

SOLAR

COOL



ECO FRIENDLY • SOLAR POWERED • AIR CONDITIONER

MALAYSIA'S FIRST REVERSE CYCLE SOLAR PV-INVERTER AIR CONDITIONER



AIR-CONDITIONER AND SOLAR PV PANELS

Recommended Tools & Accessories
for Installation & Maintenance

Recommended Tools for Air Con Unit Installation and Maintenance

<p>1. Level meter, measuring tape</p> 	<p>2. Screw driver</p> 	<p>3. Impact drill, drill head, electric drill</p> 
<p>4. Electroprobe</p> 	<p>5. Universal meter</p> 	<p>6. Torque wrench, open-end wrench, inner hexagon spanner</p> 
<p>7. Electronic leakage detector</p> 	<p>8. Vacuum pump</p> 	<p>9. Pressure meter</p> 
<p>10. Pipe pliers, pipe cutter</p> 	<p>11. Pipe expander, pipe bender</p> 	<p>12. Soldering appliance, refrigerant container</p> 



Typical Exterior Wall Mount For Air Conditioner Condensing Unit



Recommended Cables & Connectors for Solar PV Panels



MC4 Cable



MC4 Branch Connectors

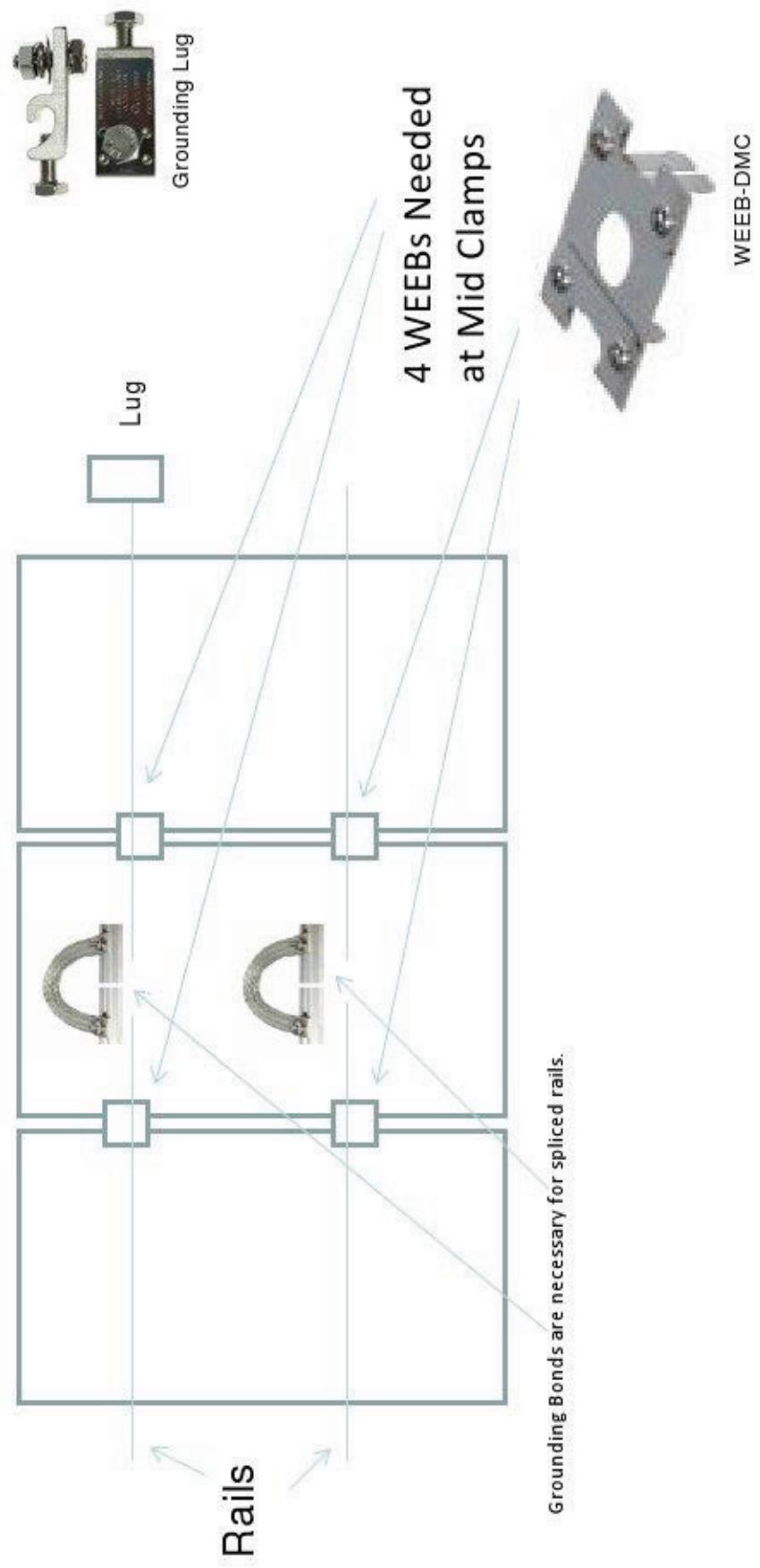


Individual MC4 Connectors for AWG10 (4.0mm)
 *Note – a MC4 crimping tool is needed to attach these to a cable.



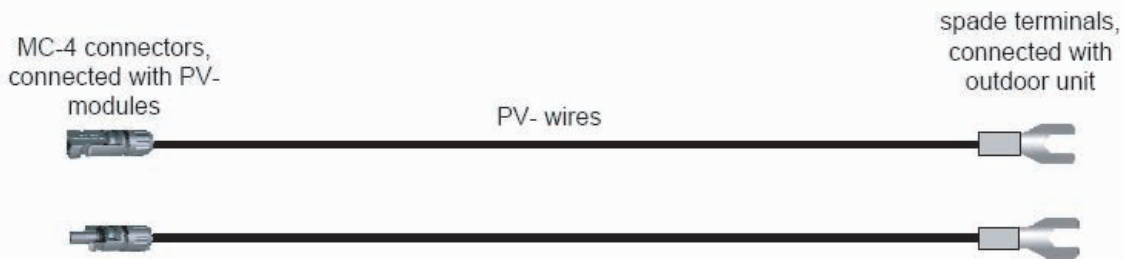
MC4 Tools
 *For connecting MC4 to MC4

Typical Panel Grounding For Solar PV Panels



Assembly of PV-wire

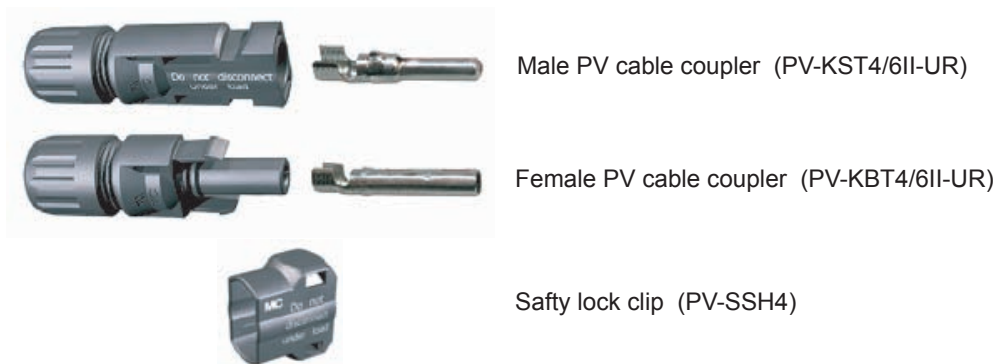
1. The PV-wire should be single-pole, double insulated solar cable, the length of which is due to the distance from PV-modules to outdoor unit of AC, the recommended conductor cross section is AWG12, and it should accord with UL4703.
2. The MC-4 Connectors should be assembled to the PV-wires, and the other side of the PV-wires should be assembled with spade terminals.



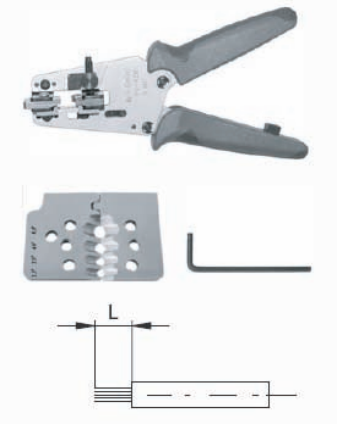


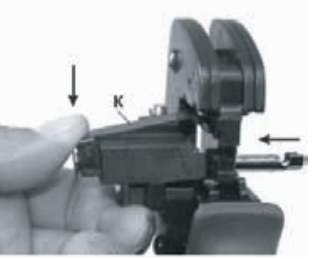





Assembly of MC-4 Connector

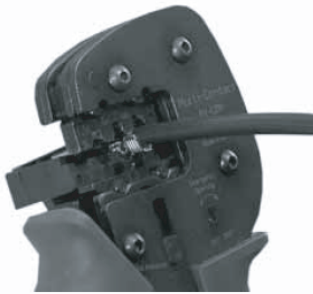

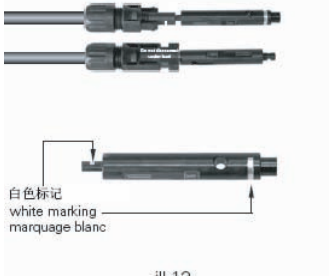



1. Introduction of MC-4 Connector

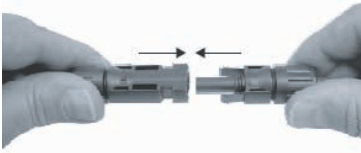
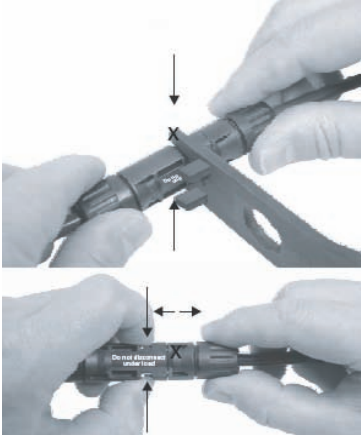

The MC-4 Connector contains three Parts, male PV cable coupler(PV-KST4/6II-UR), female PV cable coupler(PV-KBT4/6II-UR) and a safty lock clip(PV-SSH4).



2. Assembly Method

	Introduction	Photo	Recommended tool
Step1	Strip cable insulation. L = 6-7,5 mm. Take care not to cut individual strands.		Stripping pliers: PV-AZM-1.5/6  Interchangeable blade: PV-M-AZM-156 
Step2	Open and hold clamping clip (K). Insert contact in the appropriate cross-section range of the crimping tool. Turn contact till crimping tabs face the top. Release clamping clip (K). The contact is secured.		Crimping pliers: PV-CZM-19100  Insert: PV-ES-CZM-19100  Locator: PV-LOC 
Step3	Lightly press the pliers together so that the crimping tabs lie securely within the crimping die.		

<p>Step4</p>	<p>Insert the stripped cable until the insulation comes into contact with the crimping insert. Close crimping tool completely. Check crimp.</p>		
<p>Step5</p>	<p>Push the crimped contact into the socket resp. plug insulator until it engages. Pull lightly on the lead to check that the metal part has engaged.</p>		
<p>Step6</p>	<p>Insert the test pin with the corresponding side into the socket or plug to the end position. If the contact is correctly assembled, the white marking on the test pin must be still visible.</p>		<p>Test plug PV-PST</p> 
<p>Step7</p>	<p>Screw on the cable gland, hand-tight, with the tools PV-MS. The tightening torque must be adapted to the solar cables used in each specific case. Typical values lie in a range between 2,5Nm to 3Nm.</p>		<p>Open-end spanner PV-MS 1 set = 2 pieces</p> 

<p>Step8</p>	<p>Plug the coupling together until they engage. Check correct engagement by pulling on the coupling.</p>		
<p>Step9</p>	<p>Compress the two snapin springs (X) by hand or with the PV-MS tool and separate the coupling.</p>		
<p>Step10</p>	<p>Plugging: Mount the plug connection until it engages. Check correct engagement by pulling on the coupling. Unplugging: The plug connection can only be unlocked with the tool PV-MS.</p>	<p style="text-align: center;">PV-SSH4</p> 	<p>PV-SSH4</p> 