



professional audio equipment

MICRO-TRAK CORPORATION

FAVORITE OF THE RESEARCHER

SPORT IV



SPORTS/REMOTE AUDIO CONSOLE

For Telecommunications and General Purpose Applications

- ★ ELECTRONIC ROTARY TELEPHONE DIAL ★
- ★ FOUR LOW IMPEDANCE MIC INPUTS ★
- ★ ULTRA PORTABLE - COMES IN CASE ★
- ★ FULL HYBRID TALKBACK - SINGLE LINE ★
- ★ BUILT IN AC AND BATTERY SUPPLIES ★
- ★ CART OR CASSETTE TAPE INPUT ★

MORE MICRO-TRAK PROFESSIONAL PRODUCTS FOR YOUR
STATION

FIVE CHANNEL AUDIO CONSOLES	AUDIO DISTRIBUTION AMPLIFIERS
SIX CHANNEL AUDIO CONSOLES	AUDIO POWER AMPLIFIERS
TEN CHANNEL AUDIO CONSOLES	"D" REMOTE AUDIO SYSTEMS
TURNTABLE PREAMPLIFIERS	"DITTY DESK" REMOTE SYSTEMS
SPORT TELECOMMUNICATION CONSOLES	TELEFILE NEWS GEAR

TELEPHONE 413 536-3551

MICRO-TRAK CORPORATION
620 RACE ST., HOLYOKE, MASSACHUSETTS 01040
USA



MICRO-TRAK

SPORT IV PORTABLE CONSOLE
With Telephone Dial Option

SPECIFICATIONS

INPUTS:

Microphones: Five, four mixable to program, Spotter to headsets only. Level: -58 to -40 dbm Internally adjustable, low Impedance.

Auxiliary: One, shares channel four with microphone via selector switch. Level: -20 dbm nominal.

External Monitor: allows input via off air monitor radio, etc. Level: -20 dbm 10k ohms unbal.

Talkback: Via hybrid transformer from telephone line. With null control. Level: -35db null.

OUTPUTS:

Program: Balanced, transformer isolated, 600 ohm Level: +8 dbm nominal, +15 dbm max. Meter zero reference level is internally adjustable.

Headphones: Three, switch selects- Program and Spotter, External monitor and spotter, or Auxiliary cue and Talkback, one on each side of stereo headset. 8 to 6000 ohms Impedance.

POWER:

Line: 115 VAC 50-60Hz. Battery supply automatically takes over on power failure.

Battery: Four 9V Alkaline transistor radio cells. Provides 5 approximately five hours operation (battery life will vary with output levels.)

CASE: Durable thermoformed attache style case. Removable cover.

SIZE: 13.75 Inches (34.92 cm) x 9.5 (24.13 cm) x 4.00 (10.16 cm)

WEIGHT: 7.0 lbs. (3.17 kg.) with batteries. 8.5 lbs (3.85 kg.) packed.

OPTIONS:

Telephone Dial: Push button rotary electronic dial system. Remembers last number dialed for automatic redial. (same function as round mechanical dials)

Matching Accessory Cases: Two sizes. 13.75 Inches (34.92 cm) x 9.5 (24.13)x 4.0 (10.16) and 18 (45.7)x12 (30.5)x5 (12.7) with diced foam for easy fitting of mikes, headsets, and cables.

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For Telecommunications and General Purpose Applications

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MICRO-TRAK

MICRO-TRAK CORPORATION
 HOLYOKE, MASSACHUSETTS
USER PRICE LIST . . EFFECTIVE AUGUST 1, 1982

PART NUMBER	DESCRIPTION	USER PRICE
CARTRIDGES AND STYLII		
79313-000	PHONO CARTRIDGE STANTON 500A.....	17.50
79315-000	PHONO CARTRIDGE STANTON 500AL.....	17.50
79316-000	PHONO CARTRIDGE STANTON 500E.....	21.50
79321-000	STYLUS FOR 500A STANTON D5107A.....	8.25
79322-000	STYLUS FOR 500AL STANTON D5107AL.....	8.25
79323-000	STYLUS FOR 500E STANTON D5100E.....	13.50
CARTRIDGE TAPE RACKS		
79001-000	TAPE CART RACK L72 LAZY SUSAN.....	79.50
79015-000	TAPE CART RACK L90 WALL MOUNT.....	79.50
DITTY DESK- PORT. REMOTE SYSTEM		
83000-003	DITTY DESK STER W/6445 5CH & SP25 TECH.TT.....	3495.00
83000-005	DITTY DESK MON. W/6455 5 CH. & SP25 TECH. TT..	3295.00

TERMS AND CONDITIONS

TERMS: 2% - 10, Net 30 days to approved accounts. All others cash in advance or C.O.D. 5% discount for cash accompanying order on orders totalling over \$500.-

F.O.B.: Holyoke Massachusetts, USA. Minimum order \$10.-

SERVICE CHARGE: A service charge of 1 1/2 % per month (18 % annual) will be applied to all delinquent accounts.

MERCHANDISE RETURN : Written authorization will be required for all return merchandise. Merchandise returned for the convenience of the buyer will be subject to a 15% restocking charge, plus any freight or damage incurred. Call 413 536-3551 for return authorization number.

PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.



MICRO-TRAK CORPORATION

USER PRICE LIST . . EFFECTIVE AUGUST 1, 1982

PART NUMBER	DESCRIPTION	USER PRICE
AUDIO CONSOLES		
82000-001	CONSOLE-BDCAST 6618 6 CHANNEL STEREO/MONO..	2945.00
92000-001	CONSOLE-BDCAST 6509-RS 5 CHANNEL STEREO ROTARY	1750.00
92000-003	CONSOLE-BDCAST 6509-RM 5 CHANNEL MONO ROTARY..	1595.00
92036-001	CONSOLE-BDCAST 6510-RS 10 CHANNEL STEREO ROTAR	3495.00
92036-003	CONSOLE-BDCAST 6510-RM 10 CHANNEL MONO ROTARY.	3195.00
80266-002	CONSOLE-BDCAST 6445-B 5 CHANNEL STEREO.....	1395.00
80269-001	CONSOLE-BDCAST 6455-B 5 CHANNEL MONO.....	1195.00
CONSOLE ACCESSORIES		
80072-001	SINGLE MIC PREAMP CARD.....	154.50
80072-002	DUAL MIC PREAMP CARD.....	199.50
80072-003	STEREO MIC PREAMP CARD.....	199.50
80082-001	TURNTABLE PRE AMP CARD MONO.....	99.50
80082-002	HIGH LEVEL INPUT PREAMP CARD MONO.....	99.50
80082-003	TURNTABLE PRE AMP CARD STEREO.....	119.50
80082-004	HIGH LEVEL INPUT PRE AMP CARD STEREO.....	119.50
82084-000	BALANCED HI-LEV INPUT PRE-AMP STEREO.....	144.50
92043-001	POWER AMPLIFIER OPTION FOR 6510- 10 W/CH.....	149.50
MONITOR POWER AMPLIFIERS		
92043-002	POWER AMPLIFIER 10P STER. 10W/C GEN. PURP.....	199.50
92043-003	POWER AMPLIFIER 10P STER. 10W/C PNL MT.....	229.50
SPORTS REMOTE CONSOLES		
81950-001	SPORT III CONSOLE (2 CHANNEL LESS DIAL).....	549.50
81950-002	SPORT III CONSOLE (2 CHANNEL WITH DIAL).....	649.50
81944-001	SPORT IV CONSOLE (4 CHANNEL LESS DIAL).....	699.50
81944-002	SPORT IV CONSOLE (4 CHANNEL WITH DIAL).....	799.50
SPORTS CONSOLE ACCESSORIES		
81956-001	DIAL OPTION FOR SPORT III OR IV CONSOLE.....	124.95
81900-000	SPORT ACCESSORY CASE 9X14X4.....	64.50
81933-000	SPORT ACCESSORY CASE 18X12X5.....	84.50
DISTRIBUTION AMPLIFIERS		
82300-001	MODEL 7116-A DIST.AMP.1X6 W/IND LVL CNTRLS....	239.50
82300-002	MODEL 7213-A DIST AMP 2X3 W/IND LVL CNTRLS....	269.50
82313-000	MODEL 7216-A DIST.AMP.2X6 W/IND. LVL CNTRLS...	449.50
82330-001	RACK ADAPTER FOR 7116 & 7213 DA (3-1/2" HIGH).	39.50
TURNTABLE PREAMPLIFIERS		
84100-001	TURNTABLE PREAMP MODEL 6410 MONAURAL.....	169.50
84100-000	TURNTABLE PREAMP MODEL 6411 STEREO.....	199.50
TONE ARMS		
75900-000	TONE ARM MODEL 303.....	119.50
75971-000	TONE ARM MODEL 306.....	144.50
TONE ARM ACCESSORIES		
75969-000	SERVICE KIT FOR MODEL 303 TONE ARMS.....	199.50

SPECIFICATIONS

MODEL 6440-DS

MODEL 6440-DX

MODEL 6440-DT

INPUTS: Seven (Four Mixer Channels)

Two stereo magnetic phono, 47 K impedance with cue.

Two microphones, low impedance, 150 ohms, monaural, one primary for the operator, the second as a selectable auxiliary input. Cue provision on the second mike input.

Three auxiliary high level stereo inputs selectable with cue provision.

OUTPUTS:

Program, 600 ohm unbalanced.

Cue, 8 ohm headphone jack, monaural. (internal speaker disconnected when not in use.)

OUTPUT LEVEL:

+ 4 dBm into 600 ohms nominal, (1.2 vrms),
+ 14 dBm maximum.

FREQUENCY RESPONSE:

Auxiliary and Microphones plus or minus 1 dB, 30 Hz to 20 KHz @ 0 dBm output.

Phono, modified RIAA, plus or minus 2 dB above 100 Hz, rumble filter characteristic below 100 Hz.

Bass and treble controls, 8 dB boost or cut.

INPUT SENSITIVITY:

Phono, 5 mv rms @ 1000 Hz for nominal output

Microphone, 1 mv rms for nominal output, adjustable.

Auxiliary, (except Mic.) -20 dBm for nominal output.

HARMONIC DISTORTION:

Less than 0.5 % at nominal output.

NOISE AND HUM:

-60 dB or better.

CONTROLS:

Three main control pots, (two turntables, one microphone; turntable pots have cue position, main microphone has muting.)

Four line select switches, Left Turntable, Right Turntable, Microphone, Aux. Output.

(on-cue) All low level audio switching accomplished with DC controlled FET switches.

Master gain, concentric right and left channel. Cue Level control.

Aux Input Select.

Aux Level pot.

Bass boost/cut pot.

Treble boost/cut pot.

METERING:

Left and right output level meters, 0 VU corresponds to -10 dBm as supplied. (internally adjustable)

SIZE:

12 1/4 inches high x 12 inches wide x 4 1/2 inches deep. (adapter available for 19 inch rack mounting.)

CHASSIS:

Heavy guage steel for optimum magnetic shielding.

TERMINATIONS:

6440-DS Mic. inputs, 3 pin XLR female.
TT inputs, phono jacks, 2 stereo (4).
Aux. inputs, phono jacks, three stereo (6)

Headphone, 1/4" phone jack 3 cond.

6440-DX Inputs, all inputs 3 pin XLR female.
Outputs, all outputs, except headphone, 3 pin XLR male.

Headphone, 1/4" phone jack 3 cond.

6440-DT All input and output terminations are through barrier type terminal strips.



FEATURES

High Reliability Professional Design
Self Contained. Well Shielded Rugged Package
Long Life Components Broadcast Quality Pots
Internal Cue Amp and Speaker Lighted Level Meters
High Level 600 Ohm Output Easily Drives Power Amps
Fast Smooth Operation. Four Mixer Channels
Bass Control Treble Control
DC Controlled... FET Audio Switching

MICRO-TRAK CORPORATION

620 RACE ST., HOLYOKE, MASSACHUSETTS 01040

USA



SYSTEM D CONTROL CENTERS

DISCOTHEQUE

THEATER

COLLEGE

STUDIO

RADIO

SOUND
REINFORCEMENT



BROADCAST

PRODUCTION

BOARD ROOM

CLOSED CIRCUIT

REMOTE

SQUARE DANCE
CALLERS

6440

STEREO

THE 6440 AUDIO MIXER AMPLIFIER

The 6440 series professional audio mixer - amplifier is a self contained, self powered, stereo audio control console designed for Discotheque, Broadcast, or general sound reinforcement applications.

The Micro-Trak 6440 has been engineered to accommodate the inputs of two turntables, two low impedance microphones... one a primary the second as a selectable auxiliary input... and three additional high level auxiliary stereo inputs. All of the inputs with the exception of the primary microphone, which is for use by the operator, may be monitored via the internal cue amplifier and speaker. This professional configuration is ideal for the fast pace of disco operation, or for the one man announce operate situation in broadcasting.

The 6440 has been designed by people who know the requirements of the DJ. Professional quality pots, audio components, and FET switching are used throughout to insure reliability and top performance. Proper shielding, proper cooling, the right inputs, the right outputs have all been worked out to give you the best possible installation.

The 6440 series is available as a stand alone unit, or packaged in a desk top housing, or installed as a part of Micro-Trak's 'SYSTEM D' Audio Control Centers. Whether your requirement is for portable, semi-fixed, or a full blown studio installation, for Discotheque, Broadcast or Sound Reinforcement, specify the Micro-Trak 6440 Mixer.

Ask your Micro-Trak dealer for details on 'SYSTEM D' or write directly to our marketing department....

MICRO-TRAK CORPORATION

620 RACE ST., HOLYOKE, MASSACHUSETTS 01040



MODEL 6444

BROADCAST AUDIO CONSOLE



- FEATURES.....
- FOUR CHANNEL STEREO
 - PLUS 4 dBm BALANCED 600 OHM OUTPUT
 - TWO TURNTABLE ... TWO MICROPHONE
 - THREE AUXILIARY INPUTS
 - RELIABILITY LOW COST
 - HIGH PERFORMANCE ... LIGHT WEIGHT
 - INTERNAL CUE SYSTEM
 - FET SWITCHING MONITOR OUTPUTS
 - TWO CONNECTOR
 - CONFIGURATIONS AVAILABLE
 - FOR FIXED OR PORTABLE USE
-

THE MODEL 6444 BROADCAST AUDIO CONSOLE

The 6444 series professional broadcast audio console is a self contained, self powered, stereo audio mixer designed in a broadcast configuration. It is highly suitable for general broadcast, remote, and production applications.

The Micro-Trak 6444 has been engineered to accommodate the inputs of two turntables, two low impedance microphones... one a primary for the operator the second as a selectable auxiliary input... and three additional high level auxiliary stereo inputs. All of the inputs may be monitored via the cue amplifier and it's built in speaker or by switch selection through the studio monitor circuit. A monitor output circuit is provided to allow local sampling of the output signal. This output is suitable to

drive an external monitor amplifier. The 6444 program output is to match a 600 ohm balanced line; the line impedance of the typical broadcast station. Operating level is available up to to + 4 dBm with headroom to + 12 dBm. Output metering is internally adjustable to have meters read 0 at -10 dBm, 0 dBm or + 4 dBm.

The 6444 series is available in two connector configurations for two specific types of service. The first, the 6444-BX, is a full XLR panel with three pin females for all inputs and males for all outputs. Its prime purpose is to satisfy the application where quick and reliable connect-disconnect of cabling is desired as in portable. Second is the 6444-DT, where connections are barrier

type terminal strips. This unit is for permanent studio applications; or for installation in portable cases, etc. where the actual input-output connectors are located at a more accessible location on the outside of the case.

The 6444 is available as a stand alone unit, as a part of a 'SYSTEM D' audio control center, as a desk top unit in it's own case, or for 19 inch rack mounting. Whether your requirement is for portable, fixed, production, on line, remote, or sound reinforcement, specify 6444.

Ask your local authorized Micro-Trak dealer for information on 'SYSTEM D' and other Micro-Trak products or write directly to our marketing department....

OTHER MICRO-TRAK PROFESSIONAL EQUIPMENT

MODEL 303 TONE ARM MODEL 306 TONE ARM MODEL 206 TONE ARM
 MODEL 6400 PREAMP MODEL 6440 AUDIO MIXER MODEL 6401 PREAMP
 MODEL 740 TURNTABLE SERIES L TURNTABLE FURNITURE CART RACKS
 MODEL 2570 ANTENNA HEATER CONTROL MODEL 740 TURNTABLE

MICRO-TRAK CORPORATION
 620 RACE ST., HOLYOKE, MASSACHUSETTS 01040



SPECIFICATIONS

MODEL 6444-BX

INPUTS: Seven (Four Mixer Channels)

Two stereo magnetic turntable, 47 K impedance with cue.

Two microphones, low impedance, 150 with cue provision. One primary, the second as a selectable auxiliary input.

Three auxiliary high level stereo inputs selectable with cue provision.

OUTPUTS:

Program, 600 ohm balanced.

Monitor, 10 K ohms.

Cue, 8 ohm headphone jack, monaural.

(internal speaker disconnected when headphones are in use.)

OUTPUT LEVELS:

Program, + 4 dBm into 600 ohms, balanced, stereo.

Monitor, 0 dBm into 10 K ohms (suitable to drive monitor amplifier.), stereo.

Cue, 2 watts into 8 ohms, intermittent, monaural.

MIXING CHANNELS:

Four—Three stereo, one monaural.

CUEING:

Available on all four mixing channels, may be defeated on any channel internally. Internal cue speaker, 8 ohm headphone jack.

INPUT SENSITIVITY:

Phono, 5 mv rms @ 1000 Hz for nominal output.

Microphones, 1 mv rms for nominal output, adjustable.

Auxiliary, (except mic.) - 20 dBm for nominal output.

FREQUENCY RESPONSE:

Auxiliary and microphones, plus or minus 1 dB, 30 Hz to 20 K Hz @ 0 dBm output. Phono, Modified RIAA, plus or minus 2 dB above 100 Hz, rumble filter characteristic below 100 Hz.

HARMONIC DISTORTION:

Less than 0.5 % at nominal output.

MODEL 6440-BT

CONTROLS:

Four level controls, with cue position.

Four line switches.

One auxiliary channel input select switch.

Two, master gain controls, right and left concentric.

One cue level control.

One monitor level control (concentric with cue).

Two microphone amplifier gain (screw-driver adjust).

One power switch, mounted on master gain pot.

One cue on monitor output switch. (pull cue level for on.)

NOISE AND HUM:

-60 dB or better.

MUTING:

Main channel microphone normally mutes both cue and monitor channel outputs when microphone is active. May be disabled internally for use with headphones.

METERING:

Left and right channel VU meters. 0 VU corresponds to + 4 dBm as supplied. VU meter sensitivity may be increased to - 10 dBm at output equals 0 VU indication by internal resistor change. Resistors supplied for - 10 or 0 dBm indications.

SIZE:

12 1/4 inches high x 12 inches wide x 4 1/2 inches deep. (adapter available for 19 inch rack mounting.)

TERMINATIONS:

6444-BX Inputs, 3 pin XLR female.

Outputs, 3 pin XLR male.

Headphone, 1/4 inch phone jack, 3 conductor.

6444-BT Inputs and outputs terminated on screw type barrier terminal boards.

CHASSIS:

Heavy gauge steel



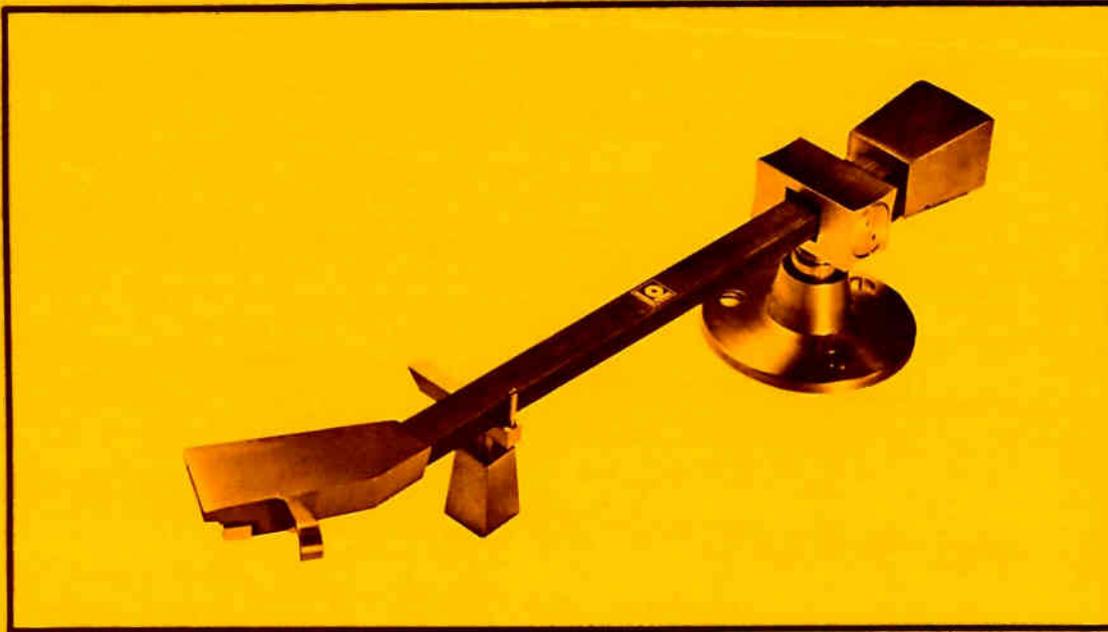
System 'D' Table Top
Mounting



System 'D' Semi Special
Console Table



professional audio equipment
MICRO-TRAK CORPORATION
FORMERLY ORY RESEARCH



303-306 PROFESSIONAL TONE ARMS

"Micro-Trak" — A term especially created to properly name the finest professional tone arm series ever Designed.

With tracking capabilities as low as 1/10 of a gram, resonance below 10 Hz., and the greatest possible reliability; what other product could be considered by the professional user?

As you probably know, low mass and high compliance are the criteria for modern tone arm design. The 303 and 306 Micro-Trak format provides the low mass necessary for high compliance performance, and as a bonus, by plan, also provides the strength necessary for 24 hour a day, on line operation.

Features such as the impregnated wood body, laminated for high strength, the plug in memory balancing head, sapphire jewel bearings for virtually frictionless vertical rotation, the fluid anti skate mechanism, and the overall rugged simplicity of design make the models 303 and 306 arms the best buy available today.

Whether you are a station engineer looking for the finest possible performance, or a station manager looking for the lowest possible operating cost per hour, the Micro-Trak series provides it all. If you still wonder after reviewing the specifications, call one of the over six thousand satisfied professional users and find out for yourself.



STEREOPHONIC
PROFESSIONAL
TRANSCRIPTION ARM

MICRO-TRAK[®] SPECIFICATIONS

303 12" PROFESSIONAL TONE ARM

Dimensions: 12-1/2" overall (317.5 MM)
8-5/16" spindle to pivot (211.1 MM)
2-7/8" from pivot to back of arm (73 MM)

Weight: 1 lb. (.454 kg)

Overhang: 0.682" spindle center to stylus

Resonance: Less than 10 HZ 1/2 Gram at 30x10⁻⁶
CM/DYNE Compliance

Tracking Error: 3.0 in radius 0° 0'
3.75 in radius 1° 28'
4.75 in radius 0° 0'
5.5 in radius 2° 0'

MINIMUM TRACKING FORCE: 1/10 GRAM

306 16" PROFESSIONAL TONE ARM

Dimensions: 14-5/8" overall (37.15 CM)
8-5/16" spindle to pivot (21.11 CM)
3" from pivot to back of arm (7.6 CM)

Weight: 1.25 lbs.

Overhang: 0.5333" spindle center to stylus (13.5 MM)

Resonance: Less than 10 HZ 1/2 Gram at 30x10⁻⁶

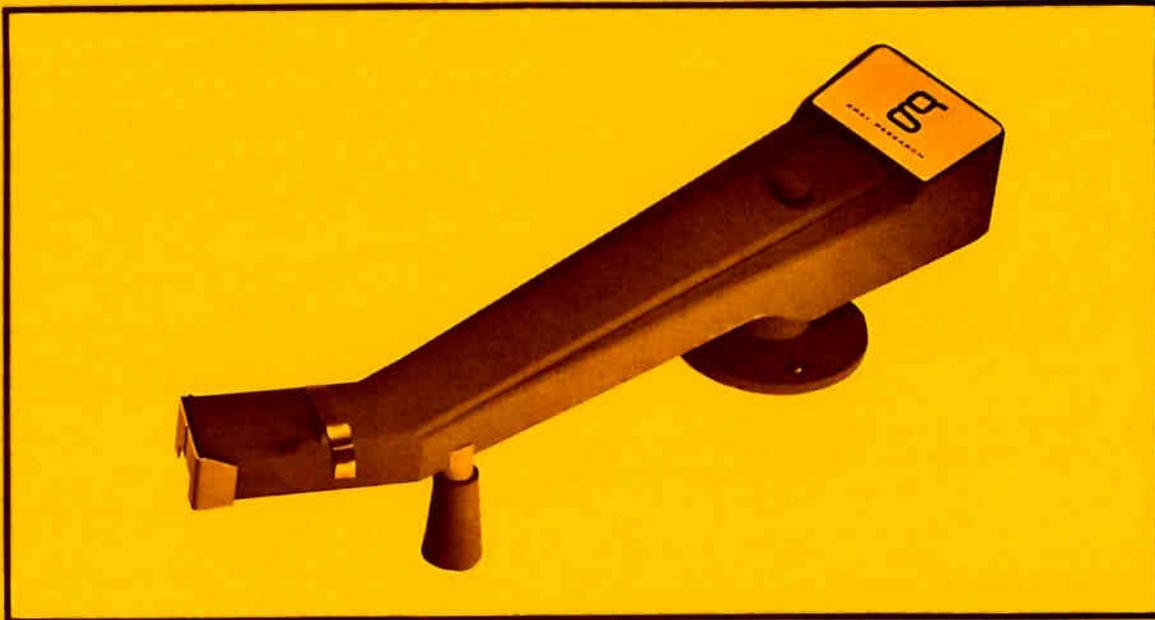
Tracking Error: 3.0 in radius 0° 0'
3.75 in radius 0° 53'
4.75 in radius 0° 0'
5.5 in radius 1° 15'

MINIMUM TRACKING FORCE: 1/10 GRAM

ACCESSORIES

75932 — HEAD FOR 303 ARM.

75942 — HEAD FOR 306 ARM.



206 PROFESSIONAL TONE ARM

Micro-Trak's Model 206 Viscous Damped Professional Transcription Arm is the **old reliable** in broadcast applications. Although a heavier mass arm than the 303 it still offers the best solution to some of the broadcasters most difficult tone arm problems.

Viscous damping is the difference. Viscous damping is the action of silicone oils between two surfaces which are in motion with respect to each other. This action provides a retardent force to fast motion, while allowing slow motion to take place without any retardation. If you can envision lifting the front of a tone arm to it's highest position and then letting go — an undamped arm falls to the record surface in a few milliseconds; a viscous damped arm falls in about one-half second. Analyzing the forces generated in each case as the stylus contacts the rec-

ord surface shows that in the slower moving mass the force is lower. Translated to terms that relate to the broadcaster, this means less stylus breakage in use and thus lower operating costs.

Although some minimal amount of performance is sacrificed, the 206 arm is an excellent decision where inexperienced operators are the rule. Educational facilities, theaters, language laboratories, and broadcast installations where ultimate performance is not demanded are ideal applications for the 206 tone arm.

The viscous damping philosophy is a proven technique. Micro-Trak's experience with over 25,000 viscous damped arms, over a twenty year period have shown that it is a reliable answer to those extra difficult situations which results in dependability and lower operational costs.



STEREOPHONIC
PROFESSIONAL
TRANSCRIPTION ARM

206 SPECIFICATIONS

206 12" PROFESSIONAL TONE ARM

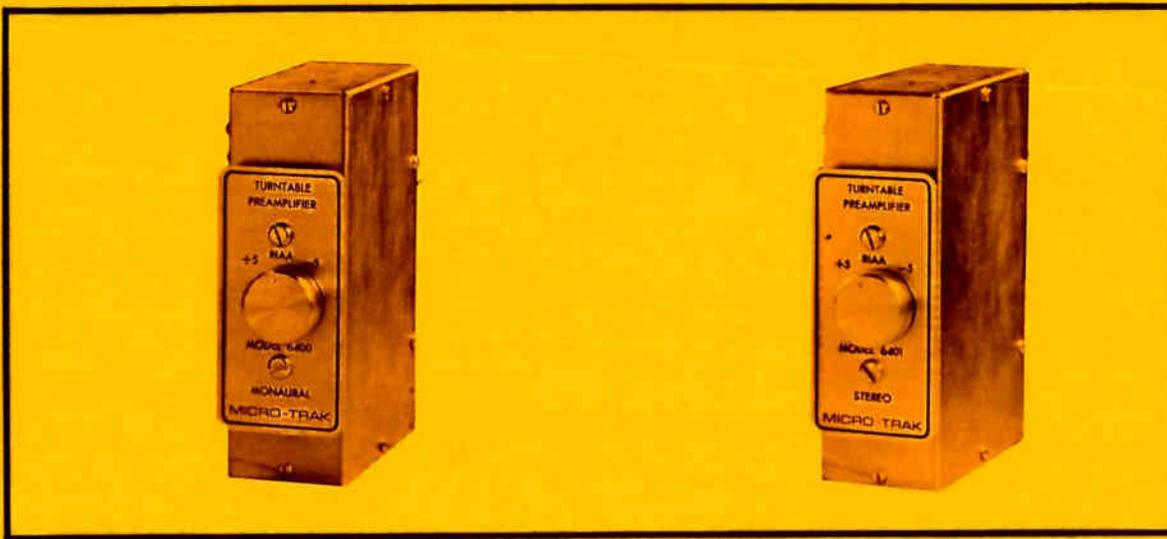
Weight: 3 lbs. 10 oz.	} Packed	
1.85 kg.		
2 lbs.	} Unpacked	
.95 kg.		
Dimensions: 2 $\frac{3}{8}$ in. high, 12 $\frac{3}{4}$ in. long, 2 $\frac{5}{8}$ in. wide	(Unpacked)	
6 cm. high, 32.5 cm. long, 6.7 cm. wide.	(Unpacked)	
4 $\frac{1}{2}$ in. high, 16 $\frac{1}{2}$ in. long, 4 $\frac{1}{2}$ in. wide	(Packed)	
11.5 cm. high, 42 cm. long, 11.5 cm. wide.	(Packed)	
Overhang: 0.682 in.	} Spindle center to	
17.3 mm.		} stylus
Pivot To Spindle: 8 $\frac{5}{16}$ in.	}	
21.1 cm.		
Pivot To Back Of Arm: 3 $\frac{3}{8}$ in.	}	
8.6 cm.		
Resonance: Vertical 15 cps.	} At 4 gms.	
Lateral 15 cps.		} tracking force
		/5 x 10 ⁻⁶
		cm./dyne.
		compliance
Tracking Error: 3.0 in. radius 0° 0'	}	
3.75 in. radius 1° 28'		
4.75 in. radius 0° 0'		
5.5 in. radius 2° 0'		
Arm Response: ± 1 DB from 5 cycles to top end		limit imposed by cartridge used.
MINIMUM TRACKING FORCE: 3 GRAMS.		

ACCESSORIES

75792: CARTRIDGE SLIDE KIT.

NOTE

The 206 is available with a cutout for the General Electric Turnaround Cartridge. Specify 206-SG.



6400 - 6401 PROFESSIONAL TURNTABLE PREAMPLIFIERS

The 6400 Series professional turntable preamplifiers are self contained, self powered, RIAA/NAB equalized units, designed to provide high quality disc reproduction for the professional user. Application of state of the art, low noise, integrated circuits allow higher output levels (0 dBm into 600 OHMS) and smaller package sizes than ever before possible.

The 6400 Series preamps are available in two configurations; the Model 6400 for monaural F.M., and A.M. applications, and the Model 6401 for full two channel recording and F.M. stereo requirements.

Three selectable output curves are provided in the 6400 and 6401, the RIAA/NAB standard, 5 dB high frequency roll-off, to minimize the effect of record scratch, and 5 dB high frequency boost, for added brilliance. Output levels are adjustable to match the requirements of the console and independent controls on the 6401 stereo

unit allow the station engineer to set and maintain proper stereo balance.

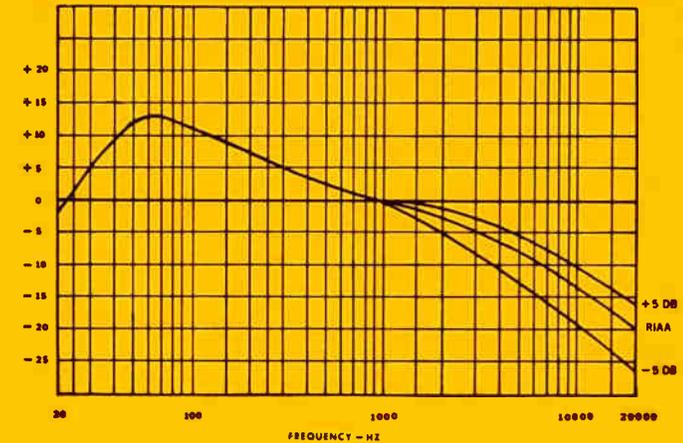
Each of the two 6400 Series models is designed to accept the output of a 47K OHM stereo cartridge. In the monaural unit the stereo channels are combined internally to give a single output. Output impedances are selectable to either 150 or 600 OHMS, by a simple, push pin jumper change.

A versatile package design, and the small overall size, allows a wide selection of mounting arrangements: The unit may be mounted directly on the turntable base casting, or through the cabinet top, on an auxiliary equipment mounting panel, or on the sidewall or floor of the turntable cabinet.

All in all, the 6400 monaural turntable amplifier and the 6401 stereo turntable amplifier offer more performance, more versatility, and more professional quality audio output.



PROFESSIONAL
TURNTABLE
PREAMPLIFIER



SPECIFICATIONS

Model 6400-Monaural

Model 6401-Stereo

Gain: 44 dB at 1000 Hz. Adjustable (5 mv. input provides 0 dBm output)

Frequency Response: Three selectable curves. RIAA/NAB, +5 dB at 15K Hz. For brilliance, -5 dB at 15K Hz. For scratch filtering. (See curves on previous page)

Total Harmonic Distortion: Less than 0.5% at 0 dBm output.

Signal to Noise Ratio: Better than 60 dB (equivalent to -104 dBm input noise)

Input Impedance: 47,000 OHMS unbalanced

Output Impedance: 600 OHM balanced or unbalanced. (As supplied) 150 OHMS balanced or unbalanced internally selectable.

Output Level: 0 dBm adjustable + 15 dBm maximum

Power Requirements: 115 VAC 50-60 Hz. 2 watts

Dimensions: 4¾ depth x 2½ width x 6 high

Terminations: Input — RCA style phono jacks
Output — barrier type screw terminal strip

Mounting: May be face mounted on turntable, panel or cabinet. May be bracket mounted to side wall or floor of cabinet. Brackets provided.

Weight: 3 lbs.



PROFESSIONAL TURNTABLES

The Micro-Trak Models 720 and 740 Turntables are now available to satisfy the broadcasters need for durable, dependable, professional performers. The basic design, proved and improved for over twenty years, offers professional features required for continuous, on line, twenty four hour a day action.

The Micro-Trak 720 provides turntable basics in a three speed configuration, while the Micro-Trak 740 has additional features making it the **performance** table. Common to both units are heavy duty, synchronous motors chosen for low rumble and long life characteristics. Rugged cast aluminum chassis and platters, bronze oilite bearings, plus a minimum of moving

parts provide ultimate **simplicity and ease** of maintenance.

The 720 is a three speed unit with 33, 45, and 78 RPM of flutter free, fine music quality performance. The 740 with its two speeds, 33 and 45 RPM motor to capstan idler driven, and fast starting; (1/16 revolution typical), give you the workhorse dependability you need, and six and 1/2 pounds of platter inertia reduce wow and flutter to the lowest possible level.

With Micro-Trak's 720 and 740 turntables there is no "good:" only **better**, Model 720, and **best** — Model 740. If you want top performance and low operating cost specify Micro-Trak for your studios.



PROFESSIONAL
STUDIO
TURNTABLE

720-740 SPECIFICATIONS

MICRO-TRAK MODEL 720 TURNTABLE

Weight: 16 pounds
Weight of Platter: 5½ pounds
Chassis Dimensions: 15½ x 15½ inches
Depth Below Chassis: 6½ inches
Motor: Heavy duty synchronous (60 HZ standard, 50 HZ available)
Drive System: Neoprene idler wheel transmitting power direct from stepped motor shaft to inside of platter rim.
Speeds: 33, 45, and 78 RPM.
Acceleration: 1/16 Revolutions at 33 RPM.
Bearings: Bronze Oilite throughout
Tone Arm Mounting: Drilled for Micro-Trak Model 303
Wow and Flutter: Less than 3/10 of 1%
Rumble: (both lateral and vertical) — 36 db below NAB standard level
Color: Highlight blue with black felt platter cover (special paint and felt colors available at extra cost.)

MICRO-TRAK MODEL 740 TURNTABLE

Weight: 20 pounds
Weight of Platter: 6½ pounds
Chassis Dimensions: 15½ x 15½ inches
Depth Below Chassis: 7½ inches
Motor: Heavy duty synchronous (60 HZ standard, 50 HZ available)
Drive System: Neoprene idler wheel transmitting power direct from stepped motor shaft to inside of platter rim.
Speeds: 33 and 45 RPM.
Acceleration: 1/16 revolution at 33 RPM.
Bearings: Bronze oilite throughout.
Tone Arm Mounting: Detachable plate drilled for model 303 Arm.
Wow and Flutter: Less than 3/10 of 1%
Rumble: (both lateral and vertical) — 36 db below NAB standard level
Color: Highlight blue with black felt platter cover (special paint and felt colors available at extra cost.)



MICRO-TRAK CORPORATION

FORMERLY GRAY RESEARCH

SUGGESTED USER PRICE LIST
Effective March 1, 1976

TONE ARM - MICRO-TRAK*

Model 303	\$ 85.00
Model 306	89.75

TONE ARMS - VISCOUS DAMPED

Model 206-S	75.50
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TAPE CARTRIDGE RACKS

Model L90-W	45.00
Model L72-S	45.00

SERIES L STUDIO/ TURNTABLE FURNITURE

L Single Bay Cabinet	189.50
L Double Bay Cabinet	299.50
LCB Straight Console Table	110.00
LCBC Corner Console Table	125.00
LG1 Bright Metal Leg, per pair	19.95

AUDIO CONTROL CONSOLES

BROADCAST

Model 6444-BT Stereo, Term. Bd.	895.00
Model 6444-BX, Stereo, XLR.	945.00
Model 6454-BT, Mono, Term Bd.	745.00
Model 6454-BX, Mono, XLR	775.00

DISCOTHEQUE AND SOUND REINFORCEMENT

Model 6440-DS, Stereo, Phono Jacks	795.00
Model 6440-DT, Stereo, Term. Bd.	795.00
Model 6440-DX, Stereo, XLR.	845.00

Model TT/DI Table Top/Drop In Case for Consoles	42.50
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SYSTEM D AUDIO CONTROL CENTERS

SYSTEM D SEMI

with 6440-DS Console	1795.00
with 6440-DT Console	1795.00
with 6440-DX Console	1845.00
with 6444-BT Console	1895.00
with 6444-BX Console	1945.00
with 6454-BT Console	1745.00
with 6454-BX Console	1775.00

SYSTEM D COMPACT

with 6440-DT Console	1895.00
with 6454-BT Console	1845.00

SYSTEM D STUDIO COMPACT

with 6440-DT Console	1795.00
with 6444-BT Console	1895.00
with 6454-BT Console	1745.00

SYSTEM D PERMANENT

with 6440-DT Console	2150.00
with 6444-BT Console	2250.00
with 6454-BT Console	2095.00

TURNTABLE PREAMPLIFIERS

Model 6400, Monaural	\$ 110.00
Model 6401, Stereo	159.50

PROFESSIONAL TURNTABLES

Model 720, three speed	236.00
Model 740, two speed	272.00

ANTENNA HEATER CONTROLS

Model 2570	1275.00
Cable- two req'd \$20.00 plus	0.30 per foot

ACCESSORIES

For 303-306 Tone Arms

75932 Head Shell for 303	14.50
75942 Head Shell for 306	14.50
75961 Weight Kit for above	3.48
75908 Anti-skate Fluid, 5 pac.	6.25

For 206 Tone Arm

75792 Slide Kit	7.55
75743 Slide only	4.25
75799 Weight Kit	3.48
75800 Weight for VR11	1.00
75051 Viscous Fluid, 5 pac.	7.50

For 6400-6401 Preamplifier

77412, MC1303L I.C.	5.50
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For Series L Furniture

LG1 Bright Metal Leg, per pair	19.95
77351 Roll Around Base-Single	39.50
77352 Roll Around Base- Double	49.50
77314 Spacer Block	4.50
77328 Hardware Kit, panel mounting	3.50
77345 Cable Trough	17.40

For System D Control Centers

Model D-1 Automatic Program Controller	249.50
80129 Shelf, 10 inches deep	49.50
80130 Shelf, 15 inches deep	69.75

PHONO CARTRIDGES

Stanton 500-AL	15.00
Stanton 500-E	19.25
Stanton D5107 stylus for 500 AL	7.20
Stanton D5100 E stylus for 500E	12.00

TERMS

Net 30 days to accounts well rated by D&B, all others COD unless other terms are arranged with Micro-Trak's Credit Department. Leasing available to qualified users on high value items.

FOB POINT

All equipment shipped FOB Holyoke Massachusetts plant.

Prices subject to change without notice. *registered trademark

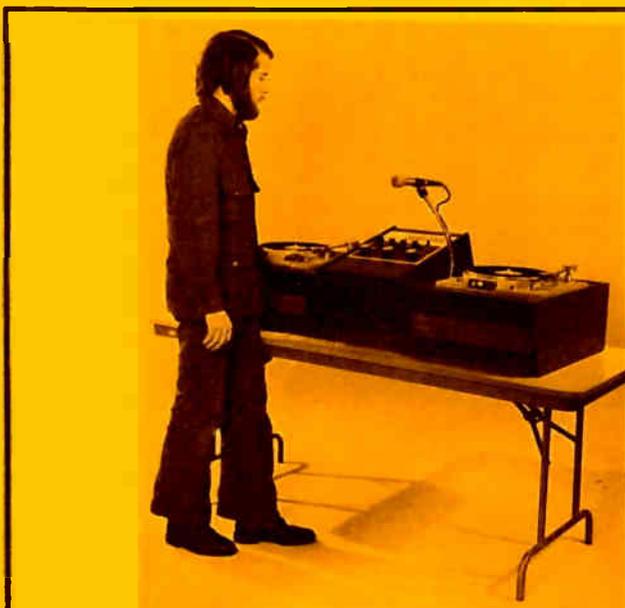


The Micro-Trak System D Compact

SYSTEM D AUDIO CONTROL CENTER



MICRO-TRAK CORPORATION



The System D Compact folded and set up for table top operation

SYSTEM D COMPACT AUDIO CONTROL CENTER

Micro-Trak's System D Compact Audio Control Center is the ideal unit for the DJ on the go or the producer who wants the flexibility of operating at different locations. Filled with Micro-Trak's top quality professional audio gear the D Compact fits in the back of virtually any station wagon. For remotes or discotheque the D Compact can be readily handled by two people; you can move in and have your remote or disco running in minutes. With legs that easily fold, designed to be rugged and rigid when set up how can you miss with the System D Compact... The standard D Compact comes with a Model 6440-DT console, two Model 740 Turntables, Two Model 303 Tone Arms, and a formica covered high strength plywood cabinet. All interconnections are hard wired from the console to the turntables, with XLR type connectors provided on the rear apron for the microphones, auxiliary inputs, and outputs. A padded arm rest for operator comfort, a layout for quick precise operation, and Micro-Trak quality and durability are other key features... Place your order now for a System D Compact Audio Control Center. Available from your dealer, or contact our marketing department.....

620 RACE ST., HOLYOKE, MASSACHUSETTS 01040
USA

SPECIFICATIONS

SYSTEM D COMPACT

CONSOLE:

The System D standard console is the Model 6440-DT Audio Console. It is a four channel stereo console with provision for seven inputs, two turntables, two microphones, and three selectable auxiliaries. Console specifications are available on request.

Other Micro-Trak consoles may be supplied with your System D Compact. Available are the 6444 Broadcast Stereo unit, and the 6454 Broadcast Monaural unit. If the System D Compact is ordered with other than the 6440-DT Console, price adjustments will be made according to the console chosen.

TURNTABLES:

The turntables used in the System D Compact are Micro-Trak's reliable Model 740. With long standing in the Micro-Trak equipment line the 740 is extremely durable, and highly reliable. Complete specifications are available on request.

TONE ARMS:

Two of Micro-Trak's Model 303 Tone Arms are used in the System D Compact. Proven by the test of time the 303 Tone Arm offers the overall best performance of any professional tone arm on the market today.

PHONOGRAPH CARTRIDGE:

Professional all the way The System D

Compact uses the Stanton Model 500-AL magnetic cartridge. Chosen for its high reliability and all around good performance, the 500-AL compliments the system.

MICROPHONE:

Micro-Trak's engineering department has chosen a special cardioid dynamic type microphone. Self windscreening, this mike is highly resistant to the feedback sometimes experienced with non directional types, in addition it offers dynamic reliability, and high performance, an ideal choice to give you a better system.

SIZE:

Set up for operation: 55 3/4 inches (1416 mm) long x 25 inches (635 mm) deep x 38 inches (965.2 mm) high to top of console turret.

Folded for travel: 55 3/4 inches (1446 mm) long x 25 inches (635 mm) deep x 16 inches (406.4 mm) high to top of turret.

WEIGHT:

138 lbs (63.5 Kilograms)

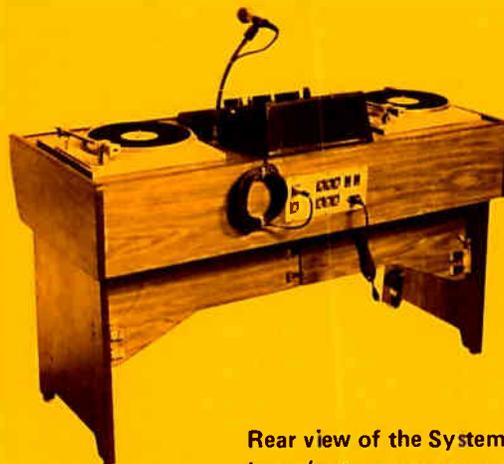
FINISH:

Cortena pecan wood grain Formica brand laminate on all table surfaces.

Turret; thermoformed ABS material.

Pad; high grade leather grained vinyl.

vinyl bumper all exposed edges.



Rear view of the System D Compact showing input/output connector panel and leg clamps

MICRO-TRAK CORPORATION

620 RACE ST., HOLYOKE, MASSACHUSETTS 01040
USA



THE SYSTEM D SEMI

THE D SEMI

A SYSTEM D AUDIO CONTROL CENTER



MICRO-TRAK CORPORATION

SYSTEM D SEMI AUDIO CONTROL CENTER



The 6440 Disco Console
one of three available for D Semi

Micro-Trak's System D Semi is the ideal answer to studio or disco audio control. The stylish console table has enough open surface space for records or tape equipment, and is packed with your choice of a professional disco or broadcast console. The turntables are mounted in separate, proven Series L single bay turntable cabinets; the best way for optimizing isolation. Standard equipment in the D Semi Control Center is two 740 turntables, two 303 tone arms, two Stanton 500 AL stereo magnetic cartridges, a high quality professional microphone, and the 6440-DS stereo console. Also available are the optional 6444 stereo and the 6454 monaural broadcast consoles.

Beauty, durability, professional design and heritage from a company with over thirty years in the broadcast equipment business are key features in the System D Semi.... Place your order now with your local Micro-Trak dealer or contact our marketing department directly.....

SPECIFICATIONS

SYSTEM D SEMI AUDIO CONTROL CENTER

CONSOLE:

The system D Semi standard console is the Model 6440-DS. This unit is a four channel stereo console with provision for seven inputs; two turntables, two microphones, and three selectable auxiliaries. Console specifications are available on request.

Other Micro-Trak consoles may be supplied with your System D Semi. Available are the 6444 Broadcast stereo unit, and the 6454 Broadcast monaural unit. If the System D Semi is ordered with other than the 6440-DS console, price adjustments will be made according to the console chosen.

TURNTABLES.

The turntables used in the System D Semi are Micro-Trak's reliable Model 740. With long standing in the Micro-Trak equipment line, the 740 is extremely durable, and highly reliable. Complete specifications are available on request.

TONE ARMS:

Two of Micro-Trak's Model 303 Tone Arms are used in the System D Semi. Proven by the test of time the 303 offers the best overall performance of any professional tone arm on the market today.

PHONOGRAPH CARTRIDGE:

Professional all the way the System D Semi uses the Stanton Model 500 AL magnetic cartridge. Chosen for its high reliability and all around good performance, the 500 AL compliments the system.

MICROPHONE:

Micro-Trak's engineering department has chosen a special cardioide dynamic type microphone for the D Semi. Self windscreening, this mike is highly resistant to random noise and feedback sometimes associated with omnidirectional types. In addition it offers dynamic reliability, and high performance; an ideal choice to give you a better system.

SIZE:

The System D Semi consists of three units. The Console Table is 29 inches deep x 34 inches long x 37 1/2 inches high over the console turret.

The two Turntable Cabinets are 22 inches wide x 22 inches deep x 32 inches over the top of the turntable and tone arms.

WEIGHT:

The Console Table equipped with console weighs 75 lbs.

The Turntable Cabinets with turntables and tone arms weigh 80 lbs each.

The total System D Semi weight is 235 lbs.

FINISH:

Cortena pecan wood grain Formica brand laminate on all vertical surfaces. Table tops are autumn gold color.

Turret is thermoformed from ABS material.

SET UP:

The system D Semi is shipped with cabinets and table knocked down to prevent shipping damage.



MICRO-TRAK CORPORATION

620 RACE ST., HOLYOKE, MASSACHUSETTS 01040

USA



System D
TABLE TOP / DROP IN
CONSOLE CASE

TABLE TOP/DROP IN CASE FOR 6440, 6444, & 6454 CONSOLES



MICRO-TRAK CORPORATION

CONSOLE CASE Table Top / Drop In

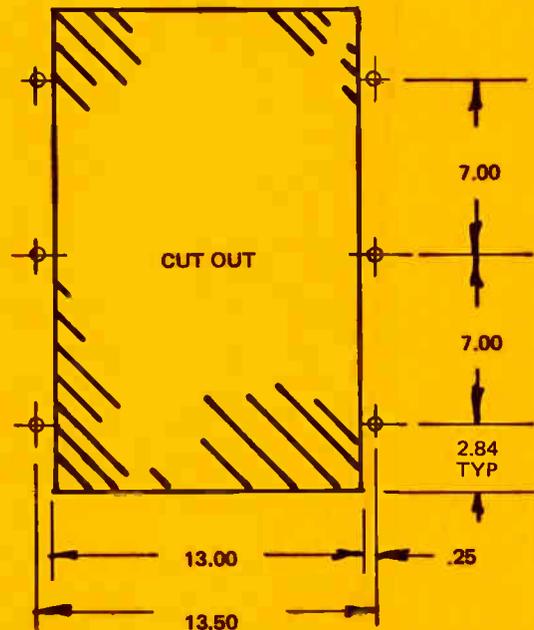
Available as an accessory to your Model 6440, 6444, or 6454 Audio Console is the Micro-Trak ' Table Top / Drop In ' Case. Designed to provide the ultimate in flexibility for your broadcast or disco installation this case allows for both a table top usage of the console, or a permanent drop in mounting to your table.

By cutting the simple hole pattern shown at the right, in the desired mounting surface, the console case drops in to be permanently fixed. Six screws provided with your case fasten up through the table top and into threaded inserts in the overhanging portion of the case. Installed this way, the console case is fastened securely to the table top and the console may be mounted.

A large hole is provided at the bottom of the case to allow exit of audio cables and entrance of the power cable. Rubber feet at the bottom of the case provide approximately 3/4 inch of clearance under the unit for cables, and space to plug in XLR plugs when required by the console.

The case is thermo-formed from an office equipment grade ABS plastic material. Rugged, durable, and attractive, this case provides optimized mounting for your console. Space is allowed in the lower sloping portion to mount remote starting switches for your turntable and tape equipment.

Order your console and case from your authorized Micro-Trak dealer, or talk directly with our marketing department.....



HOLE PATTERN FOR CASE

620 RACE ST., HOLYOKE, MASSACHUSETTS 01040
USA



THE MICRO-TRAK STUDIO COMPACT
shown equipped with an accessory equipment shelf



THE STUDIO COMPACT

A SYSTEM D AUDIO CONTROL CENTER

MICRO-TRAK CORPORATION



The Model 6444 Control Console
one of three units available in the
Studio Compact

THE STUDIO COMPACT A SYSTEM D AUDIO CONTROL CENTER

Micro-Trak's " Studio Compact " Audio Control Center is an outstanding studio 'on air' or production tool for today's cost conscious, performance minded broadcaster. A complete four channel audio front end filled with Micro-Trak's top quality professional audio gear and your choice of one of three different audio control consoles. You may select the 6444 broadcast stereo console, the 6454 broadcast mono console, or the 6440 disco console. The Studio compact shown above is equipped with one of the two available accessory equipment shelves.

The " Studio Compact" is fabricated from high strength plywood covered with a woodgrain Formica brand laminate, assembled into a rugged, rigid structure. All turntable connections are internally wired from the console and XLR connectors are provided on the rear apron for microphones, auxiliary inputs and outputs. A padded arm rest for operator comfort, the layout for high speed, precise DJ operation, along with Micro-Trak quality and durability are other key features... Place your order now for a " System D Studio Compact ". Available from your local authorized Micro-Trak dealer or contact our marketing department.....

SPECIFICATIONS

STUDIO COMPACT A System D Audio Control Center

CONSOLE:

You may select one of three of Micro-Trak's proven audio consoles for your Studio Compact. The Model 6444 is the Broadcast stereo unit, the 6454 is the Broadcast Monaural unit, and the 6440 is the Disco stereo unit. Each of these consoles provide four mixing channels with provision for seven inputs. Two turntables, two microphones, one primary, the other a selectable auxiliary input, and three selectable high level auxiliary inputs. Console specifications available on request.

TURNTABLES:

The turntables used in the System D Studio Compact are Micro-Trak's model 740s. With long standing in the Micro-Trak equipment line the 740 is extremely durable and highly reliable. Complete specifications available on request.

TONE ARMS:

Two of Micro-Trak's Model 303 Tone Arms are used in the Studio Compact. Proven by the test of time and used in more broadcast installations than any other, the 303 tone arm offers the best performance of any professional tone arm on the market today.

PHONOGRAPH CARTRIDGE:

Professional all the way, the System D Studio Compact uses the Stanton Model 500AL magnetic cartridge. Chosen for its high reliability and its overall good performance, the 500AL compliments the system.

MICROPHONE:

Micro-Trak's engineering department has chosen a special cardioid dynamic type microphone. Self windscreening, this mike is highly resistant to the feedback sometimes experienced with non-directional types, in addition it offers dynamic reliability and high performance, an ideal choice to give you the best possible system.

SIZE:

55 3/4 inches (1416 mm) long x 25 inches (635 mm) deep x 38 inches (965mm) high to top of turret.

WEIGHT:

150 lbs (68 Kilograms)

FINISH:

Cortena pecan wood grain Formica brand laminate on all table surfaces.
Turret; thermoformed ABS material.
Pad; high grade leather grained vinyl.
Vinyl bumper all exposed edges.

ACCESSORIES:

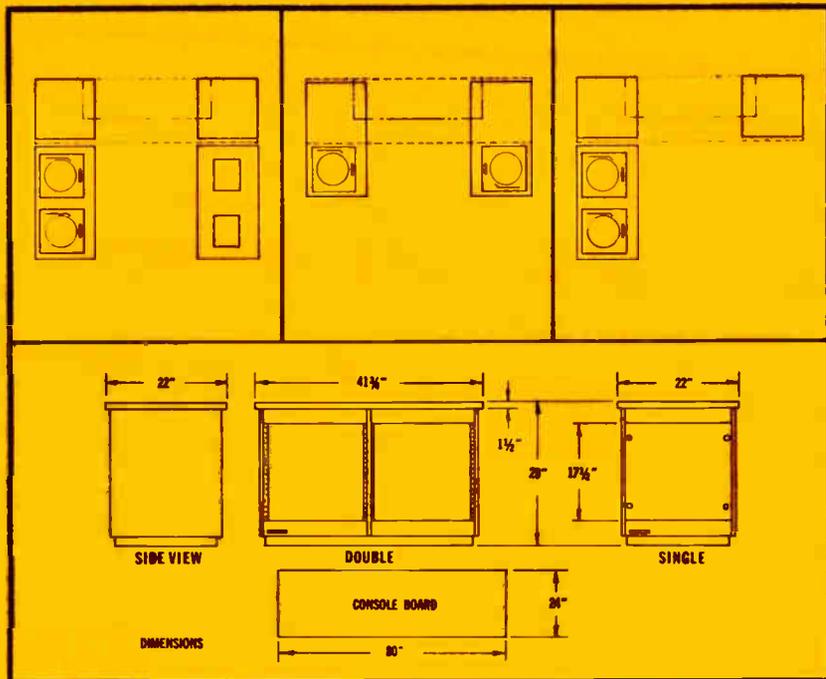
The following are available at extra cost.
Shelf; 10 inches deep full width (as shown on this sheet) for miscellaneous ancillary equipment.
Shelf; 15 inches deep full width for tape cartridge , reel to reel tape machines and etc.
Remote start panel for turntables, tape machines, and etc to make your System D Studio Compact a highly efficient production tool.



MICRO-TRAK CORPORATION

620 RACE ST., HOLYOKE, MASSACHUSETTS 01040

USA



SERIES "L" BROADCAST STUDIO FURNITURE

Micro-Trak's Series L Studio Furniture is a complete system of cabinets, racks, tables, and equipment cabinets color keyed and designed for both beauty and functional efficiency in the modern broadcast studio.

The approximately twelve pieces that are available mix and match in different ways to allow you to build almost any conceivable layout. There are single and double turntable cabinets, straight and corner console tables, equipment racks, and other useful and attractive accessories.

Our Series L Furniture is the result of years of engineering evaluation as to the requirements of an efficient studio installation and the problems faced in studio construction. Evolution of the design has brought us to the point of even having replaceable panels to take care of the ever present possibility of damage.

The Series L Turntable cabinet is constructed from the highest grade three

quarter inch thick, forty two pound density paratical board, covered with genuine Formica Brand laminates. Formica, as you probably already know is heat and stain resistant, and is easily cleaned -- a natural for the savage environment of the typical broadcast studio.

The standard colors for the Series L System is Summer Pecan laminate on the vertical surfaces, and Adobe Gold laminate tops. This pleasing combination adds to the beauty of any decor and sets a tempo current to the demands of todays studio. If your taste in color differs from ours, for a minimal extra charge you may choose from any of the one hundred or so others that are available.

Why don't you take a moment and review the rest of this brochure. Even if you don't have an immediate requirement you never know when the need will arise. If you're looking for good quality, good engineering, and the right price, specify Micro-Trak.

SERIES "L" BROADCAST STUDIO FURNITURE

SERIES L SINGLE BAY CABINET

SIZE: 22" wide x 22" deep x 27" height.

FINISH: "Summer Pecan" wood grain formica on vertical surfaces, "Adobe Gold" formica on cabinet top. (special colors available on order at extra cost.)

CONSTRUCTION: Panels fabricated from high density partical board 3/4" thick (front and rear closure panels 5/8" thick) with formica uniformly bonded.

PANEL SPACE: 17 1/2 inch high openings front and rear to accomodate standard 19 inch E.I.A. style equipment panels on steel mounting rails.

WEIGHT: 81 lbs. Includes complete cabinet with wood grained closure panels for front and rear openings.

ORDER: Series L Single Bay Cabinet Part No. 77300.



SERIES L CORNER CONSOLE TABLE

SIZE: 48" square cut off at front for operator and at rear for corner clearance.

FINISH: Adobe Gold Formica to match cabinet tops. (other colors available on special order)

HEIGHT MOUNTED: 27 inches.

WEIGHT: 90 lbs. w/o legs.

CONSOLE AREA: Will hold console 45" long x 18" deep. (slightly longer if narrower).

MOUNTING: Will mount either directly on Series L Cabinet or on separate bright metal legs.

ORDER: Series L Corner Console Table Part No. 77350.



SERIES L DOUBLE BAY CABINET

SIZE: 41 3/4" wide x 22" depth x 27" height.

FINISH: "Summer Pecan" wood grain formica on vertical surfaces, "Adobe Gold" formica on cabinet top. (special colors available on order at extra cost.)

CONSTRUCTION: Panels fabricated from high density partical board 3/4" thick (front and rear closure panels 5/8" thick) with formica uniformly bonded.

PANEL SPACE: 17 1/2 inch high openings front and rear to accomodate standard 19 inch E.I.A. style equipment panels on steel mounting rails.

WEIGHT: 142 lbs. Includes complete cabinet with wood grained closure panels for front and rear openings.

ORDER: Series L Double Bay Cabinet Part No. 77301.



SERIES L CONSOLE TABLE SURFACE

SIZE: 80" wide x 24" depth x 1 1/2" thick.

FINISH: Adobe Gold Formica to match cabinet tops.

MOUNTING: Mounts on single or double bay cabinet tops with optional spacer blocks or on separate bright metal legs. May be leg mounted at one end and cabinet mounted at opposite end.

HEIGHT MOUNTED: 29 inches.

WEIGHT: 75 lbs. w/o legs.

ORDER: Series L Straight Console Table Part No. 77302.



ACCESSORIES

ORDER PART NUMBER

Bright Metal Leg (for use on straight or corner console tables.)	77313
Spacer Block (for use mounting straight console table on cabinets.)	77314
Roll Around Base - Double Bay (cabinet base with casters to allow turntable cabinet to be rolled around in theater or studio.)	77352
Roll Around Base - Single Bay (same purpose as double bay above for single cabinet.)	77351
Hardware Kit - HW-1 (extra 25 "J" nuts and panel mtg screws)	77328
Cable Trough - 6 feet (slotted type for mounting under console table.)	77345



LAZY SUSAN RACK
MODEL L-72

The Model L-72 Lazy Susan Cartridge Tape Rack shown at the left is Micro-Trak's answer for an attractive and durable tape rack at a reasonable price. Designed to compliment the Series L studio Furniture line, the L-72 provides a small, but substantial rotary tape rack for use at the console. Only 10 1/2 inches square and 22 inches high, the L-72 packs in 72 of the most used spots for easy access by your DJs. The L72's clean stylish lines and its low cost make it an attractive addition to any studio. The wood grain formica covering with the contrasting black and white interior matches our Series L Furniture and will attractively compliment any studio decor.



TAPE CARTRIDGE RACKS MICRO-TRAK CORPORATION

WALL OR CONSOLE RACK
L-90

The most useful member of the Series L Cartridge Rack group is the Model L-90. The L-90 can be used as a wall mounted unit, stacked from floor to ceiling, mounted on the inside and outside of a closet door, or as a stand alone unit at the console. Also with addition of simple 2 x 4 supports the L-90 can be mounted over the top of your turntables. Flexibility, low cost, attractive wood grain Formica brand covering, versatility are all reasons that you should equip your studio with several L-90s. The L-90 Rack is finished to match our Series L Turntable Furniture, and our newer System D equipment, and will also attractively compliment your present system.





MICRO-TRAK CORPORATION

FORMERLY GRAY RESEARCH

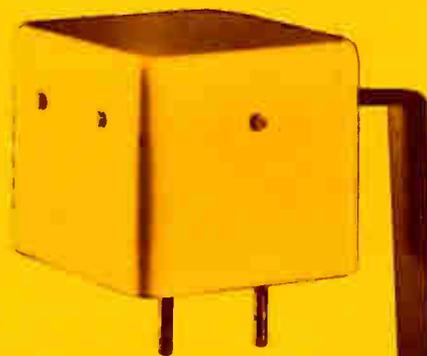
MODEL 2570 AUTOMATIC ANTENNA HEATER CONTROL SYSTEM



**2570 - CU
CONTROL UNIT**



**2570 - PD
PRECIPITATION DETECTOR**



**2570 - TT
TEMPERATURE SENSOR**

SYSTEM DEVELOPMENT

The 2570 Heater Control System is the result of a 2½ year development program by Gray's engineering department. Exhaustive field tests were made to sort out the multitude problems presented by the requirement of operating highly sensitive D.C. circuits in strong R.F. fields. A unit with positive shielding and filtering has evolved.

A large broadcast installation was chosen as our test site. This station has, within a 500 foot radius; a 50 KW A.M. antenna, a 15 KW F.M. antenna, a 100 KW Visual and 13.8 KW Aural VHF television antenna, and a 131 KW Visual and a 25.1 KW Aural UHF television antenna. The 2570 system operates in this "worst case" environment without interference.

Many changes have been made to the 2570 Precipitation Detector during this development period. Its design has been optimized to provide adequate sensitivity for detection of the various types of moisture that cause antenna icing. Heavy fog, light rain, wet and dry snow, will all cause activation of the control, and when coupled with freezing temperatures will operate the antenna heaters.

The 2570 has been totally "wrung out" in the field to insure broadcaster demanded performance and reliability.

THEORY OF OPERATION

Basic conditions which cause antenna icing are precipitation and freezing temperatures. The 2570 Automatic Antenna Heater Control is equipped with sensors which detect these conditions. The 2570 is, in essence, a mini-computer which evaluates data collected by its sensing probes, and makes decisions about heaters on or off, based on this data.

The logic of the 2570 Control Unit is simple. It consists of an "and" circuit with a positive override. The thermal and precipitation probes are input to three independent, high gain, D.C. amplifiers. The high temperature sensor, (36 degrees F. nominal) and the precipitation sensor amplifiers provide the two inputs to the "and" circuit, and when both are energized the "and" circuit has output and drives a relay which operates the heater contactors. When the low temperature amplifier is excited by the low temperature sensor, it overrides the "and" circuit and causes the heater relay to open, and the heaters turn off. (21 degrees nominal) Field tests have shown that at temperatures below 21 degrees precipitation is of a type that will not stick to an antenna. Each circuit has an associated lamp on the control panel which lights when the circuit is energized, showing status, and each lampholder is a push button switch, which when depressed applies a simulated sensor input signal to the front end of that circuit. All control functions thus may be quickly tested by merely depressing the switches in the proper order.

The control also contains a cycle timer which makes the minimum "heaters on" time approximately twelve minutes. This saves wear on the heater elements of the antenna as the control is sensitive enough to "see" individual rain drops and could cycle the heaters on and off quite rapidly.

The 2570 Thermal Sensors are brass encased thermistors with a short thermal time constant. (From 70 degrees F. to 32 degrees F. thermistor will follow in approximately one and one half minutes) Thus temperature changes of a few degrees near the freezing point will be almost instantly registered. Thermistors are used for the temperature measurement because they are extremely reliable solid state devices with no moving parts and require little or no service.

The precipitation detector used is a resistive humidity detector which has internal, thermostatically controlled, heating. It will keep itself free from ice and snow throughout the operating range of the 2570 Control, and will dry itself quickly when precipitation stops.

The Heater Failure Circuit functions from the output of a current transformer in the heater power line. The transformer output is rectified, and input to a fourth D.C. amplifier. The threshold level of this circuit is adjustable over a wide range to accommodate various antenna heater configurations. Field adjustment to the particular antenna system is simple. With the heaters on, the rear panel potentiometer is turned until the circuit triggers and the "heat fail" panel lamp lights. The potentiometer is then rotated until the lamp just turns off. The circuit will now sense a change in load of about 1% of the total, adequate to detect failure of a single element in most arrays.

An audible "sonalert" alarm is provided in the control unit which is selectable to any or all of the functions which have lamps on the front panel. Thus the unit allows station personnel to monitor conditions without constantly watching the panel indicators.

SYSTEM FUNCTION

The Model 2570 Automatic Antenna Heater Control System is a device which senses ambient atmospheric conditions and controls power to the element heaters in F.M., Television, and other electrically heated antenna arrays. In addition the 2570 provides aural and visual indication of the system status. The 2570 also monitors the condition of the heater elements and provides an alarm in the event of a failure.

As the system is totally automatic, icing due to oversight on the part of the station operator is completely eliminated, and off air time resulting from ice becomes a non-existent problem.

Operational costs are also reduced by the 2570 Control. As the unit continually senses atmospheric conditions; freezing temperatures and precipitation, which are both necessary to cause icing, are the only combination which will cause the heaters to operate. A low temperature limit is also set which keeps the range of heater usage compatible with precipitation which will cause antenna icing. This means that the power consumed by the heaters is minimized, and the life of the heating elements is extended by a large percentage resulting in lower electric bills, and much longer periods between heater element replacement.

SYSTEM COMPONENTS

The 2570 System consists of four basic components. The 2570 Control Unit, the 2570-TT Temperature Sensing Unit, the 2570-PD Precipitation Detector, and the 2570-HF Heater Failure Sense Transformer.

The control unit is mounted in a convenient location near the transmitter control desk. The mounting is designed to fit in a standard 19 inch console rack, requiring only 3½ inches of space. Interconnections are either barrier strip terminal boards, or high reliability connectors.

The 2570-TT Temperature Sensor is designed to mount at or near the antenna location on the top of its supporting tower. Two simple strap clamps, or wrap locks are all that are necessary for installation.

The 2570-PD Precipitation Detector may be mounted either on the tower, or on the transmitter building. As this unit requires cleaning about twice a year, the location may be selected by the station engineer to simplify this process. In either case mounting is simple thru the use of clamps or wraplock to the tower, or on a television receiving antenna type mounting on the transmitter building.

The 2570-HF Failure Sensor is provided in an electrical type box and should be located near the power contactors.

Interconnecting cables are not included in the basic system, due to the variety of different station facilities that must be accommodated. Cable lengths must be specified at the time of order and they will be fabricated to suit the installation. A cable is required for each of the sensor units.

SYSTEM OPTIONS

The basic 2570 System is a complete operational package, but some users may require the following optional accessories for a "total" installation.

The 2570-RS Remote Display Output Circuit: This factory installed accessory provides the 2570 Control Unit with the capability to drive either a parallel set of indicator lamps (12VDC @ 20 Ma.) or logic type devices (180 Ma. maximum load). Must be ordered with basic system if desired.

The 2570-RP Remote Display Panel: A panel with function lamps for mounting at a location away from the 2570 Control Unit. Can be added at any time to a 2570 System equipped with a remote output circuit.

The Model 2570-CA Calibration Box: A calibration standard for the thermistor probe circuitry. Allows recalibration of unit to nominal center temperatures.

Power Contactors and Enclosures: Contactors and enclosures to provide switching for heater A.C. power. Units selected to match antenna array requirements.

Slow Start Kit: A motor driven variac sized to meet the requirements of your antenna system.

SPECIFICATIONS

POWER INPUT—115 VAC 60 HZ

MOUNTING—Standard 3½" x 19 Rack Panel

DEPTH—8" max.

INDICATORS	Rain	Heaters
	Freeze	Heater Fall
	Low Temp.	

Selectable Aural Alarm for any or all of above

TEST CIRCUIT Each function has a test input switch included in the indicator such that signals are applied to the front end of each sensing circuit. This test method proves the indicator lamp, as well as sensing circuit electronics.

INPUTS Temperature Sensors (Two—Freeze and Lo Temp.)
Precipitation Sensor Heater Failure Sensor

OUTPUTS 115 VAC for Precipitation Probe Heater
5 ampere normally open contacts for Power Contactor Coil.

STANDARD SYSTEM The 2570 antenna control system consists of 2570 Control Box, 2570-TT Temperature Sensing Unit, 2570-P.D. Precipitation Detector, 2570-HF Sense Transformer.

OPTIONS 2570-RS Remote Display Output Circuit.
2570-RP Remote Display Panel.
Model 2570-CA Calibration Box.
Power Contactors and Enclosures.
Slow Start Kit.

INTERCONNECTING CABLES Special probe cables are required and will be fabricated to the proper length for each installation. Cable prices are subject to cost at the time of order and will be quoted for each installation.



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