

DD 2050



Diade Series Self Service Weighing Terminal



*Touch screen,
a thousand data items at your fingertips.
DD 2050 TOUCH & GO*

DD 2050 Diade Series Self Service Weighing Terminal

The **DIADE Series** terminals combine computer programming power and **flexibility** together with the measuring requirements of a weighing instrument; in particular with the DD2050 model the user can carry out the weighing operations independently, without the presence of an operator. **The user can be identified by many device types (optic, magnetic, proximity).**



DIADE

DD2050 provides **tailor-made software for specific operations**, through the use of the powerful modular SCALECORE software and SCALEWIZARD development tool. The very same system offers almost endless programming possibilities, using state-of-the-art languages, for the management of complex applications, together with versatile simplified RTL - Real time software to manage these processes more simply. The weighing system is fully weights and measures approved.

DD 2050 Diade Series Self Service Weighing Terminal

APPLICATIONS

The DD 2050 terminal can be installed for **weighing from the ground** or directly from the vehicle. The Self Service operation makes the terminal suitable for many applications in which there is the need to manage materials delivery or picking with a diverse and variable number of users.

The **MANY ADVANTAGES** include:

- use without the presence of personnel during the access, identification and weighing operations etc.
For example with the DD2050 terminal it is possible to connect to optic systems for number plate recognition, together with traffic lights and control barriers for the automatic control of vehicle access.
- operations are faster and the logistics of the involved area is improved accordingly
- easy collection and management of data and information



A) Proximity reader

B) Optic reader

C) Double magnetic and bar code reader

D) Receipt printing



B



C



D

SCALECORE

Is a set of software components for the independent development of applications for industrial weighing, making it much easier to create modular structures, to manage data and graphics and facilitate communication between distributed modules.

The main components supplied are:

- Graphics engine
- Graphics libraries
- Scales management
- Distributed peripherals management
- Communication protocols
- Print driver
- Simplified RTL software (real time language)
- Server database

All these tools make it possible to totally

personalise the system functions, for example:

- To adapt the operator interface
- To modify the database structure
- To modify the functioning logic

SCALEWIZARD

Is a piece of PC software that allows the DIADE Series terminal to be managed via a personal computer.

The principal basic functions include:

- Display generation/personalisation
- Archive building
- Print personalisation
- Instrument configuration
- Applications up-load
- Back-up

SOFTWARE (OPTIONS)

DIADE Series terminals are equipped with metrological weight measuring software.

It is also possible to **use** this instrument with **software designed for a diverse number of applications.**

VEHICLE WEIGHING packages are available that in addition to calculating net weight, can also manage additional data.

Software is available for waste management at COLLECTION CENTRES, DECONTAMINATORS, DUMPS, as well as software for LOGISTICS, FILLING/EMPTYING operations and for the FOOD INDUSTRY.



E



F



G



H

E) Choice of the product to send to Waste Collection Centre

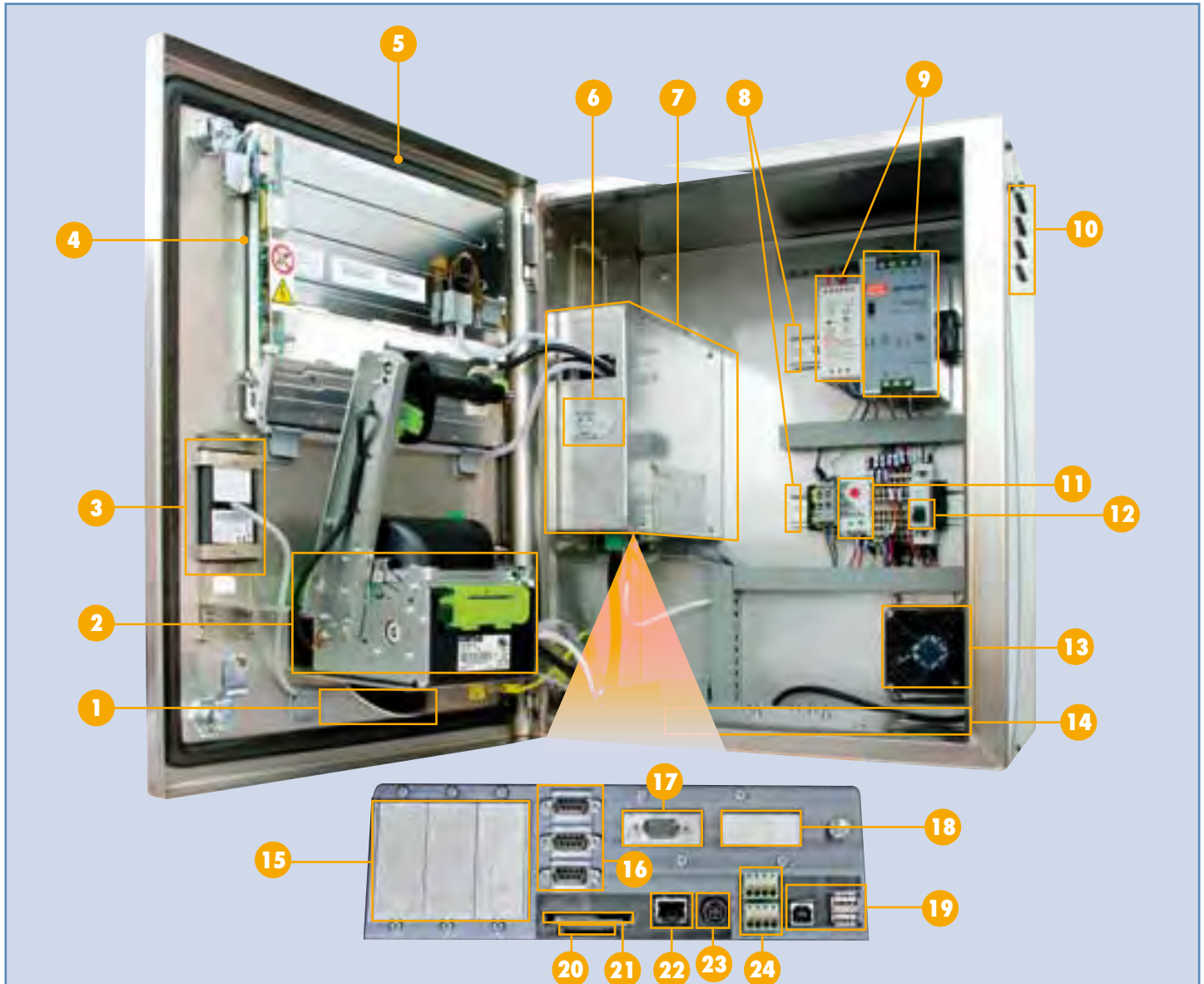
F) Management of transport documents for ship loading with automatic document printing system

G) Load control system for sale of products with bill of lading

H) Self service collection system for purification systems

TECHNICAL SPECIFICATIONS

- 500 MHz processor
- 128 MB ram
- 128 MB flash memory
- 12,1" colour display with touch screen
- Ethernet 10/100 output
- WIFI connection option
- 2 24V I/O ac/dc
- 1 memory card expansion slot: SD card, compact flash
- 3 expansion slots (for weighing machines, serial port, I/O, field buses, etc...)
- 12 VDC power supply, 110-230 VAC with external power supply
- CE approved up to 6000 divisions
 - Multidivision and Multirange versions (3x3000 or 2x4000)
- OIML certification
- NTEP approved



- | | | |
|---|--|--|
| 1 Uncollected receipts container | 11 Thermostat | 16 N.3 RS232/422/485 serial ports for connecting printers, repeaters, Personal Computers, Readers |
| 2 Printer and cutter unit | 12 Main switch | 17 Weighing machine 1 |
| 3 Slot for identification systems | 13 Cooling fan | 18 Weighing machine 2 |
| 4 Protective gasket for display | 14 Heating plate | 19 USB Ports |
| 5 Sealing gasket | 15 Slots for optional cards | 20 SD Card expansion slot |
| 6 CPU and display off key | | 21 Compact Flash expansion slot |
| 7 CPU unit and internal expansions | | 22 Ethernet 10/100 output |
| 8 Double DIN guide for accessories (modem UMTS, WIFI devices, etc) | | 23 12 VDC/5A power supply |
| 9 Power supply units | | 24 N. 2 24 VAC/DC Input/Outputs |
| 10 Ventilation fins | | |
| | 11 Thermostat | |
| | 12 Main switch | |
| | 13 Cooling fan | |
| | 14 Heating plate | |
| | 15 Slots for optional cards | |
| | 16 N.3 RS232/422/485 serial ports for connecting printers, repeaters, Personal Computers, Readers | |
| | 17 Weighing machine 1 | |
| | 18 Weighing machine 2 | |
| | 19 USB Ports | |
| | 20 SD Card expansion slot | |
| | 21 Compact Flash expansion slot | |
| | 22 Ethernet 10/100 output | |
| | 23 12 VDC/5A power supply | |
| | 24 N. 2 24 VAC/DC Input/Outputs | |

DD2050 IT WEIGHS YOUR TIME

OPTIONAL EXTRAS

SERIAL OUTPUT CARD

A card that makes it possible to manage two extra serial outputs in addition to the two already provided

- RS232, RS422 and RS485 formats
- Programmable Baud Rate

INPUT/OUTPUT CARD

- Each card provides 4 inputs and 6 outputs in addition to those already provided with the standard terminal
- Input: Vmax. 24 VDC optical isolation
- Output: Optomos Vmax 24 VAC/DC, I_{max} 190 mA

PROFIBUS CONNECTION CARD

Profibus network connection card

- Profibus DP functionality
- Galvanic isolation
- Data rate from 9,6 kbit/s to 12 Mbit/s

WIFI COMMUNICATIONS DEVICE

- 802.11 wireless data transmission device
- MODEM UMTS/GPRS/GSM for remote wireless management

USER IDENTIFICATION DEVICES

Optic, magnetic or radio frequency devices

AUDIO CARD

- 2x10 W mono/stereo audio outputs
- Microphone input

DIGITAL/INPUT/ANALOGUE OUTPUT CARD

Optional multifunctional card - particularly useful for process control

- 1 off 0-10 V / 4-20mA analogue output
- 4 off Fmax. 2 kHz pulse counter inputs
- 1 off 0-10 V / 4-20 mA analogue input

WEIGHING MACHINE INTERFACE CARD

Analogue:

- Internal resolution up to one million points
- Conversion speed up to 100 readings per second
- 10 VDC load cell power supply
- Configurable digital filters

Digital:

- RS485 interface with dedicated protocol
- Digital loadcell diagnostic management system (conversion, power, temperature etc.)
- Correction software for eccentric loads
- 10 to 18 VDC load cell power supply automatically in accordance to the cable length

SUPPORT POSTS

for weighing from the ground or from the vehicle

PROTECTIVE FRONT COVER

with lock

SIMPLE, FAST,
AUTONOMOUS,
CUSTOMIZED

MAIN FEATURES

ROBUST AND SUITABLE FOR ANY OPERATING ENVIRONMENT:

The height adjustable support post makes it possible to use the terminal from ground level or directly from the vehicle.

Designed using materials suitable for outdoor applications or for use in harsh and aggressive environments; it comes complete with protective cover and can be fitted with an anti-vandal door.

The DD 2050, constructed from **AISI 304 stainless steel**, is equipped with all the necessary features to guarantee maximum reliability, even in the harshest conditions.

When exposed to adverse climatic conditions, for example extreme heat or sub-zero temperatures, the tried and **tested thermoregulation system** ensures the instrument continues to operate correctly.

The indicator is designed to prevent the formation of internal condensation or excess temperatures that can adversely affect operating efficiency.

The instrument is also equipped with an 80 mm thermal printer for receipt printout.

This latest generation **printer is highly reliable**, featuring: automatic cutter, jam-proof system, paper pre-tensioning system, illuminated ticket delivery outlet and Automatic Status Backup System: if the receipt is not collected, it is retained within a secure container.

FAST AND SIMPLE TO USE:

The 12.1" colour "TOUCH SCREEN" display, with extended operating temperature range, is legible even in bright sunlight.

The screen layout can be readily personalized via the easy-to-understand icon graphics that make it very simple to use. Ease of use can be further enhanced by implementing the optional voice guidance feature.

MAXIMUM APPLICATION FLEXIBILITY:

DD2050 terminals are equipped with metrological software for weighing management.

Optional applications software makes it possible for users to customise all the functions and graphics

required for their own specific operations.

Further evidence of the system's optimum flexibility is the capability to be able to connect up to 4 scales with either digital or analogue load cells and

to identify the user via a range of devices:

- optic, proximity, magnetic
- the vehicle can be fitted with different types of badges, cards or keys
- scanner/bar code reader that can directly identify the code from any paper type (invoice, packing list, etc.)

TOTAL PROGRAMMABILITY:

the **SCALECORE** set of software components allows the applications used in industrial weighing environments to be **developed independently**; this creates a versatile modular structure with **personalised graphics** and the ability to manage, as required, the data and communications needed to operate the weighing equipment connected to the system.

NETWORKED COMMUNICATIONS:

The hardware configuration, together with the **programming power** of the DD 2050 terminal, ensures simple connectivity with customers' own networks without any difficulty. With the DD2050 it is possible to memorize the individual weight readings together with related data and then download it via a network/serial port card or with a UMTS/GPRS/ GSM wireless system.

DATA MANAGEMENT:

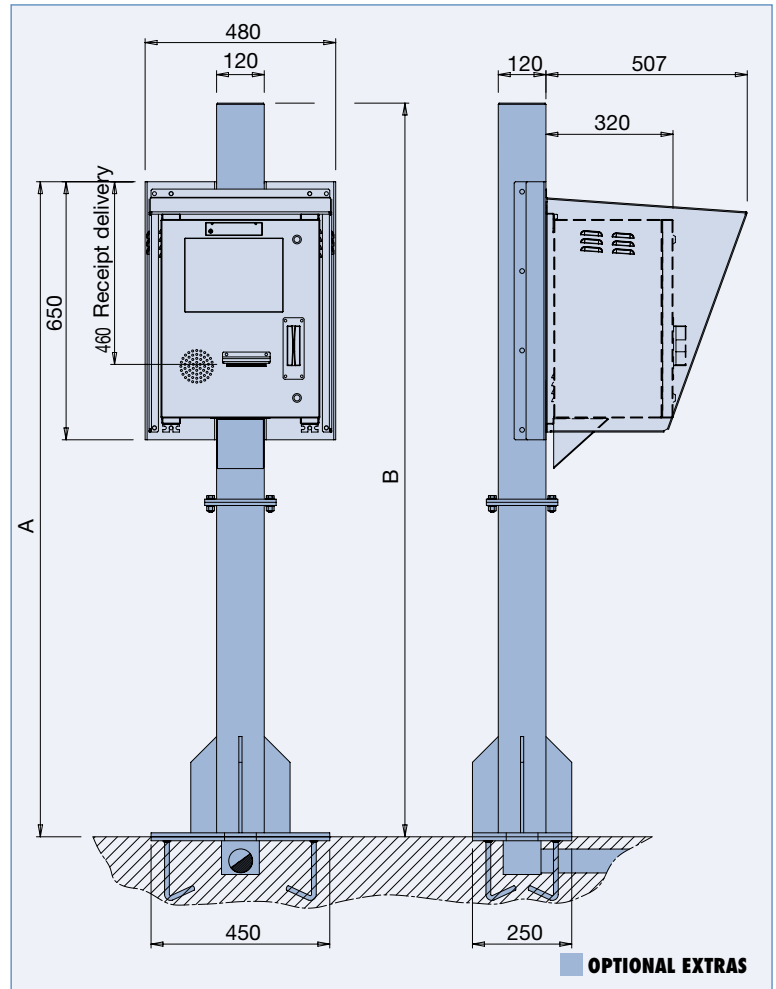
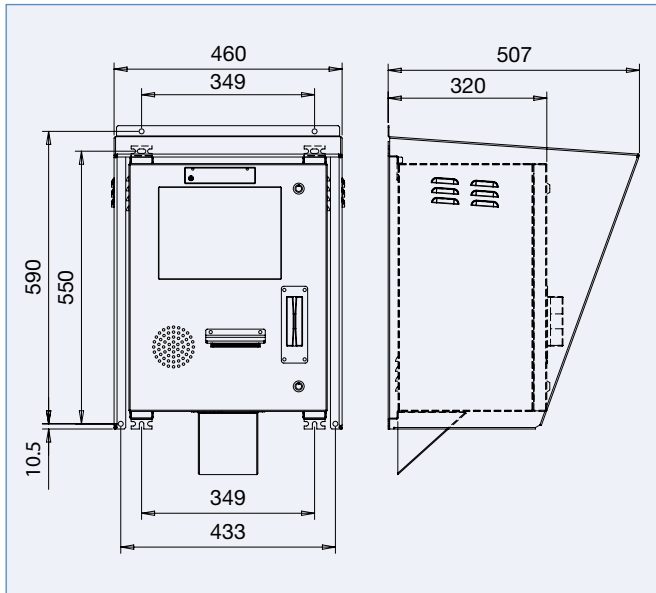
By using an SQL relational database, enhanced with remote connectivity options and flexible archive structuring, targeted data management can be achieved, thereby enabling the data in question to be easily exported to corporate databases.

MANAGEMENT FROM A PERSONAL COMPUTER:

SCALEWIZARD is the built-in PC software that makes it possible to manage the terminal with personalised display configurations, printouts and archives.

IT WEIGHS, MANAGES AND COMMUNICATES

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Model	Dimensions (mm)			
	A*			B
WEIGHING WITH USER IN THE VEHICLE	2480	2680	2880	2903
WEIGHING WITH USER ON THE GROUND	1775	1975	-	1798

* Adjustable post height