

# Why Music Man?

1974 marked the 25th Anniversary of the solid body guitar. Its introduction spawned a new era in amplified music. The original tube type amplifiers that were specifically designed to amplify these unique instruments possessed a sound quality which had been carefully calculated to enhance the natural character of the instrument.

The inevitable trend toward higher volume levels fostered the design of numerous transistor amplifiers which unfortunately sacrifice the ive vibrant timbre sa sharacteristic of the earlier tube models. Strangely, it has been more then a decade since the industry produced an acceptable new design for a tube amplifier. Yet the technology certainly exists, not only to recapture the good sounds of those earlier instruments and amplifiers, but to bring them up to the performance levels required for todays music.

Why Music Man? Because we listen. And we listen to musicmen like yourself, taking note of your endless search for better sound. The many features described in the following pages is our response to your needs. We urge you to visit your Music Man dealer and judge for yourself. We think you are in for an exciting experience!





# Series Sixty-five

## "Amplifier Of The Professionals"

A unique electronic instrument, born of the concept that your amplifier is an important element of your music. It plays such a vital role in the expression of your art that it must be considered part of the instrument itself. Unlike acoustic instruments, the electric guitars' ultimate sound is that of the amplifier through which it is played. The merits of the amplifier are determined by its effectiveness in capturing and emphasizing the most desirable qualities of the musical instrument. Properly designed, your amplifier can truly be called . . . the handle of the axe!

A few of the many design features include:

- An integrated circuit pre-amplifier using the most

  Advanced computer type operational amplifiers in
  the time control ginguits.
  - A high energy, super high voltage vacuum tube power amplifier which develops 50% more power than commonly used 6L6 types.
  - A power reduction switch allows the power tubes to be driven into distortion. Ordinary amplifiers merely overload the input stages and fail to take advantage of the distortion capabilities of the power tubes. The result is a more pleasing distortion, longer sustain, and a reduction of voice coil current to prolong speaker life.
- A newly designed reverb circuit which provides

  additional rive at ow and medium young levels

  Response a contoured to capture the spatial and shimmer which adds life and accent to even the most delicate musical passages.
- An unusual phase reversing tremolo circuit simulates the Doppler effect of a rotating speaker. It is a moving, spaced out sound that can add new dimension to your music.
- Speaker designs have carefully optimized the magnetic energy to that of the amplifier output energy, assuring that every available watt is put to maximum use.

## Series Sixty-five

The Amplifiers on these two pages are identical except for their speaker complements. They are all dual channel with channel one providing low and high level input jacks and volume, treble and bass controls. Channel two has two input jacks, a bright switch, volume, treble, mid-range, bass, reverb, tremolo intensity and speed controls. There is a deep switch and master gain control which are effective daylook knappels.

Also functional on both channels is the exclusive power reduction switch which reduces the operating voltages on the tube section of the amplifier. This allows the power tubes to be driven into distortion as well as the pre-amp and results in longer sustain while increasing harmonic generation. It also prevents excessive current from flowing in the speakers, a common cause of failure when playing distortion.

## 112-65

17" x 24%" x 10%" - 49% lbs.

Amps with a single 12" speaker have long been a favorite of the recording artist. The Music Man 112-65 is such an amp but it also has sufficient power for most professional bandstand applications. The 12" speaker with a 2" voice coil was specially engineered to take advantage of the extra power available.



# 115-65

20½" x 24½" x 11" - 57 lbs.

The 115-65 contains a 15" speaker with a massive alnico magnet structure and a 2½" voice coil assembly that produces the full bodied mellow sound preferred by the jazz musician. It is also an excellent amp for the steel player due to its ability to handle complex chord structures without breaking up.



The amplifier inherently has more bass response than competitive models. The deep switch allows this response to be cut, providing more punch at extremely high volume levels. The deep switch and bright switch extend the range of the bass and treble controls, resulting in an extremely flexible control system capable of accommodating individual tastes, whether they begintly begintly or sock.

The high voltage vacuum tube power section of this amplifier accounts for its unusually live, vibrant sound. We believe it represents the first significant improvement in vacuum tube amplifier design in recent years. If you like the sound that tubes give your instrument there is a pleasant experience awaiting you when you plug into your first Music Man Amp!

## 210-65

15" x 24%" x 10%" - 52% lbs.

The 210-65 is the most portable of the Series Sixty-fives. Its compact size belies the impressive performance for which it is known. The added efficiency of the two 10" speakers will startle you when compared to larger amps with even more power.



# 410-65

25%" x 24%" x 11" - 70 lbs.

The 410-65, by adding two additional 10" speakers to the model above, reinforces the bass performance of the 210. The speaker system has the overall bass and treble response to make the amp an outstanding performer for nearly any application except electric bass.



Series Sixty-five



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212-65

19½" x 26½" x 11" - 60 lbs.

Model 212-65 is similar to the preceeding Sixty-fives except that it provides a bright switch and mid-range control on channel one as well as channel two. This adds versatility when you "Y" into both channels for special effects.

The two 12" speakers have more gap-energy then is available on competitive twin 12 types and results in performance levels beyond that expected from its power rating.





**65-Reverb** 11" × 24%" × 10" – 40 lbs.

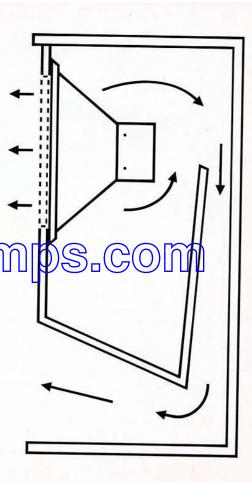
Two piggy-back amps are available in the Series Sixty-five models. One includes reverb and tremolo while the other is intended for bass or electric organ. They are intended for use with the 115-RH Reflex Horn speaker system which is excellent for any musical purpose. Guitarists who prefer a very heavy bottom end in their tone settings will be especially enchanted with this system. Special speaker design brings up the treble response to balance the extended bass range. The enclosure is described in detail on the following page.



## The reflex horn enclosure provides the most

desirable features of the rear loaded folded horn and the direct radiator bass reflex types. While it doesn't claim to have the efficiency of the "W" box it is a substantial improvement over the more portable sealed systems (pressure boxes). Bass players who fail to find the presence and definition they need in a "W" box will be delighted with the clean crisp sound of the reflex horn since treble frequencies (harmonics), are directly radiated from the

The reflex horn is small, portable and stackable. When two units are stacked, their front loading is additive and efficiences rise dramatically. They are available in a conservatively rated single 15 at 65 watts and a 130 watt unit with two heavy duty 12's. They represent a practical approach to portability without sacrificing performance.



# Series One thirty

## \*\*For the Musicman who Hears the difference\*

Perhaps you are a musicman who plays the kind of gigs where there is never enough power, the type of music that forces you to resort to two or more amps to get the job done. Or maybe you're the type that appreciates good clean sound with an ear that can't tolerate break-up when you push the amp close to its limits. Possibly you are a steel man on an endless search for an amp to cope with those big fat complex chords. Or, like some, you may like to use extension speakers but have never had the watts to run them. If you are any of these, or just a terfectivitist who takes pride in owning the ultimate amplifier. Sinies One-thirty is for you.

These amplifiers are designed for performance and reliability, with precise attention to every electrical and mechanical detail. They are available in two piggy-back and three open back models, including a twin ten that occupies only 2.2 cubic feet of space, an unbelievable performer.

If your music demands extraordinary performance, we strongly urge you to see your Music Man dealer and arrange for a bandstand demonstration. After all, you not only owe it to yourself, you owe it to your music.



## 115RH-65

27½" x 27½" x 13¼" - 59 lbs.

Two 115RH Reflex Horns stacked with an HD-130 Reverb head makes a potent lead guitar amp for the Rock bandstand.

The effeciency of the Reflex Hornestack with their added required to cut through. The exclusive distortion feature provided by the power reduction





The HD-130 Bass head and two
115-RH Reflex Horns supply
plenty of good clean bass along
with the definition that is lost
in "W" boxes. If you're plagued
with a muddy bass sound that

lets you hear all of what you are playing. The deep switch allows you to cut the bottom octave resulting in extra emphasis of the harmonic range.



## Series One thirty



210HD-130 . . . the darling of the jet set. Especially for the concert artist, who spends a lot of time on airplanes doing one-nighters.

This amazing mini-twin has 50% more power than ordinary twin 12 type amplifiers. And it has a speaker system to make the most of it. No use trying to describe it, you must hear it to appreciate it. With four of the same speakers that are used in the 210HD-130, this amp undoubtedly tops all the open back types for super performance! The full bodied sound that stems from the extra speaker cone area makes this one a particular favorite for the steel guitarist.

410HD-130

25½" x 24½" x 11" - 74¼ lbs.



owners of ordinary 212 type amps there is finally a better way to go! With a full 130 watts established its superiority from its very first bandstand appearance. If you thought you had the best but are still looking for something better, see your Music Man dealer. It's a winner!



HD-130

8½" x 22¾" x 10" - 38 lbs.

The two Series One-thirty piggy backs are intended for use with the Reflex Horn speaker systems,

The HD-130 with a 212RH-130 as illustrated on the right makes a potent combination for a compact bass amplifier. Or, for more demanding applications it may be used with a stack of 2 – 115RH-65's as shown on Page Nine.

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## **HD-130 Reverb**

The HD-130 Reverb is similar to the HD-130 but provides tremolo and reverb for guitar work. It is a versatile power unit and may be used with a variety of speaker combinations. All Music Man piggy-back amps are priced and sold as separate units. While we recommend the reflex horn speaker systems, any four ohm system may be employed.



## 212RH-130

27½" x 27½" x 13¼" - 67¼ lbs.

The 212RH-130 Reflex Horn is equipped with 2-12" drivers with massive alnico magnet structures and 2½" voice coils. The system is conservatively rated at 130 watts R.M.S. and is useful as a compact bass amp, or with the FID-130 Reverb hard it makes an excellent guitar amp with plenty of bottom end for a full bodied sound.

The reflex horn is unique in its ability to reinforce the bass register where less efficient speaker systems are plagued with cone distortion caused by excessive excursion. These reflex horns make excellent extension speakers for any application including organ and public address work.

# Control Features of Music Man Amplifiers



#### INPUT JACKS

The number one jack is the jack gain input and trouble away he used when only one instrument is plugged in. When both jacks are used the gain is the same on each. The number one jack will accommodate .5 volts r.m.s. input voltage which is considerably more than the output of the strongest pickups. This is an important parameter for clean amplification and is referred to in the recording industry as "head room". Very few amplifiers on the market today will handle even one-half this amount.

## **BRIGHT SWITCH**

The bright switch is effective in the upper harmonic region and is use-

ful in providing extra Dite" bevolume control and is more effective with lower volume settings.
For this reason when extreme
highs are desired it is always advisable to operate the instrument
control as high as possible and the
main volume at a lower setting.
This also produces the most favorable circuit noise ratio. In addition it prevents treble overload
when playing at extreme volume
levels.

### VOLUME CONTROL

The main volume control operates in conjunction with the master

gain control in setting amplifier of the level. The other control should aways of operated at its rowest possible setting for a clean undistorted sound. This means running the master at ten. If distortion is desired set the volume control between seven and ten and adjust the master gain for desired output level. The extremely high gain of the pre-amplifier produces excellent sustain and distortion. You will find that external gain boxes and fuzz units are no longer necessary.

#### TREBLE CONTROL

The treble control operates where the bass control leaves off, roughly from middle "C" up. Its setting is related to the bass control and some shorted be adjusted for the desired control and some shortest and

The mid-range control actually controls the effectiveness of the bass and treble control. When more bass or treble is desired, reduce the middle control toward zero and raise the volume control to restore the same over all level. When the middle control is set at ten there is less bass and treble boost available and a flatter response is obtained.

### BASS CONTROL

The bass control provides boost below middle "C". Its setting is related to the treble control and



both should be adjusted for tone speep when balance.

REVER BOOKTROL

The reverb control determines the amount of signal delay that is mixed with the original signal. A setting between three and four is usually desirable, however, it may vary with different volume levels.

#### INTENSITY

The tremolo intensity control provides a double function. At settings from zero to five modulation varies from zero to 100% respectively. At settings above five a second modulation pulse is added giving a Doppler effect that simulates a rotating speaker.

The speed control of temmes the rate at which tremolo occurs, It is an extremely wide range control and produces some unusual effects.

### MASTER

The master gain control sets the output level for both channels. It should *always* be operated at *ten* unless distortion is desired. When distortion is desired the master gain is used to control output level and the volume control determines the amount of distortion.

### **DEEP SWITCH**

The deep switch extends the range of the bass control. Its primary function is to cut the bass response when playing at extremely high meels. This meens extra pure material with a speakers bottoming or becoming mushly.

### POWER SWITCH

The normal position of this switch is the high power position. The low power setting is expressly for playing distortion. When an amplifier is played in an overdriven condition, speaker voice coil current is increased for beyond the amount it can use. The excess is dissipated in heat and contributes little or nothing in added volume. The low power switch eliminates the excess current and protects the speakers from damage. It also produces a more pleasing distortion with bet-

ter sustain as the output tubes are
also priven into distortion

When ties turned on the amplifier
will warm up faster if switched to
the high power position.

PATENTE PENDING







## Durability

One of the most important qualities of a good amplifier is durability. Every Musicman that travels knows the beating his equipment takes on the road. Durability begins with good cabinet construction. Glue joints are usually one of the trouble spots. All Music Man cabinets have lock jointed corners. This means four times the glueing surface compared to a butt jointed cabinet. Light weight but strong, Ponderosa pine is the ideal material baffles are brittle and tend to fracture on impact. No particle board is used in these cabinets. Speakers are mounted with machine screws and tee nuts, eight to each speaker. Rear aprons are made from 3/8" five ply to prevent warping, a common problem with many amplifiers. Handle caps are specially designed to be mounted with two number 10 machine screws (four to a handle). This prevents twisting and turning as often happens with the single screw type. Covering material is of an unusually heavy weight vinyl and is highly resistant to scuffing. All cabinets are designed with metal corner protectors on all eight corners, not four as found on ordinary amplifiers. Everything possible has been done to make the cabinet virtually indestructible. What a surprise those airport baggage people are in for!

# Reliability

Reliability goes hand in hand with rugged construction. The welded steel chassis provides a strong base to support the heavy duty components that are necessary. Special hardware has been tooled wherever needed, transformer mounting brackets being a good example.

Electrical reliability has been a primary design objective in this amplifier from the beginning. All components are conservatively rated and are fabricated from the very finest materials. Protective devices are employed in the input and output circuits as well as numerous other points throughout the amplifier. An automatic reset circuit breaker provides thermal protection as well as abnormal current limitation.

# **Quality Control**

Music Man Inc., is not merely an assembly house as are so many amplifier companies, today. In white the control plant, every part feasible is made in our plant. A complete cabinet snop produces the finest cabinets on any amplifier. Our metal snop is equipped to handle virtually any chassis requirement. Chassis' are stamped on a special dual ram punch press with all holes being pierced at one time by specially designed dies. Twenty-two spot welds in each chassis insures rigidity.

After each amplifier is thoroughly tested and adjusted by a highly competent technician it is placed on a custom built automatic cycling machine where it is turned on and operated for a period of time under a 60% overload condition. This test is conducted more than 100 times.

The amplifier is then returned to the test room and examined for operating changes. If none are found it is assembled in its cabinet and proceeds to its final test which is conducted by a musician. A thorough listening test ensues and only after the guitarists approval is it permitted to be packed for shipment.



Music Man Products are sold through established retail music stores. These factory authorized dealers provide a vital link between our plant and you, the user. They are appointed only after a thorough investigation shows them willing and able to provide the follow up service that will guarantee your satisfaction and protection. Make certain you are dealing with a bonafide Music Man dealer. If in doubt check with us before you purchase.

Music Man, Inc., warrants the products in this catalogue to be free from defects in material and workmanship for a period of one year from date of purchase, but not more then eighteen months from date of factory shipment, providing the following conditions are met:-

The warranty card is completed and returned to us within ten days from date

of purchase. It has not been damaged by accident, misuse or neglect.

It must be returned prepaid to a factory authorized service center, or to the dealer from whom it was purchased or to the Music Man, Inc., factory for repair.

The entire warranty is void if the equipment has been opened, altered or tampered with by anyone not authorized to service these units by Music Man, Inc.



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