

# ProCinema® 600 System

## **Owner's Manual**

## **Congratulations**

Congratulations on your purchase of the Definitive Technology ProCinema 600 System. This high-performance sixspeaker system is designed to deliver equally superb sound with music or movies. Please read the instructions carefully in order to fully familiarize yourself with the speaker system and assure yourself that you realize all the performance that has been engineered into this superior product.

## Please Inspect For Shipping Damage

Each loudspeaker leaves our plant in perfect condition. Any visible or concealed damage most likely occurred in handling after it left our plant and should be reported at once to your Definitive dealer or the shipping company which delivered your loudspeaker.

## Safety Precautions for ProSub 600



CAUTION! To reduce the risk of electric shock and fire, do not remove the cover or back plate of this device. There are no user serviceable parts inside. Please refer all servicing to licensed service technicians. Avis: Risque de choc electricque, ne pas ouvrir.

CAUTION! The international symbol of a lightning bolt inside a triangle is intended to alert the user to uninsulated "dangerous voltage" within the device's enclosure. The international symbol of an exclamation point inside a triangle is intended to alert the user to the presence of important operating, maintenance and servicing information in the manual accompanying the device.

CAUTION! To prevent electrical shock, match wide blade of plug to wide slot, fully insert. Attention: Pour eviter les chocs electriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

CAUTION! To reduce the risk of electrical shock, do not expose this equipment to rain or moisture.

- 1. Read Instructions—All safety and operating instructions should be read before operating the device.
- 2. Retain Instructions—The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings—All warnings on the device and in the operating instructions should be adhered to.
- 4. Follow Instructions—All operating and safety instructions should be followed.
- 5. Water & Moisture-The device should never be used in, on or near water for risk of fatal shock.
- 6. Carts & Stands-The device should only be used on carts or stands recommended by the manufacturer.
- 7. Wall & Ceiling Mounting—The device should be mounted on a wall or ceiling only as recommended by the manufacturer.
- Ventilation—The device should always be located in such a way that it maintains proper ventilation. It should never be placed in a built-in installation or anywhere that may impede the flow of air through its heat sink.
- Heat—Never locate the device near heat sources such as radiators, floor registers, stoves or other heat-generating devices.
- Power Supply—The device should only be connected to a power supply of the type described in the
  operating instructions or as marked on the device.
- 11. Power Cord Protection—Power cables should be routed so they are not likely to be stepped on or crushed by items placed on them or against them. Special attention should be paid to areas where the plug enters a socket or fused strip and where the cord exits the device.
- 12. Cleaning-The device should be cleaned in accordance with manufacturer's instructions.
- 13. Periods Of Non-Use-The device should be unplugged when not being used for extended periods.
- 14. Dangerous Entry—Care should be taken that no foreign objects or liquids fall or are spilled inside the device.
- 15. Damage Requiring Service—The device should be serviced by licensed technicians when:
  - The plug or power supply cord has been damaged.
  - Objects have fallen or liquid spilled inside of the device.
  - The device has been exposed to moisture.
  - The device does not appear to be operating properly or exhibits a marked change in performance.
  - The device has been dropped or the cabinet becomes damaged.
- 16. Service—The device should always be serviced by licensed technicians. Only replacement parts specified by the manufacturer should be used. The use of unauthorized substitutions may result in fire, shock, or other hazards.

## ProCinema 600 Six-Piece Surround Sound System

The Definitive Technology ProCinema 600 System consists of six speakers: four ProMonitor<sup>®</sup> 600s, one ProCenter<sup>®</sup> 600 and one ProSub<sup>®</sup> 600. Normally two of the ProMonitor 600s will be used as front speakers and two will be used as side or rear surround speakers. These speakers can be used with any surround decoding technology; however, since they will most often be used with Dolby Digital<sup>\*</sup> receivers and decoders, the instruction manual is written for Dolby Digital hook-ups (and DTS which is hooked up the same way). If you are using an earlier ProLogic<sup>\*</sup> receiver, please contact Definitive customer service for specific instructions that apply to your system.

## **Connecting Your Loudspeakers**

#### Wiring up Your Speakers to Your Home Theater Surround Receiver

There are many different ways to wire your ProCinema 600 System to your home theater surround receiver. In order to simplify this process, we will describe the two most common methods. Method 1, which involves wiring your front left and right ProMonitor 600s to your ProSub 600 and then wiring your ProSub 600 to your receiver, is the preferred method in terms of sound quality — it will give you the best blending between the satellite speakers and the sub as well as the fullest, richest sound quality. Method 2, which involves wiring the front left and right ProMonitor 600s directly to your receiver and hooking your sub up with an RCA cable, uses less speaker wire and still sounds good but clearly not as good as Method 1. We recommend Method 1, if possible.

Usually if distortion is heard when the speakers are being driven at loud levels, it is caused by driving (turning up) the amplifier too loud and not driving the speakers with more power than they can handle. Remember, most amplifiers put out their full rated power well before the volume control is turned all the way up! If your speakers distort when you play them loud, turn down the amplifier or get a bigger one.

#### Method 1

- 1. First, wire the + (red) terminal of the left channel speaker wire output of your receiver or amplifier to the + (red) terminal of the left channel speaker wire (high level) input of your ProSub.
- **2.** Next, wire the (black) terminal of the left channel speaker wire output of your receiver or amplifier to the (black) terminal of the left channel speaker wire (high level) input of the ProSub.
- **3.** Repeat Steps 1 and 2 for the right channel.
- **4.** Wire the + (red) terminal of the left ProMonitor 600 to the left channel + (red) speaker wire (high level) out on the back of the ProSub.

- **5.** Wire the (black) terminal of the left ProMonitor 600 to the left channel (black) speaker wire (high level) out on the back of the ProSub.
- 6. Repeat steps 4 & 5 for the right ProMonitor 600.
- 7. Set the low frequency filter control on the back of the subwoofer to approximately 10 12 o'clock. Please note that the exact frequency will depend on many factors including specific positions of the speakers in the room, so you might experiment with a slightly higher or lower setting to achieve ideal blending between the sub and the satellites for your particular set-up. Listen to a wide variety of music to determine the correct setting for this in your system.
- **8.** Set the subwoofer level control to approximately 12 o'clock. Please note that the exact level depends on many factors including your room size, positions of the speakers, etc. as well as your personal listening taste, so you might experiment with the subwoofer level while listening to a wide variety of music until you achieve the ideal setting for your system.
- **9.** Wire your center channel to the center channel out on your receiver (or center channel amplifier) and your left and right rear surround speakers to the rear channel outputs on your receiver or rear channel amplifier (taking care that all speakers are in phase, i.e. + (red) to + (red) and (black) to (black).
- **10.** Set the bass management system of your receiver or decoder for "Large Left and Right Main Speakers," "Small Center" and "Small Rear Surround Speakers" and "No Subwoofer." All the bass information including the .1 channel LFE signal will be directed to the main left and right channels and into the subwoofer giving you all the benefits of Dolby Digital.

#### **Option for Method 1 Hook-Up**

An option on this hook-up (if your decoder will allow you to select "Large Left and Right Main Speakers" and a "Subwoofer"), in addition to the hook-up as described above, is to use an RCA-to-RCA low level cable to connect the LFE/sub-out on your receiver to the low-level LFE/sub-in (the lower RCA input) on a ProSub. Tell your bass management system that you have "Large Left and Right Main Speakers" and a "Subwoofer" and "Small Center" and "Small Surrounds." You will then be able to raise the LFE .1 channel level being fed to the subwoofer by either using the LFE/sub remote level adjustment on your decoder (if it has one) or the LFE .1 channel level control on your Dolby Digital channel balancing procedure. This set-up has the advantage of allowing you to set the low frequency level on the ProSub for smooth balance with music while also allowing you to "juice up the bass" for movies with the controls on your decoder. It should also sound somewhat better.

#### Variation on the Method 1 Optional Hook-up

One variation on the optional hook-up is to hook up and adjust the system as described under "Optional Hook-Up" except select "Small Left and Right Main Speakers" and a "Subwoofer" on the bass management system (along with "Small Center" and "Small Rear Surrounds"). The advantage of this over the Optional Hook-Up will be somewhat greater dynamic range (i.e., you can play the system louder). However, depending on the specific characteristics of the crossovers designed into your bass management system, the transition and blending between the satellites and subwoofer may not be quite as smooth and continuous as the Optional Hook-Up, or

with the basic hook-up detailed above in Steps 1 - 10. However, if you wish to play the system louder, you can experiment with this variation. In addition, this variation is also one which can be used if your decoder bass management system does not allow a "Large Left and Right Main Speakers" and "Subwoofer" setting.

We encourage you to experiment with the various settings on your subwoofer, settings on your decoder, and hook-up options as described until you find the best combination for you.

VERY IMPORTANT: SETTING CHANNEL BALANCE AND BASS MANAGEMENT SYSTEMS Dolby Digital and Dolby ProLogic systems and decoders have a critical channel balancing procedure for the left and right front speakers, center channel, rears and subwoofer (if it is hooked up through the LFE or Sub Out low level connection) which must be followed if the system is to perform properly. We have spoken with many system users with problems relating to the overall sound of their system which could be clearly traced back to improper system balance.

Also note that Dolby Digital decoders have bass management systems (systems which direct the bass to the various channels) which vary from unit to unit. This bass management system must also be properly adjusted. Follow the directions in the hook-up directions regarding bass management.

#### Method 2

- 1. Wire the left front ProMonitor 600 directly to the left front channel of your amplifier or receiver and the right front ProMonitor 600 directly to the right channel of your amplifier or receiver taking care that the speakers are in phase, i.e. + (red) to + (red) and (black) to (black).
- **2.** Use an RCA-to-RCA low-level cable to connect the LFE/subwoofer out on your receiver to the LFE input on your subwoofer.
- **3.** Wire your center channel to the center channel out on your receiver (or center channel amplifier) and your left and right rear surround speakers to the rear channel outputs on your receiver or rear channel amplifier (taking care that all speakers are in phase, i.e. + (red) to + (red) and (black) to (black)).
- **4.** Set the bass management system of your receiver or decoder for "Small Left and Right Main Speakers," "Small Center" and "Small Rear Surround Speakers" <u>and</u> "Yes Subwoofer."
- **5.** Set the variable low-pass crossover to 150 and set the subwoofer level control to 12 o'clock. Please note that you can set the subwoofer level either by turning the subwoofer level control on the back of the subwoofer or with LFE level adjustment in your receiver. We suggest setting the subwoofer to 12 o'clock and then making fine adjustments to the subwoofer level using the LFE level control on your receiver.

## **Speaker Break-In**

Your ProCinema 600 System should sound good right out of the box; however, an extended break-in period of 20 - 40 hours or more of playing is required to reach full performance capability. Break-in allows the suspensions to work in and results in fuller bass, a more open "blossoming" midrange and smoother high frequency reproduction.

## Positioning Your Speakers in Your Room

It is important that some simple set-up recommendations be followed in order to assure optimum performance in your room. Please remember that although these recommendations are usually valid, all rooms and listening set-ups are somewhat unique, so do not be afraid to experiment with the speakers. Remember, whatever sounds best to you is correct.

#### Positioning the ProMonitor 600s in Your Room

When used as front or side/rear surround speakers, the ProMonitor 600s may be used on a stand, a shelf, or mounted on the wall or ceiling. If you place the speakers on a shelf, try to place them forward on the shelf with the front of the speaker even with the front of the shelf rather than pushed back toward the rear of the shelf. If you wish to use a stand we strongly recommend the Definitive ProStand 60/80/600/800 which was designed to be used with these speakers in order to achieve the highest level of performance as well as the most attractive styling combination. Wall mounting can be accomplished either by using the keyhole mount which is built into the speakers or with the ProMount 80/800 pivoting wall mount which is available separately. Placement close to the wall will increase the bass and low midrange output while placement further from the wall will decrease output in these ranges and at the same time yield a somewhat more open and three-dimensional sound. As with other aspects of set-up and adjustment we encourage experimentation in order to achieve perfect sound in your particular room.

#### Using the Built-In Keyhole Wall Mount

Your ProMonitor 600 also has a built-in keyhole wall-mount on the back. Use a toggle bolt or other similar very well anchored fastener in the wall to hold the screw which the keyhole mount will hang on. Do not use an unanchored screw in the wall. Please note that there is an optional pivoting wall mount available which may be purchased separately.

#### **Positioning Your ProMonitor 600 Front Speakers**

Your two ProMonitor 600 speakers which you are using as front speakers (please note all ProMonitor 600s are exactly the same) should usually be placed 6 to 8 feet apart and kept away from side walls and corners if possible. A good rule of thumb is to place the speakers separated by one half the length of the wall they are positioned along, and each speaker one quarter the length of the wall behind them away from the side walls.

Speakers may be angled in toward the listening position or pointed straight ahead. Note: Angling the speakers in so that they point directly at the listeners will result in more detail and greater clarity.

#### Positioning Your ProMonitor 600 Rear/Side Surround Speakers

The surround speakers may be located on the side or behind the listeners. When used on the sides, take care never to locate the speakers forward of the listeners. The speakers may be located at or above ear level. If the speakers are placed on the rear wall follow the same guidelines given for positioning the front speakers along the wall.

Speakers may be angled in toward the listening position or pointed straight ahead. Note: Angling the speakers in so that they point directly at the listeners will result in more detail and greater clarity.

#### Positioning Your ProCenter 600 Speaker

The ProCenter 600 can be placed either above or below the TV. If you are putting the ProCenter 600 on a shelf or on a TV, try to place it forward with the front of the speaker even with the front of the TV or the front of the shelf.

#### **ProCenter Vertical Angle Adjustment**

Your ProCenter 600 loudspeaker has a simple built-in device which allows you to adjust the vertical angle of the speaker. Please note that on the rear/center/underside of the speaker there is a foot. When you set the speaker down, the speaker will lean back and rest of the foot. By varying how far you screw in the foot, you can adjust the vertical angle of the speaker. We suggest that you aim the speaker so that it aims directly towards the height of the listeners' ear.

## Subwoofer Placement

Your Definitive Technology subwoofer has been designed to operate at frequencies generally below 150 Hz. Because low-frequency information in this range essentially is non-directional, your subwoofer can be located anywhere in your listening room that is most convenient. Also, the continuously variable low-pass filter operates at a very fast roll-off, ensuring great performance wherever you place your subwoofer. There are, however, some general rules that you should bear in mind when locating your subwoofer:

- 1. For maximum output, the subwoofer should be placed in a corner or against the wall, leaving roughly 2''-4'' clearance between the subwoofer and the wall(s).
- **2.** Corner placement will increase the subwoofer's efficiency, which in turn will increase your system's maximum output and improve the dynamic capability of the subwoofer.
- **3.** While one Definitive Technology subwoofer will always sound great, the use of two subwoofers will definitely enhance your system's performance by providing a smoother and more consistent response pattern. Here, it is recommended that you locate the subwoofers on the same side of the room as the main speaker of the same channel.

- **4.** Always remember that frequency response and output level are greatly influenced by the subwoofer's placement. A movement of even a foot or two can dramatically change your system's response characteristics. You should experiment with placement in your particular listening room in order to achieve the highest performance from your subwoofer.
- **5.** Your subwoofer contains a powerful amplifier inside its cabinetry. When placing the subwoofer into a built-in cabinet, please be sure it receives a clear flow of cooling air. If your subwoofer is to be located in a closed-back cabinet, be sure to put some ventilation holes in the cabinet back behind the subwoofer's back panel.

## **Powering Up Your Subwoofer**

Your subwoofer contains a built-in, active powered subwoofer section as well as an electronic crossover and so each subwoofer must be plugged into an electrical socket of the appropriate voltage (as indicated on the back of your unit) using the plug on the end of the black cord attached to the electronics module on the back of the loudspeaker. The subwoofer has a special circuit which automatically turns the powered subwoofer section on when a signal is fed to the loudspeaker and does not require an on-off switch. The red LED on the back panel will light up when a signal is sensed and the amplifier turns on. It will automatically turn off a little while after the signal is discontinued.

The ProSub 600 has a special circuit which automatically turns the powered subwoofer section on when a signal is fed to the loudspeaker and does not require an on/off switch. We suggest plugging the ProSub 600 into a circuit which is on all the time and not into a switched outlet. When the ProSub 600 is plugged into a circuit and receives AC current, initially you will hear a relatively loud pop which is completely normal as the system first activates itself to stand-by mode. Then, when a program signal is fed to the speaker, it will fully activate itself with a lower level pop which is normal. If you unplug the speaker or turn off the AC current going to it, it will reactivate itself with a pop when AC current is restored, which is normal.

Please note that after the cessation of a signal, it may take up to an hour for the amplifier to actually turn off from active to standby mode. It can also take up to an hour for the LED to turn off.

## **Subwoofer Operating Controls**

Your Definitive Technology ProSub 600 subwoofer is equipped with a full complement of operating controls to ensure complete flexibility and maximum performance in any installation. Most of them basically are the "set and forget" type, although occasionally certain controls will require minor adjustments.

#### Level Control

This control varies how loud the subwoofer plays. Please follow the level control suggestions in hook-up section.

#### Low-Pass Filter

Your subwoofer's back panel features a continuously variable low-pass filter. If you are using the low level LFE input, you will normally turn the Low-Pass Filter Control all the way up to 150. If you are using Method 1 System Hook-up you will normally set the low-pass filter to between 10 and 12 o'clock. Always remember the exact setting will vary with different rooms and different positions as well as personal taste, so we encourage you to experiment.

## Troubleshooting

If you experience any difficulties with your subwoofer, try the suggestions described below. If you are still having problems, please consult your Definitive Technology Authorized Dealer for assistance.

- **1.** Make sure all your system interconnects and power cords are solidly in their place.
- **2.** Should you experience any level of ground hum or noise, try plugging the subwoofer into the same circuit as your amplifier. Please note that some cable TV hookups induce hum into the whole system and require a special isolation device. Please consult your dealer.
- **3.** The system is provided with sophisticated internal protection circuitry. If for some reason the protection circuitry is tripped, please turn down your system's volume and wait five minutes before trying the system again. If the amplifier should overheat, the system will turn itself off until the amplifier cools and resets.
- 4. Check to be sure that your power cord has not been damaged.
- 5. Check that no foreign objects or liquid has entered the cabinet.
- **6.** If you cannot get your subwoofer to turn on or if no sound comes out and you're sure the system is set up properly, please bring the subwoofer to your Definitive Technology Authorized Dealer for assistance.

## Dolby Digital 6.1 and 7.1 Systems

Some advanced surround sound receivers are now offering Dolby Digital 6.1 and 7.1. Basically, this allows you to add additional rear/side surround speakers for even higher performance. If you wish to add additional rear or side surround speakers we suggest that you use Definitive ProMonitors which are available at your Definitive dealer. A Definitive ProCenter can also be used as a rear center speaker in 6.1 systems.

## **Technical Assistance**

It is our pleasure to offer assistance if you have any questions regarding your ProCinema System or its set-up. Please contact your nearest Definitive Technology dealer or contact us directly at 410-363-7148 or info@definitivetech.com.

## Service

Service and warranty work on your Definitive loudspeakers will normally be performed by the Definitive Technology dealer from whom you have purchased your loudspeakers. If, however, you wish to return the speaker to us, please contact us first, describing the problem and requesting authorization as well as the location of the nearest factory service center. **Please note that the address given in this booklet is the address of our offices only. Under no circumstances should loudspeakers be shipped to our offices or returned without contacting us first and obtaining return authorization.** 

> Definitive Technology Offices 11433 Cronridge Drive Owings Mills, Maryland 21117 Phone: 410-363-7148

## Visit us at www.definitivetech.com

## **ProCinema 600 System Specifications**

## ProCinema 600 System

Overall	
Frequency Response:	22 Hz – 30 kHz
Recommended	
Amplification:	10-175 watts/channel
Amplification:	10-175 watts/channel

#### **ProCenter 600**

Dimensions: Frequency Response: Efficiency: Nominal Impedance: Driver Complement: 10<sup>1</sup>/<sub>2</sub>" W x 4<sup>1</sup>/<sub>4</sub>" D x 4" H 55 Hz – 30 kHz 89 dB Compatible with 4 – 8 ohm outputs Two 3<sup>1</sup>/<sub>4</sub>" bass/midrange drivers coupled to two 3<sup>1</sup>/<sub>4</sub>" pressure-driven planar low frequency radiators, 1" pure aluminum dome tweeter

Recommended Amplification:

10-175 watts

#### **ProMonitor 600**

Dimensions: Frequency Response: Efficiency: Nominal Impedance: Driver Complement:

Recommended Amplification:

4" W x 4<sup>1</sup>/<sub>4</sub>" D x 7" H 65 Hz – 30 kHz 88 dB Compatible with 4 – 8 ohm outputs Two 3<sup>1</sup>/<sub>4</sub>" bass/midrange drivers coupled to one 3<sup>1</sup>/<sub>4</sub>" pressure-driven planar low frequency radiator, 1" pure aluminum dome tweeter

10-150 watts

#### ProSub 600

Dimensions: Frequency Response: Driver Complement:

Built-in Amplifier: High Pass Filter: Low Pass Filer: 10<sup>3</sup>/<sub>8</sub>" W x 13" D x 13" H 22 Hz – 150 Hz One 8" woofer with polymer cone, one 8" infrasonic radiator 250 watts RMS 6 dB/octave speaker level at 100 Hz 24 dB/octave continuously variable (40 Hz – 150 Hz)

#### Limited Warranty: 5-Years for Drivers and Cabinets, 3-Years for Electronic Components

Definitive Technology warrants to the original retail purchaser only that this Definitive Technology Loudspeaker Product (the "Product") will be free from defects in materials and workmanship for a period of five (5) years covering the drivers and cabinets, and three (3) years for the electronic components from the date of the original purchase from a Definitive Technology Authorized Dealer. However, this warranty will automatically terminate prior to the expiration of five (5) years for the drivers and cabinets and three (3) years for the electronic components if the original retail purchaser sells or otherwise transfers the Product to any other party. The original retail purchaser shall hereinafter be referred to as "you." Defective Products must be shipped, together with proof of date of purchase, prepaid insured to the Authorized Dealer from whom you purchased the Product, or to the nearest factory service center. Product(s) must be shipped in the original shipping container or its equivalent; in any case the risk of loss or damage in transit is to be borne by you. If, upon examination at the Factory or a Definitive Technology Authorized Dealer, it is determined that the unit was defective in materials or workmanship at any time during this Warranty period, Definitive Technology or the Definitive Technology Authorized Dealer will, at its option, repair or replace this Product at no additional charge, except as set forth below. All replaced parts and Product(s) become the property of Definitive Technology. Product(s) replaced or repaired under this Warranty will be returned to you, within a reasonable time, freight collect.

This Warranty does not include service or parts to repair damage caused by accident, misuse, abuse, negligence, inadequate packing or shipping procedures, commercial use, voltage in excess of the rated maximum of the unit, cosmetic appearance of cabinetry not directly attributable to defects in materials or workmanship, or service, or repair or modification of the Product which has not been authorized by Definitive Technology. Definitive Technology makes no Warranty with respect to its Products purchased from dealers or outlets other than Definitive Technology Authorized Dealers. This Warranty is in lieu of all other expressed Warranties. If this Product is defective in material or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above. In no event will Definitive Technology be liable to you for any incidental or consequential damages arising out of the use or inability to use the Product, even if Definitive Technology or a Definitive Technology Authorized Dealer has been advised of the possibility of such damages, or for any claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation may not apply to you.

All implied warranties on the Product are limited to the duration of this expressed Warranty. Some states do not allow limitation on how long an implied Warranty lasts, so the above limitations may not apply to you. This Warranty gives you specific legal rights, and you also may have other rights which vary from state to state.

## CE

This product complies with the essential requirements of EMC directives 89/336/EEC and 73/23/EEC (inclusive of 93/68/EEC) and carries the CE mark accordingly.