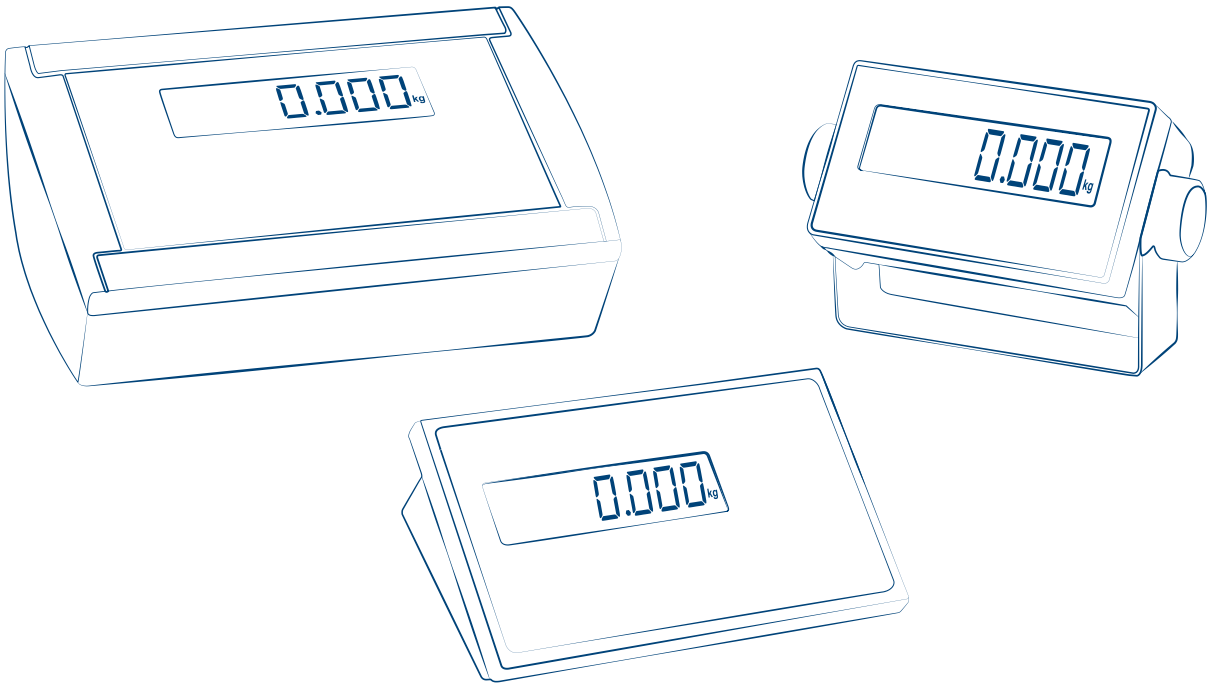
DINI ARGEO
Scales - Weighing systems

DFW - DFWL

SERIAL PROTOCOL

ENGLISH



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1. Format of the serial commands

This manual describes the available commands on DFW series scale instruments.
The commands are described following the typographical convention:

Description	Description of the command
Notes	Special notes, if needed

Format	C	M	D	X	Command given as sequence of characters
Where	x	Description of the command parameters, if present			

Answer	A	N	S	W	X	X	Command answer as sequence of characters
Where	xx	Description of the answer values, if present					

Example	Description of the example is necessary							
	Command	C	M	D	1	Example of a specific command		
	Answer	A	N	S	W	1	2	Answer to the specific command

The format of the commands is composed of:

- capital characters: compulsory characters
- lower case characters: parameters of the command/answer
- characters in square brackets ([x]): optional characters

Commands terminator characters
All the commands and the answers terminate with CR (decimal 13, hexadecimal 0D) LF (decimal 10, hexadecimal 0A) characters.
In the example given above the command and the answer will be:

Command CMD1<CR><LF>
Answer ANSW12<CR><LF>

To be more clear the example is given also in decimal and hexadecimal formats:

Command	ASCII	C	M	D	1	<CR>	<LF>		
	Decimal	67	77	68	49	13	10		
	Hexadecimal	43	4D	44	31	0D	0A		
Answer	ASCII	A	N	S	W	1	2	<CR>	<LF>
	Decimal	65	78	83	87	49	50	13	10
	Hexadecimal	41	4e	53	57	31	32	0D	0A

In the remaining part of the manual to be more concise the terminator characters are omitted.

2. 485 Communication

When the 485 mode is selected all the commands and the answers will have the selected address in front of them. All the commands with a 485 address different from the instrument scale one will be ignored.
Example of a command in 485 communication mode with address equal 01.

Command	**ASCII**	**0**	**1**	**C**	**M**	**D**	**1**	**<CR>**	**<LF>**		
	Decimal	48	49	67	77	68	49	13	10		
	Hexadecimal	30	31	43	4D	44	31	0D	0A		
Answer	**ASCII**	**0**	**1**	**A**	**N**	**S**	**W**	**1**	**2**	**<CR>**	**<LF>**
	Decimal	48	49	65	78	83	87	49	50	13	10
	Hexadecimal	30	31	41	4e	53	57	31	32	0D	0A

3. Command errors

Almost every command, if successfully executed, has its own answer. If the received command is not recognized or has a wrong format an error answer is sent back from the scale. The following table lists the error answers:

Answer							Description
E	R	R	0	1	<CR>	<LF>	Command format wrong
E	R	R	0	2	<CR>	<LF>	Command parameters error
E	R	R	0	3	<CR>	<LF>	Command not allowed in the scale state
E	R	R	0	4	<CR>	<LF>	An inexistent command has been transmitted.
E	R	R	0	5	<CR>	<LF>	There has been an error in the response of the indicator.
E	R	R	0	6	<CR>	<LF>	There has been an error in the checksum.

The following errors are specific in the case of weighs memory management (DFWPM10USB)

Answer							Description
E	R	R	-	1	<CR>	<LF>	Reading error.
E	R	R	-	2	<CR>	<LF>	The memory is not present.
E	R	R	-	3	<CR>	<LF>	Writing error.
E	R	R	-	4	<CR>	<LF>	Invalid index in the memory.
E	R	R	-	5	<CR>	<LF>	Full memory.
E	R	R	-	6	<CR>	<LF>	Error in writing the index of the memory.
E	R	R	-	7	<CR>	<LF>	Error in the stored years (max. 2 consecutive years).
E	R	R	-	8	<CR>	<LF>	Error in sending data (serial port busy).
E	R	R	-	9	<CR>	<LF>	Empty memory.
E	R	R	-	10	<CR>	<LF>	Invalid weight (unstable, less than allowed divisions, out of range or tilt of the scale).

Note: specific errors for the memory have an offset equal to 30 from the absolute value of the error and are transmitted on serial line on 2 hexadecimal digits (ex.: invalid weight error = 30 + abs(-10) = 40 becomes ERR 28 hexadecimal).

4. Available commands

VER - Instrument version

Description	Reading of the instrument model and firmware version

Format	V	E	R														

Answer	V	E	R	,	r	[r]	s	s	,	m	m	m	m	m	m	m	m

Where	r[r] Firmware major release in decimal value
	ss Firmware minor release
	m...m Model name on 8 characters

Example	DFW release 1.00 connected																
	Command	V	E	R													
	Answer	V	E	R	,	1	0	0	,	D	F	W	0	6			

READ - Weight read command

Description	Reading of the scale weight

Format	R	E	A	D	

Answer	STANDARD STRING (see the section “Communication strings”).

REXT- Weight read command

Description	Reading of the scale weights

Format	R	E	X	T	

Answer	EXTENDED STRING (see the section “Communication strings”).

REXD - Weight read command with date and time

Description	Reading of the scale weights

Format	R	E	X	D	

Answer	EXTENDED STRING (see the section “Communication strings”).

GR10- Weight read command in high resolution

Description	Get the net weight in high resolution
Note	The weight has 1 decimal more than the scale number of decimals

Format	G R 1 0 [x]
Where	x E to enable the compatibility mode of the REXT command with the old version 03.05. If the compatibility is enabled, in the answer, the weights are formatted of on 8 digits instead on 10 digits (as in new version). D to disable the compatibility mode disables the compatibility of the REXT command with the old version 03.05 (default).

Answer	x present	O K	
	x omitted	Compatibility mode disabled	
		s s , G X , w w w w w w w w w , u u	
		Compatibility mode enabled	
		s s , c , w w w w w w w w w u u	
Where	ss	T L	Tilt condition error
		O L	Over load condition
		U L	Under load condition
		S T	Weight stable
		U S	Weight unstable
	c	Selected scale (always 1)	
	w...w	Net weight in high resolution on 10 characters with decimal point and padded on front with blank spaces	
	uu	Unit of measure (“ g”, “kg”, “ t”, “lb”)	

Example 1	Enables compatibility mode	
	Command	G R 1 0 E
	Answer	O K
Example 2	Weight in high resolution with compatibility mode disabled	
	Command	G R 1 0
	Answer	S T , G X , 1 . 0 0 0 0 , k g
Example 3	Weight in high resolution with compatibility mode enabled	
	Command	G R 1 0
	Answer	S T , 1 , 1 . 0 0 0 0 k g

MVOL – Microvolts read command

Description	Reading command of microvolts relative to the weight

Format	M V O L

Answer	STANDARD STRING (see the section “Communication strings”).

T - Semi automatic tare function

Description	Semi automatic tare function

Format	T

Answer	No answer

Example	Command	T
	Answer	No answer

TARE - Semi automatic tare function

Description	Semi automatic tare function

Format	T A R E

Answer	O K

Example	Command	T A R E
	Answer	O K

TMAN - Preset tare function

Description	Preset tare function

Format	T M A N t t t t t t t t	
Where	t...t	Tare to set with decimal point on up to 8 characters

Answer	O K	The instrument's response does not mean necessarily that the instrument executes the tare.

Example 1	Sets a preset tare equal to 1.5 kg	
	Command	T M A N 1 . 5
	Answer	O K
Example 2	Sets a preset tare equal to 10 kg	
	Command	T M A N 1 0
	Answer	O K

Z - Zero scale function

Description	Zero scale function
Format	Z
Answer	No answer

Example	Command	Z
	Answer	No answer

ZERO - Zero scale function

Description	Zero scale function
Format	Z E R O
Answer	O K

Example	Command	Z E R O
	Answer	O K

C - CLEAR key

Description	Simulates the pressure of the CLEAR key
Format	C
Answer	No answer

Example	Command	C
	Answer	No answer

CLEAR - CLEAR key

Description	Simulates the pressure of the CLEAR key

Format	C	L	E	A	R	

Answer	O	K	

Example	Command	C	L	E	A	R		
	Answer	O	K					

ECHO - Echo of the received characters

Description	Echo of the received characters

Format	E	C	H	O	[c	...	c]	
Where	c...c Arbitrary characters							

Answer	E	C	H	O	c	...	c	
Where	c...c Same characters of the received command							

Example	Command	E	C	H	O	A	B	C	D	
	Answer	E	C	H	O	A	B	C	D	

ALIM - Reading of power supply and battery levels

Description	Reading of power supply and battery levels

Format	A	L	I	M	[N]	
Where	N: character 'N'. If present the command answer will have the millivolt values.					

Answer	P	W	:		x	...	x		B	T	:		y	...	y

Where	x...x Decimal value			
	y...y Decimal value			
		ALIM		ALIMN
		Description	Values	Description	Range
	x...x	Power supply connection	0: power supply disconnected 1: power supply connected	Power supply voltage in millivolt	>= 0
	y...y	Battery value	0 ~ 9 0: discharged 9: charged	Battery voltage in millivolt	>= 0

Example 1	Command	A	L	I	M													
	Answer	P	W	:		1		B	T	:		6						
Example 2	Command	A	L	I	M	N												
	Answer	P	W	:		1	2	9	2	0		B	T	:		6	5	0	1

RAZF - ADC value

Description	Get the ADC value of the selected instrument channel

Answer	Instrument response in "IND.CH." mode: STANDARD STRING (see the section "Communication strings"). Instrument response in "DEP.CH." mode: see the response of the RAZM - ADC value command.

RAZM - ADC value

Description	Get the ADC value of all channels

Format	R	A	Z	M	

Answer	Independent channels working mode																				
	s	s	,	R	Z	,	d	d	d	d	d	d	d	d	d	d	,	v	v		
Where	Dependent channels working mode																				
	R	Z	,	v^1	v^1	v^1	v^1	v^1	v^1	v^1	v^1	v^1	v^1	v^1	,	v^2	v^2	v^2	v^2	v^2	v^2	v^2
	v^2	v^2	v^2	,	v^3	v^3	v^3	v^3	v^3	v^3	v^3	v^3	v^3	v^3	,	v^4	v^4	v^4	v^4	v^4	v^4
	v^4	v^4	v^4	v^4	,	v	v														
	ss		T	L	Tilt condition error																
			O	L	Over load condition																
			U	L	Under load condition																
			S	T	Weight stable																
			U	S	Weight unstable																
	d...d		ADC value on 10 characters padded on front with blank spaces																		
	v_i... v_i		ADC value of the i-th channel in dependent channels working mode																		

Example 1	ADC voltage value equal to 450000 in independent channels working mode																				
	Command	R	A	Z	M																
	Answer	S	T	,	R	Z	,					4	5	0	0	0	0	,	v	v	
Example 2	Reading of the 2 configured channels ADC values in dependent channels working mode, 1st channel ADC value = 15000, 2nd channel ADC value = 20000																				
	Command	M	V	O	L																
	Answer	R	Z	,							1	0	0	0	,						
			2	0	0	0	,	v	v												

STPT - Setpoint setting

Description	Setpoint setting
Note	The transmitted values are valid until the indicator is turned off. To permanently save these on the instrument one should use the saving command (CMDSAVE). If one wants to save various set points one should set all of them and at the end transmit the saving command.

Format	S	T	P	T	n	t	x	x	x	x	x	x	t	y	y	y	y	y	y

Where	n	Index of the digital output related to the setpoint format (0÷3) 0 to set the setpoint 1, 3 to set setpoint 4
	t	O: The following value is the on setpoint one
		F: The following value is the off setpoint one
	x...x y...y	Setpoint weight values in decimal format with no decimals on up to 6 digits. If the scale has 3 decimals and the setpoint value is to be set equal 1.000 kg set xxxx (or yyyy) equal to 1000
	NOTE: if the setpoint hysteresis is disabled the off value is ignored but must be less than the on value.	

Answer	O	K	

Example	Sets the on value of the 2nd setpoint equal to 2.000 kg and the off value equal to 1.900 kg in a scale calibrated with 3 decimals															
	Command	S	T	P	T	1	0	2	0	0	0	F	1	9	0	0
	Answer	O	K													

TATO - Command for setting the activation, target and tolerance

Description	Command for setting the activation, target and tolerance
Note	Only by the tolerance Check mode. The transmitted values are valid until the indicator is turned off. To permanently save these on the instrument one should use the saving command (CMDSAVE). If the “KKKKK” tolerance is omitted, the “ZZZZZZ” tolerance is considered as both the lower one as well as the upper one.

Format	T	A	T	O	,	X	X	X	X	X	X	,	Y	Y	Y	Y	Y	Y	,
	Z	Z	Z	Z	Z	Z	,	K	K	K	K	K	K						

Where	XXXXXX	is the activation threshold without decimal point
	YYYYYY	is the target weight without decimal point
	ZZZZZZ	is the lower tolerance without the decimal point
	KKKKK	is the upper tolerance without the decimal point

Answer	O	K	

Example	Setting the activation equal to 0.020 kg, target equal to 2.000 and tolerances equal to 0.100																		
	T	A	T	O	,		0	.	0	2	0	,		2	.	0	0	0	,
		0	.	1	0	0	,		0	.	1	0	0						

TLCK - Tare function status

Description	Tare function status

Format	T	L	C	K	

Answer	T	L	C	K	e	
Where	e E Tare locked D Tare unlocked					

Example	Tare disable						
	Command	T	L	C	K		
	Answer	T	L	C	K	D	

TLCKe - Tare function programming

Description	Tare function programming
Note	The transmitted values are valid until the indicator is turned off. To permanently save these on the instrument one should use the saving command (CMDSAVE).

Format	T	L	C	K	e	
Where	e E To lock the tare D To unlock the tare					

Answer	O	K	

Example	Tare locked						
	Command	T	L	C	K	D	
	Answer	O	K				

CMDSAVE - Data saving command

Description	Data saving command

Format	C	M	D	S	A	V	E

Answer	O	K	

Example	Data saving command								
	Command	C	M	D	S	A	V	E	
	Answer	O	K						

NTGS – NET / GROSS Switch

Description	Switches the main weight display value from gross to net and vice versa
Note	The command is executed only if one is in the "Net / Gross switch" functioning mode, F .ModE >> Funct = ntGS.

Format	N	T	G	S	

Answer	O	K

Example	Command	N	T	G	S	
	Answer	O	K			

PRNT - Simple print function

Description	Simple print function execution

Format	P	R	N	T	

Answer	O	K

Example	Command	P	R	N	T	
	Answer	O	K			

DISP - Displays of a message on the display

Description	Displays of a message on the display
Note	The message is displayed for the interval time set with the DINT command In the case in which the display shown in the command is of the numeric type (for example the standard display 00), and if in the transmitted message there are two consecutive points the message is stopped after the first of the two points. When the display is showing a message transmitted serially through the DISP command, the indicator does not display those messages usually shown in the scale status (ZERO, TARE, HOLD, ...). With approved instrument one needs to wait for the end of the current visualisation before being able to view the next one.

Format	D	I	S	P	0	0	c	...	c
Where	c...c Message to display								

Answer	O	K

Example	Displays the message "- OK -" on the display												
	Command	D	I	S	P	0	0	-		O	K		-
	Answer	O	K										

DINT - Interval of the message of the DISP command

Description	Sets the interval of the message displayed with the DISP command
Note	Value 0 sets an infinite interval **With approved instrument** the minimum settable time is 1 millisecond (0001HEX), and maximum settable time is 5 seconds (5000 milliseconds, 1388 HEX).

Format	D	I	N	T	t	t	t	t	
Where	tttt Message interval time in milliseconds express in hexadecimal format								

Answer	O	K

Example	Sets a message interval time of 1 second (1000 ms, 03E8 hex)									
	Command	D	I	N	T	0	3	E	8	
	Answer	O	K							

PCOK - PC confirmation command

Description	PC confirmation command: the indicator shows on the display the "-PCOK-" message for about 2 seconds.

Format	P	C	O	K	

Answer	O	K

Example	Command	P	R	O	K	
	Answer	O	K			

SPMU - Average piece weight setting

Description	Sets the average piece weight in the set AVG unit
Note	Only for the counting operating mode The APW are not accepted in the SPMU.12<CRLF> format; these must be in the SPMU0.12<CRLF> format. The APW are not accepted equal to zero.

Format	S	P	M	U	x	...	x
Where	x...x Average piece weight value with decimal point on up to 8 characters						

Answer	O	K

Example	Sets an average piece value equal to 10.5								
	Command	S	P	M	U	1	0	.	5	
	Answer	O	K						

STAT - Instrument working state

Description	Reading of the instrument working state

Format	S	T	A	T	

Answer	S	T	A	T	x	x	
Where	xx State index in decimal format (see TABLE)						

Example	Instrument in the scale state							
	Command	S	T	A	T			
	Answer	S	T	A	T	0	1	

Index	State
00	normal scale status
01	normal scale status in input
02	instrument in technical set-up
03	instrument in boot phase
04	instrument in rx/tx set-up phase
05	instrument in test phase of the serial ports
06	instrument in print test

KEYP - Simulation of a key/button pressure

Description	Simulation of a key/button pressure
Note	In case the simulated key has two linked functions (key briefly pressed or at length, like the TARE key), if the KEYP command is followed by the release command of the (KEYR) key within a maximum time of 1,5 seconds, the simple function will be executed (key briefly pressed); otherwise the second function will be made (key pressed at length).

Format	K	E	Y	P	x	x	
Where	xx Key code in hexadecimal format (see Table)						

Answer	O	K	

Example	Simulation of the pressure of the ZERO key							
	Command	K	E	Y	P	0	4	
	Answer	O	K					

Key code	Key
00	00: MODE key;
01	01: F key;
02	02: ENTER key;
03	03: TARE key;
04	04: scale ZERO key;
05	05: numeric 0 key;
06	06: numeric 1 key;
07	07: numeric 2 key;
08	08: numeric 3 key;
09	09: numeric 4 key;
0A	0A: numeric 5 key;
0B	0B: numeric 6 key;
0C	0C: numeric 7 key;
0D	0D: numeric 8 key;
0E	0E: numeric 9 key;
0F	0F: INFO key;
10	10: C key.

KEYR - Simulation of the release of the key

Description	Simulation of the release of the key

Format	K	E	Y	R	

Answer	O	K	

Example	Command	K	E	Y	R	
	Answer	O	K			

KEYE - Keyboard status

Description	Keyboard status

Format	K	E	Y	E	

Answer	K	E	Y	E	e	
Where	e E the keyboard is enabled D the keyboard is disabled					

Example	Keyboard disable						
	Command	K	E	Y	E		
	Answer	K	E	Y	E	D	

KEYEe - Keyboard enable

Description	Keyboard enable
Note	The transmitted values are valid until the indicator is turned off. To permanently save these on the instrument one should use the saving command (CMDSAVE).

Format	K	E	Y	E	e	
Where	e E to enable the keyboard D to disable the keyboard					

Answer	O	K	

Example	Keyboard disable						
	Command	K	E	Y	E	D	
	Answer	O	K				

RALL - Reading of the scale data

Description	Reading of all scale data

Format	R	A	L	L	

Answer	s	s	,	c	,	n	n	n	n	n	n	n	u	u	,	g	g	g	g	g	g	g	u	u
	,	p	p	t	t	t	t	t	t	t	u	u	,	t_n	t_n	t_n	t_n	t_n	t_n	t_n	u_n	u_n	,	s_s
	s_s	s_s	,	c_k	c_k	c_k	,	k	k	k	,	n	n	n	,	r	r	r	r	r	-	d	d	d
	d	d	d																					

Where			
	ss	T	L	Tilt condition error
		O	L	Over load condition
		U	L	Under load condition
		S	T	Weight stable
		U	S	Weight unstable
	c	Number of scale (always 1)	
	n...n	Net weight on 7 characters	
	uu	Unit of measure (“ g”, “kg”, “ t”, “lb”)	
	g...g	Gross weight on 7 characters	
	uu	Unit of measure (“ g”, “kg”, “ t”, “lb”)	
	pp	Tare type (“ ” with semi-automatic tare, “PT” with preset tare	
	t...t	Tare value on 7 characters	
	uu	Unit of measure (“ g”, “kg”, “ t”, “lb”)	
	t_n...t_n	Last totalization net weight on 7 characters	
	u_tu_t	Last totalization unit of measure (“ g”, “kg”, “ t”, “lb”)	
	$s_ss_ss_s$	Scale state, decimal value on 3 digits padded with zeroes on front 000 weighing 001 numeric value input 002 set-up menu	
	$c_kc_kc_k$	Pressed keys counter, decimal value on 3 digits padded with zeroes on front (*)	
	kkk	Pressed key code, decimal value on 3 digits padded with zeroes on front	
	nnn	Number of totalizations, decimal value on 3 digits padded with zeroes on front	
	r...r	Alibi rewrite ID value on 5 digits padded with zeroes on front	
		Alibi ID value on 6 digits padded with zeroes on front	

Example	Last totalization net is 3.500 kg																							
	Command						R	A	L	L														
	Answer																							
	S	T	,	1	,			3	.	5	0	0	k	g	,			5	.	0	0	0	k	g
	,	P	T			1	.	5	0	0	k	g	,			3	.	5	0	0	k	g	,	
		1	,	0	1	5	,	0	5	5	,	0	0	3	,	0	0	0	0	0	-	0	0	0
	0	0	2																					

PID - Stores weigh data in the alibi memory

Description	Stores weigh data in the alibi memory and get alibi ID value

Format	P	I	D	

Answer	P	I	D	s	s	,	c	,	w	w	w	w	w	w	w	w	w	u	u	,	p	p	t
	t	t	t	t	t	t	t	t	t	u	u	,	r	r	r	r	r	-	n	n	n	n	n	n

Where				
	ss	T	L	Tilt condition error
		O	L	Over load condition
		U	L	Under load condition
		S	T	Weight stable
		U	S	Weight unstable
	c	Scale number (always 1)		
	w...w	Gross weight on 10 characters padded with blank spaces on front		
	uu	Unit of measure (“ g”, “kg”, “ t”, “lb”)		
	pp	Tare type (“ ” with semi-automatic tare, “PT” with preset tare		
	t...t	Tare value		
	r...r	Alibi rewrite ID value on 5 digits padded with zeroes on front		
	n...n	Alibi ID value on 6 digits padded with zeroes on front		
	In case of error with no weight data stored in alibi memory in place of rrrrr-nnnnnn there is	N	O	

Example	Data stored in alibi with a gross weight equal to 15 kg and a preset tare of 1 kg																						
	Command						P	I	D														
	Answer																						
	P	I	D	S	T	,	1	,					1	5	.	0	0	0	k	g	,	P	T	
					1	.	0	0	0	k	g	,	0	0	0	0	0	-	0	0	0	0	0	5

PIDD - Stores weigh data in the alibi memory with date and time

Description	Stores weigh data in the alibi memory, get alibi ID value, date and time

Format	P	I	D	D	

Answer	P	I	D	s	s	,	c	,	w	w	w	w	w	w	w	w	w	u	u	,	p	p	t
	t	t	t	t	t	t	t	t	t	u	u	,	r	r	r	r	r	-	n	n	n	n	n	n
	d	d	/	m	m	/	y	y	b	b	h	h	:	m	m	:	s	s						

Where				
	ss	T	L	Tilt condition error
		O	L	Over load condition
		U	L	Under load condition
		S	T	Weight stable
		U	S	Weight unstable
	c	Scale number (always 1)		
	w...w	Gross weight on 10 characters padded with blank spaces on front		
	uu	Unit of measure (“ g”, “kg”, “ t”, “lb”)		
	pp	Tare type (“ ” with semi-automatic tare, “PT” with preset tare		
	t...t	Tare value		
	r...r	Alibi rewrite ID value on 5 digits padded with zeroes on front		
	n...n	Alibi ID value on 6 digits padded with zeroes on front		
	d...y	Date in the “dd/mm/yy”		
	bb	2 space characters, 32 decimal ascii character		
	h...s	Time in the “hh:mm:ss” format		
	In case of error with no weight data stored in alibi memory in place of rrrrr-nnnnnn there is	N	O	
	In the case in which the date/time is not detected or set, the weight is transmitted but not the date and time; “NO DATE TIME” is in its place.			

Example	Data stored in alibi with a gross weight equal to 15 kg and a preset tare of 1 kg																						
	Command			P	I	D	D																
	Answer																						
	P	I	D	S	T	,	1	,					1	5	.	0	0	0	k	g	,	P	T	
					1	.	0	0	0	k	g	,	0	0	0	0	0	-	0	0	0	0	0	5
	2	1	/	0	5	/	1	4	/			0	9	:	4	3	:	1	7					

ALRD - Alibi memory reading

Description	Alibi memory reading

Format	A L R D w w w w w - n n n n n n	
Where	wwwww	Rewrite id (decimal value on 5 digits padded on front with zeroes)
	nnnnnn	Alibi id number (decimal value on 6 digits padded on front with zeroes)

Answer	s , w w w w w w w w w w u u , p p t t t t t t t t t u u	
	s	Scale number (always 1)
	wwwwwwwwww	Gross weight (decimal value with decimal point on 10 characters padded on front with blanks)
	uu	Unit of measure (“ g”, “kg”, “ t”, “lb”)
	pp	Tare type (2 blank spaces with no tare or semi-automatic tare, “PT” with preset tare)
	ttttttttt	Tare value (decimal value with decimal point on 10 characters padded on front with blanks)

Example	Command	A L R D 0 0 0 0 0 - 0 0 0 0 0 1
	Answer	
	1 , 2 . 0 0 0 k g , P T 1 .	
	0 0 0 k g	

ALDL - Clearing of the alibi memory

Description	Clearing of the alibi memory
Note	Not allowed in legal for trade instruments and if the scale is not in the weighing state

Format	A L D L

Answer	A L D L O K

Example	Command	A L D L
	Answer	A L D L O K

5. Communication strings

Short string

01ST,GS, 0.0,kg<CR><LF>

where

01	Code 485 of the instrument (2 characters), only if communication mode 485 is enabled
ST	Scale status (2 characters): US - Weight unstable ST - Weight stable OL - Weight overload (out of range) UL - Weight underload (out of range) TL - Scale not level (inclinometer active)
,	ASCII 044 character
GS	Type of weight data (2 characters)
,	ASCII 044 character
0.0	Weight (8 characters including the decimal point)
,	ASCII 044 character
kg	Unit of measurement (2 characters)
<CR><LF>	Transmission terminator, characters ASCII 013 and ASCII 010

Extended string

011,ST, 0.0,PT 20.8, 0,kg<CR><LF>

where

01	Code 485 of the instrument (2 characters), only if communication mode 485 is enabled
1	ASCII 049 character
,	ASCII 044 character
ST	Scale status (2 characters): US - Weight unstable ST - Weight stable OL - Weight overload (out of range) UL - Weight underload (out of range) TL - Scale not level (inclinometer active)
,	ASCII 044 character
0.0	Net weight (10 characters including the decimal point)
,	ASCII 044 character
PT	Indication of pre-set manual tare (2 characters)
20.8	Tare weight (10 characters including the decimal point)
,	ASCII 044 character
0	Number of pieces (10 characters)
,	ASCII 044 character
kg	Unit of measurement (2 characters)
<CR><LF>	Transmission terminator, characters ASCII 013 and ASCII 010

NOTES

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DINI ARGEO
Scales - Weighing systems

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