KEITHLEY

Model STP-100U
Packing List

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Description

The STP-100U provides a straight through screw terminal connection for the 100 pin connector common to the KPCI-3160 and DAS-1800HC plug in boards. The screw terminals are provided in 2 segments of 50 terminals each.

Specifications:

(Per connection point)
Maximum voltage: 30 V_{RMS} or 60 V_{DC}
Maximum current: 1 Ampere
Operating Temperature: -30°C ~ 85°C

100 pin straight through connection points

100 Pin Connector (P1) Pins	Screw Terminals
#1 through #25	#1 through #25
#26 through #50	#26 though #50
#51 through #75	#51 through #75
#76 through #100	#76 through #100

NOTES *All mechanical and environmental specifications of the KPCI-3160 and DAS-1800HC cards also apply to the STP-100U accessory board. Functional specifications for the KPCI-3160 and DAS-1800HC boards are available in their respective user manuals.*

Pinouts with other cables

When the DAS-1800, CAB-1800, or CAB-1800/S cables are used with the STP-100U accessory, the following signal pin-outs can be used.

Table 1

DAS-1700 / 1800 KPCI-1801HC / 1802HC			KPCI-3160		
Signal name	**Pin#**	**STP-100U screw terminal #**	**Signal name**	**Pin#**	**STP-100U screw terminal #**
AGND	1A	50	+5V	1	50
CH16 HI	2A	49	G3 PA0	2	49
CH16 LO / CH48 HI	3A	48	G3 PA1	3	48
CH17 HI	4A	47	G3 PA2	4	47
CH17 LO / CH49 HI	5A	46	G3 PA3	5	46
CH18 HI	6A	45	G3 PA4	6	45
CH18 LO / CH50 HI	7A	44	G3 PA5	7	44
CH19 HI	8A	43	G3 PA6	8	43
CH19 LO CH51 HI	9A	42	G3 PA7	9	42
CH20 HI	10A	41	G3PB0	10	41
CH20 LO / CH52 HI	11A	40	G3 PB1	11	40
CH21 HI	12A	39	G3 PB2	12	39
CH21 LO / CH53 HI	13A	38	G3 PB3	13	38
CH22 HI	14A	37	G3 PB4	14	37
CH22 LO / CH54 HI	15A	36	G3 PB5	15	36
CH23 HI	16A	35	G3 PB6	16	35
CH23 LO / CH55 HI	17A	34	G3 PB7	17	34
AGND	18A	33	G3 PC0	18	33
CH24 HI	19A	32	G3 PC1	19	32
CH24 L0 / CH56 HI	20A	31	G3 PC2	20	31
CH 25 HI	21A	30	G3 PC3	21	30
CH25 LO / CH57 HI	22A	29	G3 PC4	22	29
CH26 HI	23A	28	G3 PC5	23	28
CH26 LO / CH58 HI	24A	27	G3 PC6	24	27
CH27 HI	25A	26	G3 PC7	25	26
CH27 LO / CH59 HI	26A	25	G1 PA0	26	25
CH28 HI	27A	24	G1PA1	27	24
CH28 LO / CH60 HI	28A	23	G1PA2	28	23
CH29 HI	29A	22	G1 PA3	29	22
CH29 LO / CH61 HI	30A	21	G1 PA4	30	21
CH30 HI	31A	20	G1 PA5	31	20
CH30 LO / CH62 HI	32A	19	G1 PA6	32	19
CH31 HI	33A	18	G1 PA7	33	18
CH31 LO / CH63 HI	34A	17	G1 PB0	34	17

Table 1 (cont.)

DAS-1700 / 1800 KPCI-1801HC / 1802HC			KPCI-3160		
Signal name	**Pin#**	**STP-100U screw terminal #**	**Signal name**	**Pin#**	**STP-100U screw terminal #**
AGND	35A	16	G1 PB1	35	16
DAC1 OUT	36A	15	G1 PB2	36	15
-15V	37A	14	G1 PB3	37	14
DGND	38A	13	G1 PB4	38	13
NC	39A	12	G1 PB5	39	12
SSHO	40A	11	G1 PB6	40	11
TGOUT	41A	10	G1 PB7	41	10
DOSTB	42A	9	G1 PC0	42	9
DO4	43A	8	G1 PC1	43	8
DO5	44A	7	G1 PC2	44	7
DO6	45A	6	G1 PC3	45	6
D07	46A	5	G1 PC4	46	5
+5V	47A	4	G1 PC5	47	4
+5V	48A	3	G1 PC6	48	3
DGND	49A	2	G1 PC7	49	2
DGND	50A	1	DGND	40	1
AGND	1B	100	+5V	51	100
CH00 HI	2B	99	G2 PA0	52	99
CH00 LO / CH32 HI	3B	98	G2 PA1	53	98
CH01	4B	97	G2 PA2	54	97
CH01 LO / CH33 HI	5B	96	G2 PA3	55	96
CH02 HI	6B	95	G2 PA4	56	95
CH02 LO / CH34 HI	7B	94	G2 PA5	57	94
CH03 HI	8B	93	G2 PA6	58	93
CH03 LO / CH35 HI	9B	92	G2 PA7	59	92
CH04 HI	10B	91	G2 PB0	60	91
CH04 LO / CH36 HI	11B	90	G2 PB1	61	90
CH05 HI	12B	89	G2 PB2	62	89
CH05 LO / CH37 HI	13B	88	G2 PB3	63	88
CH06 HI	14B	87	G2 PB4	64	87
CH06 LO / CH38 HI	15B	86	G2 PB5	65	86
CH07 HI	16B	85	G2 PB6	66	85
CH07 LO / CH39 HI	17B	84	G2 PB7	67	84
AGND	18B	83	G2 PC0	68	83
CH08 HI	19B	82	G2 PC1	69	82
CH08 LO / CH40 HI	20B	81	G2 PC2	70	81
CH09 HI	21B	80	G2 PC3	71	80

Table 1 (cont.)

DAS-1700 / 1800 KPCI-1801HC / 1802HC			KPCI-3160		
Signal name	**Pin#**	**STP-100U screw terminal #**	**Signal name**	**Pin#**	**STP-100U screw terminal #**
CH09 LO / CH41 HI	22B	79	G2 PC4	72	79
CH10 HI	23B	78	G2 PC5	73	78
CH10 LO / CH42 HI	24B	77	G2 PC6	74	77
CH11 HI	25B	76	G2 PC7	75	76
CH11 LO / CH43 HI	26B	75	G0 PA0	76	75
CH12 HI	27B	74	G0 PA1	77	74
CH12 LO / CH44 HI	28B	73	G0 PA2	78	73
CH13 HI	29B	72	G0 PA3	79	72
CH13 LO / CH45 HI	30B	71	G0 PA4	80	71
CH14 HI	31B	70	G0 PA5	81	70
CH14 LO / CH46 HI	32B	69	G0 PA6	82	69
CH15 HI	33B	68	G0 PA7	83	68
CH15 LO / CH47 HI	34B	67	G0 PB0	84	67
AGND	35B	66	G0 PB1	85	66
DAC0 OUT	36B	65	G0 PB2	86	65
+15V	37B	64	G0 PB3	87	64
DGND	38B	63	G0 PB4	88	63
DIO/XPCLK	39B	62	G0 PB5	89	62
DI1/TGIN	40B	61	G0 PB6	90	61
DI2	41B	60	G0 PB7	91	60
DI3	42B	59	G0 PC0	92	59
DO0	43B	58	G0 PC1	93	58
DO1	44B	57	G0 PC2	94	57
DO2	45B	56	G0 PC3	95	56
DO3	46B	55	G0 PC4	96	55
+5V	47B	54	G0 PC5	97	54
+5V	48B	53	G0 PC6	98	53
DGND	49B	52	G0 PC7	99	52
DGND	50B	51	DGND	100	51

Safety Precautions

The following safety precautions should be observed before using this product and any associated instrumentation. Although some instruments and accessories would normally be used with non-hazardous voltages, there are situations where hazardous conditions may be present.

This product is intended for use by qualified personnel who recognize shock hazards and are familiar with the safety precautions required to avoid possible injury. Read the operating information carefully before using the product.

The types of product users are:

Responsible body is the individual or group responsible for the use and maintenance of equipment, for ensuring that the equipment is operated within its specifications and operating limits, and for ensuring that operators are adequately trained.

Operators use the product for its intended function. They must be trained in electrical safety procedures and proper use of the instrument. They must be protected from electric shock and contact with hazardous live circuits.

Maintenance personnel perform routine procedures on the product to keep it operating, for example, setting the line voltage or replacing consumable materials. Maintenance procedures are described in the manual. The procedures explicitly state if the operator may perform them. Otherwise, they should be performed only by service personnel.

Service personnel are trained to work on live circuits, and perform safe installations and repairs of products. Only properly trained service personnel may perform installation and service procedures.

Exercise extreme caution when a shock hazard is present. Lethal voltage may be present on cable connector jacks or test fixtures. The American National Standards Institute (ANSI) states that a shock hazard exists when voltage levels greater than 30V RMS, 42.4V peak, or 60VDC are present. **A good safety practice is to expect that hazardous voltage is present in any unknown circuit before measuring.**

Users of this product must be protected from electric shock at all times. The responsible body must ensure that users are prevented access and/or insulated from every connection point. In some cases, connections must be exposed to potential human contact. Product users in these circumstances must be trained to protect themselves from the risk of electric shock. If the circuit is capable of operating at or above 1000 volts, **no conductive part of the circuit may be exposed.**

As described in the International Electrotechnical Commission (IEC) Standard IEC 664, digital multimeter measuring circuits (e.g., Keithley Models 175A, 199, 2000, 2001, 2002, and 2010) are Installation Category II. All other instruments' signal terminals are Installation Category I and must not be connected to mains.

Do not connect switching cards directly to unlimited power circuits. They are intended to be used with impedance limited sources. NEVER connect switching cards directly to AC mains. When connecting sources to switching cards, install protective devices to limit fault current and voltage to the card.

Before operating an instrument, make sure the line cord is connected to a properly grounded power receptacle. Inspect the connecting cables, test leads, and jumpers for possible wear, cracks, or breaks before each use.

For maximum safety, do not touch the product, test cables, or any other instruments while power is applied to the circuit under test. ALWAYS remove power from the entire test system and discharge any capacitors before: connecting or disconnecting cables or jumpers, installing or removing switching cards, or making internal changes, such as installing or removing jumpers.

Do not touch any object that could provide a current path to the common side of the circuit under test or power line (earth) ground. Always make measurements with dry hands while standing on a dry, insulated surface capable of withstanding the voltage being measured.

The instrument and accessories must be used in accordance with its specifications and operating instructions or the safety of the equipment may be impaired.

Do not exceed the maximum signal levels of the instruments and accessories, as defined in the specifications and operating information, and as shown on the instrument or test fixture panels, or switching card.

When fuses are used in a product, replace with same type and rating for continued protection against fire hazard.

Chassis connections must only be used as shield connections for measuring circuits, NOT as safety earth ground connections.

If you are using a test fixture, keep the lid closed while power is applied to the device under test. Safe operation requires the use of a lid interlock.

If a ⏚ screw is present, connect it to safety earth ground using the wire recommended in the user documentation.

The ⚠ symbol on an instrument indicates that the user should refer to the operating instructions located in the manual.

The ⚠ symbol on an instrument shows that it can source or measure 1000 volts or more, including the combined effect of normal and common mode voltages. Use standard safety precautions to avoid personal contact with these voltages.

The **WARNING** heading in a manual explains dangers that might result in personal injury or death. Always read the associated information very carefully before performing the indicated procedure.

The **CAUTION** heading in a manual explains hazards that could damage the instrument. Such damage may invalidate the warranty.

Instrumentation and accessories shall not be connected to humans.

Before performing any maintenance, disconnect the line cord and all test cables.

To maintain protection from electric shock and fire, replacement components in mains circuits, including the power transformer, test leads, and input jacks, must be purchased from Keithley Instruments. Standard fuses, with applicable national safety approvals, may be used if the rating and type are the same. Other components that are not safety related may be purchased from other suppliers as long as they are equivalent to the original component. (Note that selected parts should be purchased only through Keithley Instruments to maintain accuracy and functionality of the product.) If you are unsure about the applicability of a replacement component, call a Keithley Instruments office for information.

To clean an instrument, use a damp cloth or mild, water based cleaner. Clean the exterior of the instrument only. Do not apply cleaner directly to the instrument or allow liquids to enter or spill on the instrument. Products that consist of a circuit board with no case or chassis (e.g., data acquisition board for installation into a computer) should never require cleaning if handled according to instructions. If the board becomes contaminated and operation is affected, the board should be returned to the factory for proper cleaning/servicing.

Board dimensions