

ON-BODY ARTWORK: DESIGN & GENERAL GUIDELINES

These guidelines will provide you with the information necessary to ensure the successful printing of your discs. If you require further information or clarification, please contact your Customer Services Representative.

Rates for artwork generation and author's corrections can be obtained by contacting your Customer Services Representative.

DEFINITIONS

SPOT COLOR DISC: An image created from up to five spot colors (Pantone® colors).

HALF-TONE disc: Single color half-tone printed disc.

DUO-TONE disc: Two-color half-tone printed disc.

FOUR COLOUR PROCESS / "PICTURE DISC": An image, which has been color, separated for printing using the four process colors (Cyan / Magenta / Yellow / Black). Even if the image is made up of only three of the four process colors (e.g. cyan, yellow, black) this will still be classified as a picture disc as the printing process used is the same.

The image does not have to have a white base to qualify as a picture disc. *See Note 1.*

It is recommended that separations be done in the GCR mode; screen-printing does not require cyan, magenta or yellow to print black. This will make images print better and appear sharper.

PROOF: A CONTROLLED CONSISTENT & CALIBRATED Image on a suitable base, which contains a **recognized target**. A recognized target is a series of solid and half tone patches which have been closely controlled and which will be measured

Only a proof made from the actual film may be used to check for color matching on a disc. PDF's, Ink Jet Prints, and Laser Proofs all use different color standards to produce the image; also they are not separated and give a false impression of color density. Receipt of inkjets/laser proofs will result in the Art Work Dept. requesting a disclaimer for no proof/Chromalin.

A proof is a color representation of the final image to be printed. Some proofs and proofing systems may not be acceptable. This is because they may not be sufficiently well calibrated, controlled or compatible with the printing process and thus do not give a satisfactory representation of how the final image / colors will appear on the printed disc.

IMPORTANT NOTE

It is **ESSENTIAL** that a proof is supplied with **all picture disc/four color process artwork** in order for suitable color match to be made. Unless we receive an appropriate proof, or are requested to provide a proof, which is subsequently approved, we cannot guarantee that the intended colors will be satisfactorily reproduced. This description of proofs applies to both Digital and Analogue Proofing Systems.

We are able to arrange for proofs to be produced from your supplied artwork – either film or data file. Please ensure that files / data supplied are compatible with the proofing / printing system. These will be charged at commercial rates - please consult your Customer Services Representative.

Note 1. *Due to the reflectivity of the aluminum discs, the overall effect of printing a four-color process image onto the silver substrate will be significantly different from that of printing on white paper. Should you wish to achieve a similar effect to the colors on a proof, please provide a base film and mark it clearly that it is to be printed in white.*

We are able to create base films where required and will notify you of the additional charge.

A base (white or any other color) will be counted as one color for pricing purposes.

GENERAL GUIDELINES (CONTINUED 1)**COLOR REFERENCING**

We use the **Pantone Matching System® (PMS)** color chart as the guide for matching colors. We have the facilities to match any Pantone® reference, including all colors in the metallic, Day-Glo and Pastel range. Please ensure that each film separation states the required Pantone® reference or process color.

SCREEN RULING

The film separator scans the image, transforming it into a dot pattern with a specific number of lines per inch (lpi). The shape of the dot should be elliptical. We recommend the following lpi:

- Single and duo process images 110 lpi
- Four color process images (CMYK) 110 lpi

Resolutions below the recommended lpi will result in grainy, low quality images on the disc. Resolutions above 110 lpi will also result in poor quality print.

HALF-TONE DOT RANGE (TINT)

Minimum = 10%

Maximum = 90%

(ranges above or below these guidelines may not print or be invisible to the eye).

SCREEN ANGLES / SEPARATIONS

This is the angle at which the dots on a half-tone image have been defined or imaged.

These angles represent the best information we have at this time, and are necessary to help avoid the appearance of undesired patterns or moiré.

Half tone screen angle requirements are as follows:

a) a) Four color Process Images

Cyan (C)	22.5°	OR	67°
Magenta (M)	52.5°		37°
Yellow (Y)	7.5°		157.°
Black (K)	82.5°		82.°

ONE group of angles must be selected. It may be useful to lower the frequency of the yellow dots to improve any moiré problems.

The angles refer to the angle of the primary join in the elliptical dot shape.

b) b) Duo-tone Process Images

1st color	52.5°
2nd color	82.5°

Failure to use the proper angles can result in moiré and inconsistent printing. Incorrect screen angles will require a disclaimer. As with all separation techniques, these angles represent the best information we have at this time, they do not work every time. With some images it is necessary to vary the order to eliminate moiré.

It is recommended that separations be done in the GCR mode; screen-printing does not require cyan, magenta or yellow to print black. This will make images print better and appear sharper.

GENERAL GUIDELINES (CONTINUED 2)**LINE WIDTH**

Minimum line width = 0.15mm.

TYPE SIZE

Minimum type size for all designs = 5 point.

DISCTRONICS (8 POINT TEXT – RECOMMENDED AVERAGE TYPE SIZE)

DISCTRONICS 5 POINT TEXT – RECOMMENDED MINIMUM TYPE SIZE

DISCTRONICS (5 POINT BOLD TEXT – RECOMMENDED MINIMUM KNOCKOUT TYPE SIZE)

We recommend that if you decide to reverse text out of more than one color, you avoid fonts with serifs since any movement in registration will cause the serifs to become blurred.

COPYRIGHT WORDING

Wherever possible you should incorporate copyright wording into your on-body artwork e.g.

*“ALL RIGHTS OF THE PRODUCER AND OF THE OWNER OF THE RECORDED WORK RESERVED.
UNAUTHORISED COPYING, PUBLIC PERFORMANCE, BROADCASTING, HIRING OR RENTAL OF THE
RECORDING PROHIBITED.”*

It is also advisable to incorporate the © and ® symbols and declaration of rights ownership - this may also give your copyright additional protection in certain territories.

DVD / CD LOGOS

We recommend that the official appropriate CD / DVD logo is incorporated into your on-body artwork. Please refer to the CD / DVD Graphic Standards Manual for correct logo usage.

If you are supplying artwork using electronic media and do not have the official logos, it may be possible to add these upon receipt at Disctronics. We are not always able to add the logo to supplied films (e.g. if the image consists of halftone).

Please indicate which logo should be used and where it should be placed. We will notify you of the additional charges.

TRAP

Trap helps the registration between colors. Films missing trap in knocked out type can show CD silver or other colors around the letters from disc to disc. Trap refers to how much overprinting colors overlap to eliminate white lines (or cd silver) between colors in printing. Your repro house should be able to advise you when it should be used.

We require trap of approximately 25 microns/0.25pt.

ACCEPTABLE MEDIA**FILMS**

Films should be supplied ready for production of screens, i.e.:

- Right reading
- Emulsion up
- Positive
- Color separated (i.e. separate films are required for each color)
- Each film labeled with the Pantone®/process color required
- Labeled for orientation (i.e. "TOP" & "BOTTOM") as some designs can be confused
- Marked with the order in which the colors should be printed onto the disc
- Include registration marks (4 small cross-hairs) for alignment to the disc and respective colors, these marks should be at least ½ inch away from the artwork to be printed on the disc.
- Clean and free from scratches or any other defect
- Flat (not rolled or folded)
- Made from original artwork (not photocopies or scans)

NOTE: *Any amendments/corrections to films that become necessary will incur additional charges.*

ELECTRONIC MEDIA

We use Apple Macintosh hardware and compatible software for all artwork generation.

a) Main applications used:

- Quark Xpress
- Adobe Photoshop
- Adobe Illustrator

Please check which versions we are currently using with your Customer Services Representative.

b) Preferred file formats:

EPS, TIFF, JPEG, PDF, GIF

When converting PC files to Apple Macintosh, some formatting may be lost in the process - a problem inherent in file translation. You should provide files in final format ready for running out films to our specification.

c) Acceptable media:

We are able to accept artwork via the following media:

- CD-R
- Zip disk
- 3.5" floppy disk
- Email

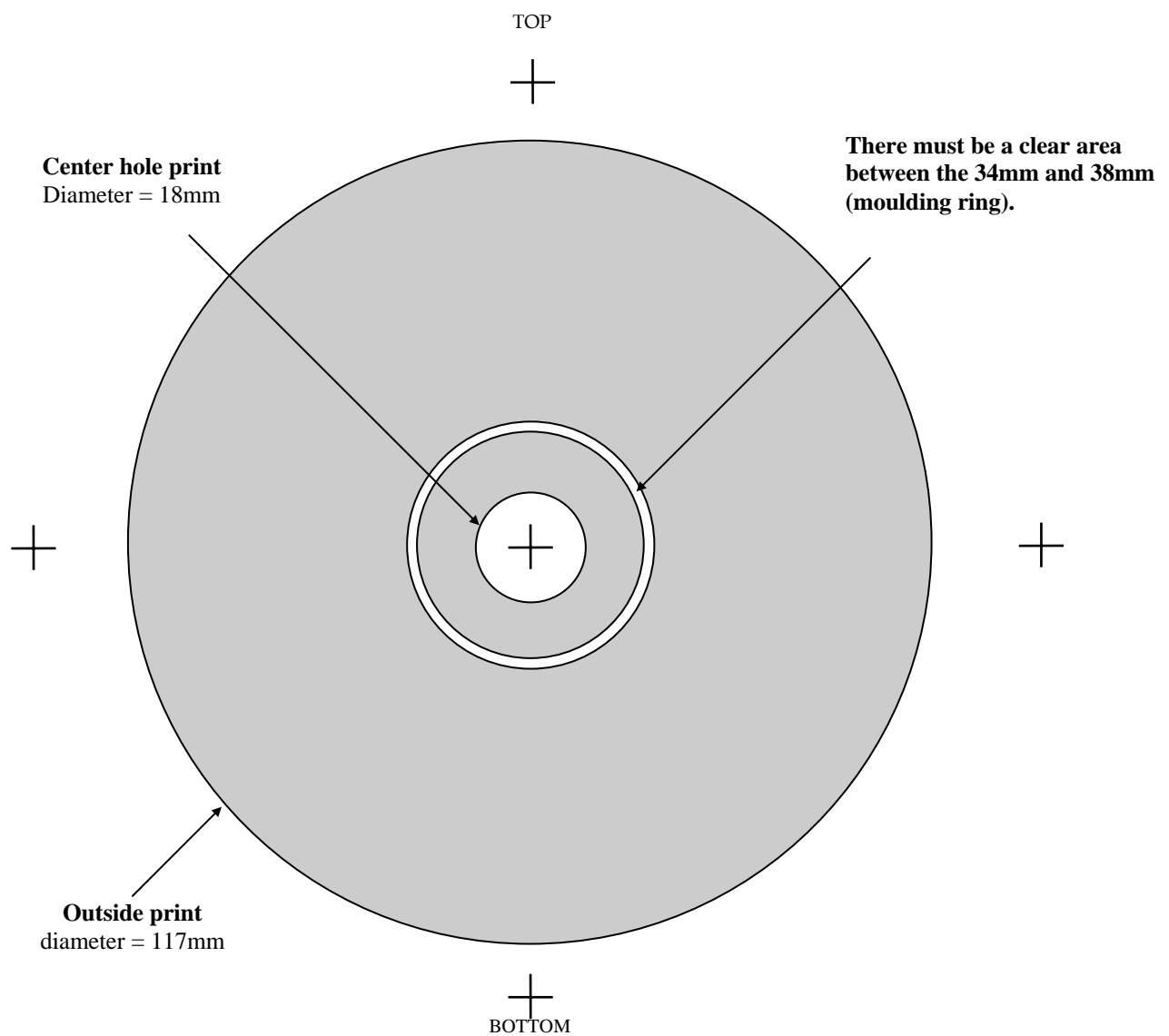
STANDARD DISC

THIS IS THE MOST COMMONLY USED TYPE OF DISC - WHEREVER POSSIBLE, YOU SHOULD USE THIS SPECIFICATION FOR YOUR ARTWORK.

Features include:

- Metallised to the molding ring
- Can be printed to the center hole
- No artwork should be present in the molding ring area
- Maximum outer diameter of the printable area is 117mm
- Minimum printable inner diameter is 18mm

This diagram is not to scale and should NOT be used as a template.



NOTE: Shading denotes printable area of disc - all artwork must fall within this area.

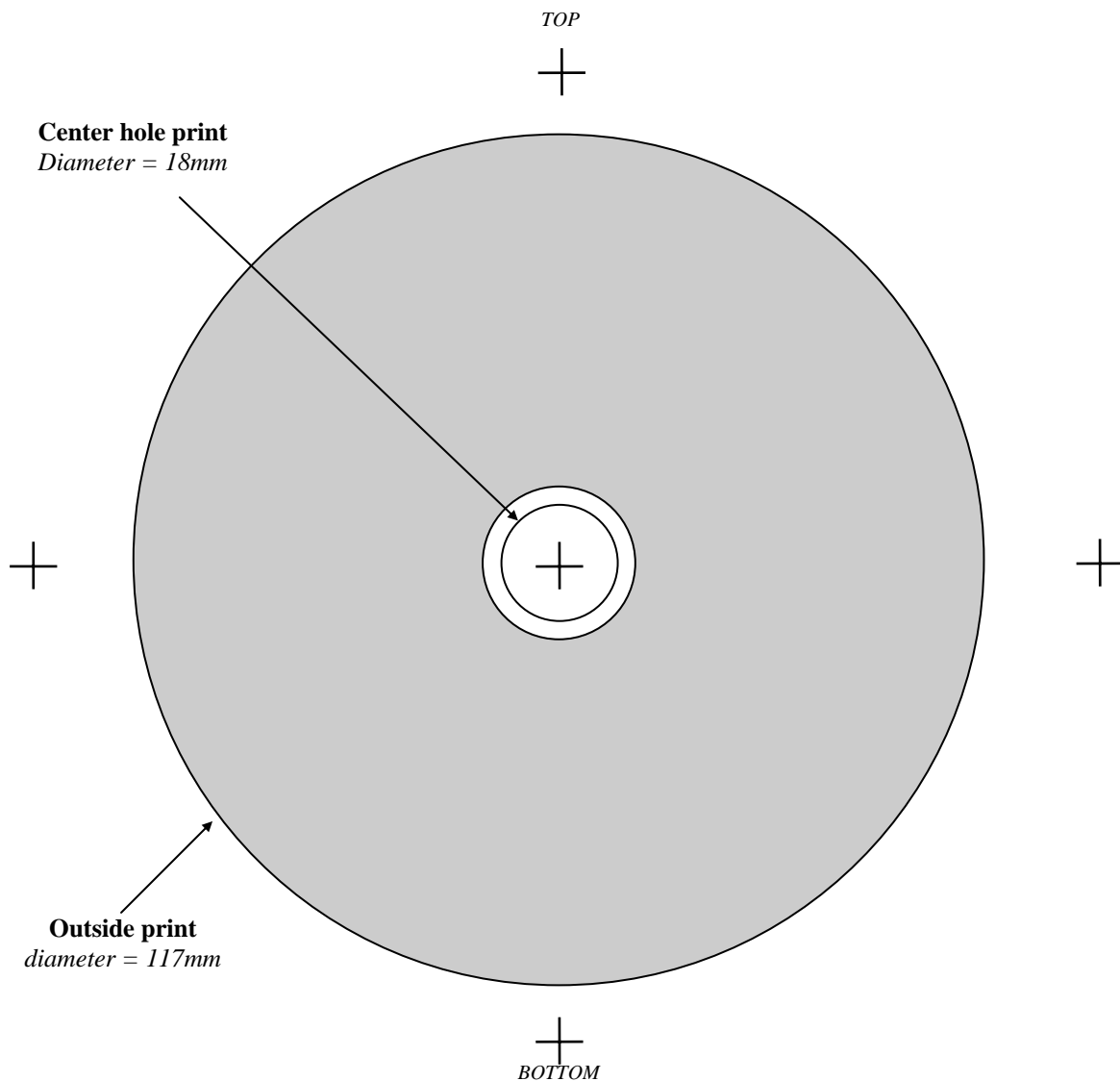
PRINT TO CENTER (PTC)

IMPORTANT! PLEASE CONSULT YOUR CUSTOMER SERVICES REPRESENTATIVE BEFORE SUBMITTING ARTWORK TO THIS SPECIFICATION.

Feature includes:

- Can be printed to the center hole
- Maximum outer diameter of the printable area is 117mm
- Minimum printable inner diameter is 18mm

This diagram is not to scale and should NOT be used as a template.



NOTE: Shading denotes printable area of disc - all artwork must fall within this area.