

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.