Installation Guide

Version: 6.4 (Digitax 4G) – March 2021

Fleet Configuration Download Key _____

Fleet Password (optional) _____

Driver Login (for testing) _____

Primary loom

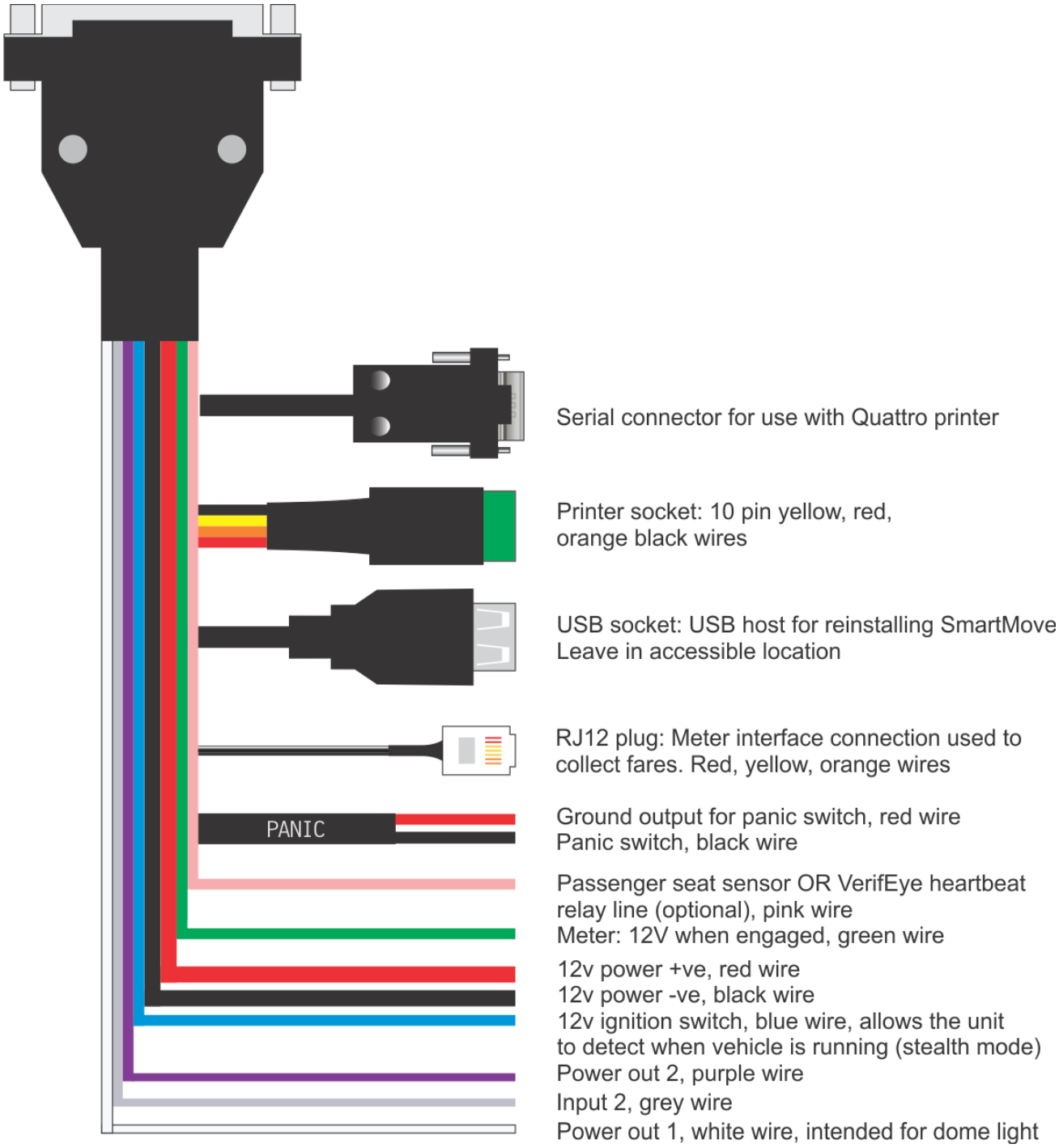


Figure 1: Wiring diagram

See Appendix 2 for detailed notes on connecting a meter to SmartMov*e*.

Secondary loom (optional)

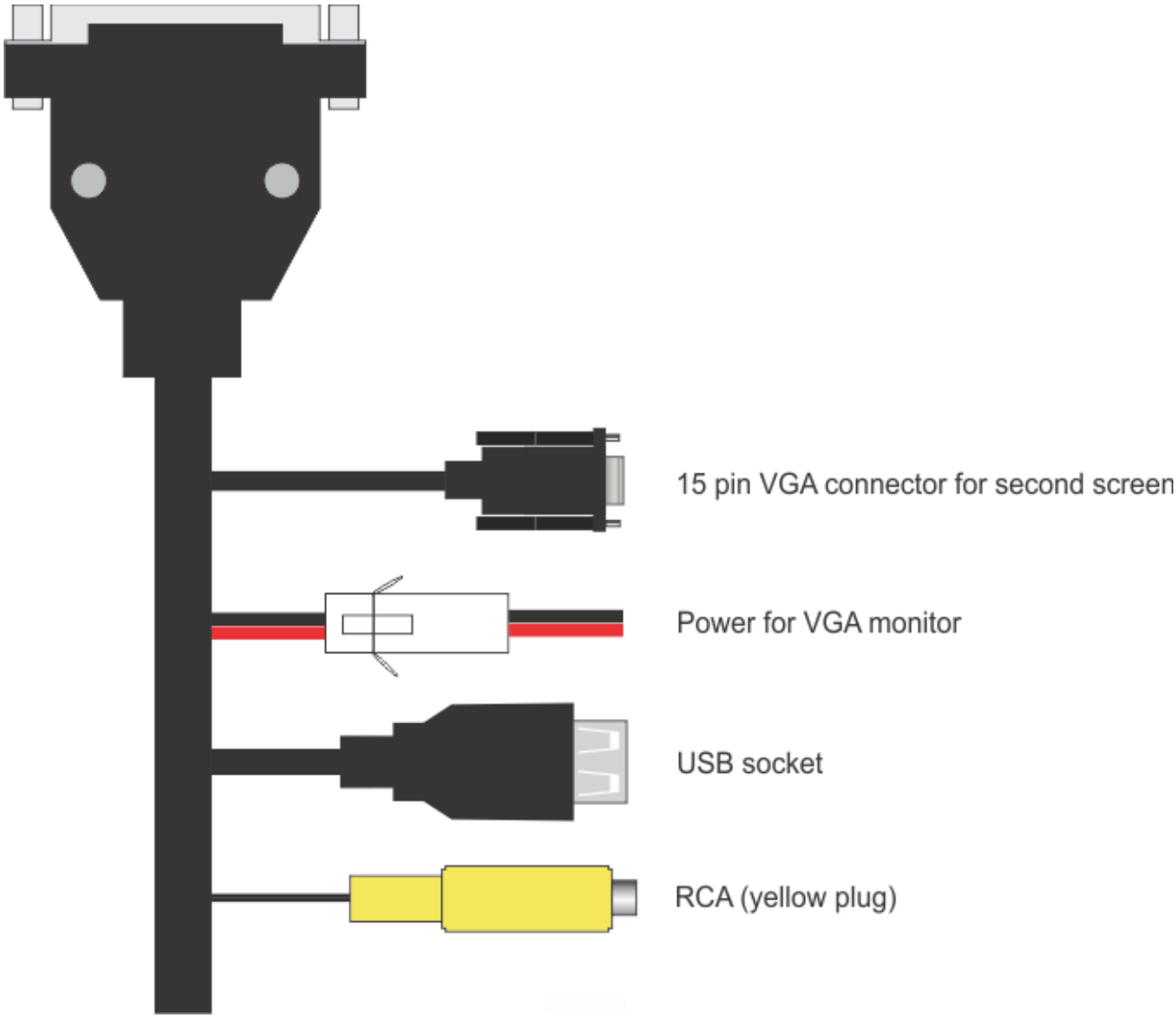
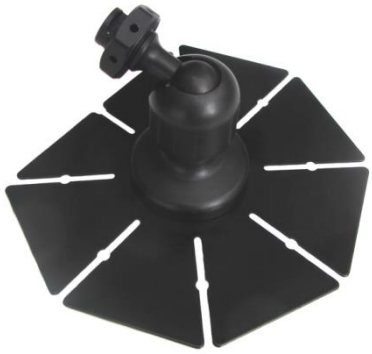


Figure 2: Wiring diagram for Loom 2

Equipment Checklist

The SmartMove system consists of:

Components:	
1x Digitax screen and cabling	
1 x Cable Installation Loom	
1x Meter listen adapter. Allows SmartMove to connect to the meter OR share the meter with EFTPOS terminal (in listen mode).	 OR  for CabCharge Fareway meter
1x combination GPS (Global Positioning System) and GPRS Antenna	

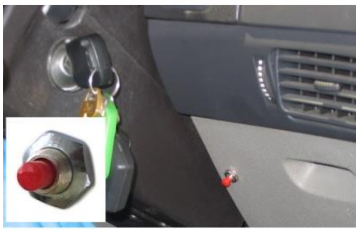
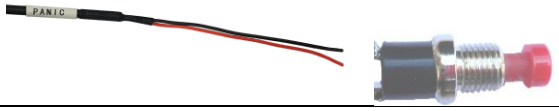
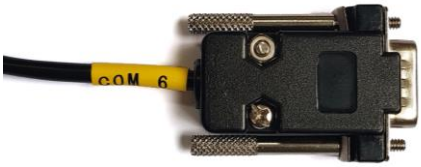
1x Panic Switch	
1x Mounting Bracket Kit	
Second monitor for meter (optional)	
1 x Card reader/printer (optional)	
1 x Secondary Cable Installation Loom (optional)	

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

Step 2 Connect primary loom

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. **Never cut any unused connectors from the loom.** **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. (Fuse not supplied.) **Ensure a quality ground connection is used. Some vehicles (including Toyota vans) require upgrade to the existing vehicle's ground strap.**	 
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.	 Meter 

The panic switch can be mounted in any convenient, accessible location, generally in or near the steering column. Attach the switch to the red & black wires.	 
The cable that looks like a phone cable is used for collecting information from the meter. Please see Appendix 2 for information on this step as it depends on the meter installed. See page 20 if using a CabCharge Fareway meter.	
Fit the Quattro card read/printer (if used) and connect to the card reader/printer cable.	 
Connect the serial cable to the Quattro printer RFID line (if using the card reader/printer with RFID capability i.e. tap-and-go).	
The pink wire may be connected to a sensor used to detect if a passenger is sitting in the car (not currently used). OR If using a VerifEye camera (Mark 4 Rev K or Rev G) the pink wire may be connected to the camera's "heartbeat" signal. Note that the option to monitor the signal needs to be set on the fleet management website. (Properties	

Enable Camera Alerts, *Camera Alerts Notify, and Camera Type*.)	
The USB socket may be used for software upgrades and should be left accessible.	
The purple wire is not currently used. It may be used as a digital output in the future.	
The grey wire is not currently used. It may be used as a digital input in the future.	
White wire is used to control power to the dome light. It should not be used to directly power the dome light – use a relay. If necessary the operation of the dome light can be inverted with the fleet property *Invert Dome Light Signal*.	

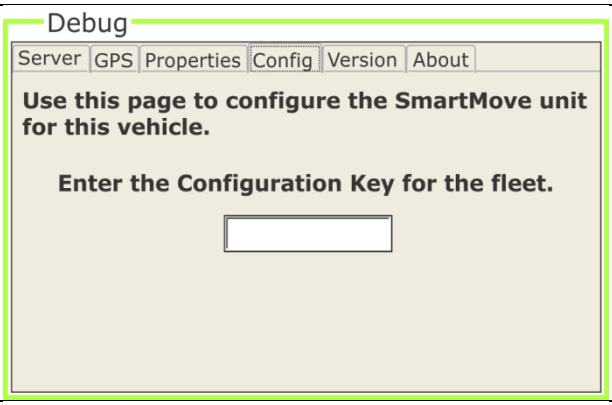
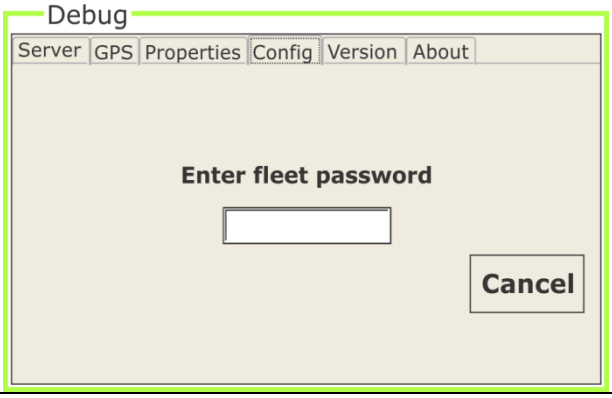
Step 3 Connect secondary loom (optional)

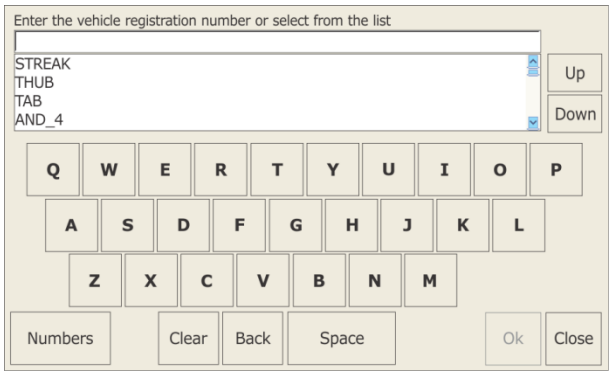
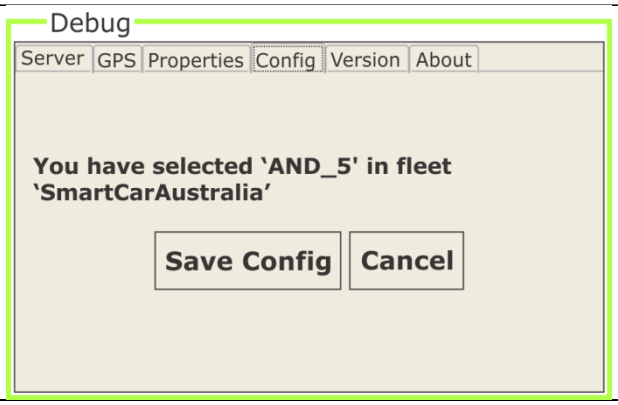
Prepare the loom by removing the securing cable ties. The end with the black serial connector should be positioned near the screen mount so they can be easily connected once complete. Run the other cables through the dash so they are available in the foot well. **Leave the black connector exposed so that the screen can be replaced if necessary.**	
Fit the second monitor (if used) and connect the 15 pin VGA connector to the screen.	 
Connect power to the second screen (optional).	
The USB connector is for future use.	
The RCA connector (yellow Plug) is for future use.	

Step 4 Connect screen to looms

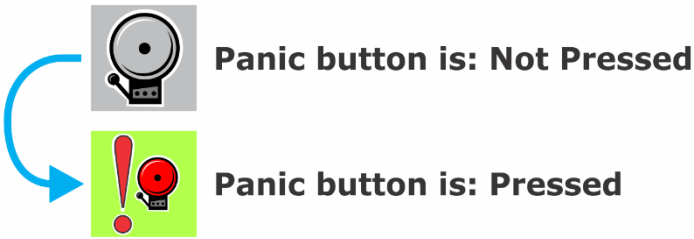
Once the loom is wired up, it is simply a matter of attaching the loom and the combined GPS/GPRS Antenna to the screen.	
Start by attaching the screen to the main loom. Press F6 (bottom right of screen) to start the unit. You should see the SmartMove screen after about 30 seconds. **Leave the connector exposed so that the screen can be replaced if necessary.**	
Attach the screen to the secondary loom if used.	
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.	

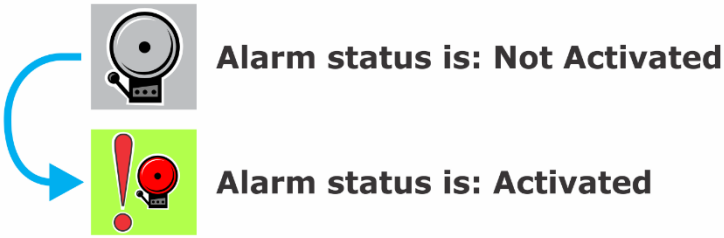
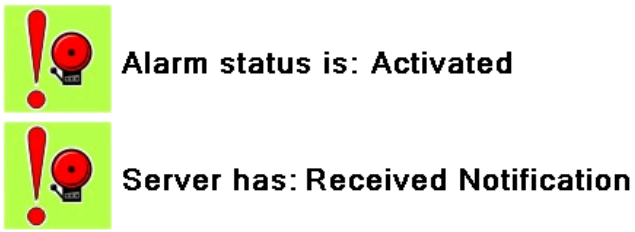
Step 5 Configure SmartMove

If the system is not already on the configuration page (shown in next box); press the Vacant Indicator (pictured right) to enter the System section.	
Select the *Config* page. Enter the *Configuration Download Key* for the fleet (set on the configuration page of the fleet management web site.	
Select a fleet if requested and press *OK*.	
Enter the password, if one is required, then press *Ent*.	

Select a vehicle by typing letters or numbers that form part of the registration number of the vehicle. Touch the correct line when the number required is visible in the list.	
Press *OK* then *Save Config*.	
Shortly afterwards the unit should show that it is connected to the server.	

Step 6 Test SmartMove

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

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.	
The third indicator should light up to show that the computer has seen the alarm.	
Press the 'Reset Alarm' button to reset.	
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).	
This step is not required for vehicles without meters. 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 If the symbols are inverted the car needs to be reconfigured in the system. Set the vehicle property *Vehicle Inverted Meter* to Y or N. 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.	

Appendix 1: Screen and Antenna Installation

The following illustrations and instructions come from the Digitax Technical Manual

Screen Dashboard Fitting

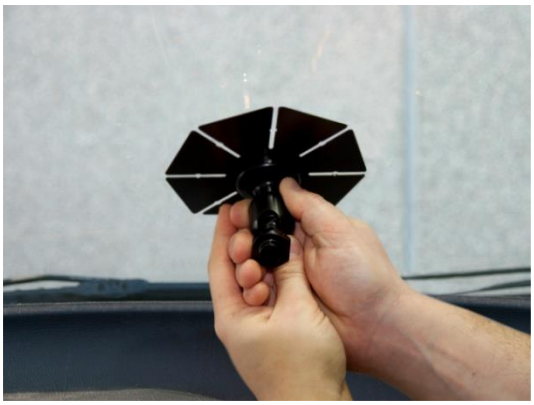
Clean the dashboard surface that the bracket is to be fixed to with a clean cloth with alcohol or a suitable cleaning (de-greasing) solution.	
Make sure the surface is grease and polish free.	
Place the bracket in position without removing the protective film.	

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.	

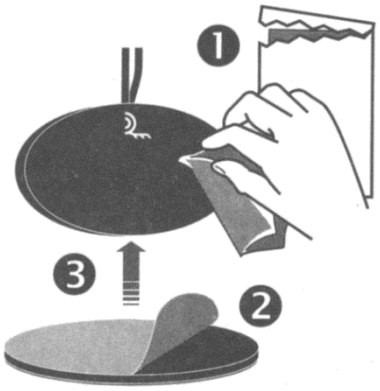
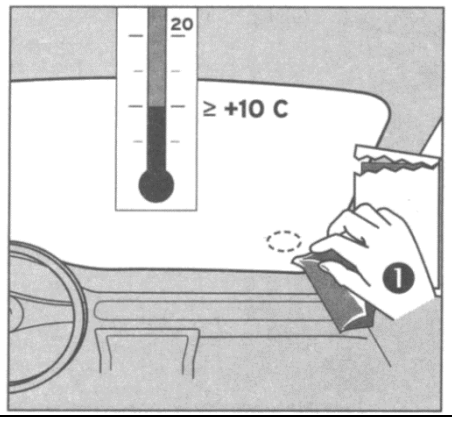
Gently warm the adhesive pad on the bracket in the same way.	
Firmly press the bracket into position to obtain the best adhesion pressure.	
Adjust the ball bracket so the face place is in the best position to allow the screen to be fitted to it.	
Fix the screen to the bracket using the screws provided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

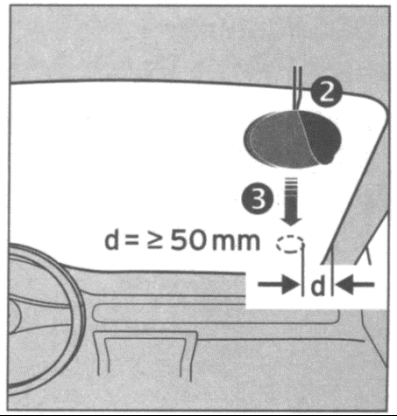
Screen Windscreen Fitting

Clean the windscreen 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 (green wire) 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	20	n/a
Cabcharge, not Fareway meter	n/a	22
Martin meter	23	23
Novax	25	26
Schmidt Gx meter	27	28

Cabcharge Fareway meter

Schematic	
	
Plug the adapter into the blue (DB9) socket in the Fareway unit. DO NOT USE the RJ12 socket on the Fareway loom. See next page for details on how the connector is wired.	
Connect the RJ12 plug from the Digitax cable installation loom into the adapter.	
Set the following vehicle properties	Meter Listen — 2 – Listen Passively (EFTPOS) Meter Protocol — 3 – Cabcharge Requires Fare Details (Account) — 1 – Show fare screen (cannot cancel) Requires Fare Details (Non-account) — 2 – Show fare screen (can cancel) Note: if no fare details are received check with Cabcharge that you have the correct firmware in the Fareway unit.

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...

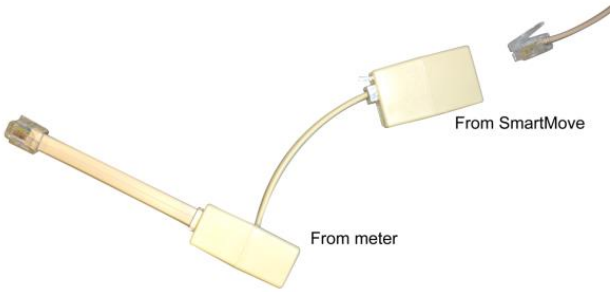
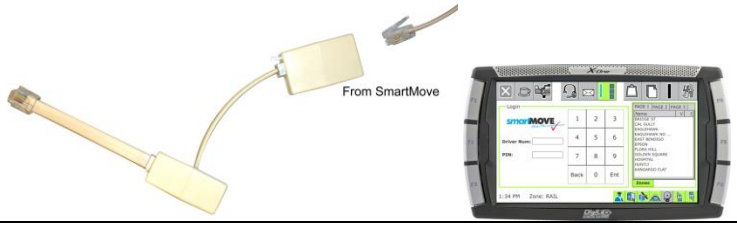
Share

Shipping & Delivery Information

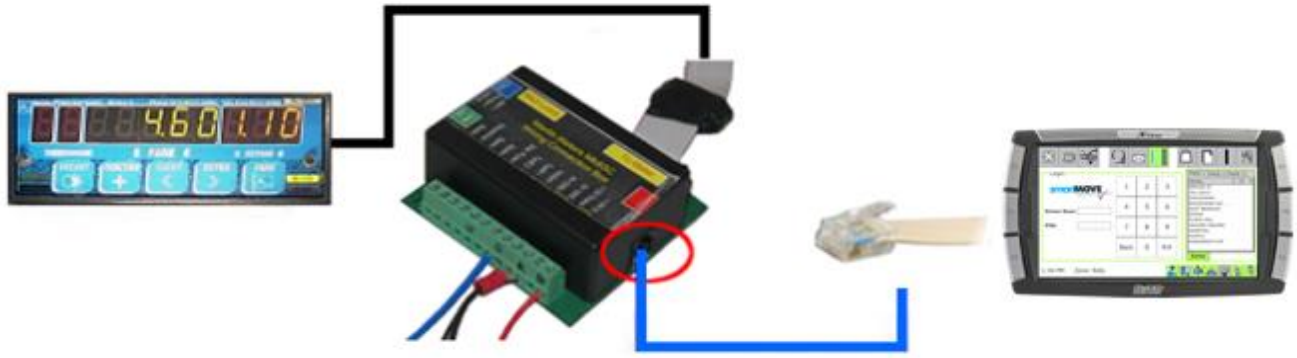
The wiring (for the adapter shown above) is specified in the following table.

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

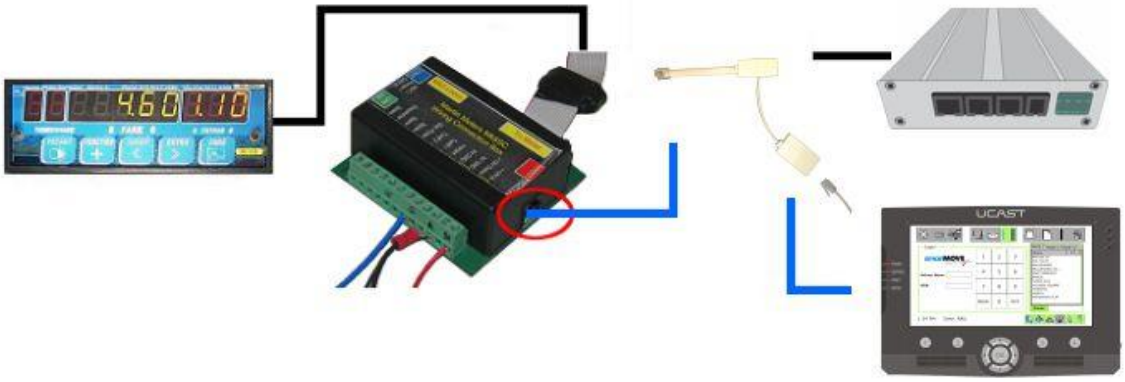
Cabcharge meter with EFTPOS Terminal (not Fareway)

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

d) Martin Mkx meter with EFTPOS Terminal

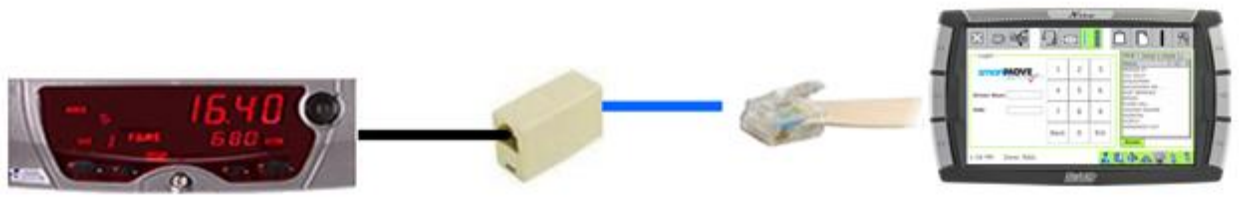
Schematic
 Note: black lines represent existing cables

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.	
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.	 
Connect the SmartMove terminal's RJ12 meter connection to the joiner on the Meter Listen Adapter	 
Set the following vehicle properties on the fleet management website	Meter Listen — 2 – Listen passively (EFTPOS) Meter Protocol — 0 – VTD compatible Requires Fare Details (Account) — 1 – Show fare screen (cannot cancel) Requires Fare Details (Non-account) — 2 – Show fare screen (can cancel)

Novax Leda meter without EFTPOS Terminal

<table>
<tr><td colspan="2">

Schematic



Note: black lines represent existing cables

</td></tr>
<tr><td>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.</td><td>

</td></tr>
<tr><td>Set the following vehicle properties</td><td>

Meter Listen	1 – Listen actively (EFTPOS)
Meter Protocol	4 – Leda Novax
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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</table>

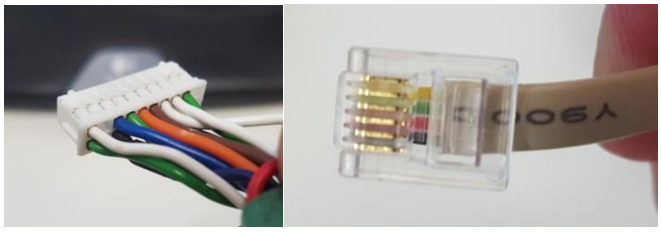
The pins on the meter connector are given in the following table:

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**

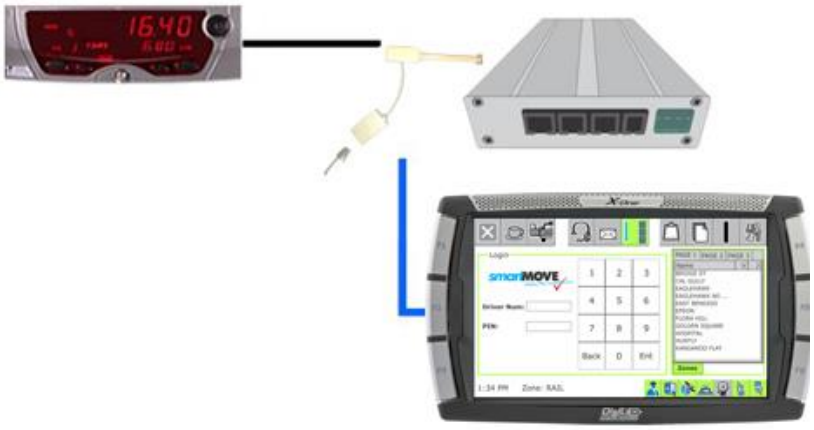
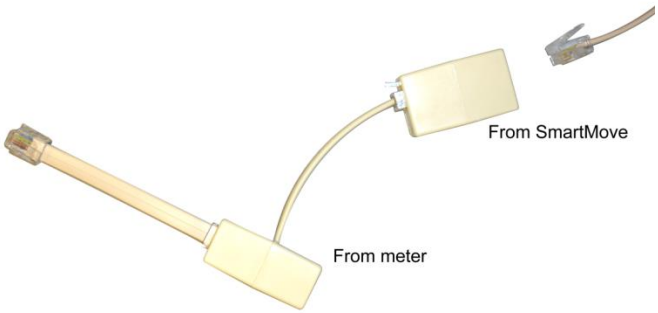
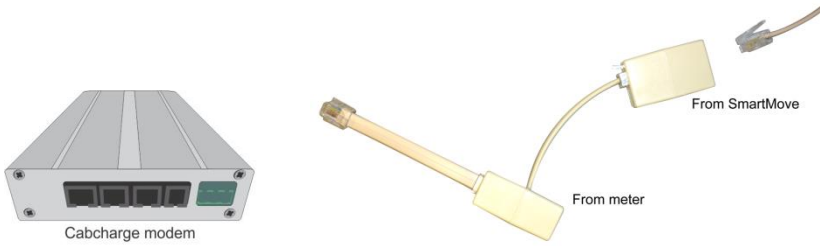
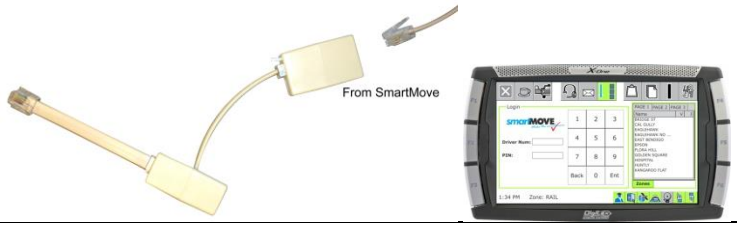
Only the three pins shown in green are connected to SmartMove through the RJ12 connector. These are:

- 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

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 on the fleet management website	Meter Listen — 2 – Listen passively (EFTPOS) Meter Protocol — 4 – Leda Novax Requires Fare Details (Account) — 1 – Show fare screen (cannot cancel) Requires Fare Details (Non-account) — 2 – Show fare screen (can cancel)

Schmidt G*x* meter without EFTPOS Terminal

<table>
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Schematic

Note: black lines represent existing cables

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<tr><td>

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 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.

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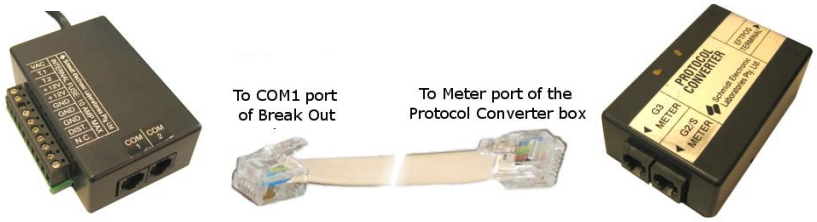

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<tr><td>

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

</td><td>

</td></tr>
<tr><td>

Set the following vehicle properties on the fleet management website.

</td><td>

Meter Listen	1 – Listen interactively (No EFTPOS)
Meter Protocol	7 – Schmidt G4 or 2-VTD Compatible
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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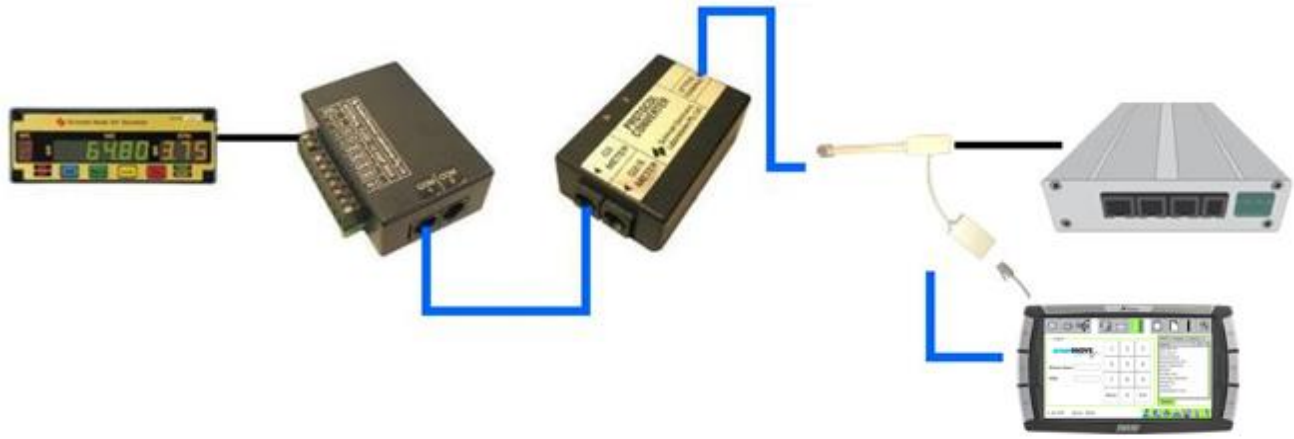
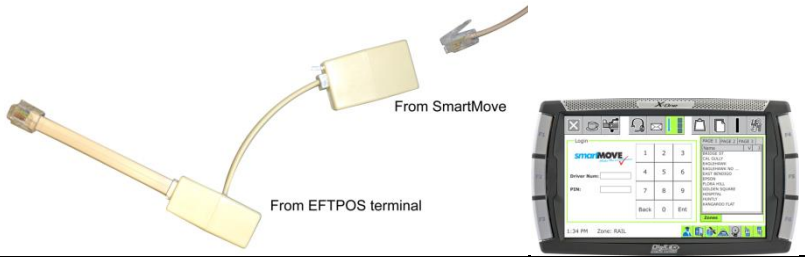
Schmidt Gx meter with EFTPOS Terminal

Schematic	
 Note: black lines represent existing cables	
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.	
Set the following vehicle properties on the fleet management website.	Meter Listen: 2 – Listen passively (EFTPOS) Meter Protocol: 7 – Schmidt G4 or 2-VTD Compatible Requires Fare Details (Account): 1 – Show fare screen (cannot cancel) Requires Fare Details (Non-account): 2 – Show fare screen (can cancel)