C1613U Intelligent Cutting Machine

63" Flatbed Cutter with Camera — User Manual

Models covered by this document

Model	CobraFlex SKU	Description
C1613U cutting machine	CF-63-Flat-Bed-Cutter	63" Flat Bed Cutter with Camera

Document	User Manual
Revision	2026-11
Prepared by	CobraFlex Printers LLC, 906 S. Priest Drive, Suite 104, Tempe, Arizona 85281
Service	service@cobraflexprinters.com · (602) 930-1858
Based on	C1613U intelligent cutting machine user manual (manufacturer), summarized by CobraFlex Printers

The C series is a high-speed, intelligent cutting system for non-metallic flexible materials. It can full-cut, half-cut, crease, and mark in a single pass, and is widely used for DTF film, TPU/PET/PVC, car stickers, reflective film, cardboard, labels, and similar roll or sheet materials. This manual covers site and power requirements, installation, basic operation, the vision (camera) system, and software setup.

CobraFlex Service and Support

Email: **service@cobraflexprinters.com** Phone: (602) 930-1858

Support hours: Monday–Friday, 8:00 AM–4:00 PM Arizona time

Need help? Submit a service ticket: https://cobraflexprinters.zohodesk.com/portal/en/newticket

You can also email service@cobraflexprinters.com (this link opens a pre-filled email for the CobraFlex 63" Flat Bed Cutter with Camera (C1613U), SKU CF-63-Flat-Bed-Cutter).

Please include your company name, the machine serial number, a description of the problem, and photos or a short video. For printers, also attach a current nozzle check print.

CobraFlex Printers LLC · 906 S. Priest Drive, Suite 104, Tempe, Arizona 85281 · cobraflexprinters.com



C1613U high-speed rolling-platform cutting machine

Equipment Specifications

Item	Specification
Machine model	C1613U
Basic cutting area	1,550 × 1,250 mm (61.0 × 49.2 in); U rolling feed, auto-extendable
Contour cutting area	1,500 × 1,100 mm (59.1 × 43.3 in); auto-extendable
Single-sheet edge-seeking area	1,500 × 1,000 mm (59.1 × 39.4 in); rolling feed stopped
Air pump power	4.4 kW
Total rated power	5.5 kW
Maximum cutting speed	1,000 mm/s (39.4 in/s)
Maximum cutting thickness	0.5–3 mm (optional special tool)
Supported software	SignMaster, CorelDRAW (CDR), Illustrator (AI), CAD, Flexi, Engraving Master, ArtCut
Working environment	Temperature 0–35 °C (32–95 °F); humidity 35–80%
Transmission system	Servo motor drive, linear guide, precision bearings, steel wire belt
Working voltage	AC 220 V ±10%, 50 Hz
Connections	USB / USB flash drive / Wi-Fi (optional)
Material hold-down	Vacuum suction
Operating interface	7" touch screen + computer
Feeding method	Automatic rolling feed
Main tools	Blade holder, blade, pen holder, creasing blade and holder (optional), CCD visual positioning
Overall size	2,200 × 2,100 × 1,100 mm (86.6 × 82.7 × 43.3 in), excluding the operating platform

Compatible materials: DTF and crystal (UV DTF cup) transfers, TPU, PET, PVC, photo paper, car stickers, PP backing, reflective film, cardboard, stickers, instant stickers, super-transparent and single-hole transparent

film, magnetic stickers, and similar media.

Handling, Site, and Power Requirements

Handling

- Transport by special vehicle or standard wooden-crate freight, depending on distance.
- Avoid strong vibration and collisions during transport.
- Use a forklift or crane to load and unload — never load or unload roughly.
- Handle carefully, following the direction arrows on the outer packaging.
- Do not set the unloaded equipment down in water or wet areas.

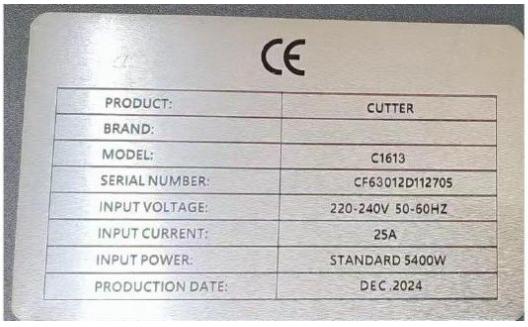
Installation Site

Leave enough space for operation on level ground in a clean environment. Avoid corrosive gases or liquids, water drops, steam, oily dust, flammable or explosive gases, floating dust, and metal particles.

- Ambient temperature 0–40 °C (32–104 °F); ambient humidity 1–75%.
- Keep away from heat sources, static electricity, and strong magnetic fields.
- Avoid strong or direct light on the machine.

Power Requirements

- Chassis: 220 V / 110 V ±10%, 50 Hz standard supply.
- Air pump: two-phase 220 V ±10% (110 V optional).
- Use a voltage stabilizer if the supply is unstable, and do not share a circuit with other high-power or interfering equipment.
- Install an air switch (circuit breaker) rated at least 16 A, with good grounding.



Machine nameplate — check it for the specific parameters of your unit

Air Compressor

A separate air compressor is required: minimum pressure 0.7 MPa (about 102 psi), with an air storage tank of 8 liters (about 2.1 gallons) or more.

Machine Installation

1. Plug the machine into the power supply, or have a qualified electrician connect the air switch according to the wire markings.



Power plug and indicator socket

2. Power on the air compressor: pull up the round red switch, turn the air valve to vent, and insert the 8 mm air hose into the intake of the oil-water separator. Drain the oil-water separator monthly. If this is neglected, cylinder resistance increases and can trigger a driver error (Error 20) from excessive resistance while pulling material.
3. Switch the air switch up to open, with the pressure gauge connected to the 8 mm intake hose.
4. Turn on the air compressor, lift the red button, and turn the metal valve to the ventilation position — the pressure gauge needle should start to move. If the gauge does not move, the machine cannot complete full material-pull (rolling) processing; fixed processing, or a single or segmented mark-cutting job up to 1,600 × 1,250 mm, is still possible.



Circuit breaker, pressure regulator, and oil-water separator

5. Power on the console: the red knob is the emergency stop, the round metal button is the power switch, and the yellow soft rubber port is the USB interface.



Control console — power button, USB port, and emergency stop

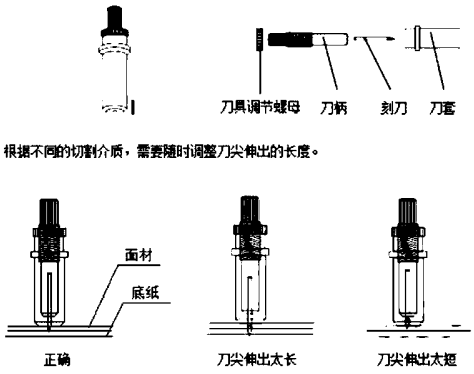
- **Red indicator not lit:** the TB25 line or main power is not connected.
- **Yellow indicator steady (not blinking):** system fault — turn the machine off and on again.

Basic Operation

1. Confirm on the touch screen or in the ICUT software; the machine automatically returns to its zero (home) position. The origin cannot be changed — it is fixed during factory calibration.
2. After the machine returns to zero, install the cutting tool.

Blade holder and blade length

Adjust how far the blade tip extends for the material being cut. Too long cuts through the backing paper; too short fails to cut through the material.

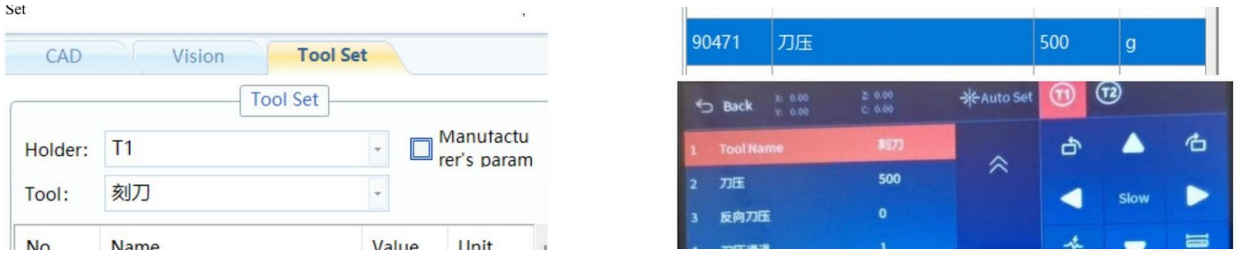


Blade holder assembly, and correct, too-long, and too-short blade tip length (top layer = material, bottom layer = backing paper)

3. Load the material, use the arrow keys to move the tool over the material, and set the starting point (New Origin); the X and Y coordinates reset to 0. Click TEST, select test file 8, and run the test in the middle of the material. The machine cuts two test circles, with Tool 1 (full cutter) and Tool 2 (half cutter), so you can fine-tune the tip length for the material thickness.
4. The machine must be online while the ICUT software is running. The Connecting Device indicator is green when online and red when offline (often caused by a wrong IP address or the machine not being powered

on).

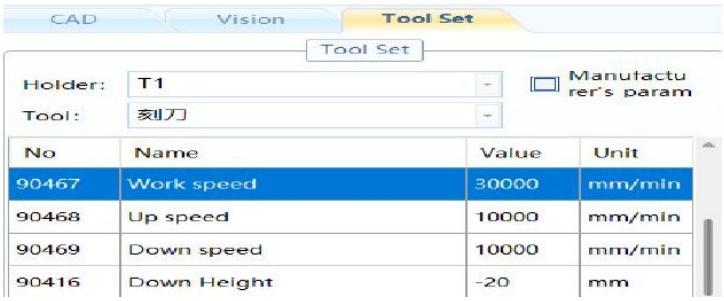
5. Tool pressure: open Tool Set on the touch screen or in the software.



Tool Set parameter table (left) and touch-screen tool settings (right)

Pressure is adjustable from 0 to 1,000. Most inkjet car-sticker, PP photo paper, DTF, reflective film, and TPU instant-sticker jobs run at 500–600 g.

6. Processing speed: click Tool Set.



Speed parameter table

7. Set the processing speed between 30,000 and 50,000 (mm/min, the unit shown in the speed table). This is the maximum speed; the system optimizes speed automatically while cutting. Fine-tune with the on-screen sliders in the lower right until the result is satisfactory.



Feed, idle, and spin speed sliders and run controls

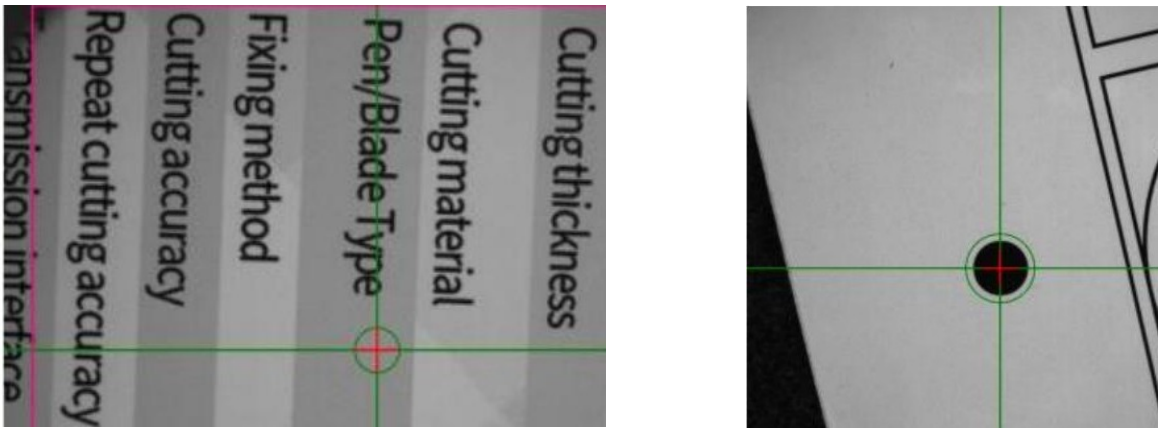
Vision (Camera) System

8. Camera calibration: click VISION in the ICUT software, then Open in the upper-left corner to turn on the camera. Camera parameters are set at the factory. For each material, the camera must record the registration marks according to the material's reflectivity. Place the printed mark under the camera; it appears on the computer screen.



Vision system — locating a registration mark

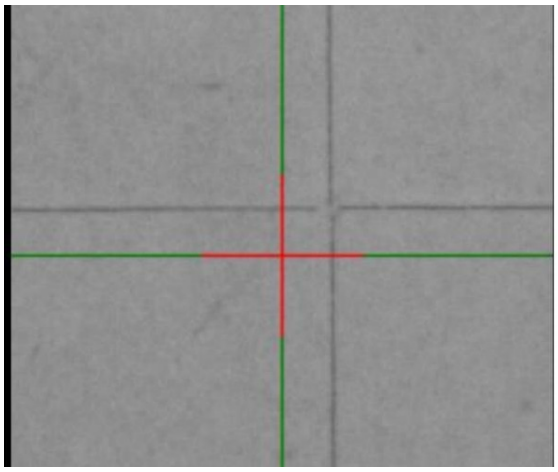
Click **Circle Template**; the marker becomes a green circle with a red cross. Use the mouse wheel to size the circle slightly larger than the mark, then use the arrow keys (X− / X+ / Y− / Y+) until the camera and the mark line up exactly. Click **Save**, name the point, then click **Visual**; the camera returns to its cross-hair view.



Registration mark aligned with the camera cross-hair

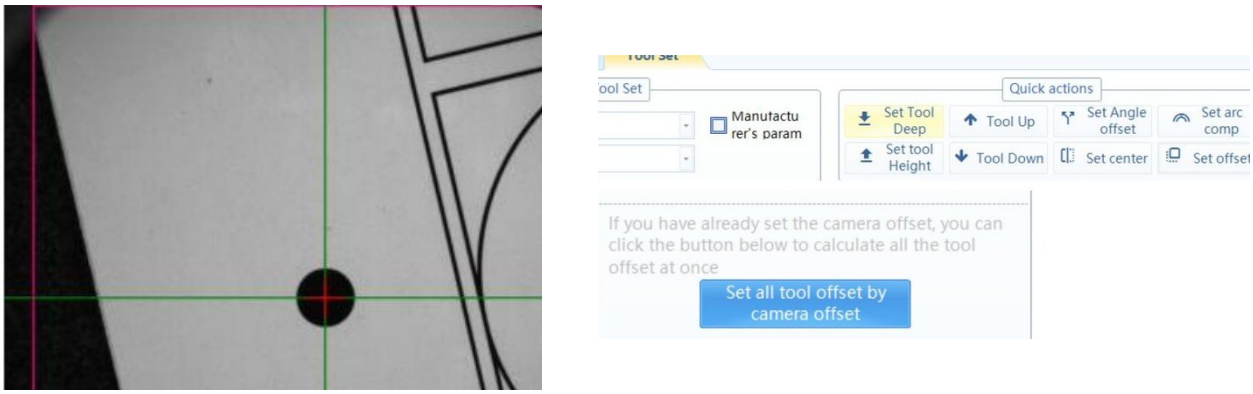
Tool Offset Settings

Tool offsets are set and saved at the factory. To recalibrate: open the VISION page, move Tool 1 and Tool 2 over the material with the arrow keys, install the tool, then run the tool-seat test (T1 cross test). The machine cuts a cross and the camera moves automatically.



Aligning the cutting path (magenta) with the camera cross-hair (green) for tool offset calibration

Move the cutting path and camera with the arrow keys until they line up exactly, click **Calculate Offset**, and enter the password to save. Repeat for Tool 2. When both tools are calibrated, open the Tool Set page and set all tool offsets by the camera offset.



Camera cross-hair centered on a registration mark (left); Tool Set quick action "Set all tool offset by camera offset" (right)

VISION CCD processing: after processing a file in ICUT, pull the material and check **Pulled End NoCCD** if there is no registration mark. This tells the machine to process a single section without a material-pull action.



Software and System Settings

Language

In ICUT, open **System** → **Language** and select Chinese or English. After switching, wait about 20 seconds for the touch screen to update; the system then needs to return to zero.



System ribbon — Language selector (English and Chinese versions)

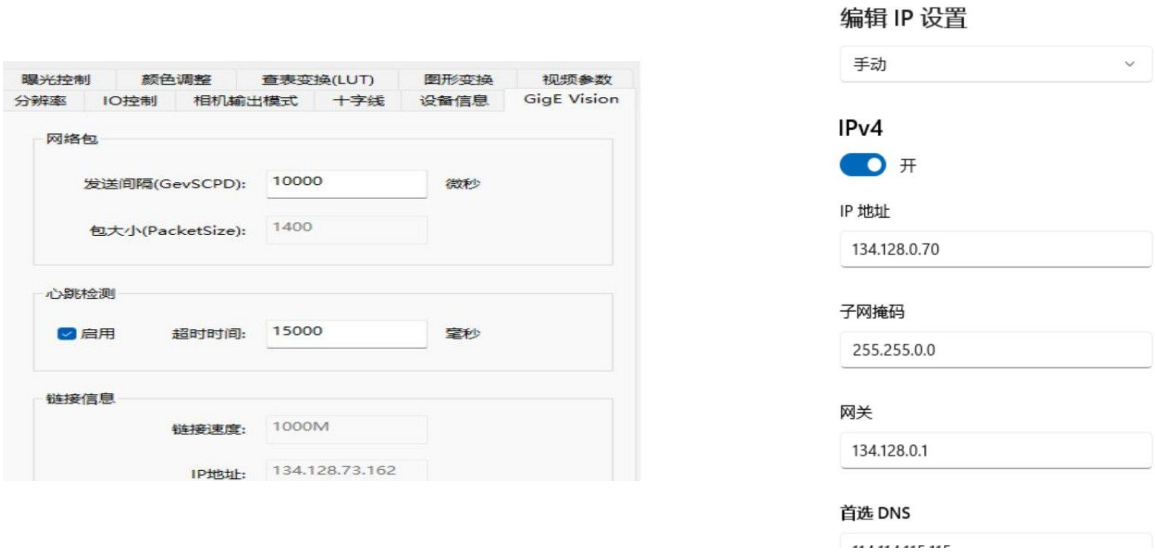
Dual-Tool Path

When using two tools, select the processing path in ICUT: red is processed by Tool 1, yellow by Tool 2.

Software Installation

Installation has two parts: the main ICUT software and the camera software. After installation, a Demonstration Program appears on the desktop. Open it, go to **Camera Settings → Graphics Transformation → GigE Vision**, set the sending interval (GevSCPD) to 10000, and save. Install the ICUT package, then connect the machine's network cable to the computer's network port (standard cable). Open ICUT and select the interface language.

Network / IP Configuration



Camera GigE Vision network settings (left); editing the computer's IP settings to match the machine's network (right)

Parameter Backup and Restore

To back up: in ICUT, open **System** → **Param Output**, enter the password, and save the file. To restore: **System** → **Param Import**, select the saved file, and enter the password. Use this if the software fails or parameters are changed by mistake.

Machine Component Diagram



Key	Part	Key	Part
A	Air gripper	H	Right-side housing
B	Felt	I	Emergency stop switch
C	Roller	J	Power switch
D	Frame	K	Touch screen
E	Camera	L	Vacuum pump
F	Tool 1	M	Leveling caster wheel
G	Tool 2		

Caution: Unauthorized modification voids the machine's warranty. Contact qualified technical personnel for repairs — disassembly by non-professionals is prohibited.

Specifications are subject to change with equipment upgrades. Refer to the full manufacturer manual for complete details.

Proper Operating Environment

Set up the equipment in conditions that match the requirements below. Each requirement is taken from the CobraFlex documentation named in brackets. Operating outside the machine's site specifications is not covered by the warranty.

Requirement	Specification
Working environment	Temperature 0–35 °C (32–95 °F); humidity 35–80%. [C1613U cutter manual, specifications]

Requirement	Specification
Installation site	Ambient temperature 0–40 °C (32–104 °F); humidity 1–75%. Level ground, clean environment, enough room to operate. Avoid corrosive gases or liquids, water, steam, oily dust, flammable or explosive gases, floating dust, metal particles, heat sources, static electricity, strong magnetic fields, and strong or direct light. [C1613U cutter manual, site requirements]
Electrical power	Chassis 220 V / 110 V ±10%, 50 Hz; air pump two-phase 220 V ±10% (110 V optional); total rated power 5.5 kW. Air switch rated at least 16 A with good grounding; use a voltage stabilizer if the supply is unstable, and do not share the circuit with other high-power equipment. [C1613U cutter manual]
Compressed air	Separate air compressor, minimum 0.7 MPa (about 102 psi), air tank 8 L (about 2.1 gal) or more. Drain the oil-water separator monthly. [C1613U cutter manual]
Space	2,200 × 2,100 × 1,100 mm (86.6 × 82.7 × 43.3 in), excluding the operating platform. [C1613U cutter manual]
Site and relocation	Site conditions must conform to the machine site specifications. Do not move the equipment without notifying CobraFlex or your dealer. [CobraFlex Warranty Terms and Conditions]

Warranty Summary

This is a summary of the CobraFlex Printers Warranty Terms and Conditions. The full terms are in the document *CobraFlex-CF-ALL-PRINTERS-DTF-UV-Printers-Warranty-Terms-and-Conditions-Rev2026-11.pdf* and online at https://cobraflexprinters.com/policies/terms-of-service; the full terms govern if anything here differs. CobraFlex Printers may change the warranty at any time.

- The CobraFlex Limited Warranty covers defects in material and workmanship under normal use and service for a period of one (1) or two (2) years, depending on the model and purchase agreement, from the original date of purchase, excluding wear-and-tear items and consumable parts. It is non-transferable and applies only to the customer who purchased directly from CobraFlex or an authorized CobraFlex dealer.
- Service support is remote (phone and virtual). On-site service and travel expenses are not covered. Support hours are Monday–Friday, 8:00 AM–4:00 PM Arizona time.
- Not covered: damage from accident, misuse, abuse, neglect, fire or water damage, electrical disturbances, loss or damage in transit, improper site preparation, operation outside the product specifications, and unauthorized modification, maintenance or repair.
- Training: CobraFlex or its dealers provide training on proper operation and maintenance. Operators who are not properly trained are not covered.
- Moving the equipment without notifying CobraFlex or its dealer voids the warranty.
- It is the customer’s responsibility to return parts to CobraFlex safely; parts damaged in shipping due to inadequate packing are not covered.
- Unauthorized modification voids the machine’s warranty, and disassembly by non-professionals is prohibited. [C1613U cutter manual]

CobraFlex Service and Support

Email: **service@cobraflexprinters.com** Phone: (602) 930-1858

Support hours: Monday–Friday, 8:00 AM–4:00 PM Arizona time

Need help? Submit a service ticket: https://cobraflexprinters.zohodesk.com/portal/en/newticket

You can also email service@cobraflexprinters.com (this link opens a pre-filled email for the CobraFlex 63" Flat Bed Cutter with Camera (C1613U), SKU CF-63-Flat-Bed-Cutter).

Please include your company name, the machine serial number, a description of the problem, and photos or a short video. For printers, also attach a current nozzle check print.

CobraFlex Printers LLC · 906 S. Priest Drive, Suite 104, Tempe, Arizona 85281 · cobraflexprinters.com