

CANDY-XIB / X2B/ X4B / X5B / XXLIB

MONOBLOCK SUBWOOFER / STEREO FULL RANGE CLASS D AMPLIFIERS

**OWNER'S MANUAL** 



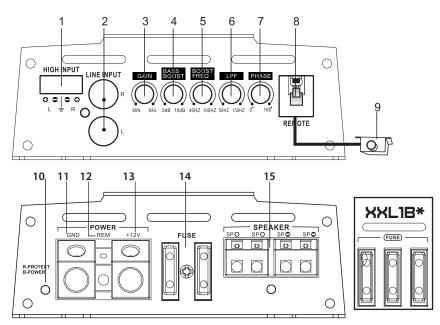
Congratulations on purchasing this DS18 CANDY-X Class D Amplifier. The amplifier has been designed using the latest electronic technology available, allowing you to produce high quality stereo playback in mobile applications. This system provides you with low harmonic distortion, a considerable amount of reserve voltage and high temperature stability.



## INSTRUCTIONS FOR FUNCTIONS AND CONTROLS



## CANDY-X1B / XXL1B

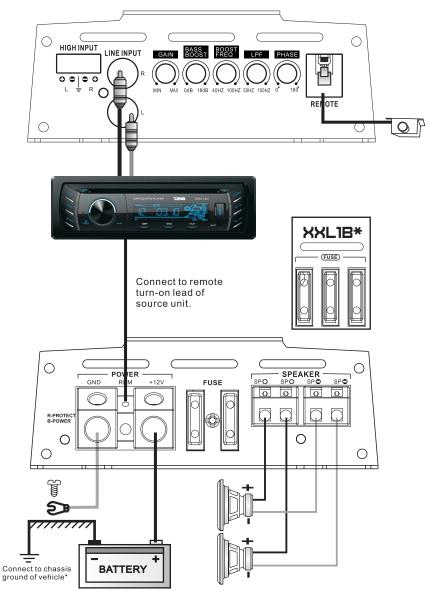


- 1. HIGH INPUT: High level input terminals.
- 2. LOW INPUT: Left and right channels inputs of the amplifier system. Preamplifier outputs of a source (head unit) or of an external crossover must be connected to them.
- 3. GAIN: Knob for volume adjusment.
- 4. BASS BOOST: The boost ranges from OdB to 18dB
- **5. BOOST FREQUENCY:** The boost frequency ranges from 40Hz to 100Hz.
- **6. LPF:** Low pass frequency adjusting knob, the frequency ranges from 50hz to 150Hz.
- 7. PHASE CONTROL: Phase adjusting switch, the phase ranges from 0-180°
- **8. REMOTE CONTROLLER OUTLET:** To be connected with the remote controller, which helps to boost the gain. Please turn the knob of volume to be maximum before using the remote.
- 9. REMOTE CONTROLLER: Volume level knob.
- 10. INDICATOR LIGHT: When power LED sends out blue light, it means that this amplifier have been working now. When the LED sends out red light, it means that the self-protection of the amplifier.
- 11. GND: Ground terminal. Connect to the car chassis. Keep the length of the ground cable to a minimum.
- **12. REM:** Terminal to be connected with the remote cable, which comes from the source and which controls the amplifier switching on. Applied voltage must be between 10 and 15V DC.
- 13. +12V: anode of power connection terminals. Connect to the anode of car battery.
- 14. FUSE: standard automatic fuse, you must use the same power fuse if you need to change it.
- **15. SPEAKER:** speaker connecting terminals.



# SYSTEM WIRING: 2 SPEAKER CONFIGURATION

# CANDY-X1B / XXL1B

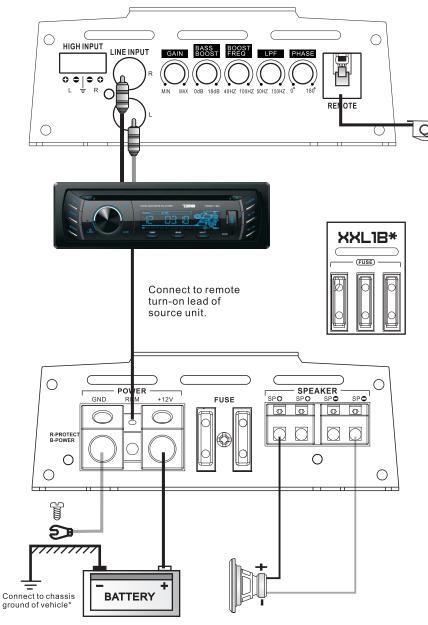


SPEAKER IMPEDANCE 2~80hm



# SYSTEM WIRING: SINGLE SPEAKER CONFIGURATION

# CANDY-XIB / XXLIB

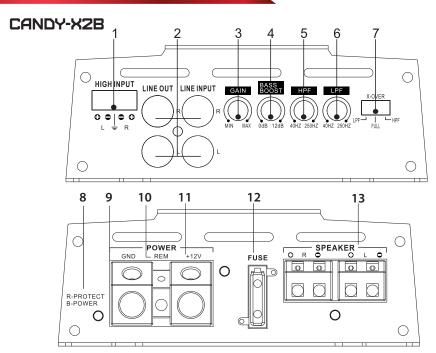


SPEAKER IMPEDANCE

1~80hm

# INSTRUCTIONS FOR FUNCTIONS AND CONTROLS





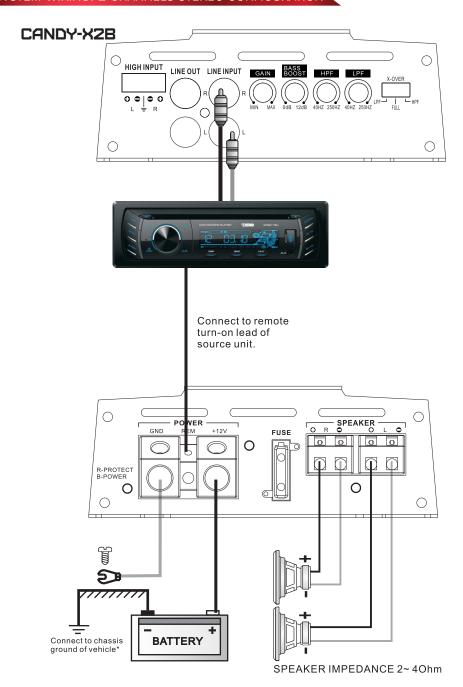
- 1. HIGH INPUT: High level input terminals.
- 2. LOW LEVEL OUTPUT: A daisy chain output for connection to another amplifier with a low level input using only a single RCA output from the source (head unit).

**LOW LEVEL INPUT:** For connection to any source (head unit) with a low level output. This is your RCA output from the source (head unit).

- 3. GAIN: Knob for volume adjusment.
- 4. BASS BOOST: The boost ranges from OdB to12dB
- **5. HPF:** High pass frequency adjusting knob, the frequency ranges from 40 Hz to 250 Hz.
- 6. LPF: Low pass frequency adjusting knob, the frequency ranges from 50hz to 150Hz.
- 7. X-OVER: Optional switches for high pass filter (HPF)/ full pass filter (FULL)/ low pass filter (LPF).
- 8. INDICATOR LIGHT: When power LED sends out blue light, it means that this amplifier have been working now. When the LED sends out red light, it means that the self-protection of the amplifier.
- 9. GND: Ground terminal. Connect to the car chassis. Keep the length of the ground cable to a minimum.
- 10. REM: Terminal to be connected with the remote cable, which comes from the source and which controls the amplifier switching on. Applied voltage must be between 10 and 15V DC.
- 11. +12V: anode of power connection terminals. Connect to the anode of car battery.
- 12. FUSE: standard automatic fuse, you must use the same power fuse if you need to change it.
- 13. SPEAKER: speaker connecting terminals.

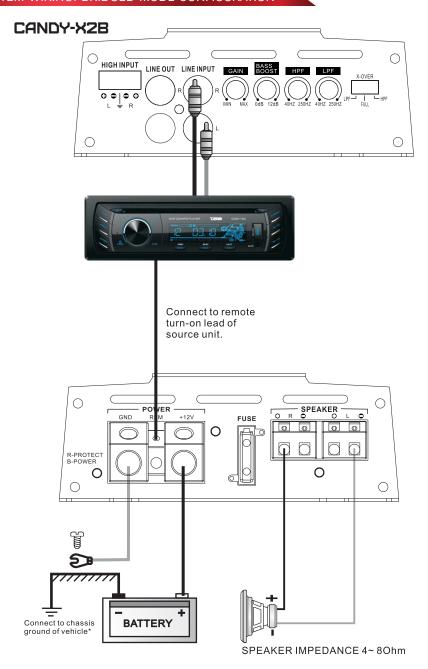


# SYSTEM WIRING: 2 CHANNELS STEREO CONFIGURATION



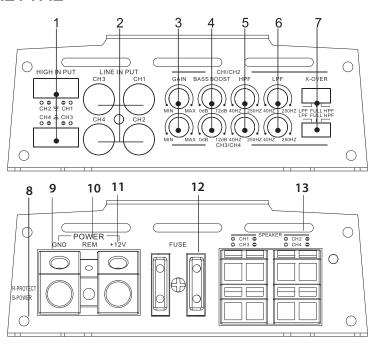


# SYSTEM WIRING: BRIDGED MODE CONFIGURATION





## CANDY-X4B

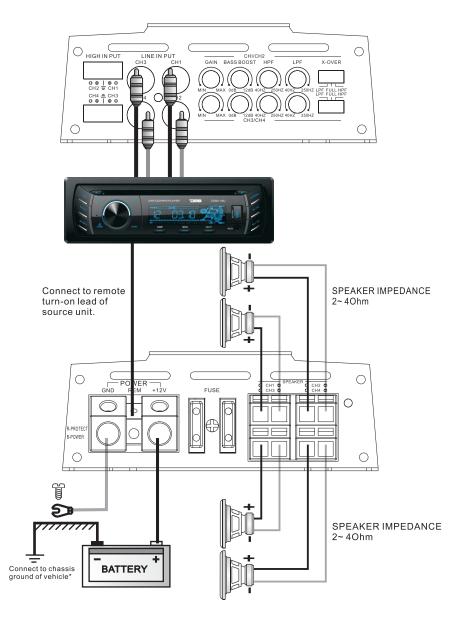


- 1. **HIGH INPUT:** High level input terminals.
- 2. LOW INPUT: CH1/CH2/CH3/CH4 inputs of the amplifier system. Preamplifier outputs of a source (head unit) or of an external electronic crossover must be connected to them.
- 3. GAIN: Knob for volume adjustment.
- 4. BASS BOOST: The boost ranges from OdB to 12dB
- 5. HPF: High pass frequency adjusting knob, the frequency ranges from 40 Hz to 250 Hz.
- **6. LPF:** Low pass frequency adjusting knob, the frequency ranges from 40hz to 250Hz.
- 7. X-OVER: Optional switches for high pass filter (HPF)/ full pass filter (FULL)/ low pass filter (LPF).
- 8. INDICATOR LIGHT: When power LED sends out blue light, it means that this amplifier have been working now. When the LED sends out red light, it means that the self-protection of the amplifier.
- 9. GND: Ground terminal. Connect to the car chassis. Keep the lenght of the ground cable to a minimum.
- 10. **REM:** Terminal to be connected with the remote cable, which comes from the source and which controls the amplifier switching on. Applied voltage must be between 10 and 15V DC.
- 11. +12V: anode of power connection terminals. Connect to the anode of car battery.
- 12. FUSE: standard automatic fuse, you must use the same power fuse if you need to change it.
- **13. SPEAKER:** speaker connecting terminals.



# SYSTEM WIRING: 4 CHANNELS STEREO CONFIGURATION

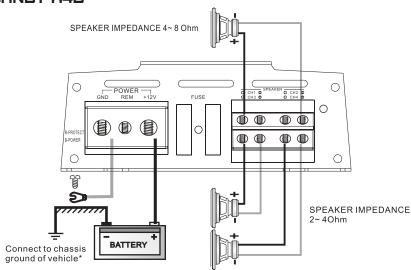
# **CANDY-X4B**



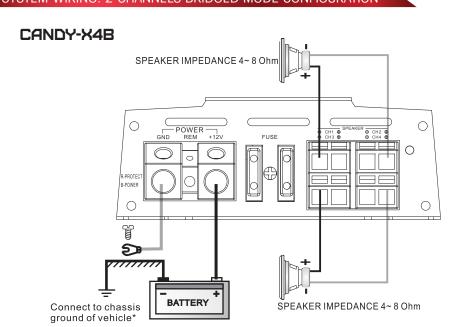


# SYSTEM WIRING: 3 CHANNELS BRIDGED MODE CONFIGURATION

# **CANDY-X4B**



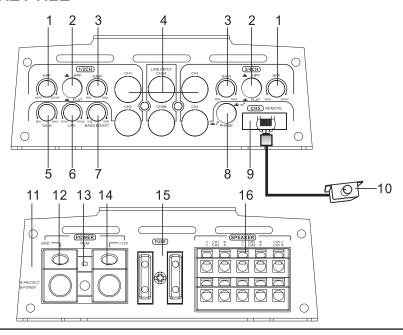
# SYSTEM WIRING: 2 CHANNELS BRIDGED MODE CONFIGURATION



## INSTRUCTIONS FOR FUNCTIONS AND CONTROLS



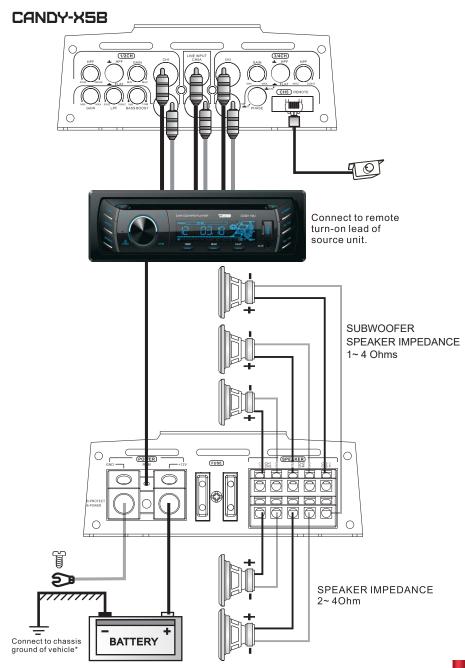
## CANDY-X5B



- 1. HPF: High pass frequency adjusting knob, the frequency ranges from 40 Hz to 250Hz
- 2. X-OVER: Optional switches for high pass filter (HPF)/ full pass filter (FULL)/ low pass filter (LPF).
- 3. GAIN: Knob for volume adjusment.
- 4. LOW INPUT: Left and right channels inputs of the amplifier system. Preamplifier outputs of a source (head unit) or of an external crossover must be connected to them.
- **5. SUB GAIN:** Knob for SUB volume adjustment.
- **6. LPF:** Low pass frequency adjusting knob, the frequency ranges from 50hz to 150Hz.
- 7. BASS BOOST: The boost ranges from OdB to 12dB
- 8. PHASE CONTROL: Phase adjusting switch, the phase ranges from 0-180°
- 9. SUB REMOTE CONTROLLER OUTLET: To be connected with the remote controller, which helps to sub gain. Please turn the knob of volume to be maximum before using the remote.
- 10. SUB REMOTE CONTROLLER BOX: Volume level knob.
- 11. INDICATOR LIGHT: When power LED sends out blue light, it meands that this amplifier have been working now. When the LED sends out red light, it means that the self-protection of the amplifier.
- 12. GND: Ground terminal. Connect to the car chassis. Keep the length of the ground cable to a minimum.
- **13. REM:** Terminal to be connected with the remote cable, which comes from the source and which controls the amplifier switching on. Applied voltage must be between 10 and 15V DC.
- 14. +12V: anode of power connection terminals. Connect to the anode of car battery.
- 15. FUSE: standard automatic fuse, you must use the same power fuse if you need to change it.
- 16. SPEAKER: speaker connecting terminals.



# SYSTEM WIRING: 5 CHANNELS STEREO CONFIGURATION





## **TROUBLESHOOTING**

Before removing your amplifier, refer to the list below and follow the suggested procedures. Always test the speakers and their wires first.

#### AMPLIFIER WILL NOT POWER UP.

Check for good ground connection.

Check that remote DC terminal has at least 10V DC.

Check that there is battery power on the + terminal.

Check all FUSES.

Check that protection LED is not lit. if it is lit, shut off amplifier briefly and then repower it.

## HIGH HISS OR ENGINE NOISE (ALTERNATOR WHINE) IN SPEAKERS.

Disconnect all RCA inputs to the amplifier, if hiss/noise disappears, then plug in the component driving the amplifier and unplug its inputs. If hiss/noise disappears, go on until the faulty/noisy component is found. It is best to set the amplifier input level as insensitive as possible. The best subjective S/N ratio ia obtainable this way. Try to drive as high a signal level from the head unit as possible.

#### PROTECTION LED COMES ON WHEN THE AMPLIFIER IS POWERED UP.

Check for shorts on speaker leads.

Check that volume control on the head unit is turned down low.

Remove speaker leads, and reset the amplifier. If the protection LED still comes on, then the amplifier is faulty.

The amplifier will shut down automatically when the units temperature goes up to  $85^{\circ}$  C This will protect the units from damage.

#### AMPLIFIER GETS VERY HOT.

Check that the minimum speaker impedance for that model is correct.

Check for speaker shorts.

Check that there is good airflow around the amplifier. In some applications, an external cooling fan may be required.

#### **DISTORTED SOUND.**

Check that the level control is set to match the singal level of the head unit.

Check that all crossover frequencies have been properly set.

Check for shorts on the speaker leads.

#### HIGH SQUEAL NOISE FROM SPEAKERS.

This is always caused by poorly grounded RCA patch cord.

#### WARNING

- 1. Over high volume will damage your speakers.
- 2. Be cautious when you use the amplifier near gasolike tank and electric wires.
- 3. Protect the connecting wires and parts to avoid any damage or short circuit.
- 4. The power must belee from the anode of the battery via FUSE.
- 5. The sound system must be in turning-off situation when you check the amplifier.
- 6. Be sure that you use the same type of FUSE when you need to replace it.
- \* We reserve the right to make needed change or improvement to the product, without informing the customer about this in advance.



# **SPECIFICATIONS**

MODEL	CANDY-X1B	CANDY-X2B	CANDY-X4B	CANDY-X5B	CANDY-XXL1B
CLASS	CLASS-D	CLASS-D	CLASS-D	CLASS-D	CLASS-D
TYPE	MONOBLOCK SUBWOOFER	STEREO FULL RANGE	STEREO FULL RANGE	STEREO FULL RANGE	MONOBLOCK SUBWOOFER
CHANNELS	1	2	4	5	1
TOTAL WATTS (PEAK)	1800W	800W	1600W	2000W	3000W
RMS POWER @ 4 OHM	240W x 1CH	80W x 2CH	80W x 4CH	80W X 4CH + 200W X 1CH	400W x 1CH
RMS POWER @ 2 OHM	400W x 1CH	120W x 2CH	120W x 4CH	120W X 4CH + 320W X 1CH	650W x 1CH
RMS POWER @ 1 OHM	600W x 1CH	-		420W X 1 CH	1000W x 1CH
RMS POWER @ 4 OHM BRIDGE	-	240W x 1CH	240W x 2CH	240W x 2CH	-
MIN. SPEAKER IMPEDANCE	1 OHM X 1CH	2 OHM X 2CH	2 OHM X 4CH	2 OHM / 1 OHM (SUB)	1 OHM X 1CH
FREQUENCY RESPONSE	20HZ-150KHZ	20HZ-20KHZ	20HZ-20KHZ	20HZ-20KHZ	20HZ-250KHZ
SIGNAL/NOISE RATIO	100 DB	100 DB	100 DB	100 DB	100 DB
INPUT IMPEDANCE	10K	10K	10K	10K	10K
CHANNEL SEPARATION	-	50 DB	50 DB	50 DB	-
THD %	0.01%	0.01%	0.01%	0.01%	0.01%
LOW LEVEL INPUT RANGE	0.2-6V	0.2-6V	0.2-6V	0.2-6V	0.2-6V
HIGH LEVEL INPUT	YES	YES	YES	-	YES
SELECTABLE X-OVER	FIXED LPF	LPF/FULL/HPF	LPF/FULL/HPF	HPF/FLAT (FIXED LPF SUB)	FIXED LPF
X-OVER FILTER RANGE	50HZ-150HZ	40HZ-250HZ	40HZ-250HZ	40HZ-250HZ (50-150HZ SUB)	50HZ-150HZ
BASS BOOST RANGE	0-18 DB	0-18 DB	0-12 DB	0-12 DB (SUB)	0-18 DB
BASS BOOST FREQUENCY	40-100HZ	FIXED 40HZ	FIXED 40HZ	FIXED 40HZ	40-100HZ
PHASE SELECTOR	0-180° DB	-	-	0-180° (SUB)	0-180° DB
LED INDICATOR	POWER/PROTECTION	POWER/PROTECTION	POWER/PROTECTION	POWER/PROTECTION	POWER/PROTECTION
POWER INPUT TERMINAL SIZE	4GA	4GA	4GA	4GA	4GA
FUSE SIZE	35AX2	25AX1	35AX2	35AX2	35AX2
REMOTE LEVEL CONTROL	REMOTE DASH MOUNT	-	-	REMOTE DASH MOUNT	REMOTE DASH MOUNT
THERMAL PROTECTION	YES	YES	YES	YES	YES
OVER-LOAD PROTECTION	YES	YES	YES	YES	YES
SHORT CIRCUIT OUTPUT PROTECTION	YES	YES	YES	YES	YES
VOLTAGE INPUT PROTECTION	YES	YES	YES	YES	YES
DIMENSIONS LXWXH (INCHES/MM)	8.66 x 5 x 187" 220 X 127 X 47.5MM	7.08 x 5 x 187" 180 X 127 X 47.5MM	9.21 x 5 x 187" 234 X 127 X 47.5MM	11 x 5 x 187" 280 X 127 X 47.5MM	11 x 5 x 187" 280 X 127 X 47.5MM
HEATSINK LENGTH	7.59" / 193MM	6" / 153MM	8.97" / 228MM	9.96" / 253MM	9.96" / 253MM



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