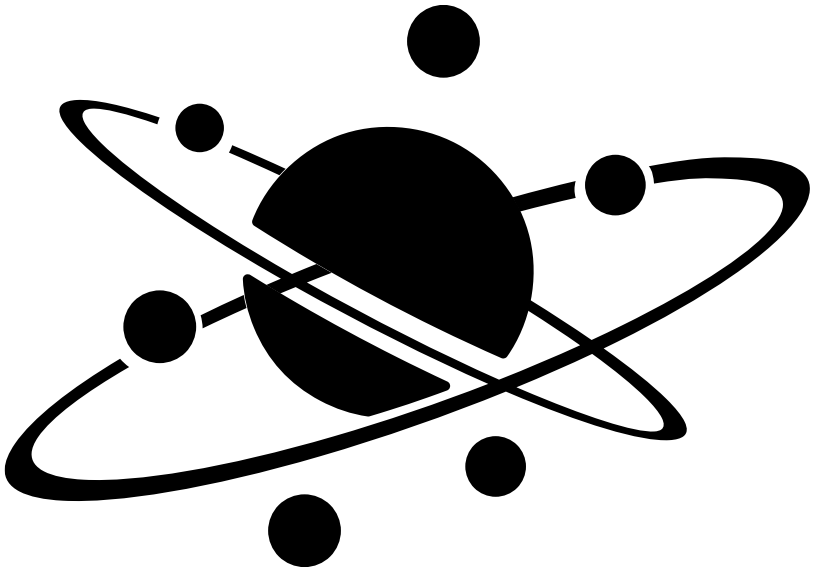
soldano®



# ASTRO-20

## INSTRUCTION MANUAL

**INSTRUCTIONS**

Please keep this instruction manual for future reference and for the duration of owning this Soldano Amplifier. Please carefully read and understand the instructions inside this user's manual before attempting to operate your new amp. This instruction manual includes essential safety information regarding the use and maintenance of the amplifier. Take special care to heed all warning symbols and signs inside this manual and those printed on the amplifier itself.

 WARNING!

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE PRE-AMP TO WATER OR MOISTURE. DO NOT OPERATE NEAR ANY WATER SOURCE

 WHAT'S THE MEANING OF THIS?

The lightning flash with an arrow triangular symbol is intended to alert the user to the presence of non-insulated "dangerous voltage" within the products enclosure and may be of sufficient magnitude to constitute a risk of electric shock.

 WHAT'S THE MEANING OF THIS?

The exclamation point triangular symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the user manual accompanying this amplifier.

1. Read Instructions – All the safety and operating instructions should be read before this product is operated.

2. Retain Instructions – The safety and operating instructions should be retained for future reference.

3. Heed Warnings – All warnings on the amplifier and in the operating instructions should be adhered to.
4. Follow Instructions – All operating and use instructions should be followed.

5. Water and Moisture – The amplifier should not be used near water – for example, a bathtub, washbowl, kitchen sink, laundry tub, wet basement, or near a swimming pool, and the like.

6. Carts and Stands – The amplifier should be used only with a cart or stand that is recommended by the manufacturer. An amplifier and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the amplifier and cart combination to overturn.

7. Wall or Ceiling Mounting – The product should never be mounted to a wall or ceiling.

8. Heat – Amplifier should be situated away from heat sources such as radiators, heat registers, stoves, or other amplifiers (including audio amplifiers) that produce heat.

9. Power Sources – This product should be operated only from the type of power source indicated on the rating label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.

10. Grounding or Polarization – This product may be equipped with a polarized alternation-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

11. Power-Cord Protection – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the cord in correspondence of plugs, convenience receptacles, and the point where they exit from the amplifier.

12. Cleaning – The amplifier should be cleaned only as recommended by the manufacturer. Clean by wiping with a cloth slightly damp with water. Avoid getting water inside the amplifier.

14. Non-use Periods – The power cord of the amplifier should be unplugged from the outlet when left unused for a long period of time.

15. Object and Liquid Entry – Care should be taken so that objects do not fall, and liquids are not spilled into the enclosure through openings.

16. Damage Requiring Service – The amplifier should be serviced by qualified service personnel when: A. The power-supply cord or the plug has been damaged; or B. Objects have fallen, or liquid has been spilled into the amplifier; or C. The amplifier has been exposed to rain; or D. The amplifier does not appear to operate normally or exhibits a marked change in performance, or E. The amplifier has been dropped, or the enclosure damaged. F. The amplifier needs tube replacement or biasing.

17. Servicing – The user should not attempt any service to the amplifier beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

18. Ventilation – Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built- in installation such as a bookcase or rack.

19. Attachments – do not use attachments not recommended by the product manufacturer as they may cause hazards.

20. Accessories – Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product.

21. Lightning – For added protection for this product before a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and powerline surges.

22. Replacement Parts – When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

23. Safety Check – Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

24. FUSES – Always use the correct rating and type of fuse as indicated on the rear panel. Note the proper rating fuse is determined by the AC line voltage in the country where this unit is being operated.

25. AC SELECT SWITCH: This switch must be set to match the AC line voltage in the country where this unit is being operated. Always use the correct rating and type of fuse as indicated on the rear panel. Note the proper rating fuse is determined by the AC line voltage in the country where this unit is being operated.

***NOTE**: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: - Reorient or relocate the receiving antenna. - Increase the separation between the equipment and receiver. - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. - Consult the dealer or an experienced radio/ TV technician for help.*

*Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

*This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.*

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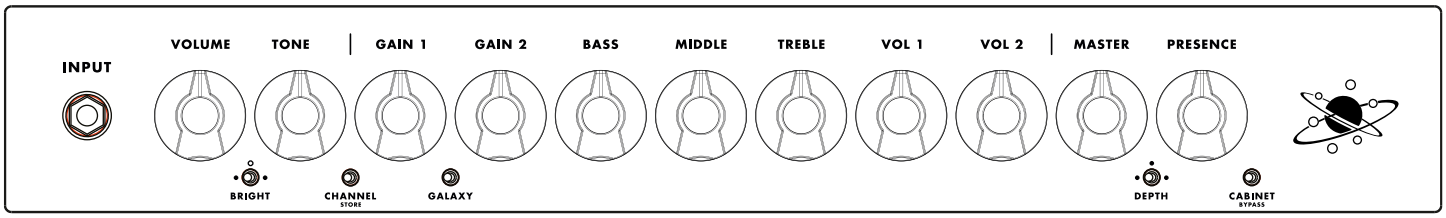
Thank you for choosing the SOLDANO ASTRO-20. The ASTRO-20 is an incredibly versatile, multi-channel and multi-function all-tube guitar amplifier, designed to be used in a multitude of ways including:

1) Full-featured 20W guitar amplifier
2) Stand-alone cab-less amplifier ideal for both live and studio recording sessions
3) A practice guitar amplifier thanks to the DSP powered IR Cab simulation and headphones output

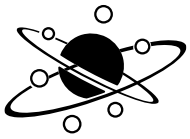
- 20W lightweight all-tube 1x12" guitar amplifier
- Celestion G12M Greenback Loaded (combo)
- Cascading-gain preamp design
- Tubes:
    - 2 x 6V6
    - 4 x 12AX7
- 3 Independent Channels
- Master
    - VOLUME, PRESENCE and 3 position DEPTH switch
- Clean Channel – the Green Galaxy
    - VOLUME, TONE and a 3-way BRIGHT switch
    - Ranges from crystal clean to pushed crunchy tones
- Overdrive Channels
    - Independent GAIN and VOLUME per channel
    - Shared BASS, MIDDLE and TREBLE controls
    - Overdrive 1 and Overdrive 2 can be independently programmed to the BLUE, PURPLE or RED galaxies.
- Overdrive Galaxies
    - BLUE Galaxy ranges from bluesy cleans to fat and sparkly hard rock tones
    - PURPLE Galaxy ranges from hard rock to punchy high gain drive with a tighter response
    - RED Galaxy with the famous sought after SOLDANO lead overdrive tone
- Low Latency IR Cabinet simulation (bypassable)
- 6 IR presets, individually programmable per channel – these are the planets around the star.
    - Load your own IRs via the SYNERGY EDITOR APP
- Included 4 button programmable MIDI foot switch pedal
    - 7-Pin MIDI Cable Included
- Ultra-transparent series FX loop
- XLR Balanced Output with Ground Lift
- Cab-less operation
- Headphone Output with dedicated VOLUME control
- MIDI programmable (up to 128 presets)
- MIDI/Footswitch Input
- 1x16 ohm, 2 x 8ohm (parallel) and 2x4 ohm (parallel) speaker connectors
- USB SYNERGY EDITOR APP
    - Includes a 6' USB Cable

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## FRONT PANEL CONTROLS AND CONNECTIONS




1. INPUT JACK - Plug your guitar in here using a high-quality shielded cable
2. VOLUME - Adjust the VOLUME of the GREEN GALAXY channel
3. BRIGHT SWTICH – Offers two treble boost levels to the GREEN channel, center is OFF
4. TONE - Adjusts the amount of HIGH MIDS and TREBLE for the GREEN channel
5. CHANNEL/STORE – Selects between GREEN (clean) Channel, CHANNEL 1 or CHANNEL 2. Long hold for one second to STORE the current configuration to the selected MIDI program change.
6. GAIN 1 - Adjust the GAIN of overdrive channel 1
7. GAIN 2 - Adjust the GAIN of overdrive channel 2
8. GALAXY - Selects between BLUE, PURPLE and RED GALAXY on the selected Overdrive Channel 1 or Overdrive Channel 2
9. BASS CONTROL - Adjusts the amount of BASS for both Overdrive Channels 1 and 2
10. MIDDLE CONTROL - Adjusts the amount of MIDDLE for both Overdrive Channels 1 and 2
11. TREBLE CONTROL - Adjusts the amount of TREBLE for both Overdrive Channels 1 and 2
12. VOLUME 1 - Adjust the VOLUME of Overdrive Channel 1
13. VOLUME 2 - Adjust the VOLUME of Overdrive Channel 2
14. MASTER - Adjust the POWER AMP VOLUME (when speaker is connected), leave it at zero in cab-less mode.
15. DEPTH SWITCH – Three position switch adjusts the amount of low frequencies in the power amp
16. PRESENCE - Adjust the amount of high mids and treble in the power amp
17. CABINET/BYPASS - Selects the desired CABINET IR preset. Long activation BYPASSES the simulation.
18. ASTRO Indicator

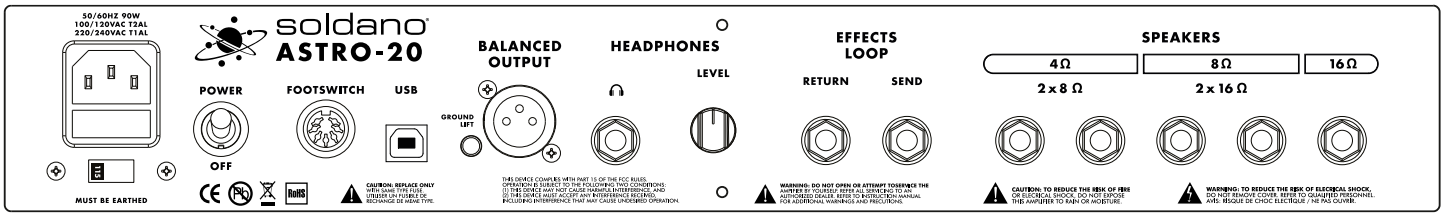


- The Astro indicator serves multiple functions:
  - Indicates when the amp is powered up
  - The star color indicates which GALAXY is being played (green, red, blue or purple)
  - The 6 “planets” around the star indicate the current IR preset – toggle using the CABINET switch
  - The planet indicator will turn OFF in CAB BYPASS mode.

**Tone Guide:** The EQ on the ASTRO-20 is powerful and complimentary. You can turn the mids way up or treble way down to get the sound you’re looking for. While some amps only sound good with the EQ in a small range, the ASTRO-20 offer LOTS of colors that can be dialed in with the powerful EQ. so use it!

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## REAR PANEL CONTROLS AND CONNECTIONS




1. AC Mains Input - Connect to a grounded outlet in accordance with the voltage and frequency specified on the rear panel of the amplifier. Use only the factory supplied power cord.
2. MAINS FUSE - Protects the amplifier from further damage in case of an electrical fault.
    a. **Warning!** Replace only with same fuse type and correct rating.
3. AC SELECTION SWITCH - Selects between 230V and 115V. Use 230V for 220V-240V and 115V for
    a. 100V-120V AC line wall voltage.
    b. **Warning!** Replace only with same fuse type and correct rating when changing voltage.
4. POWER/ON SWITCH - Main AC power switch. The amplifier will slowly ramp the voltage to the optimum level for prolonged tube life. Please allow the tubes to warm up for a few minutes before playing.
    a. Important - ALWAYS aet the master level to zero before powering ON and slowly turn the master up to avoid excessive sound pressure level (SPL) on your ears.
5. FOOTSWITCH/MIDI IN - Midi connector to control the ASTRO-20 amplifier with an external MIDI device or the provided 4-button footswitch. (Default channel is OMNI).
   12V 200mA Phantom Power provided when using 7 PIN Midi connector on pin 6 (+) and 7 (-).
6. USB - USB connector for software update and SYNERGY EDITOR APP remote programming.
7. GROUND LIFT - This switch enables or disables the ground connection on the BALANCED OUT to eliminate possible ground loops.
8. BALANCED OUT - Power amp and IR XLR balanced output.
9. HEADPHONES - Headphones connector.
    a. **Warning!** ALWAYS lower the headphones volume level before wearing the headphones and slowly increase the volume to the desired level to avoid too much sound pressure level (SPL) on your ears.
10. HEADPHONES LEVEL- Adjusts the headphones volume level.
11. SEND - Use a high-quality shielded guitar cable to connect to the input of your effects unit.
12. RETURN - Use a high-quality shielded guitar cable to connect from the output of your effects unit to the return of the amp.
13. SPEAKERS – 1x 16 ohm, 2x8 ohm and 2x 4 ohm speaker connections allowing you to use different speaker combinations including:
    a. Single 16 ohm cabinet -> 1x16 ohm
    b. Single 4 ohm cabinet -> 1x4 ohm
    c. Single 8 ohm cabinet -> 1x8 ohm
    d. Dual 16 ohm cabinet -> 2 x 8 ohm
    e. Dual 8 ohm cabinet -> 2x4 ohm

**CAB-LESS OPERATION** - To use the amp without a cabinet, completely remove ANY connections from all of the speaker jacks and set the MASTER volume to zero.
**Warning!** Leaving the jack connected without a load will damage the amplifier or the tubes.
**Warning!** Make sure the speaker cable is fully plugged in, to avoid malfunctions and possible damage (2 clicks).

## INCLUDED FOOTSWITCH

ASTRO-20 Includes a 4 Channel Universal MIDI footswitch.

The switches are fixed and correspond to MIDI PROGRAM CHANGE 0 to 3, on MIDI CHANNEL 1.
The footswitch is phantom powered by the ASTRO-20 when using the 7 WIRE MIDI CABLE supplied.
It can be powered externally when using it with a 5 WIRE MIDI CABLE or when using it with another device.

### PROGRAMMING THE FOOTSWITCH

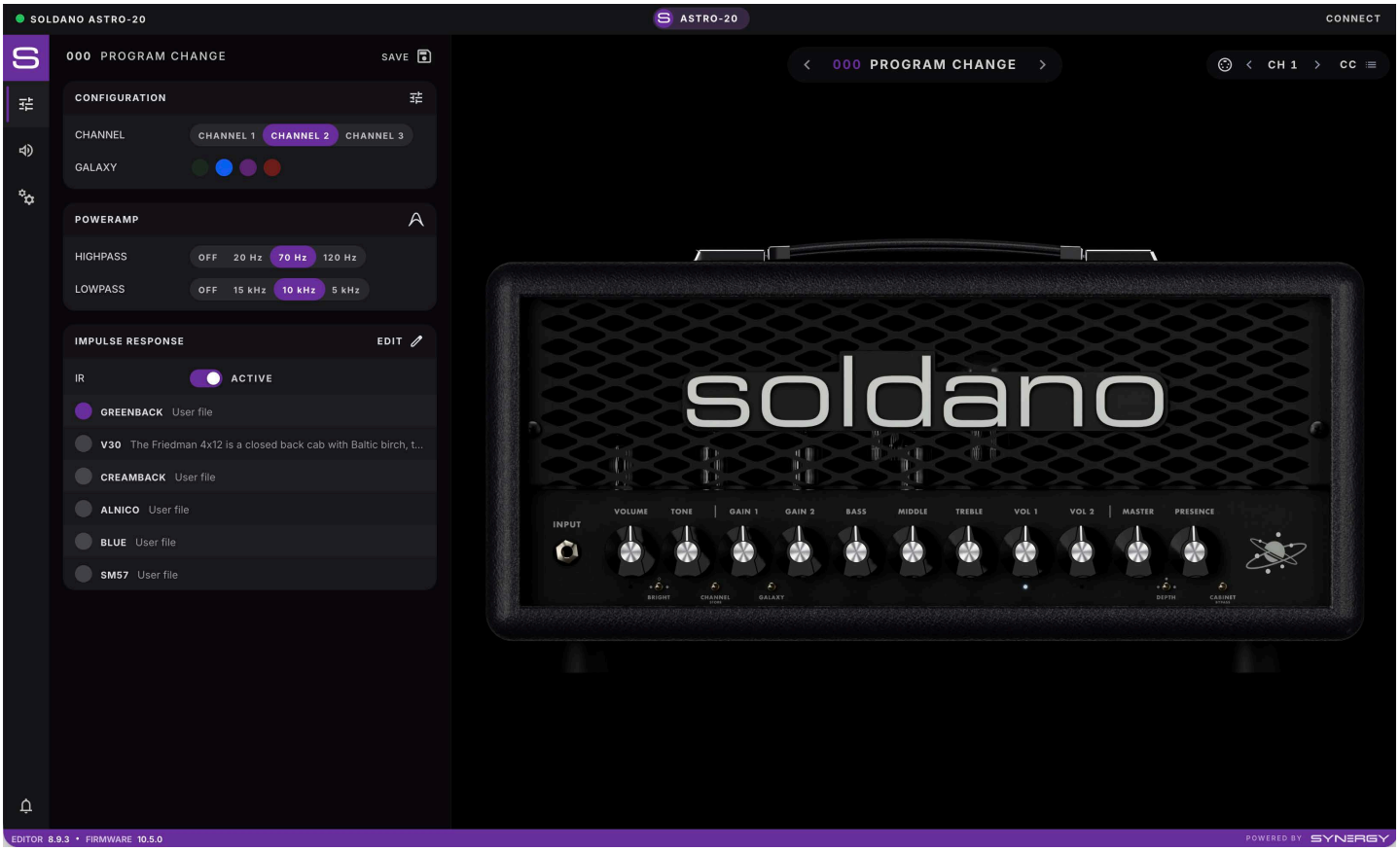
Programming the footswitch is very easy – just follow these steps:

1) Press the footswitch button you want to program.
2) Configure the ASTRO as you wish by selecting desired Channel, Galaxy and IR
3) To STORE, press to the right and hold for one second the ASTRO Channel Switch until the STAR display flashes white. Your footswitch is now programmed!

You can proceed again with the next footswitch button by repeating these three steps.

## SYNERGY EDITOR APP

Please visit **www.soldano.com** to download the SYNERGY EDITOR APP.



The ASTRO-20 features an easy-to-use software that allows you to upload your own IR'S, program all MIDI presets and MIDI functionalities.

**INCLUDED IR'S**

**412 V30**
Handcrafted in epic purple the Soldano 412 stands ready for the stage. Fitted with the iconic Vintage 30 speaker it's a perfect pairing for Soldano tones. Mics used SM57 & 1973.

**UK 412 V30**
This British 4x12 cabinet is a classic closed back cab with Baltic birch, tongue and groove construction. It features a balanced V30 tone great for any style of music. Mics used SM57 & R-121.

**412 LEGEND DEEP**
The legendary and infamous tweed Soldano SLO 412 "TWEED" cabinet loaded with Legend speakers. Mics used SM57 & R-121.

**412 X1200**
Classic vintage Soldano 412 cabinet loaded with X12000 speakers. This cab provide a dark, punchy and warm response. Mics used SM57 & R-121.

**212 V30**
Horizontal dual 12 cabinet fitted with V30's. Features a tighter end bottom than a 4x12, but retains a full sound with a more intimate midrange. Mics used SM57 & R-121.

**212 EVM12L**
The vintage EV12L has a tonality that is almost the inverse of modern speakers. However, these speakers set in a 2x12 closed back cabinet deliver perfectly balanced clean tones, as well as crushing rock and metal tones. Mics used SM57 & R-121.

**112 RED**
Captured from the Soldano 1x12 Snakeskin open back combo. The high wattage Redback speaker delivers a broad full sound that is balanced and versatile. Mic used SM57.

**412 GB**
Classic Soldano 412 cabinet loaded with British 20w Greenbacks. Featuring an open sound with plenty of classic flavor. Mics used SM57 & R-121.

**412 LEGEND TIGHT**
The legendary and infamous tweed Soldano SLO 412 "TWEED" cabinet loaded with Legend speakers. Mic used SM57.

**412 RECT**
This iconic combination of Vintage 30 speakers in an oversized cabinet quickly became a mainstay in heavy music. It works equally well for full bodied clean and dirty tones alike and has a characteristic tight and gritty cut. Mic used SM57.

**UK 412 V30 GB**
This British 1960 cabinet features a complimentary combination of two Greenbacks and two V30's. Mics used SM57 & SM57 & R-121.

**UK 412 JBL120 GB**

A vintage British 4x12 loaded with UK Greenbacks and a pair of JBL 120 speakers for a classic retro combination. Mics used SM57 & SM57.

**TOP PANEL CONTROLS**

- LEFT CONNECTION indicates the connection status of the ASTRO-20
- PROGRAM CHANGE selector lets you navigate through all the 128 storable MIDI PROGRAM CHANGES available and their corresponding settings. This will actively interact with the connected ASTRO-20 and switch presets on the amplifier as well.
- CHANNEL button lets you select the current channel
- GALAXY button lets you select the GALAXY for the selected channel
- IR BYPASS – this bypassed the internal IR cabinet simulation allowing you to use external simulation devices or software.
- MIDI CHANNEL SELECTOR will program the MIDI INPUT channel the ASTRO-20 will use. Default is OMNI mode (ASTRO-20 will listen to all channels)

  **INCLUDED FOOTSWITCH MIDI CHANNEL IS 1.**

**SIDE PANEL CONTROLS**

- STORE - stores all of the changes made to all of the presets inside the unit. MAKE SURE TO STORE ANY CHANGE before powering down ASTRO-20.
- IR SELECTOR (PER CHANNEL) lets you select one of the 6 slot-loaded IR'S for the selected channel.
- IR LOADING (PER SLOT) folder button lets you load your preferred IR by simply selecting it. Supported format are WAV 44.1K to 96K.
- ADDITIONAL INCLUDED IR SELECTION (PER SLOT) plus button lets you scroll through the additional IR's preloaded within the software. Press SELECT to use the current IR or press AUDITION to automatically load while scrolling the list.
- CUSTOM SHOP lets you customize the look of the ASTRO-20 with different tolex selections.

**FIRMWARE UPDATES**

SYNERGY EDITOR APP will automatically check for amplifier firmware update using internet connection.

The SYNERGY EDITOR APP is powered by:

**SOLDANO LIMITED 5-YEAR WARRANTY**

**Thank you for choosing Soldano. We take great pride in an extremely thorough testing procedure which is implemented on each product prior to shipment. In the unlikely event that you have a problem with your Soldano product, please refer to the warranty below.**

Soldano offers a limited 5-year warranty to the original purchaser that this Soldano product will be free from defects in material and workmanship. A dated sales receipt will establish coverage under this warranty, PLEASE KEEP YOUR PROOF OF PURCHASE TO USE YOUR WARRANTY. This warranty does not cover service or parts to repair damage caused by accident, neglect, abuse, normal & wear, disaster, misuse, abuse, over-powering, negligence, inadequate packing or shipping procedures and service, repair or any modifications to the product which have not been authorized or approved by SOLDANO in writing. **ANY MODIFICATION TO THE AMPLIFIER WILL VOID YOUR WARRANTY**. If this product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement by SOLDANO as provided below.

**CAUTION: Do NOT attempt to repair, modify or service this Soldano product by yourself!!! Please read the instruction manual for all safety notifications, warnings and instructions.**

Soldano utilizes tubes with extremely high voltages that can cause serious injury or death. Do not remove the chassis cover from the amplifier. All repair and service work must be performed by Soldano or an authorized service center of Soldano. **ANY UNAUTHORIZED REPAIRS WILL VOID YOUR WARRANTY.**

**TUBES:** Soldano warrants the original purchaser that the specific tubes used in this Soldano product will be free from defects in material and workmanship for a period of 90 days from the original date of purchase. A dated sales receipt will establish coverage under this warranty. This tube warranty will automatically terminate 90 days after the original retail sales date. This tube warranty is in lieu of all other expressed warranties. If tubes fail within the 90-day warranty period, your sole remedy shall be replacement of tubes as provided below.

**RETURN PROCEDURES:** In the unlikely event that a defect occurs please email support@Soldano.com. A member of our staff will email you a response in a timely manner. Please include your phone number in case our customer service department needs to reach you. In most cases we can help you diagnose the problem over the phone. If a product must be sent to us, please follow the procedure outlined below.

- Defective products must be shipped, together with proof of purchase, freight pre-paid and insured to the Authorized Soldano Service Center or directly to Soldano.
- If a product must be returned to Soldano for warranty replacement/repair, a Return Authorization Number must be obtained from our Customer Service Department prior to shipping the product.
- Please contact Soldano Customer Service Department for the Authorized Soldano Service Center nearest you.
- Products must be shipped in their original packaging or its equivalent; in any case, the risk of loss or damage in transit is to be borne by the purchaser.
- Please send to: SOLDANO 5300 Harbor Street, Commerce, CA 90040

- The Return Authorization Number must appear in large print directly below the shipping address.
- Always include a brief description of the defect, along with your correct return address and telephone number.
- When emailing to inquire about a returned product, always refer to the Return Authorization Number.

If Soldano determines that the unit was defective in materials or workmanship at any time during the warranty period, Soldano has the option of repairing or replacing the product at no additional charge, except as set forth below.

- All replaced parts become a property of Soldano. Products replaced or repaired under this warranty will be returned via ground shipping within the United States or Canada - freight prepaid.
- Soldano is not responsible for costs associated with expedited shipping, either to Soldano or the return of the product to the customer. All warranty repairs outside the United States and Canada must be directed to the dealer or distributor from which you purchased the product.

**INCIDENTAL OR CONSEQUENTIAL DAMAGE:** In no event will Soldano be liable for any incidental or consequential damages arising out of the use or inability to use of any Soldano product, even if a Soldano dealer has been advised of the possibility of such damages, or any other claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

**FOR YOUR PROTECTION:** Please complete the warranty registration card within (10) ten days of the date of purchase so that we may contact you directly in the event a safety notification issued in accordance with the 1972 Consumer Product Safety Act.

**CUSTOMER SUPPORT:** Our dedicated and friendly staff is ready to help you with any warranty or product questions you may have. Please e-mail us at Support@Soldano.com Thank you again for choosing Soldano and we look forward to a long relationship.

