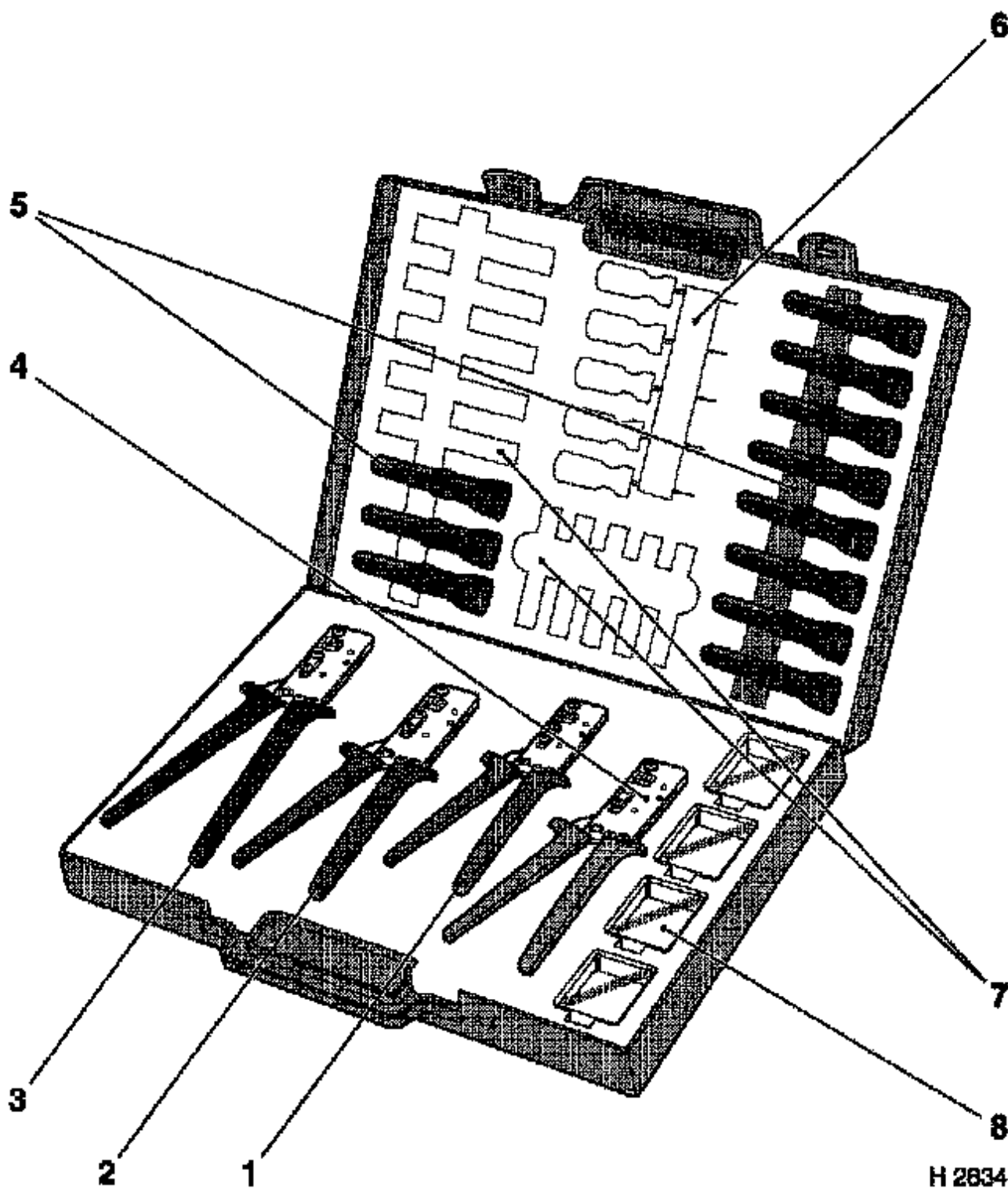


## Step B1 - Prepare Special Service Tools

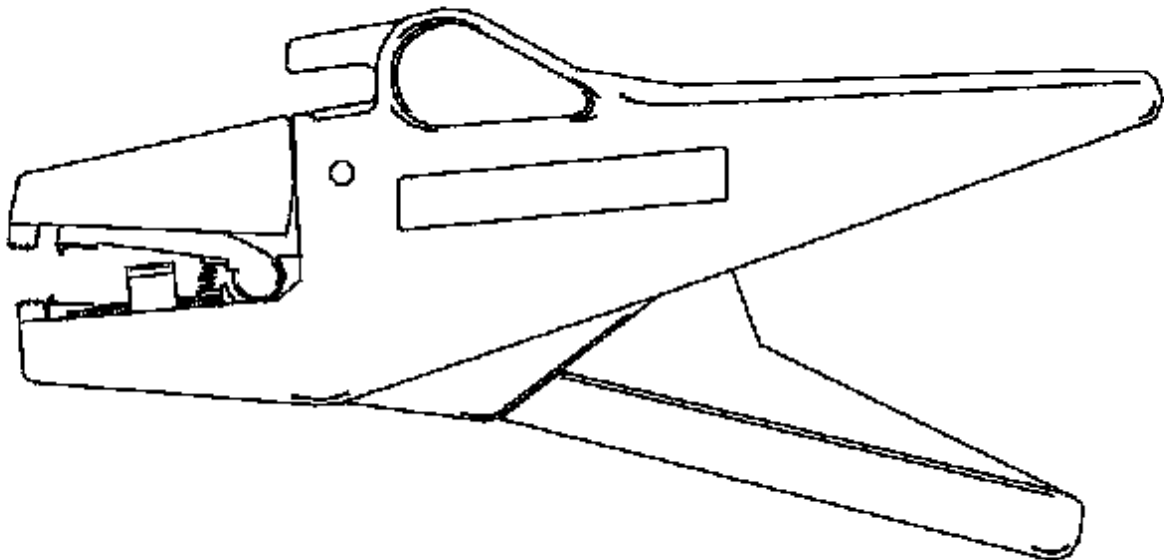
The Special Service Tool Case **MKM-923-A** contains the following tools and materials needed for wiring harness repair:



Position	Designation	Handle colour	For cable cross-section
1	Crimping tools MKM-923-31	red	0.5 / 0.75 / 1.0 mm <sup>2</sup>

2	MKM-923-32	blue	1.5 / 2.5 mm <sup>2</sup>
3	MKM-923-33	yellow	4.0 / 6.0 mm <sup>2</sup>
4	MKM-923-34	green	0.35 mm <sup>2</sup>
<b>Release tools</b>			
5	Release Tools MKM-923-1 to MKM-923-10A and MKM-923-12A for applications as of system introduction.		
6	Space for additional release tools (round).		
7	Space for additional release tools.		
	<b>Note:</b> Release tools MKM-923–1 to MKM 923–12A are supplied with the case. Other release tools need to be ordered seperatly.		
<b>Storage containers</b>			
8	for cable connectors.		

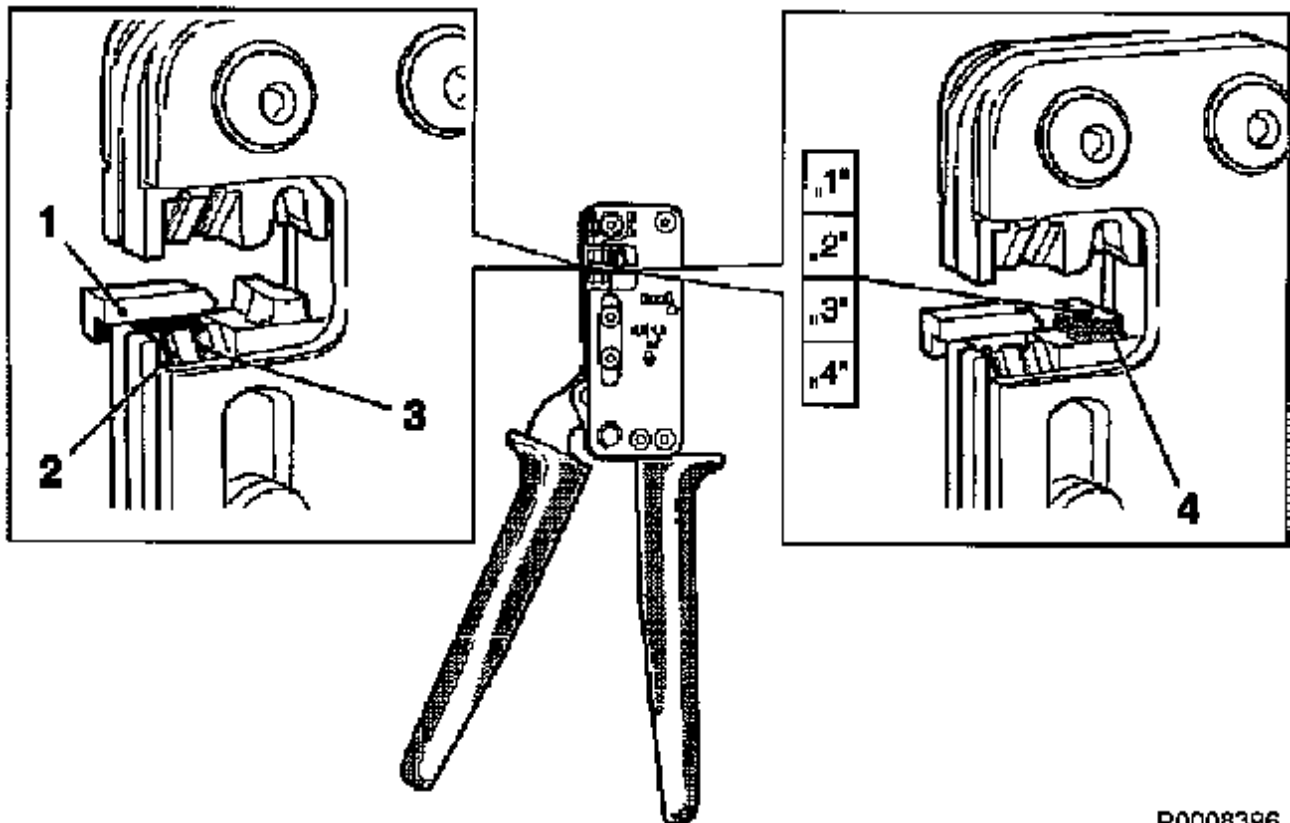
### CAN-bus repair



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For CAN-bus repair a separate strip tool is available, the special tool number is **MKM-6383**. This tool is to be used for stripping only, crimping still has to be done with **MKM-923**.

### Description of Crimping Tool



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The crimping tools are combined crimping tools and wire strippers having the following features:

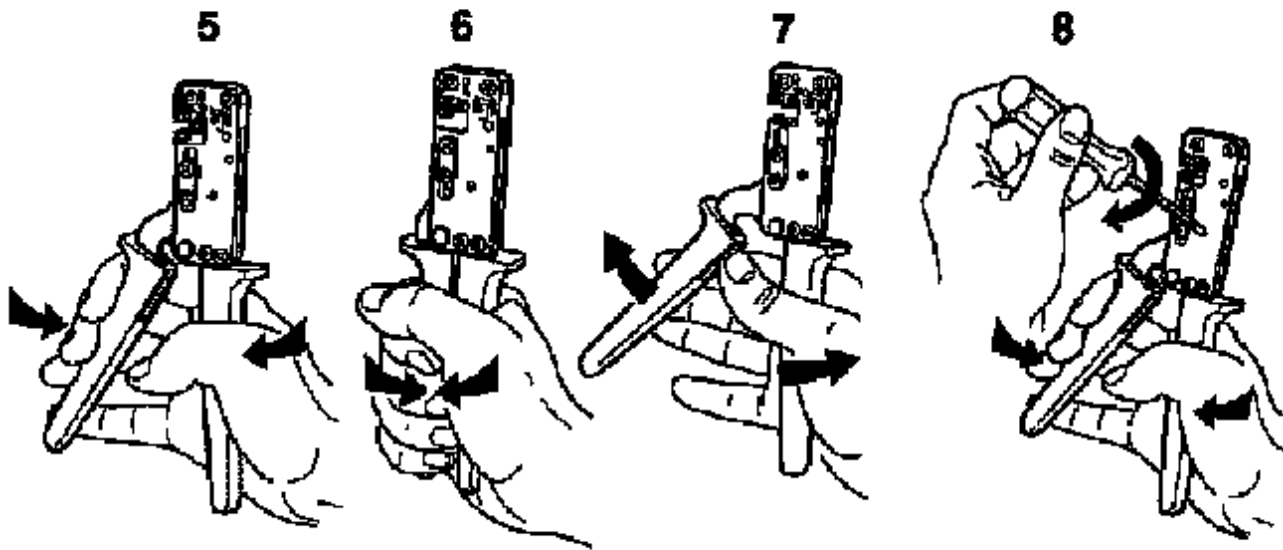
#### Wire stripping station

Each crimping tool has two wire stripping stations with length stop (1) for the smallest cross-section, e.g. 0.5 mm<sup>2</sup> (2), and for all other cross-sections, e.g. 0.75 mm<sup>2</sup> and 1.0 mm<sup>2</sup> (3). The length of stripped wire is adapted to the corresponding cable connector.

#### Crimping imprint

When crimping, the crimp nest (4) makes the imprints "1" (red crimping tool), "2" (blue crimping tool), "3" (yellow crimping tool) and "4" (green crimping tool) on the base of the cable connector. In this way, the respective crimping tool identifies the cable connector each time it is used.

#### Handle colours



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The handle colours red, blue, yellow and green correspond to the use for the respective cable cross-section categories.


These colours are given on the packaging for the cable connectors and shrink-down plastic tubes. This enables the correct crimping tool to be matched unambiguously to the packaging for the cable connectors and shrink-down plastic tubes.

### Function features

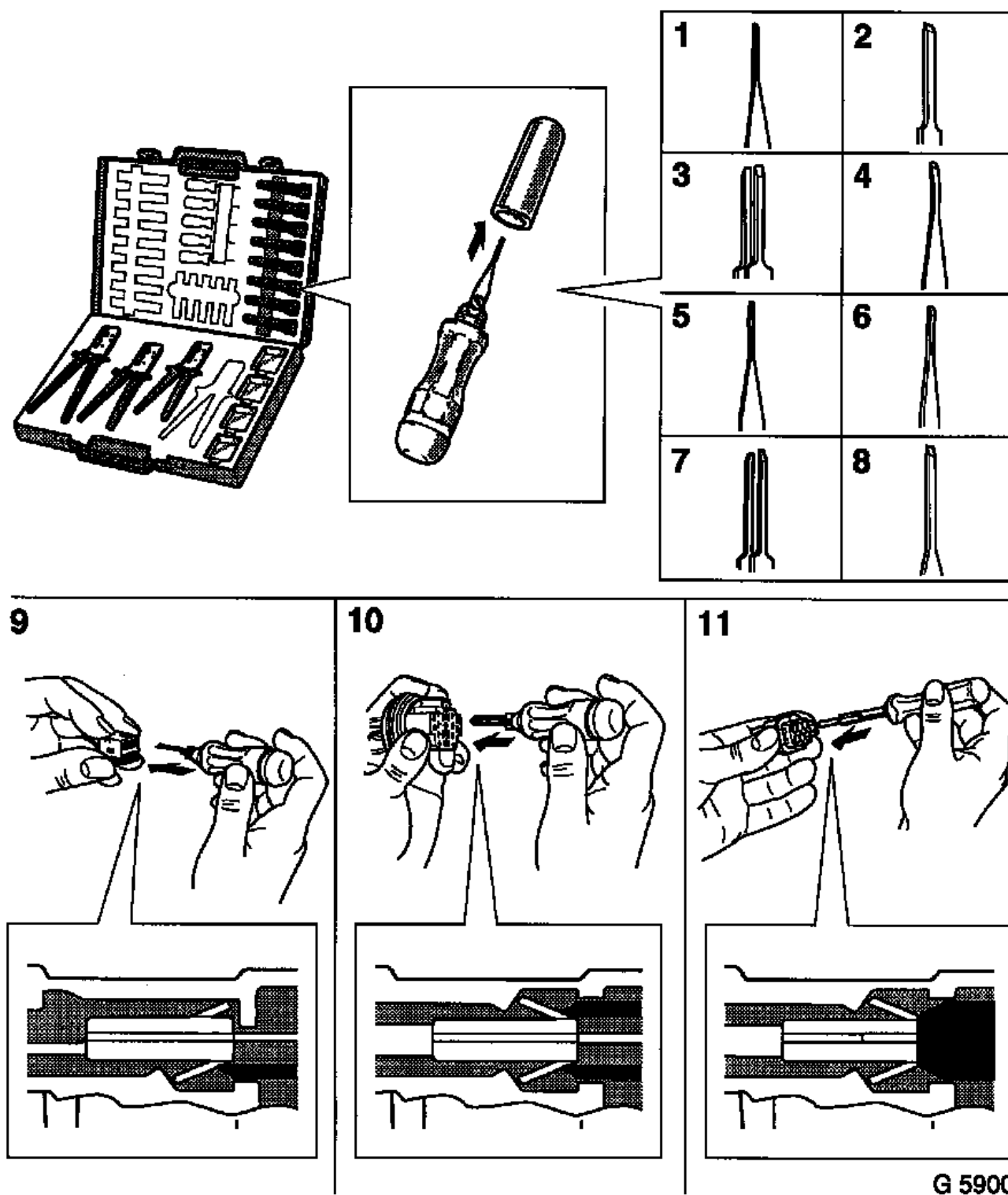
- Lock (5) for securing the connector when inserting the cable.
- The automatic pressure adjustment (6) with automatic release (7) ensures optimum crimping quality during the crimping process once a set application pressure has been reached in the final position.
- A releasable automatic stop (8) prevents damage to the tool if used incorrectly, e.g. when a larger connector is inserted. To release, squeeze tool and at the same time turn release screw to the right with a screwdriver.

### Description of Release Tools

Release tools have been developed for releasing defective spring contacts and cables. The tips of release tools have been specially adapted (1 to 8) to prevent damage to wiring harness plugs and spring contacts.

To ensure the plug is released correctly, the release tools must be selected according to the Parts and Reference Lists (see section 5) .

### Release tool in case



The Release Tools **MKM-923-1** (1) to **MKM-923-10A** and **MKM-923-12A** (8) are already provided in the case. Release tools as of **MKM-923-20** can be ordered additionally if required and kept in the empty spaces in the case.

### Tool types

There are three different tool types available for releasing purposes. These are suitable for spring contacts

- with one locking spring (9)
- with two locking springs (10),

- "round" (11).

**Important:** The spring contact to be released on the cable is pushed as far as possible into the casing. Then, the release tool is inserted into the respective chamber (9 to 11) until resistance can be felt. Pull out spring contact.

### New release tools

New release tools have gradually been developed alongside new applications and new spring contacts. The following table lists the currently available release tools.

Suplied with case	
Old MKM nr.	New MKM nr.
MKM - 923 - 1	MKM - 923 - 1-A
MKM - 923 - 2	MKM - 923 - 2-A
MKM - 923 - 3	MKM - 923 - 3-A
MKM - 923 - 4	MKM - 923 - 4-A
MKM - 923 - 5	MKM - 923 - 5-A
MKM - 923 - 6	MKM - 923 - 6-A
MKM - 923 - 7	MKM - 923 - 7-A
MKM - 923 - 8	MKM - 923 - 8-A
	MKM - 923 - 9-A
	MKM - 923 - 10-A
	MKM - 923 - 12-A
<b>Not suplied with case, order separatly</b>	
Old MKM nr.	New MKM nr.
MKM - 923 - 20	MKM - 923 - 20-A
MKM - 923 - 21	MKM - 923 - 21-A
MKM - 923 - 22	MKM - 923 - 22-A
	MKM - 923 - 23
	MKM - 923 - 24
	MKM - 923 - 25
	MKM - 923 - 26
	MKM - 923 - 27
	MKM - 923 - 28
	MKM - 923 - 29