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TRIK C023D-8018-2
CITIZEN
4.7" VGA COLOUR
STN KIT
USER GUIDE

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A Trident Microsystems Company

1. INTRODUCTION

This document describes the installation and connection details of the Trident kit TRIK-C023D-8018-2 which is the kit of parts for driving the Citizen 4.7" VGA Dual Scan Colour STN LCD panel from an ISA slot of an IBM compatible PC.

The TRIK provides a simple and convenient means of connecting the driver card to the LCD allowing a trouble-free hardware configuration for drive from the PC.

The TRIK consists of the following items,

K6481L-FF	- 4.7" Colour STN
UV665	- PC ISA Driver Card
UV6-3494-T0TB-D30-0.5-A	- Panel Interface Unit
CI-A1A1-A	- 1m Cable
TRIDM 665	- Disks + Manual

2. CONNECTION

Refer to Page 4 for a drawing of the positions of the connections to be made.

IMPORTANT:- The LCD, UV665 and UV6-3494-T0TB-D30-0.5-A cards contain CMOS devices and are static sensitive. Full ESD procedures must be observed when handling and connecting these items.

The UV665 card may be plugged into any PC with a 16-bit expansion slot. The previously installed VGA card must be removed (or the motherboard VGA drive disabled).

The UV665 card has a DIL switch, SW1, to set the card for the type of panel in use. This will already be set for this Colour STN panel as follows,

1 – ON, 2 – OFF, 3 – OFF, 4 – ON, 5 – OFF, 6 – OFF

Both ends of the CI-A1A1-A cable are terminated with 44-way D plugs. One end should be plugged into the the 44-way D socket (SKB) on the rear of the UV665 card. The other end should be plugged into the 44-way D socket (SKB) on the Panel Interface Unit (UV6-3494-T0TB-D30-0.5-A).

The Panel Interface Unit is fitted with a flat flexible cable from SK3 which is attached with its blue marker stripe upwards. The other end of this cable should be connected into the LCD via CN1. Pull out the side ears of CN1 and slide home the cable with the blue marker stripe downwards then push in the side ears of CN1 to hold the cable in place.

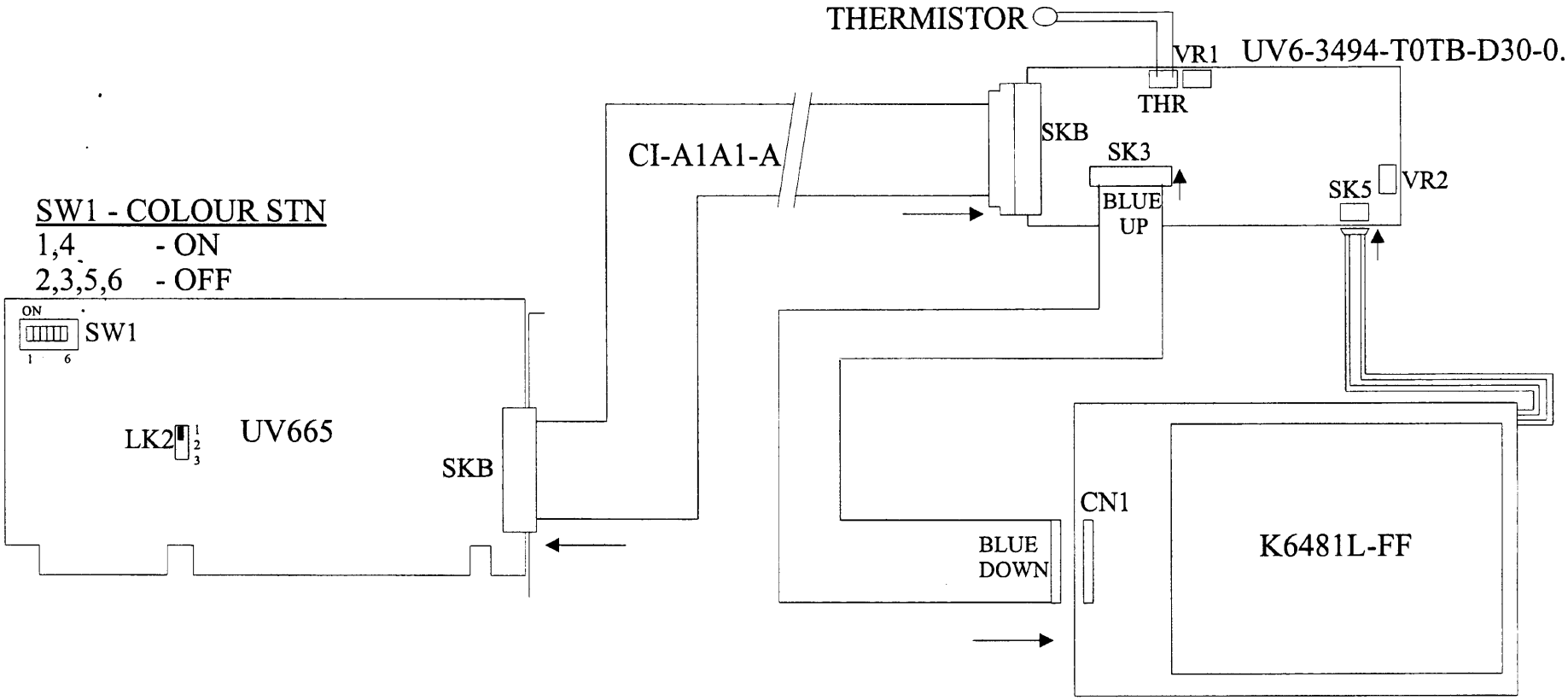
The Panel Interface Unit has an onboard inverter for driving the backlight of the LCD. The LCD backlight connector should be connected to SK5 on the Panel Interface Unit. This connector is not polarised, however ensure that the connector is fully home and not twisted which could allow a pin to miss the connector socket. To ease possible mounting positions for the Panel Interface Unit, the backlight connections may need to be slightly extended. Note that to avoid backlight dimming or strike problems the backlight connections MUST NOT be extended by more than 150mm and high-voltage Silicon sleeved cable MUST be used. Refer to Pages 5 and 6 for dimensional drawings of the Panel Interface Unit and the LCD.

IMPORTANT:- The inverter circuit generates high voltages and the Panel Interface Unit should not be handled while the power is on. It should also be positioned ensuring that no part of it could possibly touch the LCD, the housing or any other circuitry.

The Panel Interface Unit also contains circuitry to adjust the contrast voltage to the LCD via an onboard pot (VR1) and backlight brightness via another onboard pot (VR2).

In addition, the Panel Interface Unit contains a temperature compensation circuit which is required by the LCD and allows it to be used over its temperature range without constant adjustment of the contrast being required. A thermistor is provided on a flying lead which should be affixed directly to the LCD panel. The body and legs of the thermistor are insulated and should not be allowed to touch the LCD panel or metalwork. An easy method of fixing it is to stick the thermistor to the rear of the LCD (ideally in the middle, away from the backlight hotspots) with insulating tape, one strip above and one strip below the thermistor.

Once all the interconnections have been made the PC may be powered ON. After a few seconds the LCD backlight should come on and the standard PC Boot messages should be displayed on the LCD. VR1 on the Panel Interface Unit may need to be adjusted for preferred contrast. Adjust VR2 to set the required brightness of the backlight.



TRIK C023D-8018-2

K6481L-FF	- 4.7" VGA COLOUR STN
UV665	- PC ISA DRIVER CARD
UV6-3494-T0TB-D30-0.5-A	- PANEL INTERFACE UNIT
CI-A1A1-A	- 1m CABLE
TRIDM 665	- DISKS + MANUAL

NOTES

VR1 - CONTRAST
VR2 - BRIGHTNESS
FIX THERMISTOR TO REAR
OF LCD WITH INSULATED TAPE

ISSUE	1.1		
DATE	07/10/99		
DRAWN	FM		
APPVD			

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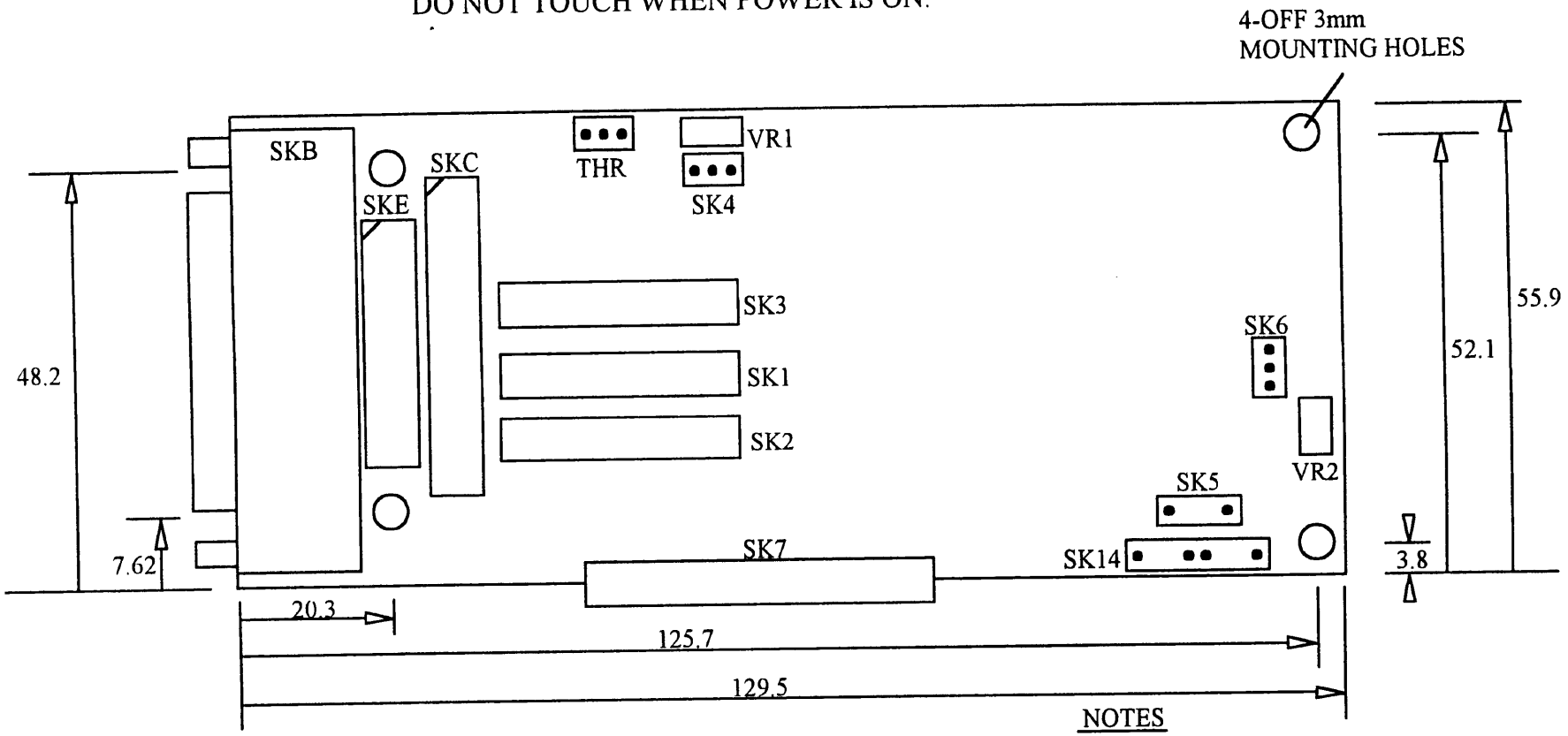
TRIK C023D-8018-2

CITIZEN 4.7" VGA COLOUR STN KIT

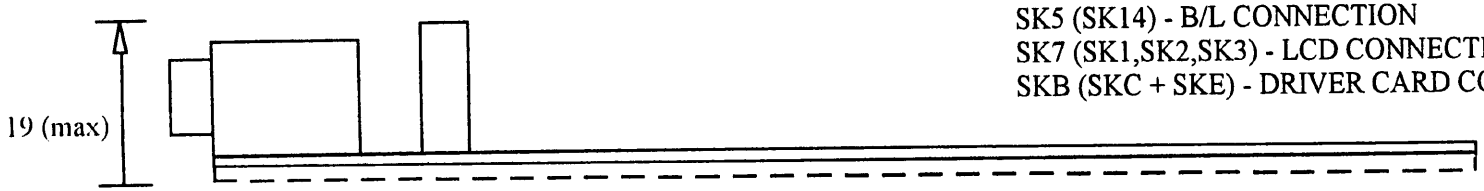
TRIK C023D-8018-2-UG
ISSUE 1.1
07/10/99

WARNING:- THIS MODULE GENERATES HIGH VOLTAGES,
DO NOT TOUCH WHEN POWER IS ON.



NOTES

VR1 - CONTRAST (SK4, EXT.ADJUST OPTION)
VR2 - BRIGHTNESS (SK6, EXT. ADJUST OPTION)
THR - THERMISTOR OPTION
SK5 (SK14) - B/L CONNECTION
SK7 (SK1,SK2,SK3) - LCD CONNECTION
SKB (SKC + SKE) - DRIVER CARD CONNECTION



ALL DIMS. IN mm

ISSUE	1	2	3
DATE	29/10/96		
DRAWN	FM		
APPVD			

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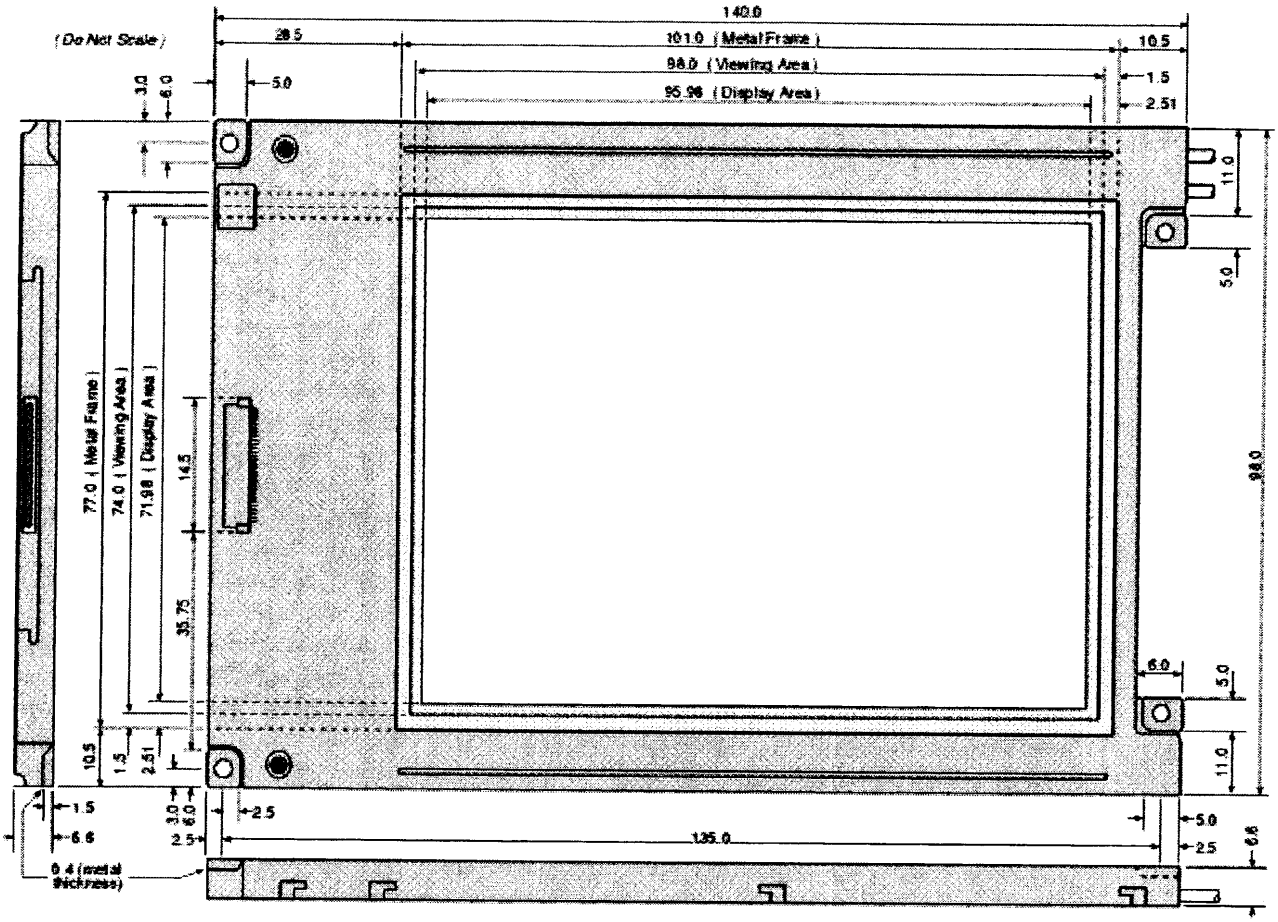
UV 6-3494
PANEL INTERFACE UNIT
(FOR COLOUR STN LCD'S)


(Do Not Scale)
140.0
28.5
101.0 (Metal Frame)
10.5
98.0 (Viewing Area)
95.96 (Display Area)
1.5
2.51
3.0
6.0
5.0
11.0
5.0
98.0
77.0 (Metal Frame)
74.0 (Viewing Area)
71.96 (Display Area)
14.5
35.75
6.0
5.0
11.0
10.5
1.5
2.51
1.5
6.6
3.0
6.0
2.5
2.5
135.0
5.0
2.5
6.6
0.4 (metal thickness)