

XPAND SYSTEM

POWER SPECIFICATION GUIDE

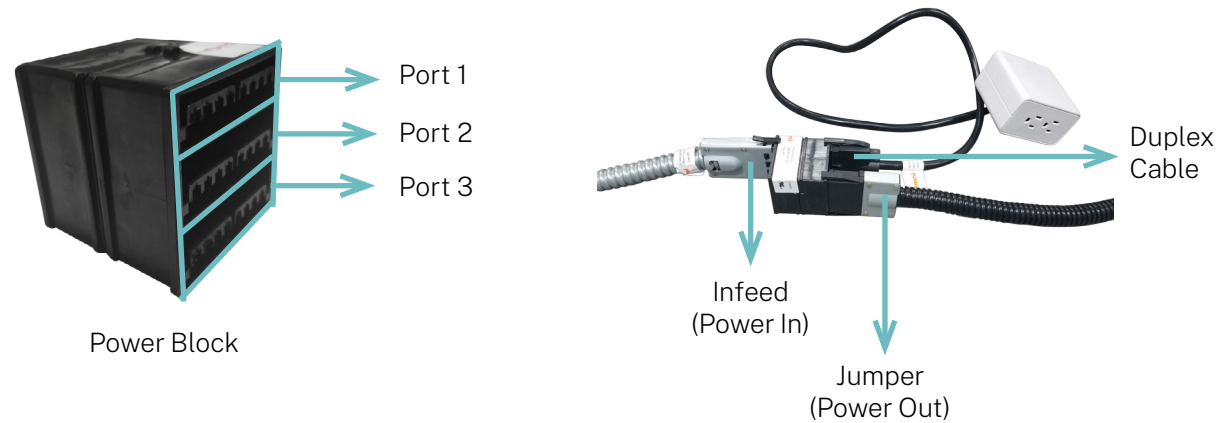
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		Duplex Specification

XPand System offers several power options which are broadly divided into; **XPV1 and XPV2**.

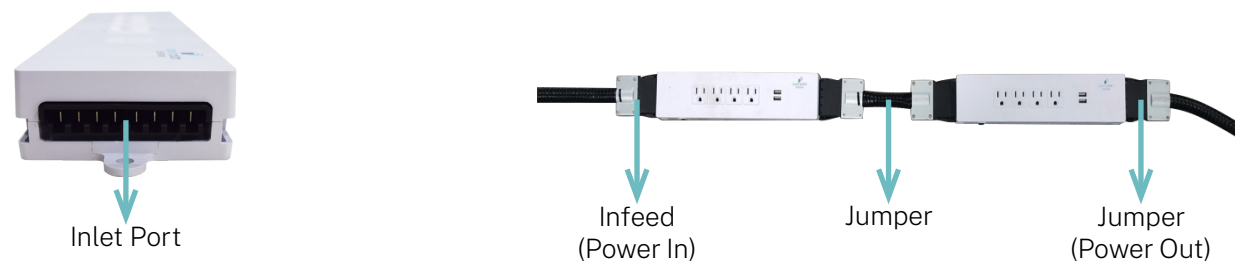
XPV1 (Version-1):

The Version-1 is an older version of power which uses Power Blocks to transfer the power. The Power Blocks acts as a power distribution center which has six (6) ports [three (3) ports on each side, shown in below picture]. The in-feeds and the jumpers are connected to the Power Block for power to transfer, two (2) ports are to be used as power pass through and four (4) can be used for duplex connectors. If the customer needs more than four (4) duplex per bench, more Power Blocks need to be added. Below is the picture of Infeed, Jumper, and Duplex connected to the Power Block:



XPV2 (Version-2):

The Version-2 Power Duplexes have ports installed and have magnetized bottoms, which enables mounting to metal cable trays. Each duplex has an Inlet and Outlet Port to which the Infeed and the Jumpers are connected. No Power Blocks are used in Version 2 power. The Version 2 Duplexes (except for the Desk Mount Duplex) have four (4) GFCI outlet inputs and are available with/without USB ports. Below is the picture of Version 2 Duplex assembly:



Notes:

1. When either power versions are used, other power parts like the Infeed power, Jumpers and the Duplexes should be of the same version. For example: If Version-1 power is used, all other supporting power parts should be of Version-1. Version-1 parts cannot be assembled with the Version-2 parts.
2. The XPand power is designed to power a maximum of **5 amps** per station.

XPand system offers various Infeed power which can be connected to the benching system as: **Base Power or Ceiling Power**

Base Power:

Base power is available in (2) types of circuits; Single Circuit (3-wire) and 4-Circuit (8-wire).

• **XP-PE-Floor-Plug (Single Circuit, 3-wire):**

The XP-PE-Floor-Plug is 80” in length and is used by plugging into the wall. The XP-PE-Floor-Plug can carry maximum of **16 amps** which would be sufficient to power **three (3) Stations at 5 amps each**. If the benching system has more than three (3) pods ganged, it is advised to use XP-PE-8-Wire.

	V1 Power	V2 Power
XPand Part #	XP-PE-Floor-Plug	XP-PE-Floor-Plug-1

Note:

When 3-Wire is specified, **only Circuit-1 Duplexes** should be used. When Version-1 power is used, 3-Wire Jumpers should be used (e.g: XP-PWRXX-S). Version-2 Jumpers are universal and can be used for both Single Circuit and 4-Circuit.

• **XP-PE-8-Wire (4-Circuit, 8-wire):**

The XP-PE-8-Wire is a 4-Circuit whip, 80” in length and is connected to the building wiring. The one (1) XP-PE-8-Wire can carry a maximum of **64 amps** which should be sufficient to power twelve (**12**) Stations (pod of 12). If there are more than twelve (12) stations ganged, it is advised to use more than one (1) XP-PE-8-Wire.

	V1 Power	V2 Power
XPand Part #	XP-PE-8-Wire	XP-PE-Wire-1

Ceiling Power (4-Circuit, 8-Wire):

The XP-PE-Ceiling is a 4-Circuit whip which is 144” in length and has same wiring as XP-PE-8-Wire except the wiring is connected to the ceiling power.

	V1 Power	V2 Power
XPand Part #	XP-PE-Ceiling	XP-PE-Ceiling-1

Power Jumpers are used to transfer power from one station to another. XPand System offers Power Jumpers in Version-1 and Version-2 in different lengths.

Version-1:

There are two (2) types of Jumpers available in Version-1, 3-Wire Jumpers and 8-Wire Jumpers.

• **3-Wire Jumpers:**

These Jumpers need to be used when a Single Circuit Infeed (XP-PE-Floor-Plug) is specified. Below is the list of XPand Jumpers, their lengths and part numbers:

XPand Part #	XP-PWR24-S	XP-PWR30-S	XP-PWR36-S	XP-PWR42-S	XP-PWR48-S	XP-PWR60-S	XP-PWR72-S
Jumper Length (in)	23.5	29.5	35.5	41.5	47.5	59.5	71.5

• **8-Wire Jumpers:**

These Jumpers are used when 8-Wire Infeed (XP-PE-8-Wire/XP-PE-Ceiling) is specified. Below is the list of XPand Jumpers, their lengths and part numbers:

XPand Part #	XP-PWR24	XP-PWR30	XP-PWR36	XP-PWR42	XP-PWR48	XP-PWR60	XP-PWR72
Jumper Length (in)	23.5	29.5	35.5	41.5	47.5	59.5	71.5

Version-2:

Version-2 Jumpers are Universal Jumpers and can be used for both 3-wire and 8-wire Infeeds.

XPand Part #	XP-PWR6-1	XP-PWR24-1	XP-PWR30-1	XP-PWR36-1	XP-PWR42-1	XP-PWR48-1	XP-PWR60-1	XP-PWR72-1
Jumper Length (in)	8.5	26.5	32.5	38.5	44.5	50.5	62.5	74.5

XPand Systems offers Duplexes in Version-1 and Version-2.

Version-1 Duplex:

Version-1 Duplex is available in four (4) different circuits. The circuit type is identified by the Roman numeral inscribed on the end of the chord. All the Version-1 Duplexes have (2) GFCI outlets Inputs and are available with/without USB port. These duplexes are also available with plug (XP-Duplex-P/XP-Duplex-USB-P).



XP-Duplex-X-USB (with USB)



XP-Duplex-X (without USB)

The Version-1 Duplexes can be mounted as a Desk Mount or Cable Tray Mount:



Desk Mount Duplex



Cable Tray Mount Duplex

To use as a Desk Mount, the duplex is mounted to XP-Duplex-Clamp (Duplex Clamp) and is assembled to the Work Surface using **four (4) Wood Screws**. To mount the duplex to the cable tray, XP-CTM (Cable Tray Mount Bracket) is used, which mounts the duplex on to the cable tray. Below is the list of Version-1 Duplexes, their chord length, circuit types and the mounting type:

XPand Part # (Without USB)	XPand Part # (With USB)	Chord Length (in)	Circuit Type	Mounting Type
XP-Duplex-I	XP-Duplex-I-USB	42	I	Desk Mount/ Cable Tray Mount
XP-Duplex-II	XP-Duplex-II-USB	42	II	Desk Mount/ Cable Tray Mount
XP-Duplex-III	XP-Duplex-III-USB	42	III	Desk Mount/ Cable Tray Mount
XP-Duplex-IV	XP-Duplex-IV-USB	42	IV	Desk Mount/ Cable Tray Mount
XP-Duplex-P	XP-Duplex-USB-P	72	-	Desk Mount/ Cable Tray Mount

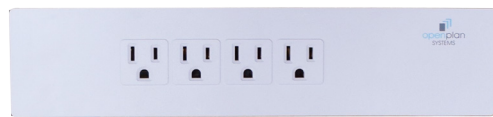
Notes:

1. Since duplex with plug (XP-Duplex-P/XP-Duplex-USB-P) have longer chords, they should be used as the Desk Mount Duplex for the Height Adjustable Stations, other duplexes should not to used due to low chord length.
2. The Version-1 Duplex Clamps are secured to the work surface using **Screw** attachment.

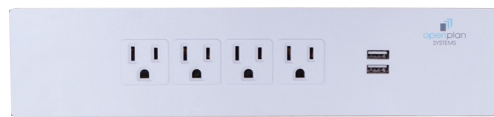
Version-2 Duplex:

Version-2 Duplexes are rectangular power strips which are 10.75” long and have a magnetized base. This magnetic base attaches the duplex to the metal cable trays. The duplexes are available in four (4) different circuits. The circuit type is identified by the color of the Inlet/Outlet ports. Below is the list of port color and their circuit type. All the Version-2 Duplexes (except for the duplex plug) have four (4) GFCI power outlet inputs and are available with/without USB port. Below is the list of Version-2 Duplexes their circuit types and the mounting type:

XPand Part # (Without USB)	XPand Part # (With USB)	Circuit Type	Mounting Type
XP-Duplex-I-1	XP-Duplex-I-USB-1	I	Cable Tray Mount
XP-Duplex-II-1	XP-Duplex-II-USB-1	II	Cable Tray Mount
XP-Duplex-III-1	XP-Duplex-III-USB-1	III	Cable Tray Mount
XP-Duplex-IV-1	XP-Duplex-IV-USB-1	IV	Cable Tray Mount
-	XP-Duplex-USB-P-1	-	Desk Mount



XP-Duplex-X-I (without USB)



XP-Duplex-X-USB-I (with USB)



XP-Duplex-USB-P-I (Available only with USB)

Port Color	Circuit Type
Black	I
Blue	II
Red	III
Green	IV

Notes:

1. All the Version-2 Duplexes (except for the duplex plug) are Cable Tray Mount Duplexes.
2. XP-Duplex-USB-P-1 (duplex plug) are available in white and black colors with the USB ports. They can only be used as Desk Top Mount Duplex.
3. The Version-2 Duplex Clamps are secured to the work surface using **Knob** attachment.
4. All the duplexes with plug (both Version-1 and Version-2) can be used with either power versions.

Duplex Version-1 vs Version 2:

S. No	Version-1	Version-2
1	Takes more time to assemble the power, since there are more parts	Has less parts and easy to assemble
2	More wiring	Looks good and clean

Duplex Specification:

The XPand System offers 4 types of Duplex Circuits. Each circuit can take a maximum load of 16 amps. In total, four (4) circuits combined can take a load of 64 amps. OPS recommends specifying five (5) amps per station. Depending on the number of stations connected and the type of Infeed used, the circuit type should be considered for each station. Below shows the circuit number and infeed to be used for different “pods” of stations connected together:

Number of Stations Connected	Infeed Type	Number of Infeeds	Total (P) to Stations (Amps)	Duplex Circuit to be Used
1 to 3	3-Wire	1	16	I
4 to 6	8-Wire	1	64	I and II
7 to 9	8-Wire	1	64	I, II, and III
10 to 12	8-Wire	1	64	I, II, III, and IV
13 to 24	8-Wire	2	128	I, II, III, and IV
25 to 36	8-Wire	3	192	I, II, III, and IV



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