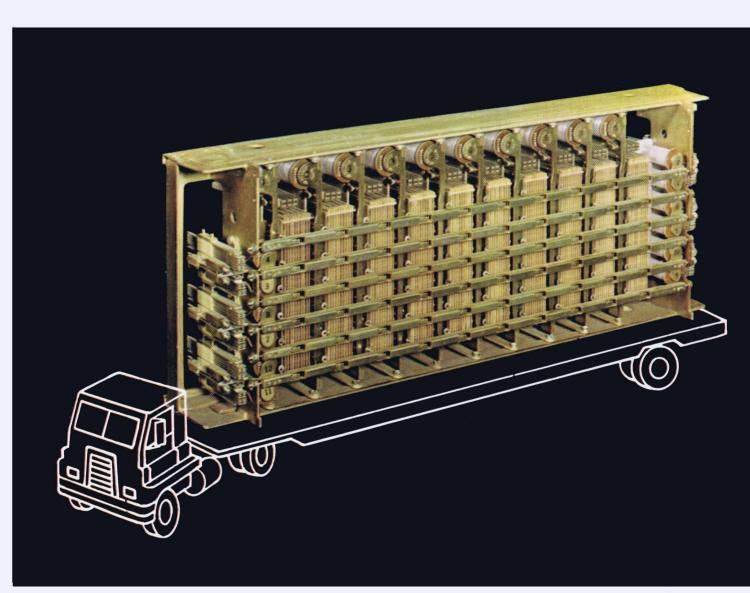
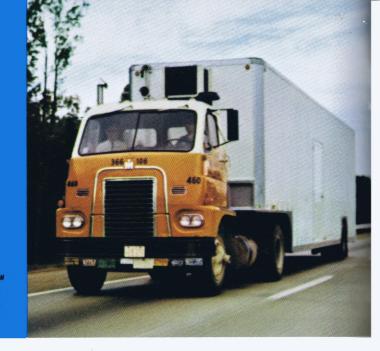
# NORTH ELECTRIC PRESENTS...

SWITCHE



MOBILE CROSSBAR SWITCHING SYSTEM



## 

THE SWITCHER is a complete common control crossbar telephone office providing 360 lines and 2,000 directory numbers in a single mobile van. This new concept in modern communications service presents a remarkably expedient capability for telephone companies to meet unusual or special service circumstances with instant telephone service. Two or more SWITCHERS can be connected together for higher capacity.

#### **TEMPORARY SERVICE**

THE SWITCHER fulfills temporary on-the-spot service requirements brought about by large construction and urban development programs, seasonal resort activities, major special events, and community and civil defense emergencies.



#### INTERIM SERVICE



THE SWITCHER augments or replaces existing service for growing subdivisions, supplements or replaces existing service for building recovery or while a new office is being planned and constructed.

### **EMERGENCY SERVICE**

THE SWITCHER provides a "within hours" facility to move in and cut-over a complete telephone office in case of an emergency and serious equipment damage by fire, flood or explosion.



#### **FUNCTIONAL DESIGN**

Many mobile van sources were investigated to locate a readily available standard vehicle to not only accommodate a complete telephone system, but more importantly, to meet all the requirements posed by over-the-road legal transport restrictions.

A standard volume-type van measuring 40-feet long, 8-feet wide and with a 12½-foot clearance fulfilled this prime requirement and was selected to house THE SWITCHER. Any truck tractor rated to haul a 40-foot van with a 30,000-pound maximum load can pull the system. Undercarriage is single-axle with double wheels and air-ride, spring-type suspension. Weight is distributed so the 18,000-pound maximum single-axle load limit is not exceeded.

Configured for maximum mobility and maximum service, THE SWITCHER can be moved anywhere at any time, inter- or intra-state, without special permits or special routing.

Full utilization of this standard van interior space dictated equipment size and capacity. A fixed number of lines, trunks, traffic capacity and ancillary equipment is provided so that a broadly utilitarian and complete communications system is available immediately after power and cables are connected.

#### TRUNKING FLEXIBILITY

THE SWITCHER provides an unusually flexible trunking arrangement to fulfill a wide variety of needs. Standard in the system are 40 two-way trunks, 20 one-way outgoing trunks, and 10 CAMA trunks. These trunks are E&M signaling type. In addition there is one local test trunk, two information trunks, two repair trunks and one busy verification service trunk.

Where required, additional loop dial trunks can be provided immediately from North Electric stock inventory to replace any or all of the E&M trunks. This facilitates

meeting various trunking requirements and offers a high trunk capacity for an office of this size.

#### TRAFFIC CAPACITY

Consistent with space, equipment and utility criteria, originating traffic capacity has been established at 1.74 Unit Calls per line, with 100% line fill. Higher traffic requirements can be accommodated by control of the line fill.

#### **MOBILITY PLUS CAPABILITY**

Beyond the proven advantages of the versatile capabilities and service features of common control crossbar, THE SWITCHER offers many outstanding features for a completely mobile, self-contained facility: Exceptionally high line, directory number, trunk and traffic capacity for an office of this size / 100% intercept and line lockout / KEY-CALL<sup>TM</sup> push-button operation / Complete power package / Full complement of test equipment and / Built-in conference and fire alarm service.

#### POWER REQUIREMENTS

Total AC power requirement (220 VAC, single phase) for THE SWITCHER is approximately 10 KW, at full load:

•	Switching Equipment and Lighting4	K	W
•	Air Conditioner	K	W
•	Electric Heater	5	KW

Complete electrical facilities are built-in THE SWITCHER, including charger supply, overhead fluorescent lighting, electric heating, air conditioning and AC convenience outlets. Where conventional power is not available, a portable motor generator unit may be used.

#### **NEAT AND TRIM**

The beaded aluminum exterior of THE SWITCHER is painted an attractive, durable, baked-white enamel. Clean, unbroken lines present a handsome and imposing appearance, on- and off-the-road.

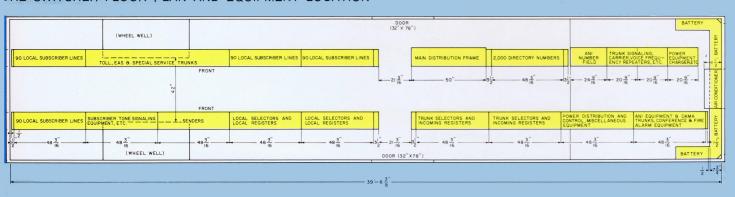
When THE SWITCHER operates in a fixed location for an extended period of time, many inexpensive exterior architectural treatments are possible. A pleasing, modern facade will result from the addition of several ornamental vertical columns equally spaced along the full width of the van. Weatherproof metal or stone-veneered panels covering the exposed undercarriage will create a podium-effect. Grass, trees and shrubbery will add a here-to-stay-look, if desired.

Access to THE SWITCHER is gained through doorways centered on both sides of the van, or through the large rear double doors should location prevent use of side doors.

The interior of THE SWITCHER is customized to have the look of the most modern central office. Fiberglas and foil barrier insulation protects the entire interior, covered by office-type wood veneer wall panels and an all-white, light reflective ceiling. Long-wearing, attractive carpeting covers the 1-1/16"-thick hardwood flooring.



#### THE SWITCHER FLOOR PLAN AND EQUIPMENT LOCATION



**THE SWITCHER** utilizes North Electric standard modular crossbar equipment with the following general specifications:

- 360 Subscriber Lines
- 2,000 Directory Numbers
- Subscriber Originating Traffic 1.74 U.C./Line with 100% Line Fill
- Subscriber Terminating Traffic 2.3 U.C./Line with 100% Line Fill
- Terminal-per-station Operation
- 100% KEY-CALL<sup>™</sup> or Dial Capability
- 100% Intercept Service
- 100% Line Lockout
- Reverting Call by Directory Number with Recorded Announcement
- Sender Outpulsing to Trunks
- Multi-frequency Ringing, Adjustable Frequency Unit
- 1 and 2-Party ANI
- 40 Two-way Universal Interoffice E&M Trunks Equipped (May be Used as Toll or EAS, One-way or Two-way)

Typical Assignment:

- —12 Two-way CDO Toll "O"
- -20 One-way Incoming EAS
- -6 Two-way EAS
- —1 Local Test Trunk
- —1 Busy Verification Trunk
- 24 One-way Outgoing Universal Inter-office Trunks
  Wired Only (May be Either
  E&M or Loop Dial, Toll or
  EAS Trunks)

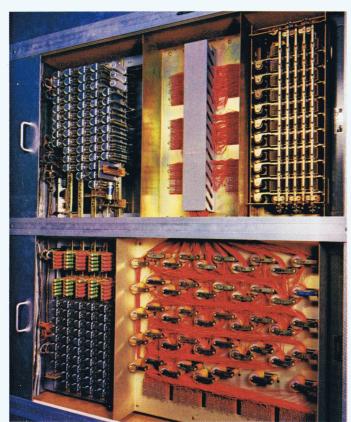
Typical Assignment:

- —20 One-way Outgoing EAS
- -2 Local Information "411"
- ---2 Repair Service "611"
- 10 One-way Outgoing CAMA-ANI Trunks Equipped
- Local Prepay Paystation Adapters for 6 Lines

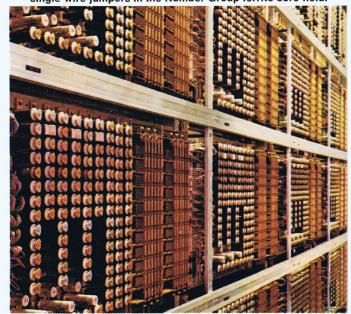
- Traffic Usage Recorder Patch Panels
- Automatic Dial Speed Test
- Malicious Call Unit
- 30-Line Conference and Fire Alarm System, 10 Lines Equipped
- Subscriber Line Transfer Unit for 8 Lines
- Wire Chief Test Panel
- Local Originating Test Set
- Local Terminating Test Set
- Automatic Central Office Routiner
- Maintenance Tool Kit
- Spare Parts Kit
- "B"-Type MDF, Capacity up to 1000 Cable Pair, 500 Protectors Equipped
- Two 19" Mounting Racks Each with 44 Positions for the Location of Optional Equipment, such as DX Signaling, Carrier Equipment, Voice Repeaters, Etc.
- 150 AMP, 220 VAC Service Entrance and Breakers
- Batteries, C&D Type, KCT-270
- Complete DC Powerboard:
  - —50 AMP Charger—1 Unit
  - —5 Frequency 25 Watt Ringing Generator— 2 Units
  - —300 AMP Power Distribution Panel
  - —High and Low DC Voltage Alarms
  - —Complete Power Buss, Meters, and Shunt
  - —130 VDC Coin Control Voltage Unit
  - —90 or 150 VDC Local Test Panel Power Supply
- Precise Tone Generator with Monitor and Transfer

THE SWITCHER . . . a broadly utilitarian and complete mobile communications system . . . FOR TELEPHONE COMPANIES ON THE GO.





Subscriber numbers are easily changed by simply moving single-wire jumpers in the Number Group ferrite core field.



Standard crossbar modules contribute to the compactness of THE SWITCHER.