



# Installation Guide

Version: 5.9 (Digitax) – September 2017

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3	Connect Screen to Loom	7
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Fleet Configuration Download Key \_\_\_\_\_

Fleet Password (optional) \_\_\_\_\_

Driver Login (for testing) \_\_\_\_\_

## Loom connections

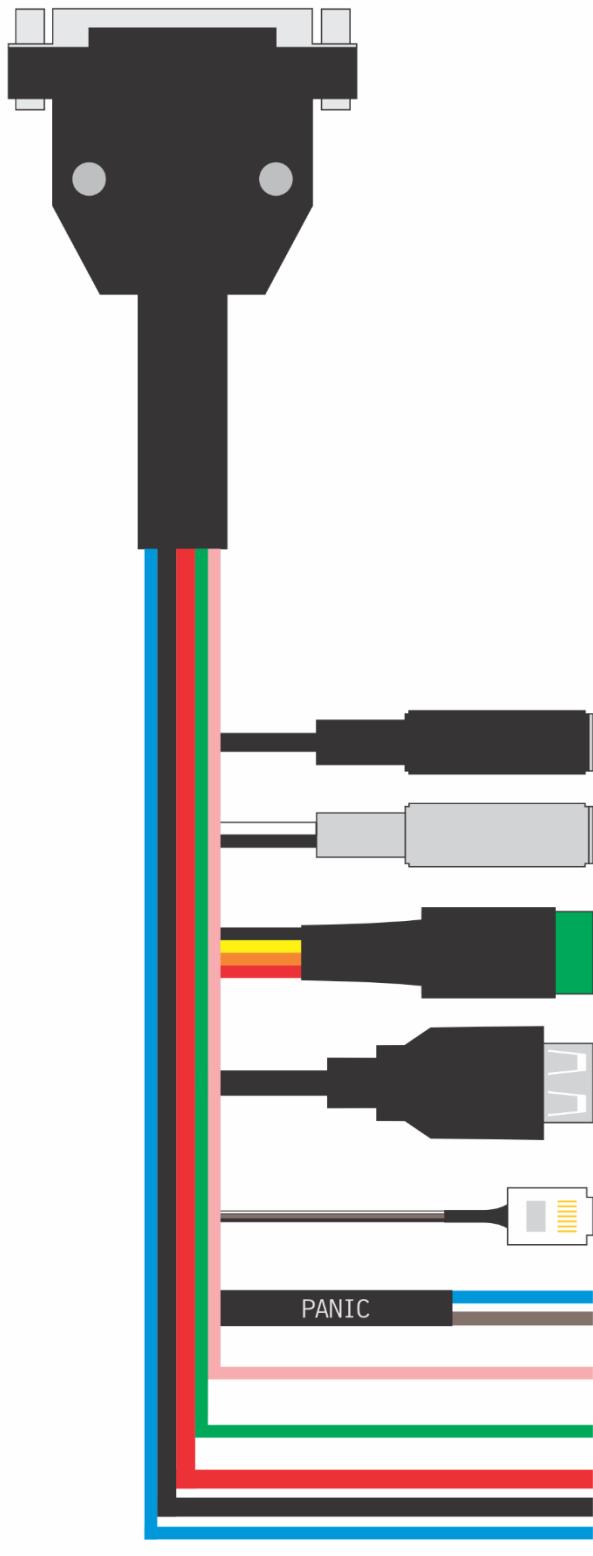


Figure 1: Wiring diagram

See Appendix 2 for detailed notes on connecting a meter to SmartMove.

## Equipment Checklist

The SmartMove system consists of:

<b>Components:</b>	
1x Digitax screen and cabling	 A photograph of a Digitax touchscreen monitor mounted on a flexible black strap. A black cable connects the screen to a black base unit.
1 x Cable Installation Loom	 A photograph of a coiled black cable assembly with various colored wires and connectors, including a USB port and several smaller adaptors.
1x Meter listen adapter. Allows SmartMove to connect to the meter OR share the meter with EFTPOS terminal (in listen mode).	 A photograph of a small beige rectangular adapter with a cable. <b>OR</b>  A photograph of a grey metal adapter with a D-sub connector and a screw.
1x combination GPS (Global Positioning System) and GPRS Antenna	 A photograph of a black oval-shaped antenna with a long black cable and two small gold-colored connectors at the end.

1x Panic Switch	
1 x Fuse (not supplied)	
1x Mounting Bracket Kit	

## Step 1 Fit Mounting Bracket and Antenna

Assemble the Mounting Bracket then fit the screen and the GPS/GPRS antenna. For detailed advice see Appendix 1 on page 11.

**Warning:** The antenna should be at least 50mm from any other GPS antenna.



## Step 2 Connect Loom to Vehicle

Prepare the loom by removing the securing cable ties. The end with the black serial connector should be positioned near the screen mount so they can be easily connected once complete. Run the other cables through the dash so they are available in the foot well.

**Leave the black connector exposed so that the screen can be replaced if necessary.**



Connect the red wire to a constant 12v power source; ideally directly to the battery. Use a fuse to protect the system. Connect the black wire to ground and the blue wire to the ignition switch.



Connect the green wire to a meter output which measures 12v when engaged, and 0v when vacant. Normally this is the output that turns the tariff light on and off. SmartMove uses this to determine the availability of the taxi.



<p>The panic switch can be mounted in any convenient, accessible location, generally in or near the steering column. Attach the switch to the blue and brown wires.</p>	 
<p>The final cable looks like a phone cable, and is used for collecting information from the meter. Please see Appendix 2 for information on this step as it depends on the meter installed.</p> <p>See page 18 if using a CabCharge Fareway meter.</p>	
<p>Speaker and microphone sockets provide for an external speaker and microphone (not currently used).</p>	
<p>The printer plug is not currently used but should be left accessible.</p>	
<p>The pink wire may be connected to a sensor used to detect if a passenger is sitting in the car (not currently used).</p> <p>OR</p> <p>If using a VerifEye camera (Mark 4 Rev K or Mark 5) the pink wire may be connected to the camera's "heartbeat" signal. Contact VerifEye for more details on how the connection is done.</p> <p>Note that the option to monitor the signal needs to be set on the fleet management website. (Property <i>Camera Alerts Notify</i>)</p>	

The USB socket is used for software upgrades and should be left accessible.



## Step 3 Connect screen to loom

Once the loom is wired up, it is simply a matter of attaching the loom and the combined GPS/GPRS Antenna to the screen.



Start by attaching the screen to the main loom. Press F6 (bottom right of screen) to start the unit. You should see the SmartMove screen after about 30 seconds.

**Leave the connector exposed so that the screen can be replaced if necessary.**

Attach the GPS antenna cable and the GPRS antenna cable to the appropriate screen sockets.

**Leave the two connectors exposed so that the screen can be replaced if necessary.**



Tape up the antenna connection.



Use cable ties (or alternative method) to tidy up the cables and keep them out of the way. Often they are tied to the mounting bracket to secure the position.

## Step 4 Configure SmartMove

If the system is not already on the configuration page (shown in next box); press the Vacant Indicator (pictured right) to enter the debug section.



Select the *Config* page. Enter the *Configuration Download Key* for the fleet (set on the configuration page of the fleet management web site).

Debug

Server GPS Properties Config Version About

**Use this page to configure the SmartMove unit for this vehicle.**

**Enter the Configuration Key for the fleet.**

Select a fleet if requested and press *OK*.

Debug

Server GPS Properties Config Version About

**Select the fleet for this vehicle**

SmartCarAustralia ▾

**Ok** **Cancel**

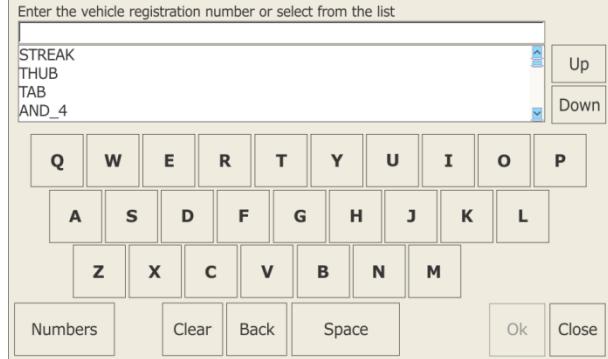
Enter the password, if one is required, then press *Ent*.

Debug

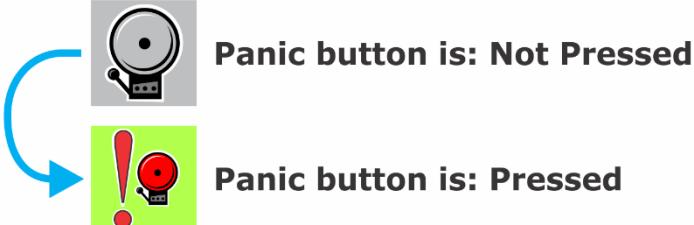
Server GPS Properties Config Version About

**Enter fleet password**

**Cancel**

<p>Select a vehicle by typing letters or numbers that form part of the registration number of the vehicle. Touch the correct number when it is visible in the list.</p>	
<p>Press <i>OK</i> then <i>Save Config</i>.</p>	
<p>Select the vehicle and press the <i>Save Config</i> button. Shortly afterwards the unit should show that it is connected to the server.</p>	

## Step 5 Test SmartMove

<p>Test the panic button.</p> <p>First, go to the test screen.</p>	
<p>The top indicator should light up whenever the button is pressed.</p>	

<p>The bottom indicator should stay on if the button is pressed long enough to trigger an alarm and a warning message is sent to the base.</p>	 <p><b>Alarm status is: Not Activated</b></p> <p><b>Alarm status is: Activated</b></p>
<p>Press the 'Reset Alarm' button to reset.</p>	 <p><b>Reset Alarm</b></p>
<p>Check that a GPS fix is obtained within 12 minutes. If no fix is obtained, move the car into the open, then check GPS connection and that the cables are connected the right way around (ie. GPS to bottom).</p>	
<p>This step is not required for vehicles without meters.</p> <p>With the meter switched on but not running, the car symbol at the bottom right should show one person in the car. With the meter running the symbol should show three people in the car</p> <p>If the symbols are inverted the car needs to be reconfigured in the system. Set the vehicle property <i>Vehicle Inverted Meter</i> to Y or N.</p> <p>If the symbol doesn't change then check that the dome light goes on and off with the meter – a new bulb might be needed. If the light is working then check that the digital input line has been wired correctly.</p>	 

# Appendix 1: Screen and Antenna Installation

The following illustrations and instructions come from the Digitax Technical Manual

## Screen Dashboard Fitting

Clean the dashboard surface that the bracket is to be fixed to with a clean cloth with alcohol or a suitable cleaning (de-greasing) solution.



Make sure the surface is grease and polish free.



Place the bracket in position without removing the protective film.



Press the bracket wings down into position on the dashboard.



Carefully model the bracket wings to fit the dashboard.



Remove the protective film from the glue pad on the base of the bracket.



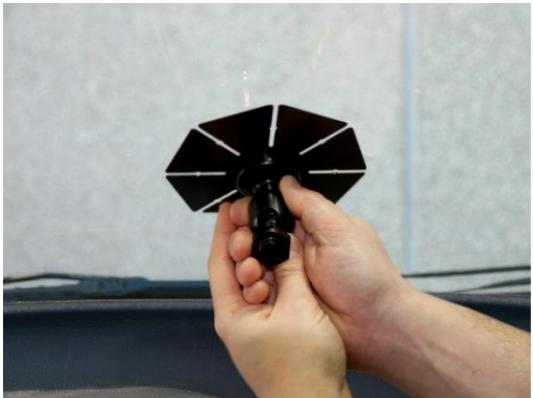
Gently warm the dashboard where the bracket is to be fitted.



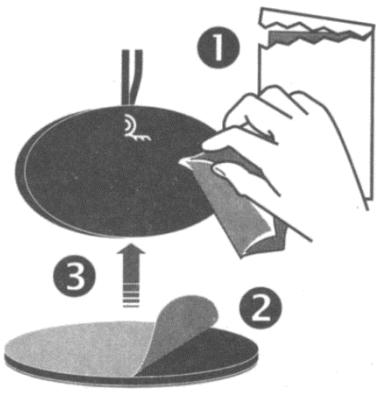
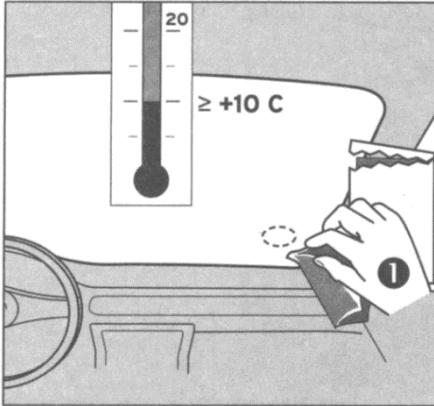
Gently warm the adhesive pad on the bracket in the same way.	
Firmly press the bracket into position to obtain the best adhesion pressure.	
Adjust the ball bracket so the face place is in the best position to allow the screen to be fitted to it.	
Fix the screen to the bracket using the screws provided and adjust the bracket so the screen is in the best position for the driver..	

## Screen Windscreen Fitting

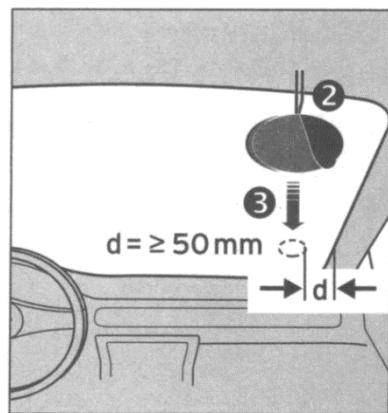
Clean the windscreens surface that the bracket is to be fixed to with a clean cloth with acetone or a suitable cleaning.	
Make sure the required area is clean, grease and polish free.	
Warm the glass where the bracket is to be fitted.	
Remove the protective film from the adhesive pad on the base of the bracket and warm gently.	

Firmly press the bracket onto the glass to obtain the best adhesion possible.	
Using the screws provided fix the taximeter to the bracket.	

## Antenna Fitting

1. Remove supplied alcohol swab from foil sachet. 2. Clean surface of antenna. 3. Remove backing tape from one side of the double sided mounting pad.	
1. Clean windscreen area with swab.	

2. Remove backing tape from remaining side of the double sided mounting pad.
3. Apply antenna to screen.



## Appendix 2: Connecting the meter

There are two connections to the meter:

- The digital line is used to detect whether the meter is running or not i.e. the vehicle is engaged or vacant.
- The serial line with the RJ12 connector is used to collect the fare when the meter is switched to vacant.

The following sections describe how the wiring is connected for the various types of meters.

Meter	Without EFTPOS See page	With connected EFTPOS See page
Cabcharge Fareway meter	n/a	18
Cabcharge, not Fareway meter		20
Martin meter	21	21
Novax	23	24
Schmidt Gx meter	26	27

The RJ12 connector has the following wiring.

- 1 – N/A
- 2 – Green
- 3 – N/A
- 4 – Brown
- 5 – White
- 6 – N/A

<<<<<<<<< add diagram >>>>>>>>

### Cabcharge Fareway meter

**Schematic**



<p>Plug the adapter into the blue (DB9) socket in the Fareway unit. DO NOT USE the RJ12 socket on the Fareway loom.</p>									
<p>Connect the RJ12 plug from the Digitax cable installation loom into the adapter.</p>									
<p>Set the following vehicle properties</p>	<table border="0"> <tbody> <tr> <td>Meter Listen</td> <td>1 – Listen interactively (No EFTPOS)</td> </tr> <tr> <td>Meter Protocol</td> <td>3 – Cabcharge (COM5)</td> </tr> <tr> <td>Requires Fare Details (Account)</td> <td>1 – Show fare screen (cannot cancel)</td> </tr> <tr> <td>Requires Fare Details (Non-account)</td> <td>2 – Show fare screen (can cancel)</td> </tr> </tbody> </table> <p>Note: if no fare details are received check with Cabcharge that you have the correct firmware in the Fareway unit.</p>	Meter Listen	1 – Listen interactively (No EFTPOS)	Meter Protocol	3 – Cabcharge (COM5)	Requires Fare Details (Account)	1 – Show fare screen (cannot cancel)	Requires Fare Details (Non-account)	2 – Show fare screen (can cancel)
Meter Listen	1 – Listen interactively (No EFTPOS)								
Meter Protocol	3 – Cabcharge (COM5)								
Requires Fare Details (Account)	1 – Show fare screen (cannot cancel)								
Requires Fare Details (Non-account)	2 – Show fare screen (can cancel)								

The RJ12 to DB9 adapter can be supplied by SmartMove or sourced locally. One supplier is Jaycar – product PA0906.



## D9 Female to RJ45 Computer Adaptor

CAT.NO: PA0906

Socket Adaptor. Please note: Unit must be assembled...

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[Shipping & Delivery Information](#)

The wiring (for the adapter shown above) is specified in the following table.

RJ45 - 8P8C	Colour	DB9
1	BLUE	N/A
2	ORANGE	1
3	BLACK	2
4	RED	3
5	GREEN	4
6	YELLOW	5
7	BROWN	N/A
8	WHITE	N/A

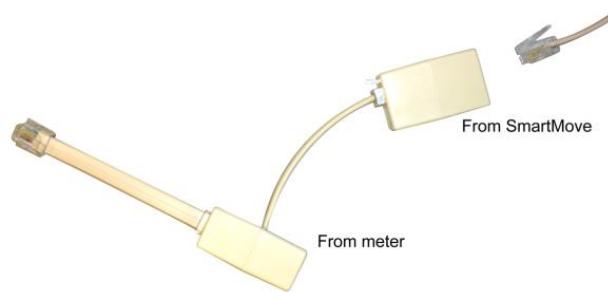
## Cabcharge meter with EFTPOS Terminal (not Fareway)

**Schematic**



Note: black lines represent existing cables

With the RJ12-RJ12 modular line cable connecting the meter to the EFTPOS modem, disconnect the EFTPOS modem end and connect it to the free RJ12 port of the Inline Coupler of the Meter Listening cable.



With the short RJ12-RJ12 modular line cable connected to the other end of the Inline Coupler, connect it to the EFTPOS modem.



Connect the SmartMove terminal's RJ12 meter connection to the joiner on the Meter Listen Adapter



Set the following vehicle properties

Meter Listen

2 – Listen passively (EFTPOS)

Meter Protocol

0 – VTD compatible (COM5)

Requires Fare Details  
(Account)

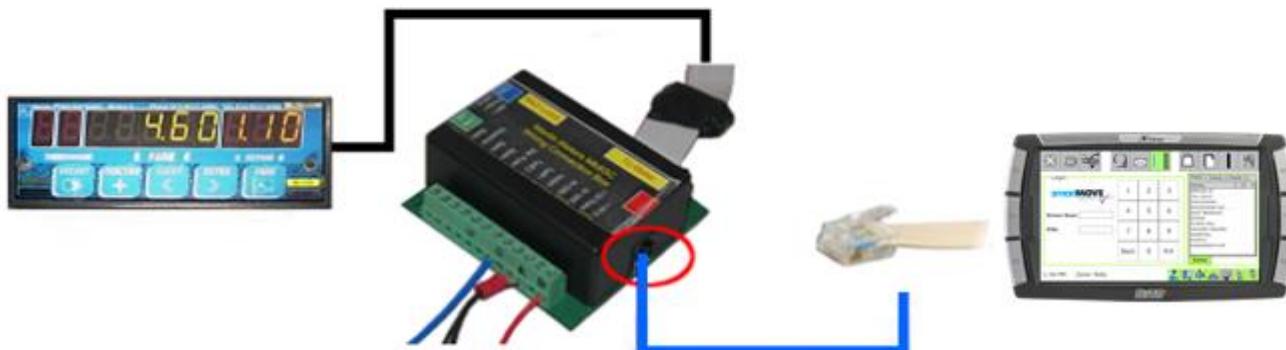
1 – Show fare screen (cannot cancel)

Requires Fare Details  
(Non-account)

2 – Show fare screen (can cancel)

### Martin Mkx meter without EFTPOS Terminal

**Schematic**

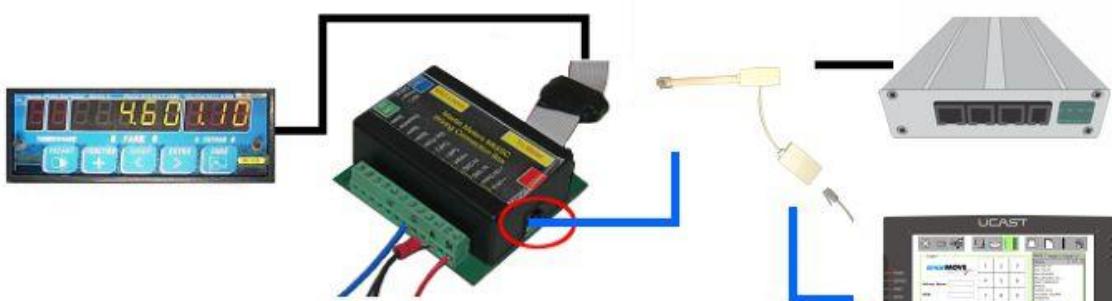


Note: black lines represent existing cables

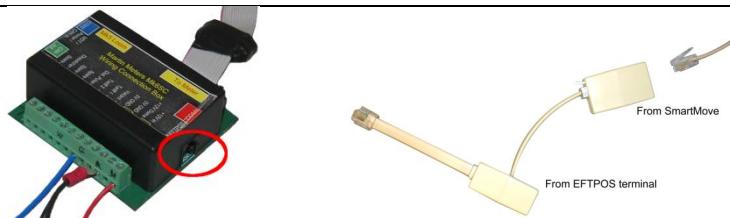
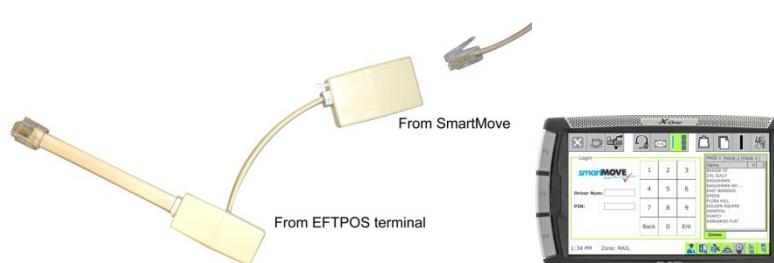
Connect the RJ12 Meter Cable to COM1 of the meter breakout box..									
Set the following vehicle properties on the fleet management website.	<table> <tr> <td>Meter Listen</td> <td>1 – Listen interactively (No EFTPOS)</td> </tr> <tr> <td>Meter Protocol</td> <td>0 – VTD compatible (COM5)</td> </tr> <tr> <td>Requires Fare Details (Account)</td> <td>1 – Show fare screen (cannot cancel)</td> </tr> <tr> <td>Requires Fare Details (Non-account)</td> <td>2 – Show fare screen (can cancel)</td> </tr> </table>	Meter Listen	1 – Listen interactively (No EFTPOS)	Meter Protocol	0 – VTD compatible (COM5)	Requires Fare Details (Account)	1 – Show fare screen (cannot cancel)	Requires Fare Details (Non-account)	2 – Show fare screen (can cancel)
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### d) Martin Mkx meter with EFTPOS Terminal

**Schematic**

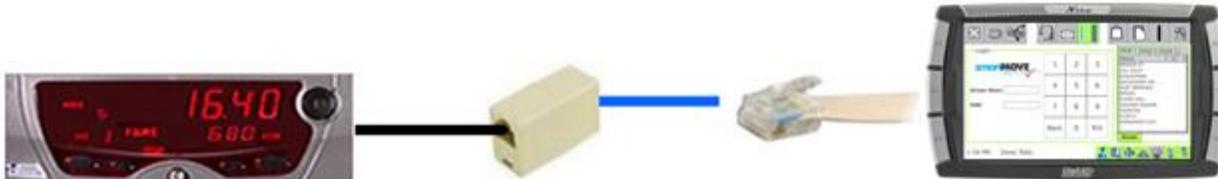


Note: black lines represent existing cables

<p>With the RJ12-RJ12 modular line cable connecting the Break Out box to the EFTPOS modem, disconnect the Break Out box end and connect it to the free RJ12 port of the Inline Coupler of the Meter Listening cable.</p>	 <p>The diagram shows a yellow RJ12 modular line cable with two ends. One end is labeled "From SmartMove" and the other is labeled "From EFTPOS terminal". The cable is connected to a black Break Out box. A close-up view of the connection point shows an inline coupler being inserted into a port on the Break Out box.</p>								
<p>With the short RJ12-RJ12 modular line cable connected to the other end of the Inline Coupler, connect it to the COM1 port of the Break Out box.</p>	 <p>The diagram shows a black Break Out box with a red circle highlighting the COM1 port. A yellow RJ12 modular line cable is connected to this port. The other end of the cable is shown with a label "From SmartMove" and "From EFTPOS terminal".</p>								
<p>Connect the SmartMove terminal's RJ12 meter connection to the joiner on the Meter Listen Adapter</p>	 <p>The diagram shows a yellow RJ12 modular line cable with two ends. One end is labeled "From SmartMove" and the other is labeled "From EFTPOS terminal". The cable is connected to a black Meter Listen Adapter. A close-up view of the connection point shows a joiner being inserted into a port on the adapter.</p>								
<p>Set the following vehicle properties on the fleet management website</p>	<table border="0"> <tr> <td>Meter Listen</td> <td>2 – Listen passively (EFTPOS)</td> </tr> <tr> <td>Meter Protocol</td> <td>0 – VTD compatible (COM5)</td> </tr> <tr> <td>Requires Fare Details (Account)</td> <td>1 – Show fare screen (cannot cancel)</td> </tr> <tr> <td>Requires Fare Details (Non-account)</td> <td>2 – Show fare screen (can cancel)</td> </tr> </table>	Meter Listen	2 – Listen passively (EFTPOS)	Meter Protocol	0 – VTD compatible (COM5)	Requires Fare Details (Account)	1 – Show fare screen (cannot cancel)	Requires Fare Details (Non-account)	2 – Show fare screen (can cancel)
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## Novax Leda meter without EFTPOS Terminal

**Schematic**



Note: black lines represent existing cables

Connect the RJ12 Meter Cable to one port of the Inline Coupler. Connect the RJ12 cable from the meter to the other port of the Inline Coupler.	RJ12 cable from meter goes here  								
Set the following vehicle properties	<table> <tr> <td>Meter Listen</td> <td>1 – Listen actively (EFTPOS)</td> </tr> <tr> <td>Meter Protocol</td> <td>0 – VTD compatible (COM5)</td> </tr> <tr> <td>Requires Fare Details (Account)</td> <td>1 – Show fare screen (cannot cancel)</td> </tr> <tr> <td>Requires Fare Details (Non-account)</td> <td>2 – Show fare screen (can cancel)</td> </tr> </table>	Meter Listen	1 – Listen actively (EFTPOS)	Meter Protocol	0 – VTD compatible (COM5)	Requires Fare Details (Account)	1 – Show fare screen (cannot cancel)	Requires Fare Details (Non-account)	2 – Show fare screen (can cancel)
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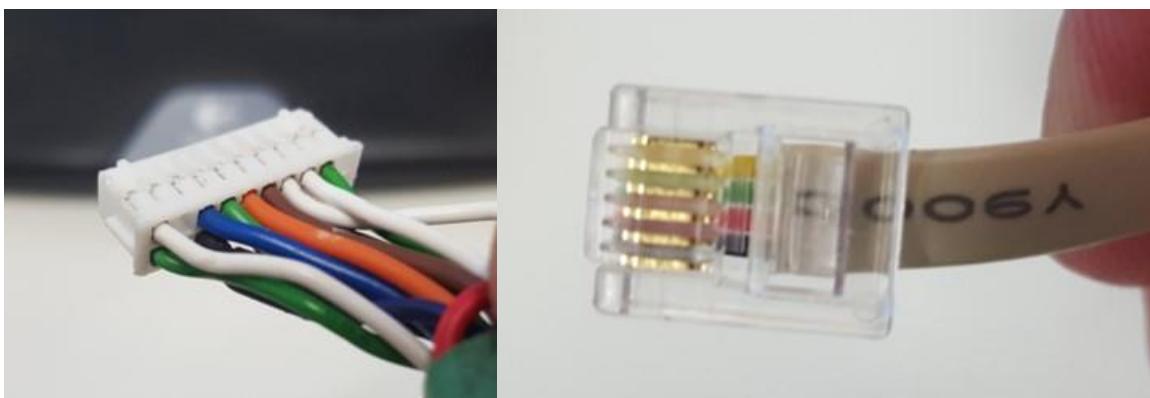
The pins on the meter connector are given in the following table:

RED Meter RX	BLANK	blue - loose	green - loose	orange - loose	"+ POWER IN"	white DIST PULSE	white - OTHER PLUG?	green - OTHER PLUG?	BLANK
BLACK Meter TX	BLANK	purple - OTHER PLUG?	BLANK	"gnd POWER IN"	Yellow GND for RJ12	BLANK	BLANK	BLANK	BLANK

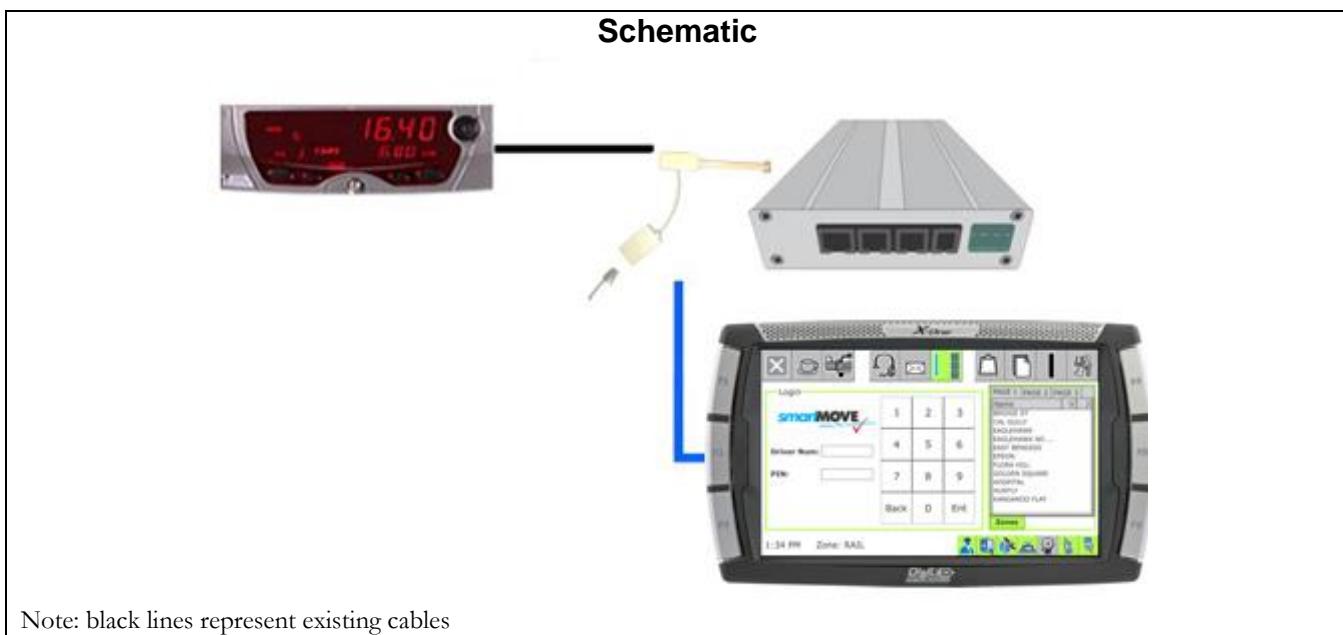
Only the three pins shown in green are connected to SmartMove through the RJ12 connector. These are:

- Pin 2: Black - meter Tx
- Pin 3: Red - meter Rx
- Pin 5: Yellow - ground

The photograph below shows the orientation of the plug that the above table describes (ignore the fact that there is a green and white wire used for the Meter TX/RX, these are joined further down the loom to be colours specified for the RJ12 plug)

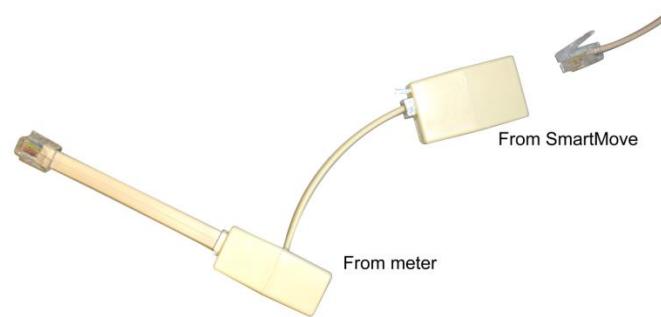


### Novax Leda meter with EFTPOS Terminal



Note: black lines represent existing cables

With the RJ12-RJ12 modular line cable connecting the meter to the EFTPOS modem, disconnect the EFTPOS modem end and connect it to the free RJ12 port of the Inline Coupler of the Meter Listening cable.



With the short RJ12-RJ12 modular line cable connected to the other end of the Inline Coupler, connect it to the EFTPOS modem.



Connect the SmartMove terminal's RJ12 meter connection to the joiner on the Meter Listen Adapter	 <p>The diagram shows a yellow RJ12 cable with a connector labeled "From SmartMove" being connected to a yellow "Meter Listen Adapter". The adapter has a "joiner" port where the cable is being inserted.</p>								
Set the following vehicle properties on the fleet management website	<table> <tbody> <tr> <td>Meter Listen</td> <td>2 – Listen passively (EFTPOS)</td> </tr> <tr> <td>Meter Protocol</td> <td>0 – VTD compatible (COM5)</td> </tr> <tr> <td>Requires Fare Details (Account)</td> <td>1 – Show fare screen (cannot cancel)</td> </tr> <tr> <td>Requires Fare Details (Non-account)</td> <td>2 – Show fare screen (can cancel)</td> </tr> </tbody> </table>	Meter Listen	2 – Listen passively (EFTPOS)	Meter Protocol	0 – VTD compatible (COM5)	Requires Fare Details (Account)	1 – Show fare screen (cannot cancel)	Requires Fare Details (Non-account)	2 – Show fare screen (can cancel)
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## Schmidt Gx meter without EFTPOS Terminal

**Schematic**



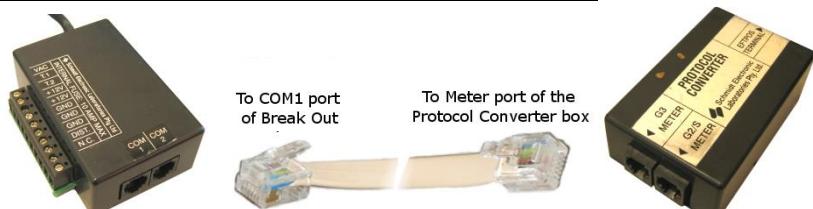
Note: black lines represent existing cables

To connect SmartMove to a Schmidt meter you will need a Protocol Converter box . This will need to be purchased from Schmidt Meters at the fleet's expense.

Using the RJ12-RJ12 modular line cable, connect one end to the COM1 port of the Break Out box.

Connect the other end to either the G2/S meter port or G3 meter port of the Protocol Converter box (depending on what series meter is used as noted below).

**Note1:** If the meter is a G2 series then use the G2/S meter port of the Protocol Converter box. If the meter is a G3 or G4 series then use the G3 meter port of the Protocol Converter box.



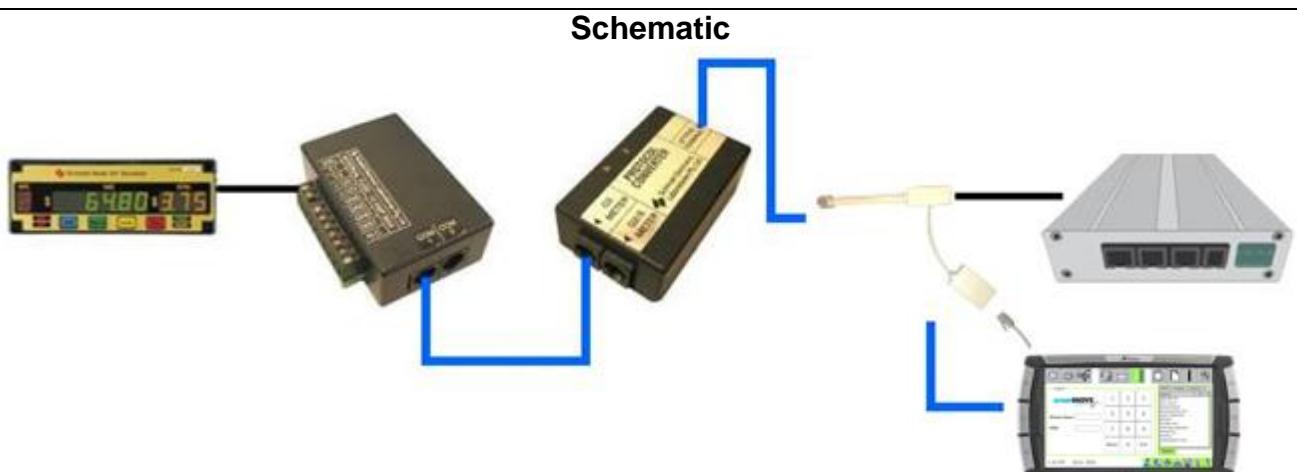
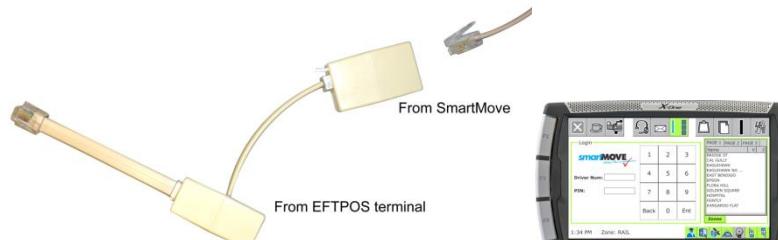
Connect the RJ12 SmartMove lead on the loom to the EFTPOS TERMINAL port of the Protocol Converter box.



Set the following vehicle properties on the fleet management website.

- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| Meter Listen                        | 1 – Listen interactively (No EFTPOS) |
| Meter Protocol                      | 0 – VTD compatible (COM5)            |
| Requires Fare Details (Account)     | 1 – Show fare screen (cannot cancel) |
| Requires Fare Details (Non-account) | 2 – Show fare screen (can cancel)    |

### Schmidt Gx meter with EFTPOS Terminal

 <p><b>Schematic</b></p> <p>Note: black lines represent existing cables</p>									
With the RJ12-RJ12 modular line cable connecting the Protocol Converter box to the EFTPOS modem, disconnect the Protocol Converter box end and connect it to the free RJ12 port of the Inline Coupler of the meter Listening cable.									
With the short RJ12-RJ12 modular line cable connected to the other end of the Inline Coupler, connect it to the EFTPOS TERMINAL port of the Protocol Converter box.									
Connect the SmartMove terminal's RJ12 plug to the meter listen adapter.									
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