the code store.co.uk
Sales: 0151 324 0779
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Housing Installation Guide
Safety

Any electrical work must be carried out by a qualified electrician only.

**Only Rechargeable Nickel Metal Hydride AA batteries should be used in the Display unit.** Failure to do this may result in explosion or fire.

There are no user serviceable parts contained within the equipment - do not open it other than by removal of the battery cover. Opening the unit beyond this will invalidate your warranty.

Do not allow the product to come in contact with liquid & do not drop the unit.

Before commencing any installations please carry out a risk assessment in accordance with your company procedures & read this guide fully.

Recycling & Disposal

Do not dispose of used batteries with general waste. Dispose of them at battery recycling points in shops or at your local recycling centre.

Units marked with the symbol below should not be disposed of with general household waste, but should be disposed of at designated WEEE collection facilities.

Cleaning

If the unit needs cleaning, use only a dry cloth. Do not use abrasive pads, detergents, scouring powders, solvents or other liquid or aerosol cleaners.

Helpline

If you encounter any difficulties that are not covered in this guide whilst installing Ewgeco, please call:

**Installation Support** 07794607530

**Ewgeco Office** 0131 331 5445
Housing Installation Guide

Product Range

**H300 EWG**
- Electricity, Water & Gas

**H300 EEE**
- Electricity, Electricity & Electricity

**H300 ERG**
- Electricity, Renewable & Gas
Housing Installation Guide

The Housing System

1. Ewgeco display with 3 x NiMH rechargeable batteries
2. Cradle with DC power supply (6V 850mA)
3. Transmitter with DC power supply (5V 500mA) & 3 x AA batteries
4. Electricity connection cable with current transducer (CT) clip. (CTs available in 10mm, 16mm & 24mm. Cable length = 1.5m)
5. Water/Electricity meter connector cable (Cable length = 0.5m, longer length available on request)
6. Gas meter connector cable (Cable length = 10m, longer length available on request)
7. Wall mounting screws & locking screws
8. USB Cable

Please note: A site managers installation guide has been dispatched with the system for further information.
There are 2 ways to connect to the electricity meter. If the electricity meter has a pulsed output, you can connect the volt free connection terminals on the meter to port 1 on the transmitter & connect the power supply to the transmitter. Permission must be sought from the meter operator (MOP).

Please note: for the best results when installing a PV system, please use this method, see pages 8 and 10.

You will be supplied with a **TS16L** clip.

Connect the CT Clip to the live supply cable exiting the meter. Clip can be situated anywhere along the live tails, between the incoming meter and the distribution board.

Please note: if a different size of CT clip is required, please call our installation team on 0131 331 5445.

If preferred, or if the electricity meter does not have a pulsed output, identify the live tail leaving the meter.

Connect the other end to port 1 on the transmitter & connect the power supply to the transmitter.
1. New Home - Specify pulse enabled gas meter with pulse block fitted.

Retrofit - Contact Ewgeco installation support team for advise. A photo of your gas meter will be requested.

2. Run gas lead from the gas meter to the transmitter location. **Please run cable during the first fix stage.** If the lead is to be left bare for some time wrap tape around the exposed end to protect from dust.

3. Ensure there is at least 1 metre between the transmitter and the gas meter. A closer installation may be possible. Please call the Ewgeco Installation Team if necessary. Refer to Appendix 1 on page 19 (Transmitter Port Connections) then connect cable from the pulse block to the transmitter.

4. Final setup shown with electricity meter & power supply also connected. **If the utility cables cannot be laid to allow each utility to connect to the same transmitter, additional transmitters will be required.** Simply run the cable to a power socket where an additional transmiterr can be fitted. (See Appendix 1).
Specify pulsed output water meter with cable attached & fit plug to the other end of the cable.

Fit the water meter internally in the property beside the shut off valve.

Run cable from the water meter to the electricity meter cupboard. **Please run cable during the first fix stage.** If this is not possible, simply run it to a power socket where a transmitter can be fitted. If a longer cable is required use connector cable (item 5 on page 4 of this guide).

Refer to Appendix 1 (Transmitter Port Connections) then connect cable from the water meter to the transmitter. Final setup shown with electricity, gas & power supply also connected. **If the utility cables cannot be laid to allow each utility to connect to the same transmitter, additional transmitters will be required (See Appendix 1).**
Run the cable from the meter to the electricity cupboard. If this is not possible, simply run it to a power socket where an additional transmitter can be fitted (See Appendix 1).

Locate & connect to the meter using the volt free connection terminals.

For cable port connection information please refer to appendix 1.
To install the Solar Thermal device, we suggest using a Sontex Supercal 531 heat meter. Please request when placing your order that 1 pulse = 0.001 kWh should be specified.

1. To install the Solar Thermal device, we suggest using a Sontex Supercal 531 heat meter. Please request when placing your order that 1 pulse = 0.001 kWh should be specified.

2. Run a 2-core low voltage cable from the heat meter to the transmitter location.

3. Connect the cable to the pulse terminal within the heat meter. At the transmitter end, use the supplied crimp cable to connect cable into the transmitter.

4. Refer to appendix 1 (transmitter port connections). If the utility cable cannot be laid to allow each utility to connect to the same transmitter, additional transmitters will be required.
1. Locate & connect to the meter using the volt free connection terminals.

2. Run the cable’s from the meter back to the transmitter location. If this is not possible, simply run it to a power socket where an additional transmitter can be fitted.

The location of the Ewgeco display is extremely important to help gain continuous occupant interaction. To get the most out of the real time energy display monitor it must be placed in the hub of the home, in a location that is in full view of the occupants at all times & easily accessible, ideally in a hallway. Also position the unit away from heat sources as this may effect the temperature gauge.

**Power**
The display cradle needs mains power. It is important to locate the cradle where a power socket is available or can be created.

**Locking**
If required, the unit can be locked to the cradle so it cannot be removed. Screws are provided. Ensure that there is sufficient space for a screwdriver to access the locking screws when selecting the location for the cradle.

**Transmitter**
Ensure that there is sufficient space above the transmitter when it is mounted to allow the battery door to be slid open & give access to the reset button.

**Height**
It is important to install Ewgeco at an appropriate height for the occupant.

**Residential**
Average UK adult height: 1600mm - 1800mm
The Ewgeco Cradle

1. The cradle comes connected to a 6V DC power supply to charge the unit.

2. The cradle can sit free standing on any stable surface.

3. Alternatively, it can be easily wall mounted by screwing onto the wall using the 3.5 flat headed countersunk screws provided. The screw holes are the same size as an electrical wall box, or rawlplugs can be used. These following steps are a guide to help hide cables but trunking can be used.

- **one** Remove the fold out stand & the 4 screws from beneath it.

- **two** Detach the cradle cover from the cradle & the power cable from the cradle cover, **taking note which wire connects to each of the 2 pin contacts**.

- **three** Pull the cable through the cradle so it is free.

- **four** Route the cable as required, feed it through the wall box & reconnect to the cable cover.

- **five** Replace the 4 screws on the back of the cradle to re-attach the cradle cover.

- **six** Use the 2 countersunk screws provided to attach the cradle to the wall box. **IMPORTANT** only use countersunk screws.

- **seven** **Check the polarity** of the pins is correct before putting the display on the cradle. The unit can be locked to the cradle using the two small screws provided.
Buttons & Features

- Current consumption
- Total consumption today
- Cost per hour
- Total cost today
- Individual Appliance monitoring
- CO2 emissions (kg/d)
- Ewgeco units

Bars light up from green to orange to red

Real time consumption rate in £ or kW

Up/Down/OK buttons
- Brightness Control
- Alarm facility
- Access to memory
- Adjust time & tariff

H300

Temperature
CO2 emissions
Ewgeco units
Peak consumption rate for the day remains lit

Time
17:15
19°C 92.3
8.28 kW
2.38 £/h
10.20 kW

Control
Brightness

- Temperature
Buttons used in Configuration

Use the up & down buttons to scroll to your chosen answer.

Use the OK button to confirm your selection.

Use the 4th button to go back a step at any time during set up.

Hold the 1st & 4th buttons to restart configuration. You will be asked to confirm that you wish to return to factory defaults. This will wipe all user data from the unit.

1. When batteries are inserted, the unit lights up & a welcome message appears for two seconds.

2. “Date 01.01.10” appears & “01” flashes to indicate day is to be set. Use up/down/OK buttons to select then repeat for month & year.

3. “Time 00:00” appears & “00” flashes to indicate hour is to be set. Use up/down/OK buttons to select then repeat for minutes.

4. “Next?” appears at the top of the screen & “No” at the bottom. Use up/down to scroll to “Yes” but DO NOT PRESS OK YET.

5. On the transmitter, slide up the battery cover & use an unwound paper clip or pin to reset as shown. Hold for at least 7 seconds.
6. Slide back cover & take note of the long serial number below the barcode on the back of the transmitter.

7. Now press OK on the display unit & it will start scanning for the transmitter.

8. When the display shows a long serial number that matches the one from the transmitter, select “Yes” at the bottom of the screen then press OK. If it does not show the number noted in step 6, select “No” then press OK.

9. Select “Yes” for each utility connected to that transmitter.

10. “RF Done?” appears. If all transmitters have been connected select “Yes”, if not repeat this process until all transmitters are connected.

11. “Clip? Yes” appears & the first column illuminates. If you have used a CT clip to connect to the electricity supply, select “Yes”, if you have connected directly to a pulsed electricity meter, select “No”.

12. “Voltage 230” appears. Scroll between 120, 230 & 415 then press OK to select the relevant voltage.
“1-Phase? Yes” appears. If connecting to a single phase supply or when connecting using electric pulses - both single and 3 phase select “Yes”. For a 3 phase supply using CT’s select “No”.

This screen will only appear if “Clip? Yes” has been selected. “T’ducer? TS10L” appears. Select the appropriate CT clip from TS10L, TS16L & TS24L.

“Currency? £” appears. Select £ for installations in the UK, otherwise choose the relevant currency.

“Tariff” appears & price flashes. Input a price for the utility. Please refer to survey document for tariff data.

You will now be prompted to repeat the Pulse, Currency & Tariff steps for each utility connected. (NB. Pulse for Gas = 0.01)

You will now be asked a series of questions to set initial calibration of the unit. “Domestic? Yes” appears. Press OK.
“People 01” appears. Select the number of occupants & press OK.

“Bedrooms 01” appears. Select the number of bedrooms & press OK.

“House? Yes” appears. Press OK for a house or change to “No” for a flat or bungalow.

Error Messages.
The display may show a number of error messages. The table below outlines what each error message means & how to rectify the problem.

**RF Fail**
This will appear when set up is complete if there is a weak signal or no signal between the transmitters & the display. Ensure all plugs on the transmitter are properly connected. Once you have checked that everything is connected & working, press buttons 1 & 4 (see page 12, Buttons used in Configuration) to carry out a factory reset & start the configuration routine again.

**Com**
RF connection between the transmitter & the display is broken. Check the transmitter power supply is plugged in & switched on. The letter(s) after Com indicates which transmitter:

- ComE for electricity,
- ComW for water,
- ComG for gas,
- ComR for renewables,
- ComEG for electricity & gas, etc.

**Bat**
Low battery warning. Replace batteries in the transmitter or recharge the batteries in the display by replacing on cradle. The letter(s) after Bat indicates which transmitter/display:

- Batt for Ewgeco display,
- BatE for electricity,
- BatW for water,
- BatG for gas,
- BatR for renewables,
- BatEG for electricity & gas, etc.

**Memory**
Memory is full. Upload to a computer or leave to over-ride data.

**PC**
Ewgeco is connected to a computer.

**Upload**
Data is being uploaded to a computer.
**Compliance**
Manufactured to ISO9000 & IPC610 Quality Assurance Standards & tested for compliance with European CE certification and R & TTE 99/5/EC.

**Radio Frequency**
RF 2.4 GHz
Ewgeco uses low power radio technology. It has a range of around 400m in open space. In exceptional cases a signal booster may be required (see Appendix 2).

**Power Supply**
- **Display unit**: 6V DC 850mA
- **Transmitter**: 5V DC 500mA

**Power on Factory Default Settings**
- **AC Voltage**: 240V

**Operating Environment**
- **Operation Temperature**: 0 - 45°C, 85% humidity
- **Storage Temperature**: 0 - 60°C, 85% humidity

**Warranty**
The company warrants that (subject to other provisions & conditions) the Goods will be of satisfactory quality within the meaning of the Sale of Goods Act 1979, be reasonably fit for the purpose of monitoring relative levels of electricity, water and/or gas consumption (as applicable, depending on the type of Goods supplied). The warranty is valid for one year from the date of purchase.

**Returns**
If the Customer wishes to return any Goods as faulty & the Company (having inspected the Goods) agrees that the Goods are faulty then the Customer shall permit the Company or its authorised agent to collect the Goods for reconditioning. The Company shall either provide new or reconditioned Goods & the Company or its authorised agent shall re-install the Goods to the Premises as soon as reasonably practical.
Appendix 1

Additional Transmitters
If the utility cables cannot be laid to allow each utility to connect to the same transmitter, additional transmitters can be purchased. Up to 3 transmitters can be used per display unit. Please follow this guide to port connections for each individual transmitter.

Transmitter Port Connections
The transmitter port connections are located on the bottom of the transmitter as shown below.
Please use the table on the right to determine which ports to plug into on the bottom of the transmitter.

Utilities connected to 1 transmitter

<table>
<thead>
<tr>
<th>Utilities connected to 1 transmitter</th>
<th>Port 1</th>
<th>Port 2</th>
<th>Port 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity (E)</td>
<td>E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water (W)</td>
<td>W</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas (G)</td>
<td>G</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renewables (R)</td>
<td>R</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity &amp; Gas</td>
<td>E</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Electricity &amp; Electricity</td>
<td>E</td>
<td>E</td>
<td></td>
</tr>
<tr>
<td>Electricity &amp; Renewables</td>
<td>E</td>
<td>R</td>
<td></td>
</tr>
<tr>
<td>Water &amp; Gas</td>
<td>W</td>
<td>G</td>
<td></td>
</tr>
<tr>
<td>Electricity, Water &amp; Gas</td>
<td>E</td>
<td>W</td>
<td>G</td>
</tr>
<tr>
<td>Electricity, Renewables &amp; Gas</td>
<td>E</td>
<td>R</td>
<td>G</td>
</tr>
<tr>
<td>Gas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Phase Electric *</td>
<td>E</td>
<td>E</td>
<td>E</td>
</tr>
</tbody>
</table>

* The order in which CTs are connected does not matter.

For Example
In the same set up you may have one transmitter connected to water (W) & one transmitter connected to Electricity (E) & Gas (G).

Transmitter 1 - The table shows that W should be connected to port 1 on a transmitter that only has water connected.

Transmitter 2 - The table shows that when E & G are connected to the same transmitter, E goes in port 1 & G goes in port 2.

Please Note
It is important that the utilities are connected in the correct order on each transmitter used in the set up. The transmitter will not work if there is a utility connected to port 2 or 3 but nothing connected to port 1.
Using Plug-in Routers (Signal Boosters)

In some instances where the transmitter & display units are situated so that the wireless signal strength between them is insufficient for normal operation, it will be necessary to use one or more plug-in routers situated between them to boost the signal strength.

**Step-by-Step Instructions**

1. Any Transmitters to be used must be switched off. To ensure this, unplug the mains adapter, open the battery cover & remove one of the batteries, if batteries are fitted. This ensures the transmitter does not affect the next steps.

2. Go to the Display Unit. If you are configuring a new system for the first time, follow steps 1 to 4 (page 13). If you are adding a router to an existing system, carry out a factory reset on the display as detailed in section ‘Buttons used in Configuration’ (page 13), then follow steps 1 to 4 (page 13).

3. Plug the router into a 13 amp mains socket situated between the Display & the Transmitter then switch it on by turning the socket on – there is no on/off switch on the router.

4. Using a pin or the end of an unwound paperclip, press the ‘Reset/Ident’ button 4 times quickly (within a maximum of 2 seconds total). The green ‘Associate/Power LED’ should switch on & not be flashing. If this does not work, press & hold the ‘Reset/Ident’ button for 5 seconds, then release and repeat pressing the ‘Reset/Ident’ button 4 times.

5. Return to the Display. Press ‘OK’ & the message ‘Scanning…’ will appear. Wait until the message ‘Next?’ is displayed.

6. Return to the Router. The green LED should be flashing. If it is not, the Router is not within the range of the Display & needs to be moved closer. Repeat steps 3 to 5 until the green LED is flashing.

7. Press the ‘Reset/Ident’ button once. This completes pairing of the router with the display. If you are adding more than one router, repeat steps 3 to 7 for each router.

8. Once all routers have been successfully paired to the display, the transmitter(s) being used in the system can be added to the Display. Leave the display with the ‘Next?’ message.

After fitting the batteries and connecting the power supply (if used) to the transmitter, continue configuration from step 5 (page 13) onwards.