LINEAR OSCILLATOR FOR WELYCAR

OSCI-WELDY

SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE

EDITION : EN
REVISION : E
DATE : 10-2018

Instructions for use

REF : **8695 5877**

Original Instructions

LINCOLN® ELECTRIC

Thank for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.

Its design, component specifications and workmanship comply with applicable European directives.

Please refer to the enclosed CE declaration to identify the directives applicable to it.

The manufacturer will not be held responsible where items not recommended by themselves are associated with this product.

For your safety,there follows a non-restrictive list of recommendations or requirements, many of which appear in the employment code.

Finally we would ask you kindly to inform your supplier of any error which you may find in this instruction manual.

CONTENTS

INFORMATIONS

DISPLAYS AND PRESSURE GAUGES

The measuring devices or displays for voltage, current, speed, pressure, etc., whether analog or digital, should be considered as indicators

REVISIONS

REVISION B **01/10**

DESIGNATION	PAGE
Reference update	F15

REVISION C **07/10**

DESIGNATION	PAGE
Update	C3; E10

REVISION D **04/13**

DESIGNATION	PAGE
Spare parts	

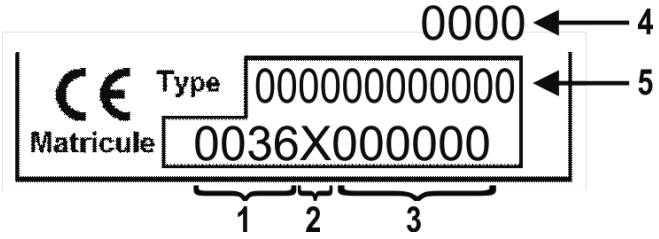
REVISION E **10/18**

DESIGNATION	PAGE
To change logos	

A - IDENTIFICATION

Please enter the number of your equipment in the following box.

Quote this information in all correspondence.



1	Manufacturing factory code	**4**	Year manufactured
2	Manufacturing year code	**5**	Product type
3	Product serial no.		

B - SAFETY INSTRUCTIONS

ELECTROMECHANICAL EQUIPMENT USED AS THE SUBASSEMBLY OF AN INSTALLATION.

- This equipment can be associated with a welding installation, in which case it is covered by safety instructions described in the instructions for the welding installation

- If this equipment is used in other cases, a minimum of instructions must be respected, in particular :

1 - SERVICING

- Check often that the insulation and connections of the electrical equipment and accessories are in good condition: plugs, cables, flexible cables, sheaths, connectors, extension cables, workpiece clamps, electrode holders or torches...
- Maintenance and repair work on insulating sheaths and covers should never be carried out in a makeshift manner.
- Have defective accessories repaired by a specialist or, better still, replace them.
- Periodically check that electrical connections are properly tightened and do not overheat.

2 - PERSONAL PROTECTION

RISK OF EXTERNAL INJURY.

- The operator must be properly dressed and protected for the work he is carrying out.
- Ensure that no part of the operator's body or of his assistant's body can come in contact with metal parts and workpieces which are energized or which could accidentally become energized and/or which are moving.
- Do not wrap electrical cables around your body.

Make sure that no spray or water enters into the electrical box of the oscillator.
➔ IP235 PROTECTION

C - DESCRIPTION

1 - DEFINITION

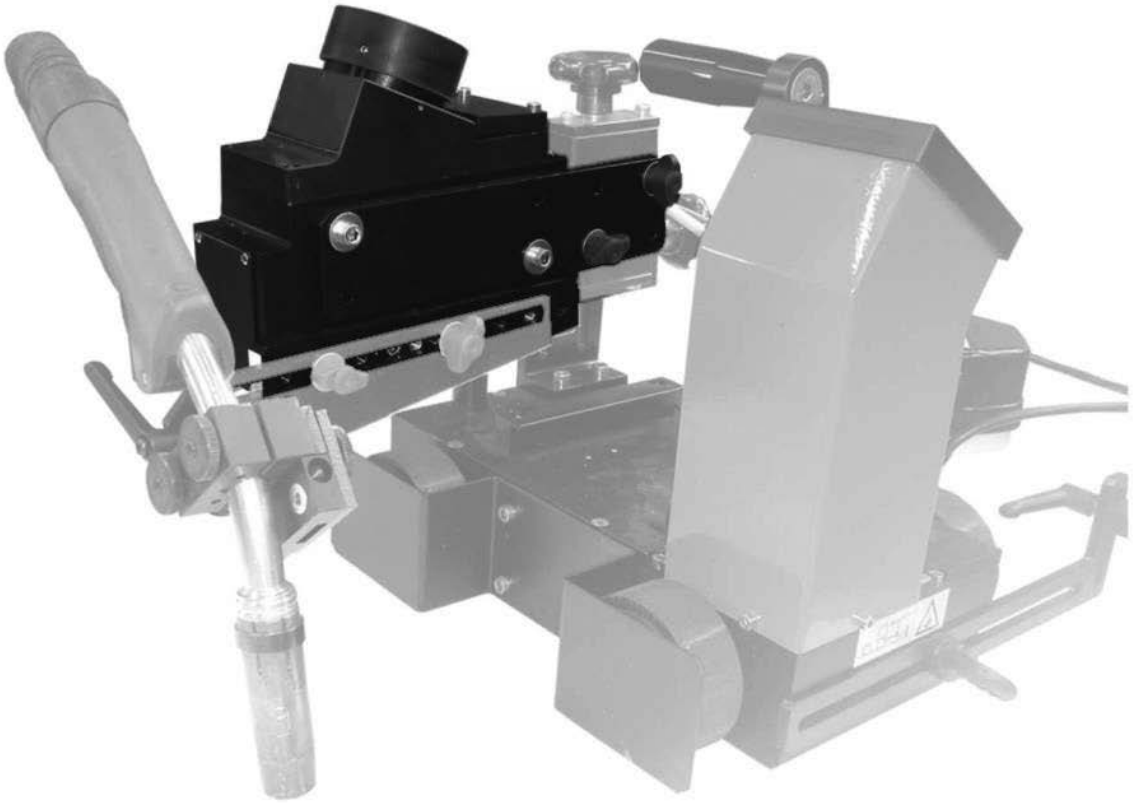
The **OSCI-WELDY** linear oscillator for **WELDYCAR** provides the welding torch with a programmed oscillation movement. This function is now available on all **WELDYCAR** carriages, without special adaptation. The design of the oscillator allows for oscillation with accuracy of 0.1mm.

Fitted with this linear oscillator, the **WELDYCAR** still keeps its same technical features. The **OSCI-WELDY** is powered simply by connecting on the 14V **WELDYCAR** plug.

The torch's oscillation has a range of up to 56mm. An offset (shift from the origin) is possible according to the programmed range. There is a control handle for adjusting the range and offset.

Using the **OSCI-WELDY** with a **WELDYCAR** version PRO provides a completely automatic welding system.

The **OSCI-WELDY** can be used as a simple electrical slide. During the switch on the oscillator, un simple manipulation allows it to run in electrical slide mode.



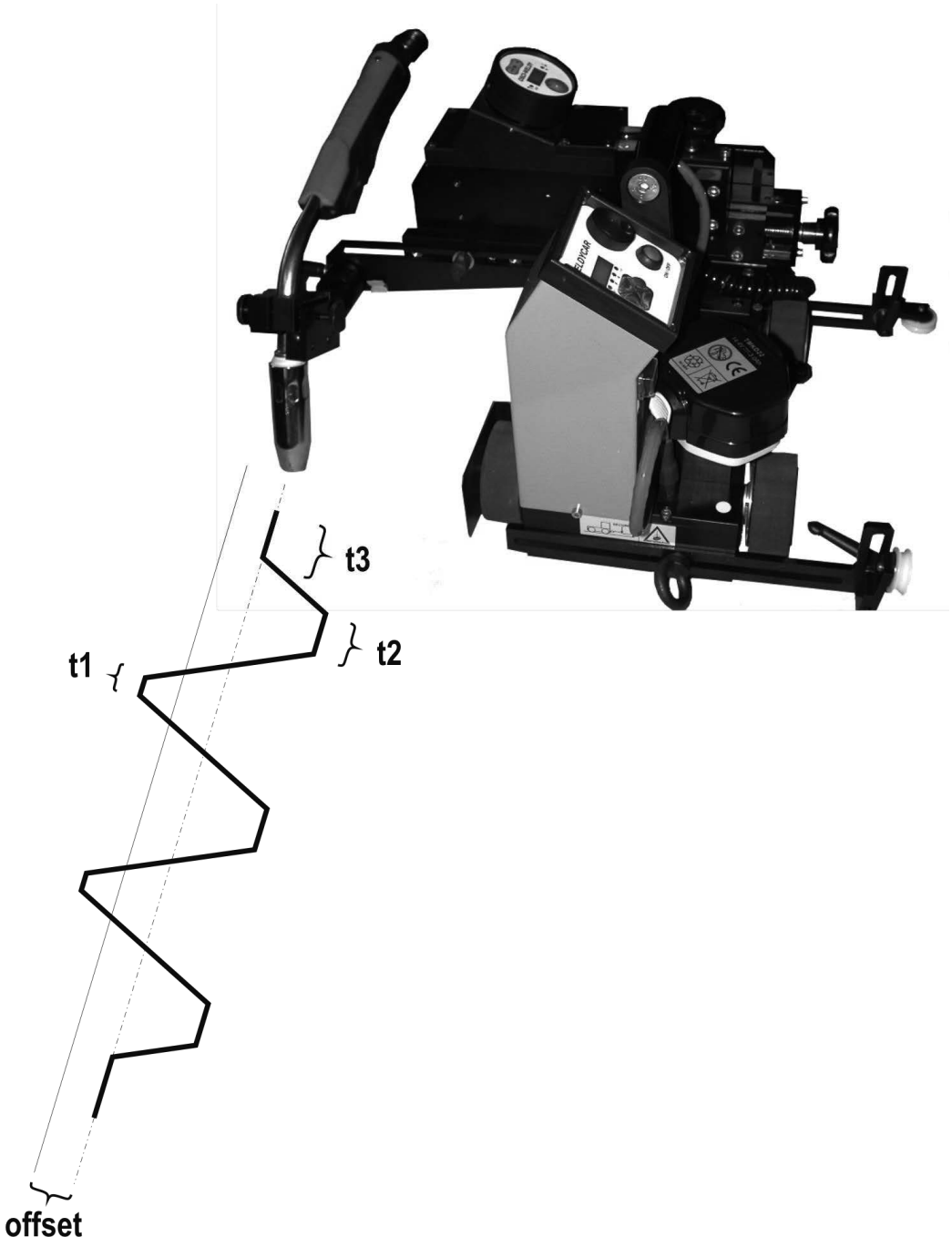
2 - POWER SUPPLY

The **OSCI-WELDY** is powered by connecting a jack plug onto the **WELDYCAR**, itself powered by a 14.4 VDC battery.

The **WELDYCAR** carriage and its associated **OSCI-WELDY** are completely autonomous. The **WELDYCAR** battery provides continuous operation of 2 hours.

3 - POSITION OF THE TORCH

The OSCI-WELDY is designed to receive the WELDYCAR torch holder.



4 - CHARACTERISTIC

		OSCI-WELDY
Oscillation travel (range):	mm	2 to 56 mm
Offset (O)*:	mm	0 to 27 mm (Depending on the range)
Oscillation speed:	cm/min	20 to 200 cm/min
Carriage + linear oscillator autonomy:	-	2h continuous use
External delay time (t1):	sec	0 to 10 sec
External delay time (t2):	sec	0 to 10 sec
Delay time before starting (t3):	sec	0 to 10 sec
Delay time after carriage movement stops (t4) :	sec	0 to 10 sec
Package dimensions (length x width x height):	mm	250 x 80 x 170
Supply:	-	14V by connection to the Weldycar
Operating temperature::	-	-5°C to +50°C
Storage temperature:	-	-10°C to +70°C
Weight:	Kg	2,7

*: The offset can vary according to the programmed range

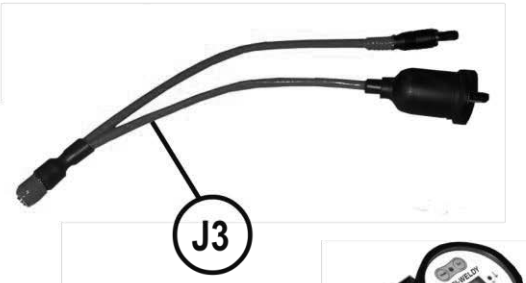
The formula is: $\frac{56 - range}{2}$ = permitted offset

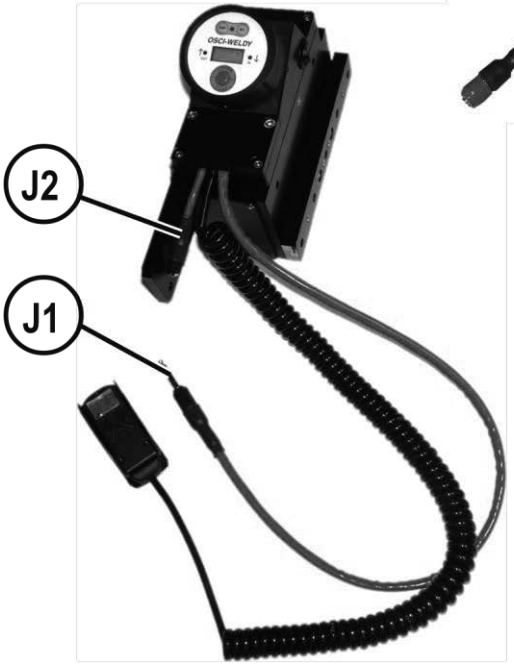
Example :
Range = 2 mm => possible offset = +/- 27 mm
Range = 20 mm => possible offset = +/- 18 mm

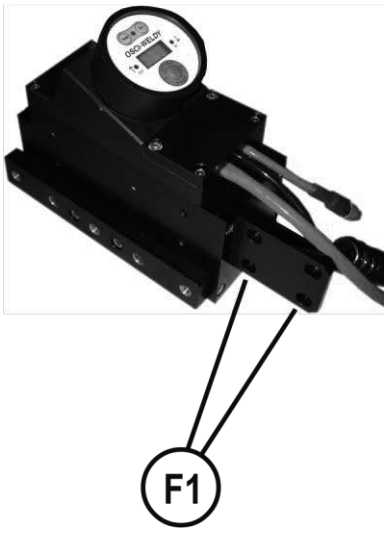
If the user wants a greater offset, a “NO” message is displayed on the screen + buzzer.

D - ASSEMBLY - INSTALLATION

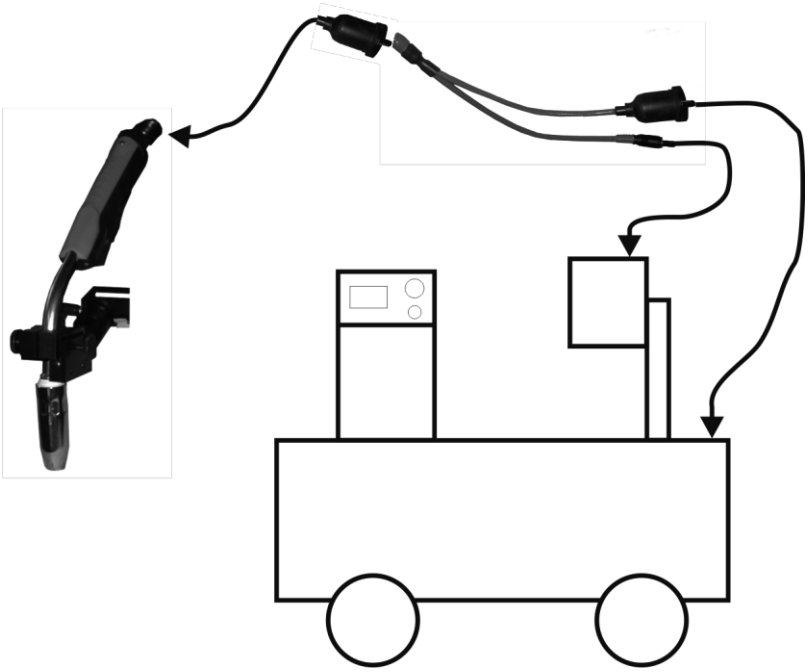
1. Remove the torch holder from the **WELDYCAR**
2. Fix the **OSCI-WELDY** on the **WELDYCAR** slide with the screws F1
3. Fix the torch holder on the **OSCI-WELDY** with the screws F2
4. Connect the jack plug J1 on the power supply
5. Connect the jack plug J2 for automatic start





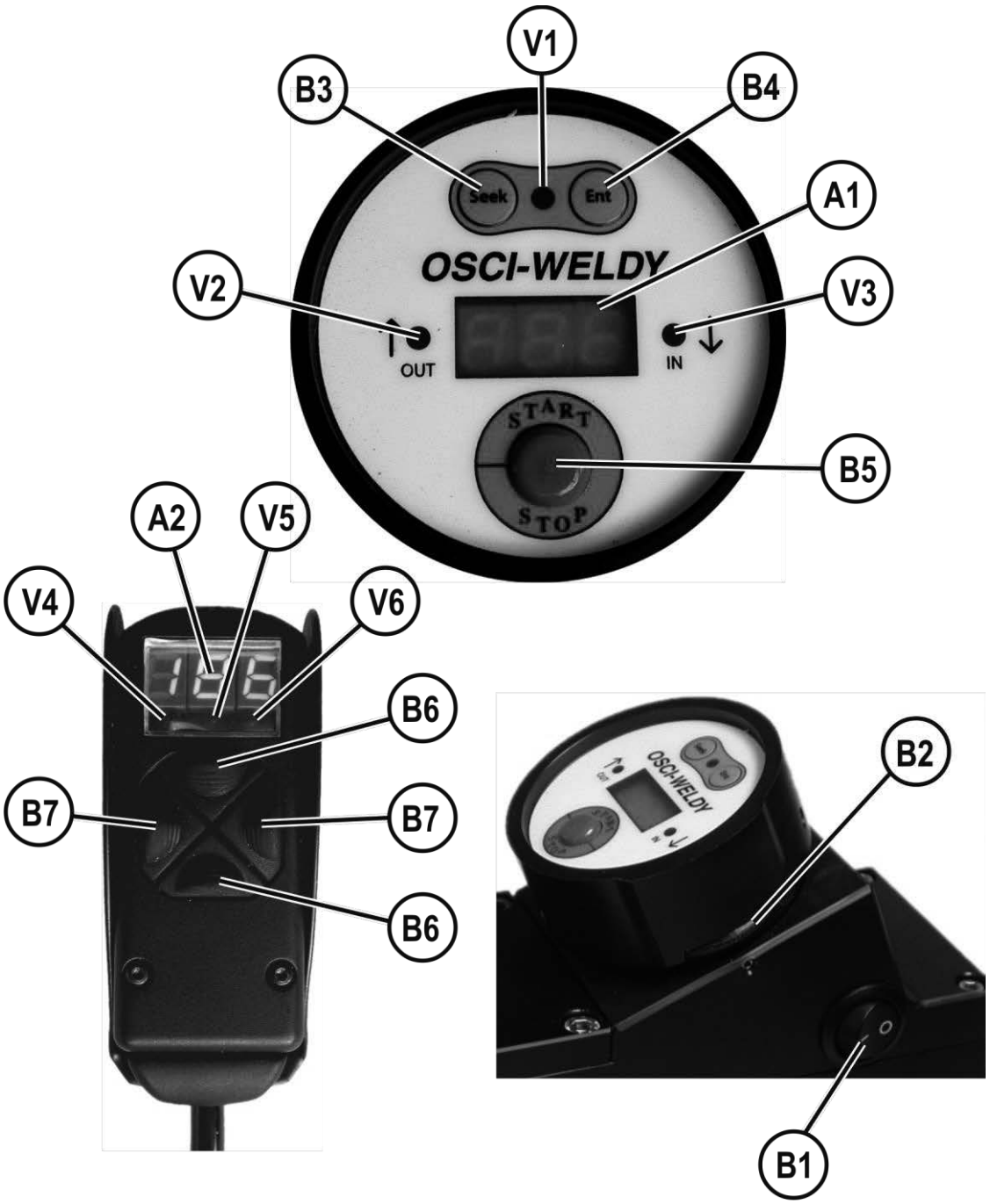


To automate the carriage and oscillator movement, connect the J3 sensor multi-socket adaptor as shown below.



E - OPERATOR MANUAL

1 - CONTROL



A1	Display on the OSCI-WELDY
A2	Display on remote control
B1	Switch on/off button
B2	Thumbwheel to change speed or delay time
B3	Button to access the settings menu
B4	Button to accept menus
B5	Start/stop oscillation
B6	Button to set range
B7	Button to change offset
V1	Mode setting light
V2	Setting light for offset outwards
V3	Setting light for offset inwards
V4	Setting light for offset outwards
V5	Setting light for range
V6	Setting light for offset inwards

2 - SETTING PROCEDURE

2.1 Fonctioning in electrical slide mode

Push the button B4 in the same time as button B1. The oscillator will run in electrical slide mode, the control will be done with the remote control.

2.2 Fonctioning in oscillator mode

t_1	Stopping time in outer position
t_2	Stopping time in inner position
t_3	Time before starting oscillation (if synchronized with Weldycar)

1. Switch on with B1
2. Press B3 for a few seconds
   Light V1 comes on and the display indicates "t_1"
3. Press B4 to display the delay time
4. Change the value by turning the thumbwheel B2
5. Press B4 to accept
6. Press B3 again to go to "t_2" then "t_3" then exit from the settings menu
7. Accept each time with B4

With the remote control, it is possible to adjust the oscillation range while welding using buttons ↑ ↓, and the offset using buttons ←→

The lights on the remote control help you to see the current display.

- None illuminated: welding speed
- V5 illuminated: setting the range
- V4 or V6 illuminated: setting the offset
  - => V4: setting the offset outwards
  - => V6: setting the offset inwards

On the control screen, the lights mean:

- V2: setting offset outwards
- V3: setting offset inwards
- V2 and V3: offset to zero
- V1: active delay time program menu

Possibility of programming oscillator start

It is possible to start the oscillator via an external contact. The J2 socket can be used to close the contact and start the oscillator.

The delay time (t_3) then becomes useful and the oscillator only starts after the delay time.

F - MAINTENANCE

1 - SERVICING

- So that the machine continues to provide good service for as long as possible, a certain minimum of care and maintenance is necessary
- The frequency of this maintenance work is given on the basis of the production of one work station per day. Maintenance should be more frequent if production is greater.

Your maintenance department may photocopy these pages so that it can follow up maintenance dates and operations (tick as appropriate)

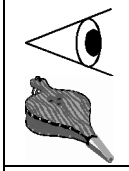
Daily

		Remove regularly welding projection on protection lenses of the photo cell, protection casing and support roller. Regularly clean the outside of the carriage and the welding torch support adjusting elements.

Every 100 hours

Date of maintenance: / /		
		- Grease manœuvre screw
		- Dismount and clean the support rollers

Annually or after every 500 hours

Date of maintenance: / /		
		- check up the transmission system - adjust the clearance of guiding shims on the slides - adjust the clearance of the geared motor on the large sprocket wheel.
		- wash and grease the wheels - blow very carefully the electronic card, speed regulator, electric rack.

2 - SPARE PARTS

How to order

The photos or sketches identify nearly every part in a machine or an installation

The descriptive tables include 3 kinds of items:

- **those normally held in stock:** ✔
- **articles not held in stock:** ✘
- **those available on request:** **no marks**

(For these, we recommend that you send us a copy of the page with the list of parts duly completed. Please specify in the Order column the number of parts desired and indicate the type and the serial number of your equipment.)

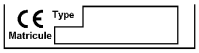
For items noted on the photos or sketches but not in the tables, send a copy of the page concerned, highlighting the particular mark.

For example:

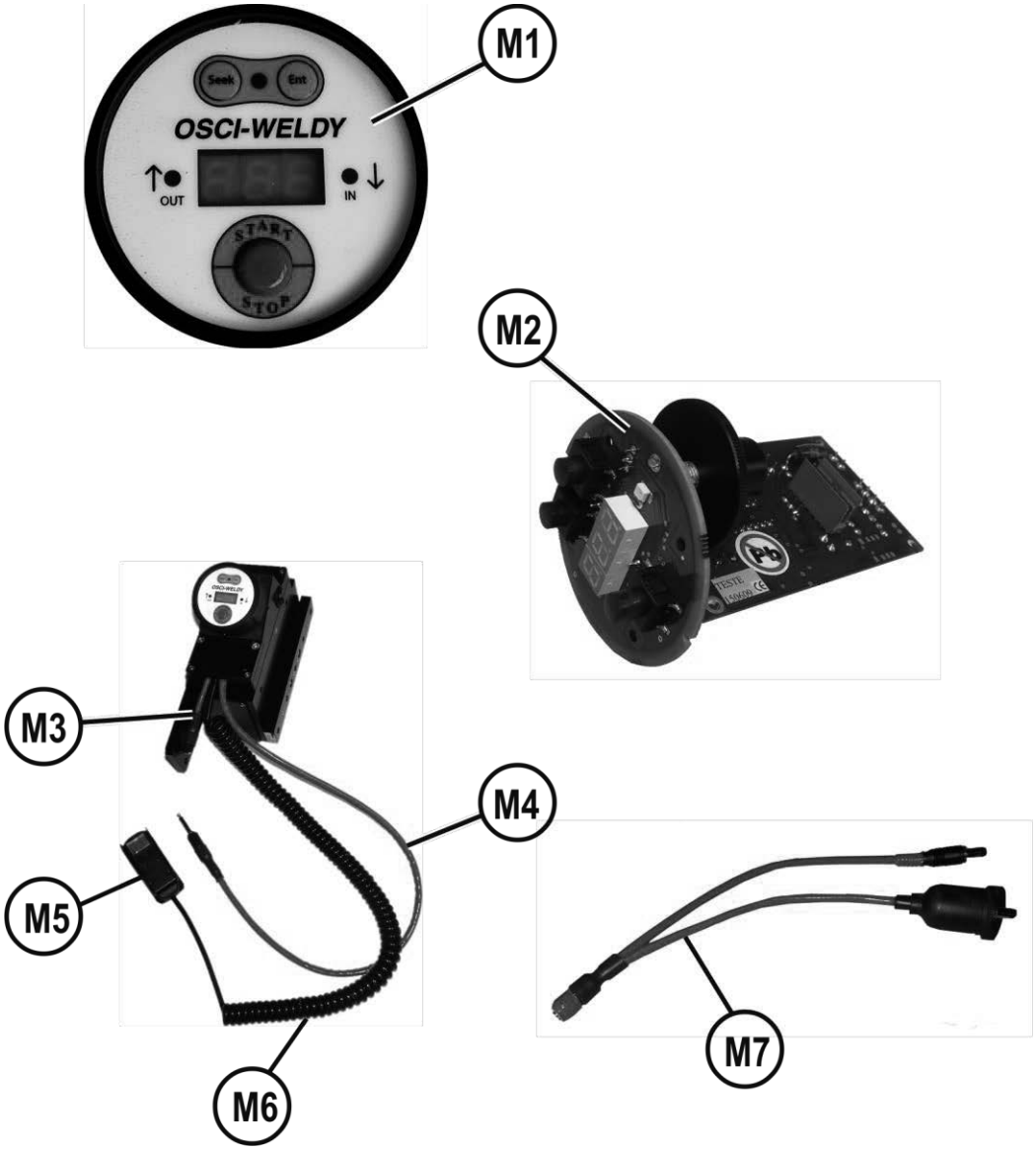
✔	normally in stock
✘	not in stock
	on request

Item	Ref.	Stock	Order	Designation
1	W000XXXXXX	✔		Machine interface board
2	W000XXXXXX	✘		Flowmeter
3	9357 XXXX			Silk-screen printed front panel

- For parts order, give the quantity required and put the number of your machine in the box below.



TYPE:
Number:


M1
Seek
Ent
OSCI-WELDY
OUT
IN
START
STOP
M2
M3
M4
M5
M6
M7

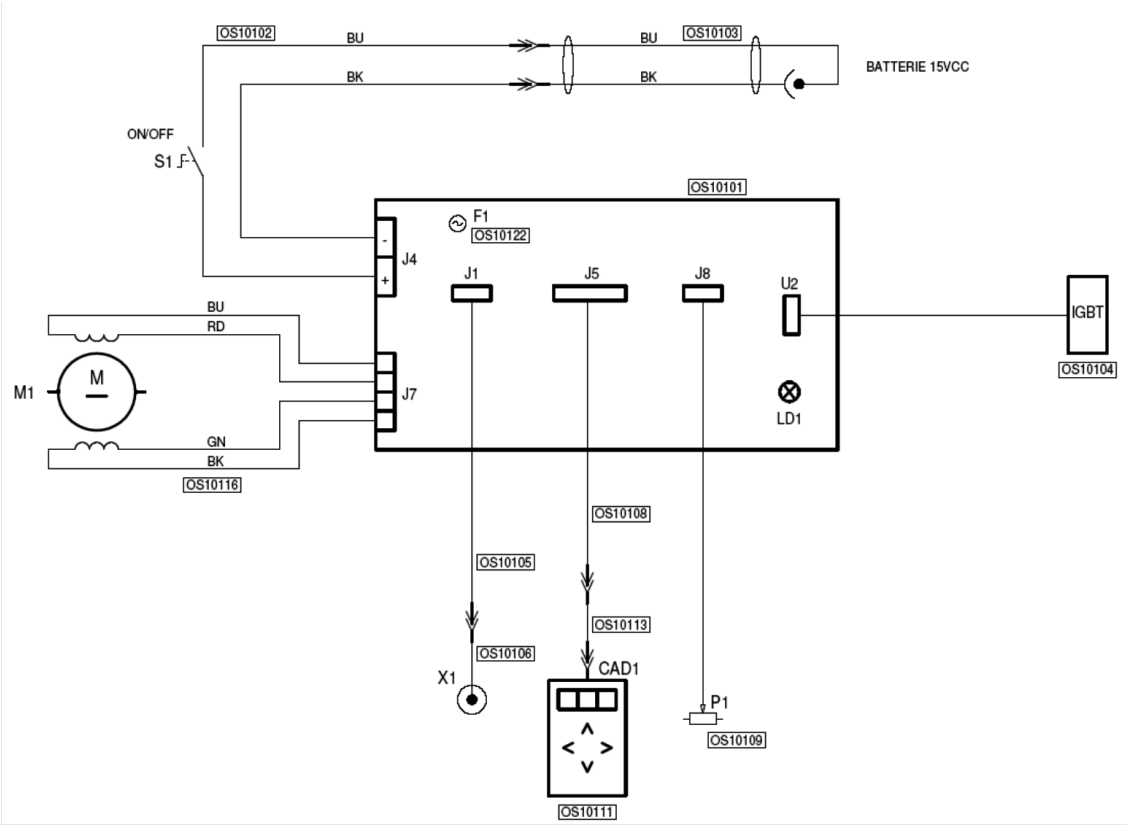
✔	normally in stock
✘	not in stock
	on request

Item	Ref.	Stock	Order	Designation
M1 (OS 10100)	W000276819	✘		Screen print control panel
M2 (OS 10101)	W000276821	✘		Control module
M3 (OS 10106)	W000276823	✘		Detector input harness
M4 (OS 10103)	W000276824	✘		Battery power harness
M5 (OS 10111)	W000276825	✘		Remote control complete with harness (without start)
M6 (OS 10113)	W000276827	✘		Remote control harness
M7 (OS 10107)	W000276828	✘		Sensor multi-socket adaptor

➢ For parts order, give the quantity required and put the number of your machine in the box below.

TYPE:
Number:

3 - WIRING DIAGRAM



PERSONAL NOTES

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