

6. REMOTE CONTROL OPERATION

Dr. Jekyll and Mr. Hyde, as you may know, were two very different personalities, even though they were the same person. Well, the AVM 20 Remote Control is the host to NINE different personalities! (All of them 'good', of course.)

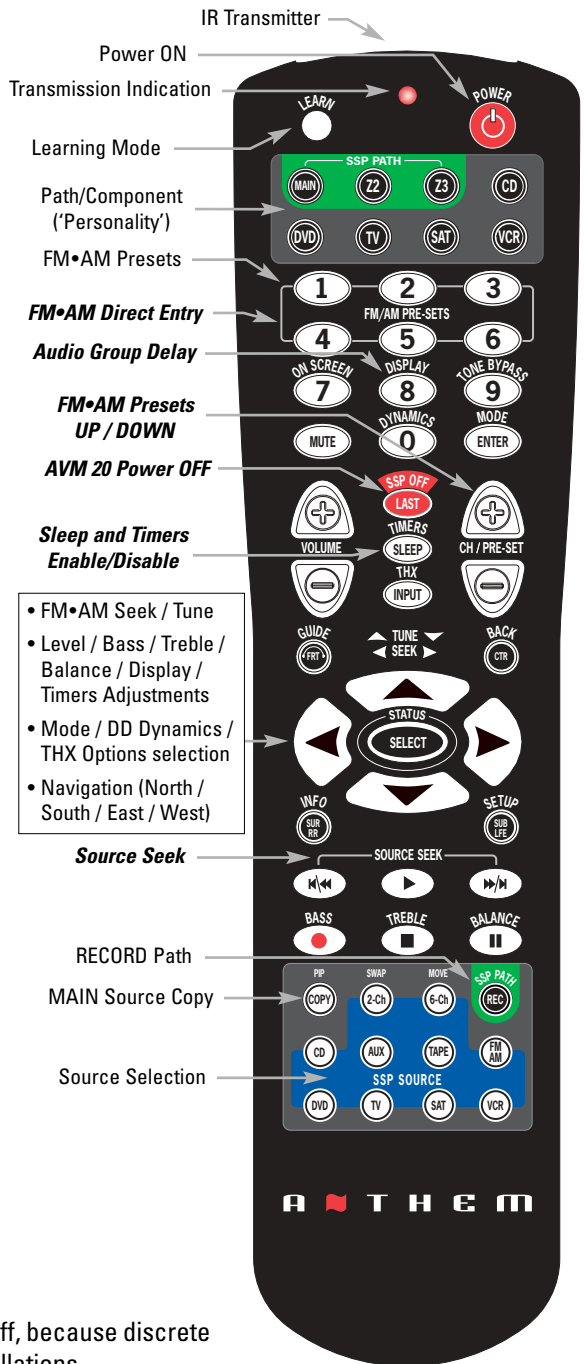
The AVM 20 Universal Learning Remote Control has all of the same functions as the front panel buttons and is operated in a similar way, but there are some differences. Please take the time to read this section to fully understand all the functions of the AVM 20 remote Control.

The keys labeled in this illustration show those that have a **different** method of operation from their front panel counterparts. Those shown in **bold italics** indicate keys that are unique to the Remote Control and not found on the Front Panel. For a detailed layout diagram see section 3.3.

To install the batteries, remove the cover that is on the bottom of the remote, and be sure that they're installed with the correct polarity. Down the road, if the keys don't light up when they're pressed, and the red LED blinks twice, it's an indication that the batteries need replacement – use only 'AA' alkaline.

Before we get started, we have to give the remote a little attitude adjustment – set the 'personality' to MAIN by pressing **MAIN** near the top of the remote.

Note: The Path/Component keys do not transmit any commands to the AVM 20, or anywhere else. They only determine where subsequent commands are sent. For example, if ZONE2 is selected followed by VOL+, then the volume changes in ZONE2 while MAIN and all other components remain unaffected.





6.1 POWERING THE AVM 20 ON AND OFF

Two separate keys are used to turn the AVM 20 On/Off, because discrete power commands are required in most custom installations.




The  power key in the top right corner turns the AVM 20 Power ON. The red **SSP OFF** key near the middle turns the AVM 20 Power OFF.

The AVM 20 can be turned ON and OFF as follows:

- **MAIN ON:** Press **MAIN** in Path/Component, then press .
- **MAIN OFF:** Press **MAIN** in Path/Component, then press **SSP OFF**.
- **ZONE2 or ZONE3 ON:** Press **Z2** (or **Z3**) in Path/Component, then press .
- **ZONE2 or ZONE3 OFF:** Press **Z2** (or **Z3**) in Path/Component, then press **SSP OFF**.

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6.2 PATH SELECTION

- **MAIN:** Press **MAIN** in Path/Component, then press .
- **ZONE2** or **ZONE3:** Press **Z2** (or **Z3**) in Path/Component, then press .
- **RECORD:** Press **MAIN** in Path/Component, press , then press **REC** in SSP Path.

6.2.1 COPYING THE MAIN PATH TO ZONE2, ZONE3, OR RECORD

Select a MAIN Source first and then for:

- **ZONE2** or **ZONE3:** Press **Z2** (or **Z3**) in Path/Component, then press **COPY**.
- **RECORD:** Press **MAIN** in Path/Component, press **REC** in SSP Path, then press **COPY**.
Note: The **REC** key only works when Path/Component is in **MAIN**.

Note: While all Analog Sources are simultaneously available to MAIN, ZONE2, ZONE3, and RECORD, the COPY function is the only way to direct a MAIN Digital Source to ZONE2, ZONE3, or RECORD.

6.3 SOURCE SELECTION

After selecting the desired Path (MAIN, ZONE2, ZONE3, or RECORD), press one of ten SOURCE keys in the SSP Source group near the bottom.

6.3.1 SOURCE SEEK (Remote Control Only)

The SOURCE SEEK keys are an easy way to find the active Sources. The ◀ ▶ keys go to the previous and next active Source while the ▶ key advances one Source at a time.

6.4 DIRECT FM•AM STATION ENTRY (Remote Control Only)

When using the FM•AM Tuner, the station frequency can be entered as a four-digit number. For example, to tune into 98.3 FM, press and hold **SELECT** until the display shows "<blank>0.0" in the lower left corner, then press **0, 9, 8, 3**.

6.5 SLEEP TIMER (Remote Control Only)

If you would like to go sleep while listening to a program or music, the **Sleep Timer** will automatically turn the AVM 20 power off after a preselected time. So when you find yourself falling asleep at the 'tube', take the Remote Control and:

- Select the desired Path (MAIN, ZONE2, or ZONE3), then press **SLEEP** (the Sleep timer will operate for that Path only).
- The first **SLEEP** keystroke always resets the timer to 30 minutes. Additional keystrokes then cycle as follows: Second=60, third=90, fourth=Disabled.
- Once set, the time remaining appears as the number following 'Zzz' in the display.

6.6 ENABLE / DISABLE TIMERS (Remote Control Only)

To enable or disable all timers without entering the Setup, press and hold the **SLEEP** key until the display shows "All Timers", then use the ▲ ▼ keys to enable/disable (see section 7.4.1).

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6.7 AUDIO GROUP DELAY (Remote Control Only)

To adjust Audio Group Delay without entering the Setup, press and hold the **DISPLAY** key until the display shows "Audio Group Delay", then use the ◀ ▶ keys to move from digit to digit and the ▲ ▼ keys to adjust. This can be done while viewing the picture and listening to the soundtrack simultaneously (see section 7.4.5).

6.8 CONTROLLING OTHER COMPONENTS

The AVM 20 Remote Control can be set up to control your TV, DVD player, CD player, VCR, and satellite receiver. It contains a very extensive set of Remote Control codes from many different manufacturers, which can be entered to virtually duplicate another Remote Control. Alternatively, the Learn function can be used to customize each key.

6.8.1 ENTERING MANUFACTURER'S CODES


In Appendix A at the back of this manual you will find the manufacturer's codes available for programming the AVM 20 remote. To enter a code:

1. Press the Path/Component key (e.g. **DVD**).
2. Press and hold **LEARN** until the LED flashes twice.
3. Enter the **four-digit code** from Appendix A. The LED should blink twice.

Codes can **only** be used with their respective Path/Component key. For example, a VCR code can not be programmed in the DVD Path/Component key.

6.8.2 SEARCHING FOR A CODE

If a code for your component is not listed in Appendix A:

1. Turn the component on (e.g. TV).
2. Press the matching Path/Component key (e.g. **TV**).
3. Press and hold **LEARN** until the LED flashes twice.
4. Press **9, 9, 1**.
5. Aim the remote towards the TV, and alternate between pressing  and **TV**.
6. Stop once the TV turns off. Immediately press and release **LEARN** to lock the code.
7. If, for future reference, you want to know what the code is, press and hold **LEARN** until the LED flashes twice and then press **9, 9, 0, 1**. Wait 3 seconds and count the number of flashes. The number of flashes represent the first digit (i.e. 3 flashes = 3, no flash = 0). Next, press **2** for the second digit, **3** for the third digit, and **4** for the fourth digit, and count the number of flashes each time. Record this code number in Appendix A for future reference.

6.8.3 VOLUME LOCK

After entering a code for your TV or satellite receiver, you may find it inconvenient to switch the Path/Component keys back and forth when you alternate between say, changing channels on your TV and adjusting the volume of MAIN (AVM 20). Not to worry, the Volume Lock feature takes care of this. When engaged, the volume keys adjust MAIN volume, regardless of which Path/Component is selected. You can then leave your Path/Component selection in TV and no longer have to press MAIN first to adjust the volume of the AVM 20.

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In the following example, MAIN volume is locked onto every Path/Component selection except ZONE2:

To Engage Volume Lock for MAIN:

1. Press and hold **LEARN** until the LED flashes twice.
2. Press **9, 9, 3**.
3. Press **MAIN**.

At this point, the Volume and Mute keys now control MAIN, no matter which of the eight Path/Component selections the Remote Control is in. However, any individual Path/Component selection can be unlocked if necessary.

To Disengage Volume Lock for ZONE2 (or ZONE3), and re-engage the ZONE2 (or ZONE3) Volume Control:

4. Press **ZONE2** (or ZONE3).
5. Press and hold **LEARN** until the LED flashes twice.
6. Press **9, 9, 3**.
7. Press **VOL-**.

The Volume and Mute keys now control MAIN for every Path/Component selection except for ZONE2. You may continue to unlock other Path/Components one at a time. To unlock all Path/Components at once and restore the default setting, press **VOL+** instead of **VOL-** in step 7.

6.8.4 LEARN FUNCTION

The AVM 20 Remote Control has the ability to learn the command of an individual key from almost any other remote control. When a new command is programmed onto a key, the original command is still available by pressing LEARN before pressing the key. We'll call this the Layer1 method.

If the original command of a particular key is used more than the learned command, it might be better to program the learned command in Layer2. This means that when a taught key is pressed, the original command functions as always, and the learned command is accessed by pressing LEARN before pressing the key. In essence, this is the reverse of the Layer1 method.

The learned commands are retained in the Path/Component selection into which they were programmed. For instance, if the ◀ ▶ ▲ ▼ navigation keys are programmed into the DVD selection, they won't perform the learned command if another Path/Component is selected.

Limitations on Learning:

Before getting to the learning procedure, please read the following limitations:

- Some codes are not learnable. This includes multi-frequency codes, some high frequency codes, and other unusual formats.
- All keys, with the exception of the Path/Component keys and LEARN, can be taught.
- Typically, the memory allows up to 24 keys to be taught.
- The Remote can learn only one code per key. It can not be taught a sequence of several keystrokes on one key.
- In general, we recommend that you do not teach the Record key. The Record key, almost always, requires a double key press (Rec+Pause or Rec+Play). The double key press will be lost when the Record key is involved in most learning operations. This lack of consistency does not always allow for proper function and is best avoided.
- The Source Remote and the AVM 20 Remote should be 1 to 2 inches apart during teaching mode, and the IR transmitters of the two Remotes should be aligned with each other.

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- The placement of the IR transmitter in the Source Remote may make it difficult to correctly align the two Remotes.
- Source Remotes that contain a beam-focusing lens may require more than one attempt at successful alignment.
- The learning process should be conducted in an area where there is a low level of IR emission. High levels of natural light or fluorescent lighting could interfere with a learning event.
- The maximum carrier frequency is 135 kHz.

Teaching a Key:

To initiate the learning operation, follow these steps:

1. Point the Source Remote and AVM 20 Remote at each other (to be ready for step 5).
2. Press and hold **LEARN** until the LED flashes twice.

One long blink indicates low battery or faulty memory. The Remote will not go into learn mode if either of these conditions exist.

3. Press **9, 7, 5**, then the desired **Path/Component key**.

To place the command in Layer1, follow step 4a. To place the command in Layer2, follow step 4b:

- 4a. Press the **key to be taught**. Proceed to step 5.
- 4b. Press **LEARN** (don't hold), then press the **key to be taught**.
5. The LED flashes rapidly. Within 4 seconds, press and hold the **teaching key on the Source Remote** until the LED flashes twice. The LED will go out while it receives a signal from the Source Remote.

One long blink appearing during this step indicates a learning failure, which could mean:

- Bad Capture (try again).
- Memory Full (delete another command).
- Unlearnable Code.

6. Repeat steps 4a or 4b and 5 as often as desired (up to the maximum limit of memory or 24 keys).
7. Wait 10 seconds to exit the learning mode automatically.

Deleting a Learned Command from a Key:

To delete a learned command on one key, you can either overwrite it with a new code on the same key, or use the following delete sequence:

1. Press and hold **LEARN** until the LED flashes twice.
2. Press **9, 7, 6**, the **Path/Component key**, the **key to be deleted**, the **key to be deleted again**.

To erase all learned commands in all Path/Component keys, press and hold **LEARN** until the LED flashes twice and then press **9, 8, 0**.

6.9 CONTROLLING THE AVM 20 WITH AFTERMARKET REMOTES

Some keys on the AVM 20 Remote, such as **VOL+**, **VOL-**, and **SETUP** (SUB/LFE), have **press and hold** commands as well as regular **press and release** commands. It may be necessary to program your aftermarket remote to **loop** or **repeat** a command to turn it into a 'press and hold' command. The methods of doing this vary with model – contact the remote control manufacturer for more information.

Direct Mode and tuner bank access: If you're using a macro-capable aftermarket remote, individual surround Modes and tuner banks can be accessed directly by way of 3-key sequences – see Appendix A.