
VOLUME 8	TRAFFIC SIGNS AND LIGHTING
SECTION 1	TRAFFIC SIGNALS AND CONTROL EQUIPMENT

PART 1

TD 35/06

**ALL PURPOSE TRUNK ROADS MOVA
SYSTEM OF TRAFFIC CONTROL AT
SIGNALS**

SUMMARY

This Standard sets out the requirement to use MOVA at new traffic and refurbished traffic signal installations on all-purpose trunk roads. It supersedes TD 35/91.

INSTRUCTIONS FOR USE

1. Remove Contents pages from Volume 8 and insert new Contents pages for Volume 8 dated May 2006.
2. Remove TD 35/91 from Volume 8, Section 1 which is superseded by this Standard and archive as appropriate.
3. Insert TD 35/06 into Volume 8, Section 1.
4. Please archive this sheet as appropriate.

Note: A quarterly index with a full set of Volume Contents Pages is available separately from The Stationery Office Ltd.



THE HIGHWAYS AGENCY



TRANSPORT SCOTLAND



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THE DEPARTMENT FOR REGIONAL DEVELOPMENT
NORTHERN IRELAND

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Contents

Chapter

1. Introduction
2. MOVA Application
3. MOVA Implementation
4. References
5. Enquiries

1. INTRODUCTION

General

1.1 MOVA (Microprocessor Optimised Vehicle Actuation) is a signal control strategy developed by the Transport Research Laboratory (TRL) for isolated signalised junctions and is designed to give more flexible control than standard Vehicle Actuation (VA).

1.2 A number of key facilities have been added to MOVA. Some of the more important ones are:

- Bus and Emergency vehicle priority control.
- Control of linked, multiple and separately controlled pedestrian crossing movements.
- Automatic stage sequence selections at junctions with separately signalled right turn movements.
- Automatic 'double-green' stage sequence selection.
- PUFFIN style pedestrian facilities.
- Linked MOVA for closely spaced junctions (including roundabouts).

Scope

1.3 This Standard sets out the requirements for MOVA to be used on all-purpose trunk roads. It also references related guidance documents that enable MOVA to be installed correctly.

Use in Northern Ireland

1.4 For use in Northern Ireland this Standard must be applicable to those roads designated by the Overseeing Organisation.

2. MOVA APPLICATION

2.1 All new all-purpose trunk road installations shall incorporate MOVA as the standard mode of signal control.

2.2 This policy shall also apply to existing installations where traffic conditions have changed and where the installation is being refurbished.

2.3 If MOVA is not to be used, then a sound case for departure from the standard must be made and approved.

2.4 MOVA is particularly well suited to junctions currently experiencing the following conditions:

- Sites with high traffic flow, particularly where these are seasonal or intermittent (for instance, motorway diversion routes and holiday routes).
- Sites experiencing capacity difficulties under an alternative control strategy with congestion on one or more approaches.
- Sites with high-speed approaches and/or red compliance problems.
- Where additional capacity is required, e.g. to enable improved pedestrian facilities without detriment to vehicular users, to allow the introduction of dedicated right-turn facilities or to increase capacity to enable development.
- Where more than one junction is situated too close to be considered as isolated, there are ways in which two or more junctions can be linked by the use of MOVA control.

2.5 MOVA can be used at larger signalised gyratories or more complex signalled junctions, and with special conditioning, can provide very flexible control. This has the potential benefit of rapidly responding to all conditions and is constantly responsive to varying traffic patterns.

2.6 For large networks where there are many signal controlled junctions that need to be co-ordinated, alternative systems such as SCOOT and TRANSYT derived fixed time plans should be considered.

3. MOVA IMPLEMENTATION

Installation

3.1 Information on MOVA implementation is contained in Departmental Specification MCH1542 'Installation Guide for MOVA' and the TRL Application Guides 44 and 45.

MOVA Equipment

3.2 MOVA shall be used in conjunction with traffic signal controllers that are type approved to specification TR 2500 and earlier specifications TR 0141 and TR 2210.

3.3 MOVA is available in the following forms:

- Add-on unit that connects to the controller via the standard UTC interface.
- 'Semi-integral' where MOVA and the controller are separate but have a dedicated communication link.
- Fully integrated within the controller.

4. REFERENCES

Specifications

4.1 Specifications are published by the Highways Agency

<http://www.tssplansregistry.org>

MCH1542 – Installation Guide for MOVA.

TR2500 – Specification for Traffic Signal Controller.

Other Specifications

TRL Application Guide 44 – MOVA Traffic Control Manual.

TRL Application Guide 45 – Guide to MOVA Data Set-up and Use.

5. ENQUIRIES

All technical enquiries or comments on this Standard should be sent in writing as appropriate to:

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