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Thank you for purchasing an A2B Electronics product. The MyM-3S is a revolutionary solution for reception and modulation of satellite transmitted TV-content into an analogue format suited for small SMATV networks where cost efficiency and high quality is required. The MyM-3S receives DVB-S and DVB-S2 transmissions.

The MyM-3S unit is delivered with hardware and software that supports DVB-S/S2 reception, MPEG2/MPEG4 decoding, DSB RF modulation with NICAM or A2 audio, IP control and management. The MyM-3S can be upgraded for enhanced functionality by software upgrades. Software upgrades are available from A2B Electronics web site.

A2B Electronics AB
Phone: +46 (0)141 229115
E-mail: support@a2b.se

Visit our web site www.a2b.se for more information.
2 Unpacking the unit

The following items are included in the package:

<table>
<thead>
<tr>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MyM-3S Micro Master</td>
</tr>
<tr>
<td>1</td>
<td>Installation guide</td>
</tr>
<tr>
<td>2</td>
<td>Power supply 12 V</td>
</tr>
</tbody>
</table>

Every unit is quality controlled by us before delivery. Should any items be missing when unpacking, please contact our support service (see page 3 for contact info).

Important information about power supply to MyM-3S unit

To avoid problems with the MyM-3S its is important to use the supplied power supply. Operation with other types of power supplies will void the warranty. (See picture to the right).

**NOTE!** Never connect two MyM-3S units to one power supply. This may cause damage to your MyM-3S.
### 3 Connections and indications

1. **Satellite input 1**
   - Connect one satellite (LNB) input here (tuner 1 for output Ch1 and output Ch 2).

2. **Satellite input 2**
   - Connect second satellite (LNB) input here (tuner 2 for output Ch 3).

3. **Power connector**
   - Connect the supplied power supply to this connector.

4. **Common Interface 1**
   - Insert a Common Interface module into this slot (Supports decryption for Channel 1 and 2).

5. **Common Interface 2**
   - Insert a Common Interface module into this slot (Supports decryption for Channel 3).

6. **Ethernet port**
   - RJ-45 port for 10/100 baseT Ethernet. Connect your PC to this port for management and upgrades.

7. **RF-output**
   - Combined 3 channel RF-output for connection to your SMATV network.

8. **Indicator LED**
   - Status indicator
The MyM-3S has an embedded web server allowing standard web browsers (Internet Explorer, Firefox, Opera etc.) to connect to the unit for settings and management. No controller software is needed. The MyM-3S has by default a static IP address for connecting your PC to the unit.

The MyM-3S is delivered with the default IP address: 192.168.0.20. First time installation requires that you set a static IP address on your computer. For example set your PC to IP address: 192.168.0.19 and Net mask: 255.255.255.0

TCP/IP settings for Windows XP (setting your PC to 192.168.0.19)

Select "Start", "Control panel" and "Network connections". Next select "Network and Internet settings". "Right click" on [Settings for local network] and select [Properties].

In Properties select [Internet protocol (TCP/IP)] and [Properties].
4 IP settings (continued)

Select [Use this IP adress] and write:
192.168.0.19 and select [Net mask]
255.255.255.0. Click [OK] and then click
[Close].

**NOTE!** For PC with other Operating Systems (OS) than Windows, please consult the Owners manual for your PC for [IP/Network settings].

**Connecting your PC to the MyM-3S**

Connect the MyM-3S to the supplied DC power supply.
See section 6 for installation.
Next connect your PC to the MyM-3S with a network cable.
Start your web browser (Internet Explorer, Firefox, Opera etc.) and write the IP address 192.168.0.20 in the address field of your browser.

**Settings of IP address**

Click the [System options] menu and then press [IP Settings] to set a new IP address, Netmask and Gateway for the MyM-3S.
5 Menus and settings

All necessary settings can be made in the web GUI via a web browser. When first connection is made with the MyM-3S following overview menu will appear.

5.1 Overview menu

[Current settings]

Contains information of current input and output signals, if the tuners are locked to a signal, firmware version, bootloader version, hardware revision, serial number and current IP Network settings.

[Software options]

In this menu you can see which software options that are activated.

To continue with settings click the [Input] name in the banner.
5.2 Input settings

As the MyM-3S contains 2 separate tuners, start by selecting either [Tuner 1] or [Tuner 2]. Select the modulation type you want to receive. By selecting DVB-S2 you also can select between QPSK, 8PSK or 16 QAM.

Set the Polarisation. Voltage, FEC and 22 kHz tone should normally be set to “Auto” if you have connected the MyM-3S to a Universal LNB or a switch with same functionality as a Universal LNB.

**Note!** Inverted spectrum is sometimes used in C-band transmissions and is set automatically by auto detection.

Finally enter the correct Symbol rate and press [Set] and then enter the Transponder frequency and press [Set]. The available services will now be presented in the [Service Management] menu. We suggest that you consult: http://en.kingofsat.net/ or another web site for correct parameters for the services you intend to use.

The input level should be higher than -65 dBm, preferably more than -50 dBm and max -25 dBm and C/N should read more than 10 dB.
5.3 Output settings

**Modulation/Band**
Start the output setup by selecting which band you want to use. You can select VHF-7, VHF-8 and UHF. VHF-7 and VHF-8 corresponds to 7 and 8 MHz bandwidth. After selection press [Set].

**Frequency**
For each of the 3 possible output channels, set the desired output channel or frequency.

**Channel Indicator Name**
You can set the “Channel Indicator name” by your personal preference. The Channel Indicator will enable you to detect on a TV-screen which programs that are transmitted from the MyM-3S. Press [Set] after each entering.

**National/Subtitle/Type**
Set type of subtitling to Normal or for Hearing Impaired or None
National settings enables language and regional settings depending of the region the MyM-3S is installed in, or which parameters you want to use for the output.

**Language**
Select subtitling language. Depends of received languages in the satellite signal.

**Priority**
Set DVB or Teletext subtitling as default selection.
5.3 Output settings continued

**Auto conversion**
Converts subtitling to fit actual picture aspect ratio.

**Teletext Charset**
Select appropriate characters for selected language.

**Audio/ Audio language**
Select which language to receive and transmit on the outgoing programs.

**Audio level**
This setting allows to equalise the difference in sound level between different programs. Settings can be done between +3 and -9 dB or Mute.

**Advanced/ Aspect ratio**
Set correct picture format of the programs transmitted from the MyM-3S.

**Video standard**
Select your regional video standard.

**Audio system**
Set your regional audio standard.

**Channel Indication**
Select to transmit the Channel Indicator names as set up under [Output/Modulation]
5.4 Service Management

The MyM-3S contains 2 separate DVB-S/S2 tuners and totally 3 services can be selected for each of output channels, named [CH-1], [CH-2] and [CH-3].

The list of services presents all received services from both tuner inputs.

When one program (service) is selected, the box in front of the program name changes colour to green.

The service list gives following information:

- **Selected service**  Green colour indication
- **Service name**  Program name
- **Provider**  Name of satellite operator
- **Input**  Indicates from which antenna input the service is received
- **SID**  Service ID number (as received)

**NOTE! To detect whether a Common Interface module and smart card actually decrypts the programs is only possible by watching the outgoing signal on a TV-set tuned to the correct frequency.**

5.5 CI menu

The MyM-3S contains 2 CI (Common Interface). CI 1 decrypt services for output Ch1 and Ch2. The CI 2 decrypt services for output Ch 3. In menu you get information about CAM and card.

In the Advanced settings menu you can change timing settings for the used CAM if there is a need for changing that. After a change is made the “Save” button must be clicked on. If changes are made and does not work, you can get the default settings again by a click on the “Reset” button and a click on the “Save” button.
5.6 System options

Upload/Upgrade

The Upgrade menu is used to be able to download software Upgrades or future software functionality.

The procedure of downloading a new software looks as described below:

1. Download the appropriate file from our web page to your PC.
2. Browse for the file in the MyM-3S User Interface.
3. Press [Upload]
4. Wait 2 minutes.
5. Make a reboot of the MyM-3S
6. Finished

The Upload menu shows current files downloaded into the units and can be useful when contacting A2B support.

Uptime

The Uptime menu gives statistics of uptime and possible re-starts. The log can be cleared in order to have a “clean sheet” after installation.

IP settings

This section shows current IP-address, Netmask and Gateway settings.

Remember to change settings if the default IP-address is used by other devices in your network.

In case you have forgotten your IP-address please consult the A2B support web site and download free of charge our tool “IP-supporter”. This tool finds all MyM-3S and their respective IP-addresses available in your network.

Also remember to press [Apply settings] when ready.

Reboot MyM

Pressing [Reboot unit] re-starts the MyM-3S. All settings are preserved so no settings or programs will be lost.
6 Installation and configuration

The MyM-3S can be installed either as a stand alone unit directly on the wall or by the use of a dedicated MyM Security Wall Mount (part number 702800.10). The MyM Security Wall Mount secures both the MyM and CAM-modules with a locking function to avoid loss of CAM's and smart cards in public places.

Before connecting power to the MyM-3S, make sure that all other connections have been made. A coaxial cable of good quality with an F-connector should be connected to the Antenna input and another one from the RF output to the SMATV network. Connect the power supply and make all necessary settings as described in section 4 and 5.

Installation in MyM Security Wall Mount.

Accessories

MyM Security Wall Mount kit
Art no: 702800.10
## 2 x DVB-S/S2 Satellite Receiver

- **Input frequency**: 950 - 2150 MHz
- **Symbol rate**: 1-45 Msymbols/s
- **Connectors**: Type F female, 75 Ω
- **Input level**: -65 to -25 dBm
- **LNB voltage**: Auto, off or 13/18V
- **LNB current**: 200 mA per input
- **FEC**: Auto, on or off

## 3 x MPEG Decoder – Video - audio

- **Video standard**: MPEG2 MP@ML, MPEG4 h.264 AVC MP@L3
- **Audio standard**: AAC HE or MPEG 1 layer II AC-3 (option)
- **Picture aspect ratio**: Letterbox, Anamorphic
- **Teletext**: VBI
- **Subtitling**: Teletext or DVB subtitling

## 3 x Modulator

- **Modulation standard**: PAL B/G, I, D/K, SECAM (DSB)
- **Audio**: FM-mono, NICAM stereo and A2/A2* stereo
- **Output channels**: Double side band from 160 – 862 MHz
- **Output level**: Typ. 80 dBµV, fixed
- **Built-in aerial amplifier**: 5 dB
- **RF output connector**: Type F female, 75 Ω

## Decryption

- **Decryption Interface**: 2 x Common Interface (PMCIA 5VDC)
- **Decryption type**: Single or Multidecryption
- **CI 1 slot**: Decryption for output Ch1 and Ch2
- **CI 2 slot**: Decryption for output Ch3

## Miscellaneous

- **AC Power supply**: 230 VAC typ (94-264VAC)
- **AC power consumption**: Typ. 18 W ex. LNB load
- **DC output power**: Typ. 15 W ex. LNB load
- **Setup and update**: Ethernet port
- **Setup**: Web based GUI
- **Dimension**: 301x215x53 mm (excl. connectors)
- **Weight**: Approx. 900 g
- **Operating temperature**: -20 to +45°C non-condensing

### MyM Web Control Interface

![Web Control Interface](example.png)

*Example of MyM Web GUI*
The document for Declaration of Conformity is available for download from www.a2b.se.

Further information at www.a2b.se.
### 9 Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DVB</td>
<td>Digital Video Broadcasting (Standardization body)</td>
</tr>
<tr>
<td>MPEG-2</td>
<td>Compression format for digital TV</td>
</tr>
<tr>
<td>MPEG-4</td>
<td>Compression format for digital TV (SD and HD)</td>
</tr>
<tr>
<td>DSB</td>
<td>Double Side Band (RF modulation occupying 2 channels)</td>
</tr>
<tr>
<td>NICAM</td>
<td>Digital sound format for analogue TV transmission</td>
</tr>
<tr>
<td>IP</td>
<td>Internet Protocol (defines how data is packetized for Internet broadcast)</td>
</tr>
<tr>
<td>DVB-S</td>
<td>Modulation format (QPSK) for satellite transmission of digital TV</td>
</tr>
<tr>
<td>DVB-S2</td>
<td>Modulation format (QPSK or 8PSK) for satellite transmission of digital TV</td>
</tr>
<tr>
<td>DHCP</td>
<td>Dynamic Host Configuration Protocol is a protocol used by networked devices (clients) to obtain the parameters necessary for operation in an Internet Protocol network. This protocol reduces system administration workload, allowing devices to be added to the network with little or no manual configuration.</td>
</tr>
<tr>
<td>Common Interface</td>
<td>Connector for a PCMCIA module used for decrypting encrypted TV programs. Modules should comply with the DVB CI standard</td>
</tr>
<tr>
<td>SD</td>
<td>Standard definition TV (576i in Europe)</td>
</tr>
<tr>
<td>SMS</td>
<td>Service Management System (system for handling smartcards).</td>
</tr>
<tr>
<td>SMATV</td>
<td>Satellite Master Antenna TV.</td>
</tr>
<tr>
<td>A2</td>
<td>Dual sound analogue stereo audio</td>
</tr>
<tr>
<td>LNB</td>
<td>Low Noise Block (outdoor unit for sat. Reception)</td>
</tr>
<tr>
<td>GUI</td>
<td>Graphical User Interface</td>
</tr>
<tr>
<td>QAM</td>
<td>Quadrature Amplitude Modulation (digital modulation method)</td>
</tr>
<tr>
<td>QPSK</td>
<td>Quadrature Phase Shift Keying (digital modulation method)</td>
</tr>
<tr>
<td>8 PSK</td>
<td>Eight Phase Shift Keying (digital modulation method)</td>
</tr>
<tr>
<td>FEC</td>
<td>Forward Error correction (digital error correction method for digital transmissions)</td>
</tr>
<tr>
<td>C/N</td>
<td>Carrier to Noise ratio (defines the difference in dB between digital signal and noise level)</td>
</tr>
<tr>
<td>AAC-HE</td>
<td>Digital sound compression standard</td>
</tr>
<tr>
<td>VBI</td>
<td>Vertical Blanking Interval. Part in video signal non-visible</td>
</tr>
<tr>
<td>CAM</td>
<td>Conditional Access Module (see above Common Interface)</td>
</tr>
</tbody>
</table>
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