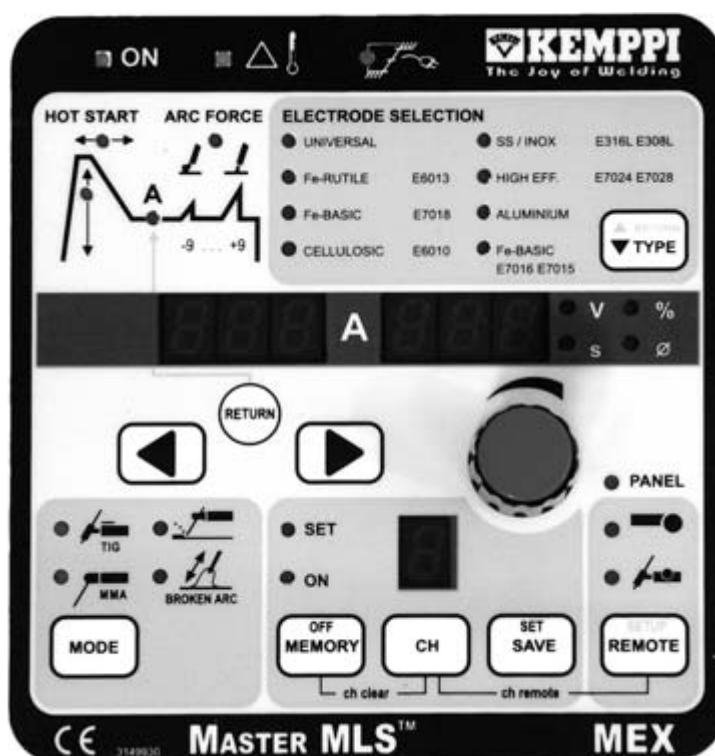


Käyttöohje • suomi
Bruksanvisning • svenska
Bruksanvisning • norsk
Brugsanvisning • dansk
Operation instructions • english
Gebrauchsanweisung • deutsch
Gebruiksaanwijzing • nederlands
Manuel d'utilisation • français

1913100
Master MLS MEX

MASTER MLS MEX



CONTENTS

| | |
|---|----------|
| 1. PREFACE | 3 |
| 1.1. Introduction..... | 3 |
| 1.2. Product introduction | 3 |
| 1.2.1. <i>Main functions of the MEX panel</i> | 4 |
| 1.3. Operation safety | 5 |
| 2. INSTALLATION | 5 |
| 2.1. Installation instructions | 5 |
| 2.1.1. <i>MEX delivery package contains</i> | 5 |
| 2.1.2. <i>MEX installation</i> | 6 |
| 3. MEX FUNCTIONS | 6 |
| 3.1. Pilot lamps..... | 6 |
| 3.2. MODE, selection of welding method | 6 |
| 3.3. TYPE, selection of electrode type | 7 |
| 3.4. Regulation of welding current and other parameters | 7 |
| 3.5. HOT START pulse control | 7 |
| 3.6. ARC FORCE control dynamics | 8 |
| 3.7. REMOTE control selection | 8 |
| 3.8. MEX memory functions | 8 |
| 3.9. SETUP, preset values of welding parameters | 9 |

1. PREFACE

1.1. INTRODUCTION

Congratulations on having purchased this product. Properly installed Kemppi products should prove to be productive machines requiring maintenance at only regular intervals. This manual is arranged to give you a good understanding of the equipment and its safe operation. Read this manual from front to back before installing, operating or maintaining the equipment for the first time. For further information on Kemppi products please contact us or your nearest Kemppi distributor.

The specifications and designs presented in this manual are subject to change without prior notice.

In this document, for danger to life or injury the following symbol is used:



Read the warning texts carefully and follow the instructions. Please also study the Operation safety instructions and respect them when installing, operating and servicing the machine.

1.2. PRODUCT INTRODUCTION

MEX is a control panel designed for the power sources of the **Master MLS** product range. Operations of the MEX panel are versatile and very suitable for demanding MMA welding.

This manual describes installation, functions and use of the MEX panel.

Installation and functions of the Master MLS power sources are described in manual and installation instructions delivered with the unit in question.

1.2.1. Main functions of the MEX panel



1. Pilot lamps: Main switch, overheating, wrong mains voltage
2. MODE button for welding method selection: normal MMA, contact TIG, carbon arc gouging, broken arc
3. Selection of electrode type
4. Potentiometer for regulation of welding current and other parameters
5. Displays of welding current and other parameters (A, V, s, mm)
6. Selection of welding parameter to be regulated (arrow button to the left / to the right, focusing (RETURN))
 - Hot start regulation (HOT START)
 - Welding current (A)
 - Arc force control dynamics (ARC FORCE)
7. Figure indicating selection of welding parameter: HOT START, A, ARC FORCE
8. Selection of remote control / SETUP function
9. Memory functions

1.3. OPERATION SAFETY

Please study these Operation safety instructions and respect them when installing, operating and servicing the machine.

Welding arc and spatters

Welding arc hurts unprotected eyes. Be careful also with reflecting arc flash. Welding arc and spatter burn unprotected skin. Use safety gloves and protective clothing.

Danger for fire or explosion

Pay attention to fire safety regulations. Remove flammable or explosive materials from welding place. Always reserve sufficient fire-fighting equipment on welding place. Be prepared for hazards in special welding jobs, e.g. for the danger of fire or explosion when welding container type work pieces. Note! Fire can break out from sparks even several hours after the welding work has been finished!

Mains voltage

Never take welding machine inside a work piece (e.g. container or truck). Do not place welding machine on a wet surface. Always check cables before operating the machine. Change defect cables without delay. Defect cables may cause an injury or set out a fire. Connection cable must not be compressed, it must not touch sharp edges or hot work pieces.

Welding power circuit

Isolate yourself by using proper protective clothing, do not wear wet clothing. Never work on a wet surface or use defect cables. Do not put hot electrode or welding cables on welding machine or on other electric equipment.

Welding fumes

Take care that there is sufficient ventilation during welding. Take special safety precautions when welding metals which contain lead, cadmium, zinc, mercury or beryllium.

2. INSTALLATION

2.1. INSTALLATION INSTRUCTIONS

2.1.1. MEX delivery package contains

- A. MEX control panel
- B. This operation manual

2.1.2. MEX installation

- a) Make sure that main switch of power source is in position OFF.
- b) Mount the MEX control panel to the power source according to mounting instructions given in operation manual of power source.
- c) Make sure that Master MLS power source has program version 0A5 (display shows 015 when switching on the power source) or newer. If not, a software update is needed. The power source is delivered with program version 0A5 from the following serial number on:

Master 1600 MLS (6102160): 1078803

Master 2500 MLS (6104250): 1077793

Master 3500 MLS (6104350): 1077963

Mastertig 2000 MLS (6112200): 1078823

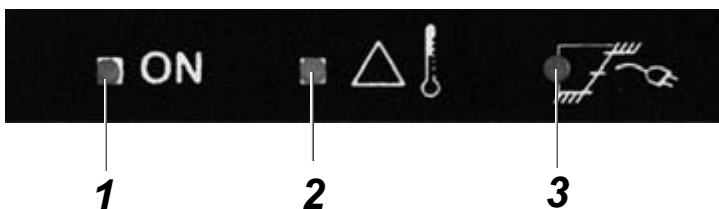
Mastertig 2500 MLS (6114250): 1077913

Mastertig 3500 MLS (6114350): 1079468

If your power source has a lower serial number, please contact a Kemppi service workshop.

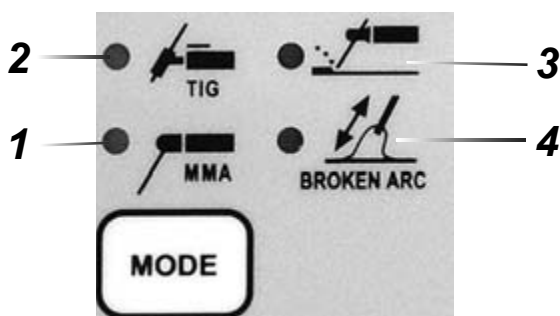
3. MEX FUNCTIONS

3.1. PILOT LAMPS (1)



1. Power On light
2. Thermal overload light
3. Wrong mains voltage, over or under voltage

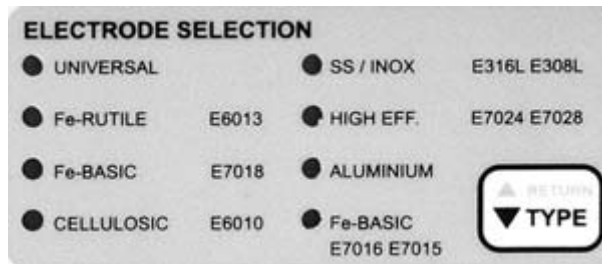
3.2. MODE, SELECTION OF WELDING METHOD (2)



You have four welding methods to select from:

1. Normal MMA welding
2. Contact TIG welding
3. Carbon arc gouging
4. Broken arc welding

3.3. TYPE, SELECTION OF ELECTRODE TYPE (3)



Welding parameters settle automatically to optimum values according to selected electrode type. You have seven different electrode types to choose from.

When selecting UNIVERSAL, the parameters are set to normal values. If the initial state was UNIVERSAL select the electrode material you use by pressing TYPE button (3) as many times as needed to point the right material from the list.

Backwards stepping is done by keeping the RETURN button down while pressing the TYPE button.

3.4. REGULATION OF WELDING CURRENT AND OTHER PARAMETERS (4, 5, 6, 7)

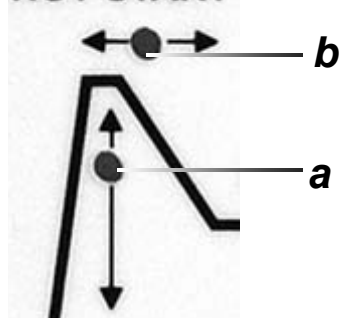


To select welding parameters you only need to use two buttons (6): arrow-left and arrow-right. Adjustment is done with the potentiometer (4).

By pressing the RETURN button, adjustment of parameter goes straight to welding current. The display (5) shows automatically numeric values and the units of the parameters. When you adjust parameters, you can see the value on the numerical display. After 10 seconds, the display will return to the welding current.

3.5. HOT START PULSE CONTROL (4, 5, 6, 7)

HOT START



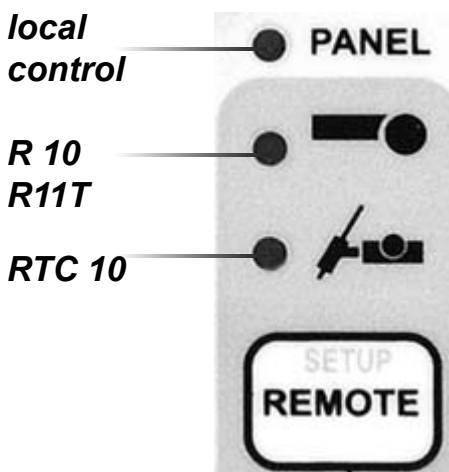
Select either pulse height (a) or pulse duration (b) with the arrow buttons (6). Pulse height is shown on display (5) in ampere and duration in seconds. Adjust values with potentiometer when needed.

3.6. ARC FORCE CONTROL DYNAMICS (4, 5, 6, 7)



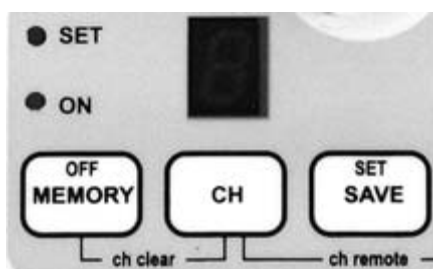
Select Arc Force with arrow buttons (6), in which case the corresponding pilot lamp (7) is lit and the numerical value is shown on display (5): -9...0...+9. With potentiometer for regulation of welding parameters (4) you can adjust the arc softer (-1...-9) or harder (+1...+9) when needed.

3.7. REMOTE CONTROL SELECTION (8)



When you want to adjust welding current with a remote control unit, connect the unit and select remote control with REMOTE button (8). The pilot lamp on panel indicating local control is switched off; select the remote control unit you need (hand remote control unit R10, R11T if R10 is not fitted, or TIG torch potentiometer remote RTC10).

3.8. MEX MEMORY FUNCTIONS (9)



MEX panel has 10 memory channels for user settings. The selections for saving are made on MEMORY field (9). Not only welding parameters but also selections are saved in the memory. MMA welding values can also be stored in memory channels.

Proceed as follows:

1. Press MEMORY button twice and if the SET light starts blinking, the channel is free. If the channel is in use the led will remain lit.
2. Select memory channel by pressing CH button.
3. Select the parameters and press SAVE button.
4. Press MEMORY button twice. ON led is lit.
5. Start welding and adjust settings if necessary.

If saved settings need to be changed, the led has to be moved from ON into SET position in order to select parameters. Press the SAVE button. It is also possible to save the currently used parameters in the panel by pressing SET when the memory function is in off state (no lights on). Channel is cleared if MEMORY and CH buttons are pressed simultaneously in SET mode.

The saved settings are taken into use as follows:

1. Select MEMORY by pressing the button.
2. Select memory channel by pressing CH button.
3. Start welding.

Remote control of memory channels is accomplished as follows:

Memory channels are selected by pressing simultaneously both REMOTE and CH button. With the remote control you can retrieve saved settings on memory channels.

3.9. SETUP, PRESET VALUES OF WELDING PARAMETERS



MEX panel has special MMA-MEX Setup functions. Press REMOTE (SETUP) button (8) longer than normally to enter (or exit) the Setup mode. You can select the functions (see list below) by pressing the arrow buttons and then change the settings by turning the potentiometer.

| FUNCTION | NUMBER | FACTORY SETTING |
|--|--------|-----------------|
| Hot start adjustment method: 1 knob or 2 knob | A1 | 0 2 knob |
| Antifreeze on/off in TIG | A3 | 0 off |
| Antifreeze on/off in MMA | A4 | 1 on |
| Adaptive hot start on/off | A5 | 0 off |
| No load voltage selection 80V / 40V | A7 | 0 80V |
| Function of hand remote (normal remote current regulation of MMA/TIG changeover) | A12 | 0 normal |

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