

# JORDAN TOF PRODUCTS, INC.

Formerly  
R. M. Jordan Co., Inc.

## LINEAR TIME OF FLIGHT COMPONENTS ION SOURCES, MICROCHANNEL PLATE DETECTORS, TOF POWER SUPPLIES

(Click image to enlarge)



C-677 Linear Time Of Flight Mass Spectrometer  
Shown Here With MCP Detector and Sideport TEE

### C-677 LENS STACK & FLIGHT TUBE ASSEMBLY

A flexible and inexpensive instrument which can be adapted for use in the customers chamber. Can be mounted in many different orientations.

The chamber can be furnished to mate with the user's vacuum system flange, or in some cases, the instrument can be modified to fit into the user's existing vacuum chamber.

RESOLUTION: Approximately 150-200 with gas phase molecules and Laser Excitation Ionization. Can be as high as 1000 with Supersonic Molecular Beam and Surface Ionization.

PATH LENGTH: One meter or as required

(Click image to enlarge)



C-677 Ion Source Assy

The complete instrument consists of the following:

### C-677 TOF LENS STACK & FLIGHT TUBE ASSEMBLY COMPONENTS

An assembly of grids, steering plates and lens elements mounted on a flange for insertion into the users experiment. These are placed in the optimum position to extract, accelerate and focus ions through the flight tube and onto the detector.

[C-677 Literature, Drawings and Illustrations \(PDF\)](#) Click on link to open

### D-603 TOF POWER SUPPLY

This TOF Power Supply has been designed for use with our C-677 linear Time Of Flight. It is a single compact source for all of the voltages used in a typical linear Time Of Flight Mass Spectrometer.

All voltages are monitored by the same meter. A voltage is only displayed while its monitor button is depressed. Each end of every cable is labeled to match the receptacle to which it connects.

Size (approximately), rack mounted. 19"W x 5.25"H x 14.5"D  
Input voltage (power requirements) 100/120/220/240, 50/60 Hz

[D-603 TOF Power Supply Specifications \(PDF\)](#) Click on link to open  
[C-677 TOF Instrument and D-603 Power Supply Manual \(PDF\)](#) Click on link to open

Manual includes power supply specifications and the operation procedure for the Time of Flight Mass Spectrometer.

(Click image to enlarge)



D-603 TOF Power Supply

(Click image to enlarge)



C-701 18mm Dual MCP Detector Assy

### C-701 DUAL MICROCHANNEL PLATE DETECTOR

A ground potential input grid presents a flat, field free plane to the incoming ions. Two chevron mounted 18mm microchannel plates provide high gain ( $10^7$ ) with sub-nanosecond rise time. Mating connector to the 50 ohm anode is furnished. Shipped mounted on a 6 or 4½ inch Conflat flange, baked and pinched off in its own vacuum housing.

[18mm Dual MCP Detector Drawings / Product Info \(PDF\)](#)  
[18mm Z-Gap \(High Sensitivity\) MCP Detector Drawings / Product Info \(PDF\)](#)

### ACCESSORIES AVAILABLE:

**C-687 SIDEPORT TEE** has a 6 inch CONFLAT flange for attaching a vacuum pump to the flight tube of either our open geometry TOF (supplemental pumping) or shrouded linear TOF instruments. An additional 2.75 inch port is located opposite the pump for mounting gauges, etc. When used in conjunction with the B-682 Shroud, the ion source, flight tube and detector can be differentially pumped to well below chamber pressure.

**B-682 SHROUD AND SKIMMER FOR DIFFERENTIAL PUMPING** increases resolution to approximately 1,000 when used with a supersonic jet. Designed for optimum use with resonance-enhanced multiphoton ionization spectroscopy in supersonic beams.

A skimmed beam, and differential pumping maintains the flight tube on the order of  $5 \times 10^{-7}$  Torr and eliminates organic contamination from the ionization region. This also results in low maintenance. The ionization source will operate for years without cleaning. Standard UHV flanges, components and construction techniques are used throughout. This gives design flexibility and allows later changes if desired.

Use of the supersonic beam results in a great improvement in resolution, i.e., at least 800 at mass 93. Ion packets on the order of 10 nanoseconds have been observed on the flat dual channel plate detector. Resolution appears to be pulse width limited.

**D-679 LINER** to elevate the potential of the flight tube environment. This is desirable when ions are created at ground potential.

(Click images to enlarge)



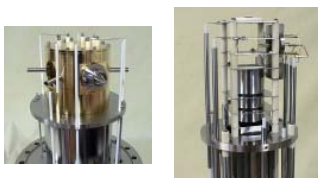
**C-677 with B-682 Shroud and Skimmer Assy**

Click Images to Enlarge

Description of Images and Product Information Downloads:



Linear TOF Lens Stack and Flight Tube Assembly



B-682 Shroud with Skimmer / Differential Pumping / Cross Beam (left)  
C-950 Electron Gun Ionizer Mounted to TOF (right)



18mm Dual and Z-Gap MCP Microchannel Plate Detectors:

18mm Dual Detector mounted on 6 inch conflat flange (left)  
18mm Z-Gap Detector mounted on 6 inch conflat flange (right)  
[18mm Dual MCP Detector Drawings / Product Info \(PDF\)](#)  
[18mm Z-Gap MCP Detector Drawings / Product Info \(PDF\)](#)



25mm Dual and Z-Gap MCP Microchannel Plate Detectors:

25mm Dual Detector mounted on 6 inch conflat flange (left)  
25mm Z-Gap Detector mounted on 6 inch conflat flange (right)  
[25mm Dual MCP Detector Drawings / Product Info \(PDF\)](#)  
[25mm Z-Gap MCP Detector Drawings / Product Info \(PDF\)](#)



40mm Dual and Z-Gap MCP Microchannel Plate Detectors:

40mm Dual Detector mounted on 6 inch conflat flange (left)  
40mm Z-Gap Detector mounted on 6 inch conflat flange (right)

Click Images to Enlarge

[C-677 Linear Time Of Flight Price List](#)

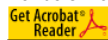
User Manuals:

[C-677 TOF Instrument and D-603 Power Supply Manual \(PDF\)](#) Click on link to open

[C-701 18mm Dual Microchannel Plate Detector Manual \(PDF\)](#) Click on link to open

Filesize: approx. 2.6 MB. To download, right click on link and "save target as".

Manuals includes specifications, operation, and maintenance procedures.



[Home](#)

[Product Catalog](#)

[Time Of Flight Tutorial](#)

[Price List](#)

[Contact Us](#)

## Jordan TOF Products, Inc.

990 Golden Gate Terrace  
Grass Valley, CA 95945  
530-272-4580 / 530-272-2955 [fax]  
E-mail: [info@rmjordan.com](mailto:info@rmjordan.com)

Copyright © Jordan TOF Products, Inc. All rights reserved.  
Thank you for visiting <http://www.rmjordan.com/linear-tof.html>

*Linear Time Of Flight / TOF / Mass Spectrometer Components*