



GOLDING PRODUCTS

AUDIO CASSETTE GUIDE

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Making Your Sound Physical For 20 Years

Golding Products are the largest independent manufacturer of Audio Cassette in the UK. With over 20 years experience, our full in-house service enables design, print and multimedia packaging solutions, to cover all of your bespoke print and packaging needs.

This guide is intended to provide key information to both the experienced record label and to the independent artist undertaking their first Audio Cassette release. The guide outlines the products and services which we provide; as well as explaining everything you need to know about creating your Audio Cassette master, choosing your on-body print method and selecting your packaging.

If you have any further questions, prior to ordering or during your project, please don't hesitate to contact us via the details below, or directly with your dedicated account manager.

“With the retro media resurgence in full swing, the audio cassette is in demand once more, not only does the cassette provide a character and feel often missing from more recent formats, less compression actually creates a higher quality, textured audio.”

IN-HOUSE AUDIO CASSETTE SERVICES:

Cassette Duplication

Full Colour J-Card Printing

Cassette Sticker Printing

On-body Cassette Printing

Retail Packaging

Black C-Zero



Code	Description
37006	Screw, tab in
37026	Screw, tab out

Grey C-Zero



Code	Description
37020	Welded, tab out

Clear Clear C-Zero



Code	Description
37024	Screw, tab out

Light Yellow C-Zero



Code	Description
37029	Screw, tab out

Orange C-Zero



Code	Description
37028	Screw, tab out

Transparent Orange C-Zero



Code	Description
37043	Screw, tab out

White C-Zero



Code	Description
37003	Screw, tab in
37023	Screw, tab out

Clear C-Zero



Code	Description
37025	Welded, tab in
37021	Welded, tab out

Cream C-Zero



Code	Description
37086	Screw, tab out

Yellow C-Zero



Code	Description
37055	Welded, tab out

Red C-Zero



Code	Description
37008	Welded, tab out

Transparent Red C-Zero



Code	Description
37041	Welded, tab out

Transparent Purple C-Zero



Code	Description
37039	Welded, tab out

Purple C-Zero



Code	Description
37050	Screw, tab out

Pastel Blue C-Zero



Code	Description
37027	Screwed, tab out

Blue C-Zero



Code	Description
37007	Welded, tab out

Azuro Blue C-Zero



Code	Description
37058	Welded, tab out

Transparent Blue C-Zero



Code	Description
37040	Screw, tab out

Flourescent Pink C-Zero



Code	Description
37091	Welded, tab out

Pastel Pink C-Zero



Code	Description
37027	Screwed, Tab out

Pink C-Zero



Code	Description
37057	Screw, tab out

Metallic Gold C-Zero



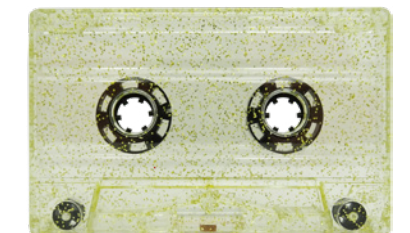
Code	Description
37048	Screw, tab out

Metallic Silver C-Zero



Code	Description
37049	Screw, tab out

Glitter 1 C-Zero



Code	Description
37045	Welded, tab in

Green C-Zero



Code	Description
37085	Screwed, tab out

Flourescent Green C-Zero



Code	Description
37087	Welded, tab out

Smokey Brown C-Zero



Code	Description
37059	Welded, tab out

Jelly Green C-Zero



Code	Description
37009	Welded, tab out

Mint Green C-Zero



Code	Description
37060	Welded, tab out

Transparent Green C-Zero



Code	Description
37042	Screw, tab out

The cassette shells shown are an example of our available shells.

Shell colours and availability are constantly changing.

For current availability and stock levels, or for other colours and styles, contact us and speak with an account manager!

Clear/Clear Library Case



	Code	Description
<input type="checkbox"/>	37001	with lugs
<input type="checkbox"/>	37053	no lugs

Clear/Black Library Case



	Code	Description
<input type="checkbox"/>	37002	with lugs

Norelco Clear Double Case



	Code	Description
<input type="checkbox"/>	37052	with lugs

Clear/White Library Case



	Code	Description
<input type="checkbox"/>	37000	with lugs

PP Clear Library Case



	Code	Description
<input type="checkbox"/>	37051	with lugs

Butterfly Double



	Code	Description
<input type="checkbox"/>	37054	with lugs



On-Body Cassette Shell Printing - Digital

Bring your Audio Cassette into 2018 with a full colour UV digital print direct to the Cassette Shell. High resolution & vivid colours - let your release stand out from the crowd.

On-Body Cassette Shell Printing - Pad Print

A traditional pad print using original Cassette printing equipment. Although you are limited to a single colour print this is the definitive choice for an authentic Audio Cassette print, straight out of the 80's.

Cassette Sticker Printing

Alternatively, go for full colour Cassette labels. This is a great option if colour-matching is important across all of your paper parts. Printed in-house, we can ensure fast turn around and strict quality control.

Printed Packaging!

The most common printed parts included with a Cassette release are:

- The J Card
- The O Sleeve
- The Download Card

Consider including the following information:

- Artist/Band info
- Production Team
- Dedications
- Lyrics
- Images & additional album artwork



The Manufacturing Process - Digital Loop Bin Duplication

'We Never Use Tape to Tape Duplication'

Digital loop bin duplication gives the highest possible quality duplication and is the only method appropriate for Music Distribution.

This involves using a master to record to a pancake of audio tape:

Side A is recorded in normal direction and side B is recorded backwards onto the tape.
An inaudible cue tone is recorded at the start of each recording.

The programmed pancake is then loaded onto cassette winding equipment and cut, spliced and wound into the shell of the empty cassette.

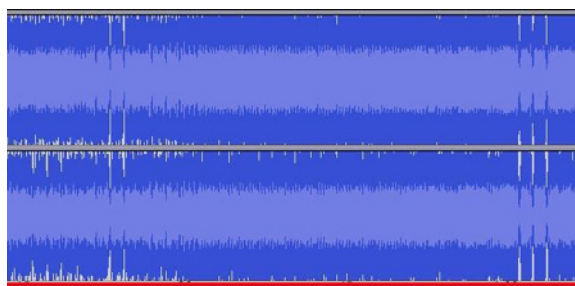
- This is all done at high speed, with professional automated equipment.
- As all of this is done in house, you can visit by appointment to see your job being produced.
- Constant checks are done throughout the job run to check the quality stays at a high level.
- You can rest assured your job is in safe hands as our team has more than 20 years experience with audio cassette manufacture.

Producing Your Master!

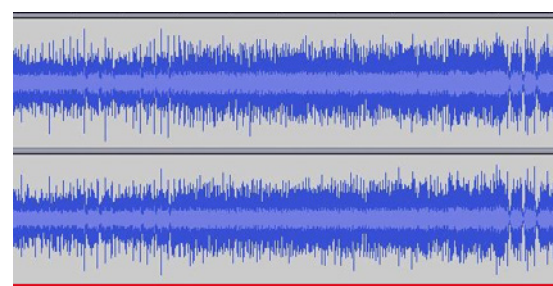
The key thing to note in producing your tape master: do not use compression.

Unlike a CD, Audio Cassette is an analogue format with very different mastering needs:

CD MASTER:



AUDIO CASSETTE MASTER:



The above waveforms show the same track compressed for CD, and correctly prepared for Audio Cassette. If you used the CD Master to produce a cassette the magnetic tape would be saturated. This will cause the bass to cut out the HF audio and clipping will distort the audio reproduction.

The Cassette master has no compression and more dynamic range. It will be great for tape. It has what is called headroom. Please check your audio and make sure it looks like the Audio Cassette example.

Producing Your Master!

Please use the following spec for mastering audio for tape:

- 44.1 kHz PCM signed 16 bit: This is the lossless codec for input into the duplication system. Pulse Code Modulation format. (Audio CD)
- Side A and side B can be split by tracks or one long track per side. Cassette time (C) is equal to longest side times 2.
- Try to make the side splits as equal as possible and side A longer than side B.
- A PQ sheet is helpful if pauses between the tracks need to be added, otherwise it is assumed that pauses between the tracks have already been added to the audio.
- See the below average audio levels - audio falling above these levels may encounter distortion, whilst below these levels, tape hiss may be audible:
 - Analog levels: -16.00 to -18.00 dB RMS
 - Digital levels: -8dBfs.
- Cassettes love midrange audio - LF below 30Hz may inhibit the cue tone signal. HF exceeding 12kHz will begin to degrade, 16kHz is pushing the limit.
- If in doubt - ask for a sample tape of your audio - this can be produced quickly and at a low cost!



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