





June 2, 2000

NVLAP ACCREDITED NARTE Certified Engineer Professional Engineer

## EMC Testing/Engineering Services

Federal communications Commission Equipment Approval Services, P.O. Box 358315 Pittsburgh, PA 15251-5315

Attention: Authorization & Evaluation Division

Re: Application for Certification of Johnson Controls Transmitter under 47CFR 15.231.

FCC ID: CB2300NHL3

## Gentlemen:

On behalf of the applicant, Johnson Controls Interiors, LLC, please find attached the submittal materials for certification of the JCI Universal Garage Door Opener, Model CB2300NHL3 This generation of their Homelink® series is capable of learning the current garage door transmit frequencies from 288MHz through 420MHz with pulse modulation duty cycles from 30 through 80 percent.

Pursuant to 47CRF 0.459, Johnson Controls Interiors requests that these listed exhibits be held confidential.

Exhibit G Theory/Description of Operation,

Exhibit H: Circuit Block Diagrams

Exhibit I: Schematics

Exhibit J: Bill of Material, Parts List

Johnson Controls Interiors has invested considerable resources into developing this Homelink® series. Having the listed exhibits available to 'competition' would negate the advantage achieved in developing this product. Since their Homelink® Iseries transmitters will be a major product line for Johnson Controls Interiors, not protecting the details of the design will result in a financial hardship for the company.

The complete List of the Exhibits in this submittal package appears on Page 2 of this cover letter.

Your prompt consideration of this application for product certification will be greatly appreciated. Should you have any questions regarding the content of this report, kindly contact me.

Sincerely,

Ted Chaffee,

Technical Lab Manager Narte Certified Engineer, #EMC-002025-NE

Ted Cheffee

tel/fax: 616. 424.7014

email: tchaffee@ahde.com, or ahd@locallink.net

AHD EMC Lab, 92723 M152, Dowagiac, MI 49047, (616) 424-7014

104792

Exhibit A: Page 1 of 2

## **Table of Contents**

Form 731, form 159 with payment

Form 731, form 159 with payment				
EXHIBIT A:	Cover Letter / Table of Contents		Total Pages	2
EXHIBIT B:	Statements of Attestation [2.911(d)] Attesting to Accuracy of Data Public Notice 22504 Power of Attorney AHD Accreditation	Exhibit B, File "EXB_p1DataAtts Exhibit B, File "EXB_p1DataAtts Exhibit B, File "EXB_p2PowrOA Exhibit B, File "EXB_p3NVLAPC	st.jpg" kttrny.jpg"	3
EXHIBIT C:	Description of Product [2.1033(b6)]		Total Pages	1
EXHIBIT D:	Product photos - exterior [2.1033(b7)]	Two photos	Total Pages	1
EXHIBIT E:	Product photos - Printed Circuit Board [2.1033	B(b7)] Three photos	Total Pages	3
EXHIBIT F:	ID Label / Location [2.925,2.926,2.1033(b2,7),	15.19(a3)]	Total Pages	2
EXHIBIT G:	Description of Operation [2.1033(b4)]		Total Pages	1
EXHIBIT H:	Circuit Block Diagram [2.1033(b5)]		Total Pages	1
EXHIBIT I:	Schematics [2.1033(b5)]	Exhibit I, File "EXI_Schem.pdf	Total Pages	1
EXHIBIT J:	Parts List/Tune-up Information [2.1033(b5] Parts List	Exhibit J, File "EXJ_Parts.pdf"	Total Pages	2
EXHIBIT K:	Report of Measurements [2.1033(b6)] Detailed Table of Contents Manufacturer/Applicant [2.1033(b1) Measurement/Test Facility & Equipment Configuration/Setup [2.1033(b8)] Summary of Results Test Standards / Methods Used [2.1033(b6)] Test Methodology [2.1033(b6) Test Data [2.1033(b6) Level vs Supply Voltage [15.31(e)] Occupied Bandwidth Radiated Field Strength [15.231(b)]	Exhibit K, Page 2 Exhibit K, Page 4 Exhibit K, Page 4 Exhibit K, Page 5 Exhibit K, Page 6 Exhibit K, Page 7 Exhibit K, Page 7 Exhibit K, Page 10 Exhibit K, Page 12 Exhibit K, Page 13 Exhibit K, Page 15	Total Pages	31
EXHIBIT L:	Setup photos [2.1033(b8)]	Four photos	Total Pages	2
EXHIBIT M:	RF Exposure Information [2.1093(c)]		Total Pages	1
EXHIBIT N:	User's Manual		Total Pages	4

AHD EMC Lab, 92723 M152, Dowagiac, MI 49047, (616) 424-7014

104792