



# Documentation folder

Number **T8226-6**

Project number 3685444

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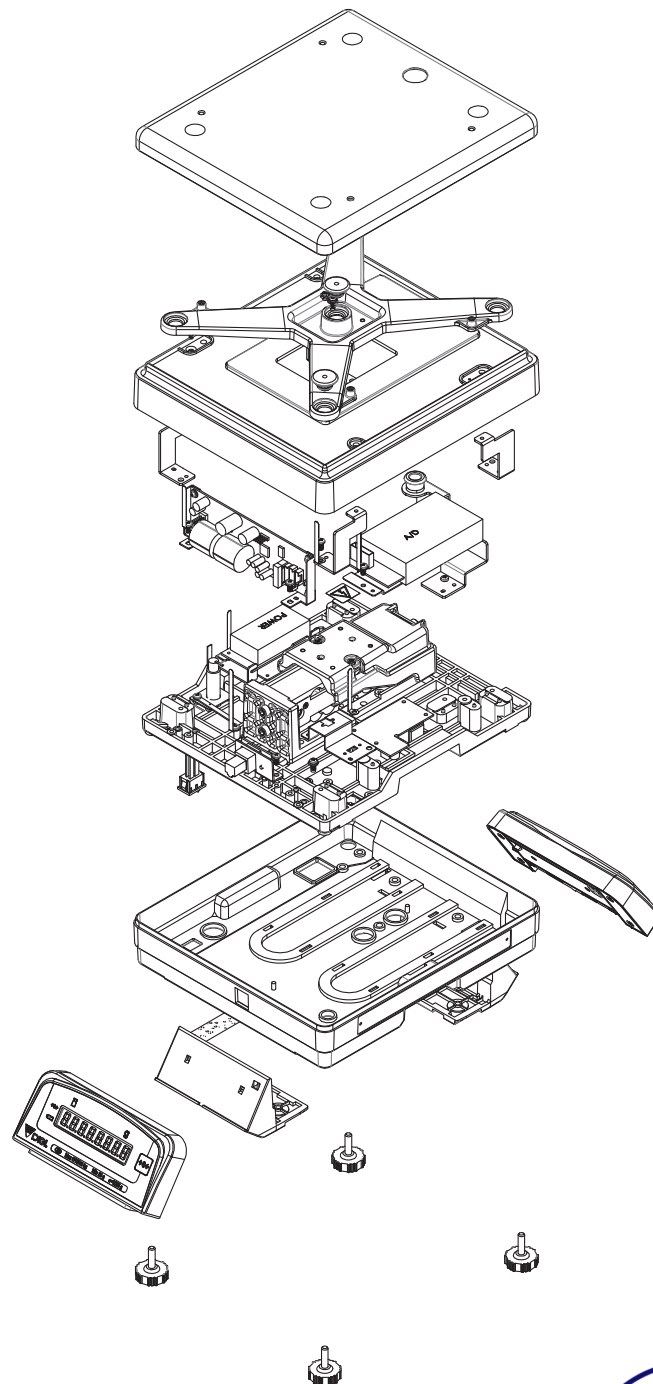
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PS-160B

Exploded view

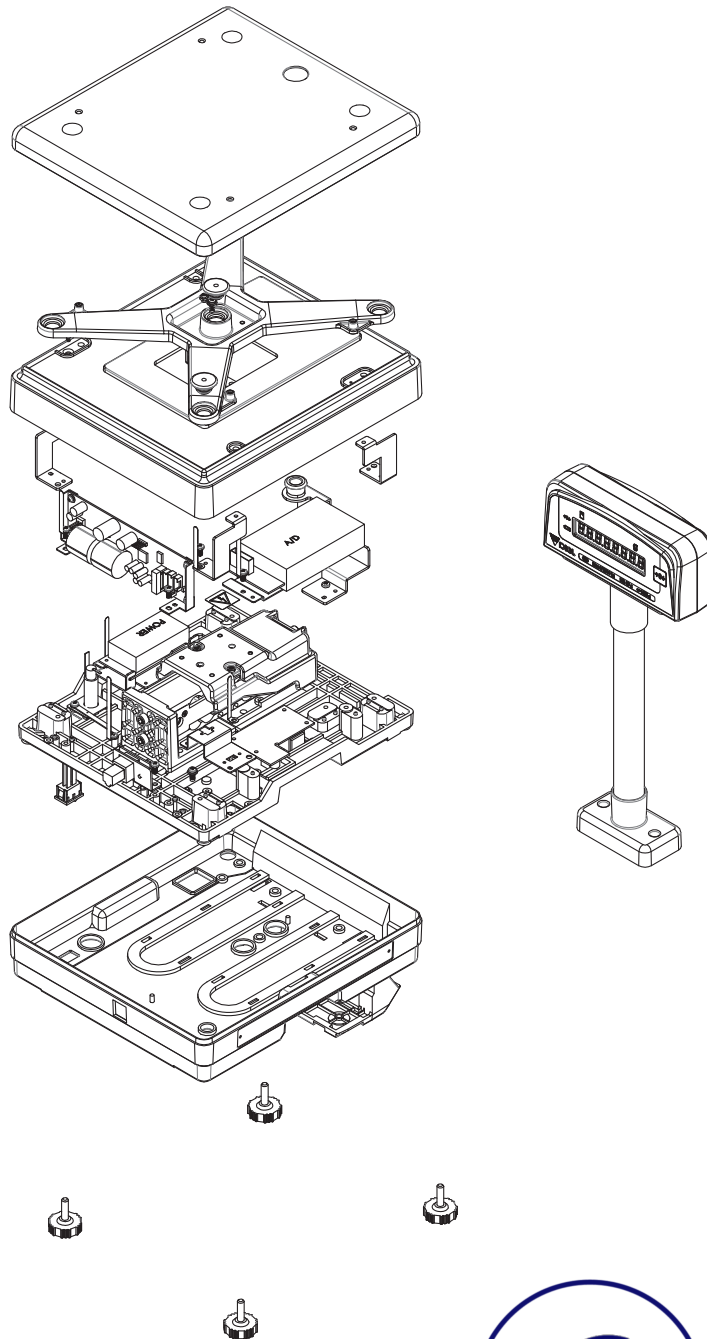
TAS 1662



PS-160P

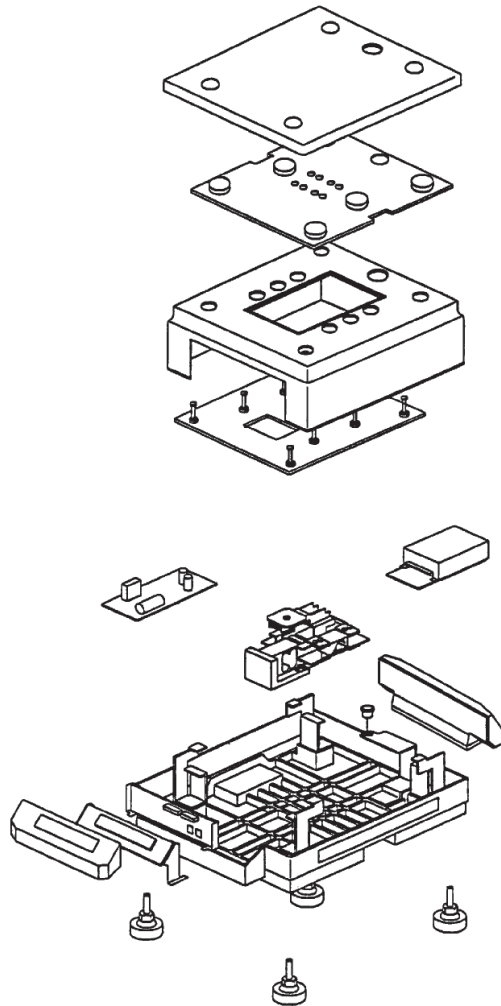
Exploded view

TAS 1663



PS-160 Exploded view

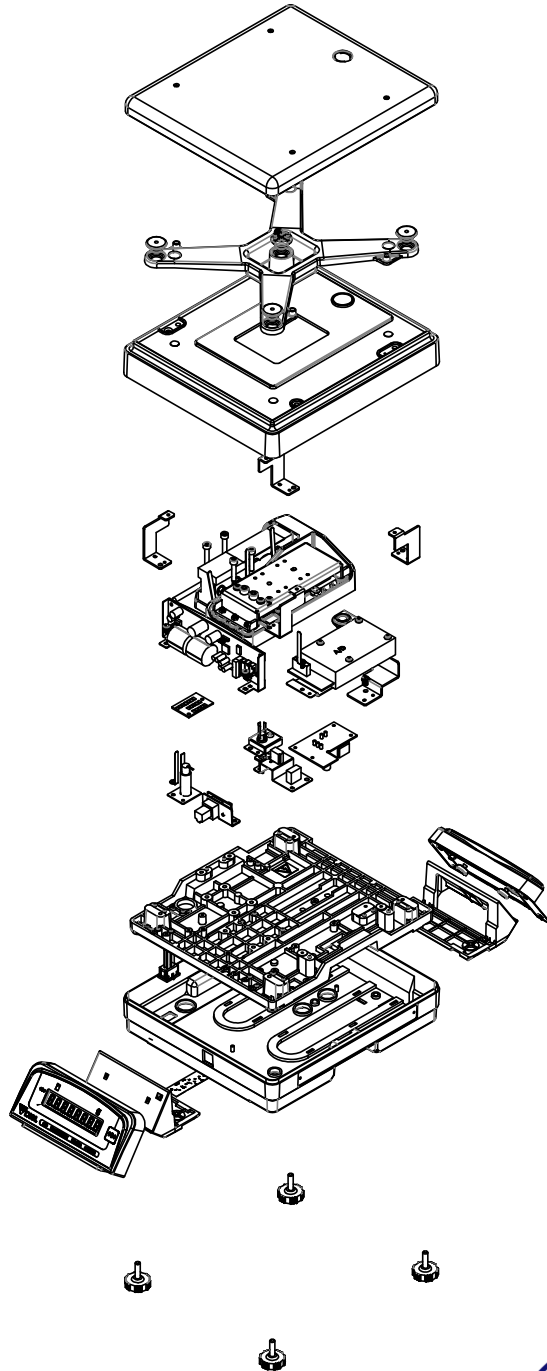
TAS 1478



PS-160B-II

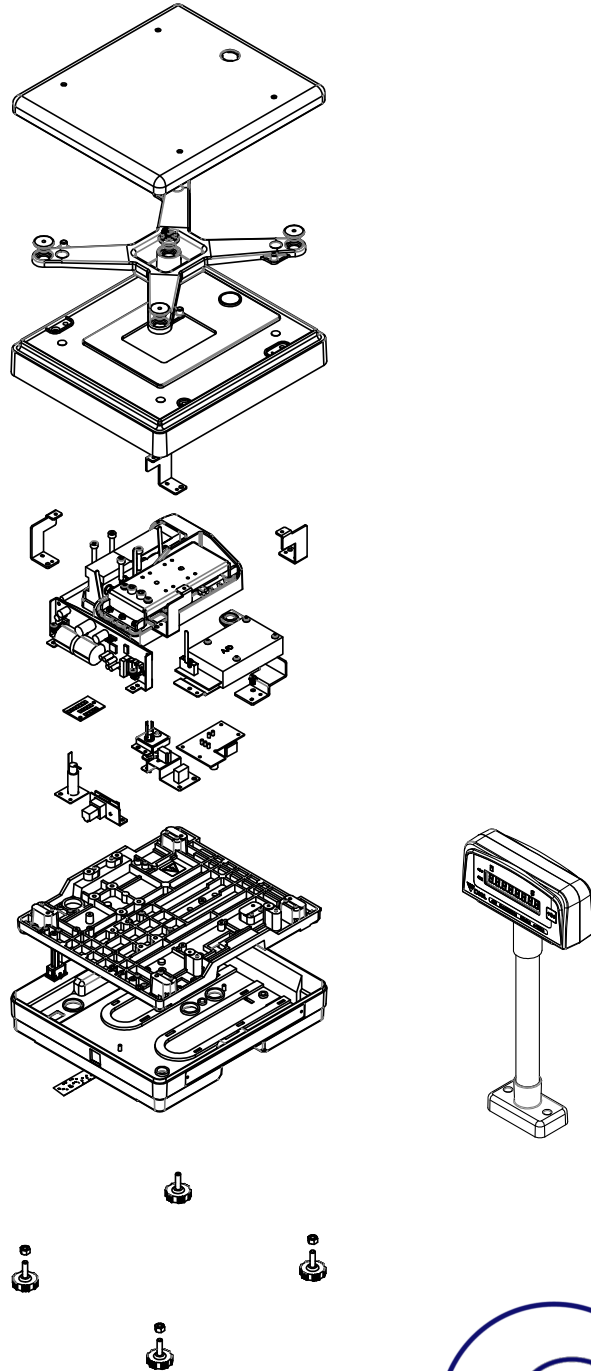
Exploded view

TAS 1720



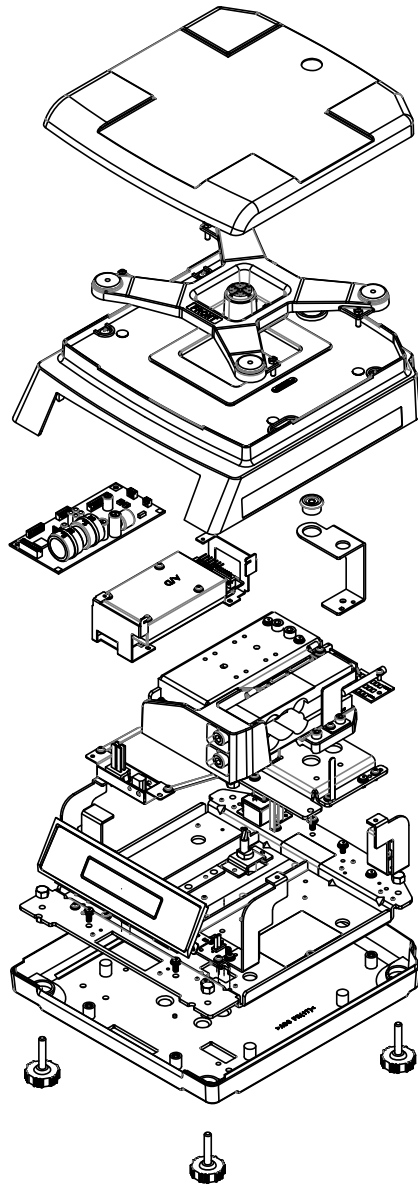
PS-160P-II Exploded view

TAS 1721



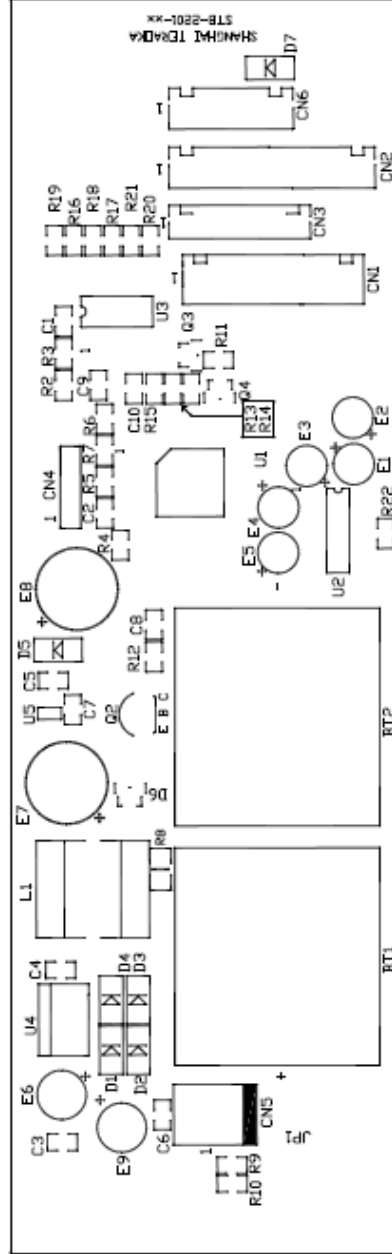
PS-178 Exploded view

TAS 1768



# STB-2201 Mainboard

Drawing Nr: CPS2201





**IC list on the board**

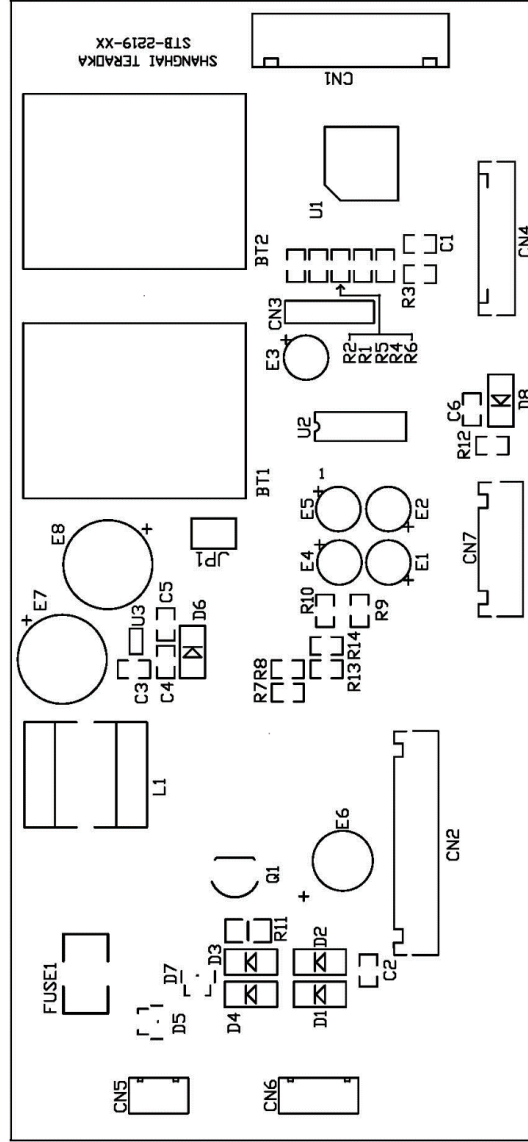
**Drawing number: PLS2201**

<b>STB-2201 Main board</b>	
<b>IC Number</b>	<b>IC type</b>
U 1	IC R5F21254 or R5F21255 or R5F21256 or R5F21257 or R5F21258
U 2	IC 3232 or 1181 or 1381
U 3	IC 74LS07 or 07
U 4	IC 78M12
U5	IC 2985 or 5205



# STB-2219 Mainboard

Drawing Nr: CPS2219



Doc no

8226/5-02

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## IC List on the board

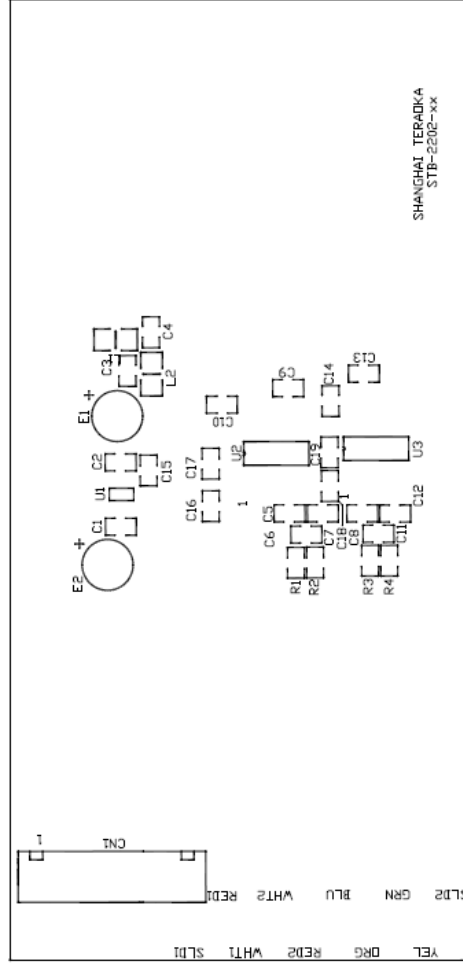
Drawing number: PLS2219

STB-2219 Main Board	
IC Number	IC Type
U1	IC R5F21254 or R5F21255 or R5F21256 or R5F21257 or R5F21258
U2	IC 3232 or 1181 or 1381
U3	IC 2985 or 5205



# STB-2202 A/D Board

Drawing Nr: CPS2202



## IC List on the board

Drawing number: PLS2202

STB-2202 A/D Board	
IC Number	IC Type
U1	IC 2985 or 5205
U2, U3	IC 7190 or 7192



## SPECIFICATION SHEETS

Type		R	
Accuracy Class		C3	
Rated Capacity(Emax)	kg	7.5	45
Rated Output(R.O.)	mV/V	1.5	
Permissible Error of R.O.	mV/V	<±0.17	
Non-Linearity	%	<±0.016	
Hysteresis	%	<±0.016	
Repeatability	%	<±0.016	
Output Error due to Temperature	%	<±0.035	
Zero Shift due to Temperature	%/5°C	<±0.01	
Creep 30min	%	<±0.02	
Zero return	%	<±0.005	
Temperature range	Compensate	°C	-10°C~40°C
	Allowable	°C	-20°C~60°C
Excitation	Recommended	V	3.3~12
	Maxlimum	V	20
Input Impedance	ohms	215±10	
Output Impedance	ohms	350±5	
Insulation Impedance	Mohms	> 500 (50VDC B/E)	
Zero Balance	% of Emax	<±50	
Output/Input Signals	Input +	Red jumper wire	
	Input -	White jumper wire	
	Output +	Blue jumper wire	Green jumer wire
	Output -	Orange jumper wire	Yellow jumper wire
	Shield	Shield wire(Black)	
Soft Overload	%	130	
Ultimate Overload	%	200	
Durability	%	<±0.05	
Environmental Protection	Butyl Rubber sheet		
Moisture Compensation	%	0~85	



## SPECIFICATION SHEETS

Type		R	
Accuracy Class		C	
Rated Capacity(Emax)	Kg	4.5	45
Rated Output(R.O.)	mV/V	1.5	
Permissible Error of R.O.	mV/V	<±0.17	
Non-Linearity	%	<±0.016	
Hysteresis	%	<±0.016	
Repeatability	%	<±0.016	
Output Error due to Temperature	%	<±0.035	
Zero Shift due to Temperature	%/5°C	<±0.01	
Creep 30min	%	<±0.02	
Zero return	%	<±0.005	
Temperature range	Compensate	°C	-10~40
	Allowable	°C	-20~60
Excitation	Recommended	V	5~12
	Maximum	V	20
Input Impedance	Ohms	215±10	
Output Impedance	Ohms	350±5	
Insulation Impedance	Mohms	>500 (50VDC B/E)	
Zero Balance	% of Emax	<±50	
Output/Input Signals	Input +	Red jumper wire	
	Input -	White jumper wire	
	Output +	Blue jumper wire	Green jumper wire
	Output -	Orange jumper wire	Yellow jumper wire
	Shield	Shield wire (Black)	
Safe Overload	%	130	
Ultimate Overload	%	200	
Durability	%	<±0.05	
Environmental Protection		Butyl Rubber sheet	
Moisture Compensation	%	0~85	



Doc no

**8226/4-02**

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LOAD CELL SPECIFICATION SHEET

Drawing Nr: LC-L6D 1/2

1. Type : L6D Type Load Cell  
off-center / single point
2. Accuracy Class : C3
3. Body Material : Aluminum Alloy
4. Characteristics
  - a) Maximum capacity ( $E_{max}$ ) : 5kg, 12kg, 15kg, 30kg, 50kg
  - b) Rated Output (R.O.) :  $2.0mV/V \pm 0.2mV/V$
  - c) Non-linearity :  $\pm 0.015\%$  of R.O.
  - d) Hysteresis :  $\pm 0.015\%$  of R.O.
  - e) Repeatability :  $\pm 0.02\%$  of R.O.
  - f) Creep :  $\pm 0.02\%$  R.O.  
Note: Output value difference between after loading and 20 minutes after loading.
  - g) Zero return :  $\pm 0.02\%$  of R.O.  
Note: Zero point difference between before loading and after removing a 20 minutes. applied load.
  - h) Zero shift Due temp. : within  $\pm 0.02\%$  of R.O. per  $5^\circ C$
5. Temperature range
  - a) Compensated temperature range :  $-10^\circ C \sim 40^\circ C$
  - b) Operating temperature range :  $-35^\circ C \sim 70^\circ C$
6. Electric factors
  - a) Recommended excitation : 3.3~12V DC
  - b) Maximum excitation : 18 V DC
  - c) Input impedance :  $406 \pm 6$  ohm
  - d) Output impedance :  $350 \pm 3$  ohm
  - e) Insulation resistance : 5000 Mohm or more  
(50 VDC between bridge and body)
  - f) Zero balance :  $\pm 2\%$  Emax
  - g) Output / Input signals
    - Excitation voltage (+) : red wire
    - Excitation voltage (-) : black wire
    - Output voltage (+) : green wire
    - Output voltage (-) : white wire
    - Shield : bare wire





LOAD CELL SPECIFICATION SHEET

Drawing Nr: LC-L6D 2/2

7. Mechanical factors

- a) Safe Overload : 150% of Emax
- b) Durability : within  $\pm 0.03\%$  of Emax  
(output change in between before and after 1 million time loading test of rated capacity)

8. Protection against moisture

- a) Protection : Silicone coating
- b) Moisture range : 0 ~ 95% R.H.



LOAD CELL SPECIFICATION SHEET

Drawing Nr: LC-L6C 1/2

1. Type : L6C Type Load Cell  
off-center / single point
2. Accuracy Class : C3
3. Body Material : Aluminum Alloy
4. Characteristics
  - a) Maximum capacity ( $E_{max}$ ) : 3kg,5kg,8kg,20kg,30kg, 50kg
  - b) Rated Output (R.O.) : 2.0mV/V  $\pm$  0.2mV/V
  - c) Non-linearity :  $\pm$  0.015% of R.O.
  - d) Hysteresis :  $\pm$  0.015% of R.O.
  - e) Repeatability :  $\pm$  0.02% of R.O.
  - f) Creep :  $\pm$  0.0167% R.O.  
Note: Output value difference between after loading and 20 minutes after loading.
  - g) Zero return :  $\pm$  0.02% of R.O.  
Note: Zero point difference between before loading and after removing a 20 minutes. applied load.
  - h) Zero shift Due temp. : within  $\pm$  0.02% of R.O. per 5 °C
5. Temperature range
  - a) Compensated temperature range : -10°C ~ 40°C
  - b) Operating temperature range : -35°C ~ 70°C
6. Electric factors
  - a) Recommended excitation : 3.3~12V DC
  - b) Maximum excitation : 18 V DC
  - c) Input impedance : 406  $\pm$  6 ohm
  - d) Output impedance : 350  $\pm$  3 ohm
  - e) Insulation resistance : 5000 Mohm or more  
(50 VDC between bridge and body)
  - f) Zero balance :  $\pm$  2% Emax
  - g) Output / Input signals
    - Excitation voltage (+) : red wire
    - Excitation voltage (-) : black wire
    - Output voltage (+) : green wire
    - Output voltage (-) : white wire
    - Shield : bare wire



LOAD CELL SPECIFICATION SHEET

Drawing Nr: LC-L6C 2/2

7. Mechanical factors

- a) Safe Overload : 150% of Emax
- b) Durability : within  $\pm 0.03\%$  of Emax  
(output change in between before and after 1 million time loading test of rated capacity)

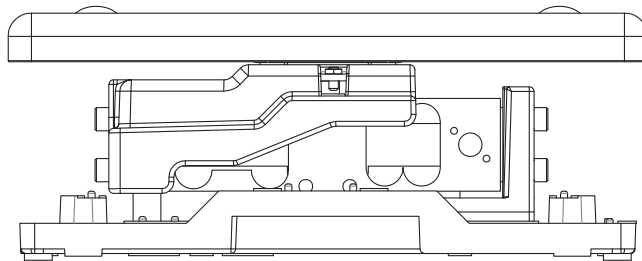
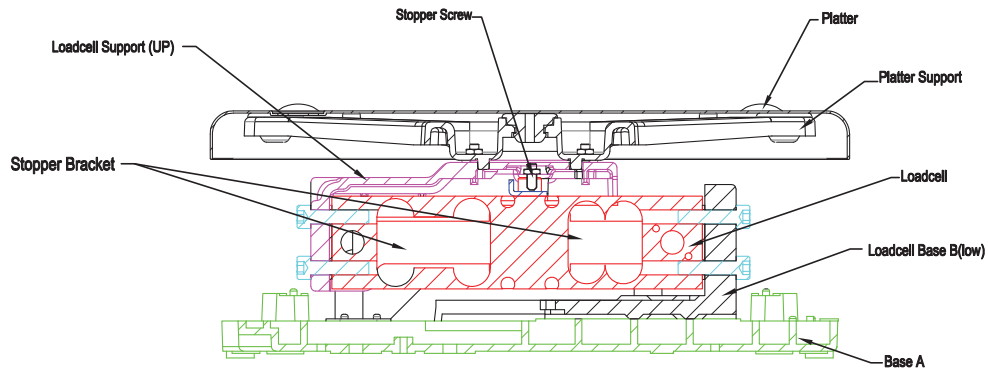
8. Protection against moisture

- a) Protection : Silicone coating
- b) Moisture range : 0 ~ 95% R.H.

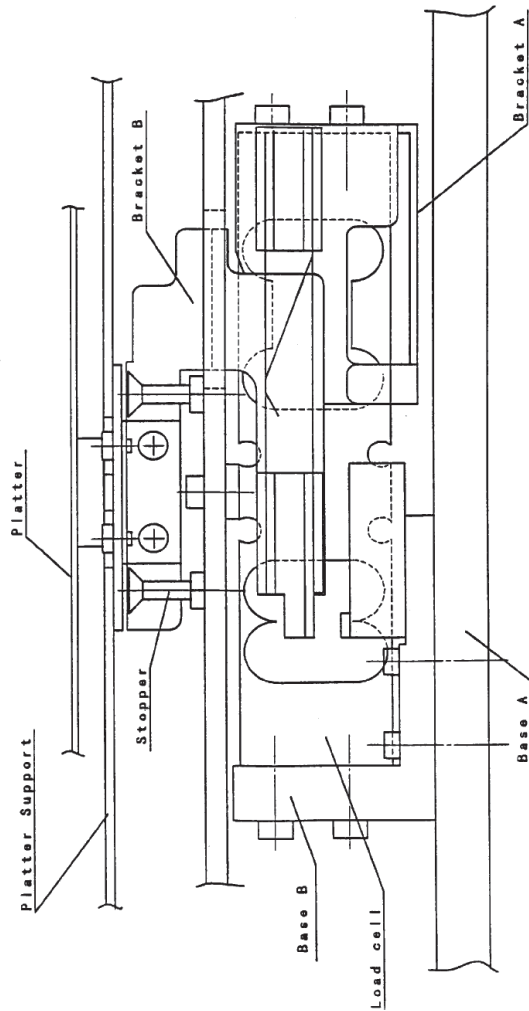


PS-160B Loadcell Assembly  
PS-160P

TAS 1664

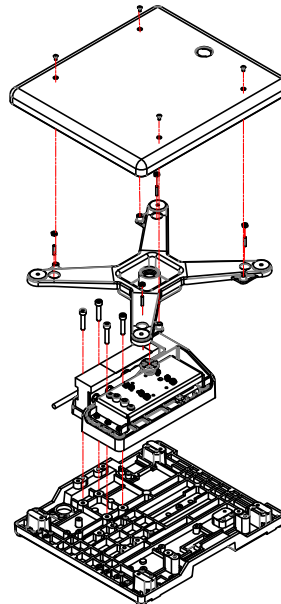
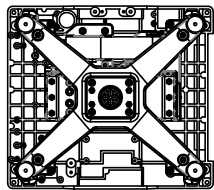
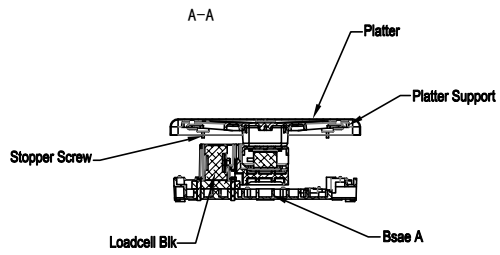
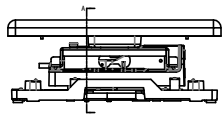


PS-160 Load cell assembly TAS 1480



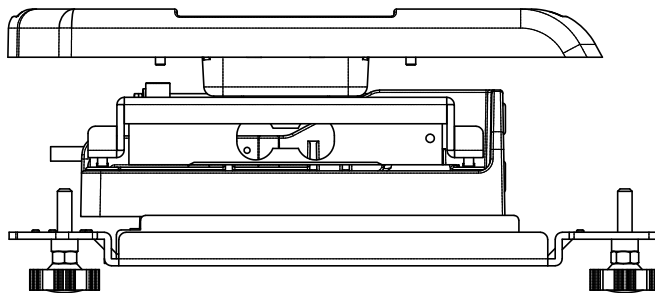
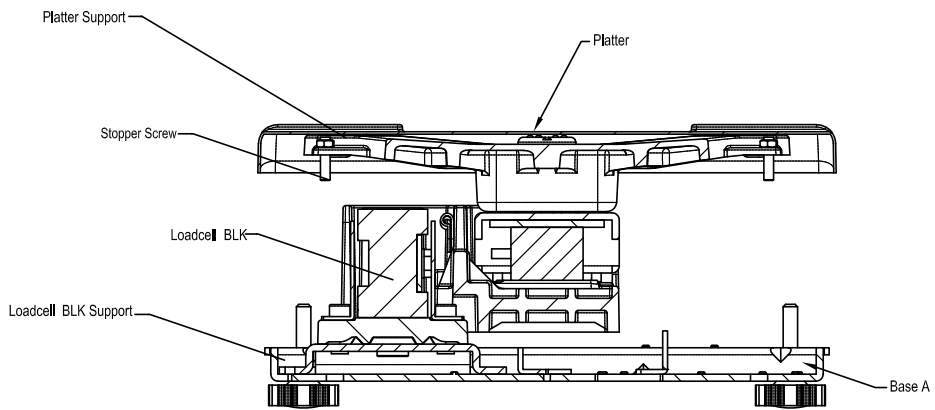
PS-160B-II Loadcell Assembly  
PS-160P-II

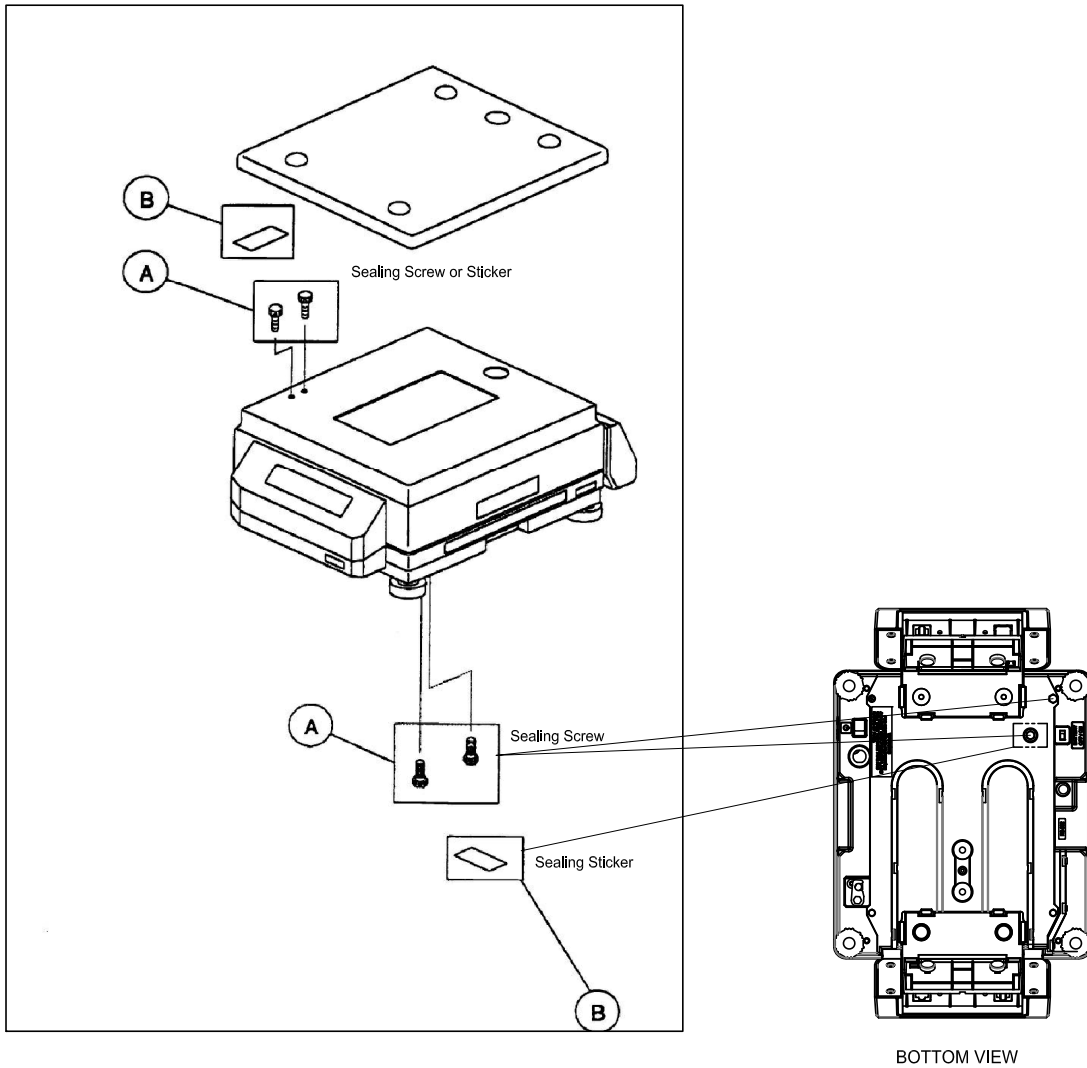
TAS 1723



# PS-178 Loadcell Assembly

TAS 1770





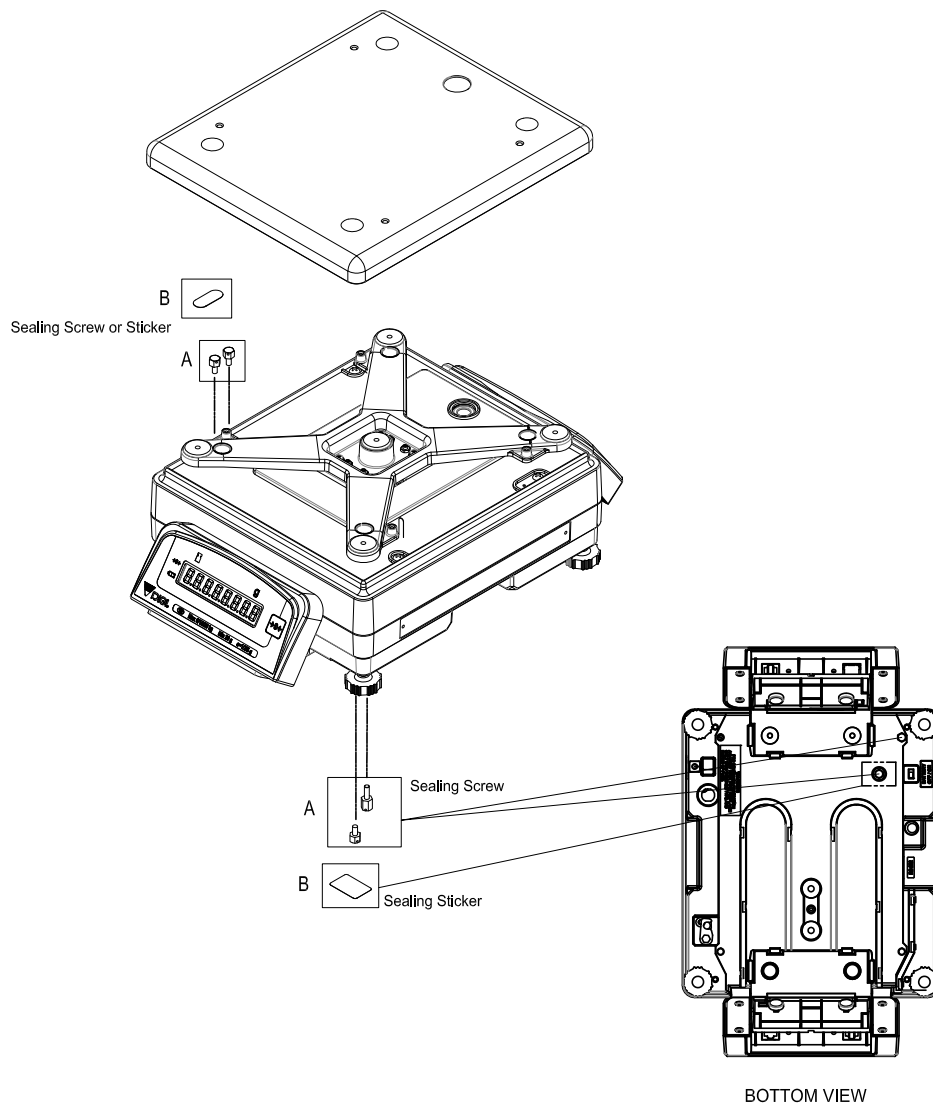
Note: We can use sealing screw or sealing sticker.





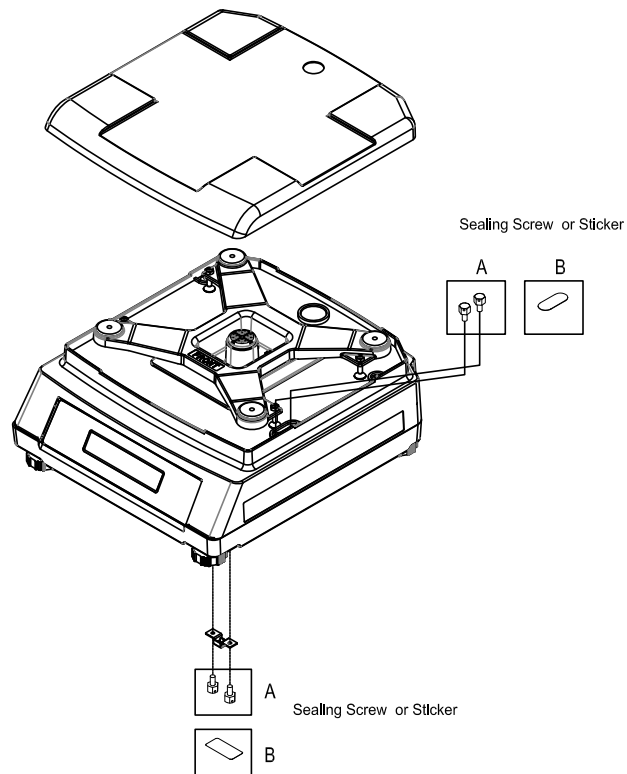
PS-160B-II Sealing Position  
PS-160P-II

TAS 1722  
Rev.1



Note: We can use sealing screw or sealing sticker.





Note: We can use sealing screw or sealing sticker.

