

February 21, 2001

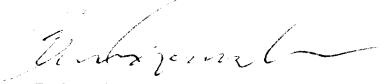
Federal Communications Commission
Equipment Authorization Division
7435 Oakland Mills Road
Columbia, MD 21046

Dear Review Personnel:

The purpose of this letter is to comment on the attached filing, which requests a Grant of Authorization for a RF transceiver module. Since there are no officially stated rules governing the approval of a module, we are relying on the FCC's stated opinion that has been uniformly applied to products of this type. I have attached an example of that opinion, which defines six points which must be satisfied in order to receive approval as a module. The module in the attached filing meets these points as follows:

- 1) The module includes a full metal RF shield over all of the RF components. In addition, careful attention was given to the layout of the board traces and system grounding to control any unintentional emissions.
- 2) The module uses an on board buffer to prevent incorrect signals applied to the transmit data input from causing over-modulation or other unintentional emissions from the module. In addition, this buffer uses an enable line that prevents any modulation when the module is not in the transmit mode.
- 3) The module includes precision on board voltage regulators for all RF components. Supply voltage variations will not affect the modules intentional or unintentional emissions. In addition, the module incorporates a variable gain power amplifier that uses the internal regulated voltage to set the output power, and additional circuitry that shuts down the power amplifier when the module is not in the transmit mode.
- 4) The module was tested using two different antennas, a direct mounted antenna that is attached directly to the module, and a remote mounted antenna that includes a coaxial cable. Both of these antennas are connected to the module using a unique antenna connector (a special TNC connector that uses a left hand thread), which is not available to the general public.
- 5) The module was tested in a stand-alone configuration.
- 6) The module will include a label with its FCC ID number as proposed in the attached drawings. We currently plan to use this module internal to end products that we manufacture, where the label on the module is not visible. I have also enclosed drawings that depict the proposed labeling for these products that include the module identification.

Respectfully,

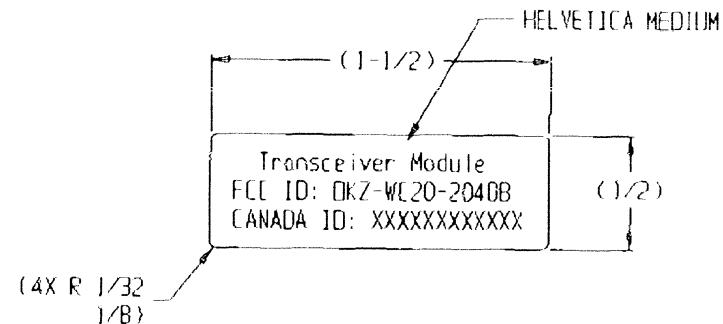


Brian Dearden
Staff Engineer - Project Manager
Barton Instrument Systems LLC

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(H)

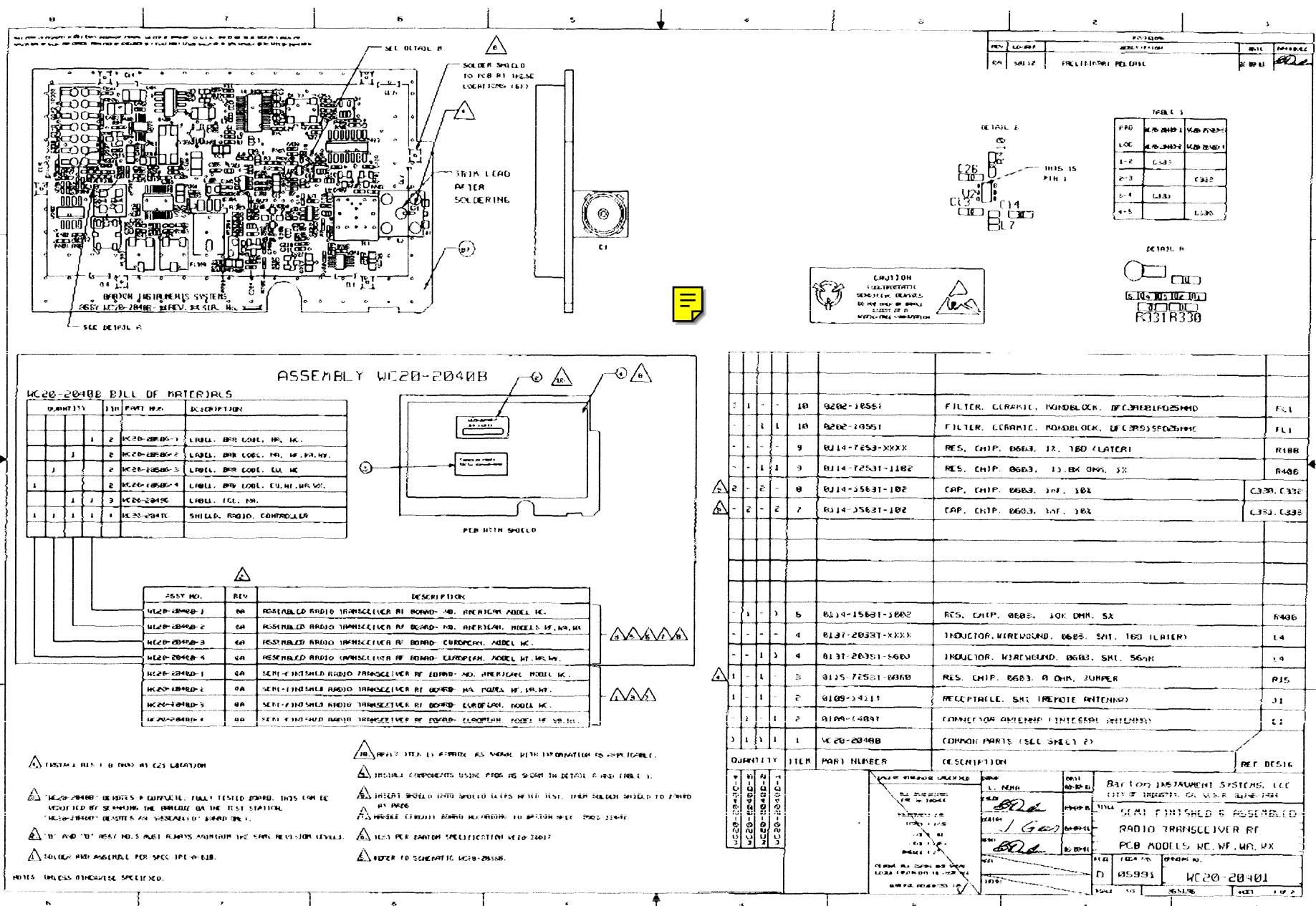
		REVISED		
REV	Z0/TAN	DESCRIPTION	DATE	APPROVED
DA	33112	PRELIMINARY RELEASE	03-08-01	<i>BP</i>
DB	33196	ADDED CANADA ID NUMBER	04-27-01	<i>BP</i>



- 5 TO BE FURNISHED IN PRE-PRINTED FORM.
- 4 COLOR TO BE BLACK CHARACTERS ON WHITE BACKGROUND.
- 3 PROPORTION NOMENCLATURE APPROXIMATELY AS SHOWN
- 2 FURNISH IN ROLL FORM WITH PAPER BACKING
- 1 MATERIAL: MAKE FROM BARTON P/N 0057-1037T.

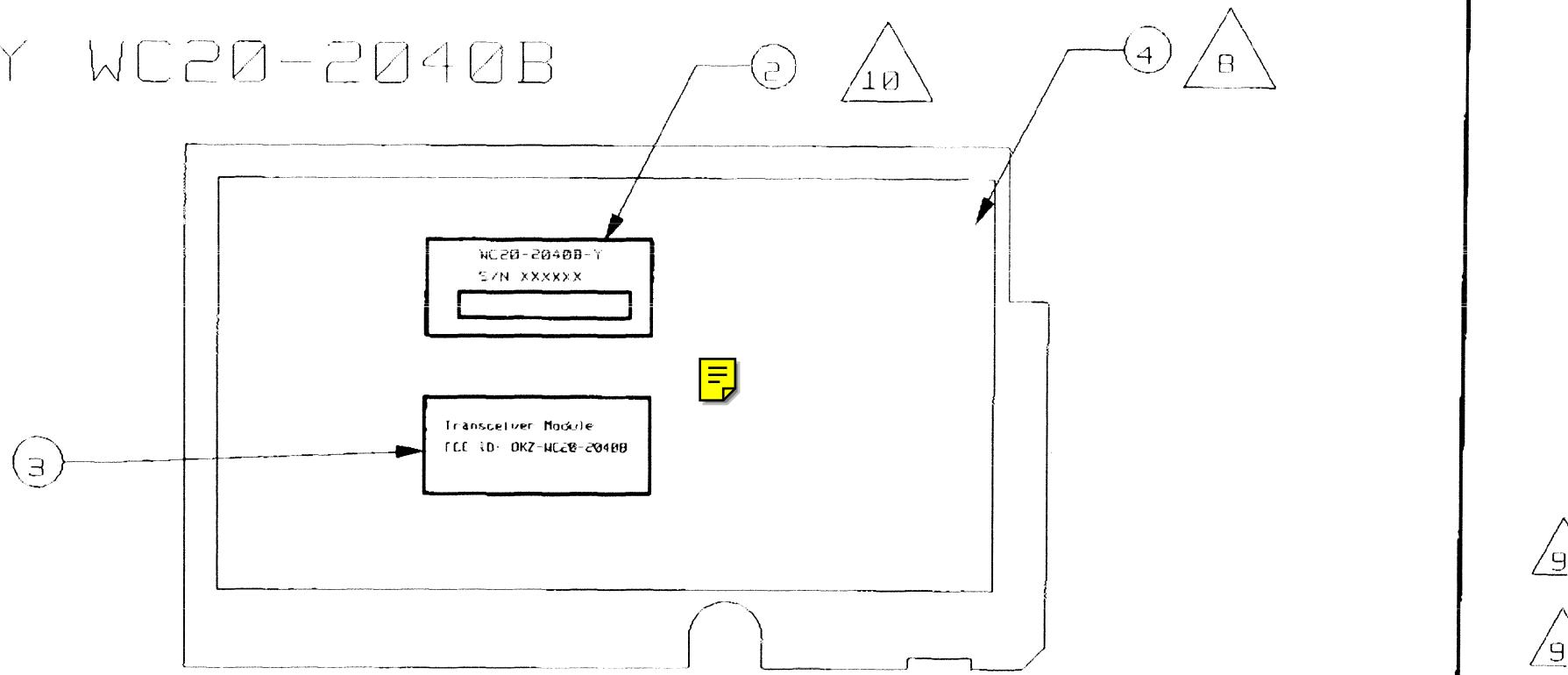
NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED	DRAWN L. MENA	DATE 03-08-01	Barton INSTRUMENT SYSTEMS, LLC	
ALL DIMENSIONS ARE IN INCHES	CHECKED <i>BP</i>	03-08-01	CITY OF INDUSTRY, CA U.S.A. 91745-1404	
TOLERANCES ARE: FRAC: ± 1/32 .XX ± .005 .XXX ± .005	DESIGN <i>BP</i>	03-08-01	TITLE LABEL, PCB I.D.,	
ANGLES 1° 20'	APPRD <i>BP</i>	03-08-01	WC20-2040B FCC	
PRINTED BY: BARTON	MATL 	SIZE B		
SCALES: ALL DIMS ARE IN INCHES EXCEPT WHERE NOTED TO THE CONTRARY	FINISH SOLID	FSCW NO. 05991		
		DRAWING NO. WC20-2049G		
		SCALE	2/1	356262
			SHEET	1 OF 1



Title: WC20-20401 [SEMI-FINISHED & ASSEMBLED RADIO MONITOR. HIGH SENSITIVITY]

IBLY WC20-2040B



DESCRIPTION

Title: WC20-20401 [SEMI-FINISHED & ASSEMBLED RADIO MONITOR, HIGH SENSITIVITY]

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REVISIONS				
REV	EO/DRN	DESCRIPTION	DATE	APPROVED
0A	32558	DESIGN RELEASE	11-15-99	<i>BDade</i>
0B	32877	ADDED FCC REGISTRATION NO.	08-09-00	<i>BDade</i>
0C	32892	CHG'D FCC REGISTRATION NO. TO FCC ID	08-25-00	<i>BDade</i>
0D	32884	ADDED CANADA CERTIFICATION NO.	09-08-00	<i>J Geer</i>
0E	33099	ADDED "CONTAINS TRANSCEIVER MODULE----"	2/2/01	<i>BRD</i>



(4X R 1/8)

3.0

THIS UNIT COMPLIES WITH PART 68 AND 15 OF FCC REGULATIONS

FCC ID: **OKZ-WC20**

RINGER EQUIVALENCE: **0.6B**

USE STANDARD JACK: (USOC) RJ11C. **FC** TESTED TO COMPLY WITH FCC STANDARDS
CONTAINS TRANSCEIVER MODULE FCC ID: OKZ-WC20-2040B

OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:
(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE,
AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.

CANADA 33991032172A

CONTAINS TRANSCEIVER MODULE XXXXXXXXXXXX

THIS CLASS B APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE-CAUSING EQUIPMENT REGULATION.

HELVETICA MEDIUM

2. PROPORTION TEXT APPROXIMATELY AS SHOWN.

△ MATERIAL: OVERLAY: 1 MIL CLEAR MATTE POLYESTER WITH ACRYLIC ADHESIVE (3M 7732FL OR EQUIV)
FACESTOCK: 2 OR 3 MIL WHITE POLYESTER. (3 MIL PREFERRED)
ADHESIVE: 5 MILS ACRYLIC FOR PLASTICS (3M 9445 OR EQUIV)
PURCHASE LABELS ROLLED UP ON PAPER BACKING

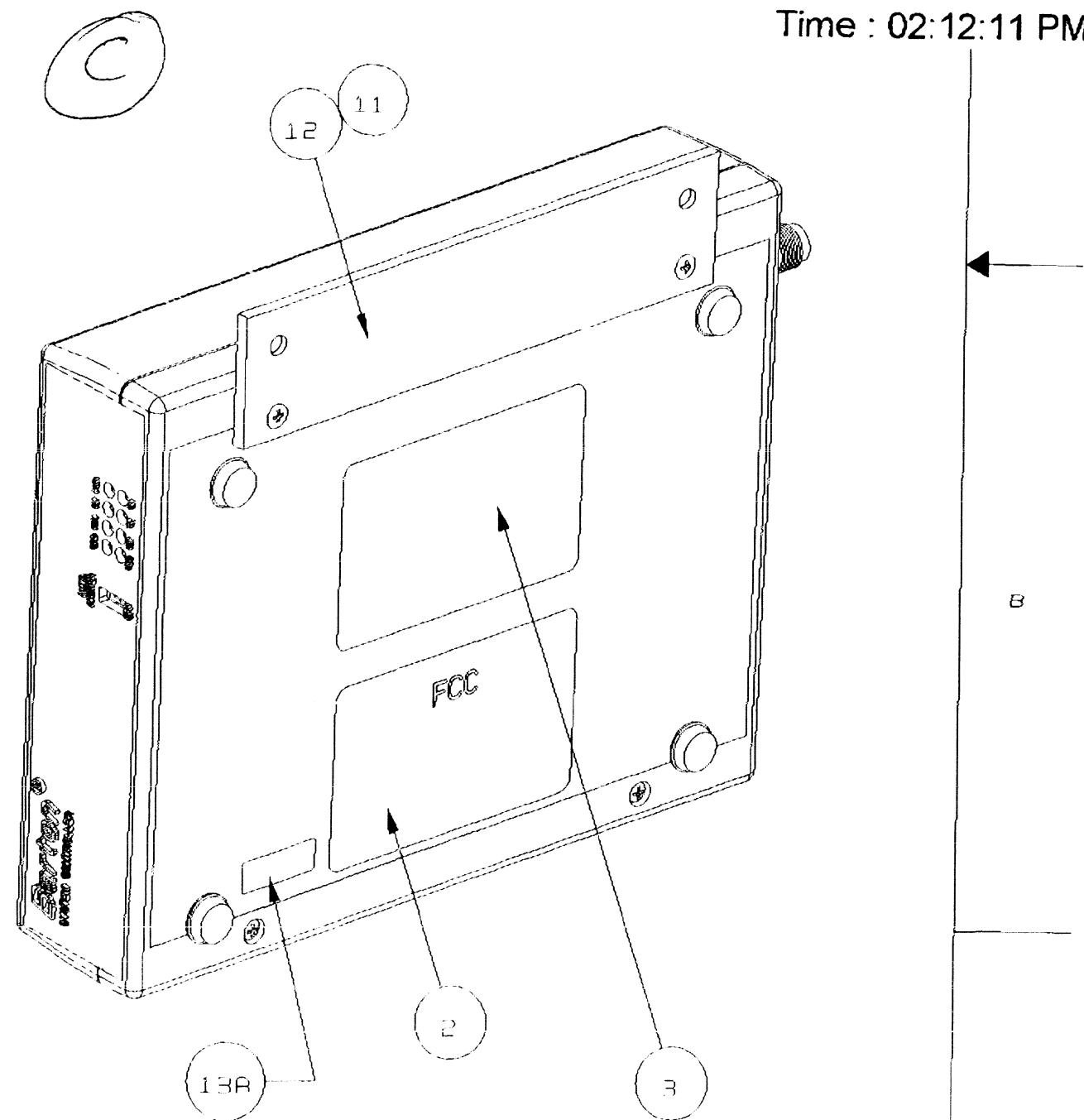
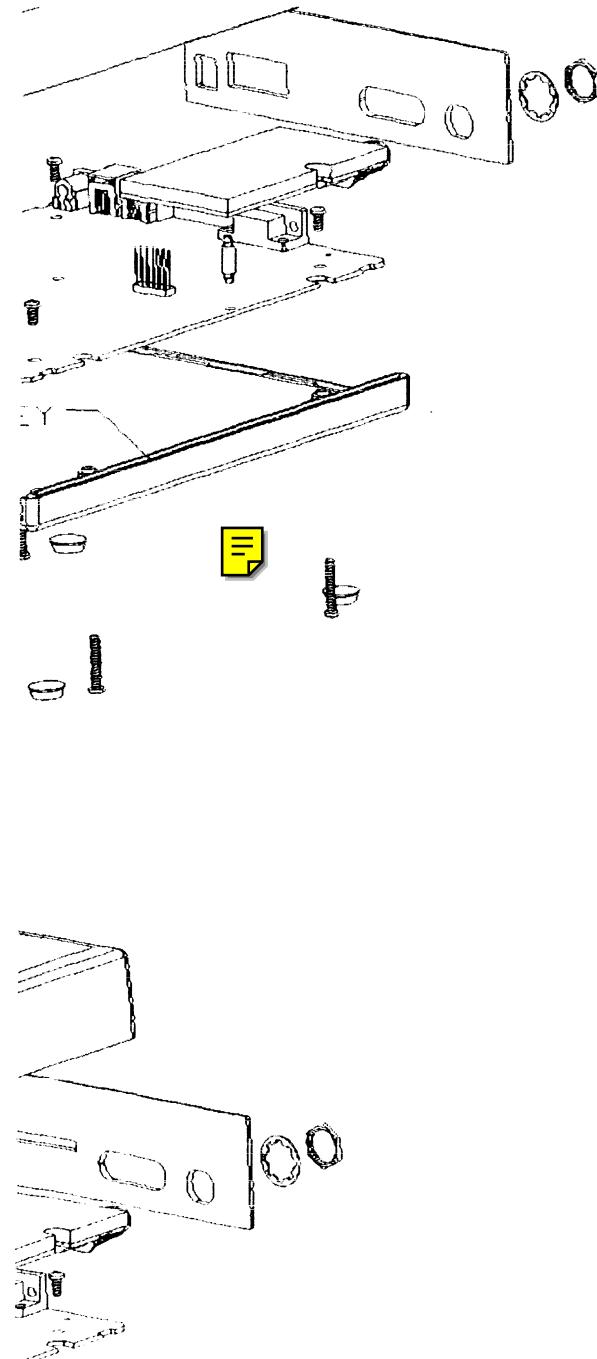
MAY BE PURCHASED FROM WATSON LABEL PRODUCTS. P/N 27-S10-AV
3684 FOREST PARK BLVD
ST LOUIS, MO 63108
(314) 652-6715

NOTES: UNLESS OTHERWISE SPECIFIED

UNLESS OTHERWISE SPECIFIED	DRAWN <i>Ghiselin</i>	DATE 11-10-99	Barton INSTRUMENT SYSTEMS, LLC CITY OF INDUSTRY, CA. U.S.A. 91745-1404	
ALL DIMENSIONS ARE IN INCHES	CHECK <i>Wade</i>	11-11-99	TITLE	LABEL, CONTROLLER MODEM FCC/INDUSTRY CANADA
TOLERANCES ARE: FRACT \pm 1/32 .XX \pm .01 .XXX \pm .005 ANGLES \pm 2°	DESIGN <i>Ghiselin</i>	03-02-98	SIZE	FSM NO.
REMOVE ALL BURRS AND SHARP EDGES EQUIVALENT TO .010 MAX. SURFACE ROUGHNESS \pm .005	APVD <i>BDade</i>	11-15-99	DRAWING NO.	WC20-2009G
	MATL <i>1</i>		SCALE	FILE NO.
	FINISH		2/1	351699.PRT
				SHEET 1 OF 1

Date: 4/25/01

Time : 02:12:11 PM



UNLESS OTHERWISE SPECIFIED DRAWN

DATE

Bartec INSTRUMENT SYSTEMS, LLC

Title: WC20-20101 [TOP ASSY, GLOBAL SYSTEM CONTROLLER] [Page 2]