SHOOMS

DEVICE 01 / 08

TECHNICAL DOCUMENTATION

sp-tvs

Media module: TV and sound

HDMI to the TV | Audio 3.5 mm | Wired network | 230 V

Installation, connection, daily operation and maintenance guide for range technicians and range operators.



DOCUMENT	VERSION	FIRMWARE	DATE
DOC-MM-EN	1.0	1.0	09.2026

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DOC-MM-EN · V1.0

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CHECK THE CONTENTS BEFORE INSTALLATION

Check the contents immediately after unpacking. Report any missing or damaged item to your supplier before installation.

AT A GLANCE

1	HDMI	3.5 mm	12 mo
Per range	Video to the TV	Audio output	Warranty

COLOUR CODING

Warning
Important information that needs particular attention. Read it before you act.

Note
A clarification or useful additional information.

Tip
Useful recommendations.

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01 Overview and key specs

The media module shows the course of shooting on the range's TV and plays the sound: calls, prompts and system tones. It is a small computer in a metal enclosure that receives data from the SHOOMS server over the network and sends the picture to the TV over HDMI, with the sound on a separate audio output.

1	HDMI	3.5
TV per module	Video output	mm, audio output

Purpose

- Showing the current state of a series on the TV: who is shooting, which targets, what result was recorded.
- Playing the range's sound through the audio output — to active speakers, an amplifier, or the TV itself.
- Running unattended: the module starts with the power and connects to the server by itself.

What it consists of

The media module is a single-board computer in a metal, passively cooled enclosure. Only four cables connect to it: power, network, HDMI and audio. There are no controls on the enclosure.

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Fig. 1. The media module in its enclosure

CONNECTOR	PURPOSE	DESCRIPTION
HDMI	**Video to the TV**	Micro HDMI on the board; an adapter to full-size HDMI is supplied.
AUDIO	**Audio output**	The 3.5 mm analogue output on the board — the fallback when there is no USB adapter.
LAN	**Network**	Wired connection to the range network — the primary and recommended option.
USB-C	**Power**	From the supplied 230 V mains adapter.
USB	**Service**	Sound through the supplied USB audio adapter, and a keyboard during servicing.

ONE MODULE, ONE SCREEN

A media module drives one TV. If a site has several ranges with their own screens, each has its own media module.

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02 What's in the box

CHECK THE CONTENTS BEFORE INSTALLATION

Check the contents immediately after unpacking. Report any missing or damaged item to your supplier before installation.

QTY	ITEM
1	Media module sp-tvs in a metal, passively cooled enclosure
1	USB-C power adapter
1	USB audio adapter (USB → 3.5 mm)
1	Adapter micro HDMI → HDMI
1	HDMI cable (length per the project)
1	LAN network cable

TV AND SPEAKERS ARE NOT INCLUDED

The customer chooses the TV, its mount and the audio equipment. The requirements are simple: an HDMI input on the TV, and any active speakers or amplifier with a 3.5 mm input if the sound does not come from the TV itself.

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03 Safety and warranty

ONLY SHOOMS STAFF OPEN AN ENCLOSURE

Removing a lid and doing anything inside the enclosure of any device in the system is for authorised SHOOMS personnel only. The customer and third parties must not open an enclosure, press buttons on the board, move any parts, or unplug connectors or cables inside it. Interfering breaks the enclosure's seal, voids the warranty and can cause a trap to fire unexpectedly.

230 V SUPPLY

The power adapter plugs into the 230 V mains. The socket must be in a dry place, under a canopy or indoors. Do not extend the power cable with improvised joints.

General rules

- Install the module in a dry place, sheltered from rain and direct sun.
- The enclosure is the heatsink and gets warm in use — that is normal. Do not cover it and do not put it in a closed box without ventilation.
- Do not cut the power during operation without reason: shutting down properly means powering the range down in the order used at the site.
- Route the HDMI and network cables where they cannot be caught; on long runs, fix the cable along its whole length.
- Do not open the enclosure. There are no user-serviceable parts inside.

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Warranty

The warranty period is 12 months from the date the module is put into service. It does not cover damage from moisture, overheating due to enclosed mounting, lightning, mains overvoltage, or mechanical tampering with the enclosure.

For a warranty claim provide: the serial number, a description of the fault and, if possible, a photo of the screen showing the problem.

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04 Installation

Choosing the position

- Put the TV under a canopy or indoors, so the sun does not fall on the screen and it can be seen from the shooters' positions.
- Place the media module next to the TV: behind it on the mount, on a shelf, or in a ventilated cabinet. The shorter the HDMI cable, the better.
- A 230 V socket in a dry place and a connection point to the range network must be nearby.
- Leave the connectors accessible: cables do occasionally need unplugging.

Mounting steps

1. Fix the TV and the media module in their chosen positions.
2. Connect the HDMI cable through the adapter to the module and to the TV input; note which input number it is.
3. Connect the sound: either leave it on the TV over HDMI, or connect the supplied USB audio adapter to the speakers or amplifier.
4. Connect the network cable to the LAN socket.
5. Connect the power adapter. The module starts automatically — there is no power button.
6. Switch the TV on, select the right HDMI input and confirm that the system's picture appears.

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7 Check the sound at working volume and compare the picture with what the server shows.

SET THE VOLUME ONCE

It is convenient to set the TV or amplifier to a working level and control the sound from the system afterwards. Then nothing has to be adjusted after every power-down.

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05 Connection

Four cables run to the media module. They cannot be mixed up: each has its own connector.

VIDEO AND SOUND

The picture goes to the TV over HDMI. The sound goes either over that same HDMI cable to the TV speakers, or out of the separate 3.5 mm output to speakers or an amplifier.

HDMI + 3.5 mm

The TV

The board carries a micro HDMI socket, so the cable connects through the supplied adapter. Choose the cable for the actual distance with a little slack: an over-long cable without a signal booster can make the picture drop out.

Sound

If the TV's own sound is enough, no separate cable is needed — HDMI carries it. For speakers or an amplifier use the supplied USB audio adapter: it is the main sound path and the image's default output. The 3.5 mm analogue output on the board remains the fallback, which the module switches to by itself when no adapter is present.

PLUG THE ADAPTER IN BEFORE SWITCHING ON

The USB audio adapter must be connected when the module is switched on. Added later, it does not appear until the module's software restarts.

Network

The media module joins the range network with a LAN cable — the recommended way: the picture updates constantly, and a sagging network shows on the screen at once. Wi-Fi is possible, but a wired connection is more reliable.

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PIN DOWN THE HDMI INPUT

After a power cut a TV sometimes returns to a different input or shows its own start screen. In the TV's settings, set it to switch to the right HDMI input automatically; otherwise the screen has to be switched by hand after every power-down.

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06 Daily operation

Switching on

The module starts automatically when power is applied. After a few tens of seconds the system's picture appears on screen. The module has no power button.

During a series

Everything the shooters and spectators see is sent by the SHOOMS server. The module has no picture settings of its own: what is shown is decided by the system.

Volume

The overall level is set on the TV or the amplifier, and the volume of individual sounds in the system. If the range has become louder or quieter, first check whether somebody changed the volume on the TV itself.

Switching off

Overnight or for the season, the module is powered down with the rest of the range equipment. Settings are retained.

THE MODULE STORES NOTHING ITSELF

Series results are kept by the server. The media module only displays what it receives, so replacing it loses no data.

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07 What is on the screen

The picture is composed entirely by the SHOOMS system, so which elements appear depends on the site's settings and the discipline being shot. Usually the screen carries three groups of information.

GROUP	WHAT IT SHOWS
Current shooter	Who is at the station, and the station number.
Progress of the series	The targets shot so far and what was scored in the current series.
List of participants	The results of the rest of the group — for spectators and for the shooters between turns.

Sounds

Along with the picture the system plays sound: system tones and spoken prompts, depending on the site's settings. Which sounds are used is defined on the server side.

NO PICTURE — LOOK AT THE TV FIRST

A black screen most often means the wrong HDMI input is selected or the TV is off, not that the module has failed.

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08 Troubleshooting

SYMPTOM	LIKELY CAUSE	FIX
Screen black, TV working	A different HDMI input is selected	**Switch the TV to the input the module is connected to.**
Screen black, input correct	No power to the module, or HDMI unplugged	**Check the power adapter and both ends of the HDMI cable, including the adapter.**
The picture drops out from time to time	The HDMI cable is too long or damaged	**Fit a shorter or better cable; check the adapter.**
Picture present but the data does not update	No link to the server	**Check the LAN cable and that the range network is running.**
No sound	Muted on the TV or amplifier, or the cable is in the wrong place	**Check the volume on the TV or amplifier and the audio cable connection.**
Sound but no picture	A problem with the TV's video input	**Try another HDMI input on the TV.**
After a power cut the screen does not come back	The TV started on a different input	**Enable automatic input selection in the TV's settings.**

WHAT TO TELL SUPPORT

Whether the other devices on the range work, what exactly is on screen — a black screen, the TV's own start screen, or a frozen system picture — and whether anything changed in the network or the equipment.

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09 Maintenance and cleaning

INTERVAL	TASK
Monthly	Inspect the cables and connectors; check that the enclosure is uncovered and has air around it.
Each season	Clear dust from the enclosure with a dry cloth or a soft brush: dust on the heatsink worsens cooling.
Each season	Check the TV mount and the condition of the HDMI cable where it bends.
Before winter	If the range is idle for over 2 months, power the module down; remove and store it indoors in a dry place if needed.

NO WET CLEANING

Wipe the enclosure with a dry cloth only. Moisture inside a sealed, passively cooled metal enclosure destroys the board.

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10 Technical specifications

PARAMETER	VALUE
POWER	
Input	USB-C from the supplied adapter
Mains	230 V, 50 Hz
Switch	None: the module starts with the power
VIDEO	
Output	Micro HDMI on the board, HDMI adapter supplied
TV	Any TV with an HDMI input
Screens	One per module
SOUND	
Output	Supplied USB audio adapter
Alternative	Sound over HDMI to the TV speakers, or the 3.5 mm analogue output on the board
Equipment	Active speakers or an amplifier — per the project
NETWORK	
Connection	LAN (recommended); Wi-Fi optional
Network role	Client of the range network
ENCLOSURE AND ENVIRONMENT	
Enclosure	Metal, passive cooling
Placement	In a dry place beside the TV, with air around it
Operating temperature	–20 … +50 °C
COMPUTING	

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PARAMETER	VALUE
Platform	Single-board computer
Serial number	Sticker on the enclosure

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11 Firmware and changelog

The software version is shown on the cover. Updates are performed by SHOOMS support; the client provides access to the range network for this. There is no self-service update.

VERSION	DATE	CHANGES
1.0	09.2026	First production release.

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APPENDIX A

Appendix: SHOOMS device family

Every SHOOMS device has its own manual in the same structure (sections 01–11).

1 · DOC-MM

Media module

Media module: TV and sound

This document

2 · DOC-RB

Release module

Target release module

3 · DOC-MC

Microphone

Microphone module

4 · DOC-RF

Card reader

Shooter card reader

5 · DOC-TR

Terminal

Self-service terminal

6 · DOC-WR

Wireless receiver

Wireless release receiver

7 · DOC-WT

Transmitter

Wireless release transmitter

8 · DOC-BS

Base station

Range server and network

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