

Installation Guide

P/N 3-500049-01

3010 software version 2.00 or later




MaxiScan 3010 Network System

 **intermec**

A UNOVA Company

Regulatory Statements

 Intermec hereby declares that the MaxiScan 3300 has been tested and found compliant with the below listed standards as required by the EMC Directive 89/336/EEC as amended by 92/31/EEC and by the Low Voltage Directive 73/23/EEC as amended by 93/68/EEC:

EN55022 (1992) Class A

EN50082-2 (1995)

EN60950 (1993)

Note: This is a Class A product. In a residential environment, it may cause harmful interference. In this case the user may be required to take appropriate measures.

USA: This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment is intended for operation in an industrial environment, in compliance with the requirements for a Class A device, pursuant to part 15 of the FCC Rules. It generates, uses and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause interference to radio communications. If this equipment causes interference, the user will be required to correct the interference at the user's own expense.

This equipment complies with the UL 1950 standard.

Canada: This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. *Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.*

This equipment complies with the UL 1950 standard. *Cet équipement est conforme à la norme UL 1950.*

Australia-New Zealand: This equipment has been tested and found to conform to the Australian EMC framework concerning Class A digital devices, prescribed by the Australian and New-Zealand standard AS/NZS 3548.



Mexico: *Este equipo cumple con la certificación NOM.*

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1 Before you start

Introduction

The MaxiScan 3010 Network System is designed to connect a network of up to 20 MaxiScan 3100 and/or 3300 scanners. This Installation Guide explains how to install your MaxiScan 3010 and how to set up a network configuration.

Use the EasySet System setup software to set up the MaxiScan 3010 Network System. See section 5—*Setup* for more details.

In this Installation Guide, unless otherwise specified, “scanner” refers to the MaxiScan 3100 and the MaxiScan 3300.

Warnings



Do not use a standard MaxiScan power supply connected directly to the MaxiScan 3010 Network System if you have more than two scanners in your network—use a power supply suitable for your operating requirements (see the power calculation method in section 2-*Installation*).

Always use a grounded power supply.

Always use an adapter cable to connect a MaxiScan 3100 to the MaxiScan 3010. Never connect a MaxiScan 3100 directly to the MaxiScan 3010.

Maximum current accepted between the '+' and '-' of the SYNCHROS port is 50 mA max (higher current can damage the synchronization driver !).

Checklist of items for your installation

All Systems:

- MaxiScan 3010 Network System
- this MaxiScan 3010 Network System Installation Guide
- EasySet System setup software (on the CD ROM or can be downloaded from the Intermec data capture web site: <http://datacapture.intermec.com>)
- RS-485 network cable(s)
- terminator connector

**For part numbers
see Section 4 –
Accessories**

- standard MaxiScan 3300 RS-232 straight cable
- MaxiScan 3100 and/or 3300 Installation Guide

For part numbers
see Section 4 –
Accessories

Depending on your installation requirements, you may also need:

- RS-232/485 adapter cable(s) (MaxiScan 3100 only)
- MaxiScan Connection System (MCS) boxes
- power supplies

Options:

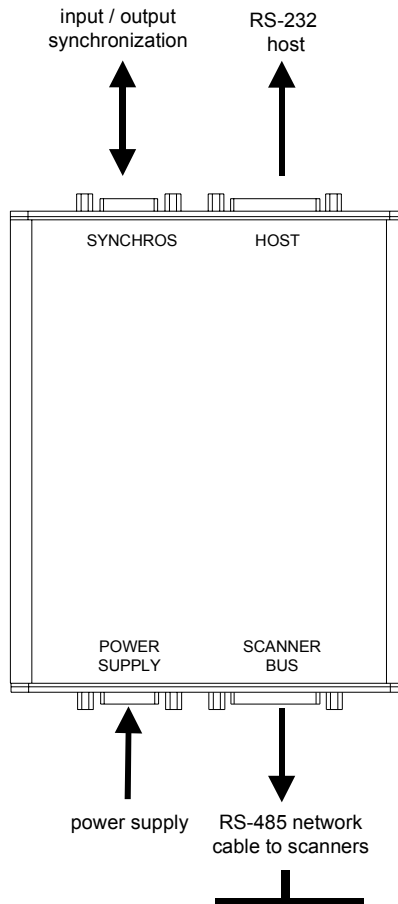
- RS-232 C "Y" cable

Installation considerations

| | |
|----------------------|---|
| Environment | MaxiScan 3010 Network System complies with IP51 norms. A dry and dust-protected environment is recommended. |
| Setup | Use EasySet System setup software to set up your MaxiScan Network. Test your setup before you install the MaxiScan 3010 Network System permanently. |
| Cabling | <ul style="list-style-type: none">• A twisted pair for data lines is strongly recommended on the SCANNER BUS port.• Depending on cable characteristics (twisted pair, shield, etc.), an RS-485 connection theoretically allows a cabling distance of a few hundred meters. |
| Power supply | <ul style="list-style-type: none">• Always use a grounded power supply.• A voltage between 7 and 25 VDC is required. |
| MaxiScan 3100 | Compatible with all MaxiScan 3100 firmware versions. To activate software synchronization you will need version 2.00 or later. |
| MaxiScan 3300 | Compatible with MaxiScan 3300 firmware version 1.09 or later. |

2 Installation

MaxiScan 3010 Network System connections



How you connect up your MaxiScan 3010 Network System depends on the number and type of scanners in the network as well as the power rating of the power supply connected to the MaxiScan 3010.

Intermec network cables

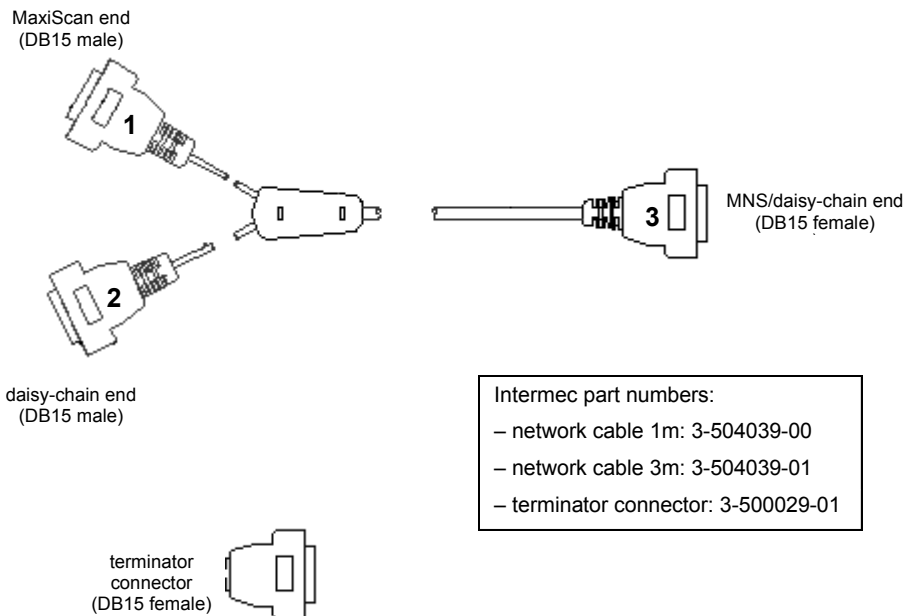
Intermec can supply network cables with standard lengths (1m, 3m) for your network configuration. Custom lengths can be provided on request.

These cables can provide power supply and synchronization signals to the MaxiScan slave units on the network via the MaxiScan 3010 Network System if required.

Each cable can be daisy-chained to another by connecting the daisy-chain end (2) of the first cable to the MNS/daisy-chain end (3) of the second cable. The MaxiScan end (3) is connected to the scanner or adapter cable if using a MaxiScan 3100. Each end is labeled accordingly.

On the last cable in the network, connect the terminator connector to the daisy-chain end (2)

Cable overview



Installation configurations

There are several installation configurations possible with the MaxiScan 3010 Network System and depending on the number of scanners in the network, you may need to use the MaxiScan Connection System (MCS boxes). Study each case carefully to select the type of installation that best fits your needs:

MaxiScan 3100 network

- MaxiScan 3100 network
- MaxiScan 3100 network with MCS boxes

MaxiScan 3300 network

- MaxiScan 3300 network
- MaxiScan 3300 with MCS boxes

Multihead configuration

- Multihead installation
- Scanning area

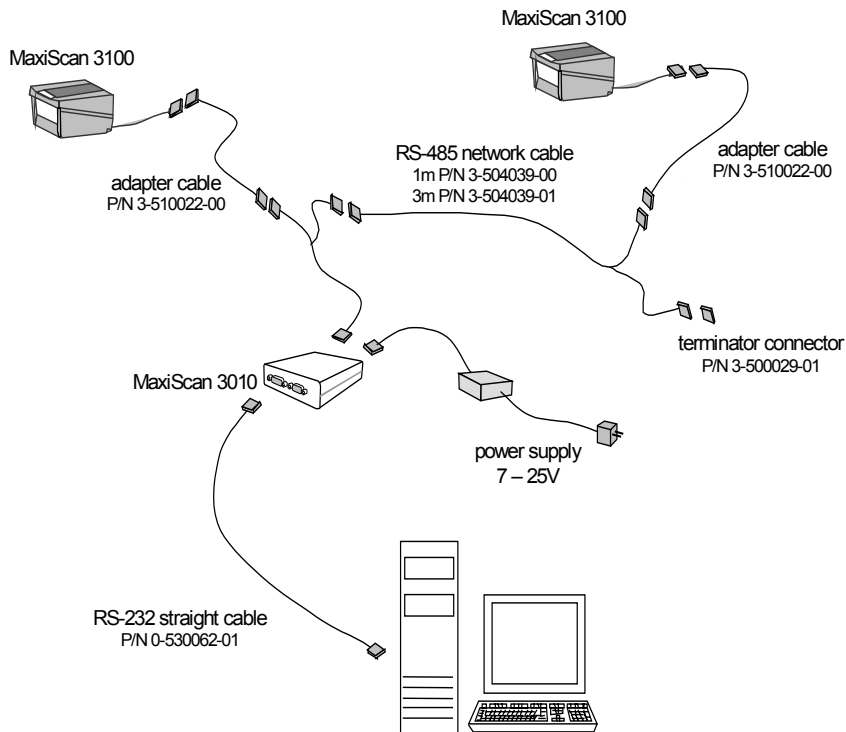
The examples in this section are basic installation configurations. Your network may differ depending on your needs.

MaxiScan 3100 network

The MaxiScan 3100 units are connected to the network with an RS-232/485 adapter cable. The scanners, with adapter cable, are then interconnected to the MaxiScan 3010 Network System through an RS-485 network cable.

All MaxiScan 3100 share the same power supply and I/O synchronization lines.

Up to three MaxiScan 3100 units



If you are using a standard MaxiScan power supply (15 V), you can only connect up to three MaxiScan 3100 units to the MaxiScan 3010 Network System.

If you want to connect more than three scanners, you must use the alternative connection method using the MaxiScan Connection System described on the next page or provide a power supply with sufficient power calculated as follows:

The power supply must withstand at least $(n \times 2.5 \text{ Watt})$ with peaks of up to two or three times this value (n = number of MaxiScan 3100 scanners connected).

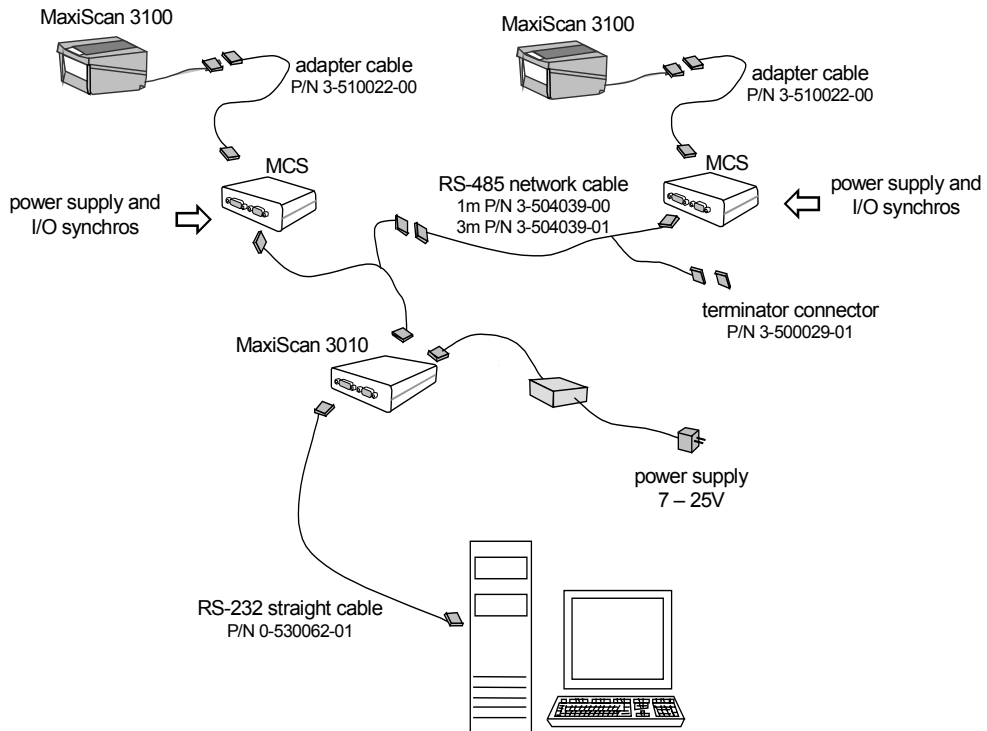
The value obtained does not take into account other external devices (synchronization devices, etc.) that may be connected to the MaxiScan 3010 Network System.

Warning: Power supply must be between 7 and 25 V.

More than three MaxiScan 3100 units using MCS boxes

The MaxiScan 3100 units are connected to their respective standard MaxiScan Connection System (MCS) boxes through an RS-232/485 adapter cable. All standard MCS boxes are then interconnected to the MaxiScan 3010 Network System through an RS-485 network cable.

Each scanner has its own power supply and manages its own I/O synchronization lines via the MCS boxes.



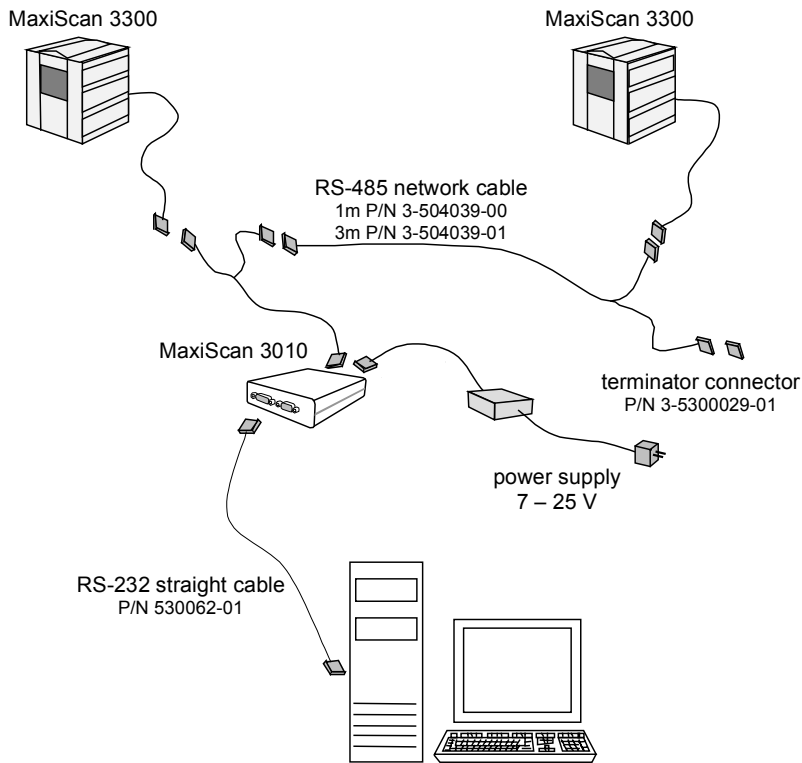
MCS boxes must be used when connecting more than three MaxiScan 3100 units in your network.

MaxiScan 3300 network

The MaxiScan 3300 units are directly interconnected to the MaxiScan 3010 Network System through an RS-485 network cable.

All scanners share the same power supply and I/O synchronization lines.

Up to two MaxiScan 3300 units



If you are using a standard MaxiScan power supply (15 V), you can only connect up to two MaxiScan 3300 units to the MaxiScan 3010 Network System.

If you want to connect more than two scanners, you must use the alternative connection method using the MaxiScan Connection System described on the next page or provide a power supply with sufficient power calculated as follows:

The power supply must withstand at least ($n \times 5$ Watt) with peaks of up to two or three times this value (n = number of MaxiScan 3300 scanners connected).

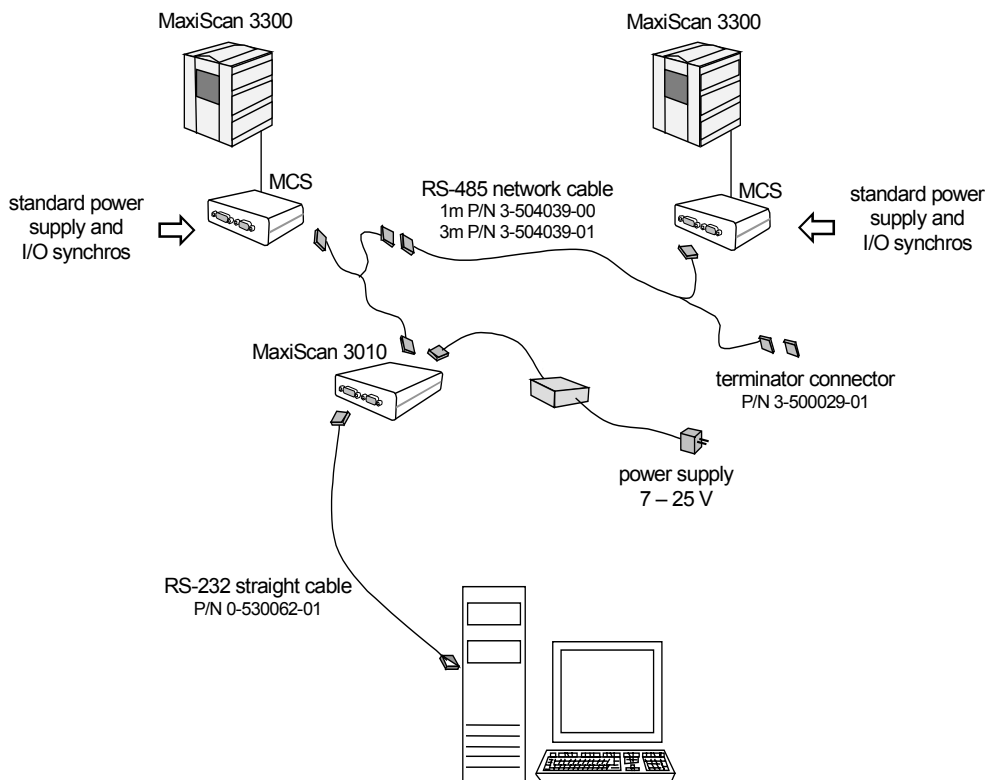
The value obtained does not take into account other external devices (synchronization devices, etc.) supplied by the MaxiScan 3010 Network System power unit.

Warning: Power supply must be between 7 and 25 V.

More than two MaxiScan 3300 units MCS boxes

The MaxiScan 3300 units are connected to their respective standard MaxiScan Connexion System (MCS) boxes. All standard MCS boxes are then interconnected to the MaxiScan 3010 Network System through an RS-485 network cable.

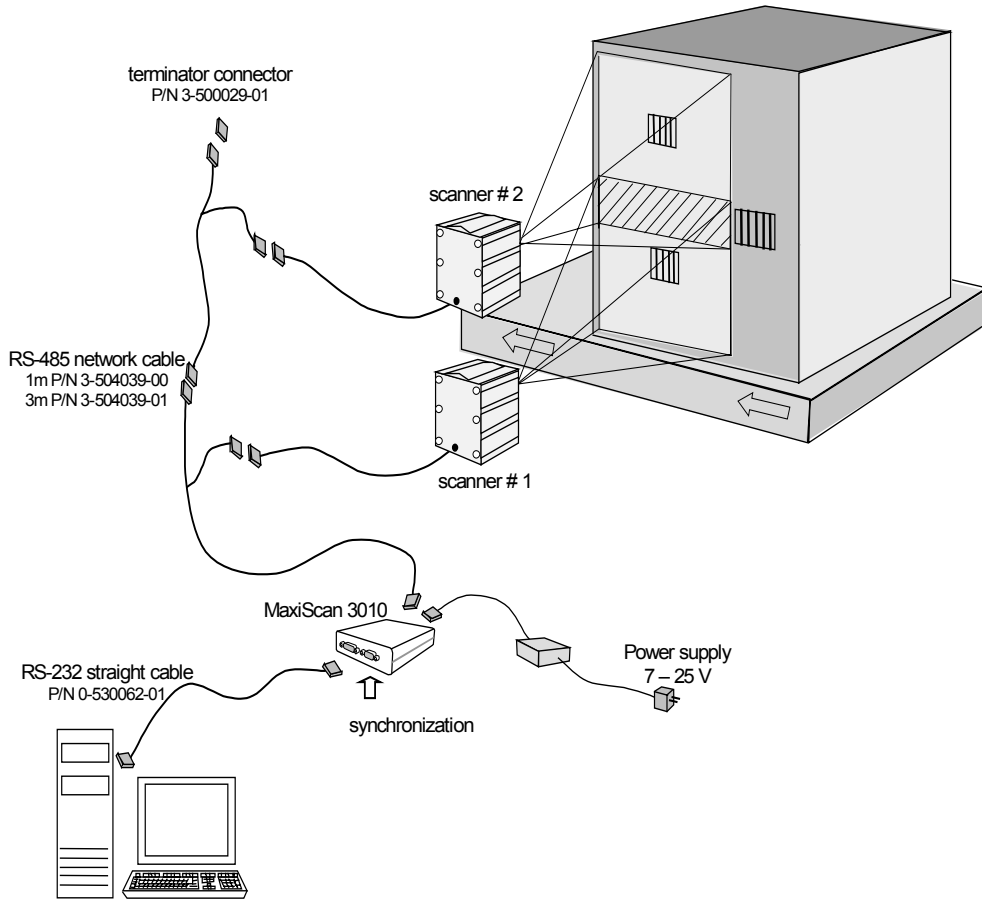
Each MaxiScan has its own power supply and manages its own I/O synchronization lines.



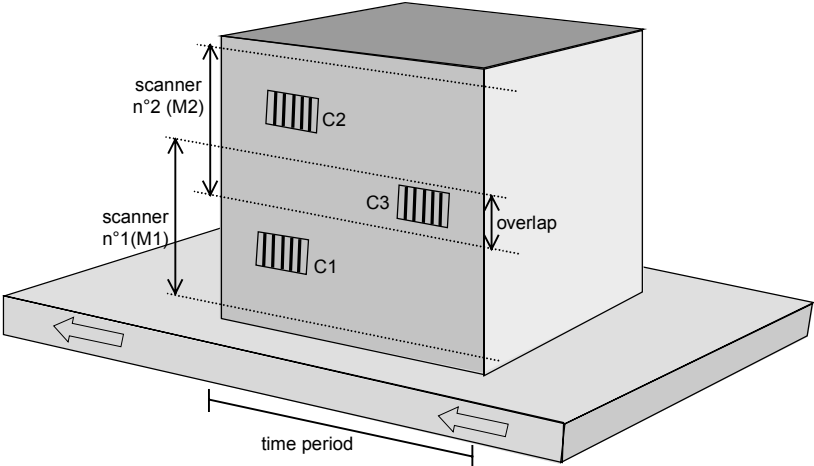
MCS boxes must be used when connecting more than (#) MaxiScan 3300 units in your network.

Multihead configuration

Multihead is a way of combining several MaxiScan 3100 or MaxiScan 3300 units to cover a larger scanning area.

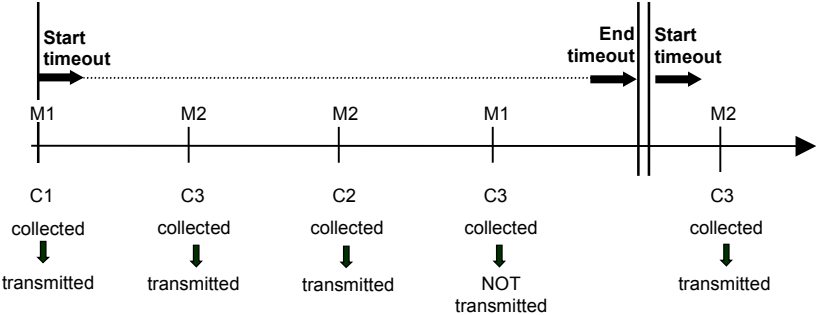


Scanning area



Overlap: Zone covered by at least 2 scanners. In this example, both scanners (M1 and M2) can read the same bar code (C3).

To avoid transmitting the same code twice, data read by both scanners within a specified period of time is checked and filtered by the MaxiScan 3010. This is the multihead timeout that must be defined during setup with EasySet. The bar code read twice will only be transmitted one time.



Configuration

In a multihead network configuration, you will need to use EasySet to set up multihead mode and to define the multihead timeout. See section 3 – Setup for more information

Input synchronization

With the MaxiScan 3010 Network System, input synchronization can be controlled directly by the MaxiScan 3010 or individually by each scanner in the network.

Controlled by the MaxiScan 3010

The synchronization device is connected to the SYNCHROS port on the MaxiScan 3010 or a message is sent to the MaxiScan 3010 by the host system.

Controlled by each scanner in the network

Input synchronization can be controlled individually by each scanner in the network. The synchronization device can be connected to the MCS box (if applicable) or directly to the MaxiScan 3010 (see examples).

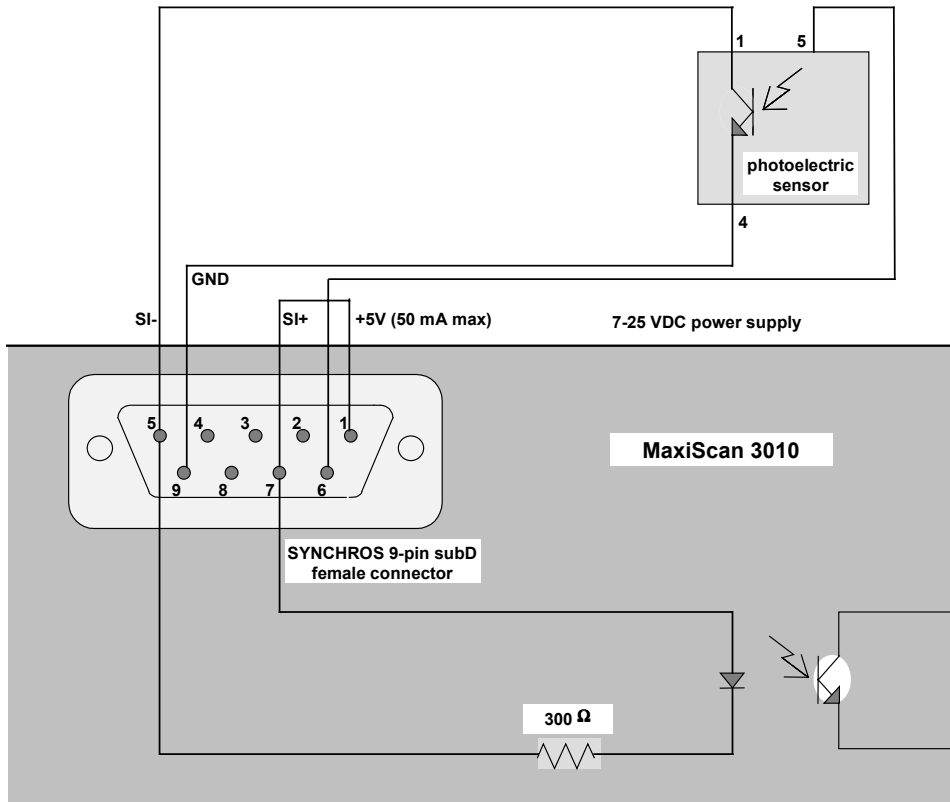
Refer to the *MaxiScan 3100* and/or *3300 Installation Guide* for a detailed explanation of how to set up synchronization for the scanners in your network.

When input synchronization is controlled individually by each MaxiScan unit, you only need to configure the scanners in the network, not the MaxiScan 3010.

Input synchronization examples

Input synchronization using the MaxiScan 3010 with a 5 VDC voltage

Example: Reading triggered by an opto-coupled MLV 40-8/28 (VISOLUX) cell.

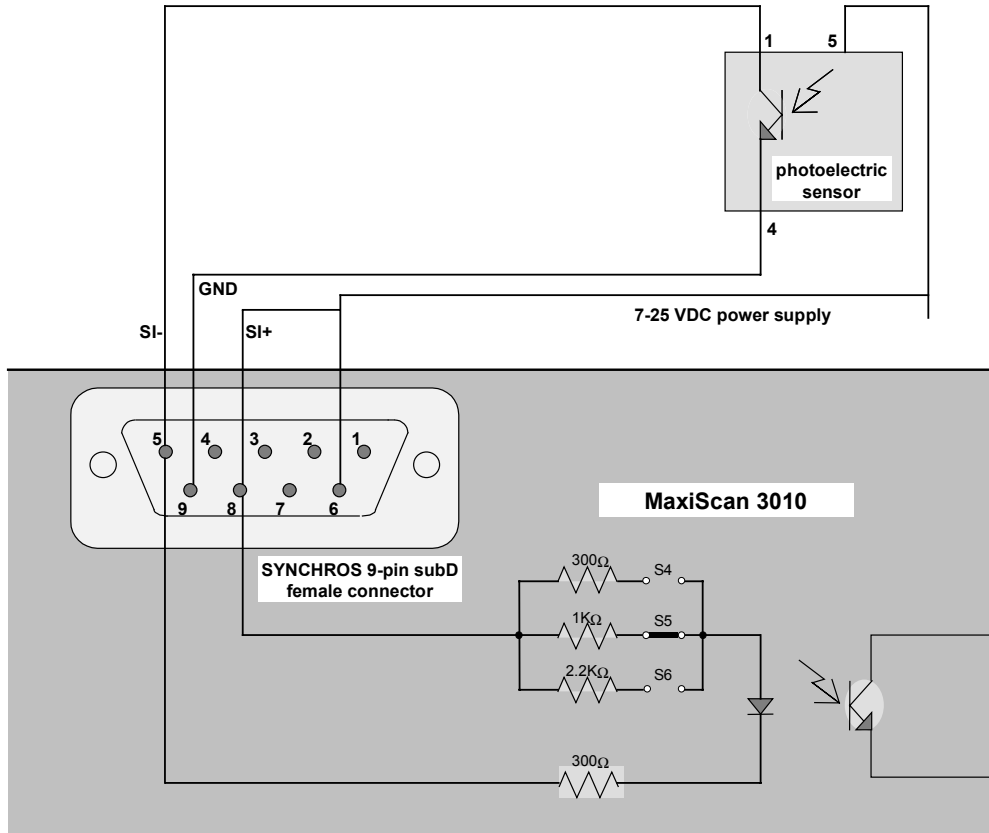


Pin 7 brings the SI+ signal to the MaxiScan 3010.

In all cases, the synchronization current provided by the external input device must be limited to 20 mA max (15 mA is a good average value).

Input synchronization using the MaxiScan 3010 with other voltages

Example: Reading triggered by an opto-coupled MLV 40-8/28 (VISOLUX) cell.



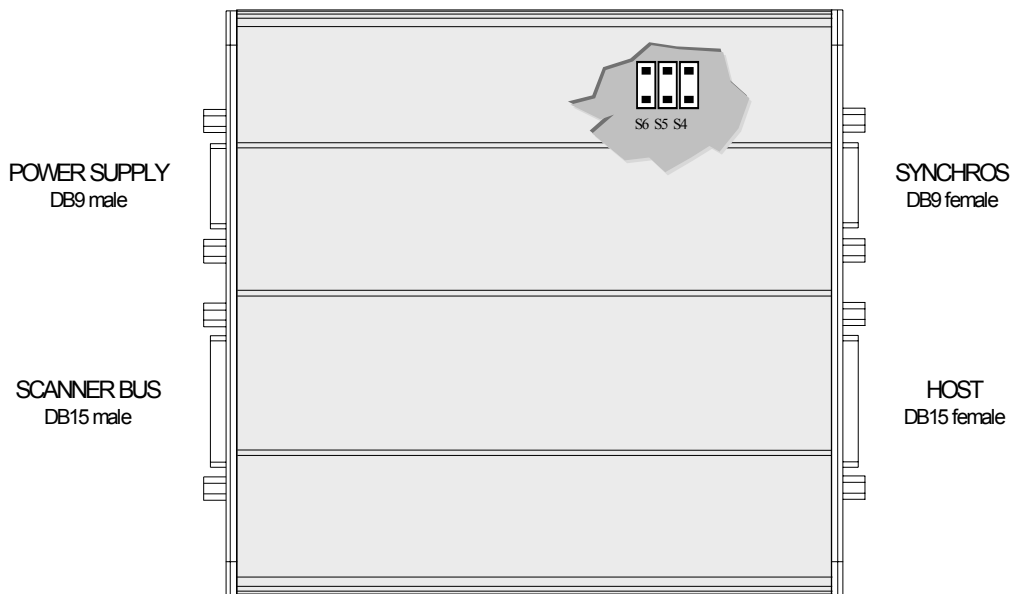
Pin 8 brings the SI+ signal to the MaxiScan 3010 in an adjustable configuration of resistors (via 3 jumpers) for different voltage inputs.

In all cases, the synchronization current provided by the external input device must be limited to 20 mA max (15 mA is a good average value).

Jumper configuration

To reconfigure the jumpers, unscrew the front and rear panels of the MaxiScan 3010 and slide out the motherboard.

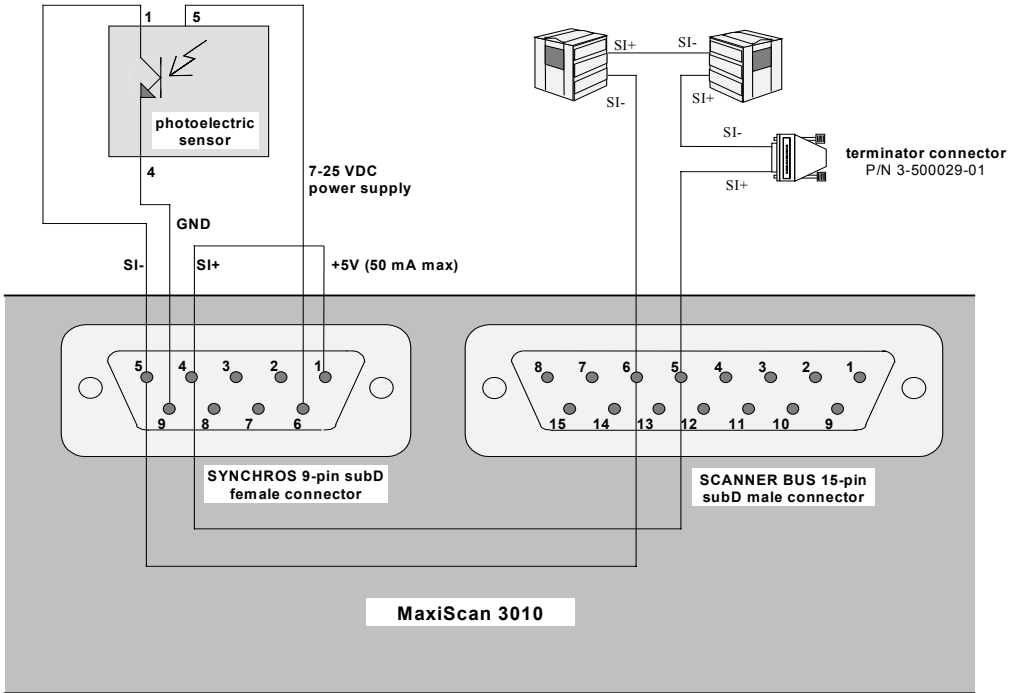
| VOLTAGE | JUMPER |
|-------------|--------|
| 6 to 15V | S4 |
| 16 to 24V | S5 |
| 25 to 50V * | S6 |



* The SI+ signal on the SYNCHROS port accepts up to 50V, however the MaxiScan 3010 is limited to 25V.

Input synchronization—serial connection through MaxiScan units

Example: Reading triggered by an opto-coupled MLV 40-8/28 (VISOLUX) cell.



Pin 4 brings the SI+ signal to the SCANNER BUS port only. This is only possible for a maximum of three or four scanners using the correct power supply (see the power calculation method in section 2-*Installation*). In this example, the synchronization is controlled by each scanner and not by the MaxiScan 3010. The synchronization parameters of each scanner must be configured separately. The synchronization parameters are not activated in the MaxiScan 3010.

This is an example of what can be done using two network cables and a terminator connector.

In all cases, the synchronization current provided by the external input device must be limited to 20 mA max (15 mA is a good average value).

Output synchronization

With the MaxiScan 3010 Network System, output synchronization can be controlled directly by the MaxiScan 3010 or individually by each scanner in the network.

Controlled by the MaxiScan 3010

The MaxiScan 3010 can send information to an external device or directly to the host system after a good read, no read or network failure.

Controlled by each scanner in the network

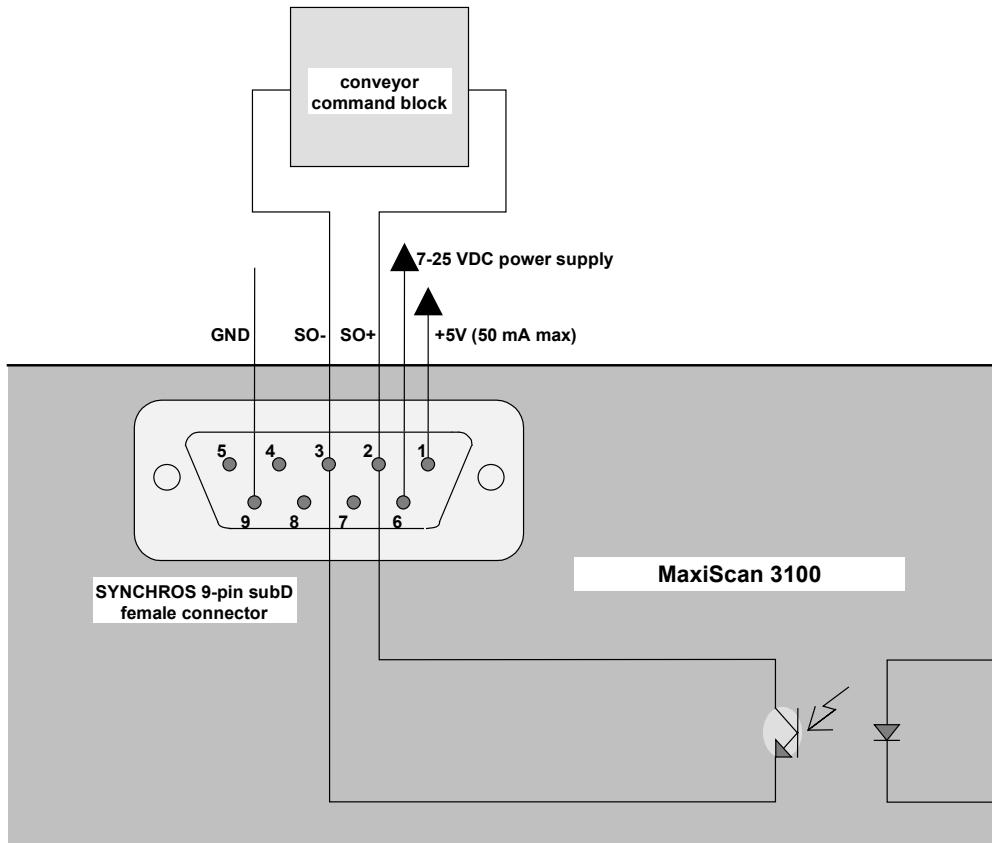
Output synchronization can also be controlled individually by each scanner in the network. To setup this type of output synchronization, see the *MaxiScan 3100* and *MaxiScan 3300 Installation Guides*.

When output synchronization is controlled by each scanner, there is no need to activate output synchronization in the MaxiScan 3010.

Output synchronization example

Output synchronization

Example: Opto-coupled control output.



The synchronization current provided by the external output device must be limited to 20 mA max (15 mA is a good average value)..

3 Setup

System configuration checklist

To operate in a network configuration, each scanner (slave unit) has its own ID number and is polled periodically for network data collection.

System configuration basically comprises the following steps:

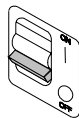
- ❶ Configure the scanners for the network as slave units (online or offline setup)— each slave unit must have its own ID number.
- ❷ Configure the MaxiScan 3010 Network System (online setup)—parameters include the number of slave units in the network, RS-232 settings for communication with the host system, etc.
- ❸ Disconnect all power supplies.
- ❹ Using the network cables, connect the slave units to the MaxiScan 3010 directly on the SCANNER BUS port (or via the MCS boxes if applicable), connect the HOST cable, and connect the SYNCHROS cable if applicable.
- ❺ Connect the slave unit power supplies to the MCS boxes if applicable.
- ❻ Connect the MaxiScan 3010 power supply and I/O synchronization device if applicable.

IMPORTANT: Before setting up the MaxiScan Network System, you must first configure each MaxiScan 3100 and 3300 unit that will be used in the network. See the “MaxiScan 3100” and “MaxiScan 3300 Installation Guide” for the correct procedure.

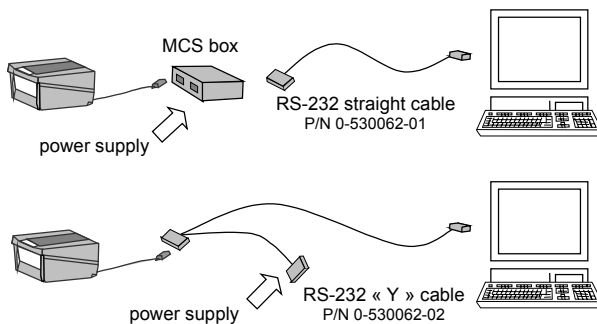
MaxiScan 3100

Set up each MaxiScan 3100 as a slave unit – online

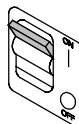
- 1** System power OFF



- 2** Connect the MaxiScan 3100 slave unit to the PC where EasySet is installed. There are two options for this connection depending on the cable used:



- 3** System power ON



- 4** Read this configuration code with the MaxiScan 3100 to enable online setup with EasySet:



- 5 Start EasySet and select *MaxiScan 3100* from the menu Product > Select.



If you have not already set up your scanner(s), do it now. See the *MaxiScan 3100 Installation Guide* for details on configuring the MaxiScan 3100.

You must configure your scanner(s) before activating each of them as a slave unit.

- 6 In EasySet, activate synchronization if applicable (firmware version 2.00 or later). This activates synchronization controlled by the MaxiScan 3010.
network parameters > activate synchronization

To set up synchronization controlled by the scanners in your network, see the *MaxiScan 3100 Installation Guide* for details.

- 7 Activate each MaxiScan 3100 as a slave unit.
You can activate up to 20 slaves with EasySet.
network parameters > activate slave

Disconnect then reconnect the scanner to put it in to working mode. If you need to re-establish communication with EasySet, read the "start online setup" bar code on the previous page.

Deactivating slave mode – online

You can deactivate each slave unit on line with EasySet.

network parameters > deactivate slave 3100

Setup MaxiScan 3100 slave unit – offline

You can use EasySet to print out configuration bar codes for offline setup.

Here are some basic configuration bar codes to configure up to 5 MaxiScan 3100 slave units. The EasySet software provides the full set of configuration options to configure up to 20 MaxiScan units.

Only read this code if you want to reset factory defaults!

Do not read this code if you have already set up each MaxiScan unit.

reset factory defaults (optional)



If you have not already configured your MaxiScan 3100 unit(s), do it now. See the *MaxiScan 3100 Installation Guide* for details.

You must configure your scanner(s) before activating each of them as a slave unit.

Read this code to activate synchronization controlled by the MaxiScan 3010:

This option is available only for MaxiScan 3100 units containing software version 2.00 or later.

Activate synchronization mode – MaxiScan 3100



To set up synchronization controlled by the MaxiScan 3100, see the *MaxiScan 3100 Installation Guide*.

Read these bar codes to activate the MaxiScan 3100 slave units:

activate slave – MaxiScan 3100 – slave 1



\41\4A\0F\2A\47\04\02\01\60

activate slave – MaxiScan 3100 – slave 2



\41\4A\0F\2A\47\04\02\02\60

activate slave – MaxiScan 3100 – slave 3



\41\4A\0F\2A\47\04\02\03\60

activate slave – MaxiScan 3100 – slave 4



\41\4A\0F\2A\47\04\02\04\60

activate slave – MaxiScan 3100 – slave 5



Disconnect then reconnect the scanner to put it in to working mode. The start online setup bar code on the previous page will put the scanner back in to setup mode.

Deactivating slave mode – offline

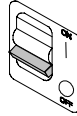
Read this bar code to deactivate each slave unit:



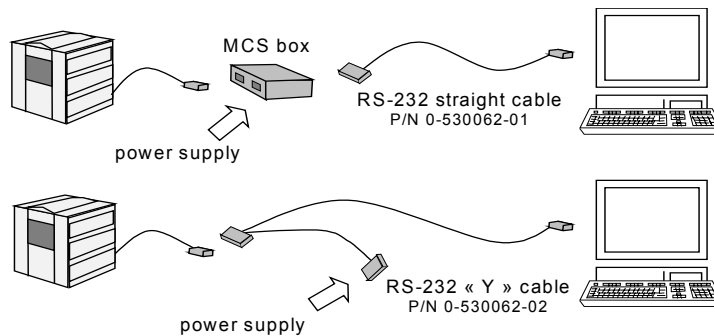
MaxiScan 3300

Set up each MaxiScan 3300 as a slave unit – online

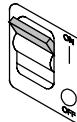
- ❶ System power OFF



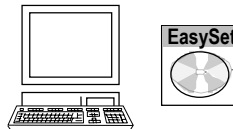
- ❷ Connect the MaxiScan 3300 slave unit to the PC where EasySet is installed. There are two options for this connection depending on the cable used:



- ❸ System power ON



- ❹ Start EasySet and select *MaxiScan 3300* from the menu Product > Select.



Set the communication parameters automatically by selecting the menu communication > setup.

- 5 In EasySet, activate synchronization if applicable. This activates synchronization controlled by the MaxiScan 3010.

network parameters > activate synchronization

To set up synchronization controlled by the scanners in your network, see the *MaxiScan 3300 Installation Guide* for details.

- 6 Activate each MaxiScan 3300 as a slave unit. You can activate up to 20 slaves with EasySet.

network parameters > activate slave

Once the scanner has been activated as a slave, communication between the MaxiScan 3300 and EasySet is cut off. You must activate the slaves at the end of setup.

Deactivating slave mode – online

Since there is no communication between the MaxiScan 3300 and EasySet when slave mode has been activated, you must read this badge to deactivate each slave unit:



Setup MaxiScan 3300 slave unit – off line

You can use EasySet to print out configuration bar codes for offline setup.

Here are some basic configuration bar codes to configure up to 5 3300 slave units. The EasySet software provides the full set of configuration options to configure up to 20 MaxiScan units.

Only read this code if you want to reset factory defaults!

Do not read this code if you have already set up each MaxiScan unit.

reset factory defaults (optional)



If you have not already configured your MaxiScan 3300 unit(s), do it now. See the *MaxiScan 3100 Installation Guide* for details.

You must configure your scanner(s) before activating each of them as a slave unit.

Read this code to activate synchronization controlled by the MaxiScan 3010:

Activate synchronization software - 3300



To set up synchronization controlled by the MaxiScan 3300, see the *MaxiScan 3300 Installation Guide*.

Read these bar codes to activate the MaxiScan 3300 slave units:

activate slave – MaxiScan 3300 – slave 1



activate slave – MaxiScan 3300 – slave 2



activate slave – MaxiScan 3300 – slave 3



activate slave – MaxiScan 3300 – slave 4



activate slave – MaxiScan 3300 – slave 5



Deactivating slave mode – offline

Read this bar code to deactivate each slave unit:

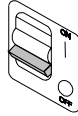
deactivate slave unit – 3300



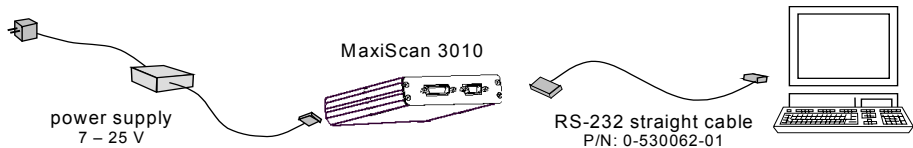
MaxiScan 3010 Network System

Set up the MaxiScan 3010 – online

- 1 System power OFF



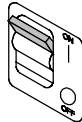
- 2 Connect the MaxiScan 3010 Network System to the PC where EasySet is installed



- 3 Start EasySet



- 4 System power ON



When the power is switched on, the MaxiScan 3010 is in configuration mode (19200, 8, N, 2) and remains in this mode until it receives data from a MaxiScan unit on the network (when a scanner reads a bar code). Once it has read a bar code the MaxiScan goes in to default configuration (9600, 7, E, 2).

- 5 Set up the MaxiScan 3010 Network System using EasySet:
 - number of slaves (scanners) in the network (default = 10)
 - time of polling delay between slaves

- preambles or postambles for the MaxiScan 3010 or for each slave. Pre and postambles for the slaves allow the host application to discern data coming from one scanner or another.
- multihead function
- synchronization (see synchronization setup options on the following page)
- multicode function

See EasySet for a full explanation of the setup options for the MaxiScan 3010.

MaxiScan 3010 input synchronization – setup options

Reading can be triggered by an external device (opto-coupled cell, automated machine, electrical control device, etc.) connected to the MaxiScan 3010 or by a message from the host system.

The Intermec photoelectric switch (P/N 3-500029-03) is fully compatible with the MaxiScan 3010 input synchronization port.

Trigger event

| | |
|-------------------------------|---|
| Current on | Reading is active when current flows between the MaxiScan 3010 inputs SI+ and SI-. Reading remains active until the current stops flowing. |
| Current off | Reading is active when no current flows between the MaxiScan 3010 inputs SI+ and SI-. Reading remains active until current starts to flow. |
| Rising edge | Reading is triggered by a rising edge current between the MaxiScan 3010 inputs SI+ and SI-. Reading remains active until the input synchronization timeout is reached. |
| Falling edge | Reading is triggered by a falling edge current between the MaxiScan 3010 inputs SI+ and SI-. Reading remains active until the input synchronization timeout is reached. |
| Rising or falling edge | Reading is triggered by a rising or falling edge current between the MaxiScan 3010 inputs SI+ and SI-. Reading remains active until the input synchronization timeout is reached. |
| Software | Reading is triggered when the MaxiScan 3010 receives a start read character from the host system. Reading remains active until a stop read character is received. |

MaxiScan 3010 output synchronization – setup options

Trigger event

- | | |
|------------------------|--|
| Good read | The output device is triggered by a good read. |
| No read | The output device is triggered when a scanner in the network does not perform a good read within a given period of time. Only works with an input synchronization trigger. |
| Network failure | The output device is triggered when a problem occurs on the network protocol (bad frame, bad CRC etc.). |
| Current on | The output device operates when current flows between the MaxiScan 3010 outputs SO+ and SO-. |
| Current off | The output device operates when no current flows between the MaxiScan 3010 outputs SO+ and SO-. |
| Software | The MaxiScan 3010 can send a message to the host system after a good read, no read or network failure. |

4 Technical characteristics

Data

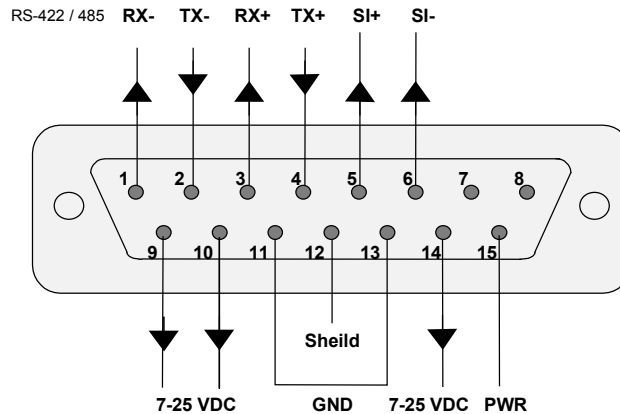
| | | |
|-------------------------------------|-------------------------------------|---|
| Interface | Supported products | <ul style="list-style-type: none">• MaxiScan 3100• MaxiScan 3300 |
| | Network capacity | up to 20 MaxiScan slave units |
| | Host system interface | RS-232 C (default = 9600, 7, E, 2) |
| | I/O synchronization | one input sync from external device one output sync to external device |
| Electrical characteristics | Power requirements | 7-25 VDC \pm 5% |
| | Current consumption | 0.675 W, peaks of up to 2 or 3 times this value at power-up |
| Physical characteristics | Dimensions (width x depth x height) | 14.2 x 11.3 x 3 cm (5.59 x 4.45 x 1.18") |
| | Weight | 300 grams (10.6 ounces) |
| | Connectors | DB9 and DB15 connectors |
| Environmental specifications | Operating temperature | 0°C to 40°C (32°F to 104°F) |
| | Storage temperature | -25°C to 60°C (-13°F to 140°F) |
| | Relative humidity | 10% to 90% non-condensing |
| | Electrostatic discharge | CE approved |
| | Shock resistance | Withstand 5 drops from 1m high on concrete floor |
| | Sealing (dust etc.) | IP51 |
| | MTBF | > 50 000 hours |

Accessories

| | | |
|--|-------------------------------------|-------------|
| Cables | standard MaxiScan 3300 RS-232 cable | 0-530062-01 |
| | 1 m network cable | 3-504039-00 |
| | 3 m network cable | 3-504039-01 |
| | terminator connector | 3-500029-01 |
| | adapter cable (MaxiScan 3100 only) | 3-510022-00 |
| | RS-232 C "Y" cable | 0-530062-02 |
| <p>The MaxiScan 3010 must have a grounded power supply. Use shielded cables for the SCANNER BUS line. A twisted pair is recommended for data lines on the SCANNER BUS port.</p> | | |
| Power supply | US | 0-531029-08 |
| | Europe (except UK) | 0-531029-02 |
| | UK | 0-531029-04 |
| Sync switch | Intermec photoelectric switch | 3-500029-03 |

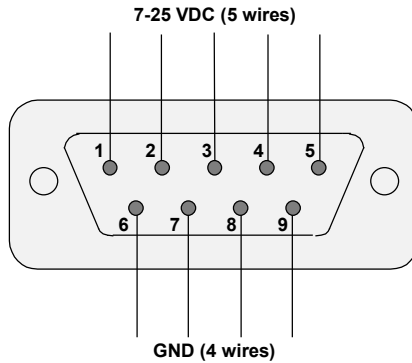
MaxiScan 3010 pinouts

SCANNER BUS – 15-pin subD male connector



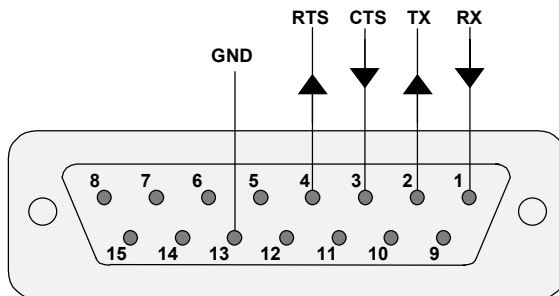
| pin | function |
|-----|--------------------------------------|
| 1 | receive data RX- (RS-422 / 485) |
| 2 | transmit data TX- (RS-422 / 485) |
| 3 | receive data RX+ (RS-422 / 485) |
| 4 | transmit data TX+ (RS-422 / 485) |
| 5 | positive synchronization input (SI+) |
| 6 | negative synchronization input (SI-) |
| 7 | not connected |
| 8 | not connected |
| 9 | power in (7 to 25 VDC) |
| 10 | power in (7 to 25 VDC) |
| 11 | power ground |
| 12 | shield |
| 13 | grounded power |
| 14 | power in (7 to 25 VDC) |
| 15 | power ground |

POWER SUPPLY – 9-pin subD male connector



| pin | function |
|-----|------------------------|
| 1 | power in (7 to 25 VDC) |
| 2 | power in (7 to 25 VDC) |
| 3 | power in (7 to 25 VDC) |
| 4 | power in (7 to 25 VDC) |
| 5 | power in (7 to 25 VDC) |
| 6 | power ground |
| 7 | power ground |
| 8 | power ground |
| 9 | power ground |

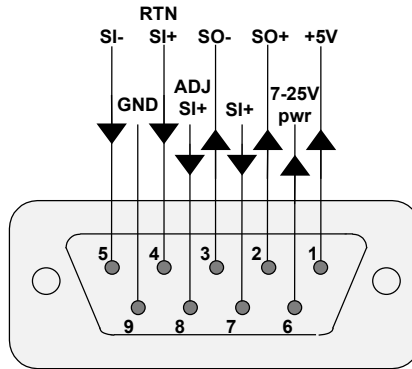
HOST – 15-pin subD female connector



| pin | function |
|-----|----------------------------|
| 1 | receive data (RS-232 C) |
| 2 | transmit data (RS-232 C) |
| 3 | clear to send (RS-232 C) |
| 4 | request to send (RS-232 C) |
| 5 | not connected |
| 6 | not connected |
| 7 | not connected |
| 8 | reserved |
| 9 | reserved |
| 10 | reserved |
| 11 | reserved |
| 12 | reserved |
| 13 | signal ground (RS-232 C) |
| 14 | reserved |
| 15 | reserved |

SYNCHROS – 9-pin subD female connector

In all cases, the synchronization current provided by the external input/output device must be limited to 20 mA max (15 mA is a good average value) !



| pin | function |
|-----|---|
| 1 | +5 VDC out (65 mA max) |
| 2 | positive synchronization output (SO+) (50 mA max) |
| 3 | negative synchronization output (SO-) (50 mA max) |
| 4 | RETURN positive synchronization input (SI+) (50 mA max) brings the SI+ signal to the SCANNER BUS port only (serial connection to slaves with MaxiScan 3010 network cables) |
| 5 | negative synchronization input (SI-) (50 mA max) |
| 6 | 7-25 VDC 10 Watt |
| 7 | MaxiScan 3010 positive synchronization input (SI+) (50mA max) brings the SI+ signal to MaxiScan 3010 only |
| 8 | Adjustable MaxiScan 3010 positive synchronization input (SI+) (50 mA max) brings the SI+ signal to MaxiScan 3010 only with adjustable resistors configuration |
| 9 | power ground |

Network cable pinouts

Network cable (1 m or 3 m)

