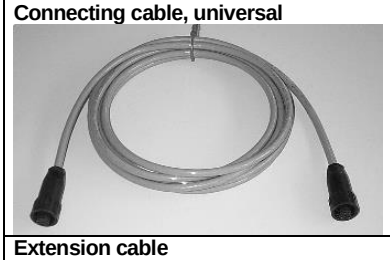
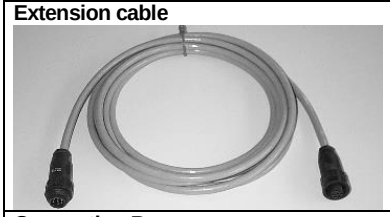
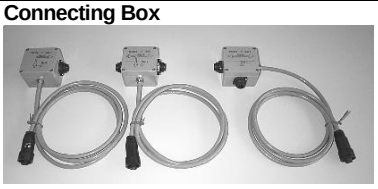
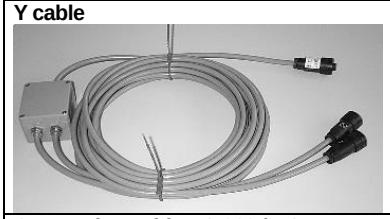
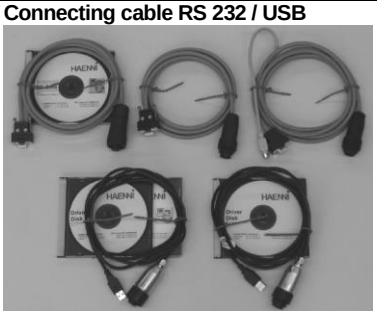
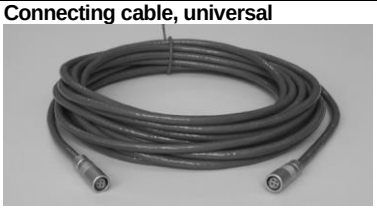
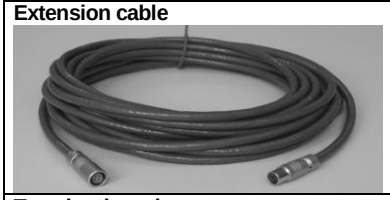
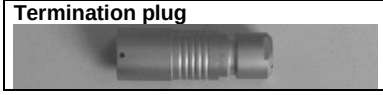
Accessories

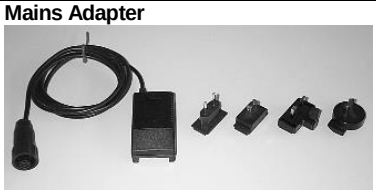
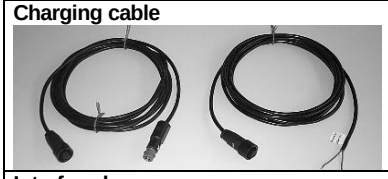
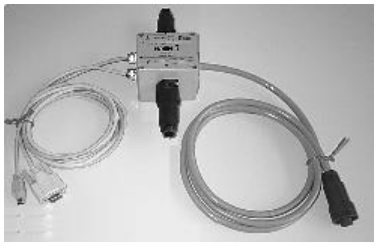
Cabling

The standard connector is of a rugged design from the manufacturer Amphenol (Series C16-1/7pin) or Binder (Series 693/7pin) for the WL 103 cabling system and Fischer (Series 104/4pin) for the WL 104. Instruments are equipped with male connectors, cables with few exceptions on both sides with female connectors. The cable is a heavy duty shielded 9mm type except for adapter cables, which generally are not lying on the road side.

Item	Description	Ordering No.
Connecting cable, universal 	Connecting cable, female-female, universal 5 m 10 m 20 m Application: For connecting two scales WL 103 forming an axle weigher. Between connecting boxes. From connecting box to processing unit. Between WL 110 and interface box E 9008	E 6904.0 E 6904.1 E 6904.2
Extension cable 	Extension cable, male-female, 5 m 10 m 20 m 30 m 50 m Application: Extending the cables E 6904	E 6912.0 E 6912.1 E 6912.2 E 6912.3 E 6912.4
Connecting Box 	Application: The connecting boxes are used for operating 2 to 12 scales WL 103 with the processing unit EC 100 or the processing software EC 200. For one scale a type 0 is needed for all other scales a type 1 each. Refer also to the data sheets EC 100 and EC 200. The connecting box type 2 is used for powering the components of the system with external DC 12 V. It can be inserted anywhere in the cabling.	Type 0: E 7108.0 Type 1: E 7108.1 Type 2: E 7108.2
Y cable 	Specially made for a system consisting of two scales WL 103 and a processing unit. Replaces two connecting cables, one box type 0 und one box type 1. Same as above but switches the two connected wheel load scales into an axle load scale. Needs DC 5V. A connecting cable with a 5V supply must be used if connected to a PC.	E 6917.0 E 6917.1
Connecting cable RS 232 / USB 	For downloading weighing results from EC 100 to a PC and for configuring the EC 100. The software EC DATA is included. RS 232, 2 m USB, 2 m For connecting a PC directly to a box type 1. Replaces a universal cable and a connecting cable E 6916. RS 232, 5 m USB, 5 m For transition from the WL 103 / WL 110 cable system to a PC with EC 200 processing software RS 232, 2 m RS 232, 5 m With DC 5V supply from the mouse port, RS 232 / PS2, 2 m With DC 5V supply, USB, 2 m With DC 5V supply, USB, 5 m	E 6913.0 E 6913.3 E 6913.1 E 6913.4 E 6916.0 E 6916.1 E 6916.2 E 6916.3 E 6916.4
Connecting cable, universal 	Connecting cable, female-female, universal 0.4 m 1,3 m 2 m 5 m 10 m 20 m 30 m Application: For connecting WL 104 scales and other components of the WL 104 system.	E 6920.0 E 6920.5 E 6920.1 E 6920.2 E 6920.3 E 6920.4 E 6920.6
Extension cable 	Extension cable, male-female 5 m 10 m 20 m 30 m 50 m Application: Extending the cables E 6920.	E 6921.0 E 6921.1 E 6921.2 E 6921.3 E 6921.4
Termination plug 	Application: Electrical termination of open connectors of the WL 104-Systems	E 6919.0

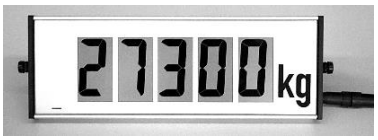
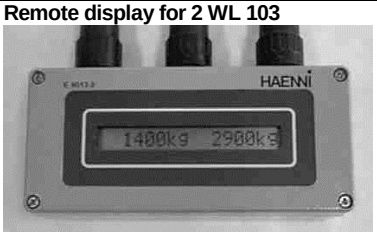
Accessories

Power supply, interface and switch box

Item	Description	Ordering No.
Mains Adapter 	Technical Data: Input: AC 100V…240V. Output: DC 15V/1,2A. Cable 2 m Application: For charging one scale WL 103. For charging two scales WL 103 using a connecting box type 2 and a y-cable (or equivalent). For charging the processing unit EC 110. For supplying the WL 104 system.	Plug: Euro: E 7090.0 UK: E 7090.1 Australian: E 7090.2 US: E 7090.3
Charging cable 	Connecting cable 12V with plug ISO 4165 for car cigarette lighter 5 m Connecting cable 12V without plug 5 m	E 6905.0 E 6907.0
Interface box 	Converts the load signal of the WL 104 system into USB for further processing using the EC 200 software. The interface box is powered by the personal computer's USB port while the connected WL 104 scales and additional components are fed through the additional connector. Therefore a mains adapter E 7090 or a connecting cable E 6905 is needed. Technical Data: Power consumption: max. 200 mA @ 5V from the USB port of the PC, max 2 A @ 12 V, depending on the number of connected scales and components. Protection: IP 66 (water jet proof in the plugged condition) Temperature range: -20…+60 °C	E 9021.0
Interface box 	Converts the load signal of two dynamic wheel load sensors WL 110 into RS232 for further processing using the EC 200 software. The interface as well as the connected sensors are powered by the personal computer. For this a connecting cable E 6916 with 5 V supply is needed. Technical Data: Power supply: mouse port or USB of the personal computer Power consumption: 90 mA @ 5 V Protection: IP 54 (splash water proof). Temperature range: -20…+60 °C	E 9008.0
Switch box 	For switching on alarm devices and/or traffic lights in conjunction with the EC 200 software. The box is connected to the same RS232 port which is used for the interface box. The two relays are controlled by the EC 200. One is switched in the case of overweight, the other after the weighing is completed in order to separate the queued vehicles by a traffic light. Two connectors with screw contacts are included. Technical Data: Power supply: mouse port of the personal computer Power consumption: 120mA @ DC 5V in switched state. Protection: Watertight IP 65 Temperature range: -20…+60 °C	E 9016.0

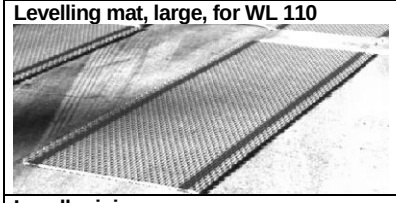
Accessories

Remote displays

Item	Description	Ordering No.
Long distance display 	To be used in conjunction with the processing software EC 200. The display is powered by DC 12V from the mains adapter E 7090 or from any other 12 V source using a cable E 6905.0 or E 6907.0 and a connecting box type 2 E 7108.2 Technical Data: Characters: 100 mm LCD Size: 0.52 m wide, 0.18 m high, 40 mm deep. Weight: 3.5 kg Materials: Aluminium alloy, waterproof	E 9018.0
Remote display for 2 WL 103 	Remote display for two WL 103. The display is powered by 12V DC from the mains adapter E 7090 or from any other 12 V source using a cable E 6905.0 or E 6907.0. The scales connected are charged via the display. Technical Data: Characters: 8 mm LCD Size: 175 mm wide, 80 mm high, 60 mm deep. Weight: 0.7 kg Materials: Aluminium alloy, waterproof	E 9013.0

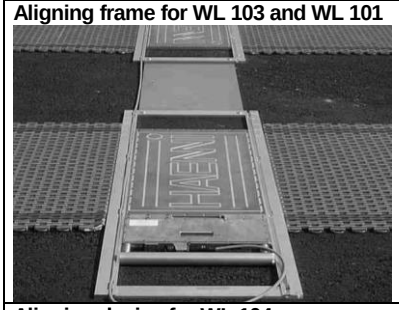
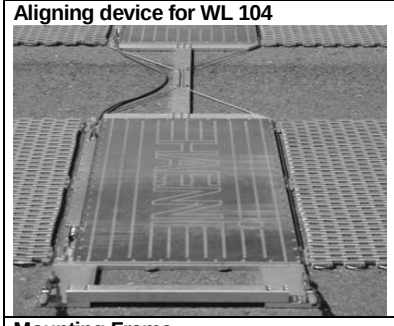
Levelling mats

The purpose of levelling mats is to lift the non weighed axles to the level of the scale platform. This is necessary to reduce errors due to shift of the center of gravity and to load shift within double and triple axle systems. It is absolutely necessary for dynamic weighing of any kind of vehicles. For more details refer to the technical paper P 1196.

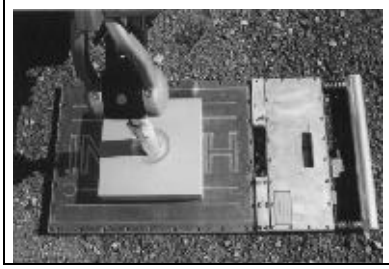
Item	Description	Ordering No.
Levelling mat, large, for WL 103 / 101 	For static scales with 17 mm platform height. The main application is to weigh a large number of vehicles in a short time. Usually electronic scales WL 103 or WL 104 with a processing unit are used in this case. Dimensions (LxWxH) / Weight / Execution: 2.8 m x. 0.9 m x 17 mm / 16 kg / grey with red lines 3.8 m x. 0.9 m x 17 mm / 22 kg / grey with red lines 3.4m X 1m x 17mm /23 kg / grey without red lines Materials: Polypropylene and stainless steel	 D 12535.0 D 12535.1 D 12535.2
Levelling mat, small, for WL 101 / 103 	For static scales with 17 mm platform height. The main application of the small mat is to weigh individual vehicles at any place with a minimum of equipment. Two scales and four mats easily fit into the trunk of a car. Technical Data: Size: 0.4 m long. 0.75 m wide 17 mm high. Weight: 2 kg Materials: Polypropylene and stainless steel	D 12540.0
Levelling mat, large, for WL 110 	For dynamic scales with 11 mm platform height (WL 110). Technical Data: Size: 2.8 m long. 0.9 m wide, 11 mm high. Weight: 12 kg Materials: Polypropylene and stainless steel	D 12536.0
Leveller joiner 	For linking two or more long 17 mm mats in order to level out the full vehicle length.	D 12528.0

Accessories

Frames

Item	Description	Ordering No.
Aligning frame for WL 103 and WL 101 	The purpose is to align two scales and four long levelling mats. It also facilitates shifting the scales laterally in order to adapt to the track width of the vehicle. The frame is equipped with a groove for the connecting cable. The aligning frame consist of two frames and one connecting plate. Technical Data: Size: 3.5 m long. 0.5 m wide, 15 mm high. Weight: 16 kg Materials: Aluminium alloy, corrosion resistant	D 11965.1
Aligning device for WL 104 	The purpose is to align two or more scales and levelling mats. It consists of two end pieces and of connecting elements according to the number of scales. The whole system is tied by a cable on each side. Technical Date: Dimensions: Length according to the number of scales, 0.5 m wide, 15 mm high. Weight: 8 kg Materials: Aluminium alloy, corrosion resistant Delivered in a carrying case	For 2 or 3 scales: D 12780.0 For 3 scales: D 12780.1 For 4 scales: D 12780.2
Mounting Frame 	The mounting frame is used for lowering two scales into the pavement. In this case no levelling mats are required because the scale surface is flush to the pavement. This semi-permanent installation is advantageous if the weighing is always performed at the same location. The frame is equipped with a groove for the connecting cable. For the proper installation HAENNI provides the corresponding tools. Technical Data: Size: 3.6 m long, 52 cm wide, 29 mm high. (for WL 101 / WL 103) 3.6 m long, 60 cm wide, 29 mm high. (for WL 104) 3.6 m long, 62 cm wide, 23 mm high. (for WL 110) Weight: 32 kg (for WL 101 / WL 103), 34 kg (for WL 104 / WL 110) Materials: Aluminium alloy, corrosion resistant	for WL 103 / WL 101 D 12597.0 Extension 1m for WL 103XL D 12597.42 for WL 104 D 12597.30 Extension 1m D 12597.40 for WL 110 D 12597.20

Force Distributing Plates (pads)

Item	Description	Ordering No.
Pad for weighing point loads   	Using this pad point loads can also be weighed on low profile scales. It enlarges their field of application as follows: - Weighing the load of hydraulic supports of crane, fire brigade and other special vehicles. - Weighing the load of hard rubber auxiliary wheels of trailers. - Weighing of rigid items such as containers and machines. Even more applications are possible if fitted with the additional telescope support: - Weighing the down force of trailer couplings. Technical Data: Due to the limitation of the load per surface and the capacity of the scale used, the following maximum loads have to be respected: range scale max. load limited by 2t WL 103 2000 kg capacity of the scale 10t WL 101 6500 kg max. load per surface WL 103 6500 kg max. load per surface 15t WL 101 8500 kg max. load per surface WL 103 8500 kg max. load per surface Size: 0.24 m long, 0.24 m wide, 65 mm high, 290…480 mm with support Weight: 8 kg, with telescope support: 9.5 kg Materials: Aluminium alloy, rubber	Pad only: D 12590.0 Pad with telescope support: D 12590.1

Accessories

Force Distributing Plates (pads) (continued)

Hydraulic pad for testing 	If low profile scales are tested the force applied must act the same way as an air filled rubber tyre does. The best simulation is achieved by using the hydraulic force plate. The liquid filling between the metal plate and the rubber diaphragm reacts exactly the same way, as the inflated air of a tyre does, but without elasticity, which would influence the test in a negative way. Thanks to the much smaller compressibility of the liquid compared with air, all temperature effects can be avoided, so that the applied load stabilises in a short time. For more details refer to the technical paper P1133. Technical Data: Size: 0.46 m long, 0.24 m wide, 45 mm high, 190 mm gauge included. Weight: 13 kg Materials: Aluminium alloy, rubber, glycerine	W 12497.0

Carrying Cases

Item	Description		Ordering No.
Carrying case for two scales 	Two scales fit into this case. Two handles on both sides are placed in a way that the case can be carried by two persons in order to comply with health regulations. Four screw-on legs are included so that the case doubles as a road side table. Technical Data: Size: 1.20 m long, 0.55 m wide, 0.16 m high Weight: 13 kg Material: Aluminium plastic compound	WL 101 WL 103 WL 104 WL 110	D 12526.0 D 12526.1 D 12526.2 D 12526.3

Gradient meter

Item	Description	Ordering No
Gradient meter with Laser beam 	Using the set screw the laser beam can be adjusted in a way that it aims exactly to the height mark of the target which is placed on the other side of the weighing site. The inclination of the weighing site can be read directly from the display. The gradient meter may also be used to precisely adjust the level of a mounting frame during the installation into the pavement.	D 12527.0