

RETAIL SCALES  
500 RANGE

# TORNADO series





**1 PRINTER**  
RECEIPTS  
OR LABELS



**LCD SEGMENT**  
DISPLAY



OPTIONAL  
**LCD GRAPHIC**  
DISPLAY



UP TO  
**8,000 PLUs**



UP TO  
**20 VENDORS**



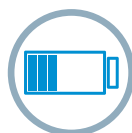
**ETHERNET**  
TCP/IP



**USB**  
OPTIONAL



**WI-FI**  
OPTIONAL



OPTIONAL  
RECHARGEABLE  
INTERNAL  
**BATTERY**



**METROLOGICAL**  
**VERIFICATION**  
OPTIONAL (EU)

## Characteristics and functionality

### Main characteristics

- Electronic scale with higher visibility display options.
- Models with receipt printer or label printer (suitable for receipts).
- Variety of formats.
- Functional and robust design.
- Greater capacity (memory, functions, communications and interconnections).
- High speed and high resolution printers.
- Compliance with EU Regulation 1169/2011 on the provision of food information to consumers.

### Features

- Extensive information for each PLU: normal price and offer price, price for weight scales and by kg/100 g, 2 names of 20 characters, 10 free texts of 24 characters, 1 text of 3,000 characters (in T-535), etc.
- PLU search by code or name.
- Preset keys to programming menus: to change prices, register PLUs or vendors, etc.
- Direct access to 999 PLUs from the keyboard.
- Drill down menus.

- Printing of the scale menus.
- 5 programmable macros: recording of a sequence of keys to create direct access to any task (reopening of receipts, lists, change in batcher number, etc).
- Sales and management reports: sales (by article, vendor, time frames, last month, etc.), balance available in the cash drawer, modified PLUs, etc.
- Fast and reliable communication between scales, with PC and mobile devices (via DWS).
- Stocks management in the scale.
- Option to record normal price and offer price for each article.
- Stock / order mode.

### Capacity / Accuracy

- **Multirange (3,000 divisions): 6 kg / 2 g - 15 kg / 5 g.**
- **Optional:**
  - › Monorange (3,000 divisions): 15 kg / 5 g or 30 kg / 10 g.
  - › Multirange (3,000 divisions): 15 kg / 5 g - 30 kg / 10 g.
  - › Monorange (6,000 divisions): 12 kg / 2 g or 30 kg / 5 g.

# TORNADO series

## Available formats

- Flat.
- Pole.
- Double body.
- Hanging (ABS or stainless steel).
- Self-service.

## Construction

- Highly resistant ABS plastic casing in counter and hanging formats.
- Stainless steel casing in hanging formats.
- Stainless steel plate.
- Access to all non-metrological components without the need to unseal the scale.

## Displays

- Backlit LCD segment display (W150.2 x H43.4 mm) for vendor and buyer (showing weight, price / kg, total, tare, vendors and name of article).
- Optional:
  - › LCD matrix graphic display (W134 x H41 mm or W188 x H55 mm) for vendor and buyer. Possibility of showing: logos, profitability codes, warning messages sent from a PC (on vendor display) and advertising messages with animated effects on buyer display.

## Printer

- Models available with 1 printer for receipts or 1 printer for labels (also suitable for receipts by changing the paper roll and the working mode).
- 54 mm thermal printer.
- High resolution (8 dots/mm) and speed (100 mm/sec).
- Cassette for immediate paper roll change (in label printers).
- Optional:
  - › Linerless (in label printers).

## Receipts

- 15 fonts (6 monospaced + 9 multispaced: more modern and legible).
- Up to 60 items.
- 2 fixed formats + 2 programmable formats.
- 4 logos per receipt.
- Barcodes: EAN-13, EAN-128 and Code 128.\*
- Name of vendor.
- 9 payment methods.
- Total in National currency and another 3 currencies.
- Discounts per line and total.
- Loyalty points.
- Customers on account.
- Recipes.

## Labels

- 15 fonts (6 monospaced + 9 multispaced: more modern and legible).
- From W30 x L30 mm to W60 x L120 mm.
- 20 fixed formats + 20 programmable formats.
- 40 logos.
- Barcodes: EAN-13, EAN-128 and Code 128.\*
- 60 fields of information.
- 100 programmable texts.
- Manual and automatic pre-packing modes.
- 3 levels of totals.
- Printing of "n" identical labels.
- Printing with 90°, 180° and 270° rotation.
- Automatic adjustment of the paper detection option.
- Packaging date, expiry date and extra date (for any application).
- Alphanumeric batch number.
- 10 types of generic traceability (for meat, fish, fruits, vegetables, etc.) up to 99 products. Included in the prevailing European legislation on bovine traceability.



\* It prints the following barcodes: EAN-13, EAN-128 and Code 128; it reads the following barcodes: EAN-13.

## Food information

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- Compliance with EU Regulation 1169/2011 on the provision of food information to consumers as of 13 December 2016:
  - › Minimum letter size: 1.2 mm.
  - › Effect (**bold**, underlined, or **both**) for each character in the text.
  - › Possibility of using the general text "G" (3,000 characters) for ingredients, in lower case or UPPER CASE to highlight allergens.
  - › Possibility of including a table of nutritional facts.
  - › Free texts (10 x 24 characters).
  - › For direct sale receipts and labels: possibility of indicating in the PLU name (with an \* or other symbol) those that contain allergens and programming a text, such as "\* Consult allergens".
  - › Possibility of printing 2 labels for each operation: programmable by PLU, configurable information, 2<sup>nd</sup> automatic or manual label (also to be used as promotional labels).

## Communications

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- TCP/IP Ethernet for interconnection and connection to PC.
- RS-232, for connection to scanner.
- Optional:
  - › USB.
  - › Wi-Fi.

## Security

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- Access to different protected programming menus via configurable passwords.

## Interconnection

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- Up to 16 scales per section.

## Connectivity with other devices

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- PC.
- Barcode scanner (powered by the scale – 5 VDC) to read EAN-13 and EAN-128 barcodes.
- Cash drawer.
- Queueing system (for hanging scales).

## Software

(See section on software)

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### PC Software:

- DFS:
  - › Programming of scales.
  - › Receipt of sales data.
  - › Data backup copy.
  - › Graphic design of receipts and labels.
  - › Design and management of advertising images for graphic display.
- RMS\*:
  - › Programming and management of scales.
  - \* Does not manage:
    - › Images (of articles and advertising).
    - › Specific functions of Tornado scales.
- DLD:
  - › Graphic design of receipts and labels.
- Integration tools: in Windows or Linux to facilitate communication with the Back-Office.

### Scale firmware:

- DWS (Dibal Web Server):
  - › Allows access to the information on each scale from any computer or mobile device with an Internet browser.

## Power supply

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- Mains: 110 up to 230 VDC.
- Depending on the models, also:
  - › High performance rechargeable internal battery (T-530 B): up to 52 hours of life (calculated for 1,500 receipts, with 3 articles per receipt)\*\* and connector to external battery 12 V.
  - › Anti-blackout rechargeable internal battery 24 V and connector to external battery 24 V.

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\*\* With segment display and back lighting disconnected. The charging and autonomy times may vary considerably in accordance with the temperature, age and condition of the batteries, use of back lighting, frequency of use of the printer, interconnection, etc.

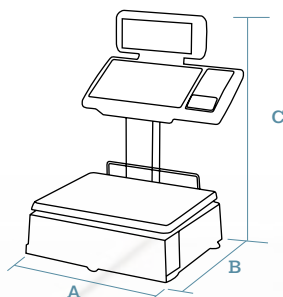
# TORNADO series

## 1 RECEIPT PRINTER

Double Body Format



Dimensions



DATA IN mm

**A** 375

**B** 470

**C** 547

Plate (stainless steel):  
L360 x W260 mm

	Displays	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
<b>T-530 DB</b>	LCD Segment	Receipts	8,000	60x2 + 19x2*	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T301D2LGE_
<b>T-530 B DB</b>	LCD Segment	Receipts	8,000	60x2 + 19x2*	20	Mains / battery	6 kg / 2 g - 15 kg / 5 g	7T311D2LGE_

\* Using the Shift key and those of Vendor.

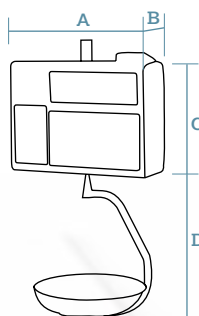


# 1 RECEIPT PRINTER

ABS Hanging Format



Dimensions



DATA IN mm

A	395
B	190
C	285
D	415

Plate (stainless steel): Ø 310 mm

	Displays	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
<b>T-530 H ABS</b>	LCD Segment	Receipts	8,000	60x2 + 19x2*	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T301C2SGE__

\* Using the Shift key and those of Vendor.

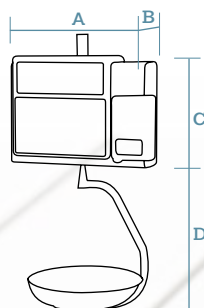
# TORNADO series

## 1 RECEIPT PRINTER

S. Steel Hanging Format



### Dimensions



DATA IN mm

A	405
B	70
C	275
D	415

Plate (stainless steel): Ø 310 mm

	Displays	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
T-530 H S. Steel	LCD Segment	Receipts	8,000	60x2 + 19x2*	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T301C2SIE__

\* Using the Shift key and those of Vendor.

# 1 LABEL PRINTER (OR RECEIPT)

Flat  
Format

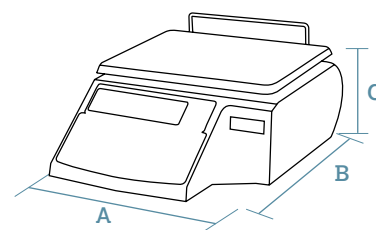


## Dimensions

DATA IN mm

A	375
B	470
C	180

Plate (stainless steel): L360 x W260 mm



Cassette included.



	Displays	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
<b>T-535 F</b>	LCD Segment	Labels (or Receipts)	8,000	30x2 + 19x2*	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T351P2LGE_...

\* Using the Shift key and those of Vendor.



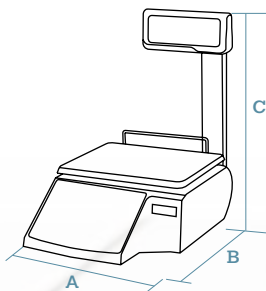
# TORNADO series

## 1 LABEL PRINTER (OR RECEIPT)

Pole  
Format



### Dimensions



DATA IN mm

**A** 375

**B** 470

**C** 565

Plate (stainless steel):  
L360 x W260 mm



Cassette included.



	Displays	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
<b>T-535 P</b>	LCD Segment	Labels (or Receipts)	8,000	90x2 + 19x2*	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T351T2LGE_...

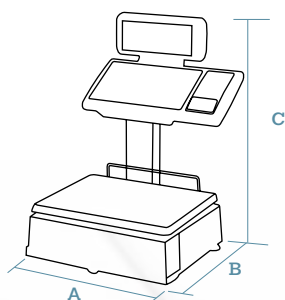
\* Using the Shift key and those of Vendor.

# 1 LABEL PRINTER (OR RECEIPT)

Double Body Format



## Dimensions



Cassette included.

DATA IN mm

- A** 375
- B** 470
- C** 547

Plate (stainless steel):  
L360 x W280 mm

	Displays	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
<b>T-535 DB</b>	LCD Segment	Labels (or Receipts)	8,000	95x2 + 19x2*	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T351D2LGE_

\* Using the Shift key and those of Vendor.

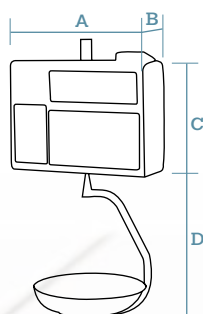
# TORNADO series

## 1 LABEL PRINTER (OR RECEIPT)

ABS Hanging Format



Dimensions



DATA IN mm

A	395
B	190
C	285
D	415

Plate (stainless steel): Ø 310 mm



Cassette included.



	Displays	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
<b>T-535 H ABS</b>	LCD Segment	Labels (or Receipts)	8,000	60x2 + 19x2*	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T351C2SGE_...

\* Using the Shift key and those of Vendor.

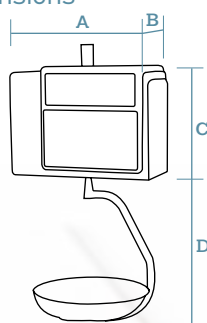
# 1 LABEL PRINTER (OR RECEIPT)

S. Steel Hanging Format



SCALES WITH PRINTER

## Dimensions



DATA IN mm

A	395
B	190
C	285
D	415

Plate (stainless steel): Ø 310 mm



Cassette included.

	Displays	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
<b>T-535 H</b> <b>S. Steel</b>	LCD Segment	Labels (or Receipts)	8,000	60x2 + 19x2*	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T351C2SIE_

\* Using the Shift key and those of Vendor.



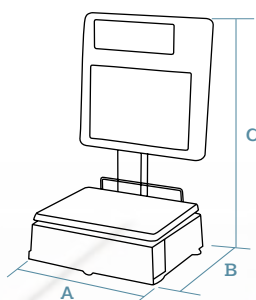
# TORNADO series

## 1 LABEL PRINTER

Self-Service  
Format



Dimensions



DATA IN mm

A	375
B	375
C	680

Plate (stainless steel): L360 x W280 mm



Cassette included.

	Front Display	Back Display	Printer	PLUs	Direct PLUs	Vendors	Power	Capacity / Accuracy	Reference
<b>T-535 SS 100 - 1 DISP.</b>	LCD Segment	-	Labels	8,000	100	-	Mains	6 kg / 2 g - 15 kg / 5 g	7T351A2LGE__
<b>T-535 SS 150 - 1 DISP.</b>	LCD Segment	-	Labels	8,000	150	-	Mains	6 kg / 2 g - 15 kg / 5 g	7T351E2LGE__
<b>T-535 SS 208 - 1 DISP.</b>	LCD Segment	-	Labels	8,000	208	-	Mains	6 kg / 2 g - 15 kg / 5 g	7T351G2LGE__
<b>T-535 SS 100 - 2 DISP.</b>	LCD Segment	LCD Segment	Labels	8,000	100	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T351B2LGE__
<b>T-535 SS 150 - 2 DISP.</b>	LCD Segment	LCD Segment	Labels	8,000	150	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T351F2LGE__
<b>T-535 SS 208 - 2 DISP.</b>	LCD Segment	LCD segment	Labels	8,000	208	20	Mains	6 kg / 2 g - 15 kg / 5 g	7T351H2LGE__



# Options

Option	Characteristics	Reference
Capacity 15 kg / 5 g	Monorange (3,000 divisions).	...N__ (*)
Capacity 30 kg / 10 g	Monorange (3,000 divisions).	...Y__ (*)
Capacity 15 kg / 5 g – 30 kg / 10 g	Multirange (3,000 divisions).	...F__ (*)
Capacity 12 kg / 2 g	Monorange (6,000 divisions).	...V__ (*)
Capacity 30 kg / 5 g	Monorange (6,000 divisions).	...P__ (*)
Graphic display (W134 x H41 mm)	LCD matrix graphic display for buyer and vendor.	Consult
Graphic display for flat format	LCD graphic display (W188 x H55 mm) for buyer and LCD graphic display (W134 x H41 mm) for vendor.	Consult
Graphic display W188 x H55 mm	LCD matrix graphic display for buyer and vendor.	Consult
Linerless	Label or receipt on continuous adhesive paper without supporting paper (in label printer for T-535).	Consult
USB	USB port.	Consult
Wi-Fi	Wireless communications (IEEE 802.11n).	Consult
Anti-blackout	Anti-blackout internal battery 24 V + external battery connector 24 V.	Consult
DFS Software	Scale configuration, receipt of sales data for processing with other IT applications and data backup (LBS), and labels and receipts graphic design. (See section on software).	7340F1U1
		7340FN01
		7340D1U1
		7340DNU1
RMS Software	Scale configuration, receipt of sales data from processing with other IT applications and data backup (LBS). (See section on software).	73400000
		7340R1U1
		7340RNU1
DLD Software	Labels and receipts graphic design. (See section on software).	7340L0U1
		7340L1U1
		7340LNU1
Technical DWS	Dibal Web Server software for the remote configuration of the scale. (See section on software).	7340W101
Full DWS	Dibal Web Server software for the remote configuration of the scale and processing of the information generated. (See section on software).	7340WN01
Metrological verification (M)	According to EU weighing directives (See section on equipment metrological verification).	Consult

(\*) The scale references with this capacity are obtained by replacing the last characters of the reference for the standard scale with the indicated ending.

# TORNADO series

## Accessories



Ref: BCR73

### Small Italian plate

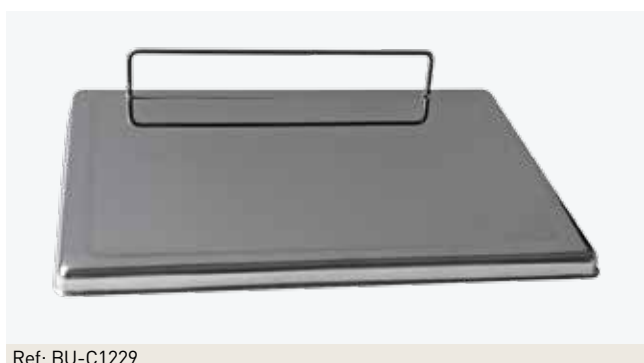
L357 x W235 x H55 mm.



Ref: BCR74

### Large Italian plate

L407 x W284 x H60 mm.



Ref: BU-C1229

### Flat plate for hanging scales

L360 x W280 mm, instead of the semi deep plate.



Ref: BC-C039

### Deep plate for hanging scales

Ø310 x H70 mm, instead of the semi deep plate.



Ref: BHN99

### Interconnection switch

For T-530 B scales with rechargeable internal battery.



Ref: BHN85

### Battery for the switch

Power battery for the BHN99 interconnection switch.



Ref: BCH18

**Barcode scanner**

Includes connection cable to the scale.



Ref: BL-P3623

**Adapter for receipt printing in label printer**

Required for standard size receipt rolls.

**Note:**

- The references correspond to standard models: Dark gray ABS plastic or stainless steel casing (depending on the format), backlit LCD segment display, stainless steel flat plate in counter scales –semi deep stainless steel plate in hanging scales–, cash drawer connector, queueing system connector in hanging scales and TCP/IP Ethernet communications. Capacity/Accuracy: 6 kg / 2 g – 15 kg / 5 g.