

TECNA[®]

Advanced Resistance Welding Systems

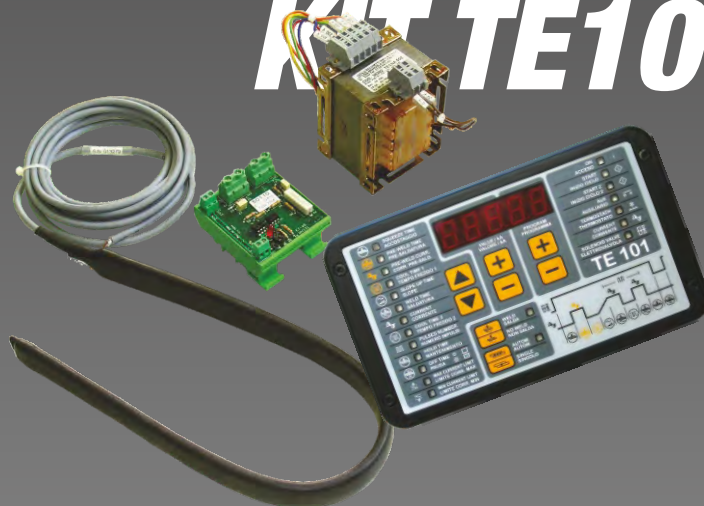


RESISTANCE WELDER MICROPROCESSOR CONTROL UNITS KITS

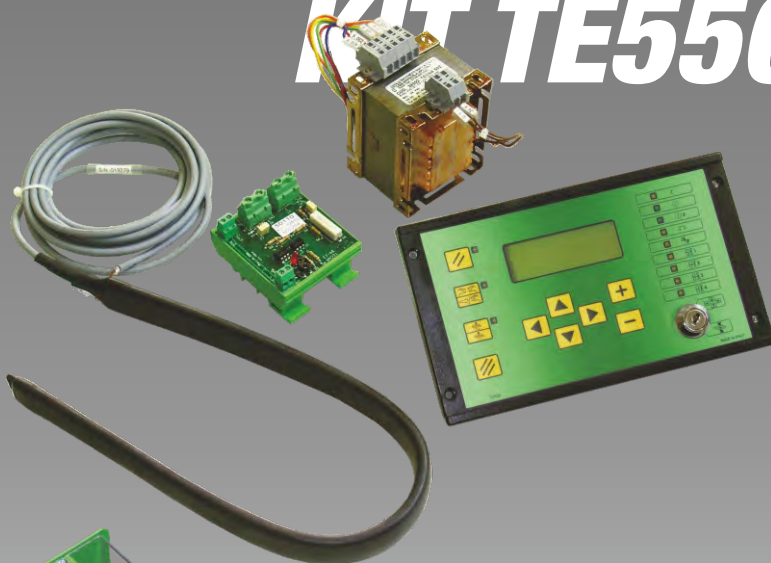
12XX



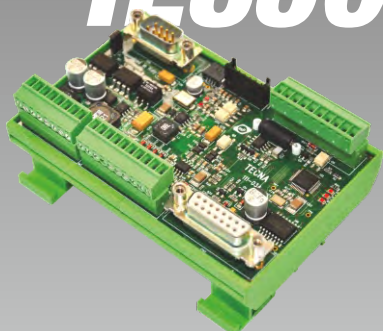
KIT TE101



KIT TE550



TE850



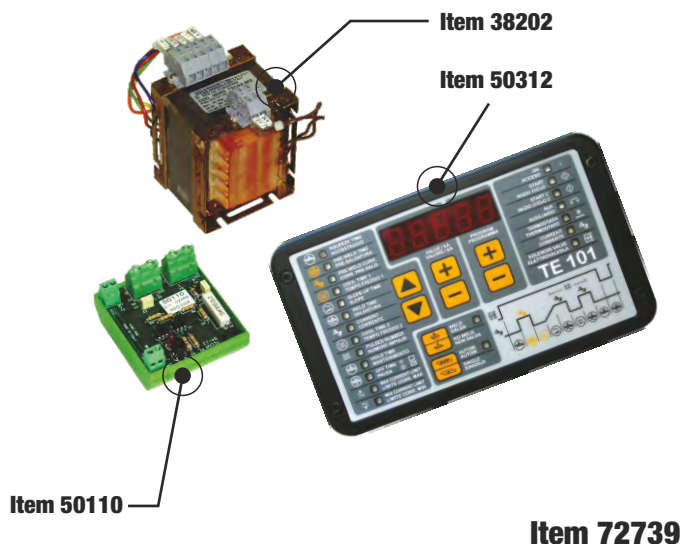
TE801



The most advanced resistance welding machines

www.tecna.net

KIT TE101



WELDING CONTROL UNIT TE101 (Kit item 72739)

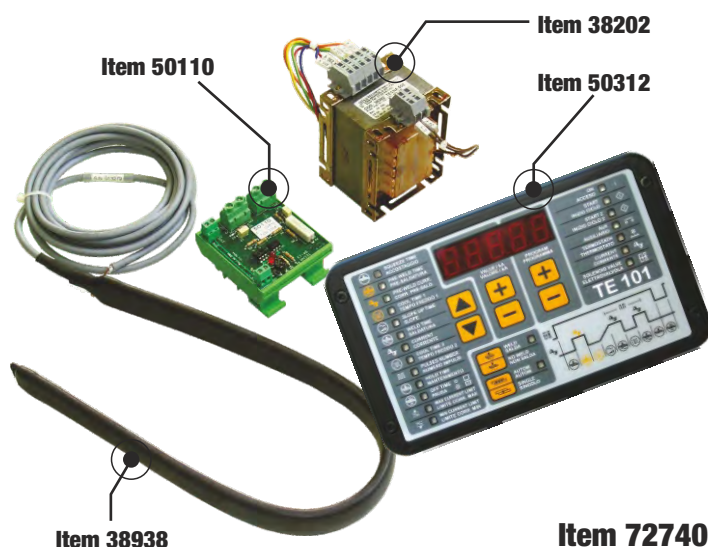
TE101 is a microprocessor welding control unit for single-phase resistance welders. The welding control unit is used to control the welder parts and, in particular, the thyristors adjusting the welding current. The working cycle carried out by the TE101 is described through the programming parameters. The TE101 can be used for both manual and pneumatic-operated welders.

50312 Welding control unit board **TE101**

50110 Firing module for SCR max. voltage 440V version for fixing on bar EN 50035 and EN 50022

38202 Supply transformer power 50 VA (primary voltages 230-400V $\pm$ 15V secondary voltage 24 V)

KIT TE101



WELDING CONTROL UNIT TE101 (Kit item 72740)

TE101 is a microprocessor welding control unit for single-phase resistance welders. The welding control unit is used to control the welder parts and, in particular, the thyristors adjusting the welding current. The working cycle carried out by the TE101 is described through the programming parameters. The TE101 can be used for both manual and pneumatic-operated welders.

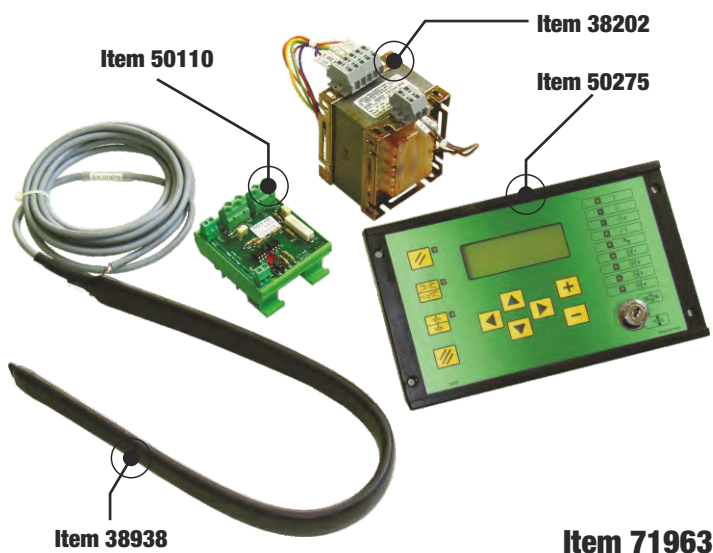
50312 Welding control unit board **TE101**

50110 Firing module for SCR max. voltage 440V version for fixing on bar EN 50035 and EN 50022

38202 Supply transformer power 50 VA (primary voltages 230-400V $\pm$ 15V secondary voltage 24 V)

38938 Flexible transducer for welding current measuring, sensitivity x1 150 mV / kA (L = 3500mm)

KIT TE550



WELDING CONTROL UNIT TE550 (Kit item 71963)

TE550 is a microprocessor welding control unit for resistance welders. The welding control unit is used to control the welder parts, in particular, the thyristors adjusting the welding current. It is possible to store up to 250 different welding programs, 127 of them recalled directly from an external device. Each program is built up by programmable parameters which describe the work cycle. Besides a simple 4 times welding cycle, the control allows the execution of welding processes with pre-welding current, post-welding current, slope and pulses.

50275 Welding control unit board **TE550**

50110 Firing module for SCR max. voltage 440V version for fixing on bar EN 50035 and EN 50022

38202 Supply transformer power 50 VA (primary voltages 230-400V $\pm$ 15V secondary voltage 24 V)

38938 Flexible transducer for welding current measuring, sensitivity x1 150 mV / kA (L = 3500mm)

OPTIONAL EXPANSION BOARD

The use of this board is particularly suitable when installing the TE550 control unit onto automated welding equipment as it allows adding other signals to the ones already present on the control unit: the one for the electrodes dressing, for the external WELD/NO WELD input and for the errors clear.

Item 50189

The board item 50189 is directly assembled onto the TE550 control unit board into the proper connection.

50189	Expansion board for TE550 welding control unit for electrodes dressing (optional board for already installed control units too)
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Item 50200

The board item 50200 is directly assembled onto the TE550 control unit board into the proper connection.

50200	Expansion board for TE550 welding control unit for electrodes dressing (optional board for already installed control units too)
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OPTIONAL DEVICE (Item 72735)

This device may be used only if the optional board item 50189 is already installed.

By means of this device, it is possible to set the pressure max and min limits as well as to detect if those very limits are exceeded before the current flows along the welding cycle. The power supply for this device is supplied together with the bar support DIN EN 50035 - EN 50022.

50189	Expansion board for TE550 welding control unit for electrodes dressing (optional board for already installed control units too)
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72735	Optional device for the TE550 control unit which allows detecting the pressure limit at the electrodes before welding (This optional device may be also implemented on control units already installed. However, it may be fitted only if the board item 50189 is already installed).
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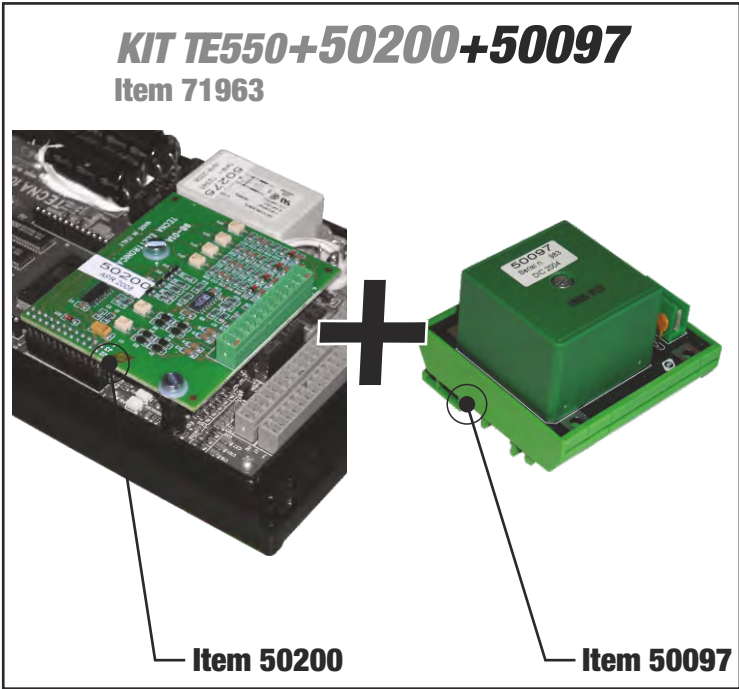
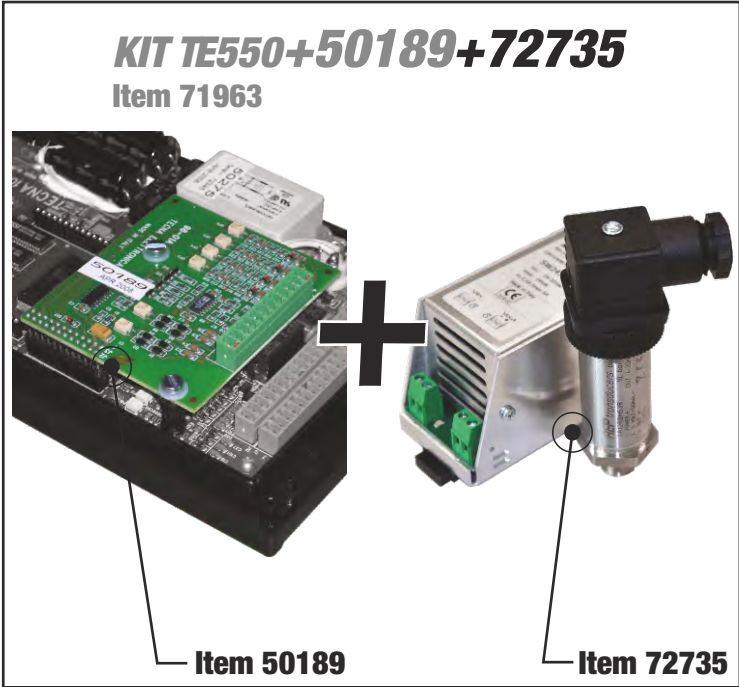
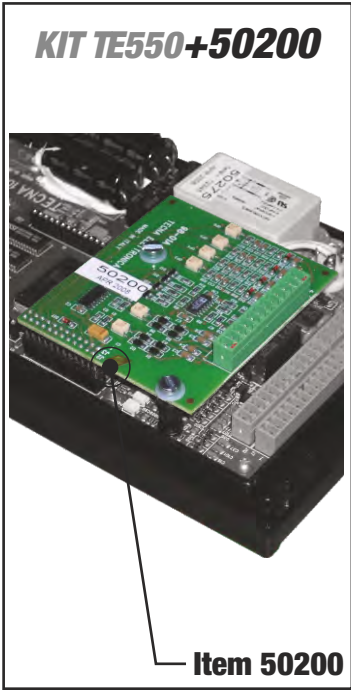
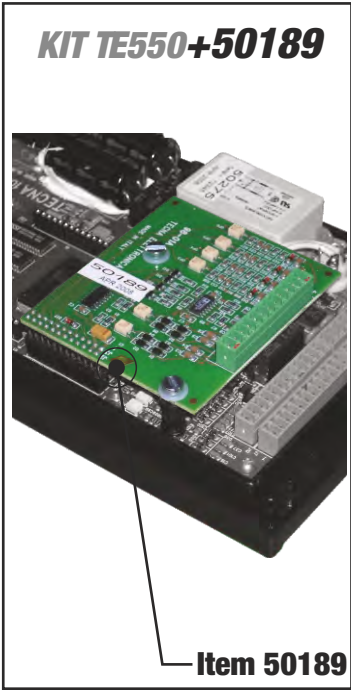
SCOPTIONAL EXPANSION BOARD (Item 50097)

This board may be used only if the optional board item 50200 is present too.

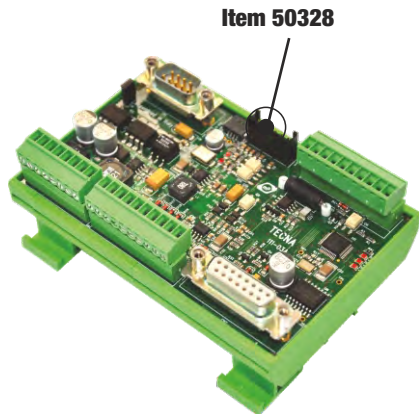
By means of this board, it is possible to measure the voltage on the electrodes and, therefore, to activate the energy working mode on the control unit. Furthermore, all the 50200 board's functions remain enabled. During welding, the control unit reads the true efficacious welding current RMS, the non-inductive component of the voltage at the electrodes in volts ($V \times \cos\phi$) and the welding duration in cycles. The product of $I \times V \times \cos\phi \times \text{time}$ gives the thermal energy produced during welding, expressed in joules ($W \times \text{sec}$). The board item 50097 is supplied together with the bar support DIN EN 50035 - EN 50022.

50200	Expansion board for TE550 welding control unit for electrodes dressing (optional board for already installed control units too)
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50097	Expansion board for TE550 welding control unit for electrodes voltage measuring (optional board for already installed control units too. This board may be used only if the optional board item 50200 is present too)
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TE850



Item 50328

WELDING CONTROL UNIT TE850 (Item 50328)

TE850 is a microprocessor welding control unit for resistance welders. The welding control unit is used to single-phase machines, and be connected in different types of networks allowing to dynamically change the welding parameters between one point and another.

50328

Welding control unit board **TE850**



Item 24419

24419

Supply transformer power 100 VA (primary voltages 230-400V $\pm$ 15V dual secondary voltage 24 V) version for fixing on bar EN 50035 and EN 50022



Item 50110

50110

Firing module for SCR max. voltage 440V version for fixing on bar EN 50035 and EN 50022

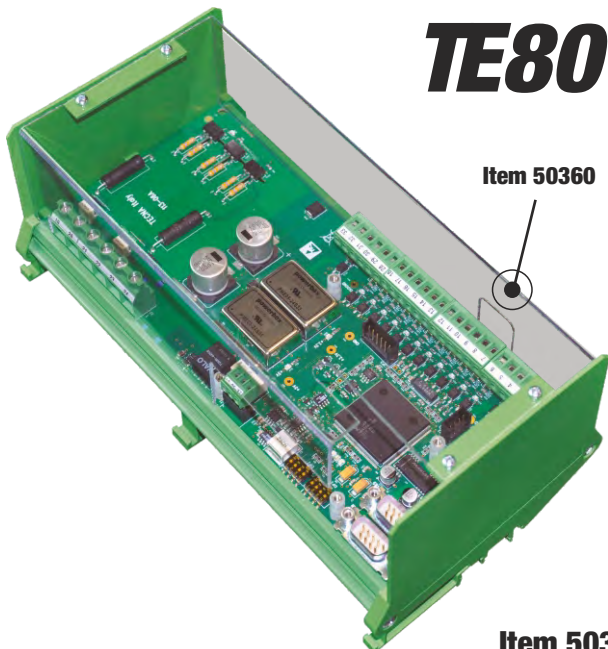


Item 50332

50332

Setup DEVICE 10 of programming terminal for adjustments of the control unit

TE801



Item 50360

Item 50360

WELDING CONTROL UNIT TE801 (Item 50360)

TE801 is a microprocessor welding control unit for resistance welders. The welding control unit is used to control the welder parts and, in particular, the thyristors adjusting the welding current. The TE801 control unit may work both in power adjustment and in constant current working modes. It is possible to store up to 250 different welding programs, 127 of them recalled directly from an external device. Each program is built up by programmable parameters which describe the work cycle. Besides a simple 4 times welding cycle, the control allows the execution of welding processes with pre-welding current, post-welding current, slope and pulses.

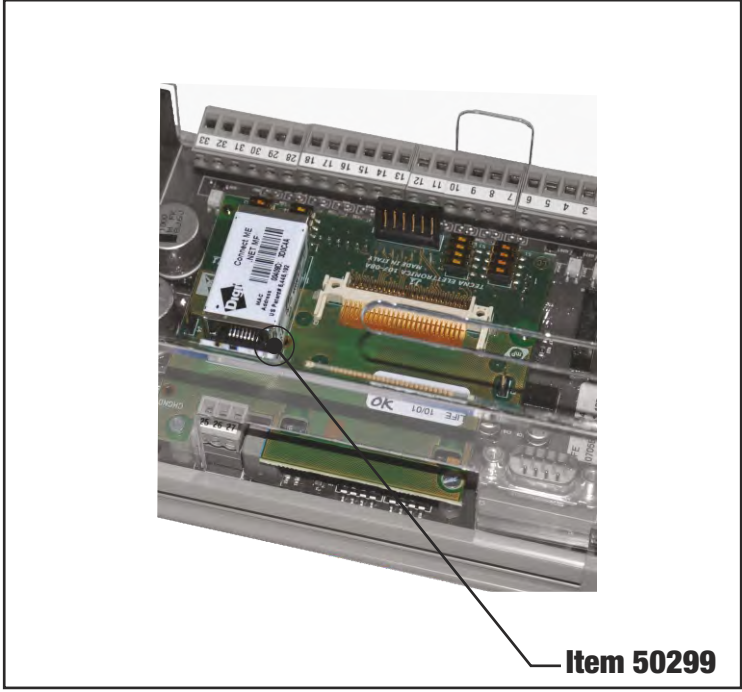
50360

Welding control unit board **TE801** 230÷480V

OPTIONAL EXPANSION BOARD ITEM 50299

Ethernet Connection RJ45 10/100Mbit/s for interfacing to the TECNANET communication program for Ethernet item 23287 to be used for programming all the parameters of the control unit and the production documentation.
The board item 50299 is directly assembled onto the TE801 control unit board into the proper connection.

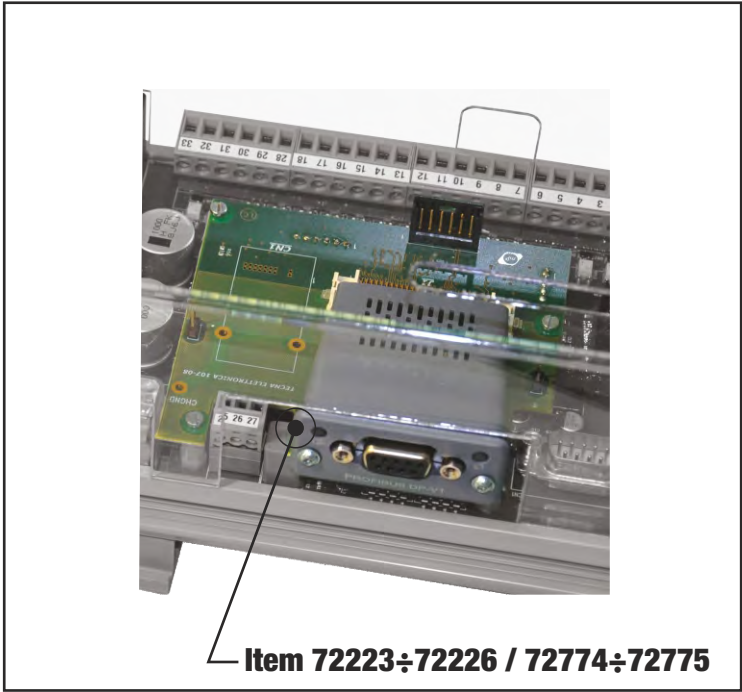
50299	Optional expansion board Item 50299 and ETHERNET module.
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OPTIONAL EXPANSION BOARD ITEM 72223÷72226 / 72774÷72775

Interface board for field bus: PROFIBUS, DEVICENET, CANOPEN,ETHERCAT, PROFINET and ETHERNET/IP.
The 7222X/7277X kit is directly assembled onto the TE801 control unit board into the proper connection.

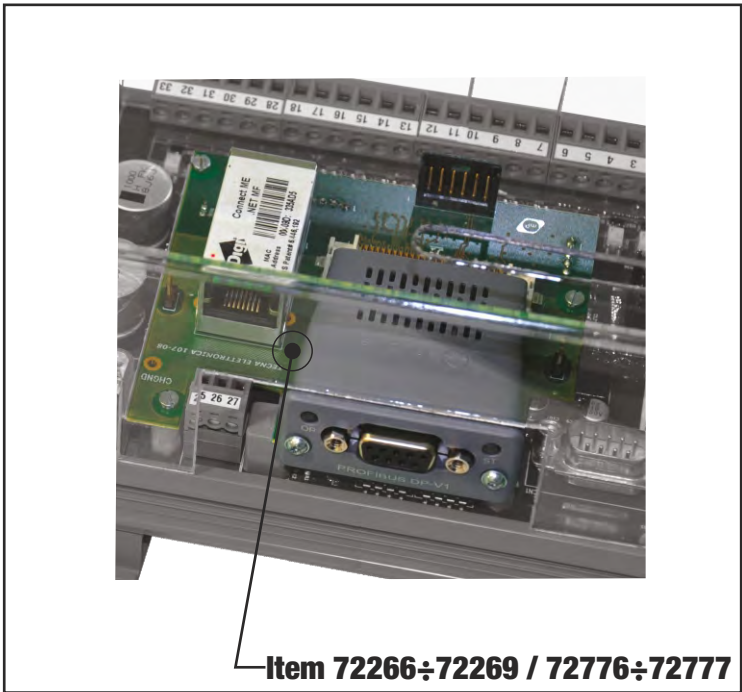
72223	Interface board for field bus PROFIBUS DPV1
72224	Interface board for field bus DEVICENET
72225	Interface board for field bus CANOPEN
72226	Interface board for field bus ETHERCAT
72774	Interface board for field bus PROFINET
72775	Interface board for field bus ETHERNET/IP



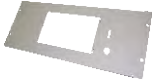
OPTIONAL EXPANSION BOARD ITEM 72266÷72269 / 72776÷72777

Interface board for field bus: PROFIBUS, DEVICENET, CANOPEN, ETHERCAT, PROFINET and ETHERNET/IP.
Ethernet Connection RJ45 10/100Mbit/s for interfacing to the TECNANET communication program for Ethernet item 23287 to be used for programming all the parameters of the control unit and the production documentation.
The 7226X/7277X kit is directly assembled onto the TE800 control unit board into the proper connection.

72266	Interface board for field bus PROFIBUS DPV1
72267	Interface board for field bus DEVICENET
72268	Interface board for field bus CANOPEN
72269	Interface board for field bus ETHERCAT
72776	Interface board for field bus PROFINET
72777	Interface board for field bus ETHERNET/IP



CONTROL UNITS KITS ACCESSORIES

ITEM			TE101	TE550	TE550 50189	TE550 50189 72735	TE550 50200	TE550 50200 50097	TE850	TE801	TE801 7222X 7277X	TE801 50299	TE801 7226X 7277X
	32240	Rigid transducer in aluminium for welding current measuring (Ø min. 32-36 max. mm), sensitivity x1 150 mV / kA	○	○	○	○	○	○	-	○	○	○	○
	32241	Rigid transducer in aluminium for welding current measuring (Ø min. 40-45-46 max. mm), sensitivity x1 150 mV / kA	○	○	○	○	○	○	-	○	○	○	○
	34193	Rigid transducer in aluminium for welding current measuring (Ø 50 max. mm), sensitivity x1 150 mV / kA	○	○	○	○	○	○	-	○	○	○	○
	32431	Rigid transducer in aluminium for welding current measuring (Ø min. 50-60 max. mm), sensitivity x1 150 mV / kA	○	○	○	○	○	○	-	○	○	○	○
	32242	Rigid transducer in aluminium for welding current measuring (Ø 80 max. mm), sensitivity x1 150 mV / kA	○	○	○	○	○	○	-	○	○	○	○
	32978	Rigid transducer for welding current measuring, sensitivity x1 150 mV / kA	○	○	○	○	○	○	-	○	○	○	○
	32971	Rigid transducer for welding current measuring, sensitivity x5 750 mV / kA	○	○	○	○	○	○	-	○	○	○	○
	32038	Rigid transducer for welding current measuring, sensitivity x10 1.500 mV / kA	○	○	○	○	○	○	-	○	○	○	○
	38938	Flexible transducer for welding current (560mm) measuring, sensitivity x1 150 mV / kA (L = 3500mm)	○	○	○	○	○	○	-	○	○	○	○
	39236	Flexible transducer for welding current (800mm) measuring, sensitivity x1 150 mV / kA (L = 3500mm)	○	○	○	○	○	○	-	○	○	○	○
	44598	Sheet panel for fixing on industrial rack holder cabinet	-	○	○	○	○	○	-	-	-	-	-
	50214	9-pin female RS 232 serial interface board	○	○	○	○	○	○	-	-	-	-	-
	72278	USB interface board	-	○	○	○	○	○	-	-	-	-	-
	72569	ETHERNET interface board	-	○	○	○	○	○	-	-	-	-	-
	50220	Board for controlling the proportional valve	-	○	○	○	○	○	-	-	-	-	-
	22000	Supply transformer power 50 VA (primary voltages 440-500-600V ± 20V secondary voltage 24V)	○	○	○	○	○	○	○	-	-	-	-
	50278	Firing module for SCR with max. voltage 600 V, version for fixing on bar EN 50035 and EN 50022	○	○	○	○	○	○	○	-	-	-	-
	72219	FIELD BUS module with Profibus	-	○	○	○	○	○	-	-	-	-	-
	72220	FIELD BUS module with Devicenet	-	○	○	○	○	○	-	-	-	-	-
	72221	FIELD BUS module with CanOpen	-	○	○	○	○	○	-	-	-	-	-
	72222	FIELD BUS module with ETHERCAT	-	○	○	○	○	○	-	-	-	-	-
	72772	FIELD BUS module with PROFINET	-	○	○	○	○	○	-	-	-	-	-
	72773	FIELD BUS module with ETHERNET/IP	-	○	○	○	○	○	-	-	-	-	-
	50365	TE71 Terminal Programming	-	-	-	-	-	-	○	○	○	○	○

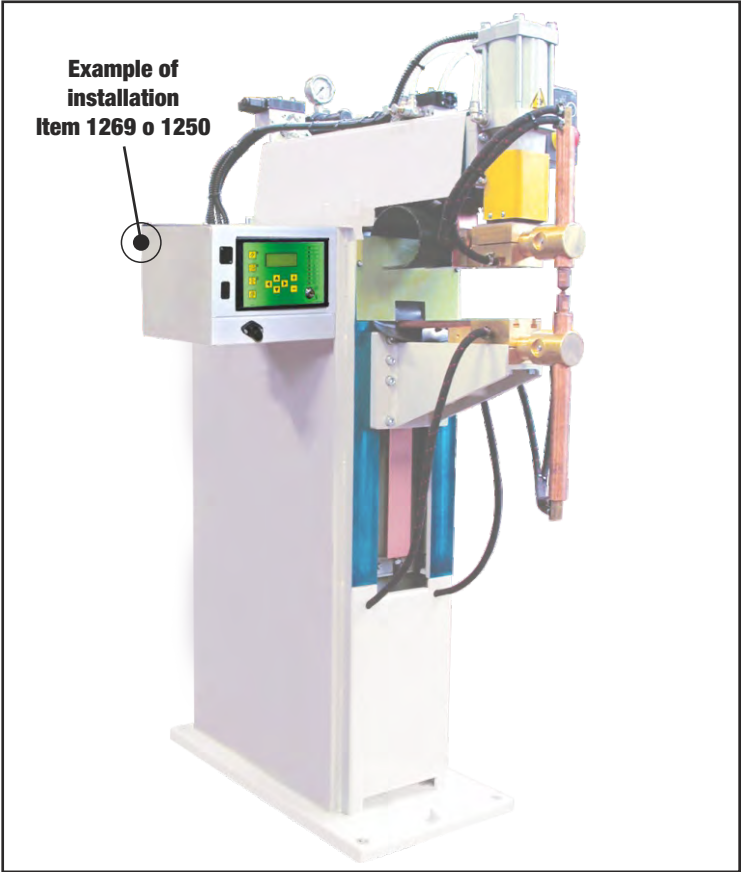
● Standard ○ Opzionale - Not available

CONTROL UNIT 1250 WITH INTEGRATED POWER

1250 is a microprocessor control unit for resistance welders. All versions are power units equipped with SCR insulated from water cooling. The welding control unit is used to control the welder parts and, in particular, the thyristors adjusting the welding current. The working cycle carried out by the TE101 is described through the programming parameters. The 1250 can be used for both manual and pneumatic-operated welders.



Versatile when installed on board the machine.



ITEM		1250A	1250B	1250C	1250D	1250E
CONTROL UNIT		TE101				
Parameters N°		13	13	13	13	13
Programs N°.		99	99	99	99	99
PLC recallable programs		31	31	31	31	31
Built-in ammeter		●	●	●	●	●
Current limits		●	●	●	●	●
Secondary current comp.		●	●	●	●	●
N° of managed solenoid valves		1	1	1	1	1
Nominal power at 50%.(400V)	kVA	20	63	80	125	160
Nominal power at 50%.(230V)	kVA	12	36	50	80	100
Weight	kg	11	11	12	14	14

1269

CONTROL UNIT 1269 WITH INTEGRATED POWER

1269 is a microprocessor control unit for resistance welders.

All versions are power units equipped with SCR insulated from water cooling. The welding control unit is used to control the welder parts and, in particular, the thyristors adjusting the welding current.

It is possible to store up to 250 different welding programs, 127 of them recalled directly from an external device. Each program is built up by 26 programmable parameters which describe the work cycle. Besides a simple 4 times welding cycle, the control allows the execution of welding processes with pre-welding current, post-welding current, slope and pulses.



Quick maintenance and inspection.

ITEM		1269A	1269B	1269C	1269D	1269E
CONTROL UNIT		TE550				
Parameters N°		26	26	26	26	26
Programs N°		250	250	250	250	250
PLC recallable programs		127	127	127	127	127
RS232 interface output		○	○	○	○	○
USB interface board		○	○	○	○	○
Built-in ammeter		●	●	●	●	●
Constant current		●	●	●	●	●
Current limits		●	●	●	●	●
Stepper function		●	●	●	●	●
N° of managed solenoid valves		4	4	4	4	4
Nominal power at 50%.(400V)	kVA	20	63	80	125	160
Nominal power at 50%.(230V)	kVA	12	36	50	80	100
Output for proportional valve		○	○	○	○	○
Weight	kg	11	12	12	14	15

● Standard ○ Opzionale - Not available

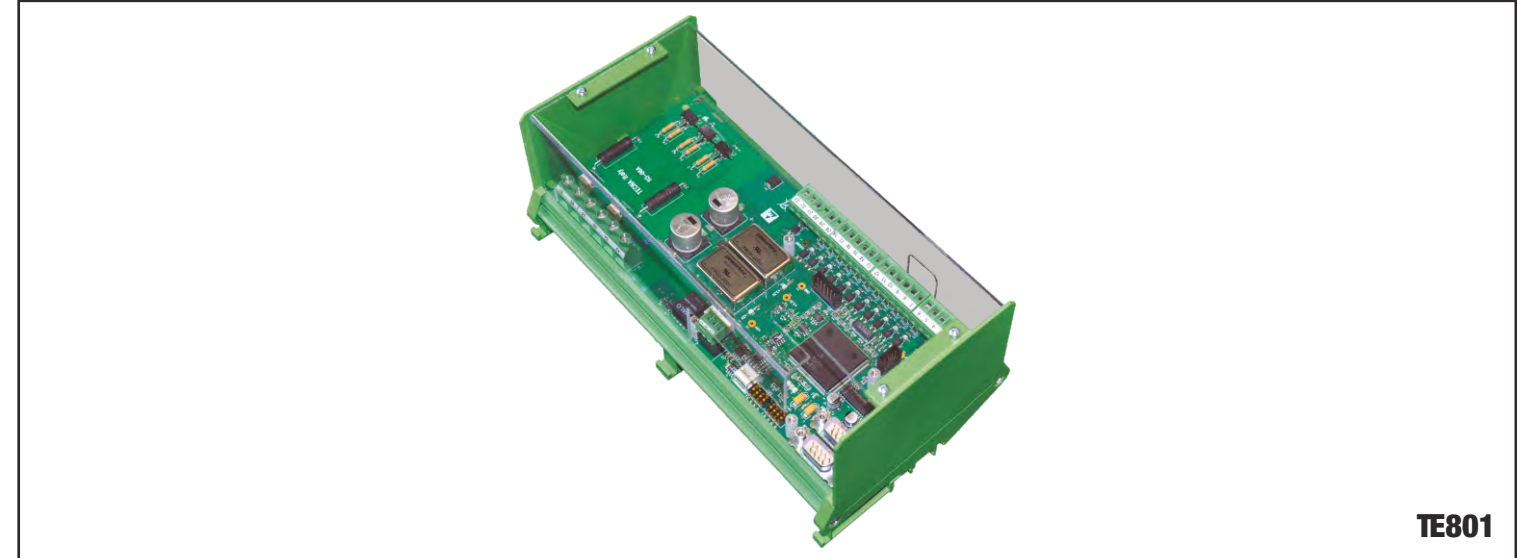
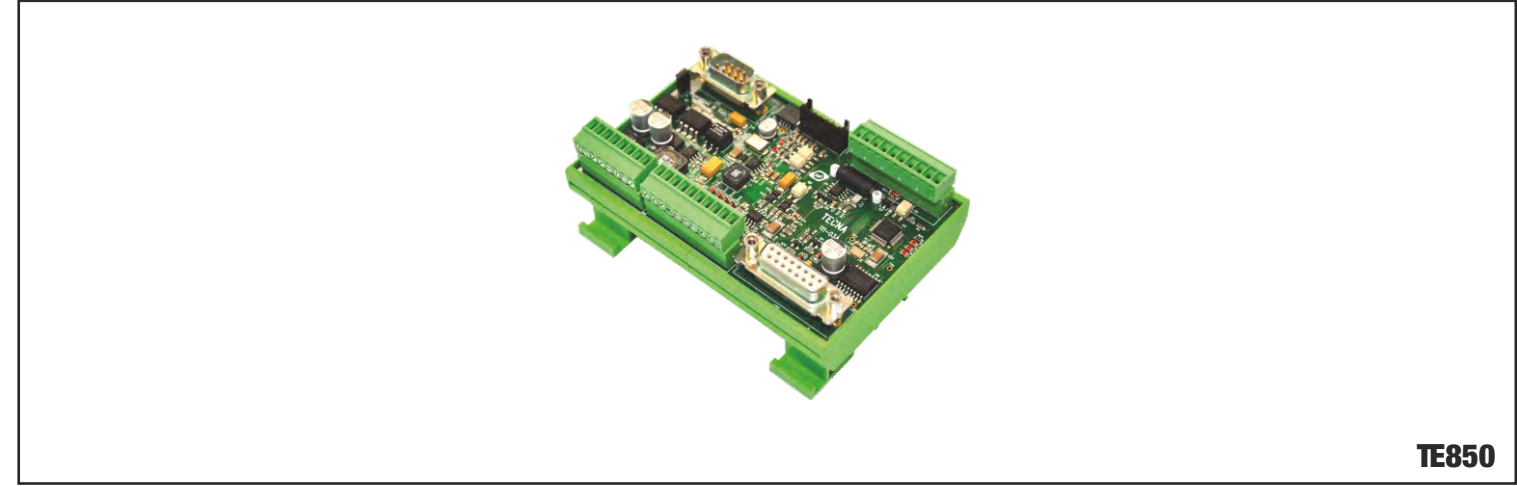
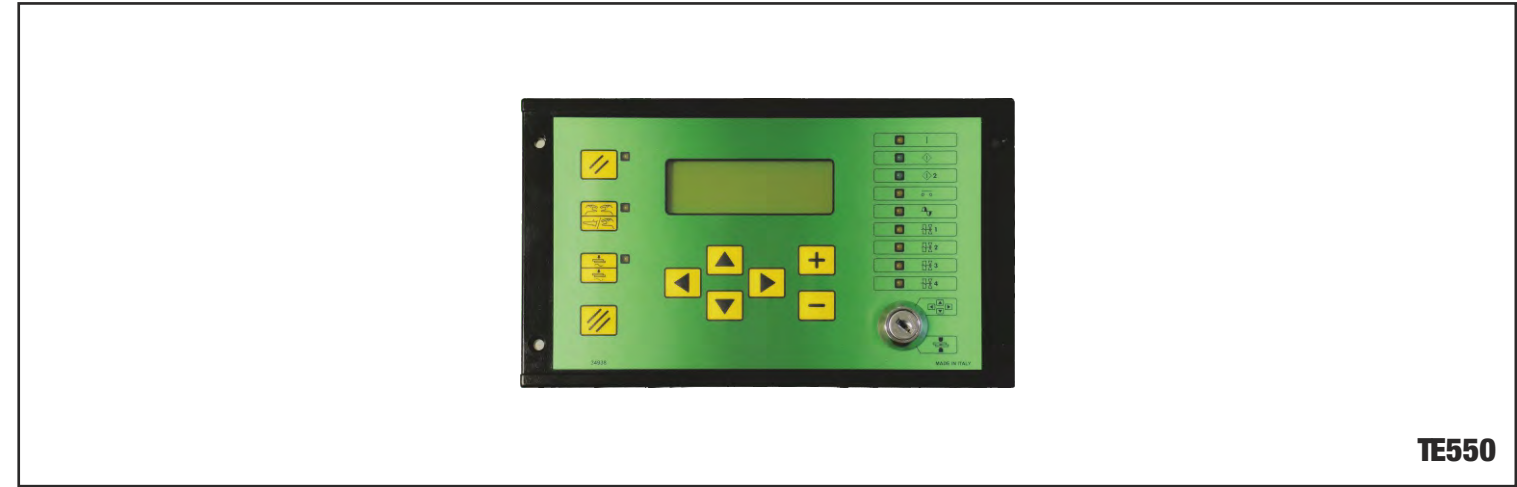
CONTROL UNIT 1247N / 1248N / 1249N WITH INTEGRATED POWER

1247N/1248N/1249N is a microprocessor control unit for resistance welders. All versions are power units equipped with SCR insulated from water cooling. The welding control unit is used to control the welder parts and, in particular, the thyristors adjusting the welding current. It is possible to store up to 250 different welding programs, 127 of them recalled directly from an external device. Each program is built up by 26 programmable parameters which describe the work cycle. Besides a simple 4 times welding cycle, the control allows the execution of welding processes with pre-welding current, post-welding current, slope and pulses.



ITEM		1247N	1248N	1249N
CONTROL UNIT		TE550		
Parameters N°		26	26	26
Programs N°		250	250	250
PLC recallable programs		127	127	127
RS232 interface output		○	○	○
USB interface board		○	○	○
Built-in ammeter		●	●	●
Constant current		●	●	●
Current limits		●	●	●
Stepper function		●	●	●
N° of managed solenoid valves		4	4	4
Nominal power at 50%.(400V)*	kVA	63	125	160
Output for proportional valve		○	○	○
Weight	kg	27	27	27

* Different voltages and frequencies on request.



Control units	TE101	TE550	TE550 50189	TE550 50189/72735	TE550 50200	TE550 50200/50097	TE850	TE801	TE801 7222X	TE801 50299	TE801 7226X
Parameters N°	13	26	26	26	26	26	2	16	16	16	16
Programs N°	99	250	250	250	250	250	1	250	250	250	250
PLC recallable programs	31	127	127	127	127	127	-	127	127	127	127
Rs232 interface	○	○	○	○	○	○	-	-	-	-	-
ETHERNET interface board	-	○	○	○	○	○	-	○	-	●	●
USB interface	-	○	○	○	○	○	-	-	-	-	-
Built-in ammeter	●	●	●	●	●	●	-	●	●	●	●
Current limits	●	●	●	●	●	●	-	●	●	●	●
Pressure limits	-	-	○	●	-	-	-	-	-	-	-
Stepper function	-	●	●	●	●	●	-	●	●	●	●
Constant current	-	●	●	●	●	●	-	●	●	●	●
Constant energy	-	-	○	●	○	●	-	-	-	-	-
Secondary current compensation	●	-	-	-	-	-	-	-	-	-	-
Welds counter	-	●	●	●	●	●	●	●	●	●	●
Two-hands input	-	●	●	●	●	●	-	-	-	-	-
N° of managed solenoid valves	1	4	4	4	4	4	-	-	-	-	-
Low force squeeze	-	●	●	●	●	●	-	-	-	-	-
Forge program	-	●	●	●	●	●	-	-	-	-	-
Output for proportional valve	-	○	○	○	○	○	-	-	-	-	-

Sede Legale - Uffici - Produzione Linea Industriale - Spedizioni
GPS N44° 24' 24" - E11° 35' 13"



Stabilimento di Produzione Linea Bilanciatori
Via Miglioli, 36 | Castel San Pietro Terme | GPS N44° 24' 18" - E11° 34' 44"



Stabilimento di Produzione Linea Industriale e Linea Professionale
Via Grieco, 25/27 | Castel San Pietro Terme | GPS N44° 24' 18" - E11° 34' 44"



TECNA®
Advanced Resistance Welding Systems



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