

# TOSHIBA

## Universal Design

- We believe that the best technology is only as good as its usability.
- When it comes to designing our products we follow a human-centric approach to enhance user-friendliness.
- We ensure easy access to the systems – for everyone.



**TOGETHER**  
INFORMATION

# Meeting everybody's needs

Committed to people. Committed to the future. This is at the core of all our activities at Toshiba. We are determined to help create a higher quality of life for all people and to do our part to help ensure that progress continues within the world community. All our products are designed with this in mind.

The European Telecommunications Standards Institute (ETSI) has issued *Accessibility requirements suitable for public procurement of ICT products and services in Europe*. It lists the following eleven statements<sup>1)</sup>, which are intended to describe the functional performance of information and communication technology (ICT) enabling people to locate, identify, and operate ICT functions, and to access the information provided, regardless of physical, cognitive or sensory abilities:

- Usage without vision
- Usage with limited vision
- Usage without perception of colour
- Usage without hearing
- Usage with limited hearing
- Usage without vocal capability
- Usage with limited manipulation or strength
- Usage with limited reach
- Minimise photosensitive seizure triggers
- Usage with limited cognition
- Privacy

Wherever applicable, Toshiba has designed its multifunction printers (MFPs) to meet these requirements to ensure they are usable – to the greatest extent possible – by everyone.



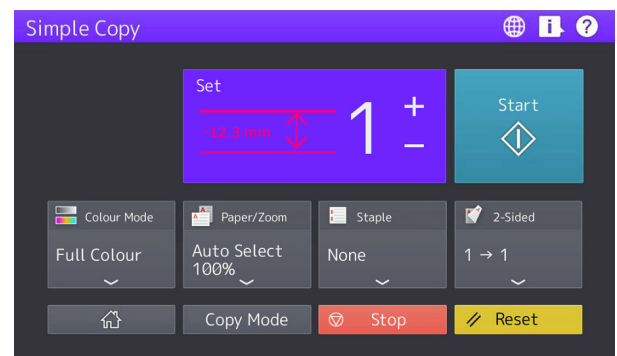
## The user interface

The large tablet-like user interface can be tilted to adjust it to individual needs on most models. Depending on the model this can be at an angle of 7 to 44 degrees or 7 to 90 degrees, so that the interface is more ergonomically to use and any reflections on the display are minimised.



Thanks to the interface being fully customisable, the display can be configured as needed: starting with the screen contrast to the size of the icons all the way to simplified layout modes.

The font used on the interface is large enough to read, even with limited vision, and the main functions (e.g. Number of copies, Start) are colour coded, so they can be recognised without having to read the text.



LEDs on the control panel make it easier to recognise the status of the MFP: if data is being transmitted, if it needs service etc. They are located in such a way that they can be seen no matter at which angle the user interface is tilted. When flashing these LEDs have a frequency of 1 Hz ensuring they do not trigger photosensitive seizure.

## Feel the difference

All hard keys on the user interface of the MFPs have prominent edges and are concave shaped to make them easier to distinguish and push. Additional tactile features, such as convex markers, also help operating the MFP.

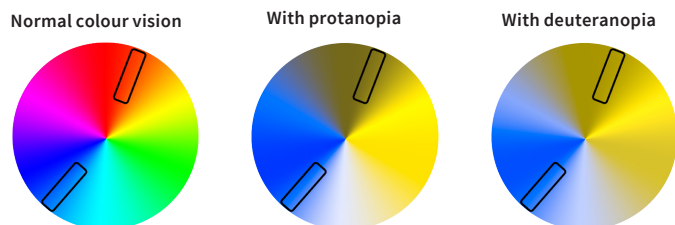
When placing original documents in one of the document feeders, different convex bars allow users to easily differentiate the various paper sizes and adjust the lateral guide correctly.

A marker on the “5” key allows to better locate the other keys on the panel and markers next to the Start and Reset keys make them easy to find and differentiate.



## The use of colour

Limited colour recognition (e.g. protanopia and deuteranopia) can make it difficult to differentiate colours clearly. Wherever we use colour - e.g. the display and hard keys of the user interface or on mechanical parts to indicate control levers - we make sure to choose colours which can easily be distinguished by people suffering from a type of dyschromatopsia.



Example of how people with protanopia/deuteranopia perceive colours.

## Standardised auditory signals

Auditory signals help users to recognise the status of the machine. Our MFPs use the standardised signal patterns set by the Japan Business Machine and Information Systems Industries Association<sup>2</sup>. This means the signals do not have to be learned new, when switching from systems, which also comply with these standards.

## Effortless operation

The ETSI states that operating mechanical parts should not require more force than 22.2 N. This is – broadly speaking – equivalent to the strength needed to move an object weighing 2.26 kg.



All our covers, paper cassettes, document feeders and the bypass require much less force than that to operate. So whether you want to print, scan, copy, fax or need to refill paper or toner, you can always do so effortlessly.



Furthermore, the paper cassettes are built in such a way that they can easily be opened one-handedly with force being applied either from the top or the bottom.

Both document feeders have to be lifted less than 20 cm to hold their position. This means the platen glass can be accessed without having to lift the document feeder entirely or needing to hold it up while placing documents on the platen glass.

And with the optional accessible arm the document feeder can easily be lowered if it was left open by a previous user and is difficult to reach.



For more details on our universal design and for a complete list of MFPs with advanced universal design features, please contact your local Toshiba partner.

<sup>1</sup> Source: ETSI. EN 301 549 V3.2.1 (2021-03), p. 20ff.

<sup>2</sup> See JBMS-71 Office Equipment – Auditory Signals

## About Toshiba Tec

Toshiba Tec Germany Imaging Systems GmbH is part of the globally operating Toshiba Tec Corporation, active in various high-tech industrial sectors.

Toshiba Tec Corporation is a leading provider of information technology, operating across multiple industries - ranging from retail, education and business services to hospitality and manufacturing. With headquarters in Japan and over 70 subsidiaries worldwide, Toshiba Tec Corporation helps organisations transform the way they create, record, share, manage and display information.

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**Together Information is Toshiba's vision for how people and organisations create, record, share, manage and display ideas and data.**

**It is based on our belief that the most successful organisations are those that communicate information in the most efficient way.**

**We make that possible through an integrated portfolio of industry-specific solutions, all of which reflect Toshiba's commitment to the future of the planet.**

