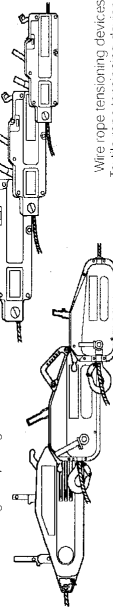


OTHER MACHINES AND LIFTING ACCESSORIES

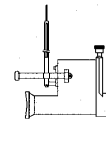
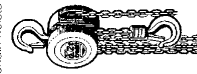
TIRFOR lifting and pulling machines



Wire rope tensioning devices
Textile rope tensioning devices



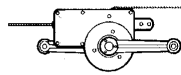
TRALIFT
chain hoists



Hydraulics jacks



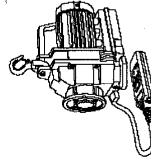
Mechanical
jacks



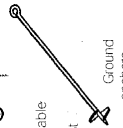
SCAFOR
manual
reeling
hoist



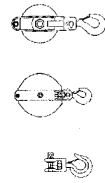
BRAVO
lever hoist



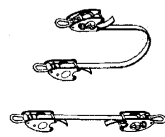
MINIFOR portable
electric
wire rope hoist



Ground
anchors



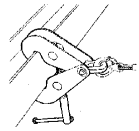
Hooks and pulleys



LOCKAY adjustable slings



Slings



CORSO beam clamps

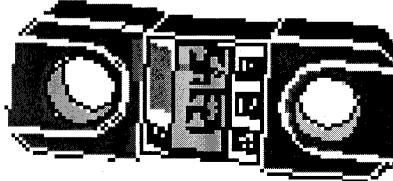
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dynafor®

LCD load indicating devices with radio transmission
LLX - TR range



CE
equipment in
accordance with
CE directives

operating
and
maintenance
instructions

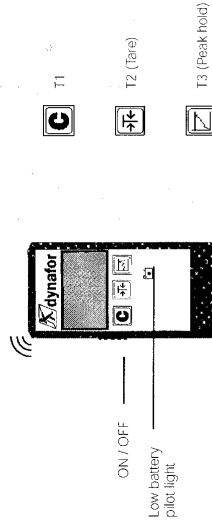
Tractel Group®

V-5 OTHER EQUIPMENT AND FUNCTIONS

5-1 Hand held display radio receiver

- On the rear of the hand held display there is a hinged flap to allow the display to stand on a table in an inclined position or to attach to a belt. To open or close the hinged flap, **Do not attempt to force it**, but follow the procedure in later on the flap itself.
- A single model of hand held display suits all units of the DYNAFOR® LLX-TR range.
- The height of the LCD digits is 18 mm.
- The unit is powered by 9V - 6LR61.
- The hand held display has a red pilot light to indicate low battery condition.

N.B. : Please carefully read the following instructions before using the hand held display.



The DYNAFOR® LLX-TR must be set up in C4-1 **BEFORE** turning on the hand held display radio receiver (see section 2-2.2 use of radio transmission). All the functions and controls are available from the hand held display radio receiver (in combination with the infrared receiver on the DYNAFOR® LLX-TR).

The button T1 on the hand held display radio receiver is used for starting and stopping the DYNAFOR® LLX-TR remotely. The ON/OFF switch of the hand held display radio receiver is on the side of the case.

The push-button controls on the hand held display radio receiver are the same as on the DYNAFOR® LLX-TR itself. To operate, slide to the ON position the ON/OFF switch on the side of the case. During operation, the same value is displayed both on the DYNAFOR® LLX-TR and on the remote hand held display radio receiver.

To switch off, slide the ON/OFF switch on the side of the case to the OFF position.

N.B. : If the configuration "use of the radio transmission" C4 is confirmed as C4-0 or C4-2, it is no longer possible to use the hand held display radio receiver. To reuse this function, turn off the hand held display radio receiver and reconfigure the DYNAFOR® LLX-TR to C4-1 (see section 2-2.2 a use of radio transmission).

To indicate the correct operation of the radio transmission, the unit of measurement on the display of the hand held display flashes.



to 1-2 Description and marking

Set up of the various functions and operation of the DYNAFOR® LLX-TR are all possible by use of a sequence of operations of the 3 push-button controls on the front of the unit.

The DYNAFOR® LLX-TR load indicator is supplied by 3 x 1.5V AA or LR6 type batteries which have an operating life up to 100 hours when the unit is set to update the display every second (configuration C2-2). The batteries should be in the correct position indicated at the back of the battery pocket.

When the batteries become low, there is an indication for "low battery condition" on the display;



When the low battery condition is shown, the batteries should be replaced immediately although the unit will continue to operate correctly until the unit is switched off. If the batteries are exhausted, the unit will fail to start up again when the ON/OFF button is pressed.

N.B. : Look after your DYNAFOR® LLX-TR. Use only sealed, leak-proof batteries.

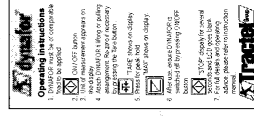
The radio link allows the use, according to his need, to transmit the load measured to

- a portable hand held display
- a P.C.
- a portable printer

All the above equipment is described in this manual.

A label attached to the side of the machine sets out :

- the main advice,
- the operating instructions,
- the use of the push-buttons
- CE marking.



1-3 Accessories

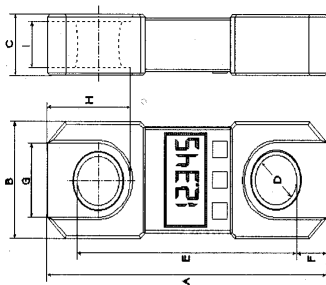
To install the DYNAFOR® LLX-TR within a lifting or a pulling system, use anchor shackles and/or swivel hooks which have been specially selected for use with DYNAFOR® LLX-TR units and detailed in our catalogue.

If you need to use the machine in a specific arrangement, the best results of the DYNAFOR® LLX-TR are obtained with anchor pins of the same diameter as the recommended anchor shackles.



2- TECHNICAL DATA

2-1 Specification and dimensions



Model	LLX-0.25	LLX-0.5	LLX-1.25	LLX-2.5	LLX-5	LLX-12.5	LLX-25	LLX-50	LLX-100	LLX-250
Capacity	0.25	0.5	1.25	2.5	5	12.5	25	50	100	250
Accuracy	±0.5	±1	±2.5	±5	±10	±25	±50	±100	±200	±500
Stroke/displacement	0.1	0.2	0.5	1	2	5	10	20	50	100
Test load	0.5	1	2.5	5	10	25	50	85	145	333
Max. display	250.0	500.0	1250.0	2500	5000	12500	25000	50000	100000	250000
Height of digits	18	18	18	18	18	25	25	25	25	44
Weight	1.1	1.1	1.1	1.4	1.9	3.8	6.6	15.1	46	115
Material	Aluminum alloy									
Dimensions										
A	130	190	190	214	226	310	380	440	660	955
B	83	83	83	83	90	110	134	164	260	414
C	56	56	56	56	56	58	68	98	112	248
D	16	16	16	24	32	47	56	72	106	190
E	166	166	166	184	197	243	272	332	488	685
F	12	12	12	15	14.5	33.5	44	54	86	110
G	47	47	47	47	54	70	84	104	174	250
H	43	43	43	50	58	92	114	142	227	310
I	16	16	16	25	32	48	59	86	104	190
J	76	76	76	76	76	75	76	76	76	76

b. Peak Hold



This function holds on the display the maximum load applied (e.g. in a break test or a dynamic load which is reached momentarily and may not be seen).

With the unit switched on, press the Peak Hold button (T3). Max appears on the lower portion of the display.



Press the Peak Hold button T3 a second time to return the display to the current load applied, if any.

N.B. : The Peak Hold button function automatically over-rides the response rate (programme C2 of the unit configuration) held in the memory so that there is virtually continuous monitoring of the load. The display is updated 40 times per second.

2-2.4 Stop



To switch off the unit, press T1 button.



The display will show : -5-OP- for a few seconds and then go blank.

2-3 Storage / Transport

When the DYNAFOR® LLX-TR is not in use, it is recommended that the unit should be stored in its packing case for storage and/or transport, together with the hand held display.

Should the unit be not used for a prolonged period, it is advisable to remove the batteries.

3- SAFETY

The DYNAFOR® LLX-TR is designed to operate within an ambient temperature range of -10°C to +40°C. For operation at the temperatures greater than +40°C, the unit should be protected by a thermal screen or cooling cover.

6- MAINTENANCE

The DYNAFOR® LLX-TR does not require any particular maintenance other than regular cleaning of the outside surface. Should the unit be stored for a long period, remove the batteries from the DYNAFOR® LLX-TR and hand held display receiver. Store it in cool dry place.

7- STATUTORY CONTROLS

It is recommended that the user should have the DYNAFOR® LLX-TR recalibrated annually. Recalibration can be done by TRACTEL S.A. at Saint-Hilaire-sous-Romilly, or contact your supplier for advice. The frequency of recalibration is linked to the level of usage, but should not, in accordance with the standard NF-AQ3-510 paragraph 6.3.2, exceed 26 months.

8- TROUBLE SHOOTING

On the DYNAFOR® LLX-TR on its own :

Problem	Cause	Remedy or Action
Nothing is displayed when switching ON	Power supply problem.	Check the positioning, connections and condition of the batteries.
If the display shows : 	Deformed test body or fault in the strain gauges	Return the DYNAFOR® LLX-TR to the After Sales Service Department.

Radio remote display :

Problem	Cause	Remedy or Action
The display of the remote display only shows the TEST procedure (i.e. all the segments are displayed)	The link between the remote display and the DYNAFOR® LLX-TR has not been made	Check: - That the unit is on - That the configuration of the DYNAFOR® LLX-TR is C4 - 1, for operation with a remote display (See section 2.2.2 use of radio transmission)
The display of the radio remote display does not change.	Communication between the radio remote display and the DYNAFOR® LLX-TR has interrupted.	Check that : - the unit is operating - the user is not beyond the transmission range The connection is on stand by Press one of the buttons on the radio remote display to restart the connection.

GENERAL WARNING

- 1 - Before using the DYNAFOR® LLX-TR, it is essential for the safe and correct operating of the equipment that this manual be read and fully understood and that all the instructions be followed. This manual should be made available to every operator. Extra copies of this manual will be supplied on request.
- 2 - DYNAFOR® LLX-TR units are used in lifting applications which require complete safety of operation. Therefore, ensure that this unit is only handed over for use or rigging to an operator who is trained to operate it in a safe and responsible manner.
- 3 - Never apply to the DYNAFOR® LLX-TR a load or effort greater than the working load limit and never use it for an application for which it is not intended. Never apply twisting or flexing efforts to the DYNAFOR® LLX-TR, apply only traction efforts.
- 4 - Ensure that your equipment is not subjected to knocks, particularly to the front display and the side areas.
- 5 - Ensure that your equipment is not handed to any unauthorised persons. Never use a unit that is not in apparently good condition.
- 6 - TRACTEL S.A. declines any responsibility for the consequences of dismantling or latering the unit by any unauthorised person..
- 7 - DYNAFOR® LLX-TR units must not be used in explosive atmospheres.
- 8 - DYNAFOR® LLX-TR must not be used in systems for lifting people without having previously checked the compatibility of the operating coefficients and having completed an analysis of the specific risks. Appropriate measures should be taken to eliminate the risks.
- 9 - Any operating of the DYNAFOR® LLX-TR complementary equipment relaying the signals to another operating system should be preceded by the user or the assembler of the system, of an analysis of the specific risks of the operating functions. Appropriate measures should be taken to eliminate the risks.