printhead energy setting • Reduce Print speed • Consult your Sales Representative for compatible ribbon/media
Streaks or "Dead Spots" in Labels	• Wrinkled ribbon	• Check ribbon path; reduce printhead pressure; increase print speed; decrease heat setting
Pits and/or Voids, Inconsistent Image Quality	• Dirty printhead • Dots missing or worn on printhead • Ink picking	• Clean printhead with Cleaning Card • Replace with new printhead • Reduce energy setting
Poor Edge Definition	• Printing too fast • Too much heat • Ribbon and media incompatible	• Slow print speed; do not rotate • reduce printhead heat • Consult IMP Sales Representative
Entire Image is Translucent ("Ghosting")	• Reverse transfer	• Reduce printhead temperature ("heat factor"), one level at a time • Increase print rates, one level at a time
Excessive Noise During Printing	• Sticking between ribbon and "bleeding" label adhesives or label coatings	• Reduce printhead temperature ("heat factor"), one level at a time • Increase print and/or slew rates, one level at a time

Burn Temperature Guide

Overburned Overburned labels are fairly obvious. The normal Bar Code bars increase in size, and the openings in small alphanumeric characters may fill in with ink. It may be readable but not IN SPEC. Rotated Bar Code bars and spaces will run together.	
Slightly Overburned Slightly overburned labels are not as obvious. The normal Bar Code will be IN SPEC. Small character alphanumerics will be bold and could be slightly filled in. The rotated Bar Code spaces are small when compared to the IN SPEC Code, possibly making the code unreadable.	
Slightly Underburned Slightly underburned labels are, in some cases, preferred to slightly overburned for IN SPEC Bar Codes. Both normal and rotated Bar Codes will be IN SPEC, but small alphanumeric characters may not be complete.	
Underburned Underburned labels are very obvious. Both normal and rotated Bar Codes have incomplete bars and spaces. Small alphanumeric characters are unreadable.	
IN SPEC The IN SPEC bar code can only be confirmed by a verifier, but it should exhibit some very visible characteristics. The normal Bar Code will have complete, even bars and clear, distinct spaces. In both normal and rotated styles, small alphanumeric characters will look complete.	

ANSI Print Quality Samples

Void The absence of ink in a printing area where ink should appear. A void creates an area of white space that can interfere with the first-read rate of a printed code and, depending on the size and location of the area, may even render the code unreadable.	
Bridging Often caused by overburning; characterized by spaces in printing being filled in with ink.	
Underdeveloped Most often caused by underburning; characterized by missing ink transfer throughout the image.	
Ideal Image Characterized by crisp edges and sharp corners. Easily readable and scannable.	

Call your IMP Sales Representative or 866.264.6920 today