PrismJET 54Gen2 Magnetic Printing Guide

Direct Printing Procedure, Safety Protocols & Technical Setup (Rev-110326)

Overview: The PrismJET 54Gen2 can print directly onto approved magnetic media when specific preparation protocols are executed. This guide outlines necessary steps to retard magnetic bonding to the rear platen and dryer, bypass the media sensor to prevent 'Media End' errors, and eliminate head strike hazards. *Note:* Use of unapproved media or failure to follow these steps may void the PrismJET warranty.

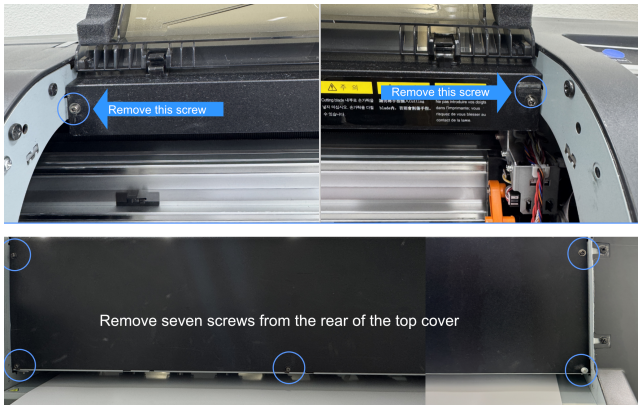
APPROVED MEDIA SPECIFICATIONS & CRITICAL LIMITATIONS

Approved Magnetic Materials:
- **EnduraMAG MightyMag 20-mil** High Energy Printable Magnetic Media
- **EnduraMAG DuoMag 14-mil** Removable Print Media
- **Magnum Magnetics 20-mil DigiMag** Magnetic Media

CRITICAL SAFETY CAUTIONS & WARRANTY WARNINGS:
- **Maximum Roll Weight Limit (44 lbs):** Full magnetic rolls often exceed 44 lbs. Use pre-cut media sheets to avoid overloading the feed system and damaging the feed motor.
- **Strict 20-Mil Thickness Ceiling:** The printer's maximum thickness threshold is 30 mil. However, **30-mil magnetic media is strictly PROHIBITED** due to high head strike risk. Only 20-mil or thinner media is approved.
- **Anisotropic High-Energy Media:** Materials like MightyMag offer pull strength equivalent to standard 30-mil media while maintaining the safe 20-mil profile.

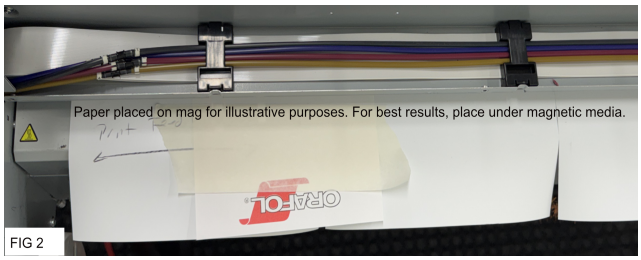
SECTION 1: PRINTER HARDWARE PREPARATION

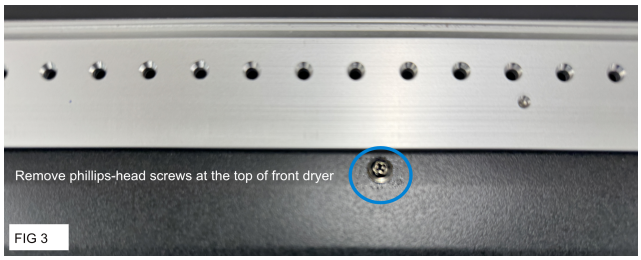
Step 1: Top Cover Fastener Removal (FIG 1)
Raise the front cover to reveal two front phillips-head screws. Remove these two front screws and set them aside. Then remove the seven phillips-head screws along the black top panel rear perimeter. Carefully detach top panel and set aside.



Step 2: Media Sensor Bypass Setup (FIG 2)
Working from behind the printer, slide a sheet of white paper (9" x 12" or smaller) beneath the second pinch roller from the left to shield the media sensor. Tape paper to the rear platen to fix in place.

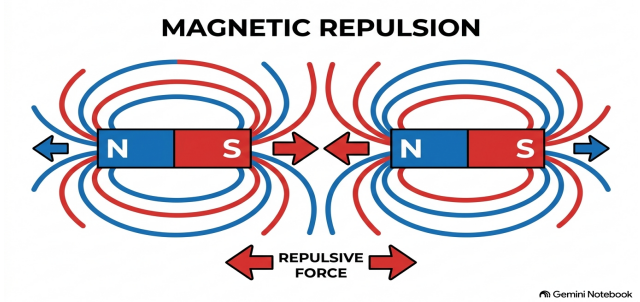
Step 3: Front Dryer Fastener Extraction (FIG 3)
Remove the phillips-head screws along the top edge of the front dryer. **LEAVE the screw at the far-right corner intact** to secure the dryer during operation. For 24-inch media, remove the 3 screws left of the right-most screw.



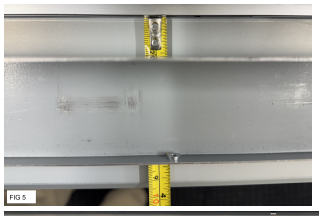


SECTION 2: MAGNETIC POLARITY BUFFER BED & MEDIA SETUP

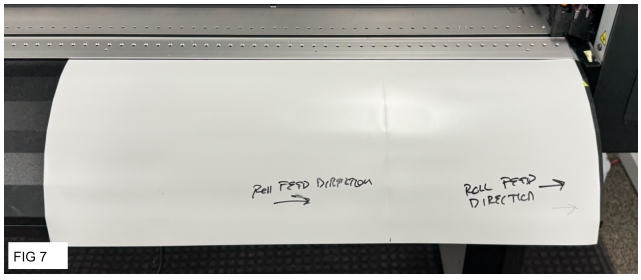
Magnetic Repulsion Physics Principle (FIG 4):
Magnetic attraction centers on directional poles. Aligning identical positive poles generates a repulsive force. By cutting a section of magnetic media and rotating it **90° perpendicular to the feed direction**, an opposing magnetic cushion is formed that prevents the printable media from adhering to the ferrous steel platen and dryer.



Platen & Dryer Bed Installation Steps:
1. Rear Platen Bed (FIG 5 & 6): Measure and cut 4-inch wide strips of magnetic media. Rotate 90° and place side-by-side across the rear platen gap over the sensor bypass sheet.
2. Front Dryer Bed (FIG 7): Cut a 9-inch deep section of magnetic media for the front dryer. Mark roll feed direction arrows to ensure 90° perpendicular rotation relative to feed media. Align flush against the front platen edge.
DigiMag Alternative: A pair of 30-mil EnduraMAG 18"x24" mag set sheets rotated 90° (18" side aligned with platen front) can also be used as the dryer bed.







SECTION 3: REASSEMBLY, HEAD HEIGHT & PRINT INITIALIZATION

1. Reinstall Top Cover: Reattach black top cover panel using original screws. Ensure lower lip maintains clearance for substrate entry.
2. Adjust Head Height Lever to HIGH (FIG 9): Shift the orange carriage height lever on printer front-right to **HIGH** position.
FAILURE TO SET HEAD HEIGHT TO HIGH WILL CAUSE HEAD STRIKES AND VOID WARRANTY!
3. Load & Initialize Media (FIG 8): Insert pre-cut magnetic sheet over rear buffer bed. Keep media parallel with platen. Lower media lever bar and advance media forward using control panel arrow keys.
4. RIP Software Setup: Select thick media ICC profile. Set Head Height option to **High** in RIP driver options before sending print job.



FIG 9

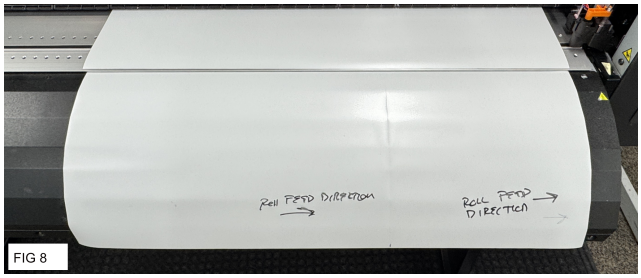


FIG 8

QUICK REFERENCE PROCEDURE SUMMARY

Phase	Component Target	Action Required	Reference Visual
1. Disassembly	Top Panel & Cover Screws	Remove 2 front + 7 rear screws; remove top panel	FIG 1
2. Sensor Bypass	Media Sensor (2nd Pinch Roller)	Slide 9"x12" paper under 2nd roller from left; tape to rear platen	FIG 2
3. Dryer Fasteners	Front Dryer Screws	Remove top screws except far-right corner screw (keep 1st screw)	FIG 3
4. Buffer Bed	Rear Platen & Front Dryer	Cut & rotate mag media 90° perpendicular to feed direction	FIG 4, 5, 6, 7
5. Carriage Height	Orange Head Height Lever	Shift lever to HIGH position to avoid printhead strike	FIG 9
6. Media Load & RIP	Control Panel & RIP Driver	Load sheet parallel, lower bar, advance forward; set RIP to HIGH	FIG 8