

2.0- Power Cables

POWER CABLES/ HARNESSES

Power Cables are the first link in the series of wiring harnesses that bring life to the TRx power positioning systems. Power cables vary in style depending on the power base manufacturer and can also vary for different models of power bases by the same manufacturer. The power cables draw power from the base and deliver it to the individual motors via the relay box and the actuator harness.



2.0- Power Cables



1. TRx Power Cables for Quantum/ Jazzy Powerbases

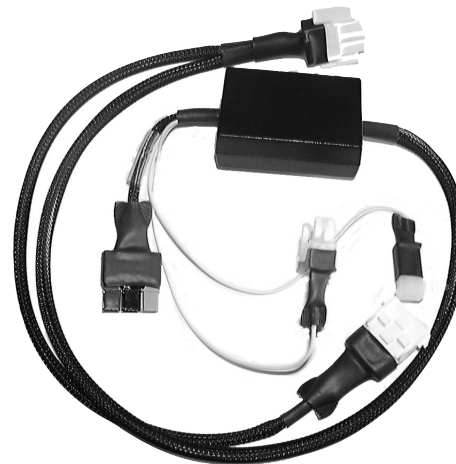
C23X Power Cable

****DISCONTINUED - MAY 2005 ****

Powerbase: Quantum/ Jazzy

Cable Connections:

To install the C23X power cable, the existing connection on the power base, between the ammeter and the charger, must be disconnected. The C23X cable is then plugged into the mating connections on both the ammeter and the charger (completing the circuit). The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.



Warning! The 2 mating molex connections serve **only** as a diagnostic tool in the event of electrical problems. Connecting these two wires will by-pass the drive lockout (DLO) in order to help isolate the source of the problem. Failure to disconnect the by-pass cables following testing poses a serious safety concern.

NOTE: The C23X power cable is a revision (May 2003) to the earlier **C23 Power Cable**. The C23 Cable was connected in exactly the same manner described above for the C23X. The original C23 cable was designed with a separate fuse housing and relay, unlike the enclosed fuse and relay housing box on the newer C23X cable. The original C23 cable was also not equipped with the drive lockout by-pass cables.

C118 Power Cable

NEW! - MAY 2005

Powerbase: Jazzy Powerbases with On-Board Chargers

Cable Connections:

To install the C118 power cable, the existing connection on the powerbase, between the ammeter and the on-board charger, must be disconnected. The C118 cable is then plugged into the mating connections¹ (*in series between the ammeter and the charger*).

Disconnect the base power cable from its port in the powerbase controller. Plug the female connector from the new power cable into the open power cable port in the powerbase PG controller. Connect the male power connector from the new Jazzy power cable into the open connector from the existing base power cable. (*The C118 power cable will be connected "in-series" between the PG controller and the batteries*). The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.



¹**Note:** the C124/C125 Jazzy cable adapters may be required to complete the cable connection- see p.22.

Warning! The 2 mating molex connections serve **only** as a diagnostic tool in the event of electrical problems. Connecting these two wires will by-pass the drive lockout (DLO) in order to help isolate the source of the problem. Failure to disconnect the by-pass cables following testing poses a serious safety concern.

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C66 Power Cable

****DISCONTINUED - MAY 2005 ****

Powerbase: Quantum/ Jazzy

Specific Application: for use with the Helix 5.5 Relay Box

Cable Connections:

The C66 Power Cable is designed specifically for use with Pride systems, in combination with the Helix 5.5 Relay Box. To connect the C66 power cable to the powerbase, the existing connection between the ammeter and the charger, must first be disconnected. The connectors on the C66 power cable are then plugged into their mating connections on the ammeter and the charger (completing the circuit). The quadruple a-mode connection (red/black/ blue/white) is plugged into the C65 actuator harness.



Warning! The 2 mating molex connections serve **only** as a diagnostic tool in the event of electrical problems. Connecting these two wires will by-pass the drive lockout (DLO) in order to help isolate the source of the problem. Failure to disconnect the by-pass cables following testing poses a serious safety concern.

C127 Power Cable

NEW! - MAY 2005

Powerbase: Jazzy Powerbases with **On-Board Chargers**

Specific Application: for use only with **Helix 5.5 Relay Box**
(allows reduced speed drive function)

Cable Connections:

To install the C127 power cable, the existing connection on the power base, between the ammeter and the on-board charger, must be disconnected. The C127 cable is then plugged into the mating connections¹ (*in series between the ammeter and the charger*).

Disconnect the base power cable from its port in the powerbase controller. Plug the female connector from the new power cable into the open power cable port in the powerbase PG controller. Connect the male power connector from the new Jazzy power cable into the open connector from the existing base power cable. (*The C127 power cable will be connected "in-series" between the PG controller and the batteries*). The quadruple a-mode connection (red/black/blue/white) is plugged into the actuator harness on the installed seating system.



¹**Note:** the C124/C125 Jazzy cable adapters may be required to complete the cable connection- see p.22.

Warning! The 2 mating molex connections serve **only** as a diagnostic tool in the event of electrical problems. Connecting these two wires will by-pass the drive lockout (DLO) in order to help isolate the source of the problem. Failure to disconnect the by-pass cables following testing poses a serious safety concern.

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C56 Power Cable

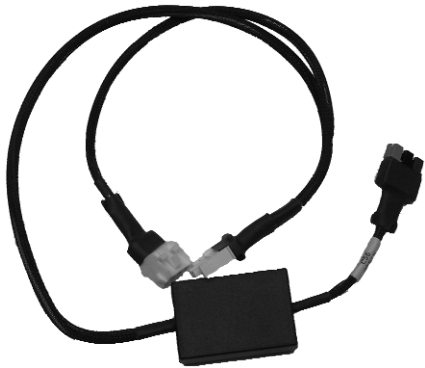
****DISCONTINUED - MAY 2005 ****

Powerbase: Quantum/ Jazzy

Specific Application: for use only with Helix 1.0 Control Box

Cable Connections:

The C56 power cable must be used with the Helix 1.0 relay box on all Jazzy systems in order for the drive lockout feature to function. To connect the C56 power cable, the existing connection on the power base, between the ammeter and the charger, must be disconnected. The C56 cable is then plugged into the mating connections on both the ammeter and the charger (completing the circuit). The triple a-mode connection (red/black/blue) is plugged into the mating 24V power harness (triple a-mode) connection on the Helix 1.0 Control Box.



C128 Power Cable

NEW! MAY 2005

Powerbase: Jazzy Powerbases with **On-Board Chargers**

Specific Application: for use only with **Helix 1.0 Control Box**

Cable Connections:

To install the C128 power cable, the existing connection on the power base, between the ammeter and the on-board charger, must be disconnected. The C128 cable is then plugged into the mating connections¹ (*in series between the ammeter and the charger*).

Disconnect the base power cable from its port in the powerbase controller. Plug the female connector from the new power cable into the open power cable port in the powerbase PG controller. Connect the male power connector from the new Jazzy power cable into the open connector from the existing base power cable. (*The C128 power cable will be connected "in-series" between the PG controller and the batteries*). The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.

¹**Note:** the C124/C125 Jazzy cable adapters may be required to complete the cable connection- see below.



C124 / C125 Jazzy Adapter Cables - (female/male)

Specific Application: adapters for use with Jazzy/TRx power cables

Cable Connections:

These adapters may be required to complete the Jazzy-TRx power cable connection to the powerbase.



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C136 Power Cable

NEW! - SEPTEMBER 2005

Powerbase: Quantum bases with **Off-Board Chargers**

Cable Connections:

To install the C136 power cable, the existing connection on the powerbase, between the ammeter and the on-board charger, must be disconnected. The C136 cable is then plugged into the mating connections (in series between the ammeter and the charger).

Disconnect the base power cable from its port in the powerbase controller. Plug the female connector from the new power cable into the open power cable port in the powerbase PG controller. Connect the male power connector from the new Jazzy power cable into the open connector from the existing base power cable. *(The C136 power cable will be connected "in-series" between the PG controller and the batteries.* The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.



Warning! The 2 mating molex connections serve **only** as a diagnostic tool in the event of electrical problems. Connecting these two wires will by-pass the drive lockout (DLO) in order to help isolate the source of the problem. Failure to disconnect the by-pass cables following testing poses a serious safety concern.

C137 Power Cable

NEW! - SEPTEMBER 2005

Powerbase: Quantum bases with **Off-Board Chargers**

Specific Application: for use only with **Helix 5.5 Relay Box**
(allows reduced speed drive function)

Cable Connections:

To install the C137 power cable, the existing connection on the power base, between the ammeter and the on-board charger, must be disconnected. The C137 cable is then plugged into the mating connections (in series between the ammeter and the charger).

Disconnect the base power cable from its port in the powerbase controller. Plug the female connector from the new power cable into the open power cable port in the powerbase PG controller. Connect the male power connector from the new Jazzy power cable into the open connector from the existing base power cable. *(The C137 power cable will be connected "in-series" between the PG controller and the batteries).* The quadruple a-mode connection (red/black/blue/white) is plugged into the actuator harness on the installed seating system.



Warning! The 2 mating molex connections serve **only** as a diagnostic tool in the event of electrical problems. Connecting these two wires will by-pass the drive lockout (DLO) in order to help isolate the source of the problem. Failure to disconnect the by-pass cables following testing poses a serious safety concern.

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C138 Power Cable

NEW! - SEPTEMBER 2005

Powerbase: Quantum bases with **Off-Board Chargers**

Specific Application: for use only with **Helix 1.0 Control Box**

Cable Connections:

To install the C138 power cable, the existing connection on the power base, between the ammeter and the on-board charger, must be disconnected. The C138 cable is then plugged into the mating connections (*in series between the ammeter and the charger*).

Disconnect the base power cable from its port in the powerbase controller. Plug the female connector from the new power cable into the open power cable port in the powerbase PG controller. Connect the male power connector from the new Jazzy power cable into the open connector from the existing base power cable. (*The C138 power cable will be connected "in-series" between the PG controller and the batteries*). The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.



C23J DLO (Drive Lockout) Cable

Powerbase: Quantum/ Jazzy

Specific Application: for use with the Helix 1.1 Control Box

Cable Connections:

The C23J DLO Cable is not by definition a power cable, but **must be used with the Helix 1.1** relay box in order for the drive lockout (DLO) feature to function. It is connected to the powerbase in the same manner as the C23X power cable. First, the existing connection on the power base, between the ammeter and the charger, must be disconnected. The C23J interlock cable is then plugged into the mating connections on both the ammeter and the charger (completing the circuit). The molex connector on the C23J cable is plugged into the mating molex connector extending from the actuator (motor) cable on the Helix 1.1 box.

****DISCONTINUED****
SEPTEMBER 2004



2.0- Power Cables



II. Power Cables for Invacare Powerbases

C50 Power Cable

****DISCONTINUED- SEPTEMBER 2004****

Powerbase: Invacare

Specific Application: for use with MK5 Controllers (used exclusively w/ Helix 5.1/ 5.3 Relay Boxes)

Cable Connections:

The C50 power cable is only compatible with the Invacare MK5 controllers (**Note:** there are 2 styles of MK5 Controllers: MK5-TT-EX and MK5-EX). The location of the power cable connection is different for each style of controller and is related to the type of joystick provided. For the DPJ joystick, the C50 cable (4-pin molex) is plugged into the bottom of the MK5-EX controller in the 'AUX' port. For the MPJ joystick the C50 cable (4-pin molex) is plugged into the mating 'pigtail' connection at the top of the MK5-TT-EX controller. The triple a-mode connection (red/black/ blue) is plugged into the actuator harness on the installed seating system.

(**Note:** the remaining 4-pin molex connection on the C50 cable now serves as the *new* 'AUX' port or 'pigtail' connection- depending on the type of MK5 controller).



C55 Power Cable

****DISCONTINUED- SEPTEMBER 2004****

Power Base: Invacare

Specific Application: used with M33 and MK5-EX Controllers

Cable Connections:

The C55 power cable is required with the Invacare MK5-EX Controller, for all seating systems that use an M33 dual function relay box together with the DPJ Joystick. In order to connect the C55 power cable, one end of the cable (4-pin molex) is plugged into the 'AUX' port on the bottom of the MK5-EX controller. The triple a-mode connection is plugged into the actuator harness on the installed seating system.

(**Note:** the remaining 4-pin molex connection on the C55 power cable now serves as the *new* 'AUX' port on the MK5-EX controller).



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C51 Power Cable

Powerbase: Invacare

Specific Application: for use with **MKIV Controllers**

Cable Connections:

The C51 power cable is designed for use with MKIV Controllers (it may also be used on early versions of the MK5 Controller equipped with a PTO cable connection). The PTO connection on the C51 cable is plugged into the PTO pigtail on the MKIV Controller. Battery connectors on the C51 cable are connected in-line with the battery and the powerbase (unplug the existing connection between the powerbase & the batteries and connect the C51 in series). The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.



C28/ C43 PTO Power Cable

****DISCONTINUED****

Powerbase: Invacare

Specific Application: for use with MKIV Controllers

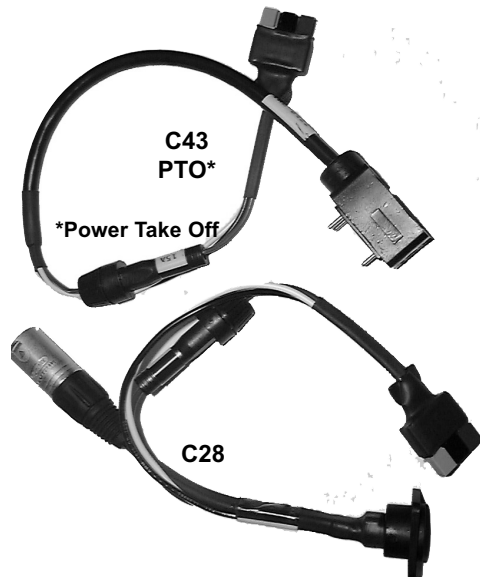
Cable Connections (C28):

The **MKIV** controller can be connected with the C28 power cable, as well as the C43 PTO cable in newer models. (Please see below for connection instructions for the C43 PTO cable) To connect the C28 cable, the male 3-pin charger connection is plugged into the existing charger port on the controller.

(Note: the open female 3-pin connection on the C28 cable becomes the *new* charger port). The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.

Cable Connections (C43 PTO):

The **MKIV RII** controller can only be connected with the C43 PTO power cable . To connect the C43 PTO cable, the PTO port is plugged into an existing PTO port on the powerbase charger harness cable. The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.



2.0- Power Cables



C95 Power Cable



Powerbase: Invacare

Specific Application: used with **M33 and MK5-EX Controllers**

Cable Connections:

Designed to replace the discontinued C55 power cable, the C95 power cable is designed for use with the Invacare MK5-EX Controller, on seating systems that use an M33 dual function relay box together with the DPJ Joystick. In order to connect the C95 power cable, first plug one end of the 4-pin molex into the 'AUX' port on the bottom of the MK5-EX controller (the remaining 4-pin molex connection on the C95 power cable now serves as the *new* 'AUX' port on the MK5-EX controller). Next, unplug the existing connection between the powerbase and the batteries and insert the C95 cable in series between the open connection. The triple a-mode connection (red/black/ blue) is plugged into the actuator harness on the installed seating system.

C78 Power Cable

original release MARCH 2004

Powerbase: Invacare

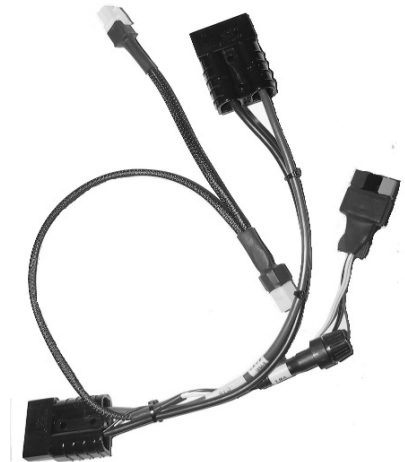
Specific Application: for use with **MK5 Controllers**

Cable Connections:

The C78 power cable is for use with Invacare MK5 Controllers. (**Note:** there are 2 styles of MK5 Controllers: **MK5-TT-EX** and **MK5-EX**). The location of the power cable connection is different for each style of controller and is related to the type of joystick provided:

For the DPJ joystick, the mating C78 cable connection (4-pin molex) is plugged into the bottom of the MK5-EX controller in the 'AUX' port.

For the MPJ joystick, the mating C78 cable connection (4-pin molex) is plugged into the 'pigtail' connection at the top of the MK5-TT-EX controller.



The remaining 4-pin molex connection on the C78 cable now serves as the *new* 'AUX' port or 'pigtail' connection (*depending on the type of MK5 controller*). The battery connectors on the C78 power cable are connected in-line with the battery and the powerbase (unplug the existing connection between the powerbase and the batteries and connect the C78 cable in series). The triple a-mode connection (red/black/ blue) is plugged into the C45B-18 actuator harness.

(**Note:** the C78 power cable also has a built-in resistor to prevent any charger interference that may occur)

2.0- Power Cables



III. Power Cables for Quickie Powerbases

C14/ C21 Power Cable

Powerbase: Quickie

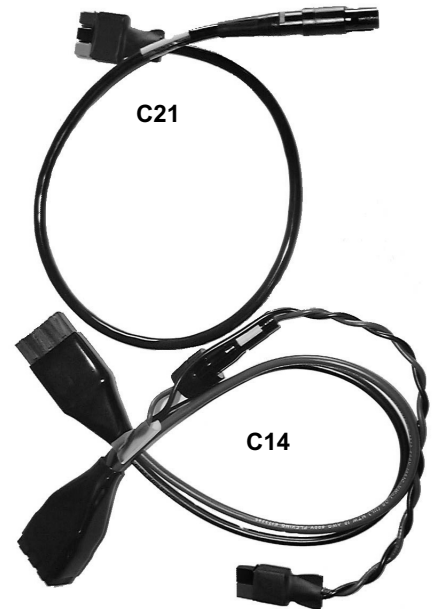
Cable Connections (C14):

The C14 power cable is required when motor functions are operated via a P&G joystick. To connect the C14 cable, the existing power base battery harness must first be disconnected from the P&G controller. The male end of the C14 cable is then plugged into the battery port on the controller and the power base battery harness is plugged back into the female connection on the C14 cable. The dual a-mode connection (red/black) is plugged into the actuator harness on the installed seating system.

(Note: the *dual a-mode* connection (red/black) on the C14 cable plugs into the red and black a-modes of the *triple a-mode* connection (red/black/blue) on the actuator harness)

Cable Connections (C21):

The C21 power cable is required when motor functions are operated via a TRx switch. To connect the C21 cable, the redel connection on the C21 cable is plugged into the open port on the P&G controller. The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.



C59 Power Cable



Powerbase: Quickie

Specific Application: for use with VSI Controls

Cable Connections:

The C59 power cable contains a built-in 10A fuse and is required when motor functions are operated via VSI Controls. **(Note:** the C59 cable may only be used with VSI Controls equipped with a redel 'pigtail'). To connect the C59 Cable, the redel port is plugged into the pigtail on the VSI Control. The triple a-mode connection (red/black/ blue) is plugged into the actuator harness on the installed seating system.

2.0- Power Cables



C87 Power Cable

****DISCONTINUED - AUGUST 2005****



Powerbase: Quickie Freestyle Power Bases

Specific Application: exclusive to Freestyle F11/M11

Cable Connections:

The C87 power cable contains a built-in 10A fuse and is designed for use exclusively with the F11 Freestyle powerbase and the M11 Freestyle powerbase. To connect the C87 power cable to the powerbase, the male connector from the power cable is plugged into the existing joystick port on the Quickie integrated controller (at the rear of the powerbase). The female connector on the C87 power cable becomes the “new” joystick port. The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.

C133 Power Cable

NEW! - AUGUST 2005



Powerbase: Quickie Freestyle Power Bases

Specific Application: for use only with Freestyle F11 and M11

Cable Connections:

(The C133 is an upgraded version of the discontinued C87 power cable)
The C133 power cable contains a built-in 10A fuse and is designed for use exclusively with the F11 Freestyle powerbase and the M11 Freestyle powerbase. To connect the C133 power cable to the powerbase, the male connector from the power cable is plugged into the existing joystick port on the Quickie integrated controller (at the rear of the powerbase). The female connector on the C133 power cable becomes the “new” joystick port. The triple a-mode connection (red/black/blue) is plugged into the actuator harness on the installed seating system.