



## Marking methods

### LASER ENGRAVING



#### Strengths

- High speed
- Sharp definition
- Marks metals and polymers
- No locking of weapon required during marking
- Easy marking of assembled firearms (no stress on components)

#### Weaknesses

- High cost
- Marks not recoverable if removed
- Special safety requirements (due to danger from laser)

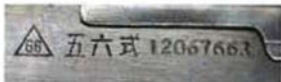




## Physical characteristics of marking

APPLIED TO AN  
EXPOSED SURFACE

Straight, legible, and complete



Offset and difficult to read  
(some characters incomplete)



## Physical characteristics of marking

CONSPICUOUS WITHOUT  
TECHNICAL AID OR TOOLS



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## Physical characteristics of marking

EASILY RECOGNIZABLE,  
READABLE

### Adequate

(manufacturer code, date, and serial number)



### Inadequate

(numbers only, no date, and no  
recognizable factory code or symbol)



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## Marking at the time of manufacture

### REQUIRED MARKINGS



1. Name of manufacturer
2. Country of manufacture
3. Serial number

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## Marking at the time of manufacture

### ALTERNATIVE REQUIRED MARKINGS



Unique user-friendly marking with simple geometric symbols in combination with a numeric and/or alphanumeric code permitting ready identification of the country of manufacture by all States.



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## Marking at the time of manufacture

### ADDITIONAL ENCOURAGED MARKS



1. Year of manufacture
2. Weapon type/model
3. Calibre

## Marking at the time of import

### MARKING ELEMENTS



- 📄 Country of import
- 📄 Year of import (where possible)
- 📄 Unique identification number (if not already present)

Note: These requirements need not be applied to temporary imports of SALW for verifiable, lawful purposes, nor for the permanent import of museum artefacts.



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**Marking upon transfer  
from government stocks  
to permanent civilian use**

**MARKING REQUIREMENT**

Appropriate marking permitting identification of the country from whose stocks the transfer of the small arm or light weapon is made.



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**Marking SALW  
in possession of  
government armed  
and security forces**

**MARKING REQUIREMENT**



Appropriate unique marking  
permitting identification of  
SALW held or used by government  
armed and security forces.



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## Marking of illicit SALW found on national territory

### MARKING REQUIREMENT


Uniquely mark and record (or destroy)  
illicit SALW as soon as possible.



Beforehand, ensure that illicit SALW  
are stored securely.

For more information see 'Small Arms  
Survey Physical Security and Stockpile  
Management (PSSM) Best Practice Cards'.





## Measures to prevent the removal or alteration of markings

In order to foil or deter attempts to remove or alter weapon markings, States may consider the following options:



- Apply markings at the appropriate depth according to the material and the method used
- Mark serial numbers on metal components, preferably using stamping techniques
- Use covert markings whenever possible





## Placement of markings

### REQUIRED

'A unique marking should be applied to an essential or structural component of the weapon [...] such as the frame and/or receiver.' (ITI, para. 10)

Note: in the case of split receivers, the upper receiver should be marked.

### ADDITIONAL MARKINGS

Marks applied to other parts of the weapon, such as the barrel and/or slide or cylinder.



Cylinder markings (AKM assault rifle)





## The three pillars of tracing

### 1. MARKING

Unique marking to permit ready identification of weapons.  
(ITI, paras. 7-10)

### 2. RECORD-KEEPING

Accurate and comprehensive records to permit reconstruction of the transfer history of marked weapons.  
(ITI, paras. 11-13)

### 3. COOPERATION IN TRACING

Applying agreed rules, States send and respond to tracing requests—i.e. sharing of records. (ITI, paras. 14-23)

These three pillars are mutually reinforcing and essential to the success of tracing operations.



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## Small Arms

- ☒ Revolvers and self-loading pistols
- ☒ Rifles and carbines
- ☒ Sub-machine guns
- ☒ Assault rifles
- ☒ Light machine guns

(ITI, para. 4a)



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## Light Weapons



- Heavy machine guns
- Hand-held under-barrel and mounted grenade launchers
- Portable anti-aircraft guns
- Portable anti-tank guns
- Recoilless rifles
- Portable launchers of anti-tank missile and rocket systems
- Portable launchers of anti-aircraft missile systems
- Mortars of a calibre of less than 100 mm

(ITI, para. 4b)



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## Implementation of the ITI

### NECESSARY LEGISLATIVE AND ADMINISTRATIVE FRAMEWORK



'In accordance with their constitutional processes, States will put in place, where they do not exist, the laws, regulations and administrative procedures needed to ensure the effective implementation of this instrument.' (ITI, para. 24)





## Implementation of the ITI

### KEY LEGISLATIVE AND ADMINISTRATIVE TASKS

UN Member States need to determine:

- What changes to national laws, regulations, and administrative procedures are needed to meet ITI requirements.
- Whether and how to strengthen national capacity for ITI implementation (e.g. inter-ministerial coordination; consultation with industry, NGOs, and other stakeholders; training programmes).



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## Implementation of the ITI

### NATIONAL POINT OF CONTACT (NPC)

'States will designate one or more national points of contact to exchange information and act as a liaison on all matters relating to the implementation of this instrument.' (ITI, para. 25)



NPC information—such as phone number and email address—should be kept updated to allow for timely communication.



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## International cooperation and assistance

### AREAS FOR PRIORITY ATTENTION



-  **National marking capacity**  
Import marking and marking of government security force stocks.
-  **Effective record-keeping systems**  
The computerization of national records.
-  **Functional tracing systems**  
Accurate weapons identification;  
precise tracing requests;  
communications and IT systems.







## ITI information and resources

For further information regarding ITI implementation (ITI text in 6 languages, national implementation reports, points of contact, and other documents), please refer to:

### Programme of Action implementation support unit

The screenshot shows the website for the Programme of Action Implementation Support Unit. The header includes the logo and the text "Programme of Action Implementation Support Unit". The main content area has a green banner with the text "Programme of Action Implementation Support Unit". Below the banner, there is a section titled "The Programme of Action" with a description. To the right, there is a search bar and a list of documents. The navigation menu on the left includes links for Home, About Us, Programme of Action, Implementation Reports, Points of Contact, and Other Documents.

[www.poa-iss.org](http://www.poa-iss.org)



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**Rifle, pistol, and  
internal components  
relevant to marking**



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# Marking method selection is a national prerogative

(ITI, para. 7)

For information on marking technologies see Small Arms Survey Issue Brief 1, 'The Method behind the Mark.'







## Marking methods

### STAMPING



#### Strengths

- Recoverability of the mark (highest probability)
- Low cost

#### Weaknesses

- Often unsuitable for marking fully assembled firearms (due to stresses induced by stamping)
- Ineffective for marking polymers





## Marking methods

### DOT PEEN OR MICRO PERCUSSION



### Strengths

- High speed
- Low cost
- Low stress on components

### Weaknesses

- Shallow depth of mark (may not be recoverable if removed)
- Not optimal on polymers
- Firearm needs to be locked into place while being marked





## **Tracing reference material**

Small Arms Survey  
Weapons ID Database

[www.smallarmssurvey.org/weapons-and-markets/tools/the-weapons-id-database.html](http://www.smallarmssurvey.org/weapons-and-markets/tools/the-weapons-id-database.html)

Sudan Arms and Ammunition  
Tracing Desk

[www.smallarmssurveysudan.org/facts-figures-weapons-tracing-desk.php](http://www.smallarmssurveysudan.org/facts-figures-weapons-tracing-desk.php)

**Small Arms and Light Weapons Guide**

Published by the German Bundeswehr  
Verification Centre: Multinational  
Small Arms and Light Weapons Group

**Small Arms, Light Weapons  
and Ordnance ID Guide**

Published by the US Defense  
Threat Reduction Agency





## The Office of Weapons Removal and Abatement (PM/WRA)

The Office of Weapons Removal and Abatement is a division of the US Department of State's Bureau of Political-Military Affairs (PM/WRA). The Office develops, implements, and monitors policy, programmes, and public engagement efforts to:

- Curb the illicit proliferation of conventional weapons of war such as light automatic weapons and rocket-propelled grenades
- Remove and destroy other material such as landmines and excess stocks of munitions, which remain persistent threats to local populations and regional stability
- Create local, regional, and international conditions conducive to peace, stability, and prosperity

For more information visit the website:  
[www.state.gov/t/pm/wra](http://www.state.gov/t/pm/wra)





## The Small Arms Survey

The Small Arms Survey serves as the principal international source of public information on all aspects of small arms and armed violence, and as a resource centre for governments, policy-makers, researchers, and activists.

The Survey produces a range of publications, including the annual flagship Small Arms Survey, as well as Occasional Papers, Issue Briefs and Research Notes, many of which present information relevant to the ITI.

The Small Arms Survey is a project of the Graduate Institute of International and Development Studies, Geneva.

For more information visit the website:  
[www.smallarmssurvey.org](http://www.smallarmssurvey.org)





## INTERPOL Firearms Reference Table for firearms identification





## Use of INTERPOL mechanisms and facilities for tracing

INTERPOL may, at the request of a State, assist in the following areas:

- Facilitation of tracing operations conducted within the framework of the ITI
- Investigations to identify and trace illicit small arms and light weapons
- Building national capacity to initiate and respond to tracing requests





## **Delay, restriction, or refusal to provide requested information**

### **EXPLANATION BY THE REQUESTED STATE**

'If a State delays or provides a restricted response to a tracing request, or refuses to provide the information sought (...) it will inform the requesting State of the reasons for this. The requesting State may subsequently seek clarification of this explanation.'

(ITI, para. 22)







## **Delay, restriction, or refusal to provide requested information**

States may delay or restrict the content of their response, or refuse to provide the information sought, in cases where releasing the information:

- Would compromise ongoing criminal investigations.
- Would violate legislation on the protection of confidential information.

States may also choose not to cooperate when the requesting State cannot guarantee confidentiality for reasons of national security consistent with the UN Charter.

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(ITI, para. 22)





## Responses to tracing requests

### GENERAL COMMITMENT

In responding to a tracing request, the requested State will provide all available information sought by the requesting State that is relevant for the purpose of tracing illicit SALW.

(ITI. Para. 20)

### REQUIRED INFORMATION

The requested State may seek additional information from the requesting State if a tracing request does not include all the information required.





## Responses to tracing requests

### GENERAL COMMITMENT

States will provide prompt, timely, and reliable responses to tracing requests made by other States.

(ITI para. 18)

### ACKNOWLEDGEMENT OF RECEIPT

States receiving a tracing request will acknowledge receipt within a reasonable time frame.

(ITI, para. 19)





## Content of a tracing request

Successful tracing depends on the provision of accurate and complete information on the weapon that is the subject of the tracing request. Basic weapons information includes:

- Manufacturer
- Country of manufacture
- Serial number
- Year of manufacture
- Type/Model
- Calibre





## Content of a tracing request

To ensure smooth and effective cooperation, tracing requests for SALW will include, at a minimum, the following information:

- Description of the illicit nature of the weapon
- Description—to the extent possible—of the circumstances in which the weapon was found
- Markings, type, calibre, and other relevant information—to the extent possible
- Intended use of the information requested





## Tracing requirements

States will ensure that they have the capacity to respond to tracing requests, in accordance with the requirements of the ITI.

(ITI, para. 14)

In this regard I would welcome your assistance in identifying the origins of the [REDACTED] pistol pictured on pages 3 and 4 herewith (serial number and suffix: [REDACTED]). The [REDACTED] has been diverted from the legal market (possibly from a neighbouring country). I would be grateful if you could supply the following information:

1. The name and address of the entity to whom [REDACTED], or any agency acting on behalf of the company, sold the weapon;
2. A list of any weapons which may have been sold in the same consignment as the pictured weapon;
3. Any information you might have regarding theft from or re-transfer/re-sale by the recipient entity.





## Restrictions on the use of tracing information

The information exchanged will be:

- Guaranteed by states to be kept confidential.
- Released only to designated competent authorities.
- Used only for its intended purposes.
- Kept within the ITI framework unless authorised by the providing state.

(ITI, para. 15)

Note: The requesting State must inform the requested State at the time of the tracing request if it cannot guarantee confidentiality or maintain the restrictions placed on the use of the information.





## Tracing system selection is a national prerogative

### TYPES OF TRACING SYSTEMS

-  **Paper form**  
(paper documents + storage)
-  **Electronic**  
(electronic requests + data storage)

	A	B	C	D	
1	Trace Request	Status	Weapon model	Serial number	Additional
2	TR-455	Active	Type 86	6543 5667	fit in a bin
3	TR-456	Closed	Colt Python	810066	Colt Manuh
4	TR-457	Active	Taz 9 (copy)	N/A	Unknown
5	TR-458	Closed	Martin 12-gauge	20011	Martin fire
6	TR-459	Closed	Ruger Mini 14	72 967004	Berni Ruger

Note: While not an ITI requirement, electronic systems are generally considered the best means both of ensuring internal coordination and liaising with international tracing systems, such as that operated by INTERPOL.







## **Records held by companies going out of business**

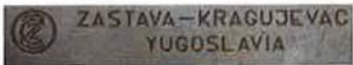
Companies about to close down are required to forward their records on SALW to the State authorities, in accordance with national legislation.

(ITI, para. 13)





## Sample record of import



COUNTRY OF MANUFACTURE: Serbia (Yugoslavia)  
IMPORTED BY: Company X, State Y  
YEAR OF IMPORT: 2012  
CURRENT OWNER: Name and address  
PREVIOUS OWNERS: Names and addresses





## Sample record of manufacture

MANUFACTURER:	Intratec, Miami
COUNTRY OF MANUFACTURE:	USA
SERIAL NUMBER:	324907
YEAR OF MANUFACTURE:	1993
TYPE:	Handgun, semi-auto
MODEL:	TEC-DC9
CALIBRE:	9 x 19 mm





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## Electronic record-keeping systems



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## Electronic record-keeping systems

### Strengths

- Permit instant data retrieval
- Offer unlimited data storage space—including for images
- Compatible with new stockpile management technologies such as barcodes and RFID tags
- Permit instant information sharing with relevant national or international agencies

### Weaknesses

- Require a reliable electricity supply
- Require appropriate training in use and maintenance
- Potentially vulnerable to cyber attack
- May not allow for immediate identification of data alteration unless programmed to do so



**Paper record-keeping  
systems**



**DOCUMENT SECURITY**



**Paper record-keeping  
systems**





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## Paper record-keeping systems

### Strengths

- Do not require reliable and consistent electricity supply
- Do not require IT infrastructure
- Permit immediate detection of attempts to alter data

### Weaknesses

- Exposed to physical damage and loss
- Require appropriate and secure storage space
- Not easily searchable
- Not compatible with new stockpile management technologies such as barcodes and RFID tags
- Impose limitations on the quantity of information that can be stored



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## Record-keeping system selection is a national prerogative

### TYPES OF RECORD-KEEPING

- Paper records (registers)
- Electronic records (databases)

Note: While not an ITI requirement, electronic records are generally considered the best means of ensuring timely and reliable tracing.





## Duration of records

### INDEFINITE RECORDS

Records will, to the extent possible, be kept indefinitely. At a minimum, a State will ensure the maintenance of:

- Manufacturing records for at least 30 years.
- All other records, including of import and export, for at least 20 years.

(ITI, para. 12)





## Record-keeping requirements



- Records must be established for all marked SALW
- Records should be accurate and comprehensive
- Records should allow for the timely and reliable tracing of illicit SALW

(IT1, para. 11)





## **Tracing-related information**

### **USEFUL LINKS AND TECHNICAL ASSISTANCE**

Conflict Armament Research  
[www.conflictarm.com/fieldguides.html](http://www.conflictarm.com/fieldguides.html)

Interpol - Firearms  
[www.interpol.int/Crime-areas/Firearms/Firearms](http://www.interpol.int/Crime-areas/Firearms/Firearms)

ITI Document  
[www.poa-iss.org/InternationalTracing/ITI\\_English.pdf](http://www.poa-iss.org/InternationalTracing/ITI_English.pdf)

Small Arms Survey  
[www.smallarmssurvey.org/  
regulations-and-controls/control-measures/marking-  
record-keeping-tracing.html](http://www.smallarmssurvey.org/regulations-and-controls/control-measures/marking-record-keeping-tracing.html)

UNODA  
[www.poa-iss.org/InternationalTracing/  
InternationalTracing.aspx](http://www.poa-iss.org/InternationalTracing/InternationalTracing.aspx)

UN Sanctions  
[www.un.org/sc/committees](http://www.un.org/sc/committees)





## **The International Tracing Instrument (ITI)**

The ITI is designed to facilitate the successful tracing of small arms and light weapons (SALW) used in crime and armed conflict.

Tracing is the 'systematic tracking of illicit small arms and light weapons found or seized on the territory of a State from the point of manufacture or the point of importation through the lines of supply to the point at which they became illicit.' (ITI, para. 5)

The ITI applies to all UN Member States since its adoption by the UN General Assembly on 8 December 2005.

