McIntosh
C 26

OWNER'S MANUAL

THE McINTOSH C 26 SOLID STATE STEREO PREAMPLIFIER

READING TIME: 32 Minutes

Price $1.25

Your C 26 stereo preamplifier will give you many years of pleasant and satisfactory performance. If you have any questions concerning this instrument, please contact:

CUSTOMER SERVICE

McIntosh Laboratory Inc.
2 Chambers Street
Binghamton, New York 13903
Phone: 607-723-3512

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

Take Advantage of 3 years of FREE Service . . .
Fill in the Application NOW.

CONTENTS

Service Contract ... 1
Installation ... 2, 3
How to Connect ... 4, 5, 6
What the Controls Do ... 7, 8
Using the Front Panel Controls ... 8, 9
Using the Pushbuttons ... 10
Adjusting the Top Panel Controls ... 11
Listening to Your Stereo System ... 11
Performance Limits ... 12, 13
Performance Charts ... 14
Technical Description ... 15
Block Diagram ... 16

THREE YEAR SERVICE CONTRACT

An application for a FREE THREE YEAR SERVICE CONTRACT is included with this manual.

The terms of the contract are:

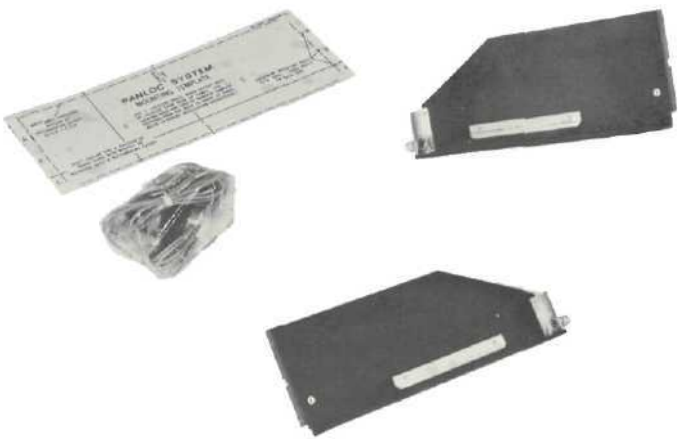
1. McIntosh will provide all parts, materials and labor needed to return the measured performance of the instrument to the original performance limits free of any charge. The SERVICE CONTRACT does not cover any shipping costs to and from the authorized service agency or the factory.
2. Any McIntosh authorized service agency will repair all McIntosh instruments at normal service rates. To receive the free service under the terms of the SERVICE CONTRACT, the SERVICE CONTRACT CERTIFICATE must accompany the instrument when taken to the service agency.
3. Always have service done by a McIntosh authorized service agency. If the instrument is modified or damaged, as a result of unauthorized repair the SERVICE CONTRACT will be cancelled. Damage by improper use or mishandling is not covered by the SERVICE CONTRACT.
4. The SERVICE CONTRACT is issued to you as the original purchaser. To protect you from misrepresentation this contract cannot be transferred to a second owner.
5. For your protection McIntosh selects only dealers who have technical competence to guide purchasers fairly, and provide service when necessary. To receive the SERVICE CONTRACT your purchase must be made from a McIntosh franchised dealer.
6. Your completely filled in application for a SERVICE CONTRACT must be postmarked within 30 days of the date of purchase of the instrument.
7. To receive the SERVICE CONTRACT all information on the application must be filled in. The SERVICE CONTRACT will be issued when the completely filled in application is received at McIntosh Laboratory Incorporated in Binghamton, New York.

Installation

Adequate ventilation extends the trouble-free life of electronic instruments. It is generally found that each 10° centigrade (18° F) rise in temperature reduces the life of electrical insulation by one half. Adequate ventilation is an inexpensive and effective means of preventing insulation breakdown that results from unnecessarily high operating temperatures. The direct benefit of adequate ventilation is longer, trouble-free life.

Allow at least 15 inches deep x 17½ inches wide x 6 inches high for mounting the C 26. Always allow for air flow by either ventilation holes or space next to the bottom of the preamplifier and a means for a warm air to escape at the top.

It is recommended that the C 26 be mounted in a normal or horizontal position. However, with adequate ventilation the preamplifier can be mounted in any position.



To prepare the C 26 for installation remove the plastic protective covering. Turn the C 26 upside down so that it rests on its top on the shipping pallet. Remove the four plastic feet fastened to the bottom of the chassis.

Next, place the mounting brackets, the parts bag and the mounting template at hand.

The PANLOC professional mounting design eliminates the need for any shelf or bracket to support the C 26. It is completely supported by its own mounting brackets.

The design of the mounting template allows you to position or locate the cutout from the front or rear of the panel to which the instrument is to be mounted. Position the plastic mounting template over the area of the panel to be cut out for installation.

If the cutout is to be located from the front of the panel, begin at step 2. If the cutout is to be located from the rear of the panel, begin here.

1. On the back of the cabinet panel, scribe a vertical centerline through the exact center of the area in which the cutout is to be made.

   Place the template against the back of the panel and match the template centerline with the centerline on the cabinet panel.

   Make sure that there is at least ¼ inch clearance between the bottom of the dashed line of the cutout area on the template and any shelf or brace below the proposed cutout.

   Mark the two locating holes ("C" holes on the mounting template).

   Drill the two locating holes. Be certain the drill is perpendicular to the panel.

   Now position the template on the front of the panel by aligning the "C" locating holes on the template with the drill holes.

2. If the cutout is to be located from the front of the panel:

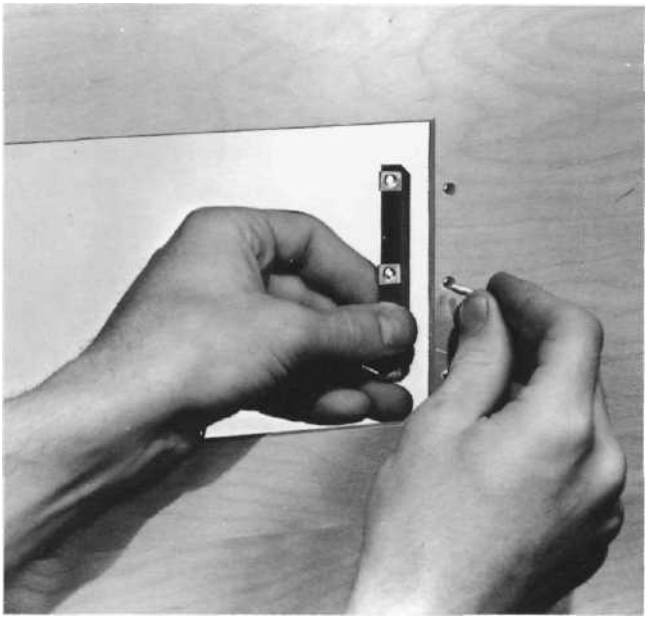
   With the template in place against the cabinet panel, mark the "A" and "B" drill holes and the four small holes that identify the corners of the cutout. Join the corner marks with a pencil. The edge of the template can be used as a straight edge.

IMPORTANT: DRILL THE 6 HOLES BEFORE MAKING THE CUTOUT.

Accurately drill the three holes on each side of the cutout area with $^{3}/_{16}$ inch drill.

With the saw on the INSIDE OF THE PENCIL LINES carefully cut out the rectangular opening.

Secure the mounting strips to the rear of the cabinet panel using two screws from the hardware package.

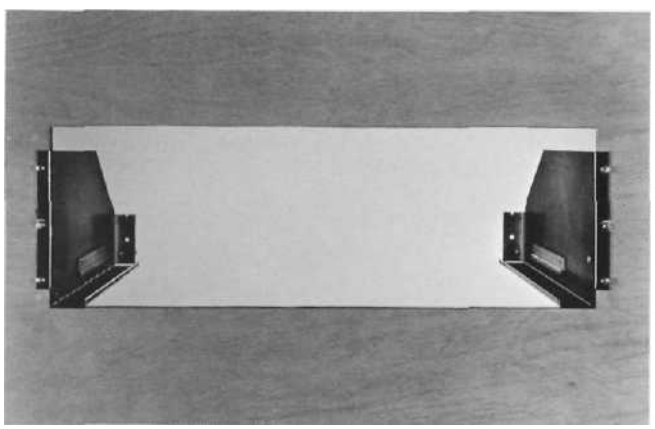


Insert the screws in the center holes of the cabinet panel ("B" holes on the template) and tighten. The screw head should pull into the wood slightly. (Use two ¾ inch long screws for panels under ½ inch, or two 1¼ inch long screws for panels ½ inch thick and larger.)

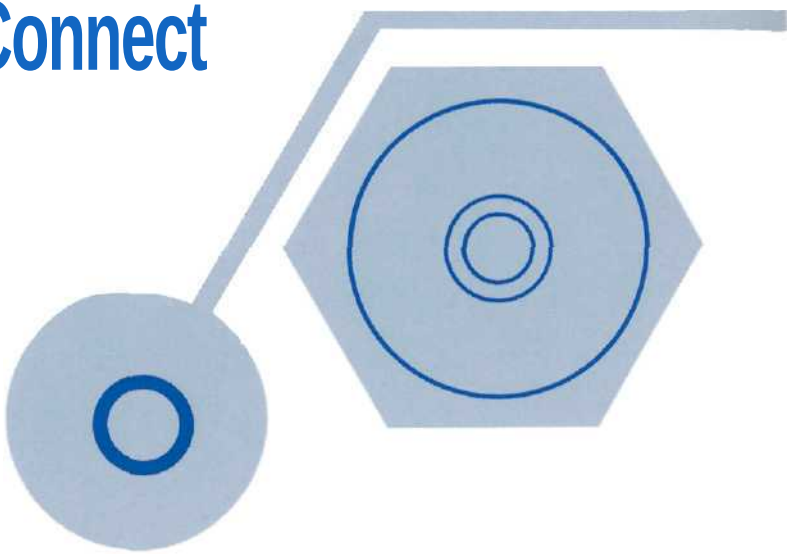
Attach the mounting brackets to the cabinet using four screws.

Place the template over the mounting screws. The mounting screws should be centered in the "A" and "B" holes on the template. The sides of the mounting brackets should match the vertical dash lines on the template. If necessary, loosen the screws and push the brackets into alignment and retighten.

Insert the power cord through the opening. Carefully slide the C 26 into the opening so the rails on the bottom of the equipment slide in the track of the mounting brackets. Slide the instrument in until it stops at the adjust position latches. Press the latches in and continue to slide the instrument in until the front panel is against the cabinet panel. At the bottom front corners of the PANLOC instruments are the PANLOC buttons. Depressing the PANLOC buttons will lock the instrument firmly in the installation. Depressing the PANLOC buttons a second time (as with a ballpoint pen) will release the instrument. You can then slide the instrument forward to the inspection-adjustment position. Depressing the inspection-adjustment position latches will allow the instrument to be slid completely out of the installation.



How to Connect



CONNECTING A RECORD PLAYER TO PHONO 1

Connect the cable from the "left" channel of the record player into the "L" PHONO 1 input jack.

Connect the cable from the "right" channel of the record player into the "R" PHONO 1 jack.

PHONO 2 is provided for the use of a second record player.

Connect the cable from the "left" channel of the record player into the "L" PHONO 2 input jack.

Connect the cable from the "right" channel of the record player into the "R" PHONO 2 input jack.

CONNECTING A STEREO TUNER

Connect the cable from the "left" channel tuner output to the "L" tuner input jack.

Connect the cable from the "right" channel tuner output to the "R" tuner jack.

AUX

Any high level program source such as another tuner or a TV set is connected to the input jacks marked AUX.

CONNECTING A TAPE RECORDER

To Record:

Connect a cable from the L TAPE OUTPUT jack marked TAPE 1 to the left high level input of a tape recorder.

Connect a cable from the R TAPE OUTPUT jack marked TAPE 1 to the right high level input of the tape recorder.

Connect a second tape recorder in the same fashion to the TAPE 2 outputs.

To Playback/Monitor:

Connect the cable from the left channel output of a tape recorder to the high level inputs . . . L TAPE 1.

Connect the cable from the right channel output of a tape recorder to the high level input . . . R TAPE.

Connect a second tape recorder in the same fashion to the TAPE 2 input jacks.

CONNECTING THE C 26 to POWER AMPLIFIERS

Connect the MAIN output jacks to the input of a stereo power amplifier. The L jack is connected to the left amplifier input jack. The R jack is connected to the right amplifier input jack.

The output impedance at the MAIN output is 200 ohms. Longer cables than are supplied can be connected between the C 26 and the amplifiers. The length of the cable is limited by the capacity of the cable. The total capacity must not exceed 1,000 pF. For instance: cables with a capacity of 25 pF per foot may be 40 feet long. 13.5 pF per foot cable may be 75 feet long. The input impedance of the amplifiers should be 47,000 ohms or greater.

CTR OUTPUT (L + R)

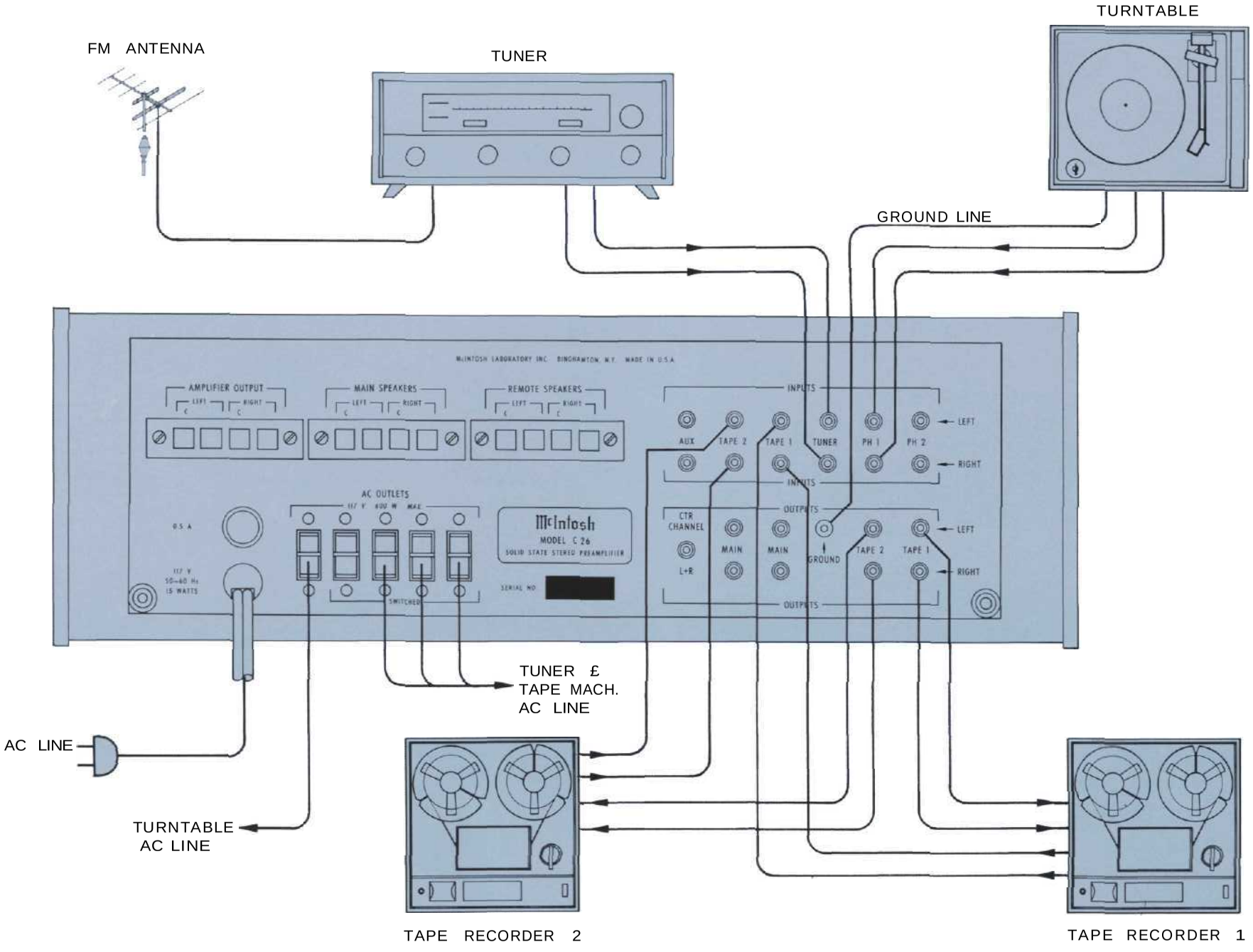
Use the CTR output to feed left plus right signal to a separate power amplifier for monophonic background music or for a center channel speaker.

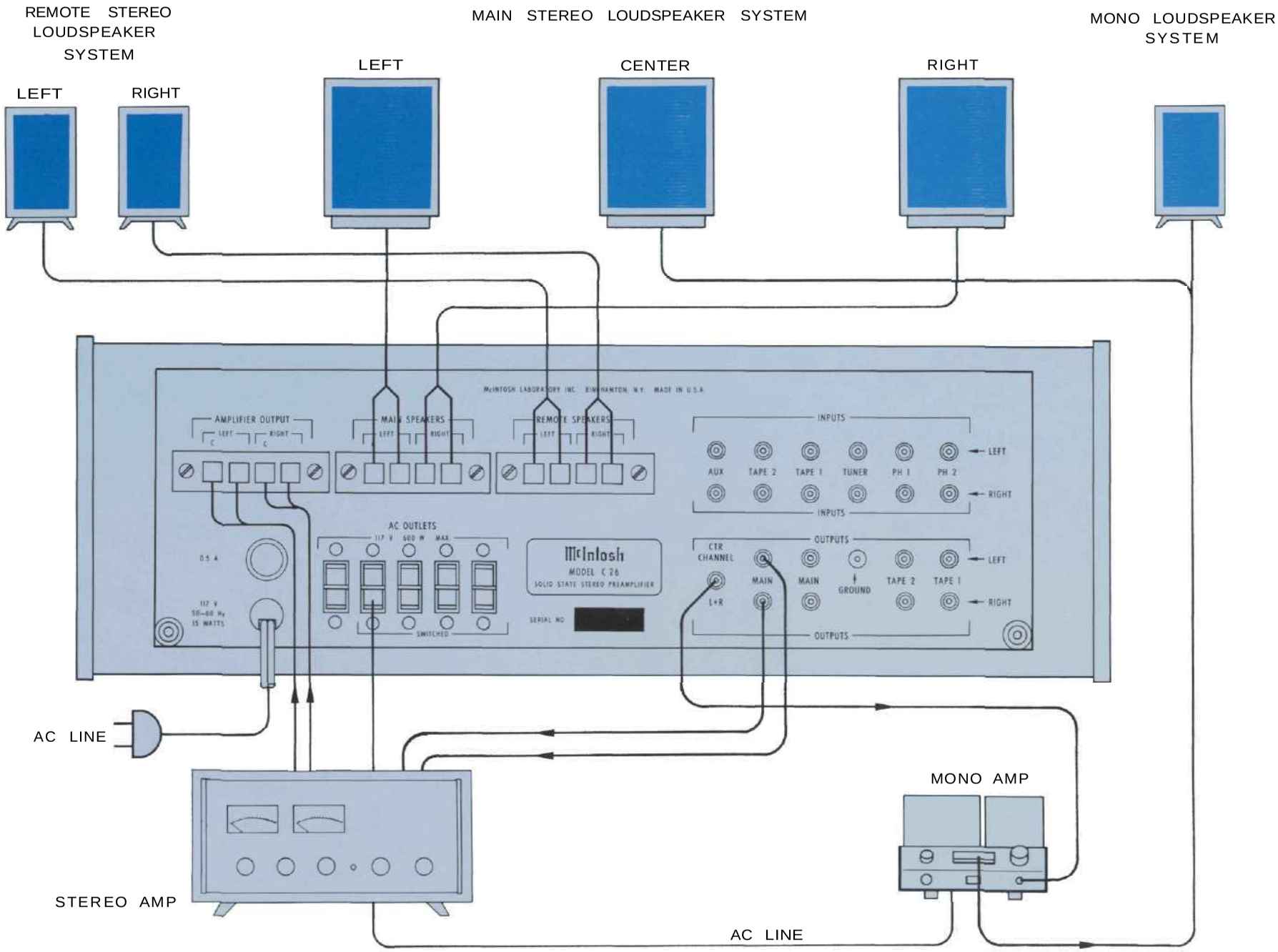
AC POWER OUTLETS

There are 4 black AC power outlets, and one red AC outlet. The power to the black AC power outlets is controlled by the front panel switch. Use these outlets for a tuner, tape recorder, etc. The red receptacle is on at all times. Use the red outlet for a turntable or record changer. The turntable or record changer is protected by this arrangement. It is necessary to turn off the turntable or record changer with its own AC power switch.

GROUND CONNECTION

A single ground post is provided. Grounds for turntables, record changers, tape decks, etc. should be connected to this post. The left and right program cables and the ground wire from that source should be wound or twisted together. To avoid hum, make sure the ground wire does not make any connections to the shields of the left and right program cables between the program source and the C 26.


FM ANTENNA
TUNER
TURNTABLE
GROUND LINE
AMPLIFIER OUTPUT
MAIN SPEAKERS
REMOTE SPEAKERS
AC OUTLETS
McIntosh
MODEL C 26
SOLID STATE STEREO PREAMPLIFIER
INPUTS
AUX
TAPE 2
TAPE 1
TUNER
PH 1
PH 2
LEFT
RIGHT
OUTPUTS
CTR CHANNEL
L+R
MAIN
GROUND
TAPE 2
TAPE 1
TUNER £
TAPE MACH.
AC LINE
AC LINE
TURNTABLE
AC LINE
TAPE RECORDER 2
TAPE RECORDER 1


REMOTE STEREO LOUDSPEAKER SYSTEM
LEFT
RIGHT
MAIN STEREO LOUDSPEAKER SYSTEM
LEFT
CENTER
RIGHT
MONO LOUDSPEAKER SYSTEM
McINTOSH LABORATORY INC. BINGHAMTON, N.Y. MADE IN U.S.A.
AMPLIFIER OUTPUT
MAIN SPEAKERS
REMOTE SPEAKERS
INPUTS
AUX
TAPE 2
TAPE 1
TUNER
PH 1
PH 2
AC OUTLETS
McIntosh
MODEL C 26
SOLID STATE STEREO PREAMPLIFIER
SERIAL NO
CTR CHANNEL
OUTPUTS
MAIN
GROUND
AC LINE
MONO AMP
STEREO AMP
AC LINE

What the Controls Do

LOUDNESS CONTROL

FLAT position: (Maximum counterclockwise rotation) Normal flat frequency response. The loudness compensation is totally inoperative at this position.

A loudness control provides low-frequency boost to compensate for the behavior of the human ear at low listening levels. The ear is less sensitive to low frequencies at low levels. The loudness control fills in low-frequency tones that the ear would normally hear only at higher listening levels. Increased loudness compensation is therefore desirable as the listening level is reduced.

The C26 LOUDNESS CONTROL automatically compensates for the lack of sensitivity in the ear as the listening level is reduced. The low frequencies are then heard in correct proportion to the midrange and highs. Turning clockwise toward MAX position reduces the listening volume, and automatically increases the compensation by boosting bass. Use the loudness control for full frequency range listening at even the softest listening levels.

TAPE MONITOR SWITCH

The C26 TAPE MONITOR switch makes it possible to instantaneously compare recorded material with the source signal from either of two tape recorders used with the C 26. The recorders used with the C 26 should have separate record and playback heads and separate record and play amplifiers.

MONITOR

With the button pushed in, the signal source becomes the program as recorded and is fed through the main preamplifier outputs to the power amplifiers and loudspeakers.

The TAPE MONITOR switches are mechanically interlocked to prevent simultaneous monitoring from two tape recorders. If one button is at the IN position, it must be pushed again to release it to the OUT position before the other button can be pushed.

USING ONE TAPE RECORDER

The output of a tape recorder can be connected to either TAPE 1 or TAPE 2 input. The corresponding tape output of the C 26 should then be connected to the input of the tape recorder. Any source can be recorded without being affected by the tone control or volume control settings. The playback of the tape recording can be monitored by pushing the corresponding tape monitor button.

TWO TAPE RECORDERS

Two tape recorders can be used with the C 26 preamplifier. Recordings can be made from recorder 1 to recorder 2, or from recorder 2 to recorder 1.

Example: Connect the output of recorder 1 to TAPE 1 input on the C 26. Connect the TAPE 1 output on the C 26 to the input of recorder 1. In the same way, connect the output of recorder 2 to TAPE 2 input on the C 26. Connect TAPE 2 output of the C 26 to the input of recorder 2.

By setting the C 26 input selector switch at TAPE 1, a recording can be made on tape recorder 2 from a tape playing on tape recorder 1. The recording can be monitored from the playback of tape recorder 2 by pushing the TAPE 2 monitor button.

The tape recorder functions can be reversed by setting the input selector switch at TAPE 2. A recording can then be made on tape recorder 1, from a tape playing on tape recorder 2. The recording on tape recorder 1 can be monitored from the playback of tape recorder 1 by pushing the TAPE 1 monitor button.

The C 26 preamplifier can also be used with one recorder for recording other program sources while playing tapes from a second recorder.

Example: Connect the output of tape recorder 1 to the TAPE 1 inputs of the C 26. Connect the outputs of tape recorder 2 to the TAPE 2 inputs of the C 26. Connect the TAPE 2 outputs of the C 26 to the inputs of tape recorder 2.

A recording from AUX, TUNER, PHONO 1 or PHONO 2 can be made on tape recorder 2 if the selector switch is set to the corresponding source position. The recording on tape recorder 1 can be monitored for playback by pushing the TAPE 2 monitor button. At the same time, the C 26 can be used to play a tape from tape recorder 1 by releasing the monitor button for TAPE 2 and pushing the monitor button for TAPE 1. The signal of tape recorder 1 will then go to the main preamplifier outputs without affecting the recording being made on tape recorder 2.

Tape recordings can be made simultaneously on two tape recorders by using PHONO 1, PHONO 2, AUX or TUNER as a program source. The tape recorders should be connected as described in example 1. Set the input selector switch to the desired source. The recording on either tape recorder can be monitored for playback by pushing the appropriate tape monitor button.

CAUTION: When recording with two tape recorders at the same time from the same program source, mutual interference of the recorder bias oscillators can result. This can be heard as a howl or squeal in the background when the recordings are played back. This noise is caused by insufficient filtering of the bias oscillator circuits in the tape recorders. A test run should be made for the particular recorders intended for this use.

SPEAKER SWITCHES

To switch the main and remote stereo speakers using the pushbuttons on the front panel, the power amplifier output leads must be connected to the amplifier output terminals on the rear of the C 26. The main speakers must be connected to the main speaker terminals and the remote speakers to the remote speaker terminals. If either main or remote speaker button is pushed to OFF, load resistors are automatically connected to the power amplifier to compensate for the speaker. The headphone output is always connected through level matching resistors to the amplifier terminals regardless of the position of the main or remote switches.

Using the Front Panel Controls

In the upper right of the front panel is the VOLUME-ON/OFF control.

Turning the VOLUME totally counterclockwise turns the C 26 OFF. The VOLUME control regulates the loudness in both channels. The VOLUME control has been precision tracked throughout the listening range (0 to -65 dB) for accurate stereo balance.

MODE SELECTOR: Connects the program to the loudspeaker in the following seven ways:

L to L & R: Connects the "left" input to both loudspeakers.

R to L & R: Connects the "right" input to both loudspeakers.

STEREO REV: Connects the "left" input to the "right" loudspeaker and the "right" input to the "left" loudspeaker.

STEREO: Connects the "left" input to the "left" loudspeaker and the "right" input to the "right" loudspeaker.

MONO (L + R): adds the "left" input and the "right" input and then connects the L+R program to both amplifiers and loudspeakers.

L + R to L: Connects the "left plus right" program to the "left" loudspeaker only.

L + R to R: Connects the "left plus right" program to the "right" loudspeaker only.

INPUT SELECTOR:

Aux: Connects the output from any high level program source requiring flat amplification to the high level input stage. Such a source could be a tele-

vision set or other source that has output of 0.25 volts or more. In the AUX position the gain is 20 dB to the MAIN outputs, 0 dB to the TAPE outputs. The input impedance is 250,000 ohms.

TAPE 1: Connects the output from a complete tape recorder to the high level input stage of the C 26. In the TAPE 1 position the C 26 has flat amplification. There is 20 dB of gain to the MAIN outputs, 0 dB to the TAPE OUTPUTS.

TAPE 2: Connects the output from a complete tape recorder to the high level input stage of the C 26. In the TAPE 2 position the C 26 has flat amplification. There is 20 dB of gain to the MAIN outputs, 0 dB to the TAPE OUTPUTS.

TUNER: Connects the output from any AM, FM or FM STEREO tuner to the high level input stage of the C 26. In the TUNER position the C 26 has flat amplification. There is 20 dB of gain to the MAIN outputs, 0 dB to the TAPE outputs. The input impedance is 250,000 ohms.

PHONO 1: Connects the output of any magnetic phono cartridge to the low level input stage of the C 26. The response has been shaped to compensate for the characteristics of the magnetic phono cartridge. The gain at 1000 Hz is 62 dB to the MAIN outputs, 42 dB to the TAPE outputs. The input impedance is 47,000 ohms.

PHONO 2: Same as PHONO 1.

LOUDNESS

The C 26 LOUDNESS control automatically boosts the bass as it turns down the listening volume. The bass is then heard in correct proportion to the mid-range.

Turning clockwise toward MAX position reduces the listening volume, while automatically boosting the bass for full frequency listening at even the lowest volume levels.

The C 26 LOUDNESS control automatically boosts the bass as it turns down the listening volume. The bass is then heard in correct proportion to the mid-range.

Turning clockwise toward MAX position reduces the listening volume, while automatically boosting the bass for full frequency listening at even the lowest volume levels.

BALANCE

The BALANCE control adjusts for unequal loudness in either the left or right channels. The loudness of the channels can be varied relative to each other without affecting their combined loudness.

Left . . . turning the control to the left accents the left channel by reducing the right channel output.

Right. . . turning the control to the right accents the right channel by reducing the left channel output.

BASS

The C 26 has concentric 11 position tone control switches for adjusting the bass. The outer knob adjusts the left channel bass response. The center knob adjusts the right channel bass response.

Left: Adjusts the bass loudness from the left loudspeaker. Clockwise rotation increases the bass loudness while counterclockwise rotation decreases the bass loudness. Each step of the tone control adjusts the bass loudness 4 dB.

Right: Has the same effect on the sound from the right loudspeaker.

TREBLE

The C 26 has concentric 11 position tone control switches for adjusting the treble. The outer knob adjusts the left channel response. The center knob adjusts the right channel treble response.

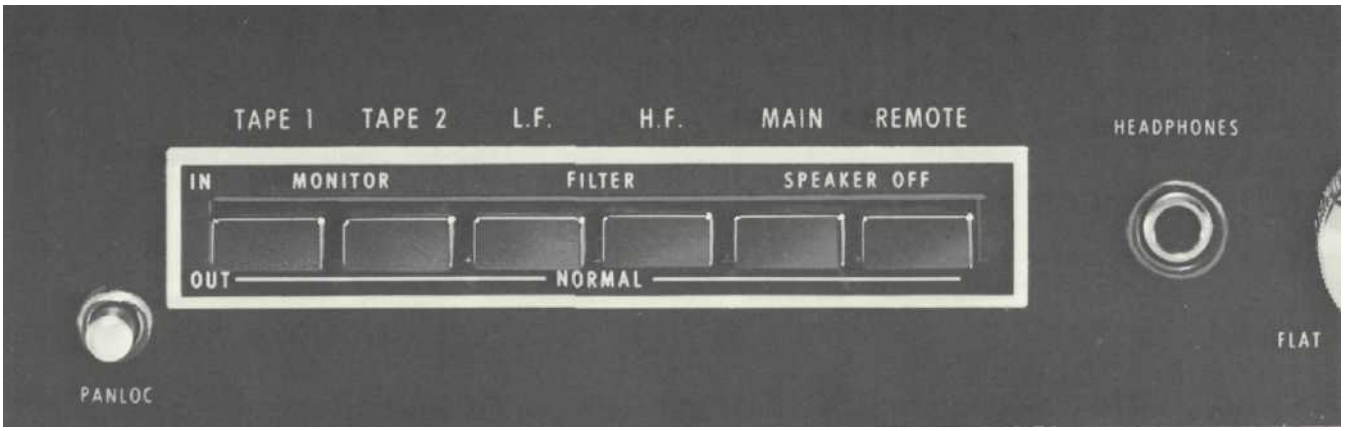
Left: Adjusts the treble loudness from the left loudspeaker. Clockwise rotation increases the treble loudness while counterclockwise rotation decreases the treble loudness. Each step of the tone control adjusts the treble loudness about 4 dB.

Right: Has the same effect on the sound from the right loudspeaker.

HEADPHONES

Low impedance dynamic headphones are plugged into the HEADPHONE jack.

The output of the power amplifiers must be properly connected to the C 26 back panel for program material to be available at the HEADPHONE jack.



Using the Pushbuttons

The C 26 is designed to be used with two complete tape recorders. The pushbuttons permit normal playback of either recorder, or monitor of either recorder as recordings are being made.

TAPE 1

PUSHBUTTON OUT . . . The program source is fed to the power amplifiers and heard through the loudspeakers.

IN . . . The program source becomes the recorded tape on the tape recorder connected to TAPE INPUT 1. The recorded program from tape recorder 1 is fed to the power amplifiers and heard from the loudspeakers.

TAPE 2

The second complete tape recorder can be operated in the same fashion.

L F (LOW FREQUENCY FILTER)

Use the L F filter switch to reduce objectionable low-frequency noise created by a turntable or record changer or acoustically coupled feedback.

OUT . . . filter disconnected.

IN . . . low-frequency rumble and noise below 50 Hz are reduced when the switch is pushed to the IN position.

H F (HIGH FREQUENCY FILTER)

Use the H F filter switch to reduce objectionable high-frequency noise such as record scratch.

OUT . . . filter disconnect.

IN . . . rolls off response sharply at 7000 Hz.

SPEAKER

When the output of the power amplifier and the speakers have been connected to the proper push connecters on the back panel, the pushbuttons turn the speakers ON or OFF. (See Diagram Page 6).

If the program is to be heard from the main speakers only, the REMOTE pushbutton is pushed IN. This turns off the remote loudspeakers.

If the program is to be heard from the remote speakers only the MAIN pushbutton is pushed IN. This turns off the main speakers.

To hear program from both main and remote speakers, both the MAIN and REMOTE pushbuttons must be in the OUT position.

MAIN

PUSHBUTTON OUT . . . the program material is heard from the MAIN speakers.

IN . . . the MAIN loudspeakers are turned OFF.

REMOTE

PUSHBUTTON OUT . . . the program material is heard from the REMOTE loudspeakers.

IN . . . the REMOTE loudspeakers are turned OFF. (These pushbuttons do not affect the headphone jack.)

PANLOC

McIntosh developed PANLOC mounting brings professional installations technique to stereo. When the C 26 has been installed on PANLOC brackets, pressing the PANLOC buttons locks the amplifier firmly in position. Depressing the buttons (as with a ballpoint pen) will release the instrument. It can then be slid forward to the "adjustment" position. In the "adjust" position the top panel controls PHASE and CENTER CHANNEL LEVEL can be adjusted. The PANLOC system gives absolute ease of installation, operation, and maintenance.

Adjusting the Top Panel Controls

PHASE —The PHASE is a two-position switch that reverses the phase in the left channel. Improperly phased program sources can be corrected with this switch.

1. Set the MODE SELECTOR switch to MONO.
2. Stand about 10 feet in front of and mid-way between your loudspeakers. The sound should appear to be directly in front of you. If the sound is not directly in front of you with the PHASE switch in the 0° reverse the leads on one loudspeaker. When the sound comes from the mid-point between the speakers they are in PHASE.

CENTER CHANNEL LEVEL — Left and right channels are added to make a center channel program source. The program can be fed to a third amplifier for a center channel speaker or for monophonic remote speakers. The CENTER CHANNEL LEVEL control adjusts the volume on CTR CHANNEL output jack only. Adjustment is from —6 dB to +6 dB with respect to the MAIN output. Clockwise rotation increases the loudness.

Listening to Your Stereo system

LISTENING TO A STEREO RECORD

1. Turn the INPUT SELECTOR to PHONO 1, or PHONO 2, whichever is connected to the record player you wish to hear.
2. Set the MODE SELECTOR to STEREO.
3. Adjust the VOLUME control to the desired volume.

LISTENING TO MONOPHONIC RECORDS

1. Turn the INPUT SELECTOR to PHONO 1, or PHONO 2, whichever is connected to the record player you wish to hear.
2. Turn the MODE SELECTOR to MONO.
3. Adjust the VOLUME control to the desired volume.

LISTENING TO A TAPE RECORDER

The TAPE input is used:

1. Turn the INPUT SELECTOR to TAPE.
2. Turn the MODE SELECTOR switch to STEREO or MONO, depending on the program on the tape.
3. Adjust the VOLUME control to the desired volume.

Two tape recorders can be used with the C 26. Connect a three head tape recorder to TAPE 1 inputs. Connect a second three head tape recorder to TAPE 2. Recording and monitoring can be done with both tape recorders.

To monitor while recording your tape recorder must have separate record and playback heads and separate electronics. The pushbutton switch lets you monitor the quality of tape recordings made during the recording process. When the TAPE switch is in the IN position it will play the sound from the tape as it passes the playback head, a moment after it is recorded. The recording process continues as usual. When the switch is in the OUT position normal program from the source is heard.

HOW TO COPY TAPE

1. Put the tape on the recorder connected to TAPE 1 input.
2. Turn the input selector to TAPE 1.
3. The signal available at the TAPE OUTPUT jacks is the playback of TAPE 1.
4. Record on the recorder connected to TAPE 2. The recording can be monitored by pressing in the TAPE 2 pushbutton. Instantaneous comparison on the recorded program with the original can be heard.

Performance Limits

Performance Limits are the maximum deviation from perfection permitted for a McIntosh instrument. We promise you that your C 26 must be capable of performance at or exceeding these limits or you get your money back. McIntosh is the only manufacturer that makes this guarantee.

FREQUENCY RESPONSE

+0 -0.5 dB 20 Hz to 20,000 Hz

DISTORTION

Will not exceed 0.1% at rated output level, 20 Hz to 20,000 Hz

INPUT SENSITIVITY AND IMPEDANCE

AUXILIARY, TUNER, TAPE 1, TAPE 2 0.25 volts at 250,000 ohms

HUM AND NOISE

AUXILIARY, TUNER, TAPE 1, and TAPE 2 85 dB below rated output

PHONO 1, PHONO 2 74 dB below 10 millivolts input, equivalent to less than 2 microvolts at the input terminals

OUTPUT LEVEL AND IMPEDANCE

MAIN OUTPUT 2.5 volts with rated input, 200 ohms source impedance, to operate into 47,000 ohms or greater

TAPE OUTPUT 0.25 volts from low level inputs, 200 ohms source impedance, to operate into 47,000 ohms or greater

CENTER CHANNEL OUTPUT (L + R) 2.5 volts with rated input to both channels, 1,200 ohms source impedance, to operate into 47,000 ohms or greater

A level control adjusts the CENTER CHANNEL output from -6 dB to +6 dB with respect to MAIN output

VOLTAGE AMPLIFICATION IN DECIBELS:

AUXILIARY, TUNER, TAPE 1 and TAPE 2
to MAIN OUTPUT 20 dB
to TAPE OUTPUT 0 dB
PHONO 1 and PHONO 2 (at 1,000 Hz)
to MAIN OUTPUT 62 dB
to TAPE OUTPUT 42 dB

AC POWER OUTLETS:

1 unswitched (Red)
4 switched

POWER REQUIREMENT

120 volts, 50/60 Hz, 15 watts

FACILITIES AND FEATURES

BASS

Separate 11 position rotary switches for each channel. -20 dB to +16 dB at 20 Hz

TREBLE

Separate 11 position rotary switches for each channel. -20 dB to +20 dB at 20,000 Hz

LOUDNESS

Flat response, or continuously variable loudness equalization as volume level is reduced

BALANCE

Natural balance at center position, attenuation of left or right channel by rotating control

VOLUME

Precision "tracked" at all listening levels. (0 to -65 dB). Does not change stereo balance as loudness is changed. The AC power ON/OFF switch is coupled with this control

INPUT

Six positions —AUXILIARY, TAPE 1, TAPE 2, TUNER, PHONO 1, and PHONO 2

MODE

Seven positions — Left channel only to both speakers. Right channel only to both speakers, Stereo Reverse, Stereo, Mono, L + R, L + R to right speaker only, and L + R to left speaker only

TAPE MONITOR

Two pushbutton switches. Either of two tape recorders can be monitored by selecting the TAPE 1 pushbutton or TAPE 2 pushbutton. They are mechanically interlocked to accept only one pushbutton at the IN position at one time

LF FILTER (Rumble Filter)

Flat or roll-off 6 dB per octave below 50 Hz, down to 12 dB at 20 Hz

HF FILTER (Scratch Filter)

Flat or roll-off 6 dB per octave above 6,000 Hz, down 12 dB at 20,000 Hz

SPEAKER

Main — Switch the MAIN loudspeaker system ON or OFF without affecting the performance of REMOTE speakers.

Remote — Switch the REMOTE loudspeaker system ON or OFF without affecting the performance of MAIN speakers.

HEADPHONE JACK

The output of the power amplifiers must be properly connected to the C 26 back panel for program material to be available at the HEADPHONE jack.

SECONDARY CONTROLS

These controls are located behind the front panel on top of the C 26. They are readily accessible by depressing the PANLOC buttons and sliding the C 26 forward on the PANLOC brackets.

CENTER CHANNEL LEVEL

Top of chassis control to adjust the output level of the left plus right program material at the CENTER CHANNEL output on the back panel.

PHASE CONTROL

Electronically reverse phase in the left channel to correct "out of phase" program sources.

TRANSISTOR COMPLEMENT

18 silicon-planar transistors, and 3 silicon diodes.

MECHANICAL INFORMATION

SIZE: Front panel measures 16 inches wide (40.64 cm) by 5-7/16 inches high (13.81 cm). Chassis measures 15 inches wide (38.1 cm) by 5 inches high (12.7 cm) by 13 inches deep (33.02 cm), including PANLOC shelf and back panel connectors. Knob clearance required is 1½ inches (3.81 cm) in front of the mounting panel.

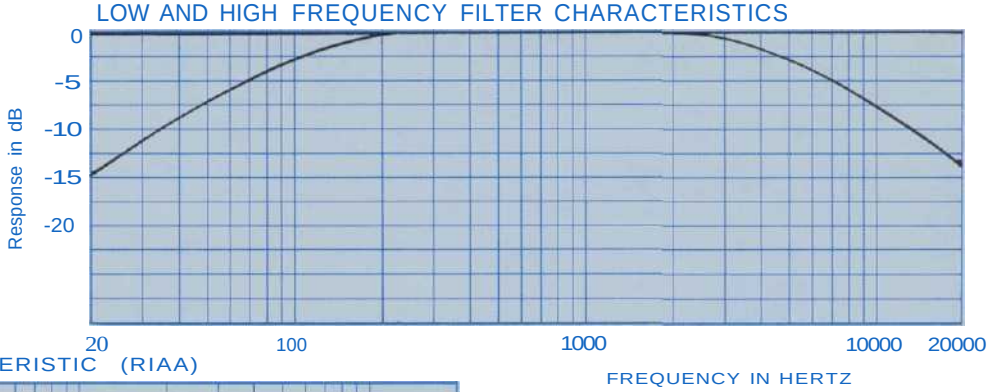
FINISH: Front panel is anodized gold and black with special McIntosh gold/teal panel nomenclature illumination. Chassis is black.

MOUNTING: Exclusive McIntosh developed professional PANLOC.

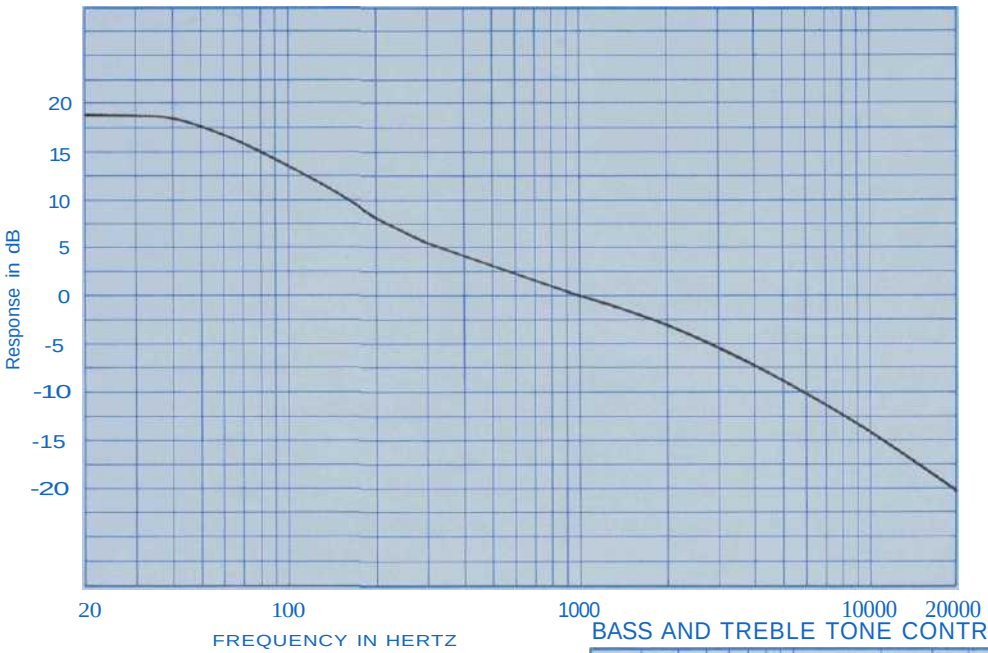
WEIGHT: 18 pounds (8.16 kg) net, 33 pounds (14.97 kg) in shipping carton.

Performance Charts

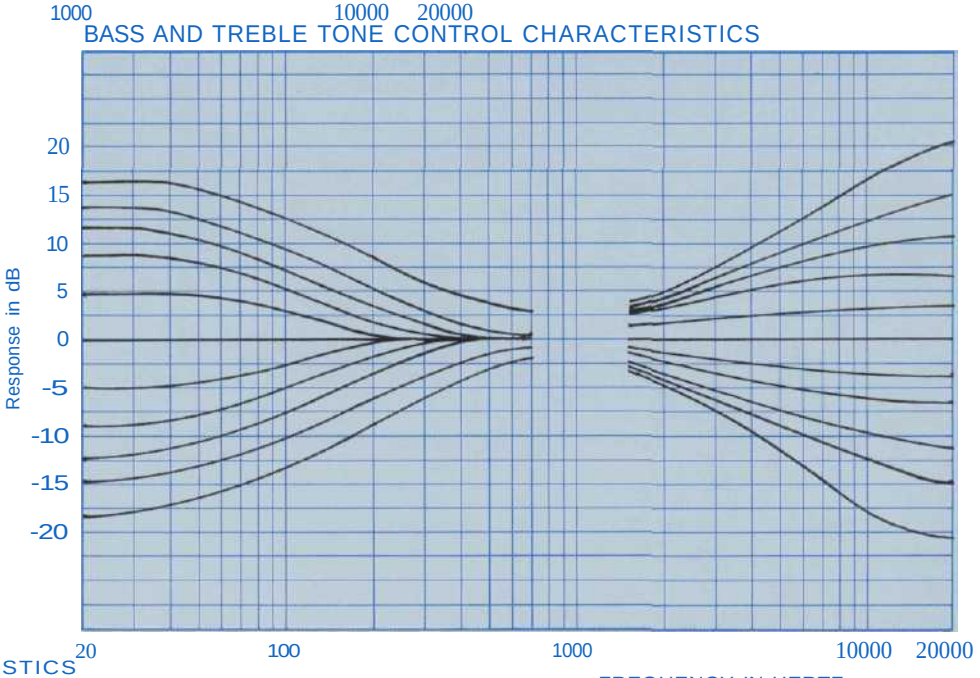
LOW AND HIGH FREQUENCY FILTER CHARACTERISTICS



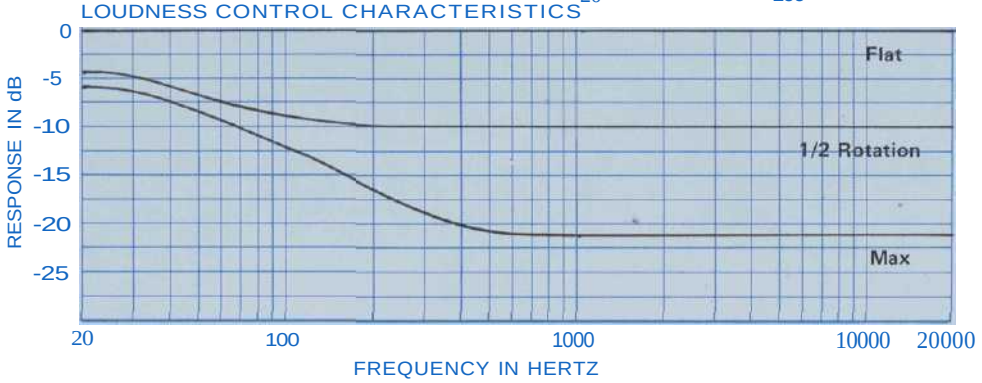
PHONO EQUALIZATION CHARACTERISTIC (RIAA)



BASS AND TREBLE TONE CONTROL CHARACTERISTICS



LOUDNESS CONTROL CHARACTERISTICS



Technical Description

The C 26 preamplifier functions can be divided into 5 sections. They are: phono preamplifier, main preamplifier, power supply, center channel amplifier, and speaker control.

PHONO PREAMPLIFIER

There are three transistors in each channel of the phono preamplifier. The input transistor, a high-gain amplifier, dives an emitter follower. The emitter follower drives the third transistor which is another high-gain amplifier. To reduce noise and distortion the output of the third transistor is connected by a negative feedback loop to the emitter of the input transistor. The feedback network also provides precision RIAA frequency compensation required for magnetic phonograph cartridges and a low output impedance for the tape output. Feedback remains in effect even at 20 Hz, where gain is highest.

The phono input sensitivity is 2 millivolts. In the C 26, phono input overload is virtually impossible. For example, at 1,000 Hz, the phono input circuit will accept 150 millivolts of signal without overload.

Ten millivolts of signal at the phono input at 1,000 Hz will produce 1.2 volts at the tape output.

MAIN PREAMPLIFIER

There are five transistors in each channel of the MAIN PREAMPLIFIER. The selector switch connects either the output of the phono amplifier or a high level input to the main preamplifier.

The high level input impedance is 250,000 ohms. The high-level input feeds through the volume control to a pair of transistors connected as high-gain amplifier. In the left channel the second transistor is connected in a balanced output arrangement to provide equal amplitude signals for the phase switch. With this arrangement the output level does not vary when the phase switch is changed. Negative feedback is used to reduce noise and distortion and to provide the low impedance needed to drive the highly selective filter networks which follow.

The filter networks are switch controlled. The high-frequency filter network reduces treble response above 5,000 Hz. The low-frequency filter reduces bass response below 50 Hz. The slope of the filters is selected for maximum rejection of objectionable noises. Careful design has kept the loss of usable program material to a minimum.

The signal is then fed into the loudness and balance controls. The loudness control is continuously variable. It may be used in conjunction with the volume control. Rotating the loudness control produces any loudness compensation for a desired listening level. At 50% rotation, the loudness control will be effective below 150 Hz, gradually increasing low-frequency output to a maximum of 6 dB at 20 Hz. At full rotation, the loudness control will be effective below 1,000 Hz gradually increasing low-frequency output to a maximum of 15 dB at 20 Hz.

The output of the balance control is connected to an emitter follower which is the first stage of the tone control section. The emitter follower provides a high-input impedance required for loudness and balance circuits and a low-output impedance for the tone control circuits. The remaining two transistors are connected as a high-gain amplifier stage. Again negative feedback is used to assure low distortion and, in addition, accurately shapes the tone-control response curves and provides a low output impedance for the main outputs. Negative feedback is maintained at all frequencies, even with the tone controls turned to full boost.

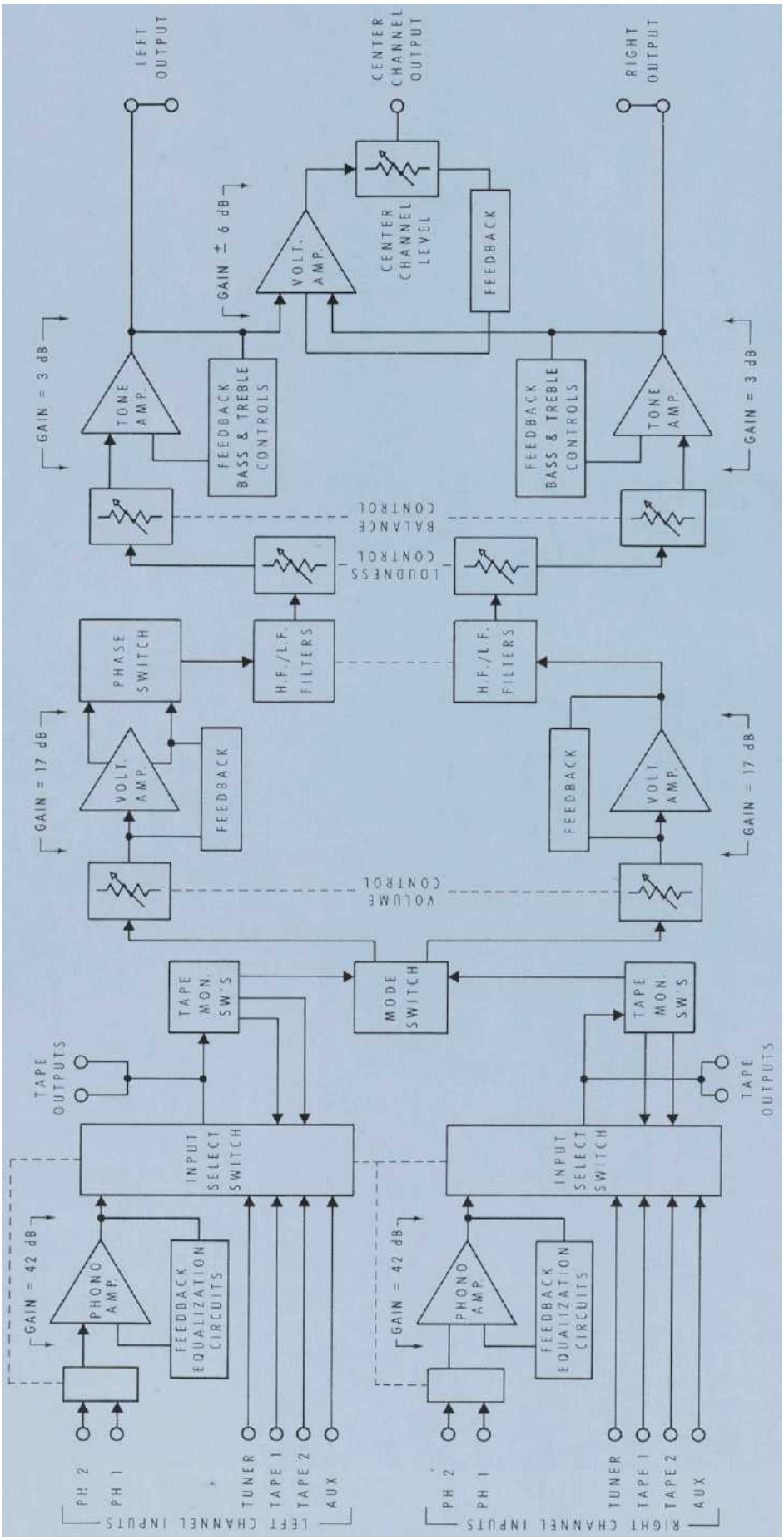
CENTER CHANNEL AMPLIFIER (L + R)

The center channel amplifier is a single transistor connected as a voltage amplifier. The main left and right outputs are fed through mixing resistors to the input of the voltage amplifier. The center channel level control is connected in a negative feedback loop around the voltage amplifier. It permits adjusting the output ±6 dB compared to the main outputs. Feedback also provides a low output impedance for center channel.

POWER SUPPLY

Careful design of the power supply section insures proper supply voltages for the preamplifier circuits. A wide variation of line voltage will not affect the D.C. voltage output of the power supply. A series regulator transistor acts as a highly effective filter for A.C. ripple as well. The voltage regulator transistor is stabilized by a zener reference diode for constant voltage output.

Block Diagram



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