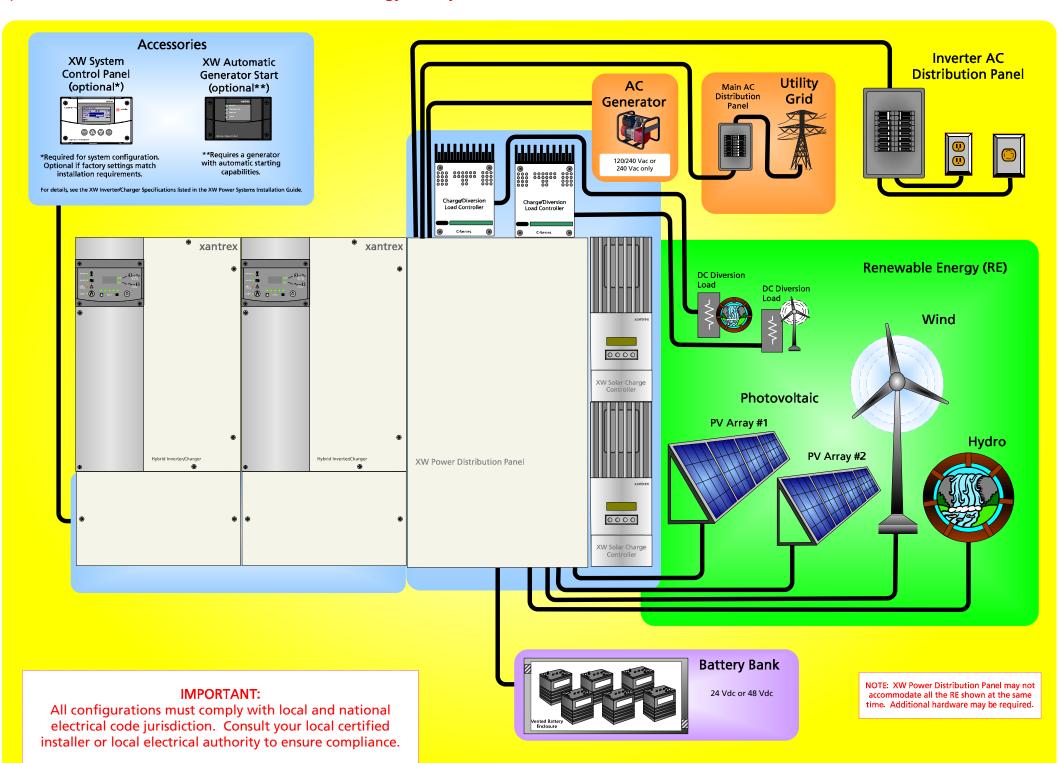
XW Power System - Installation Overview



Important: This overview is NOT intended to replace the XW Power System Installation Guide. BE SURE TO READ THE INSTALLATION GUIDE FOR PROPER INSTALLATION INSTRUCTIONS. Installation of this equipment should only be performed by skilled personnel such as qualified electricians and Certified Renewable Energy (RE) System Installers.



Installation Overview:

The following information is a list of basic steps required to install an XW Inverter/Charger. Actual installation procedures will vary depending upon the configuration of the intended system. This Overview is provided for information only. Consult the XW Power System Installation Guide for specific installation instructions.

1. Mount the inverter/charger and supporting components.

- Plan the safe location and wiring routes for all components involved.
- Be sure the mounting surface is strong enough to support the weight of all the equipment.
- Be sure all wiring will safely handle the desired loads/current.
- Install the XW Conduit Box and XW Power Distribution Panel (if required).

2. Prepare the Energy Storage (Battery) Bank.

- Select battery type, size, and battery bank configuration (Series, Parallel or Series-Parallel).
- Connect appropriate cabling, DC disconnects, and over-current protection.
 See the Application Note Battery Banks for Inverter Systems on the Xantrex website (www.xantrex.com).

3. Install the renewable energy sources (if used).

- Photovoltaic sources (Solar) Includes the PV panels, combiner boxes (if used), DC Disconnects with ground fault protection (PVGFP) if needed and DC Controller.
- Wind/hydro sources Includes the hydro/wind generator, DC Disconnects, Load Controller, and Diversion Load.

4. Install the AC or DC generator (if used).

- Install an AC generator for AC load backup or battery charging.
- Install a DC generator for DC loads or battery charging.

5. Prepare the system grounds.

- Ensure there is only one (1) neutral-to-ground bond.
- Ensure the system is properly grounded and has all appropriate system protection.
- Ensure multiple ground rods (if used) are bonded together.

6. Install any accessories needed.

- > XW System Control Panel
- XW Solar Charge Controller
- Xanbus Network CablesAuxiliary Power Supply or RPO Switch
- > XW Automatic Generator Start
- ➤ AC Sync Cables

7. Connect the Energy Storage bank to the inverter/charger.

- Connect the Negative Cable from the DC Disconnect to the DC Negative (–) terminal on the Inverter.
- Connect the Positive Cable from the DC Disconnect to the DC Positive (+) terminal on the inverter.

8. Connect the inverter/charger to the Inverter AC Distribution Panel and house loads.

Connect the AC OUT of the inverter/charger to the Inverter AC Distribution Panel supporting the house loads.

9. If power is available from a local utility grid:

Connect the input from the local utility grid.

10. Configure specific system parameters.

▶ Use the XW System Control Panel or the Xantrex computer-based XW Configuration Tool.

See the XW Operation Guide for detailed instructions on configuring system parameters.

XW Inverter/Charger – Basic Menu Map

xantrex

XW6048 00: Meters

20.8A

0.0A

1200W

5.0A

31.7A

[Disabled]

[Standby]

[Enabled]

[Disabled]

[200Ah]

[100%]

[AC1]

[60A]

[30A]

[3-Stage]

[Operating]

XW6048 00: Device Info

View Warning Log

XW6048 00: Basic

Batt Type

Batt Capacity

Max Chg Rate

Charge Cycle

AC Priority

AC1 Breaker

AC2 Breaker

ReCharge Volts

Grid Supp Volts [53.0V]

Low Batt Cut Out [44.0V]

View Fault Log

View Event Log

0.0V

120V

57.40

AC1 in L1

AC1 in L2

AC2 in L1

AC2 in L2

Load I1

Load L2 State

XW6048 00: Setup

Clear Faults/Warnin View Device Info

XW6048 00:Setup

Or....

Or....

Charger

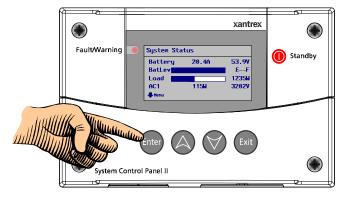
Force Cho

Equalize

Equalize

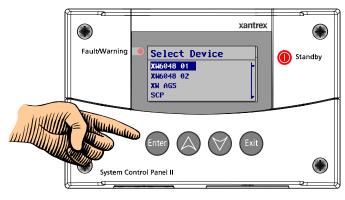
Use the XW System Control Panel to select basic features and functions.





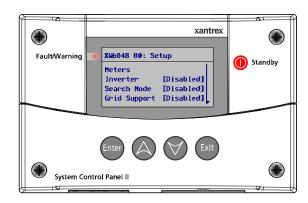
From the System Home Screen, press ENTER to access the Device List.

Select Device Screen

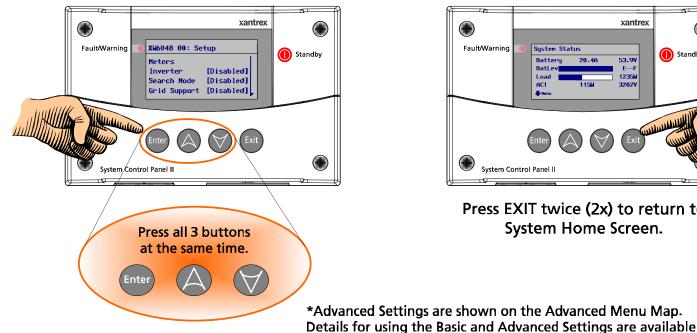


From the Device List, press ENTER to select the device.

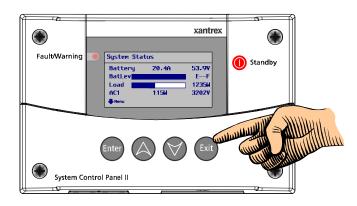
Basic Setup Menu





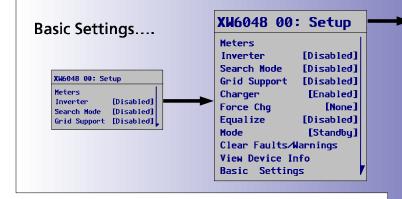


Return to the System **Home Screen**

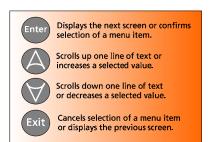


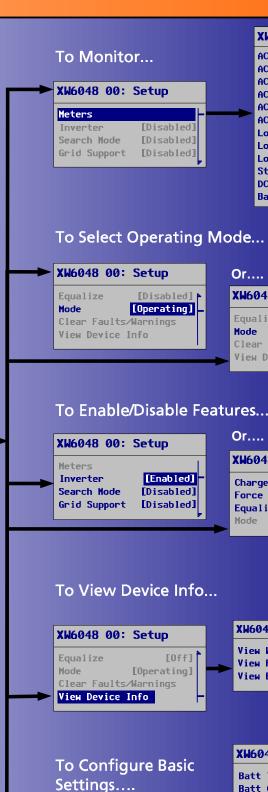
Press EXIT twice (2x) to return to System Home Screen.

in the XW Operation Guide.



To Navigate within the menus or change settings....





XW6048 00: Setup

Clear Faults/Warnings

/iew Device Info

Basic Settings

XW Inverter/Charger – Advanced Menu Map

xantrex

IMPORTANT:

damage the attached equipment.

[64.0V]

[57.6V] [54.0V]

[120min]

ActiveLvl [Active High]

Clear Level

Clear Delay

[1 sec]

[48.0V]

[1 sec]

DC Copp

AC Out

AC1

ActiveLvl [Active High]

XW6048 00: Multi

Inv Mode[SplitPhMaster]

Tria Src

Trigger Level

Trigger Delay

Clear Level

Clear Delay

Connections

[LowBattV]

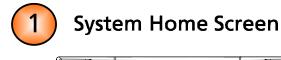
[48.0V]

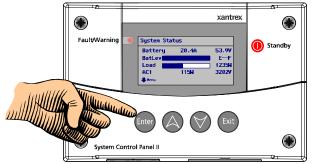
[1 sec]

EXW1 T

[00]

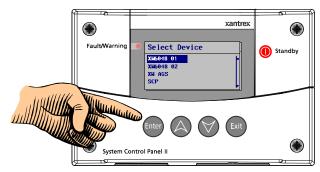






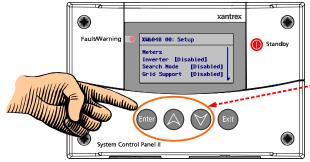
From the System Home Screen, press ENTER to access the Device List.

Select Device Screen

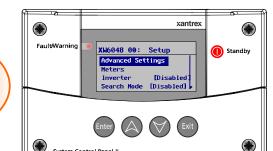


From the Device List, press ENTER to select the device.

To switch between Basic and **Advanced Setup Menus**

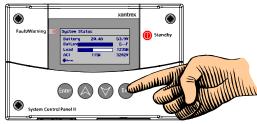




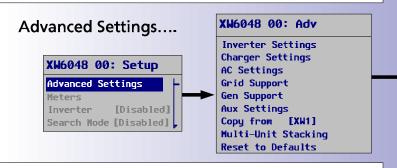


Advanced Setup Menu

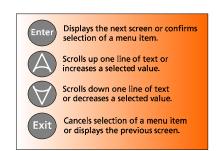
Return to the **System Home Screen**



Press EXIT twice (2x) to return to System Home Screen.



To Navigate within the menus or change settings....



XW6048 00: Inv XW6048 00: Adv OW Batt Cut Dut [44.0V] Adjustment to these configuration settings should BCO Delay Inverter Settings be done by a qualified installer. Misadjustment of Charger Settings Hi Batt Cut Out [64.0V] these settings could create a safety hazard or **AC Settings** Search Watts [50.0W] **Grid Support** Search Delay [2s] XW6048 00: Chg XW6048 00: Adv Inverter Settings Custom Settings Charger Settings Batt Capacitu [200Ah] Max Chg Rate [100%] **Grid Support** Charge Cycle [3-Stage] DefaultBattTemp [Warm] ReCharge Volts [50.0V] XW6048 00: Adv **XW6048 00: Custom** Absorb Time [120min] **Inverter Settings** Eglz Support ChgBlockStart [04:00PM] Charger Settings Eqlz Voltage AC Settings ChgBlockStop [09:00PM] Bulk Voltage XW6048 00: AC Absorb Time BattTempComp [108mV/K] AC Priority [AC1] XW6048 00: Adv [60A] Inverter Settinas AC1 Lo Volt Charger Settings AC1 Hi Volt [132V] AC Settings AC1 Lo Freq [55Hz] Grid Support AC1 Hi Freq [65Hz] AC2 Breaker AC2 Lo Volt [106V] XW6048 00: Adv [132V] AC2 Hi Volt Gen Support AC2 Lo Freq [55Hz] AC2 Hi Freq Copy from [XW1] Multi-Unit Config XW6048 00: Grid Grid Supp Volts [53.0V] [Disabled] XW6048 00: Adv Aux Settings Load Shave Amps Multi-Unit Config LoadShaveStart[04:00PM] LoadShaveStop [09:00PM] XW6048 00: Adv XW6048 00: Gen Gen Support GenSup Mode [Disabled] **Aux Settings** GenSup Amps Copy from [XW1] XW6048 00: Aux XW6048 00: Aux Manual Aux [ManualOff]

XW6048 00: Adv

Copy from [XW1]

Multi-Unit Config

XW6048 00: Adv

Copy from [XW1]

Multi-Unit Config

Restore Defaults

Aux Settinas

Gen Support

Aux Settings

[ACLoad1]

[Grid 1]

Clear Level

Trigger Delay

XW6048 00: Aux

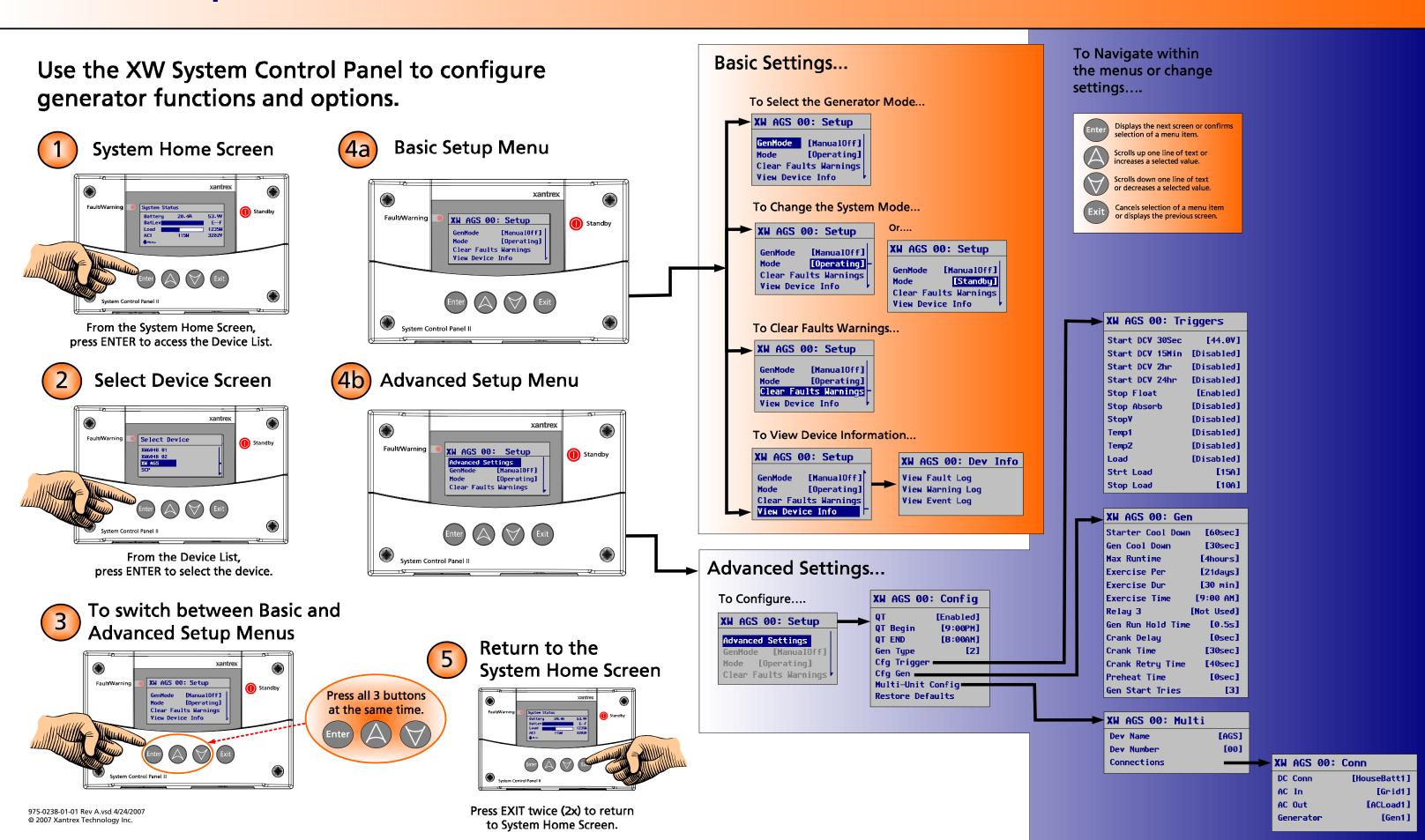
ActiveLvl [Active High]

[1 sec]

[48.0V]

Menu Map for XW Automatic Generator Start



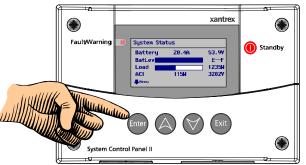


Menu Map for XW Solar Charge Controller

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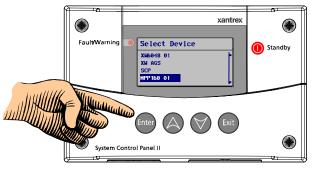






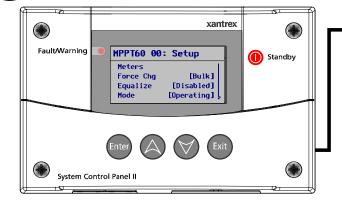
From the System Home Screen, press ENTER to access the Device List.

Select Device Screen

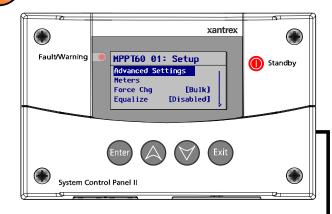


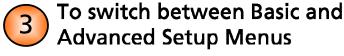
From the Device List, press ENTER to select the device.

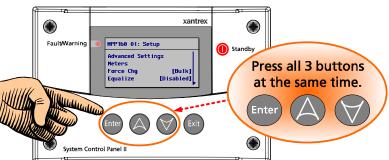
4a Basic Setup Menu



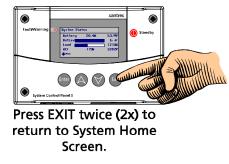
4b Advanced Setup Menu

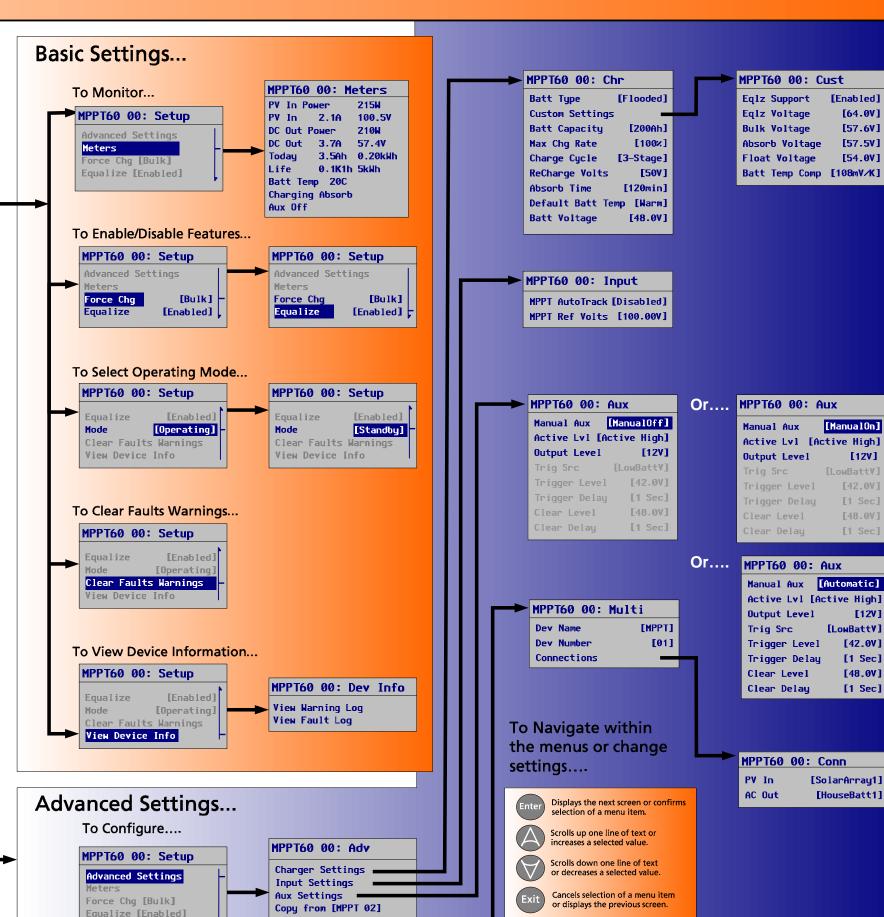






Return to the System Home Screen

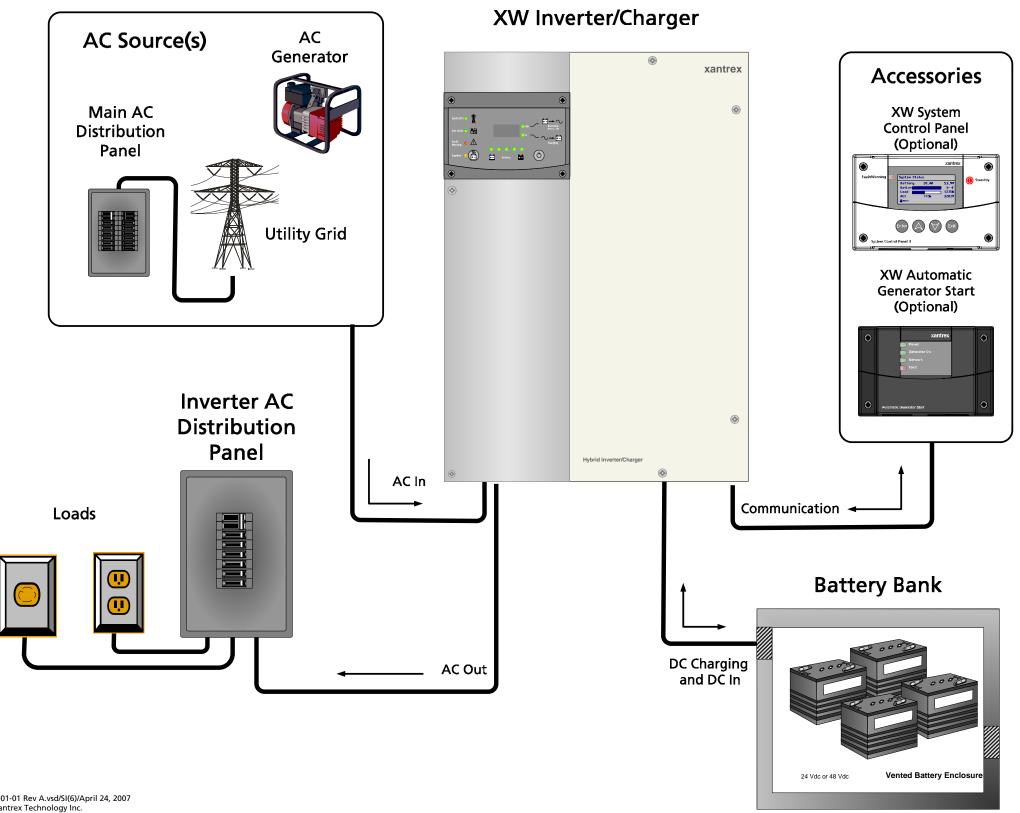




Multi Unit Config
Restore Defaults

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Single-Inverter System



Xantrex Supplied Components:

- •XW Inverter/Charger includes
- Mounting Plate
- Battery Temperature Sensor
- Xanbus Network Terminator
- •XW System Control Panel (optional)
- Communication Cable (Category 5) (7ft) (2.1m)
- •XW Conduit Box (optional) (not shown)
- •XW Automatic Generator Start (optional)

Customer Supplied Components:

- •Battery Bank (24 Vdc or 48 Vdc)
- •Generator and/or Grid Connection
- •Inverter AC Distribution Panel to Loads
- •All wiring and cabling
- •Communication Cable (Category 5) for XW System Control Panel and/or XW Automatic Generator Start (If used)
- •All breakers for loads and peripheral disconnects (e.g., generator disconnect)

IMPORTANT:

All configurations must comply with local and national electrical code jurisdiction. Consult your local certified installer or local electrical authority to ensure compliance.

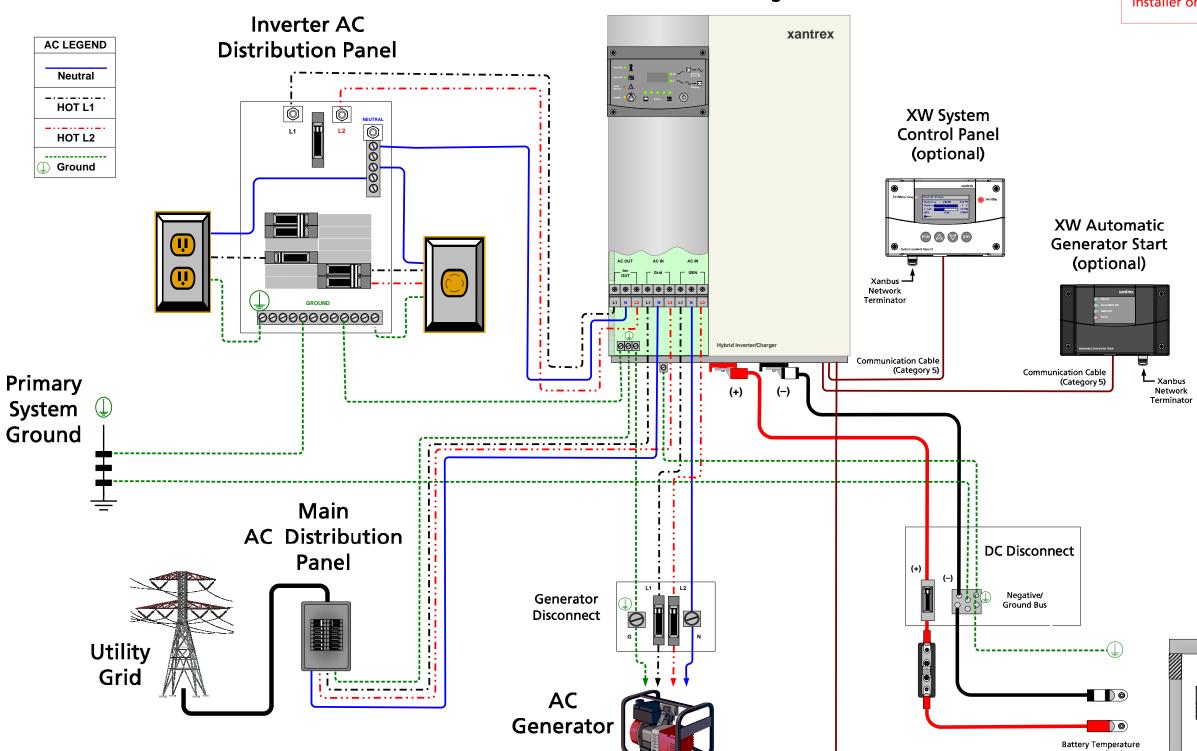
xantrex

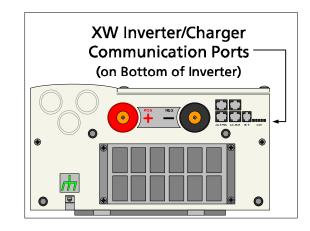
Single-Inverter System Wiring

Inverter/Charger

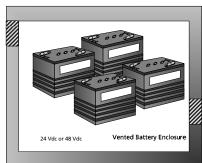
IMPORTANT:

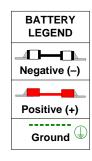
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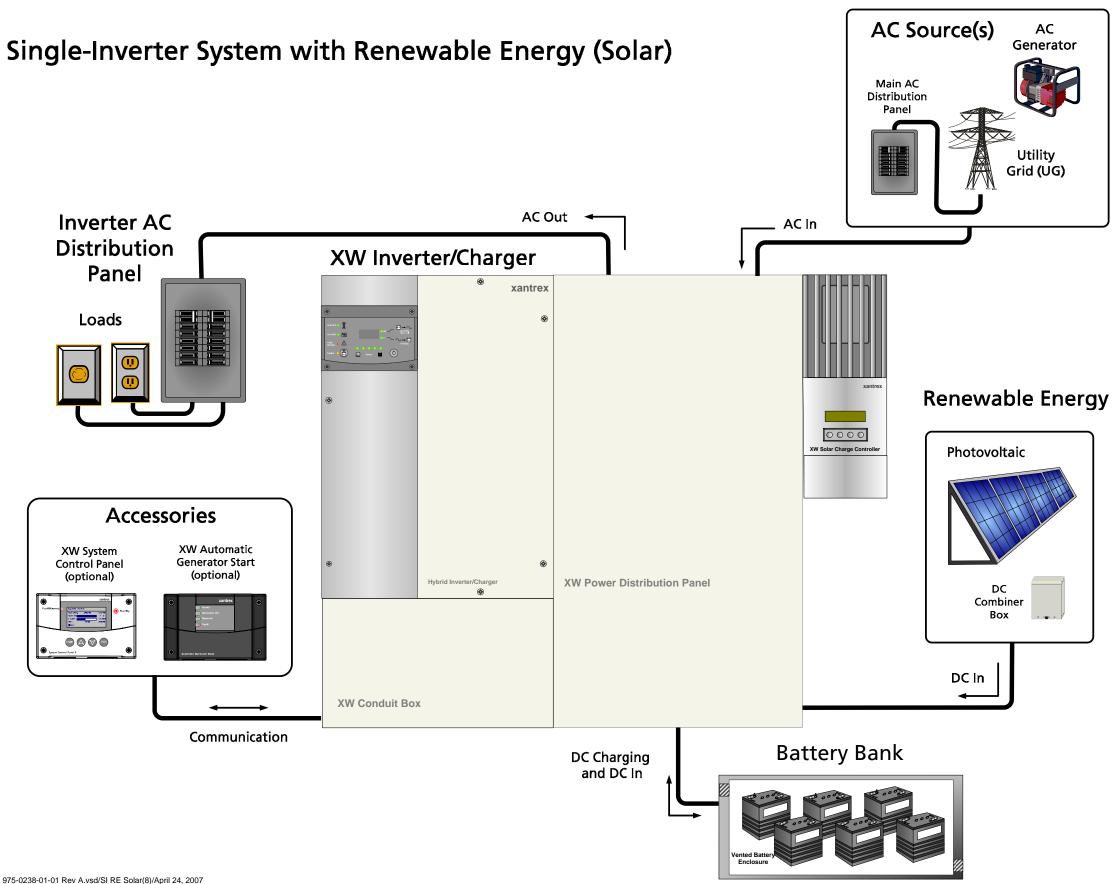


Battery Bank





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Xantrex Supplied Components:

- •XW Inverter/Charger includes
- Mounting Plate
- Battery Temperature Sensor
- Xanbus Network Terminator
- •XW Power Distribution Panel includes
- Mounting Plate
- XW Conduit Box
- three 60A, 120/240 Vac, 2-pole, Square-D type QOU, Din-Rail mounted, AC breakers for Inverter Input, Output, and Bypass
- AC Distribution Bars for simplified panel wiring
- Bypass Interlock
- one Ground Terminal Bus Bar
- one AC Neutral Bus Bar
- #6 AWG AC wiring for inverter connection to breakers
- DC Negative bus bar
- GJ250A DC Breaker with copper bus bar
- one pair #4/0 AWG Battery Cables
- •XW System Control Panel (optional) includes
- Mounting Plate
- Communication Cable (Category 5) (7ft) (2.1m)
- Xanbus Network Terminator
- •XW Solar Charge Controller includes
- Battery Temperature Sensor
- Xanbus Network Terminator
- •XW Automatic Gen Start (optional) includes
- Wiring Harness
- Xanbus Network Terminator

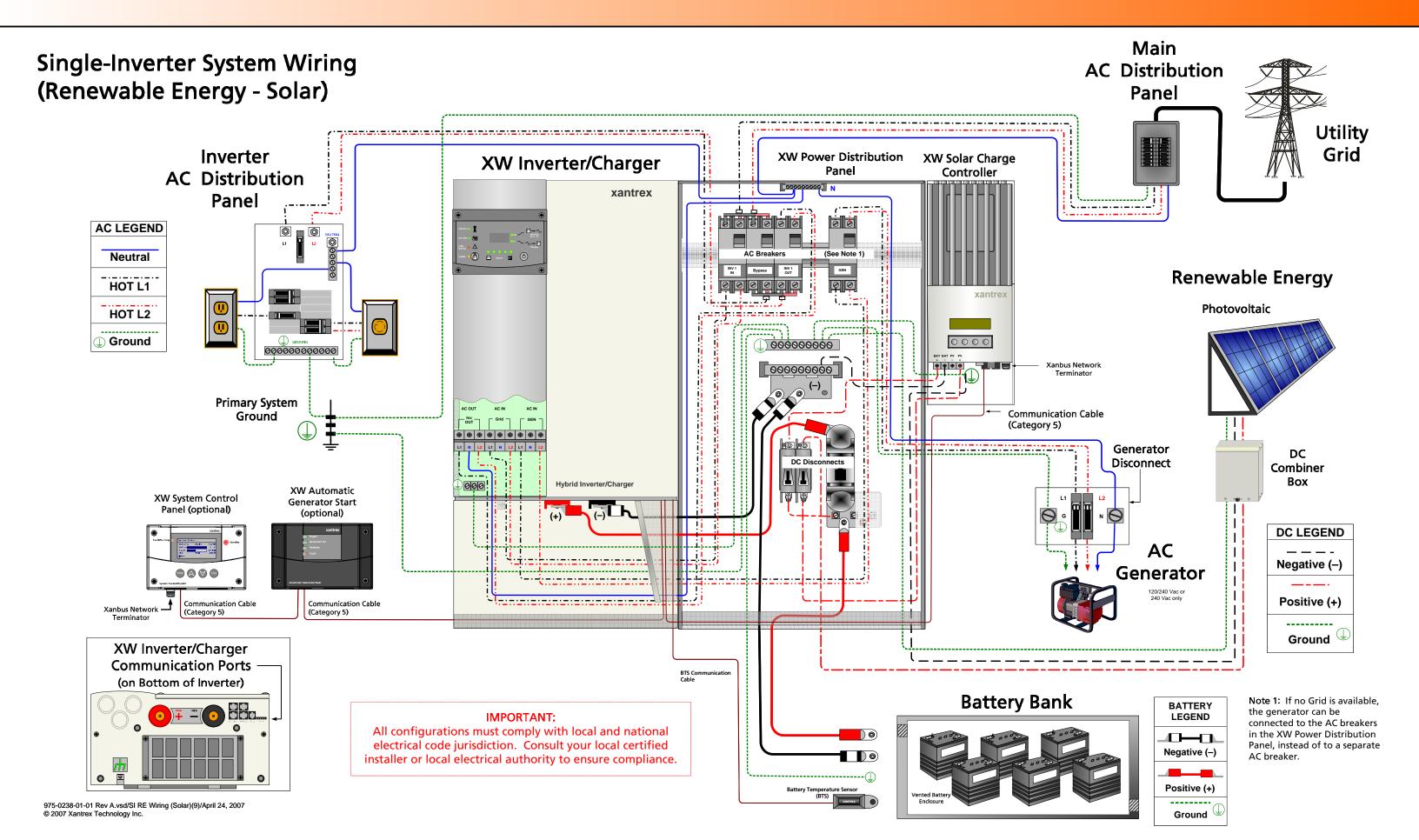
Customer Supplied Components:

- Battery Bank (24 Vdc or 48 Vdc)
- Generator and/or Grid Connection
- Solar Panels and associated cabling
- DC Combiner Boxes (may or may not be required)
- Inverter AC Distribution Panel to Loads
- Wiring and cabling to and from the system
- Communication Cable (Category 5) for XW System Control Panel and/or XW Automatic Generator Start (If used)
- All breakers for loads and peripheral disconnects (e.g., generator disconnect)

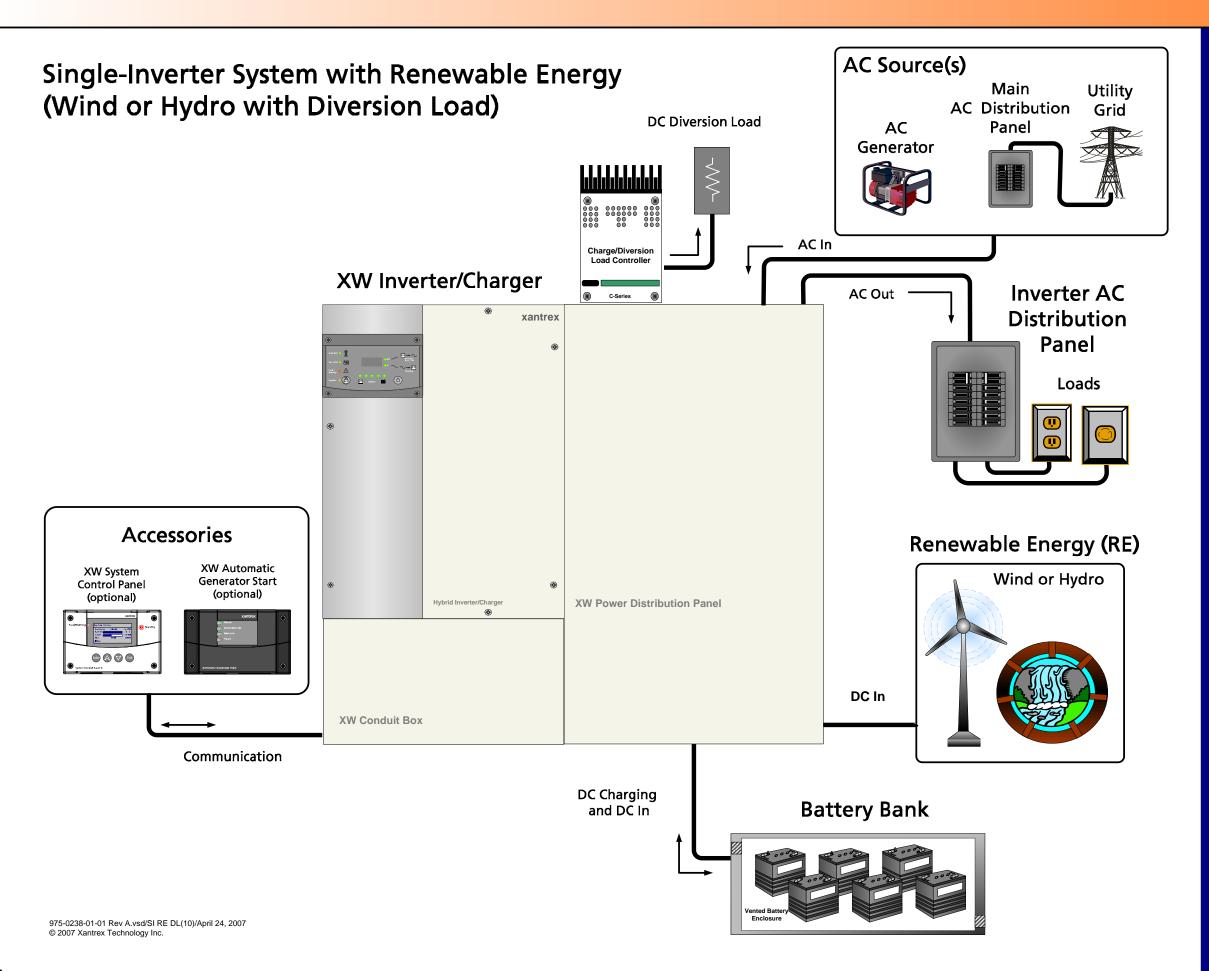
IMPORTANT:

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Xantrex Supplied Components:

- •XW Inverter/Charger includes
- Mounting Plate
- Battery Temperature Sensor
- Xanbus Network Terminator
- •XW Power Distribution Panel includes
- Mounting Plate
- XW Conduit Box
- three 60A, 120/240 Vac, 2-pole, Square-D type QOU, Din-Rail mounted, AC breakers for Inverter Input, Output, and Bypass
- AC Distribution Bars for simplified panel wiring
- Bypass Interlock
- one Ground Terminal Bus Bar
- one AC Neutral Bus Bar
- #6 AWG AC wiring for inverter connection to breakers
- DC Negative bus bar
- GJ250A DC Breaker with copper bus bar
- one pair #4/0 AWG Battery Cables
- •C Series Charge Controller for Diversion Load Control
- •XW System Control Panel (optional) includes
- Mounting Bracket
- Communication Cable (Category 5) (7ft) (2.1m)
- Xanbus Network Terminator
- •XW Automatic Generator Start (optional) includes
- Wiring Harness
- Xanbus Network Terminator

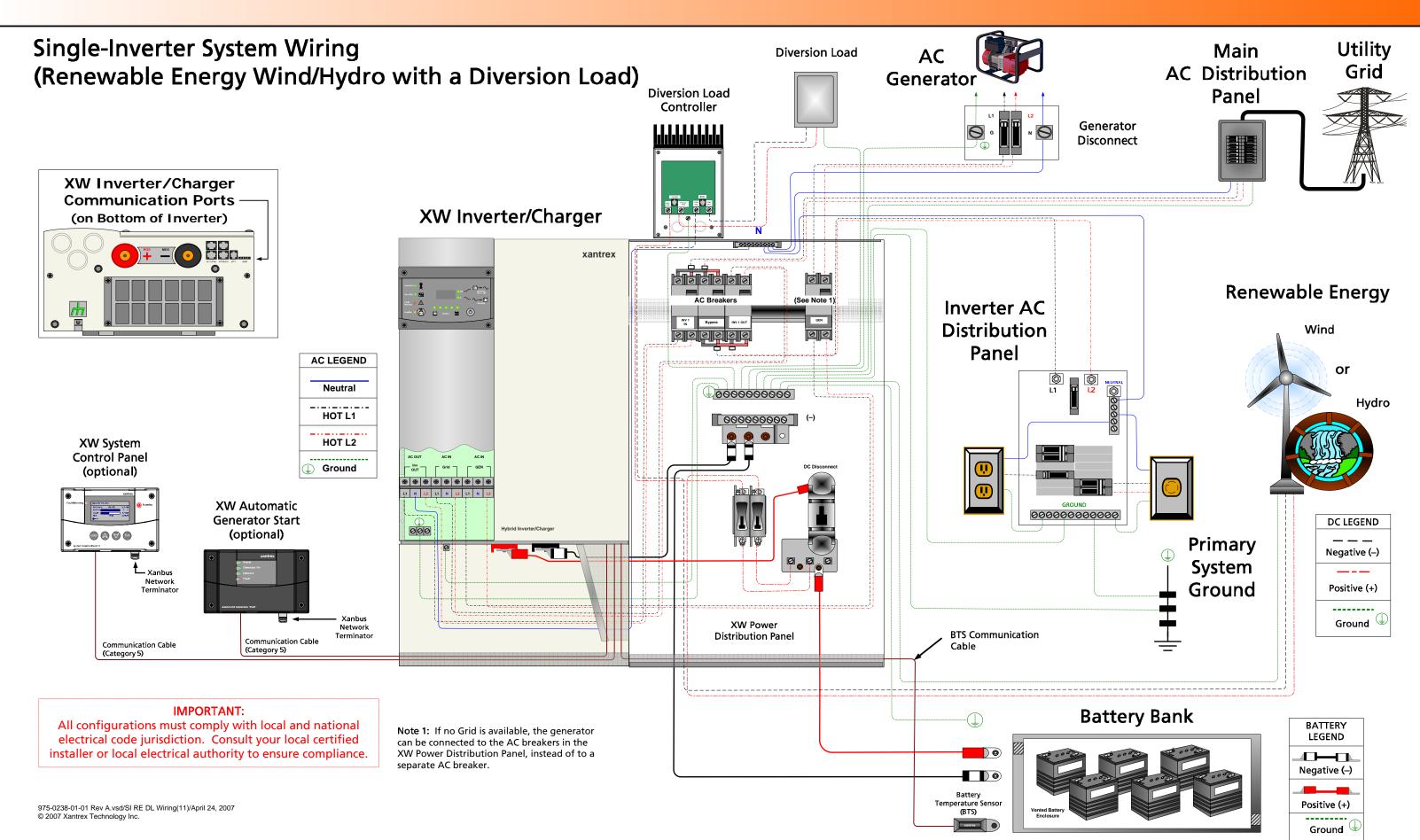
Customer Supplied Components:

- Battery Bank (24 Vdc or 48 Vdc)
- Generator and/or Grid Connection
- Wind or Hydro Turbines and associated cabling
- Diversion Load and associated wiring
- •Inverter AC Distribution Panel to Loads
- •Wiring and cabling to and from the system
- •Communication Cable (Category 5) for XW System Control Panel and/or
- XW Automatic Generator Start (If used)
- •All breakers for loads and peripheral disconnects (e.g., generator disconnect)

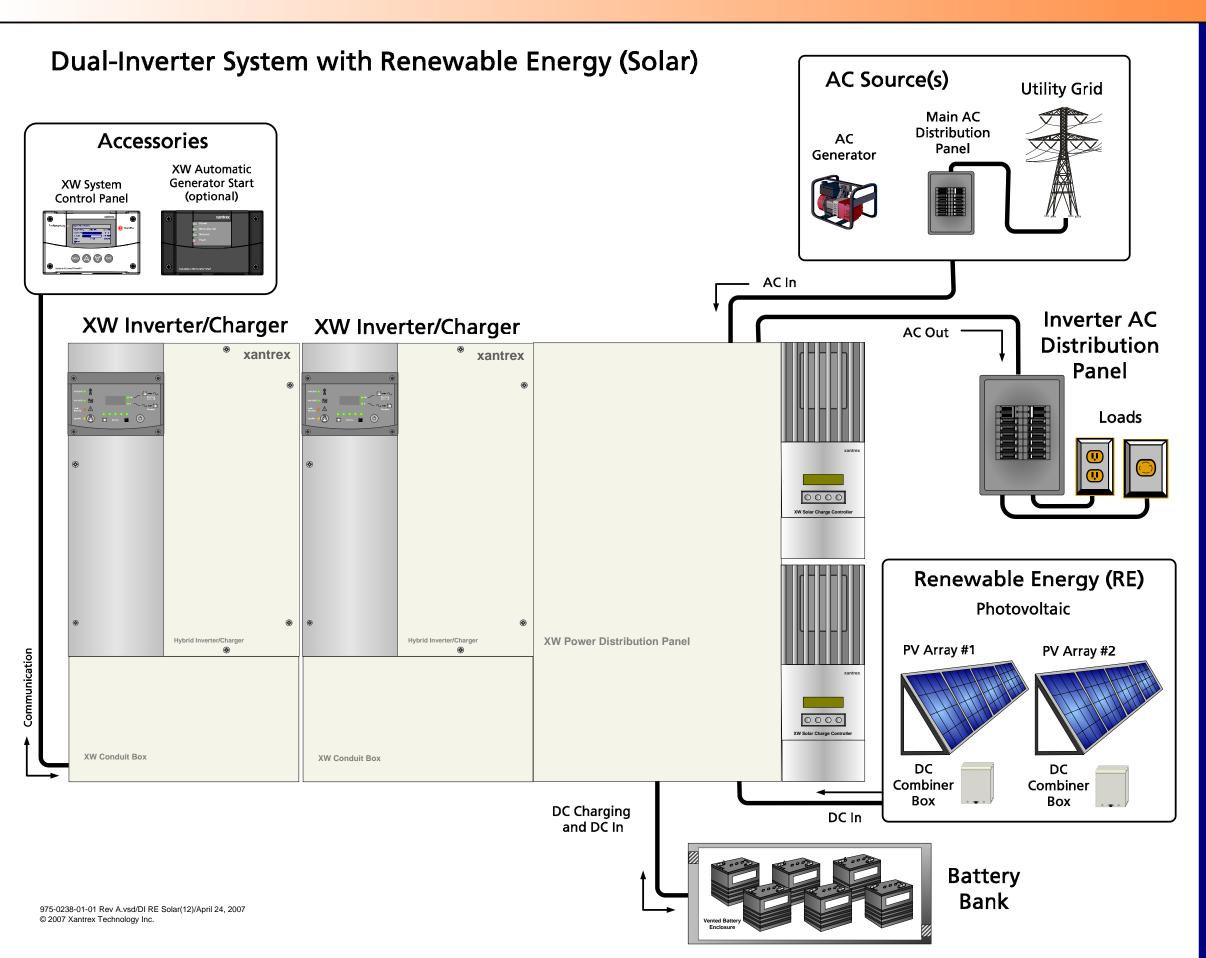
IMPORTANT:

All configurations must comply with local and national electrical code jurisdiction. Consult your local certified installer or local electrical authority to ensure compliance.









Xantrex Supplied Components:

- XW Inverter/Charger includes
- Mounting Plate
- Battery Temperature Sensor
- Xanbus Network Terminator
- XW Power Distribution Panel includes
- Mounting Plate XW Conduit Box
- three 60A, 120/240 Vac, 2-pole, Square-D type QOU, Din-Rail mounted, AC breakers for Inverter Input, Output, and Bypass
- AC Distribution Bars for simplified panel wiring
- Bypass Interlock
- one Ground Terminal Bus Bar
- one AC Neutral Bus Bar
- #6 AWG AC wiring for inverter connection to breakers
- DC Negative bus bar
- GJ250A DC Breaker with copper bus bar
- one pair #4/0 AWG Battery Cables

• XW Connection Kit for Inv2 includes

- XW Conduit Box for second XW Inverter
- three 60A, 120/240 Vac, 2-pole, Square-D type QOU, Din-Rail mounted,
- AC Breakers for Inverter Input, Output, and Bypass
- AC Distribution Bars for simplified panel wiring
- Bypass Interlock for dual inverter/chargers
- #6 AWG AC wiring for inverter connection to breakers
- one GJ250A DC Breaker with copper bus bar
- two Communication Cables (for Xanbus networking and AC Sync)
- one pair #4/0 AWG Battery Cables for second Inverter
- XW Solar Charge Controller includes
- Battery Temperature Sensor
- Xanbus Network Terminator

• XW System Control Panel includes

- Mounting Bracket
- Communication Cable (Category 5) (7ft) (2.1m)
- Xanbus Network Terminator
- XW Automatic Generator Start (optional) includes
- Wiring harness
- Xanbus Network Terminator

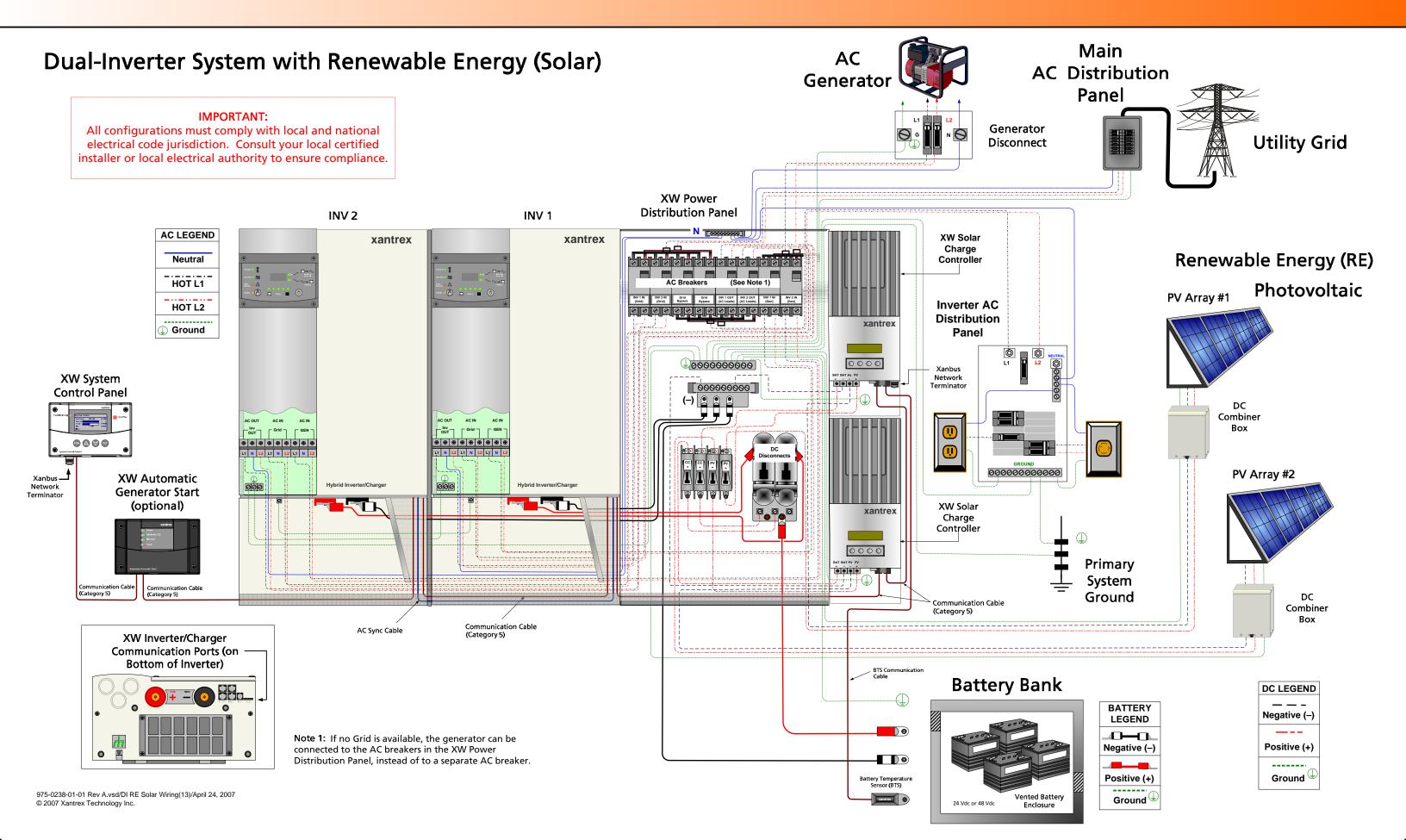
Customer Supplied Components:

- Battery Bank (24 Vdc or 48 Vdc)
- Generator and/or Grid Connection
- Solar Panels and associated cabling
- DC Combiner Boxes
- (may or may not be required)
- Inverter AC Distribution Panel to Loads
- Wiring and cabling to and from the system
- Communication Cable (Category 5) for Inverter Stacking
- Communication Cable (Category 5) for XW System Control Panel and/or XW Automatic Generator Start (If used)
- All breakers for loads and peripheral disconnects (e.g., generator disconnect)

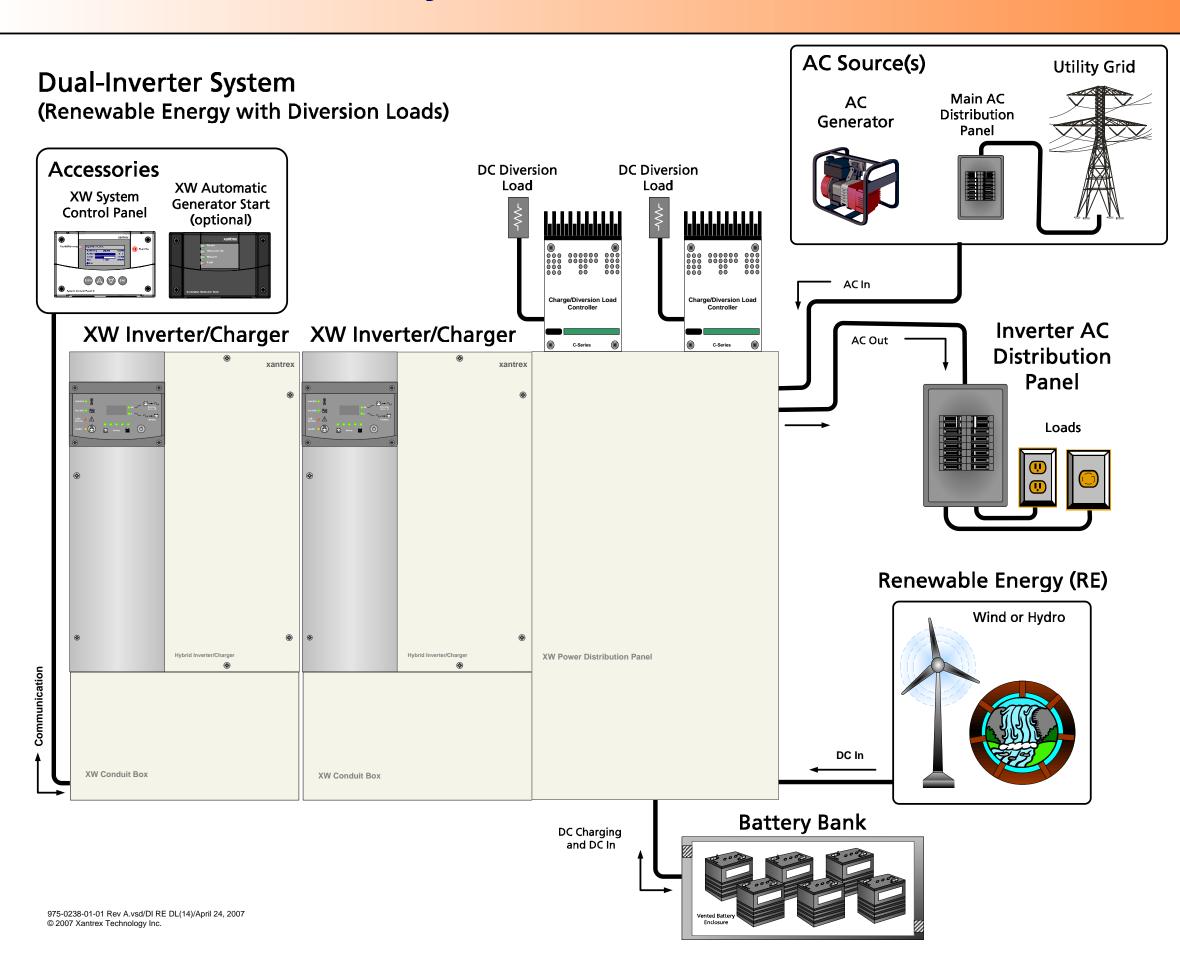
IMPORTANT:

All configurations must comply with local and national electrical code jurisdiction. Consult your local certified installer or local electrical authority to ensure compliance.









Xantrex Supplied Components:

- XW Inverter/Charger includes
- Mounting Plate
- Battery Temperature Sensor
- Xanbus Network Terminator
- XW Power Distribution Panel includes
- Mounting Plate
- XW Conduit Box
- three 60A, 120/240 Vac, 2-pole, Square-D type QOU, Din-Rail mounted, AC breakers for Inverter Input, Output, and Bypass
- AC Distribution Bars for simplified panel wiring
- Bypass Interlock
- one Ground Terminal Bus Bar
- one AC Neutral Bus Bar
- #6 AWG AC wiring for inverter connection to breakers
- DC Negative bus bar
- GJ250A DC Breaker with copper bus bar
- one pair #4/0 AWG Battery Cables
- XW Connection Kit for Inv2 includes
- XW Conduit Box for second XW Inverter
- three 60A, 120/240 Vac, 2-pole, Square-D type QOU, Din-Rail
- AC Breakers for Inverter Input, Output, and Bypass
- AC Distribution Bars for simplified panel wiring
- Bypass Interlock for dual inverter/chargers
- #6 AWG AC wiring for inverter connection to breakers
- one GJ250A DC Breaker with copper bus bar
- two Communication Cables (for Xanbus networking and AC Sync) - one pair #4/0 AWG Battery Cables for second Inverter
- XW System Control Panel includes
- Mounting Bracket
- Communication Cable (Category 5) (7ft) (2.1m)
- - Xanbus Network Terminator
- XW Solar Charge Controller includes
- Battery Temperature Sensor
- Xanbus Network Terminator
- XW Automatic Generator Start (optional) includes
- Wiring Harness
- Xanbus Network Terminator

Customer Supplied Components:

- Battery Bank (24 Vdc or 48 Vdc)
- Generator and/or Grid Connection
- Solar Panels and associated cabling
- DC Combiner Boxes
- (may or may not be required)
- Inverter AC Distribution Panel to Loads
- Wiring and cabling to and from the system
- Communication Cable (Category 5) for Inverter Stacking
- Communication Cable (Category 5) for XW System Control Panel and/or
- XW Automatic Generator Start (If used)
- All breakers for loads and peripheral disconnects (e.g., generator disconnect)

IMPORTANT:

All configurations must comply with local and national electrical code jurisdiction. Consult your local certified installer or local electrical authority to ensure compliance.

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