

# M-5010 2-Channel Amplifier

BLACK



**WRAT**  
WIDE RANGE AMPLIFIER TECHNOLOGY

## Explore the Full Potential of Your Onkyo Home Entertainment System

To augment your home theater's multi-zone capabilities—or to enable the 11-channel surround sound feature offered on selected Onkyo A/V receivers—you may find yourself in the market for an additional stereo amplifier. Offering a blend of power, accuracy, and value is the M-5010. Boasting our acclaimed WRAT with Three-Stage Inverted Darlington Circuitry, this two-channel power amp is well suited to handling the fast-changing dynamics of movie soundtracks while retaining enough sensitivity to deliver a nuanced and musical performance for all your audio content. The amp is built around a thick anti-resonant metal chassis with aluminum faceplate for extra vibration resistance. Under the hood, audio enthusiasts will note the aluminum heat sink, large 10,000  $\mu$ F capacitors, and quality copper bus bars for superior grounding potential—all features designed to improve responsiveness and clarity. For greater convenience, the amp has a 12V trigger switch, banana plug-compatible speaker binding posts, and multi-zone audio connections. An affordable way to explore the possibilities of whole-house entertainment, our M-5010 will prove an invaluable addition to your home theater system.

### FEATURES

- 75 W/Ch (8 Ohms, 1 kHz, 0.08% THD, 2 Channels Driven, FTC)
- WRAT (Wide Range Amplifier Technology)
- Three-Stage Inverted Darlington Circuitry to Reduce Distortion
- All Discrete Output Stage Circuitry
- Heavy Duty EI Transformer
- Two Large 10,000  $\mu$ F Capacitors for Effective Power Supply
- Low-Impedance Copper Bus Bars for Perfect Ground Potential
- High-Current, Low-Impedance Drive
- Flat, High-Rigidity, 1/16" (1.6 mm) Anti-Resonant Chassis
- 12V Trigger Input and Output with Audio Switch
- Banana Plug-Compatible, Color-Coded Speaker Posts
- Delivers Multi-Zone Audio with Selected Onkyo A/V Receivers
- Daisy-Chain with Additional M-5010s for Bi-Amping or Multi-Zone Audio
- Input Level Adjustment on Rear Panel
- Auto Standby On/Off Switch
- Aluminum Front Panel with Power Light
- Impedance Selector Switch (4-8 Ohms and 8-16 Ohms)

# M-5010 2-Channel Amplifier

## WRAT (Wide Range Amplifier Technology)

Our low negative feedback WRAT concept breathes life and vitality into your favorite music and soundtracks. It's the driving force behind the distinctive Onkyo sound. So what is WRAT, and how does it work?

### Low Negative Feedback Circuit Design

Negative feedback amplifiers reduce distortion by feeding the negative phase of the output signal back into the input signal to cancel errors. Although this method is a cheap way to reduce noise, it can inhibit the amp's ability to reproduce high frequencies. It can also dampen responsiveness, leaving music sounding flat and dull. Our WRAT design instead uses an ultra-low negative feedback circuit. The design expands frequency response, boosts current, and allows audio to blossom with startling energy and realism.

### Less Distortion At High Volume

Another facet of WRAT is the closed ground loop circuit design to keep the ground potential free of distortion. In a conventional open-loop circuit design—where all circuits share the same link to the power supply—any noise produced by voltage fluctuation is compounded, affecting audio quality. To avoid this, each circuit in the M-5010 has its own separate link to the power supply, cutting noise and promoting more reliable, efficient performance at any volume.

### High Current for Wider Dynamics

Impedance fluctuations and reflex energy from the loudspeakers can force your amplifier to briefly handle four to six times its usual load. If its power supply is not up to scratch, signal clipping can occur and audio quality suffers noticeably. A key element of WRAT is its ability to deliver high instantaneous current, preserving a wide 100 kHz frequency response for expansive performance under the most demanding conditions.

## Three-Stage Inverted Darlington Circuitry

An important upgrade to the core WRAT concept is Onkyo's Three-Stage Inverted Darlington Circuitry, a low negative feedback topology featuring a discrete triple transistor array to cut distortion and boost current flow to the speakers. As well as improving efficiency, transient response, and audio clarity, discrete transistors run cooler, extending the life of your output stage for more years of trouble-free service.

## All-Analog Circuitry Delivers Ultra-Clear Sound

A standard integrated amplifier has the dual task of both processing and amplifying audio signals, and is therefore susceptible to interference from digital circuitry. As a dedicated power amp with all-analog circuitry, the M-5010 is protected against digital interference. When partnered with a quality pre-processor, this unit offers all the benefits of pure analog amplification: a warm, musical, and full-bodied sound.

## High Output Power Supply

From input to output, signal purity is maintained at every stage. Housed in a rigid anti-resonant steel-plate chassis and finished with a tough one-piece aluminum front panel, the M-5010 is highly resistant to vibration. A massive EI transformer delivers a steady supply of power to the speakers, while two large 10,000  $\mu$ F capacitors, heavy-duty transistors, and low-impedance copper bus bars work in concert to enhance the power and fidelity of your audio sources. A heavy-duty aluminum heat sink keeps the unit running cool for superior reliability and longer life.

## User-Friendly Features and Better Performance

The M-5010 sports banana plug-compatible speaker posts to ensure a positive connection to the loudspeakers of your choice. The unit is also equipped with selectable audio or 12V triggers—providing automatic power on/off with your home theater system—plus a rearside level adjustment. A pair of inputs and outputs provide the multi-room capabilities to which this amplifier is perfectly suited.

## SPECIFICATIONS

### Amplifier Section

**Power Output** 75 W/Ch (8 Ohms, 1 kHz, 0.08%, 2 Channels Driven, FTC)  
65 W/Ch (4 Ohms, 1 kHz, 0.08%, 2 Channels Driven, FTC)

**THD (Total Harmonic Distortion)** 0.08% (Rated Power)

**Damping Factor** 60 (Front, 1 kHz, 8 Ohms)

**Input Sensitivity and Impedance** 870 mV/20 k-Ohms (Unbalanced)

**Rated RCA Output Level and Impedance** 0.87 V/270 Ohms (Line Out)

**Frequency Response** 10 Hz–100 kHz/+0 dB, -3 dB

**Signal-to-Noise Ratio** 110 dB (Line, IHF-A)

**Speaker Impedance** 4 Ohms–16 Ohms

**General**

**Power Supply** AC 120V~, 60 Hz

**Power Consumption** 160 W

**No-Sound Power Consumption** 45 W

**Standby Power Consumption** 0.4 W

**Dimensions (W x H x D)** 17 1/2" x 5 1/2" x 12 1/2"

(435 x 139 x 311 mm)

**Weight** 17.6 lbs. (8.0 kg)

**CARTON**

**Dimensions (W x H x D)** 22 1/2" x 10 3/8" x 16 1/2"

(572 x 264 x 419 mm)

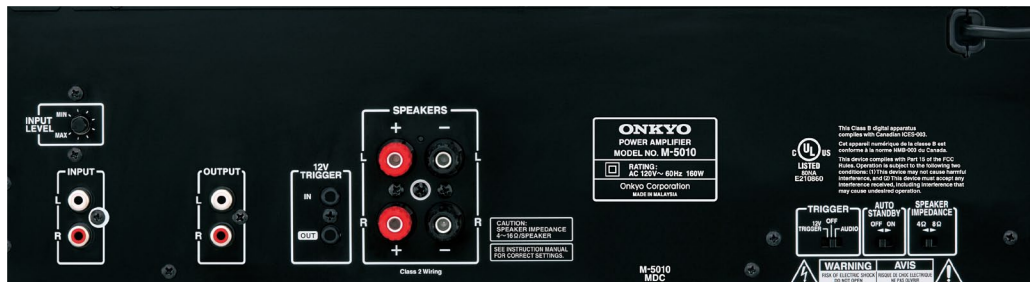
**Weight** 21.6 lbs. (9.8 kg)

**UPC CODE**

(B) 751398010897

**Supplied Accessories**

• Instruction manual



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