SPECIFICATIONS

OVERVIEW

CAPACITY: Six plug-in cards per mainframe.

EXPANSION CAPACITY: Daisy-chain expansion of up to four Slave units with one Master unit.

ANALOG BACKPLANES: Backplanes provide automatic row expansion between similar relay cards within one mainframe.

DISPLAY: 14-segment alphanumeric LED display, plus individual status LEDs.

MEMORY: Storage for 100 matrix setups, lithium battery backup.

PROGRAMMED SETTLING TIME: 0 to 65 seconds in 1ms increments.

FRONT PANEL MENU: Digital I/O; External Trigger edge; Matrix Ready level; Master/Slave operation; IEEE-488 address; Relay Settling Time; Self Test; Card Identify; factory defaults.

TRIGGER SOURCES: External Trigger (TTL compatible, programmable edge, 600ns minimum pulse width); IEEE-488 bus (TALK, GET, "X"); manual.

STATUS OUTPUT: Matrix Ready (TTL compatible, programmable high- or low-true): goes false when relays are switched, true at end of Programmed Settling Time.

MAKE BEFORE BREAK, BREAK BEFORE MAKE:
Programmable by row.

LIGHT PEN OPTION: Controls crosspoints, memories, make before break and break before make. One light pen controls Master and all Slaves.

EXECUTION SPEED

MAXIMUM TRIGGER RATE: 200 setups per second (stepping through previously stored setups with make-before-break and break-before make disabled).

TRIGGER RESPONSE TIME:
External Trigger: <1ms.
IEEE-488 GET: <1ms.

RESPONSE TO IEEE-488 COMMAND (to close a single relay, excluding relay settling time):
Stand Alone: <15ms.
Master and Four Slaves: <55ms.

DOWNLOAD TIME (one setup to 707):
Stand Alone: 60ms typical.

IEEE-488 BUS IMPLEMENTATION

MULTILINE COMMANDS: DCL, LLO, SDC, GET, GTL, UNT, UNL, SPE, SPD.

UNILINE COMMANDS: IFC, REN, EOI, SRQ, ATN.

INTERFACE FUNCTIONS: SH1, AH1, T6, TE0, L4, LE0, SR1, RL1, PP0, DC1, DT1, C0, E1.

PROGRAMMABLE PARAMETERS: All parameters programmable except for IEEE-488 bus address and Master/Slave operating mode.

GENERAL

DIGITAL I/O (TTL compatible):
Data: 8 inputs, 8 outputs.
Control: Input Latch, Output Strobe.

REAR PANEL CONNECTORS:
Two BNC: External Trigger, Matrix Ready.
One DB-25: Digital I/O.
Two 8-pin DIN: Master/Slave In, Master/Slave Out.
One 6-pin screw terminal plug: Relay Test.

ENVIRONMENT: **Operating:** 0 to 50°C.
Storage: −25 to 65°C.

POWER: 90-125V ac or 180-250V ac (internally/externally selected), 50-60Hz, 140VA maximum.

RELAY DRIVE: 2.9A minimum.

DIMENSIONS, WEIGHT: 356mm high × 432mm wide × 574mm deep (14 in. × 17 in. × 22.6 in.). Net weight without cards 18.2kg (40 lbs.).

ACCESSORIES SUPPLIED: Instruction manual, power line cord, relay test connector, fixed rack mounting hardware.

ACCESSORIES AVAILABLE:

Model 7070:	Universal Adapter Card
Model 7071:	General Purpose Matrix Card
Model 7072:	Semiconductor Matrix Card
Model 7073:	Coaxial Matrix Card
Model 7078-DIN:	8-Pin DIN Cable (Master/Slave), 1.8m (6 ft.)
Model 7078-PEN:	Programming Light Pen (includes holder)
Model 7079:	Slide Rack Mounting Kit
Model 7007-1:	Shielded IEEE-488 Cable, 1m (3.2 ft.)
Model 7007-2:	Shielded IEEE-488 Cable, 2m (6.6 ft.)
Model 7051-2:	BNC to BNC Cable, 0.6m (2 ft.)
Model 7051-5:	BNC to BNC Cable, 1.5m (5 ft.)

MODEL 707 SWITCHING MATRIX

Specifications subject to change without notice.