HYGROTRAN

HUMIDITY TEMPERATURE TRANSMITTER

MODEL: 6370 SERIES
9370 SERIES

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INTRODUCTION

The HYGROTRAN® Transmitter is a self-contained, all integrated circuit signal converter which, when used in conjunction with HYGRODYNAMICS® HYGROSENSOR® humidity sensors, provides an output voltage signal or milliampere signal directly proportional to relative humidity (some models also provide a voltage signal proportional to temperature).

The HYGROTRAN Transmitter, Figure 1-1, 1-2, 1-3, or 1-4 is a compact electronic transmitter used to convert the change in electrical resistance of the humidity sensor into a signal suitable for driving receivers and control devices such as recorders, controllers, motor driven valves, force balance devices, meters, I/P transducers, etc.

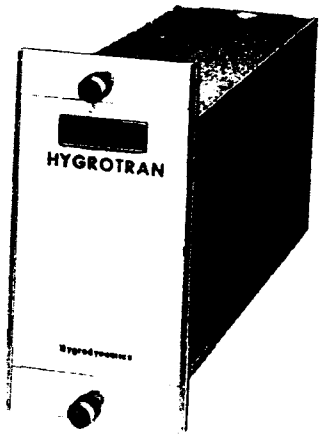


Figure 1-1: HYGROTRAN Transmitter With Graphic Panel

Figure 1-2: HYGROTRAN Transmitter With Meter

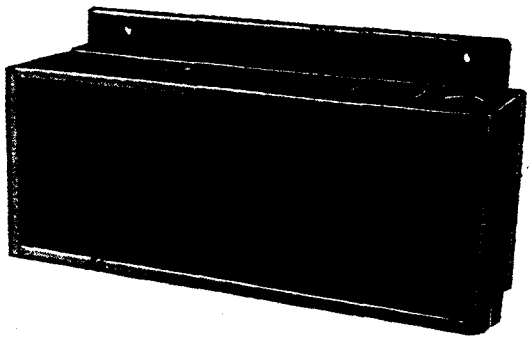


Figure 1-3: Surface Mounted Transmitter

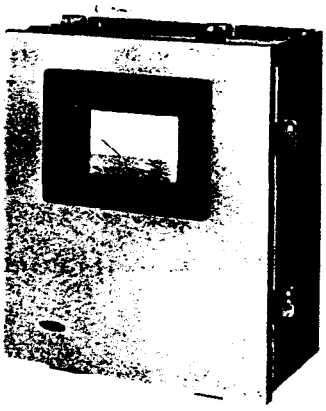


Figure 1-4: Transmitter Enclosed In NEMA 4 Box

The Hygrotran Transmitter is contained in a compact housing designed for either rack, panel, or surface mounting, Figures 1-1, 1-2, and 1-3. The surface mounting has brackets for mounting on a flat surface and has no graphic panel

A model for nuclear applications is mounted in a NEMA 4 box, Figure 1-4.

Basic Models

The HYGROTRAN Transmitter units covered in this manual are listed in Table 1-1. Universal models are for the high sensitivity of narrow-range and wide-range sensors. Temperature-compensated models incorporate patented circuitry which automatically corrects the humidity signal for variations in ambient temperature. All models may be ordered with a panel-mounted meter graduated 0-100 to indicated percent of output. An ON-OFF control is optional on all models.

TABLE 1-1. HYGROTRAN TRANSMITTER MODELS

Catalog Number*	Universal RH Signal	Temperature-Compensation RH Signal	RH Output		Temperature Output VDC
			MA	Volts DC	
6370A	X		1-5		
6370B	X		4-20		
6370C	X		10-50		
6375	X			0-5**	
6372A	X		1-5		0-1
6372B	X		4-20		0-1
6372C	X		10-50		0-1
6371A		X	1-5		0-1
6371B		X	4-20		0-1
6371C		X	10-50		0-1
6376		X		0-5**	0-5**

*Catalog number for transmitter with optional panel-mounted meter carriers suffix "M".
**Optional millivolt output transmitter are available.

All these models are available in the nuclear version with catalog numbers in the 9370 series.

INSTALLATION

Mounting

The HYGROTRAN Transmitters with graphic panels require an 11.5 x 7.7 cc (4.5 x 3.0 inch) cut-out and two mounting holes on 13.4 cm (5.25 inch) centers, Figure 2-1.

The HYGROTRAN Transmitter designed for surface mounting is 26.7 x 7.6 x 16.0 cm high (10.5 x 3.0 x 4.3 inches high) with four 5 mm (0.191 inch) diameter mounting holes on 20.3 x 13.7 (8.0 x 5.4 inch) centers, Figure 2-2.

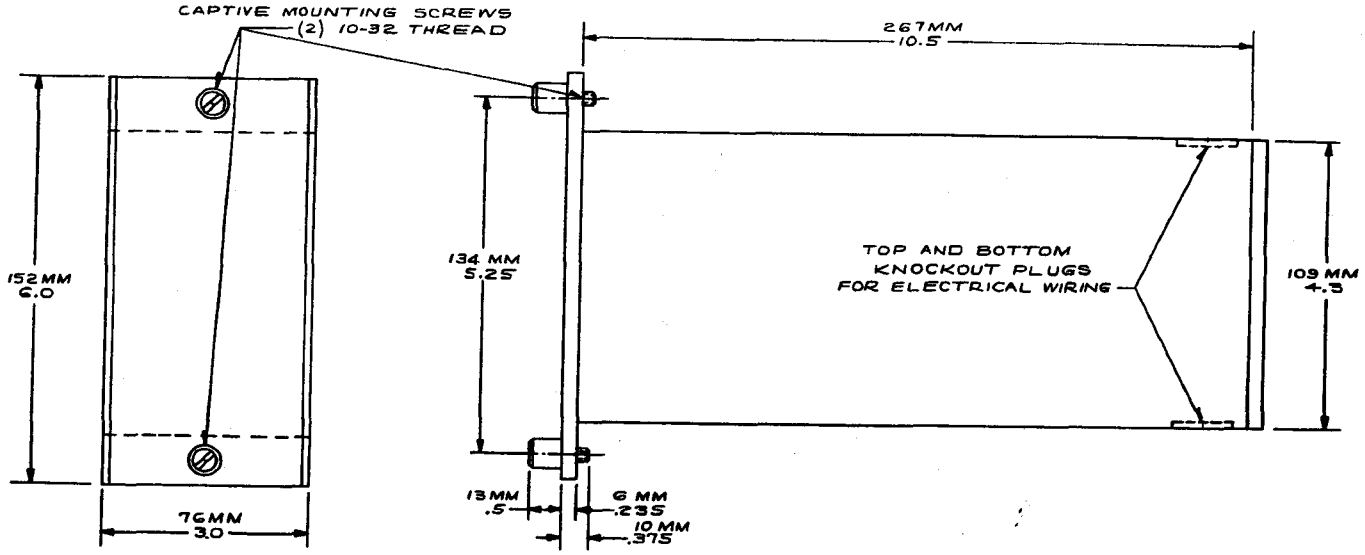


Figure 2–1. Mounting Dimensions, Panel Mounting Models

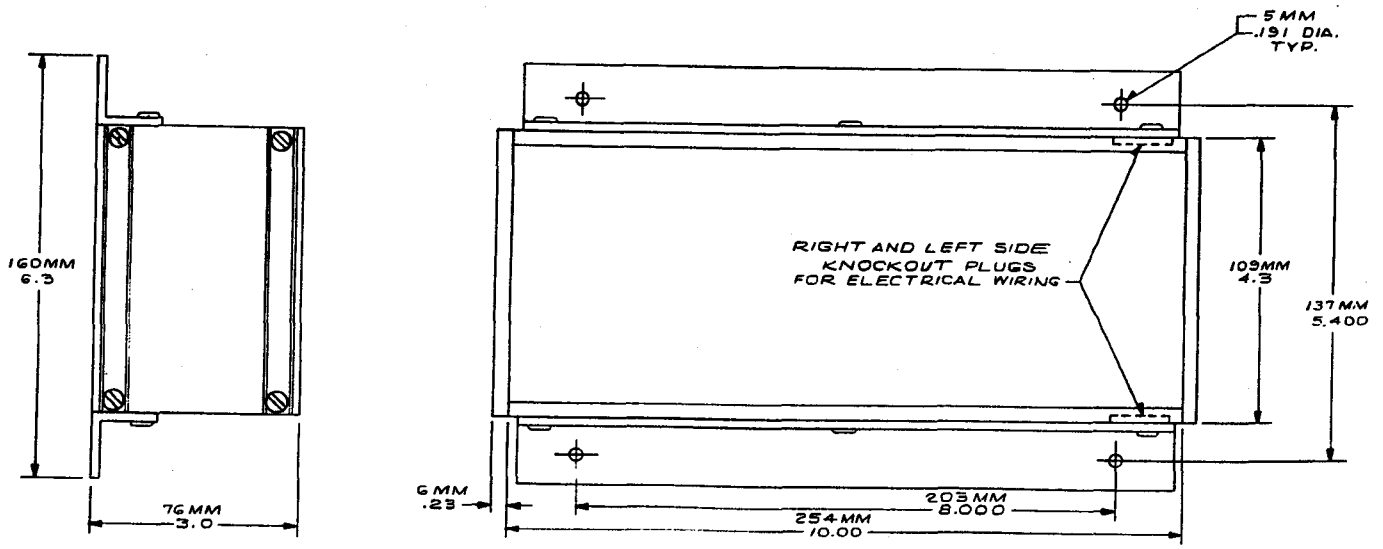


Figure 2–2. Mounting Dimensions, Surface Mounting Models

The 9370 Series HYGROTRAN Transmitters are mounted in a watertight steel NEMA 4 type box, Figure 2-3, with four 8mm (.312 inch) mounting holes on 37.8 x 25.4 cm (14.75 x 10.00 inch) center.

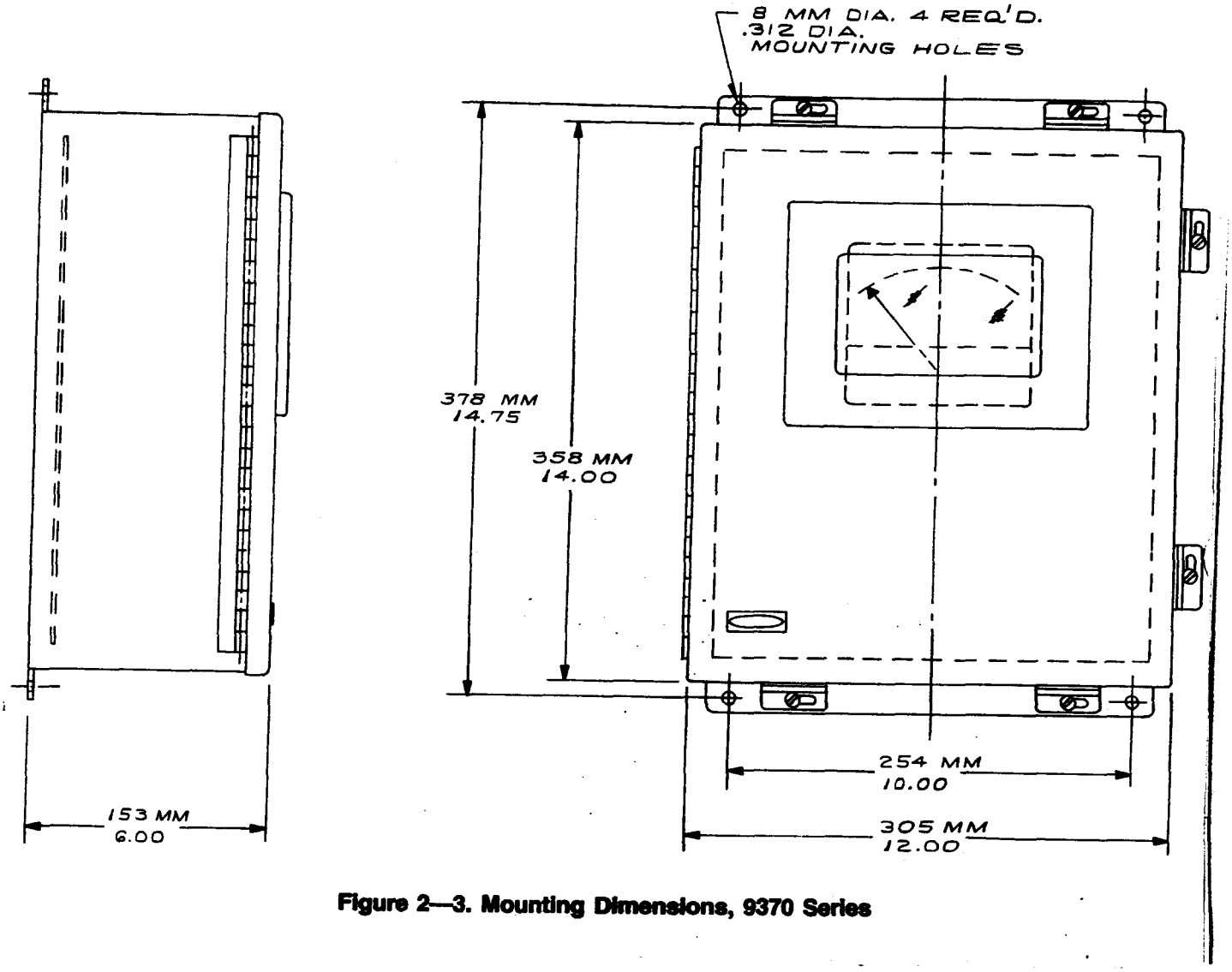


Figure 2—3. Mounting Dimensions, 9370 Series

To mount the transmitter, perform the following:

1. Prepare panel mounting facility using dimensions in Figures 2-1 or 2-2 as a guide. (Check unit for necessary tolerances for best fit.)

2. Remove end cover access plate (four No. 6 screws) and remove the required electrical knockouts at top and bottom of the case, one for electrical input power line, the others for the sensor and receiver connecting cables.

3. Install transmitter in panel or on wall surface and proceed with the electrical connections.

Electrical Connections

WARNING
THE POWER SOURCE MUST BE PROPERLY GROUNDED AND POLARIZED. IMPROPER GROUNDING COULD RESULT IN A SHOCK HAZARD.

A simplified interconnection diagram is shown in Figure 2-4.

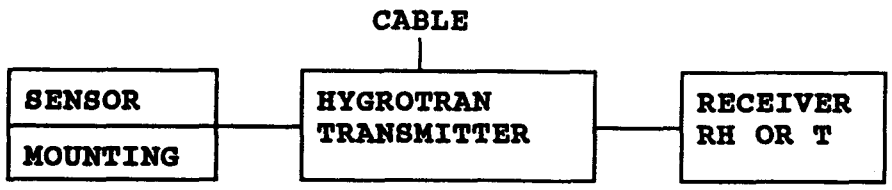


FIGURE 2-4. TYPICAL SYSTEM FOR HUMIDITY OR TEMPERATURE SIGNAL

The electrical connection panel is contained in a covered compartment accessible from the end of the transmitter by removal of the end-plate nearest the knockout holes which is held by four No. 6 self-tapping screws. This internal panel contains a power supply terminal block, input and output signal terminal block, and fuseholder. Milliamp output models have a range resistor installed across terminals marked "RANGE", Figure 2-5.

If the HYGROTRAN Transmitter has the control option, the control relay contacts are connected to the terminals marked "RELAY".

Single-Sensor-Location Installation

1. Disconnect power.

2. Install cable connectors, clamps, grommets, or strain reliefs in electrical knockout holes.

PRECAUTION

Never install sensor cables in conduits with or adjacent to AC power or line voltage cables. Induced signals from these lines could cause false readings.

3. Feed the input (sensor) cable through a knockout hole opposite the power line inlet and make the necessary connections, Figures 2-5 and 2-6. Conduit holes in NEMA 4 boxes have to be made by customer to suit location.

   A. Humidity sensor cable leads A and B go to terminals A and B, respectively.
   B. Temperature sensor cable leads C, D, and GND go to terminals C, D, and GND, respectively.

4. Fabricate output cable from insulated lead wire. For the current output models, the receiver load, including lead resistance, must not exceed the values listed on pages 8 and 9.

5. Feed the output cable through the appropriate knockout hole and make the necessary connections, Figures 2-5 and 2-6.

   A. Humidity output leads to terminals +RH and -.
   B. Temperature output leads to terminals +T and -.

6. Feed the power input leads through a knockout hole opposite the power line knockout hole and make the necessary connections, Figures 2-5 and 2-6.

7. Reinstall end cover plate. Connect power.

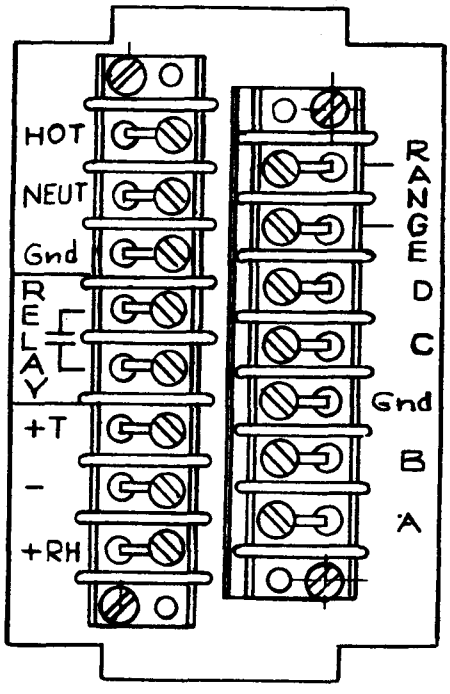


Figure 2—5. Connection Panel, 6370 Series

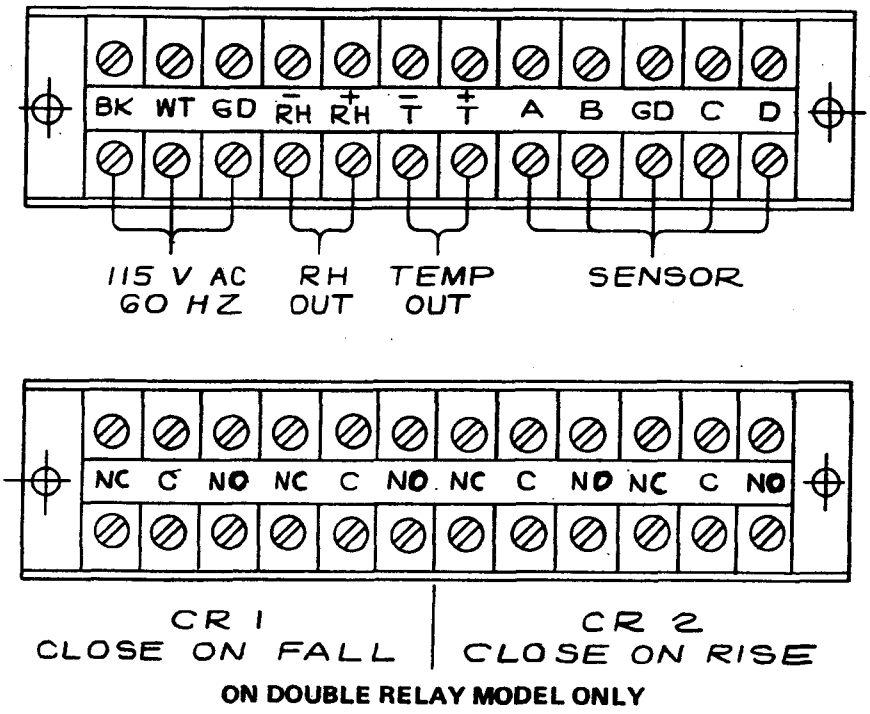


Figure 2—6. Connection Panel, 9370 Series

PERFORMANCE CHARACTERISTICS AND SPECIFICATIONS

The universal models use a circuit compatible with narrow and wide range Hygrosensors to provide high resolution and sensitivity for control applications or monitoring of controlled environments. The 6372 series and 6377 HYGROTRAN Transmitters also provide a temperature output signal.

The temperature-compensated models combine the response of a wide range humidity sensor with that of a precision temperature sensor to provide true temperature corrected humidity output signals as well as a temperature signal.

The HYGROTRAN Transmitter has a ground reference output signal which can be used with either grounded or floating input receivers. Units isolated from ground are optional and are supplied on special order.

All models contain short-circuit-proof input and output circuitry.

Circuit Description

The simplified schematics of the HYGROTRAN Transmitter circuit shown in Figures 7-1 and 7-2 illustrate the commonality of the various subcircuits. The transmitters contain a basic humidity measuring circuit with two stages of amplification. The output of the second stage is fed into a current converter or to a filter to provide a voltage output (optional MV output is available on special order). Some models of the transmitter also contain a temperature circuit which includes an amplifier to provide a voltage output signal. In certain models, the amplified signal is also fed to a compensation circuit which feeds a corrective signal to the second amplifier stage of the humidity circuit.

The components shown on the schematic apply as noted except for:

6372: R11, R30 and P4 omitted
6375: R11 omitted
6377: R11, R30 and P4 omitted

Meter Option and Output

In current models the meter is connected in series with the output terminals and will not indicate unless a suitable load is connected to these terminals. **If the current output is not being used, be sure to place a jumper between the RH+ and RH- terminals.**

Control Description

The control option on the HYGROTRAN Transmitter includes a two-digit thumbwheel switch to set the control point, a red pilot light to indicate that the measured RH is above the control point, and relay contacts. The 9370 series units have no pilot light.

In the 9370 series, the control relay contacts are 2 Form C (2DPDT). Some models in the 9370 series may have two control relays, both with 2 Form C (2DPDT) contacts.

The instrument incorporates a solid-state control system which permits humidity measurements at, above, and below the control setting. The control mode of operation is a two-position, or on-off control normally recommended for systems where the demand on the control system is constant, or where precise control is not critical. However, the sensitivity and speed of response of HYGRODYNAMICS® HYGROSENSORS® is such that, usually, finer control is possible with the on-off operation of the Hygrometer Controller than with proportioning controllers using mechanically actuated humidity sensing devices. With unbalanced load conditions, use of a proportional controller is recommended for precise control.

Specifications

HUMIDITY RANGE: Governed by HYGROSENSOR Transmitter used. Refer to Table 7-2 (A1 and A2) for compatible sensors, mountings, and cables.

HUMIDITY ACCURACY:

Universal Humidity Models: ± 1.5% RH from 40°F to 120°F (4°C to 49°C).

Temperature Compensated Models: ± 3% RH below 90% RH and ± 4% RH above 90% RH from 40° to 120°F (4°C to 49°C).

TEMPERATURE RANGE: 0-100°F (-18°to 38°C).

TEMPERATURE ACCURACY: ± 1°F (± 0.5°C).

OUTPUT IMPEDANCE HYGROTRAN TRANSMITTER:

Humidity: 0-5 volts; 200 ohms at 5 volts.
Temperature: 0-1 volt; 20 ohms at 1 volt.

LOAD IMPEDANCE (RECEIVER):

Humidity: 0-5 volts, 20,000 ohms to infinity
1-5 mA, 0-2,000 ohms
4-20 mA, 0-470 ohms
10-50 mA, 0-150 ohms
Temperature: 0-1 volt, 2,000 ohms to infinity

SHORT-CIRCUIT PROTECTION: Short-circuit-proof input and output circuitry.

POWER REQUIREMENTS: 105-125 volts, 60 Hz, (50 Hz optional) single phase; 5 watts nominal.

RELAY CONTACT RATING: (Control option) 10 AMP at 28V DC or 120V AM resistive; or 7.5 AMP at 120V AC inductive.

GROUND REFERENCE: All models provided with ground reference output signal. (Optional units isolated from ground are available on special order.)

HOUSING: Aluminum frame and side panels.
9370 series: Steel chassis in NEMA 4 box.

SIZE (Height, Width, Depth):
Panel Mounted Models: 6 x 3 x 10.5 inches (15.2 x 7.6 x 26.7 cm).
Surface Mounted Model: 3 x 6 x 10.5 inches (7.5 x 15.2 x 26.7 cm).
Mounting brackets add 2 inches (5 cm) to width.
Nuclear Model: 14.75 x 12 x 6 inches (37.8 x 30.5 x 15.3 cm).

WEIGHT:
Panel Mounted Models: 3lbs. 5 oz. net; 4lbs. shipping (1.5 kg net; 2 kg shipping).
Surface Mounted Model: 3lbs. net; 4lbs shipping (1.35 kg net; 2 kg shipping).
Nuclear Model: 24lbs. net; 26lbs. shipping (10.9 kg net; 11.8 kg shipping).

OPERATION

Before putting the HYGROTRAN Transmitter into service, ensure that the wiring connections have been performed in accordance with Section II, Installation. Perform the following to put the HYGROTRAN Transmitter in operation:

1. Connect power.
   The indicator light on the graphic panel models should glow. The receiver(s) should indicate the condition(s) sensed by the humidity (and temperature) sensors.

2. Replace end cover and secure with four No. 6 screws.

3. Check that the indication is within the range of the sensor and that the sensor responds to changing conditions (i.e., by blowing on the sensor or by simply holding the hand briefly over the sensor). Operation is automatic and no further action is necessary.

CALIBRATION PROCEDURES

Output Verification

PRECAUTION

DO NOT ATTEMPT TO ADJUST THE POTENTIOMETERS ON THE PRINTED CIRCUIT BOARDS. THESE ARE PRESET AND SHOULD BE ADJUSTED ONLY BY A NEWPORT SCIENTIFIC, INC. REPRESENTATIVE.

Complete System Calibration

The HYGROTRAN Transmitter system consists of the signal converter (HYGROTRAN Transmitter), a humidity sensor, a temperature sensor, appropriate mountings, and cables. Verification of the complete system in the field is not usually practical because of the need for a stable humidity condition whose value is precisely known or can be independently and accurately measured.

Measurements by a common wet-and-dry-bulb psychrometer with 1°F thermometers have an accuracy limitation of ± 7% RH at the standard laboratory design condition of 50% RH and 70°F. Even if precision thermometers (0.1°F) are used, the humidity sensor will generally read lower (often several percent RH), because all psychrometric errors (except thermometry) are positive.

Write to Newport Scientific, Inc. for technical bulletins regarding information on wet-dry-bulb (Reprint 505) and use of salt solutions for humidity generation (Technical Bulletin No. 521).

Hygrotran Transmitter Only

For independent verification on the output signals, precision voltage and/or current instrumentation (other than the service receiver) should be used.

Remove the sensor before performing the following checks.

Universal Humidity Signal Check

1. Connect input power leads to proper terminals. (If any of the following checks produce improper values, check the input power voltage and frequency.)

2. Connect current or voltage measuring instrument to terminal 8 and 9.

3. With power disconnected, connect resistors of value given in Table 5-1 between terminals A and B.

4. Connect power and note current or voltage output. Output should be approximately as shown in Table 5-1.

TABLE 5-1. HUMIDITY SIMULATION RESISTANCE VALUES

Resistance megaohms	Output				
	% Full Scale	0-5V	1-5MA	4-20MA	10-50MA
∞	0	0	1	4	10
8.9	10	.5	1.4	5.6	14
4.4	20	1.0	1.8	7.2	18
3.0	30	1.5	2.2	8.8	22
2.2	40	2.0	2.6	10.4	26
1.8	50	2.5	3.0	12.0	30
1.5	60	3.0	3.4	13.6	34
1.3	70	3.5	3.8	15.2	38
1.13	80	4.0	4.2	16.8	42
1.0	90	4.5	4.6	18.4	46
.909	100	5.0	5	20	50

TABLE 5-2. TEMPERATURE SIMULATION RESISTANCE VALUES

Temperature °F	Resistance, ohms		Output		
	T1	T2	% Full Scale	0-1V	0-5V
0	51,320	240,200	0	0	0
20	27,760	133,000	20	.2	1
40	15,670	76,500	40	.4	2
60	9,171	45,430	60	.6	3
80	5,573	27,900	80	.8	4
100	3,495	17,630	100	1	5

Temperature Output Signal Check

1. Connect input power leads to proper terminals. If any of the following checks produce improper values, check the input power voltage and frequency.

2. Connect voltage measuring instrument to terminals +T and -T, Figures 2-5 and 2-6.

3. Connect temperature-simulating resistors (specified in Table 5-2 for T1 and T2) to terminals GND, C, and D, Figure 5-1.

4. Connect power and note voltage output. Output should be approximately as shown in Table 5-2.

Temperature-Compensated Signal (Humidity Circuit) Check

1. Connect input power leads to proper terminals. If any of the following checks produce improper values, check the input power voltage and frequency.

2. Connect current or voltage measuring instrument to terminals +RH and -RH, Figures 2-5 and 2-6.

3. With power disconnected, connect temperature-simulating resistors for 80°F (27°C) value from Table 5-1 for T1 (5573 ohms) and T2 (27,900 ohms) to terminals C, D, and GND, Figure 5-1.

4. If precision value resistors are not available, connect temperature sensor and verify temperature output by comparison with a precision thermometer. Make allowances for deviation in RH signal (see "Check Temperature Compensated Signal (Temperature Circuit)" paragraph below).

5. Connect RH-simulating resistors specified in Table 5-1 between terminals A and B.

6. Connect power and note current or voltage output. Output should be approximately as shown in Table 5-1.

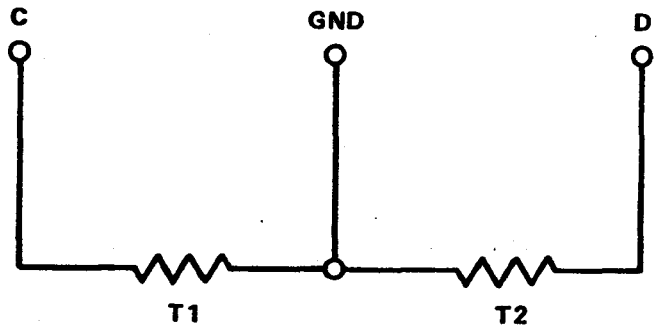


Figure 5—1. Temperature Simulation Circuit

Temperature-Compensated Signal (Temperature Circuit) Check

1. Verify 80°F (27°C) and mid-range humidity (50% full scale) output reading as in "Check Temperature-Compensated Signal (Humidity Circuit)" paragraph and Table 5-1.

2. Change T1 and T2 to values for 60°F (16°C), (9171 and 45,430 ohms, respectively), and note change in humidity output signal. Current or voltage reading should increase by approximately 3% of full scale (0.15V on 0-5V, 0.012mA on 1-5mA, 0.48mA on 4-20mA, and 1.2mA on 10-50mA).

3. Change T1 and T2 to values for 100°F (38°C), (3495 and 17,630 ohms, respectively), and note change in humidity output signal. Current or voltage reading should decrease by approximately 3% of full scale from the 80°F (27°C) reading.

Sensor Check

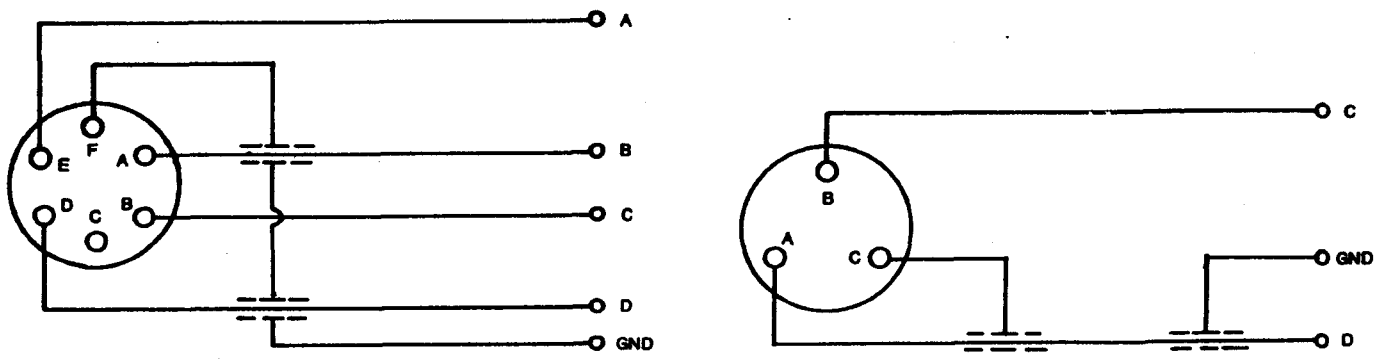
PRECAUTION

Never test HYGROSENSOR sensors with a DC volt-ohmmeter, nor its connecting cable without first removing the sensor. To do so may permanently damage the sensor.

Precise field-calibration of sensors is extremely difficult. If after extensive use, the sensor requires recalibration, return it to NEWPORT SCIENTIFIC, INC. to be recalibrated.

Sensor Cabling Check

Cables with spade terminals on both ends have the same identification on the respective leads at each end. Cables with spade terminals on one end and an MS connector on the other end have a change in terminal designation as in Figure 5-2A or 5-2B.



A. Six Pin Connector

B. Three Pin Connector

Figure 5—2. Cable Terminal and Connector Pin Designation

If good results are obtained in the "HYGROTRAN TRANSMITTER ONLY" test procedures but readings are incorrect with cable and sensor installed, a bad cable may be suspected. Check cable for continuity and/or shorts (always remove sensor when performing cable continuity checks). Also, check that the cable is not installed adjacent to (or in conduits with) AC power or line voltage cables.

Field Adjustments

PRECAUTION

DO NOT ATTEMPT TO ADJUST THE POTENTIOMETERS ON THE PRINTED CIRCUIT BOARDS. THESE ARE FACTORY SET AND SHOULD BE ADJUSTED ONLY BY A NEWPORT SCIENTIFIC, INC. REPRESENTATIVE.

If you do not obtain the readings as specified in this section, furnish complete details of the test procedure used (resistance values, type of measuring instrument, etc.) and readings obtained to Newport Scientific, Inc. Please include the catalog and serial numbers of the HYGROTRAN Transmitter (and date of purchase, if known).

PRECAUTIONS, LIMITATIONS, AND HAZARDS

Installation Warning

The ground circuit for the HYGROTRAN Transmitter power outlet should be continuous to the main power panel which should be grounded directly to a water pipe or other electrical earth ground. The polarity of the power outlet should be checked and wiring should be changed, if required, to ensure proper polarity. Improper grounding could result in a shock hazard.

PRECAUTIONS
Never install sensor cable in conduits with or adjacent to AC power or line voltage cables. Induced signals from these lines could cause false readings.

Do not adjust the potentiometers on the printed circuit boards. These potentiometers are preset and should be adjusted only by a Newport Scientific, Inc. representative.

Never test HYGROSENSOR humidity sensors with a DC volt-ohmmeter, nor its connecting cable without first removing the sensor. To do so may permanently damage the sensor.

MAINTENANCE

Field maintenance consists of replacing the fuse, range resistor, or power indicator lamp assembly. For any other malfunction, contact Newport Scientific, Inc. The electrical schematic is shown at the end of this section.

Fuse Replacement

The fuse is mounted on the power supply sub-panel and is reached by removing the side plate. The fuse is 1/2 amp 3AG, slow-blow.

In the nuclear model, the fuse is mounted on the end of the chassis.

Range Resistor Replacement

The range resistor connects between terminals marked "RANGE", as shown in Figure 2-5. In the nuclear model, the range resistor connects to a short terminal block on the relay plate.

1. Remove the end plate by unscrewing the four No. 6 self-tapping screws.

2. Depending on the milliamp output, replace range resistor as follows:

Output	Newport Scientific Part No.
10-50 mA	0502101
4-20 mA	0505102
1- 5 mA	0520103

3. Reassemble end plate.

Indicator Lamp Assembly Replacement

The power indicator lamp is located on the front panel of the panel mounting transmitter models. There is no indicator lamp on the surface mounting models, nuclear models, or control models.

1. To replace lamp assembly, remove the end plate by unscrewing the four No. 6 self-tapping screws.

2. Slide the side panels out toward the back sufficiently to permit access to the front panel from the inside.

3. Remove the two wire nuts connecting the leads of the lamp.

4. To remove lamp, push it from inside with your thumbs until the molded lamp assembly snaps out from the panel.

5. Replace with Newport Scientific Part No. 1300211 lamp by pushing it in from the front until it snaps into place, and then reconnect the leads with the wire nuts.

6. Slide side panels back in place and replace the end plate.

REPLACEMENT PARTS AND ACCESSORIES

A replacement parts list is provided in Table 7-1. Table 7-2 lists a selection of sensors, mountings, and cables compatible with the transmitter in use.

TABLE 7-1. REPLACEMENT PARTS

Part No.	Description
05-021-01	RANGE RESISTOR (FOR 10 TO 50 MILLIAMPERE OUTPUT)
05-051-02	RANGE RESISTOR (FOR 4 TO 20 MILLIAMPERE OUTPUT)
05-201-03	RANGE RESISTOR (FOR 1 TO 5 MILLIAMPERE)
13-002-11	INDICATOR LAMP ASSEMBLY
24-001-05	FUSE, 1/2 AMPERE, SLOW-BLOW, TYPE 3AG, LITTLEFUSE 312.500 OR EQUIVALENT

TABLE 7-2

TABLE A1. HUMIDITY ONLY

TRANSMITTER	SENSOR	MOUNTING	CABLE**
6370A RH 1-5m.a. or 6370B RH 4-20m.a.* or 6370C RH 10-50m.a. or 6375 RH 0-5 Vd.c.	**NARROW RANGE**		
	See Bulletin	WALL 6100E	6051
		DUCT 6101 PIPE 6101P	6053
	WIDE RANGE		
	1823 1824	WALL None req'd	6069
	1819A 1820A	DUCT None req'd	6053
	1819P 1820P	PIPE None req'd	

TABLE A2. HUMIDITY AND TEMPERATURE						
	HUMIDITY			TEMPERATURE		
TRANSMITTER	**SENSOR**	**MOUNTING**	**CABLE****	**SENSOR**	**MOUNTING**	**CABLE****
6372A RH 1-5m.a. TEMP 0-1V d.c or 6372B RH 4-20m.a.* TEMP 0-1V d.c or 6372C RH 10-50m.a TEMP 0-1V d.c or 6377 RH 0-5V d.c TEMP 0-5V d.c	**NARROW RANGE**					
	See Bulletin	WALL 6103	6051	9215	None Req'd (mounts 6103)	None Req'd
		DUCT 6101	6053		6104 6104P	6070
		PIPE 6101P				
	WIDE RANGE					
	1823 1824	WALL None Req'd	6069	None required. Wide range Hygrosensors listed have humidity and temperature capability.		
	1819A 1820A	DUCT None Req'd	6053			
	1819P 1820P	PIPE None Req'd				

TABLE A3. TEMPERATURE-COMPENSATED HUMIDITY AND TEMPERATURE				
TRANSMITTER		**SENSOR**	**MOUNTING**	**CABLE****
6371A or 6371B or 6371C or 6376	RH 1-5m.a TEMP 0-1 V d.c	1823 1824	WALL None req'd	6069
	RH 4-20m.a* TEMP 0-1 V d.c	1819A 1820A	DUCT None req'd	6053
	RH 10-50m.a TEMP 0-1 V d.c			
	RH 0-5m.a TEMP 0-5 V d.c	1819P 1820P	PIPE None req'd	

Add suffix "M" for meter display.

FOR NEMA-4 ENCLOSURE MODEL PLEASE INQUIRE (9370 SERIES)

**See next page for cable notes.

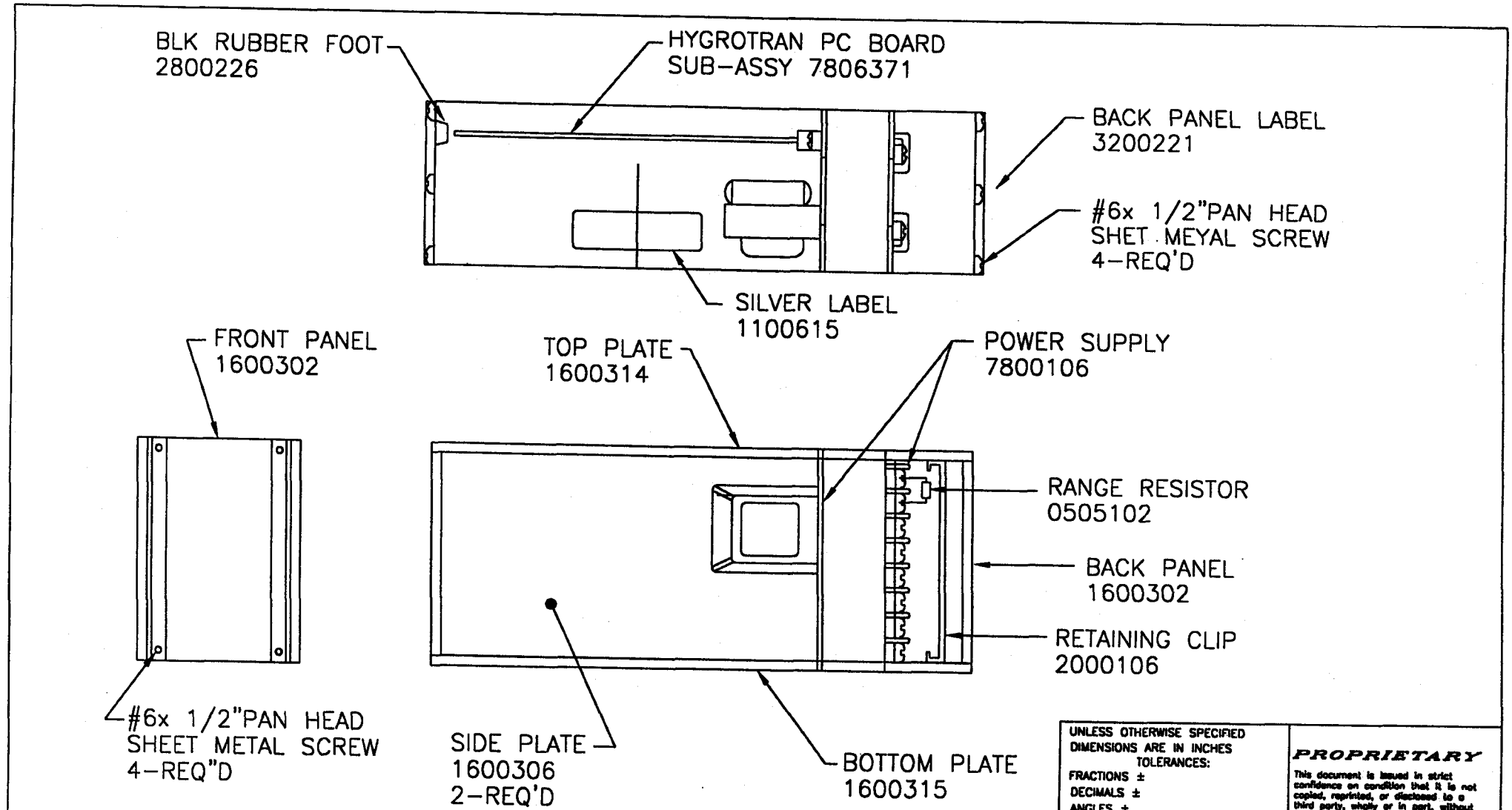
Cable Notes

Adjacent to each mounting listing is placed the catalog number for the proper cable. Ordinarily, the HYGROTRAN transmitter is installed close to the sensor location, so a standard ten-foot length of cable is usually sufficient. Other lengths may be supplied upon request.

Cables designated as standard - are suitable to 150ft length

Cables designated as heavy duty - are suitable to 500ft length

Connecting cables from HYGROTRAN transmitter, output to receiver input are not critical in nature except that on current output models the lead wire resistance must be considered as part of the receiver impedance.



UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONS ±
DECIMALS ±
ANGLES ±
REMOVE ALL BURRS AND SHARP EDGES
DO NOT SCALE THIS DRAWING

BY	NAME	DATE
PREPARED		
CHECKED		
ENGR/DSGN		
APPROVED		10/99

FINISH:

SUPERPRESSURE ® NEWPORT SCIENTIFIC INC.

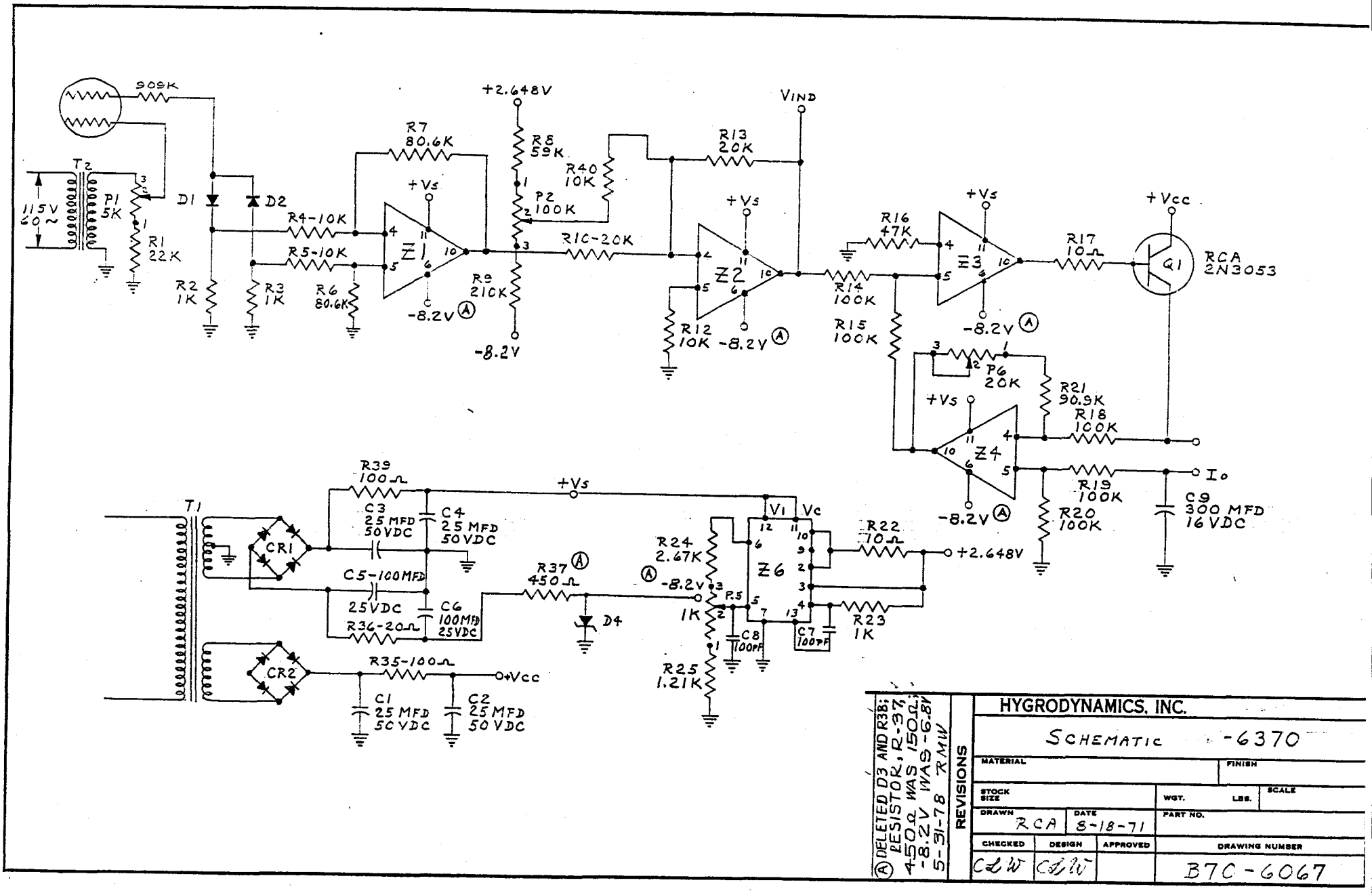
TITLE: HYGROTRAM ASSEMBLY
6371- SERIES

MATERIAL: NOTED

CODE IDENT. NO.	SIZE	PART NO.
59505	B	6371ASSY

DRAWING NO. 6371ASSY

SCALE | WEIGHT | SHEET OF



REVISIONS	
A	DELETED D3 AND R38; RESISTOR, R-37, 450Ω WAS 150Ω; -8.2V WAS -6.8V 5-31-78 RMW

HYGRODYNAMICS, INC.

SCHEMATIC -6370

MATERIAL			FINISH	
STOCK SIZE			WGT. LBS.	SCALE
DRAWN	RCA	DATE 8-18-71	PART NO.	
CHECKED	DESIGN	APPROVED	DRAWING NUMBER	
CLW	CLW		B7C-6067	

Figure 7-2 Schematic Diagram, 6370, 9370 Series HYGROTRAN Transmitters (old type)

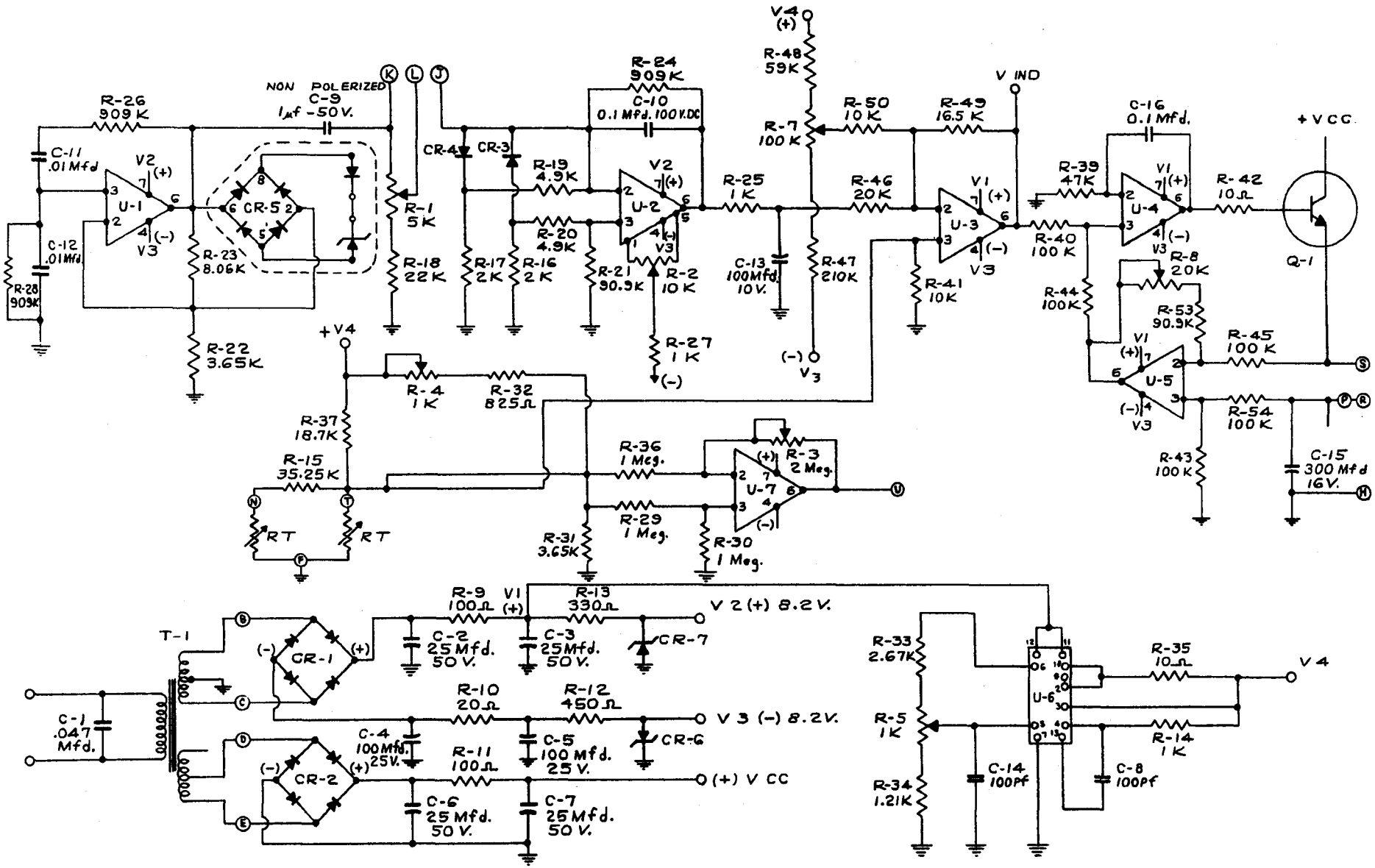


Figure 7—1. Schematic Diagram, 6370 Series HYGROTRAN Transmitters (new type)

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HYGRODYNAMICS

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