



INSTRUCTIONS MANUAL

Axle Scale

MRW10/500



Please read this manual before using the product and follow the instructions it contains!

GENERAL

Foreword	3
Safety instructions	3
Technical data	4
Main components at a glance	5
Operating instructions	6

MAINTENANCE

Regular inspection	9
Error code list	10
Service & contact	10
UKCA Declaration of Conformity	11

FOREWORD

Congratulations on the purchase of your new axle load scale. The MRW10/500 has been manufactured from high-quality materials especially for long-lasting and reliable use. For your own safety and to ensure correct operation of the axle load scale, please read and observe these operating instructions before commissioning. Keep these operating instructions in a safe place. Check the MRW10/500 for transport damage. Damaged axle load scales must not be used. The MRW10/500 is used to weigh wheels and axles and to determine the payload and total weight of vehicles up to a maximum of 20 tonnes. Improper handling may result in injury or damage to the device. Any liability for damage resulting from improper use of the axle load scale or disregard of the specifications and rules of conduct in these operating instructions is excluded. The operator is responsible for ensuring correct use by trained and authorised personnel.

SAFETY INSTRUCTIONS

- Always read the warning signs on the transport device and the instructions in this manual before use.
- Ensure that the appliance is in perfect condition before use.
- Only use the device on a level surface.
- Secure vehicles to be weighed using the parking brake before operating the appliance.
- Never overload the weighing platforms. The weighing range is 10,000 kg per platform. The maximum load is 12,000 kg. The measured load at break is 15,000 kg per weighing platform.
- Always drive with the entire tyre surface centered on the platform to avoid slipping or uneven loading on the platform.
- Suitable for operation at temperatures between - 30 °C and + 60 °C.
- Charge the integrated battery at regular intervals to protect it.
- Alteration, modification or use of other spare parts that are not original parts from the manufacturer without the written consent of the manufacturer will invalidate the warranty.

TECHNICAL DATA

WEIGHING PLATFORM

Type	Unit	Value
Width	mm	500
Depth	mm	610
Height	mm	56
Weight	kg	21,5 kg
Material		Steel
Measuring Range	kg	2 - 10.000
Overcharge Limit	%	120
Overcharge Limit	kg	12.000
Measuring Accuracy	%	0,3 – 0,5
Ambient Temperature	°C	- 30 – + 60
IP Protection Class		IP66

MEASUREMENT CASE

Type	Unit	Value
Width	mm	370
Depth	mm	240
Height	mm	125
Weight	kg	3,5
Material		Aluminium
IP Protection Class		IP65

BATTERY

Type	Unit	Value
Battery Capacity	Ah	4,4
Operating voltage	V	6
Operating Time	h	approx. 60
Charging Time	h	3 - 4

CHARGER

Type	Unit	Value
Mains Voltage	V	230
Charging Voltage	V	8,4
Charging Current	A	1,2

MAIN COMPONENTS AT A GLANCE



No.	Designation
1	Handle
2	Weighing platform
3	Ramp wedge
4	Display
5	Printer roll
6	Connection socket for left front wheel (LFW)
7	Connection socket for right front wheel (RFW)
8	Charging socket
9	Connection socket for right rear wheel (RRW)
10	Connection socket for left rear wheel (LRW)
11	On/off switch
12	Toggle switch
13	Check switch (back)
14	Switching units kg / lbs (left)
15	Tare switch (right)
16	Zero switch (down)
17	Memory switch (up)
18	Printing switch (enter)



In the calibration menu, the switches have a different assignment, which is displayed below the respective switch. For example, the printing switch becomes the input switch.

OPERATING INSTRUCTIONS

NAVIGATING IN THE CALIBRATION MENU

- Press „Switch“ and „Print“ simultaneously to access the calibration menu.
- Here you can choose between F1 - F6 by navigating through the menu with „Zero“ and „Store“ and confirming with „Print“.
- Press „Check“ to go back or exit the menu completely.
- Within the menus, use „Zero“ and „Store“ to change the respective value. Use „Print“ to navigate through the submenu and confirm the set value.

Example 1: Two axles are to be set. The operator presses „Switch“ and „Print“ until „F1“ is displayed. Press „Store“ twice until „F3“ is displayed and confirm with „Print“. The operator is now in the „F3“ submenu. He presses „Print“ until he reaches the „ALE“ menu item. He selects the value „ALE-03“ with „Zero“ and „Store“ and confirms the entry with „Print“. He then exits the menu by pressing „Check“ twice.

Example 2: All saved data is to be deleted. The operator presses „Switch“ and „Print“ until „F1“ is displayed. Press „Store“ four times until „F5“ is displayed and confirm with „Print“. The operator is now in the „F5“ submenu. He presses „Print“ until he reaches the menu item „dEAL“. He selects the value „dEAL-1“ with „Zero“ or „Store“ and confirms the entry with „Print“. He then exits the menu by pressing „Check“ twice.

NORMAL WEIGHING MODE:

1. Set the print format to PF-1.
2. Set the operating mode to Mode 1 for one platform, to Mode 2 for two platforms and to Mode 4 for four platforms.
3. You can connect platforms to the measuring case according to the selected mode.

The working modes define how you can weigh and to which connections platforms must be connected. Here you will find an overview of the respective setting options for the working mode:



Number of weighing platforms	Tyre distribution	Connection distribution	Work mode
1	Left front	LFW	Mode 1
2	Left front Right front	LFW RFW	Mode 2
3	Left front Left rear Right rear	LFW LRW RRW	Mode 3
4	Left front Left rear Right front Right rear	LFW LRW RFW RRW	Mode 4

- Mode 1 is for measuring the weight of individual wheel loads or weighing all wheels in succession.
- Mode 2 is for simultaneous weighing of an entire axle.
- Mode 3 is for vehicles with three wheels. Aircraft can also be weighed here.
- Mode 4 is for the simultaneous weighing of two axles. We recommend only weighing vehicles with two axles.

ACCUMULATIVE PRINTING

1. Set the print format to PF-2.
2. Set the working mode to Mode 2, which measures the entire axle.
3. Set the desired number of axles. ALE-02 for two axles and ALE-03 for three axles. The axles are weighed one after the other and the weight is accumulated.
4. Drive the axles onto the weighing platforms one after the other.
5. Press Store for each axle to save the value and print it at the same time.

CALIBRATION OF THE WEIGHING PLATFORMS

1. Select the F2 submenu.
2. Select the platform to be calibrated with SCALEX.
3. Calibrate the weighing platform using the menu item CAL-1.
4. Select the menu item SPAN - 1.
5. Place standardised weights on the platform and specify the total weight for Span.
6. Confirm with „Print“.
7. Save the calibration by selecting SAVE - 1 and confirm with „Print“.

SETTING OPTIONS

Menu	No.	Display presentation	Setting	Options
F1	1	Mode X	Working mode (simultaneous tyre weighing)	Mode 1: 1 tyre: Left front Mode 2: 2 tyres: Front Mode 3: 3 tyres: 1 front + 2 rear Mode 4: 4 tyres: 2 front + 2 rear
	2	Unit – X	Unit	kg / lbs
	3	dot – X	Decimal places	1 – 4
	4	E – XX	Measuring accuracy	1, 2, 5, 10, 20, 50
	5	FULL – X	Adjustment of the maximum capacity	FULL - 1: Change the maximum capacity
F2	1	SCALEX	Setting the weighing platform X	SCALE1: Settings for weighing platform 1
	2	CAL – X	Calibration	CAL-1: Initiate calibration
	3	SPAN – X	Position calibration	SPAN-1: Initiate position calibration
	4	SAVE - X	Saving the changes	SAVE - 1: Saving the settings
F3	1	ALE-XX	Setting the number of axles	ALE-02: Two axles are weighed
	2	SN—XX	Setting the freight number	SN-01: Freight 1 (shown on the print)
	3	PF – X	Print format settings	PF - 0: No print PF - 1: Normal print PF - 2: Accumulative printing (for more than 1 axle)
	4	PM – X	Printing method	PM - 0: Manual print PM - 1: Automatic printing
	5	PC - X	Set print document number	PC - 1: Print document 1
	6	Baud-X	Set baud rate	Baud-0: 600 Baud-1: 1200 Baud-2: 2400 Baud-3: 4800 Baud-4: 9600 Baud-5: 19200 Baud-6: 38400 Baud-7: 57600 Baud-8: 115200
	7	CP – X	Communication format	CP-0: Communication switched off CP-1: PC CP-2: Second display (Yao Hua) CP-3: Second display (Toledo) CP-4: PC / Printing
	8	OFF-XX	Automatic switch-off	OFF-00: no switch-off OFF-10: After 10 min.
	9	BL—XX	Backlighting	BL-00: Lighting on BL-10: Lighting off after 10 sec.
	10	Date-X	Date format	Date-0: YYYYMMDD Date-1: MMDDYYYY Date-2: DDDMMYYYY
	11	Datum	Set date	Use the arrow buttons for the setting
	12	Zeit	Set the time	Use the arrow buttons for the setting
F4	1	S-0560	Quantity of stored values	Max. Number: 2000 values
	2	HE-1.0A	PCB version	1.0A
	3	SE-1.00	Software version	SE-1.00
	4	LFW code		Connection code
	5	RFW code		Connection code
	6	LRW code		Connection code
	7	RRW code		Connection code

Menu	No.	Display presentation	Setting	Options
F5	1	dELA-X	Delete the last value	dELA-0: Do not delete dELA-1: Delete
	2	dELA-X	Delete all values	dEAL-0: Do not delete dEAL-1: Delete
F6	1	dEF – X		
	2	SELF - 0	Reset to factory settings	SELF - 0: Do not reset SELF - 1: Reset

REGULAR INSPECTION

- Check the housing and weighing plates for damage or cracks
- Check cables and plug connections for visible defects or wear
- Are the display and controls functional and clean?
- Are the weighing surfaces free of dirt, oil or other foreign matter?
- Are there any impurities on sensors or connections?
- Are all warnings and labels legible?
- Make sure that there are no tripping hazards due to cables or loose parts
- Check whether legal verification is required: Depending on the country and intended use, periodic verification may be required.
- Report need for repair: Report any damage or deviations immediately to the person responsible and do not use the device
- Transport and storage: Always store and transport the scales protected from impact

ERROR CODE LIST

Error	Cause	Solution
UUUUUU	1. Weight outside the weighing range 2. Incorrect cabling with weighing platforms 3. Damage to weighing platform	1. Reduce weight 2. Check cabling 3. Check platform for damage
nnnnnn	1. Incorrect calibration 2. Incorrect cabling with weighing platforms 3. Damage to weighing platform	1. Reduce weight 2. Check cabling 3. Check platform for damage
ERR10	No stable weighing status with zero setting	Waiting for stable weighing status
ERR11	Zero setting and tare at the same time	Back to "Gross weight". Zero setting can then be carried out
ERR12	Outside the maximum zero range	Moving the additional load
ERR15	No stable weighing status with tare function	Waiting for stable weighing status
ERR16	Tare function without load	Load the scales before the tare function
ERR17	Outside the tare range	Reduce the tare load
ERR25	Number outside the recorded weights	Select a number within the recorded weights
ERR30	Incorrect print format for the accumulative weighing mode	Set the print format 2
ERR31	Incorrect working mode for the accumulative weighing mode	Set working mode 2 or 4
ERR32	Weighed beyond maximum, display cannot show the value	Wait until load is at rest, then set to zero
ERR33	Unstable weighing weight	Print after the weight is stable
ERR34	Display error when printing in accumulative weighing mode	Print the weights after the weights of all axles have been accumulated
ERR35	Printing error in normal weighing mode	Wait until weight is stable. Then print
ERR35	Incorrect print format in normal weighing mode	Set the print format 1

SERVICE & CONTACT

Contact our product experts and find help and solutions for your product. Here you will find all contact information listed by country and language: www.topregal.co.uk/en/service

Responsible for the content:

TOPREGAL GmbH

Industriestrasse 3

70794 Filderstadt

GERMANY

www.topregal.com

UKCA Declaration of Conformity

The manufacturer

TOPREGAL UK Ltd.
Carlton Drive Crumlin
Gwent NP11 4EA

hereby declares that the following product

Product name:

TecMaschin
Axle Scale

Type:

MRW10-500

Serial number:

MRW10-500-1000000000 – MRW10-500-9999999999

that the equipment is in conformity with the following relevant UK legislations and applied standards:

2014/30/EU Electromagnetic compatibility

EN IEC 61326-1
EN IEC 61000-6-3
EN IEC 61000-6-1

Name and address of the person who is authorized, to compile the technical documentation:

TOPREGAL UK Ltd.
Carlton Drive Crumlin
Gwent NP11 4EA

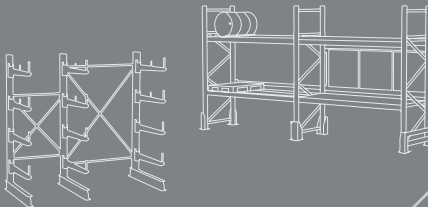


Place: Crumlin UK
Date: 10.03.2025

Juergen Effner
Chief Executive Officer

TOPREGAL

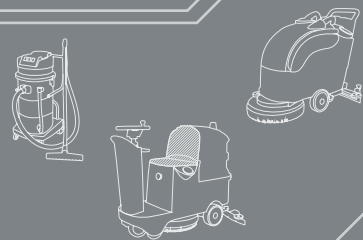
TOPREGAL



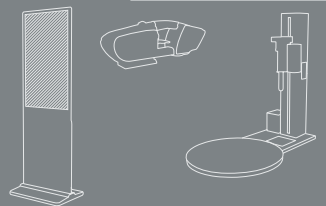
SolidHub



WIPEKET



TECMASCHIN



SOLOPORT

