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# Application Note

## 5703/1 Replacement

HA500449 Issue 2

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### WARRANTY

Parker SSD Drives warrants the goods against defects in design, materials and workmanship for the period of 12 months from the date of delivery on the terms detailed in Parker SSD Drives Standard Conditions of Sale IA500504.

Parker SSD Drives reserves the right to change the content and product specification without notice.

# Safety Information



## Requirements

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### **Intended Users**

This Application Note is to be made available to all persons who are required to install, configure or service equipment described herein, or any other associated operation.

The information given is intended to enable the user to obtain maximum benefit from the equipment.

### **Application Area**

The equipment described is intended for industrial motor speed control utilising AC induction or AC synchronous machines.

### **Personnel**

Installation, operation and maintenance of the equipment should be carried out by qualified personnel. A qualified person is someone who is technically competent and familiar with all safety information and established safety practices; with the installation process, operation and maintenance of this equipment; and with all the hazards involved.

### **Hazards**

Refer to the Safety Information given at the front of the Product Manual supplied with every Parker SSD Drives product.

# 5703/1 REPLACEMENT

Parker SSD Drives manufactures a product known as 5703/1, which is used to copy a setpoint from one drive (the reference drive) to one or more other (follower) drives. The 5703/1 is now obsolete.

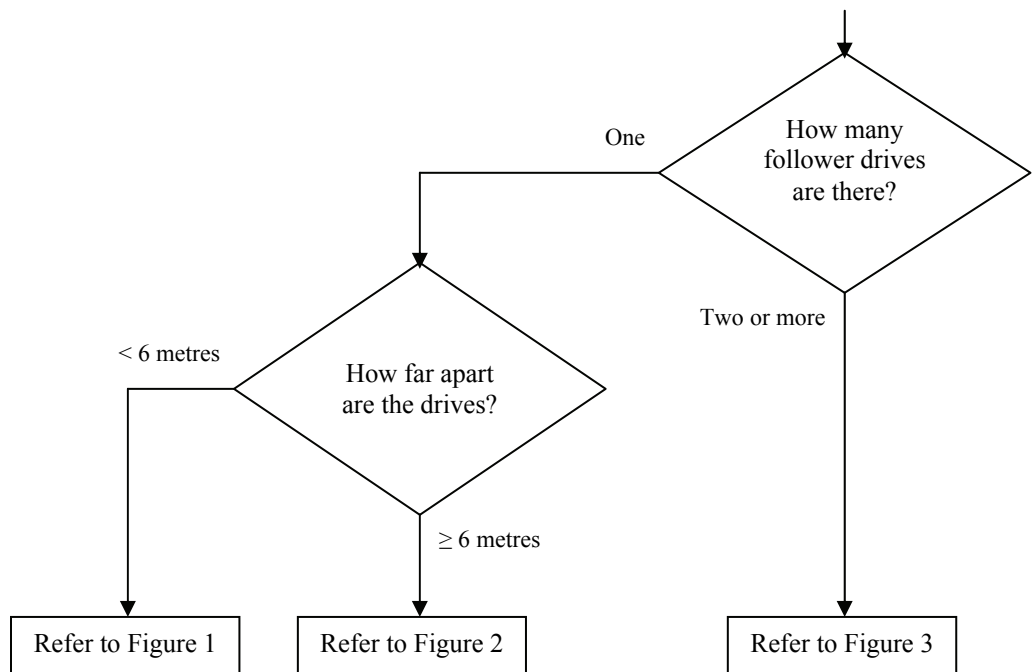
This application note gives guidance on an alternative means of copying setpoints between drives.

KK Systems<sup>i</sup> makes a range of DIN Rail Serial Converter products under the family name KD485.

Two specific products from this range are recommended

1. **KD485-STD** : recommended for most applications
2. **KD485-STD-232-232** : an alternative for when the application requires only one follower drive and the distance between the drives is short

The wiring diagrams on the following pages depict three scenarios. The appropriate scenario can be chosen as follows:

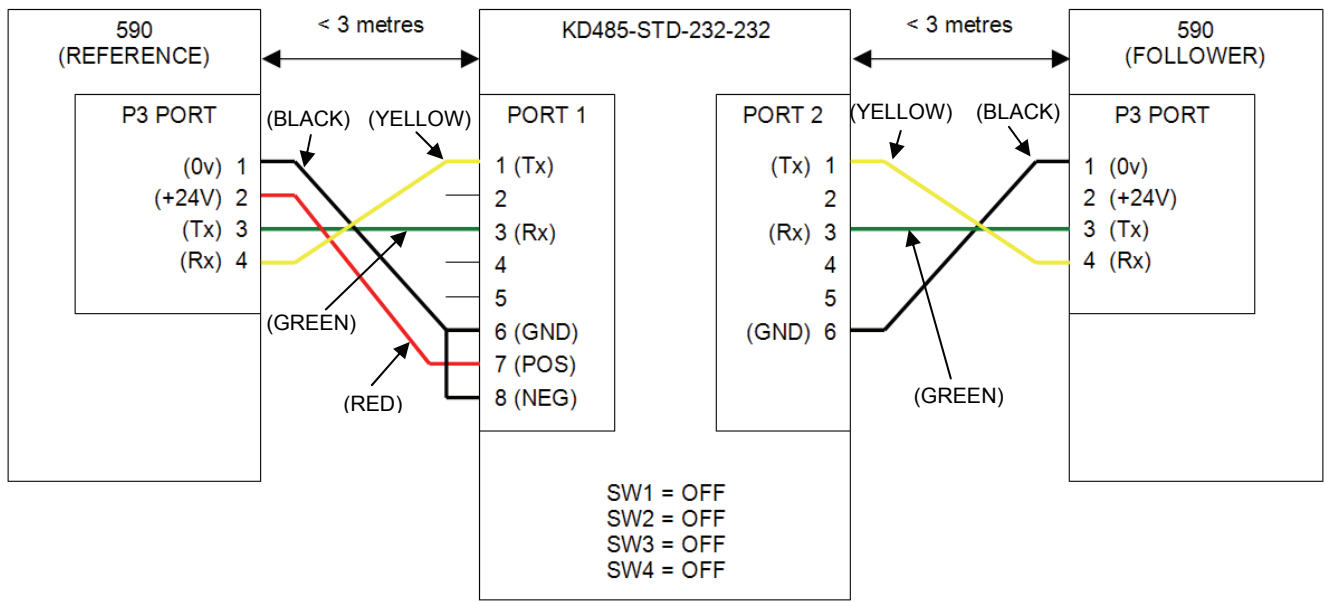


**Note:** The wiring diagrams apply to 590 drives only:

690 drives do not provide a +24V supply on their P3 connector, and therefore the KD485's must be powered from a separate +24V supply. This may be supplied from the user terminals on the drive, in which case use the power wiring scheme shown in Figure 4.

<sup>i</sup> Please refer to <http://www.kksystems.com/> for full product and contact details.

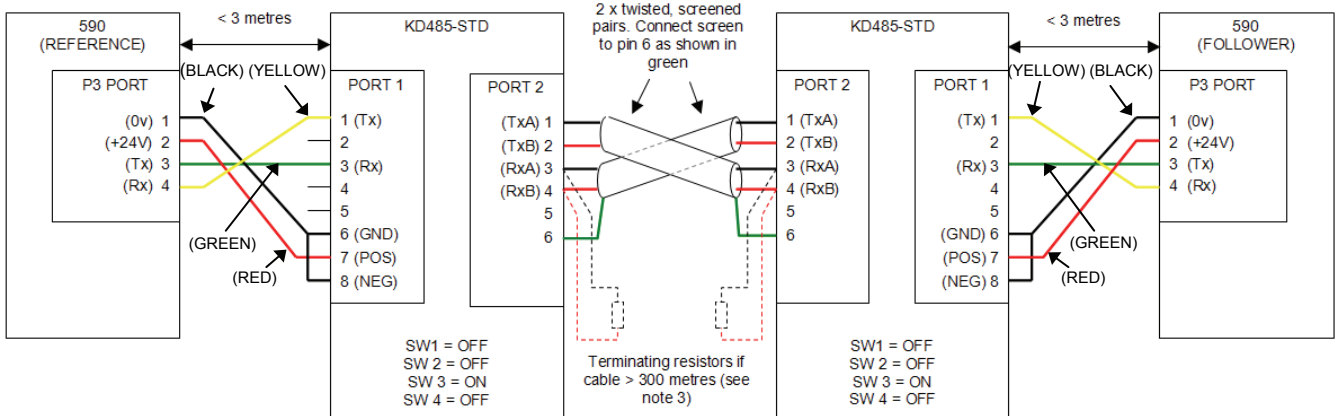
**Figure 1: Total distance between drives less than 6 metres, and only 1 follower drive.**



**Notes:**

1. Each cable between 590 and KD485-STD-232-232 must be less than 3 metres

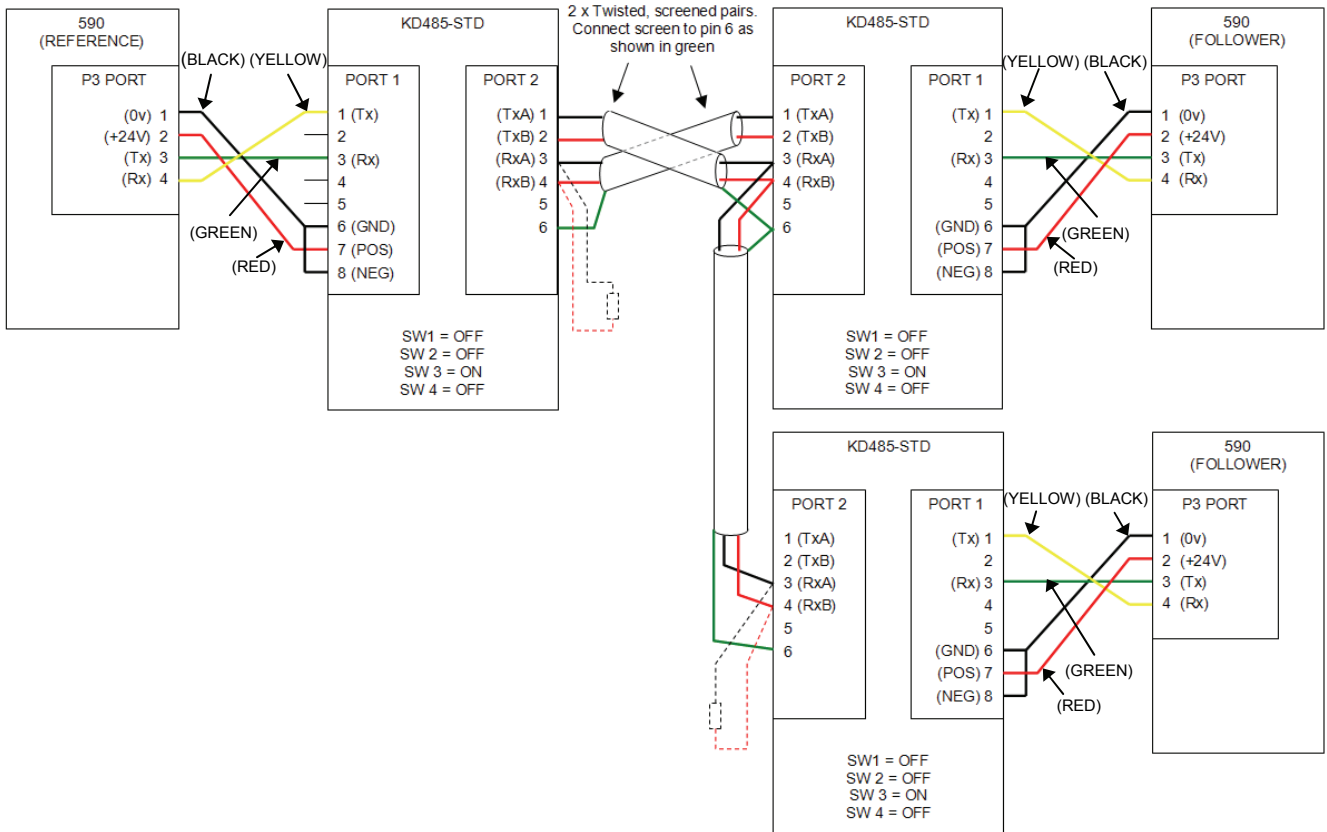
**Figure 2: Total distance between drives is greater than 6 metres and less than 1km and only 2 drives to connect.**



**Notes:**

1. Each cable between 590 and KD485-STD-232-232 must be less than 3 metres
2. The cable between KD485-STD's should consist of two pairs of twisted, screened wire.
3. If the cable between KD485-STD's is greater than 300 metres, a resistor should be connected between pins 3 and 4 of each PORT 2, as shown in dashed lines. The value should be equal to the characteristic impedance of the cable, which is typically in the range 120Ω to 150Ω.

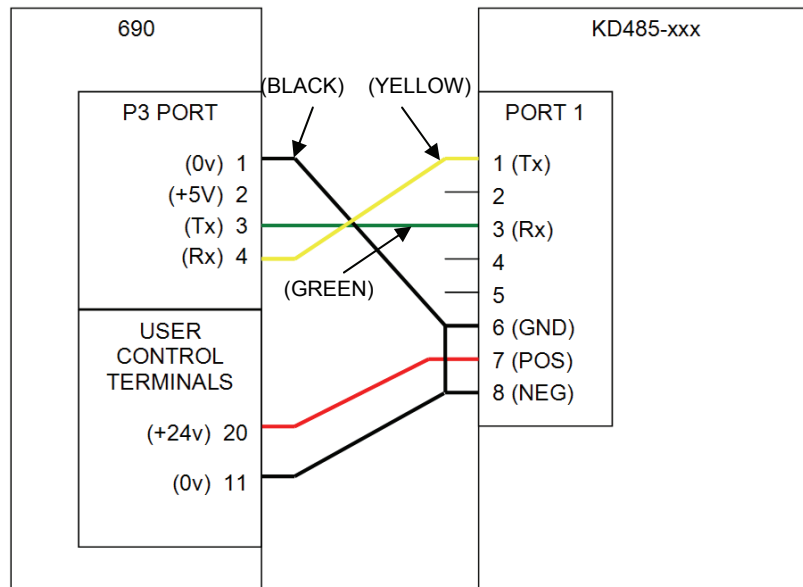
**Figure 3: More than one follower drive**



Notes:

1. Each cable between 590 and KD485-STD-232-232 must be less than 3 metres
2. The cable between KD485-STD's should consist of two pairs of twisted, screened wire, with the screen connected as shown.
3. If the cable between KD485-STD's is greater than 300 metres, a resistor should be connected between pins 3 and 4 of PORT 2 on the drives at the end of each daisy chain, as shown in dashed lines. The value should be equal to the characteristic impedance of the cable, which is typically in the range 120Ω to 150Ω.

**Figure 4: Power connections to 690 drives**



### **Appendix A - Cable Details**

Connect a standard BT Plug Lead between the drive's P3 port and the KD485.

To connect to the KD485:

1. Cut off one RJ45 plug.
2. Strip back the outer grey sleeving and terminate the individual wires with crimp ferrules.
3. Connect wires as shown in the diagrams above. The colours in the diagrams represent the same colours in the cable.

Parker SSD Drives can supply this cable: Part Number CM057375U300, length 3 metres.

Parker SSD Drives  
New Courtwick Lane  
Littlehampton  
West Sussex  
BN17 7RZ  
United Kingdom

Tel: (+44) 1903 737000  
Fax: (+44) 1903 737100  
Email: [sales.uk.ssd@parker.com](mailto:sales.uk.ssd@parker.com)

Contact: Internal Sales Department

### **Appendix B – KK Systems Ltd.**

For latest price and delivery information, please contact KK Systems Ltd., or visit their website [www.kksystems.com](http://www.kksystems.com)

KK Systems Ltd  
P.O.Box 2770  
Brighton  
West Sussex  
BN45 7ED  
United Kingdom

Tel: (+44) 1273 857185  
Fax: (+44) 1273 857186  
Email: [sales1@kksystems.com](mailto:sales1@kksystems.com)

### **5703/1 Replacement Recommended Products:**

KD485-STD DIN Rail Serial Converter : load requirement 83mA (2W maximum)

KD485-STD-232-232 DIN Rail Serial Converter : load requirement 83mA (2W maximum)

Note: KK Systems Ltd. also manufacture the KDF range of fibre-optic transceivers. These are not compatible with 5703/1, but can be used as transmitter/receiver pairs.