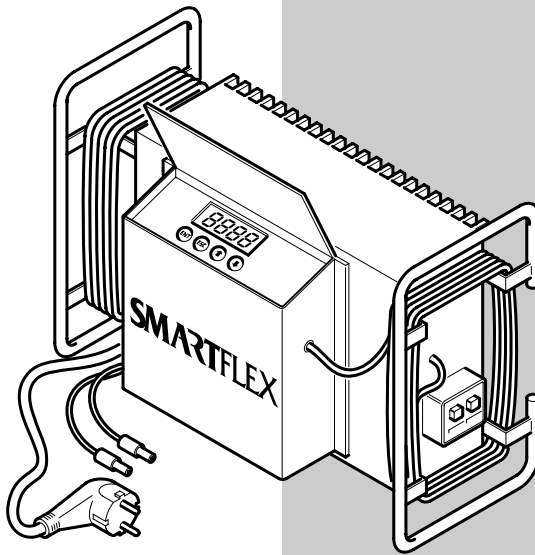




**GECO
SYSTEM**

SSEL8300



USER'S HANDBOOK

For any queries please contact our **TECHNICAL SUPPORT** Service.

Telephone: (39) 0542-624901 / Fax 0542-624900



TECHNICAL SPECIFICATIONS

For use with:	Electro-weldable SMARTFLEX fittings
Weight	15 Kg E8300
Dimensions	360 x 340 x 230
Maximum absorbed power	3 KVA
Power supply	220 V - 50 Hz
Ambient temperature limits	From - 10 ° C to + 40 ° C
Power lead	3.5 m long
Welding lead	3 m long
Display	Backlit liquid crystal 2-line, 20-column display
IIP Protection	54
Max welding voltage	48 V
Wiring diagram	See “ Wiring Diagram” section

65TB0009

THIS MACHINE IS INTENDED FOR USE WITH:

- Electro-weldable SMARTFLEX fittings.

IMPORTANT

The SSEL 8300 welding unit must ONLY be run off a quality 220 V AC 50 Hz power supply with a tolerance of 10%.

It is thus recommended that the intended energy source be checked to ensure that it complies with the above specifications.

Should the welding unit be powered by a generator make sure that the latter is of the asynchronous type.

Should you need to purchase a generator contact the Technical Support Service first to obtain details on recommended generator specifications.

Be particularly careful when using extension leads, especially as regards the length/cross-section ratio as this can affect welding results.

Any extension leads must comply with the following:

up to 30 m: 3-wire lead with a 2.5 mm² cross section.

up to 60 m: 3-wire lead with a 4.0 mm² cross section.

up to 100 m: 3-wire lead with a 6.0 mm² cross section.

SAFETY INSTRUCTIONS

To reduce the risk of accidents when using electrical plastic pipe welding equipment it is fundamental that the equipment be handled with due care and attention, in full observance of the instructions for use and in full

compliance with the accident prevention standards in force.

Negligence and/or failure to comply with accident prevention standards can lead to serious accidents in the workplace.

CONNECTIONS

Connection to the power source: The on-site power panel to which the unit is connected must be of the ASC type and comply with CEI 17-13/1 and 17-13/4 safety standards. Connection to a socket which is protected by a differential switch with a maximum Id of 30mA and fitted with a proper earth connection is compulsory. The power panel socket must have a minimum protection rating of IP44.

Electrical connection with work units:

Connect the on-site power supply panel to the welding unit with abrasion and chemical-resistant H073N-F wiring only; any extension leads must use the same wiring type and be of a cross-

section suitable for welding unit power requirements and the length of the extension lead itself.

Earth connection:

There should be a unified earth connection for the entire work site: the resistor rating must be suitable for employed safety systems and must guarantee that no metallic parts which might come into contact with an electrical conductor reach an electric potential of more than 25 V. The earth system must be installed and checked by qualified personnel who shall inform the relevant authorities of such installation.

SAFETY FIRST: USE, STORAGE AND HANDLING

In order to minimize risk of electric shock all equipment must be used, handled and stored properly in full observance of the following:

- Do not employ makeshift connections that fail to comply with standards.
- Avoid all physical contact with live parts.
- Never remove a plug from a power socket by tugging the lead.

- Do not drag, carry or lift any equipment by its power lead.
- Do not tread on the lead or place any heavy, sharp objects on it.
- Do not place any hot (70 °C) objects on the lead as insulation may be damaged.

■ Do not under any circumstances use electrical equipment in wet areas: always make sure that gloves, shoes and other personal safety items are dry.

■ Never spray water or any other liquids against the equipment.

■ The insulation on the electrical lead and all welding unit insulation parts (e.g. plastic handgrip) must be checked periodically, or immediately following any anomalous event. Bear in mind that infiltration of dirt together with a high degree of humidity turns parts that were originally good electrical insulators into conductors!

■ Check lead insulation, especially at wire grip points or where the lead is subject to any kind of mechanical stress.

■ Do not use the welding unit when ambient conditions are critical: very high temperatures, high degree of humidity, electrical storms etc.

■ **Do not use the equipment in restricted spaces, when there is a high degree of humidity, on ship-building sites or in metal-enclosed areas.**

■ At least once a month, check that the safety differential switch is working properly.

■ Clean the unit thoroughly; make sure that cleaning materials are suitable and will not damage insulation. Do not use solvents,

petroleum products or abrasive substances.

■ Store all electrical equipment in a dry area to which unauthorized personnel have no access.

■ Do not use any electrical equipment where there is flammable or irritating gas, vapor or dust.

■ Make sure the welding unit is disconnected from the power supply at the end of a work session or during a break.

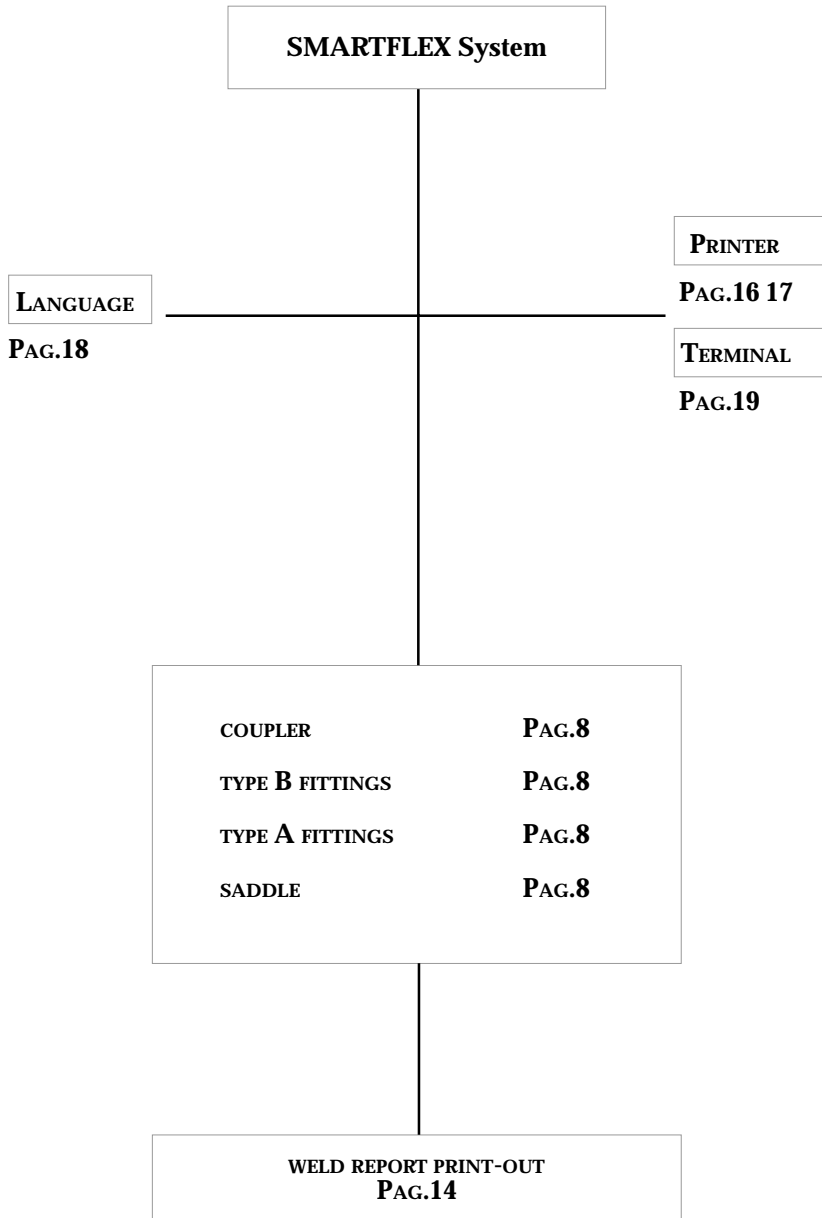
■ Before using the equipment again check that the welding unit has not been damaged or tampered with as this could make work dangerous.

■ Always use protective eye goggles when welding (to protect the wearer against outward projection of material) or keep a safe distance (at least 2 m).

KEEP VISITORS AT A SAFE DISTANCE

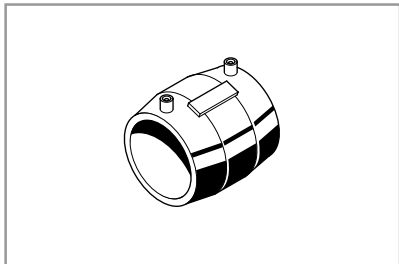
Any visitors to the site must be kept at a safe distance from the work area. Visitors who come near the equipment may obstruct the work in progress and present a danger to themselves and the worker.

WELDING UNIT SSEL 8300 - FUNCTIONS

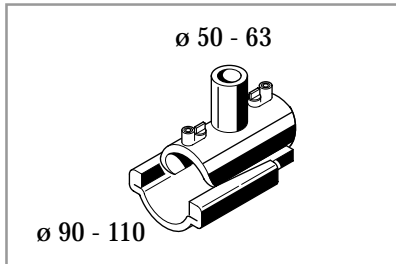


KEY TO WELDABLE FITTING TYPES THAT APPEAR ON THE WELDING UNIT DISPLAY

COUPLER

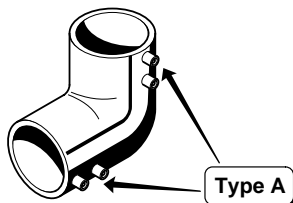
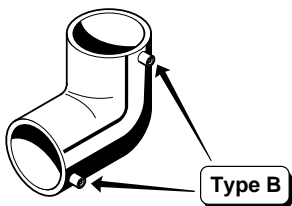


SADDLE

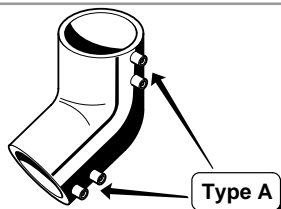
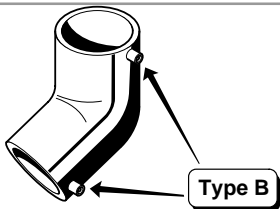


TYPE OF FITTINGS

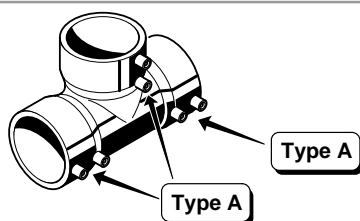
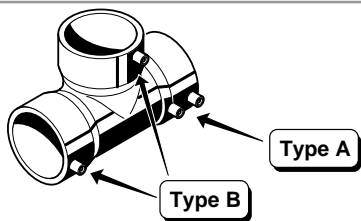
SGE



SCE



STE

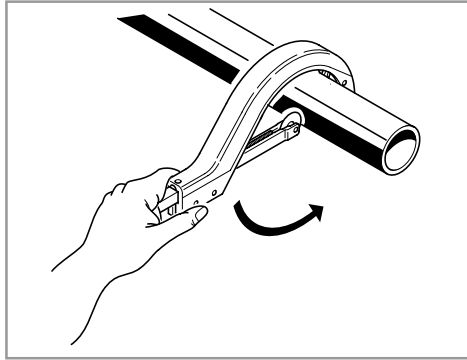


WARNING! - WARNING! - WARNING!

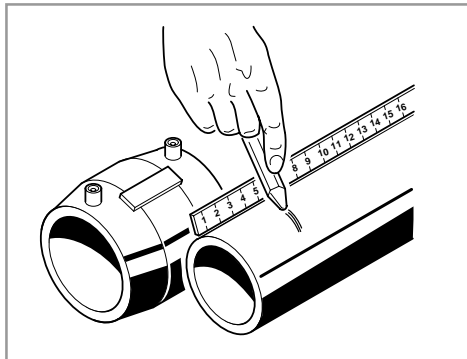
PRE-WELDING PREPARATION

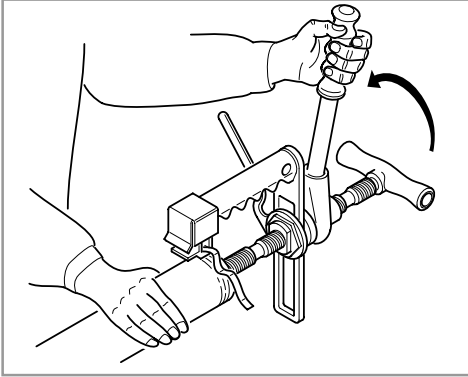
To ensure good welding results proceed as follows:

CUT THE PIPES PERPENDICULARLY WITH THE AID OF THE PIPE CUTTERS

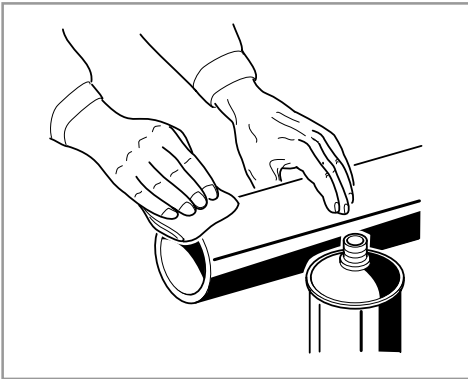


MARK THE IN-SOCKET DEPTH ON THE PIPE EXTERIOR WITH THE SPECIAL PENCIL

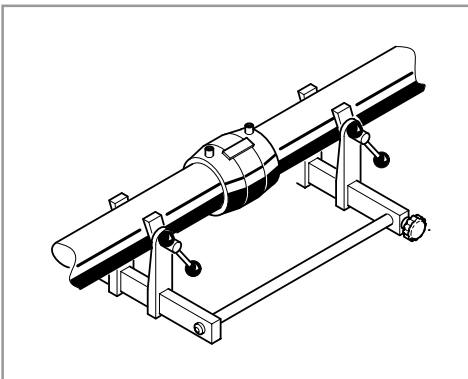




**SCRAPE THE PIPE SURFACE EVENLY
WITH THE SCRAPER**



**DEGREASE THE PIPE AND FITTING WITH
PAPER WIPES SOAKED IN LIQUID
PRIMER**



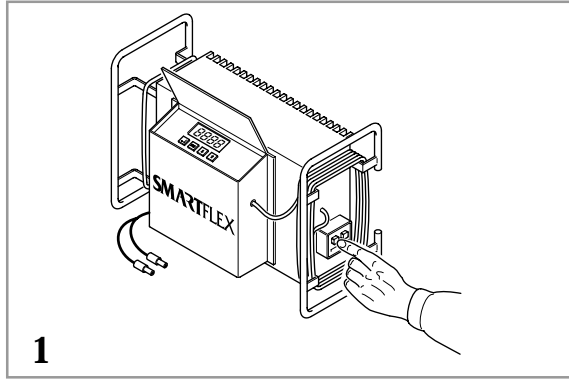
**ASSEMBLE PIPE BUTTS AND SOCKET
AND LOCK IN PLACE WITH THE
ALIGNER**

**FOR FURTHER INFORMATION SEE THE
SMARTFLEX MANUAL**

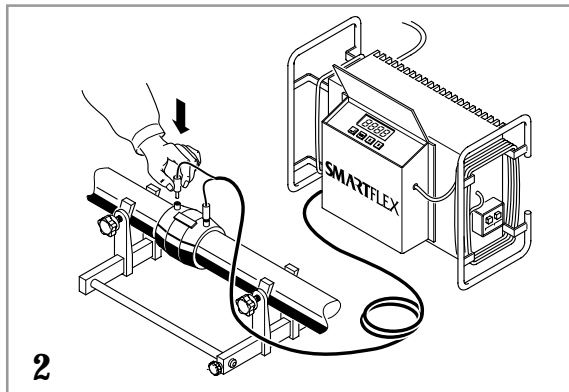
WELDING PROCEDURE: INSTRUCTIONS

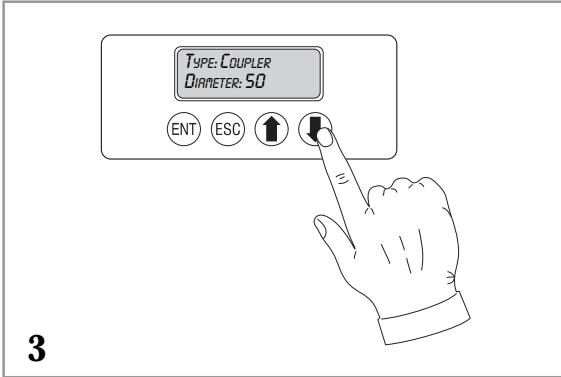
RAISE THE GUARD FLAP ON THE RIGHT-AND SIDE OF THE WELDING UNIT. THEN TURN THE UNIT ON VIA THE MAIN SWITCH.

(the unit serial number and the program version appear on the display for a few seconds)

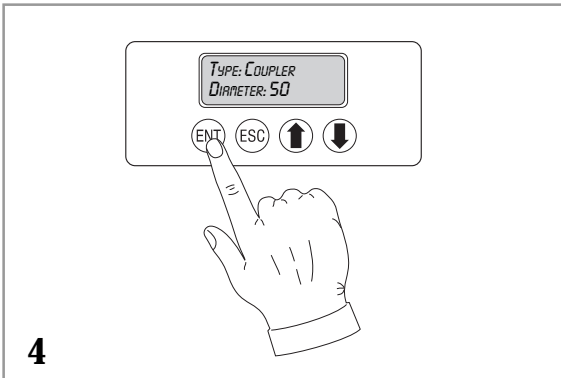


CONNECT THE WELDING UNIT LEADS TO THE FITTING. (fitting and pipes must be inserted in the aligner)



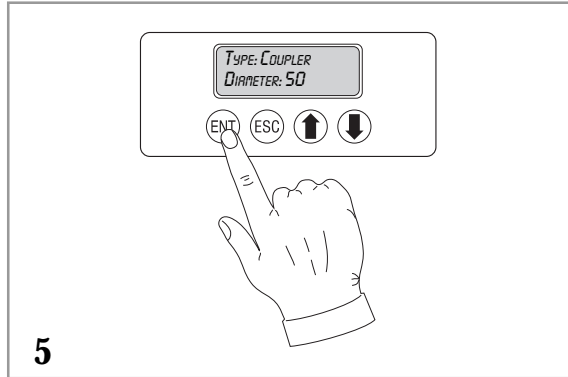


**SELECT THE FITTING TYPE
BY SCROLLING WITH THE
UP/DOWN KEYS**

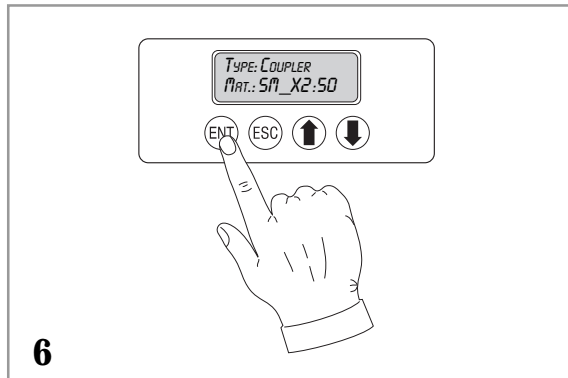


**PRESS ENTER
SELECT THE DIAMETER BY
SCROLLING WITH THE UP/
DOWN KEYS**

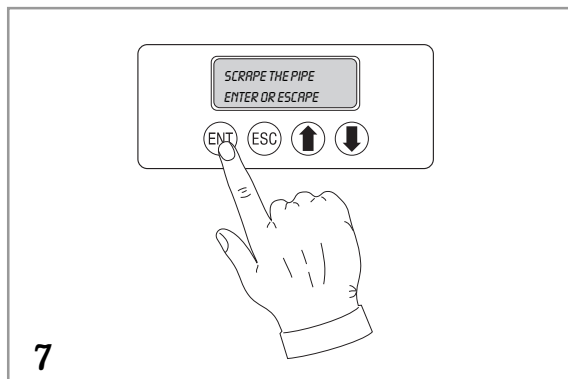
PRESS **ENTER**

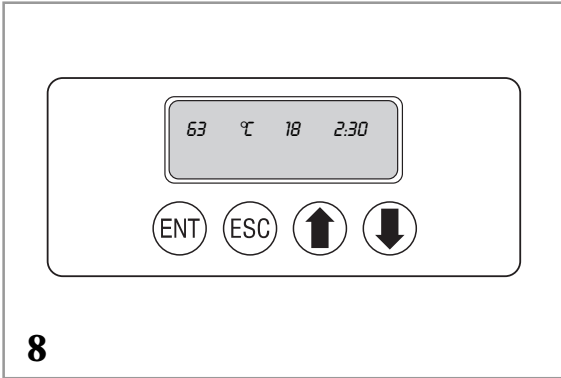


A SUMMARY OF THE SETTINGS THEN APPEARS ON THE DISPLAY. **CHECK IT**, THEN PRESS **ENTER**.

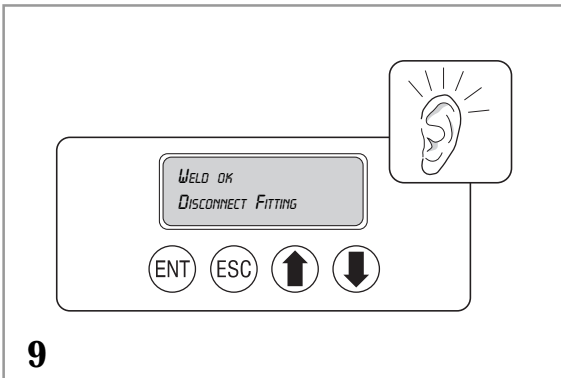


THE DISPLAY THEN READS: **“SCRAPE THE PIPE”** (this should already have been done) AND **“ENTER OR ESCAPE”**. PRESS **ENTER**

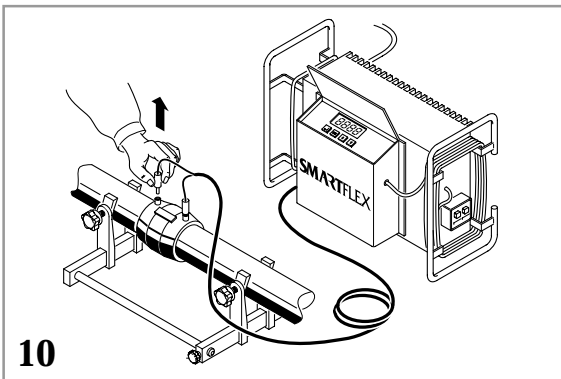




THE WELDING CYCLE BEGINS: WELD DIAMETER, AMBIENT TEMPERATURE AND REMAINING WELDING TIME APPEAR ON THE DISPLAY

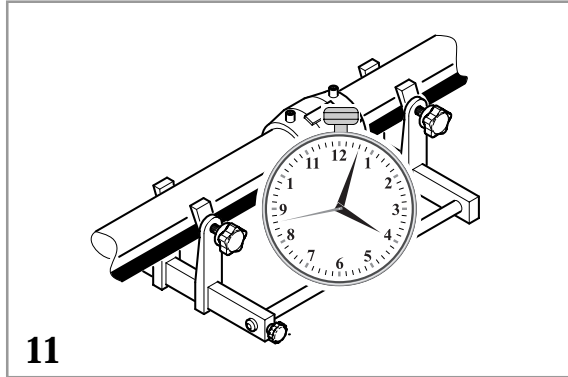


AN ACOUSTIC ALARM SIGNALS THE END OF THE CYCLE. THE DISPLAY READS "WELD OK - DISCONNECT FITTING". DISCONNECT THE FITTING.

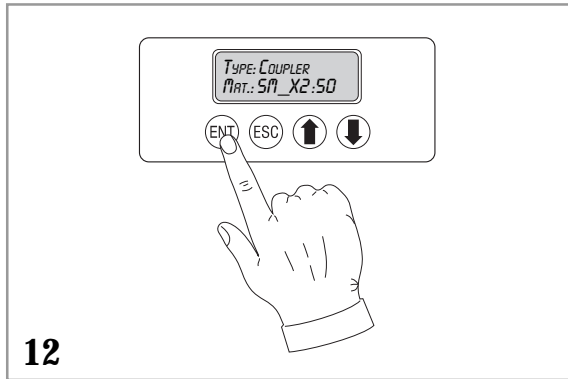


SHOULD THE PRINTER ALREADY BE CONNECTED, DISCONNECTING THE FITTING AUTOMATICALLY GIVES A PRINT-OUT OF THE WELDING REPORT. OTHERWISE, PRESS **ESCAPE** TO CARRY OUT ANOTHER WELD.

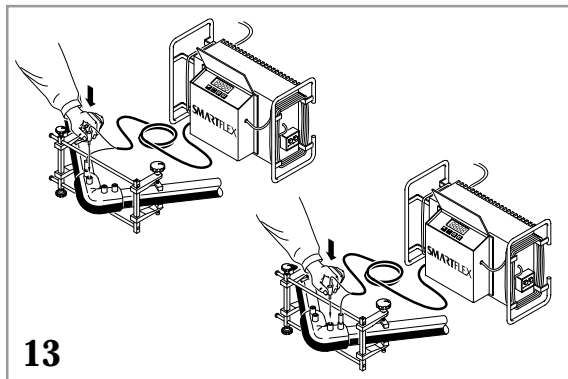
WAIT FOR THE SOCKET TO COOL BEFORE REMOVING THE ALIGNER.
(SEE TAB. 1 PAGE 16)



IF THE NEXT SOCKET TO BE WELDED IS THE SAME AS THE PREVIOUS ONE CONNECT UP THE FITTING AND PRESS **ENTER**. IF THE SOCKET IS DIFFERENT PRESS **ESCAPE**.



IF THE FITTINGS ARE OF THE TYPE A INSERT THE TWO WELDING PLUGS AT THE NEXT WELD POINT (SEE DIAGRAM).
REPEAT THE PROCEDURE AS FROM POINT 3.



<i>Diameter (mm)</i>	<i>t (min)</i>
50	6
63	8
90	10
110	10

65TB0006

TAB. 1 REQUIRED COOLING TIMES BEFORE ALIGNER REMOVAL

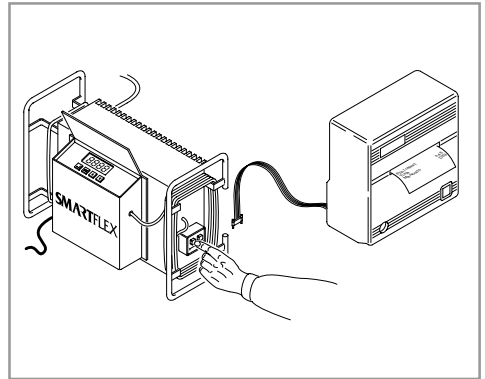
<i>Diameter (mm)</i>	<i>t (min)</i>
50	25
63	30
90	40
110	45

65TB0007

TAB. 2 MINIMUM COOLING TIMES BEFORE TESTING CAN BE EFFECTED

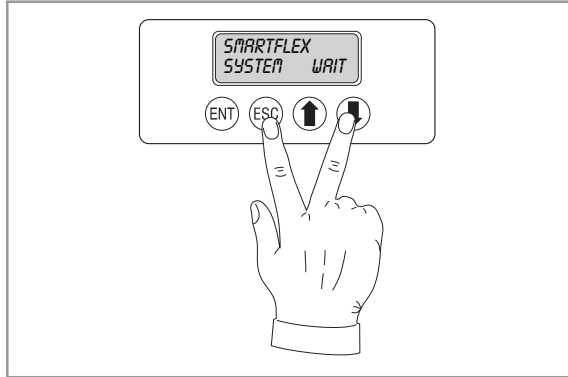
HOW TO OBTAIN A PRINT-OUT OF THE WELDING REPORT

The SSEL 3800 can print out a welding report at the end of every cycle as described in point 10 of the previous section. If the printer has not been connected the display reads "PRINTER DISCONNECTED". To resolve the situation just connect up the printer and printing of the report will begin automatically. If for some reason the report cannot be printed on-site immediately after completion of the welding cycle the SSEL 8300 allows reports on that day's welds to be printed at a later time.

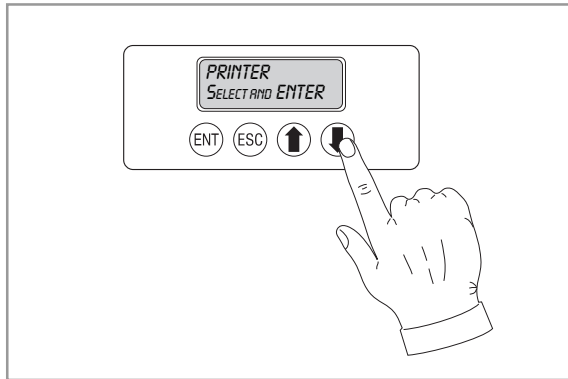


SWITCH ON THE WELDING UNIT AND CONNECT UP THE PRINTER. WAIT UNTIL "SMARTFLEX SYSTEM - WAIT" APPEARS ON THE DISPLAY.

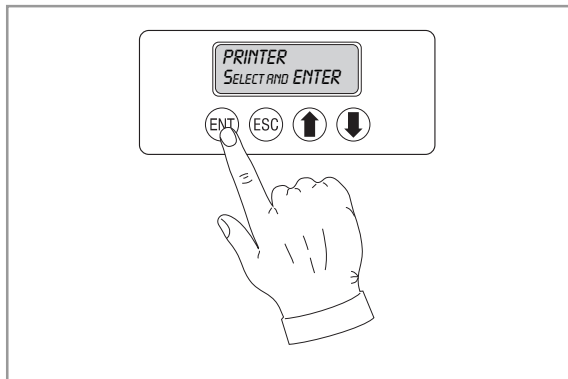
**PRESS THE DOWN
ARROW AND ESCAPE
KEYS SIMULTANEOUSLY**



**“PRINTER - SELECT AND
ENTER” APPEARS ON THE
DISPLAY. SELECT THE
RELEVANT PRINTER OR
TERMINAL BY SCROLLING WITH
THE UP/DOWN KEYS**



PRESS ENTER

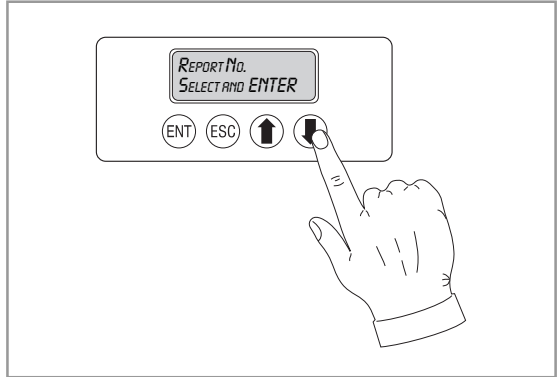


“N° OF REPORTS - Select and ENTER”

APPEARS ON THE SCREEN.

SELECT THE NUMBER OF
REPORTS TO BE PRINTED BY
SCROLLING WITH THE **UP/
DOWN** KEYS.

PRESS **ENTER** TO OBTAIN A
PRINT-OUT OF THE SELECTED
WELDS.



Example of welding protocol:

***	Geco System	***
***	Ver. 2.0 (c)	***
MACHINE N°		107
WELDING N°		23
DATE		25-10-96
TIME		10:26
TEMPERATURE		+17°C
MATERIAL		SM_X2
TYPE		COUPLER
DIAMETER		63 mm
VOLTAGE		20 V
RESISTANCE		2.2 Ohm
WELDING TIME		189 s
ERROR N°		OK

CHANGING THE DISPLAY LANGUAGE

To change the language on the display just switch on the machine and wait for the message “SMARTFLEX SYSTEM - WAIT” to appear. Then press the **ESCAPE**, **UP** and **DOWN** keys simultaneously. Then select the

desired language by scrolling with the **UP/DOWN** keys. Press **ENTER** to confirm.

OBTAINING A WELDING REPORT VIA YOUR PC

WINDOWS 3.11

- Connect the welding unit to your PC serial port (COM 1) with the 12E8204 lead.
- Start Windows 3.11 and insert the diskette.
- Select RUN from the FILE menu.
- Write: A:\8300.TRM and then press the OK key.
- This will start the Windows TERMINAL program running with the exact parameters needed to communicate with the SSEL 8300 welding unit.
- To send the data to the printer directly select the PRINTER ECHO command from the SETTINGS menu.

N.B. THE DATA WILL ONLY BE SENT TO THE PRINTER WHEN THE "TERMINAL" PROGRAM HAS BEEN EXITED.

At this point proceed with the welding unit as described on the previous pages.

WINDOWS 95

- Connect the welding unit and your PC serial port (COM 1) with the 12E8204 lead.
- Switch on the PC and insert the diskette.
- Select RUN from the START menu.

- Write A:\8300.HT IN THE "OPEN" field and then press the OK key.

- This will start the Windows 95 HYPERTERMINAL program running with the exact parameters needed to communicate with the SSEL 8300 welding unit.

- To send the data to the printer directly select the "CAPTURE PRINTER" command from the "TRANSFER" menu.

N.B. THE DATA WILL ONLY BE SENT TO THE PRINTER WHEN THE HYPERTERMINAL PROGRAM HAS BEEN EXITED. At this point proceed with the welding unit as described on the previous pages.

CHANGING THE DATE AND THE HOUR

To change the date and hour on the machine proceed as follows: Switch on the welding unit and wait for the hour and the date to appear in the display. Set the hour, minutes, seconds, day, month and year when the cursor is at the respective parameters, first by pressing ESCAPE, then scrolling

with the UP and DOWN ARROW KEYS and pressing ENTER to set. When the last data item has been set the welding unit switches back to welding mode.

SAFETY (ALARMS)

The SSEL 8300 welding unit has a number of safety devices (or alarms) which may be tripped during welding or during setting of the welding parameters. The

alarm code is always given on the luminous display. To cancel an alarm remove the fitting.

SAFETY DEVICE (Alarm) TYPES:

error code	1	indicates	No fitting present
error code	2	indicates	Short circuit
error code	3	indicates	Fitting disconnected
error code	4	indicates	Ambient temperature outside tolerance
error code	5	indicates	Over-voltage
error code	6	indicates	Under-voltage
error code	7	indicates	Insufficient power
error code	8	indicates	Current surge
error code	9	indicates	Dissipater or transformer overheating
error code	10	indicates	Deliberate pause

TROUBLESHOOTING

<i>Fault/Alarm</i>	<i>Explanation and Solution</i>
The display fails to come on	Check for proper connection and effective power supply. If the problem persists contact the Technical Support service.
Display messages incomprehensible	Switch the unit off and then back on while taking care not to touch any of the keys on the front panel.
Ambient temperature readings false	Check that the temperature sensor on the back of the machine is not damaged or in contact with objects hotter/colder than the surroundings.
Alarm 1 - No fitting	You have attempted to select a fitting unknown to the unit (Change the fitting).
Alarm 2 - Short circuit	The resistor on the connected fitting is rated higher than the allowed minimum (Faulty fitting, change it).
Alarm 4 - Ambient temperature outside tolerance	Ambient temperature is lower than -10°C or higher than $+45^{\circ}\text{C}$.
Alarm 5 - Over-voltage	Power supply voltage has exceeded 270 V AC. Check the power supply voltage.
Alarm 6 - Under-voltage	The power supply voltage is below 160 V AC. Check the power supply voltage, the length and the cross-section of the power leads.
Alarm 7 - Insufficient power	The current has dropped below the consented minimum during the welding cycle. (Fitting disconnects). The power supply voltage is particularly low and the unit is unable to generate the necessary power required at the welding lead ends.
Alarm 9 - Dissipater or transformer overheating	Dissipator or transformer temperature has exceeded 70°C or in the event of reduced power, transformer temperature has exceeded 85°C . (Wait and let the unit cool).
Alarm 10 - Deliberate pause	The ESC key has been pressed (forced interruption) during the welding cycle.

65TB0010

For any queries please contact our **TECHNICAL SUPPORT** Service.
Telephone: (39) 0542-624901 / Fax 0542-624900

KEEP THIS PAGE WITH CARE

WARRANTY

- 1** The welding unit is guaranteed for a 12 month period as from date of purchase as shown on the invoice, freight bill or cash slip issued by the dealer.
The absence of any such proof of purchase renders the warranty null and void.

- 2** The warranty covers free replacement or repair of those welding unit components which have faults imputable to manufacturing defects.

- 3** The warranty does not cover parts which are faulty owing to negligence or careless use, maintenance effected by

- unauthorized personnel, damage sustained during transport or in circumstances not imputable to manufacturing defects.

- The warranty does not cover any damage to the welding unit caused by surges in unstabilized power sources. **4**

- The faulty welding unit shall be consigned Carriage Paid and returned Carriage Forward. **5**

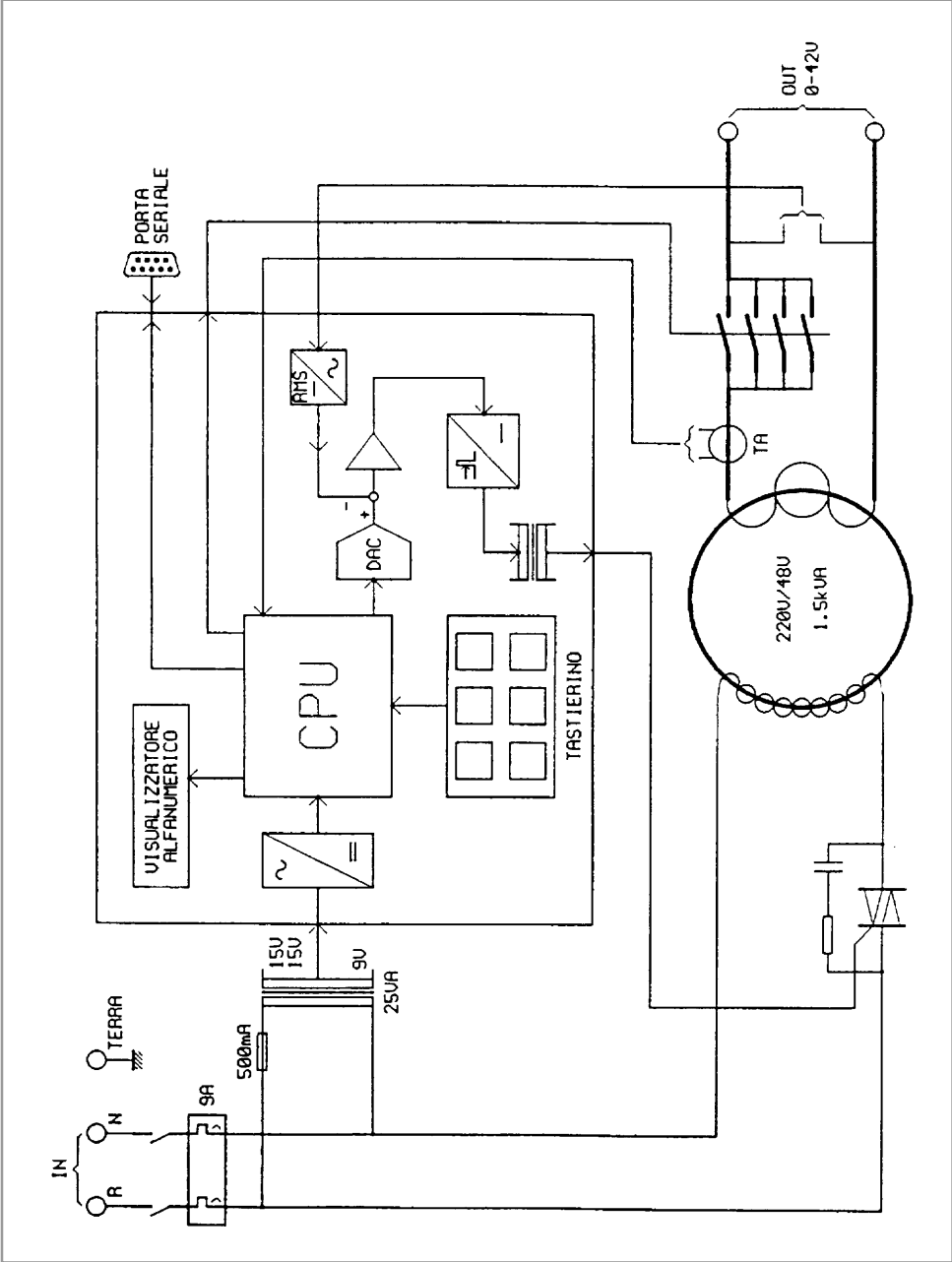
- Geco S.p.a cannot be held responsible for any direct or indirect damages to persons or objects during welding unit use. **6**

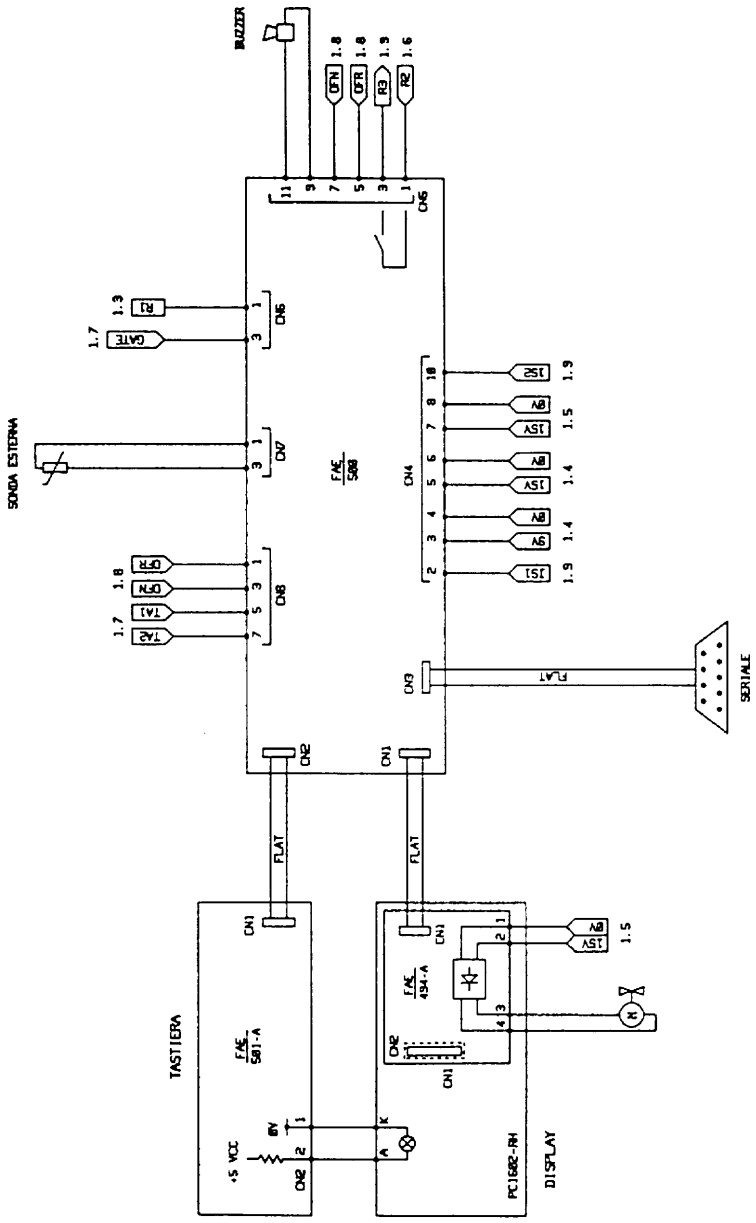
MODEL SSEL 8300

SERIAL N°

DATE OF PURCHASE

DEALER'S STAMP _____





DICHIARAZIONE DI CONFORMITÀ

DECLARATION OF CONFORMITY - CERTICAT DE CONFORMITE -
DECLARACION DE CONFORMIDAD - KONFORMITÄTSBESCHEINIGUNG -
VERKLARING VAN GELIJKVORMIGHEID

Geco System S.p.a., Via Magenta n. 43, 21015 Lonate Pozzolo (VA)

DICHIARA-DECLARES-DÉCLARE QUE-DECLARA-ERKLÄRT-VERKLAART

Che la saldatrice SSEL8300/E8301/2 Matricola Nr.
é conforme alle disposizioni delle seguenti Direttive e/o Normative
internazionali:

That the welding machine SSEL8300/E8301/2 Serial Number
conforms to regulations of the following International Directives and/or
Standards:

La soudeuse SSEL8300/E8301/2 portant le numéro matricule
est conforme aux dispositions des Directives et/ou Normes internationales
suivantes:

Que la soldadora SSEL8300/E8301/2 Matrícula N
está conforme con las disposiciones de las siguientes Directivas y/o Normativas
internacionales:

Daß die Schweissmaschine SSEL8300/E830/2 mit der Registriernummer:
den Vorschriften der folgenden internationalen Normen und / oder Richtlinien
entspricht:

Dat het lasapparaat SSEL8300/E8301/2 inschrijvingsnummer
beantwoordt aan de bepalingen van onderstaande internationale richtlijnen en/of
normen:

Di emissione EN 50081-1:/Emission EN 50081-1:	EN 55022
En matière d'émission EN 50081-1:/De emisión EN 50081-1:	EN 61000-3-2
Emissionsrichtlinie EN 50081-1:/Inzake emissies EN 50081-1:	EN 61000-3-3

Di immunita' EN 50082-1:/Immunity EN 50082-1:	EN 61000-4-2
En matière d'immunité EN 50082-1:/De inmunidad EN 50082-1:	EN 61000-4-4
Immunitätsrichtlinie EN 50082-1:/Inzake immuniteit EN 50082-2:ENV 50140	

La presente dichiarazione perde ogni validità in caso di modifiche alla saldatrice senza nostra autorizzazione scritta.

This declaration loses all validity in the case of modifications being made the welding machine without our written authorisation.

La présente déclaration perd toute validité dans le cas de modifications apportées à la soudeuse sans notre autorisation écrite.

Esta declaración pierde completamente su validez en caso de modificaciones en la soldadora sin nuestra autorización por escrito.

Die vorliegende Bescheinigung verliert im Falle von Veränderungen der Schweißmaschine, die ohne unsere schriftliche Genehmigung ausgeführt werden, jegliche Gültigkeit.

Deze verklaring verliest haar geldigheid als er wijzigingen aan het lasapparaat worden aangebracht zonder onze schriftelijke toestemming.

Lonate Pozzolo,

GECO SYSTEM S.p.a.

**TAGLIARE E SPEDIRE ENTRO 10 GIORNI LA
CARTOLINA RIPRODOTTA NELLA PAGINA
SEGUENTE:**

CUT OUT AND SEND THE POSTCARD WITHIN 10 DAY AT:

DECOUPER LE COUPON CI-DESSOUS ET LE RENVOYER DANS
LES 10 JOURS A L'ADRESSE SUIVANTE :

CORTAR Y ENVIAR DENTRO DE 10 DIAS EL CUPON ABAJO A:

DIE UNTEN ANGEFÜGTE POSTKARTE AUSSCHNEIDEN UND
INNERHALB VON 10 TAGEN EINSCHICKEN AN:

ONDERSTAANDE KAART UITKNIPPEN EN BINNEN 10 DAGEN
TERUGSTUREN NAAR:

Spett.le

GECO SYSTEM S.p.a.

Via Magenta 43

21015 Lonate Pozzolo Varese - Italia

CERTIFICATO DI GARANZIA VALEVOLE 1 ANNO
CERTIFICATE OF GUARANTEE 1 YEAR
CERTIFICAT DE GARANTIE VALABLE 1 AN
CERTIFICADO DE GARANTIA VALIDO 1 AÑO
GARANTIEBESCHEINIGUNG MIT EIN JÄHRIGER GÜLTIGKEIT
GARANTIEBEWIJS 1 JAAR GELDIG

SALDATRICE/MODEL/SOUDEAUSE/SOLDADORA/
SCHWEISSMASCHINE/LASAPPARAAT
Art.. SSEL8300/E8301/2 _____

N° DI SERIE/SERIAL N°/N° DE SERIE/N. DE SERIE/ SERIENNUMMER
/SERIENUMMER _____

DATA DI PRODUZIONE:/PRODUCTION DATE:/ DATE DE
FABRICATION:/FECHA DE FABRICACION:
PRODUKTIONSdatum:/PRODUCTIEDATUM: _____

COGNOME/SURNAME/NOM/APELLIDO/FAMILIENNAME/NAAM

NOME/NAME/PRENOM/NOMBRE/VORNAME/VOORNAAM

VIA/ADDRESS/RUE/CALLE/STRASSE/STRAAT _____ Nr _____

C.A.P./POST-CODE/-CODE-POSTAL/DISTRITO POSTAL/PLZ/
POSTCODE _____

LOCALITA'/TOWN/LOCALITE/CIUDAD/ORT/WOONPLAATS

STATO/COUNTRY/PAYS/NACION/STAAT/STAAT _____

DATA DI ACQUISTO/DATE OF PURCHASE/DATE D'ACHAT/FECHA
DE COMPRA/KAUFdatum/AANKOOPdatum _____

TIMBRO DEL RIVENDITORE/RETAILER'S STAMP/CHCHET DU
REVENDEUR/SELLO DEL REVENDEDOR/STEMPEL DES/
VERKÄUFERS/STEMPEL VAN DE VERKOPER







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